UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 20-F

(Mark One)

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934**

or

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2020.

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

or

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
Date of event requiring this shell company report _____
For the transition period from _____ to _____

Commission File Number 1-15006

中国石油天然气股份有限公司

(Exact name of Registrant as specified in its charter)

PetroChina Company Limited

(Translation of Registrant's name into English)

The People's Republic of China
(Jurisdiction of incorporation or organization)

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Dongcheng District, Beijing 100007
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Address: Suite 3705, Tower 2, Lippo Center, 89 Queensway, Hong Kong
(Name, telephone, e-mail and/or facsimile number and address of registrant's contact person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
American Depositary Shares, each representing 100	PTR	New York Stock Exchange, Inc.
H Shares, par value RMB1.00 per share*		New York Stock Exchange, Inc.**
H Shares, par value RMB1.00 per share		

Securities registered or to be registered pursuant to Section 12(g) of the Act.
None
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.
None
(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

A Shares, par value RMB1.00 per share***	161,922,077,818[(1)]
H Shares, par value RMB1.00 per share	21,098,900,000****

(1) Includes 146,882,339,136 A Shares held by CNPC and 15,039,738,682 A Shares held by the public shareholders.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

If this is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

Note — Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) or the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically, every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large Accelerated Filer ☒ Accelerated Filer ☐ Non-Accelerated Filer ☐ Emerging Growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

☐ U.S. GAAP ☒ International Financial Reporting Standards as issued by the International Accounting Standards Board ☐ Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PRECEDING FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes ☐ No ☐

* PetroChina's H Shares are listed and traded on The Stock Exchange of Hong Kong Limited.
** Not for trading, but only in connection with the registration of American Depository Shares.
*** PetroChina's A Shares became listed on the Shanghai Stock Exchange on November 5, 2007.
**** Includes 694,287,100 H Shares represented by American Depositary Shares.

Table of Contents

			Page
Certain Terms and Conventions			1
Forward-Looking Statements			5
Part I			7
Item 1	—	Identity of Directors, Senior Management and Advisors	7
Item 2	—	Offer Statistics and Expected Timetable	7
Item 3	—	Key Information	7
		Selected Financial Data	7
		Risk Factors	9
Item 4	—	Information on the Company	19
		Introduction	19
		Exploration and Production	22
		Refining and Chemicals	32
		Marketing	36
		Natural Gas and Pipeline	38
		Competition	39
		Environmental Matters	41
		Properties, Plants and Equipment	42
		Intellectual Property	42
		Regulatory Matters	43
Item 4 A	—	Unresolved Staff Comments	50
Item 5	—	Operating and Financial Review and Prospects	50
		General	50
		Operating Results	56
		Liquidity and Capital Resources	65
		Off-Balance Sheet Arrangements	70
		Long-Term Contractual Obligations and Other Commercial Commitments and Payment Obligations	70
		Research and Development	71
		Trend Information	71
		Other Information	73
Item 6	—	Directors, Senior Management and Employees	73
		Directors, Senior Management and Supervisors	73
		Compensation	85
		Board Practices	85
		Employees	88
		Share Ownership	88
Item 7	—	Major Shareholders and Related Party Transactions	88
		Major Shareholders	88
		Related Party Transactions	89
		Interests of Experts and Counsel	93
Item 8	—	Financial Information	93
		Financial Statements	93
		Legal Proceedings	94
		Dividend Policy	94
		Significant Changes	95
Item 9	—	The Offer and Listing	95
		Trading Market Information	95
Item 10	—	Additional Information	95
		Memorandum and Articles of Association	95
		Material Contracts	100
		Foreign Exchange Controls	101

			Page
		Taxation	101
		Documents on Display	107
Item 11	—	Quantitative and Qualitative Disclosures About Market Risk	108
Item 12	—	Description of Securities Other Than Equity Securities	112
Part II			113
Item 13	—	Defaults, Dividends Arrearages and Delinquencies	113
Item 14	—	Material Modifications to the Rights to Security Holders and Use of Proceeds	113
Item 15	—	Controls and Procedures	113
Item 16 A	—	Audit Committee Financial Expert	115
Item 16 B	—	Code of Ethics	115
Item 16 C	—	Principal Accountant Fees and Services	115
Item 16 D	—	Exemptions from Listing Standards for Audit Committees	116
Item 16 E	—	Purchases of Equity Securities by the Issuer and Affiliated Purchasers	116
Item 16 F	—	Change in Registrant's Certifying Accountant	116
Item 16 G	—	Corporate Governance	117
Item 16 H	—	Mine Safety Disclosure	119
Part III			119
Item 17	—	Financial Statements	119
Item 18	—	Financial Statements	119
Item 19	—	Exhibits	119
Signature			122
Index of Consolidated Financial Statements			F-1

CERTAIN TERMS AND CONVENTIONS

Conventions Which Apply to this Annual Report

Unless the context otherwise requires, references in this annual report to:

- "CNPC" or "CNPC group" are to our parent, China National Petroleum Corporation and its affiliates and subsidiaries, excluding PetroChina, its subsidiaries and its interests in long-term investments, and where the context refers to any time prior to the establishment of CNPC, those entities and businesses which were contributed to CNPC upon its establishment.
- "PetroChina", "we", "our", "our company", "the Company" and "us" are to: PetroChina Company Limited, a joint stock company incorporated in the People's Republic of China with limited liability and its subsidiaries and branch companies.
- "PRC" or "China" are to the People's Republic of China, but does not apply to its Hong Kong, Macau and Taiwan for purposes of this annual report.

We publish our consolidated financial statements in Renminbi or RMB. In this annual report, IFRS refers to International Financial Reporting Standards as issued by the International Accounting Standards Board.

Conversion Table

1 barrel-of-oil equivalent	= 1 barrel of crude oil	= 6,000 cubic feet of natural gas
1 cubic meter	= 35.315 cubic feet	
1 ton of crude oil	= 1 metric ton of crude oil	= 7.389 barrels of crude oil (assuming an API gravity of 34 degrees)

Certain Oil and Gas Terms

Unless the context indicates otherwise, the following terms have the meanings shown below:

"acreage"	The total area, expressed in acres, over which an entity has interests in exploration or production. Net acreage is the entity's interest, expressed in acres, in the relevant exploration or production area.
"condensate"	Light hydrocarbon substances produced with natural gas that condense into liquid at normal temperatures and pressures associated with surface production equipment.
"crude oil"	Crude oil, including condensate and natural gas liquids.
"developed reserves"	Under the reserves rules of the Securities and Exchange Commission, or SEC, developed reserves are reserves of any category that can be expected to be recovered: (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

"development cost"	For a given period, costs incurred to obtain access to proved reserves and to provide facilities for extracting, treating, gathering and storing the oil and gas.
"finding cost"	For a given period, costs incurred in identifying areas that may warrant examination and in examining specific areas that are considered to have prospects of containing oil and gas reserves, including costs of drilling exploratory wells and exploratory-type test wells. Finding cost is also known as exploration cost.
"lifting cost"	For a given period, costs incurred to operate and maintain wells and related equipment and facilities, including applicable operating costs of support equipment and facilities and other costs of operating and maintaining those wells and related equipment and facilities. Lifting cost is also known as production cost.
"natural gas liquids"	Hydrocarbons that can be extracted in liquid form during natural gas production. Ethane and pentanes are the predominant components, with other heavier hydrocarbons also present in limited quantities.
"offshore"	Areas under water with a depth of five meters or greater.
"onshore"	Areas of land and areas under water with a depth of less than five meters.
"primary distillation capacity"	At a given point in time, the maximum volume of crude oil a refinery is able to process in its basic distilling units.
"proved reserves"	Under the SEC reserves rules, proved reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible — from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations — prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time. (i) The area of the reservoir considered as proved includes: (A) The area identified by drilling and limited by fluid contacts, if any, and (B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data. (ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty. (iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the

structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and (B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

"reserves-to-production ratio"	For any given well, field or country, the ratio of proved reserves to annual production of crude oil or, with respect to natural gas, to wellhead production excluding flared gas.
"natural gas for sale"	Marketable production of gas on an "as sold" basis, excluding flared gas, injected gas and gas consumed in operations.
"undeveloped reserves"	Under the SEC reserves rules, undeveloped reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid

injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, or by other evidence using reliable technology establishing reasonable certainty.

References to:

- BOE is to barrels-of-oil equivalent,
- Mcf is to thousand cubic feet, and
- Bcf is to billion cubic feet.

FORWARD-LOOKING STATEMENTS

This annual report contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities and Exchange Act of 1934, as amended. These forward-looking statements are, by their nature, subject to significant risks and uncertainties. These forward-looking statements include, without limitation, statements relating to:

- the amounts and nature of future exploration, development and other capital expenditures;
- future prices and demand for crude oil, natural gas, refined products and chemical products;
- development projects;
- exploration prospects;
- reserves potential;
- production of oil and gas and refined and chemical products;
- development and drilling potential;
- expansion and other development trends of the oil and gas industry;
- the planned development of our natural gas operations;
- the planned expansion of our refined product marketing network;
- the planned expansion of our natural gas infrastructure;
- the anticipated benefit from the pipeline assets restructuring and our ongoing arrangements with PipeChina;
- the anticipated benefit from the acquisition of certain overseas assets from CNPC, our parent company;
- the plan to continue to pursue attractive business opportunities outside China;
- our future overall business development and economic performance;
- our anticipated financial and operating information regarding, and the future development and economic performance of, our business;
- our anticipated market risk exposure arising from future changes in interest rates, foreign exchange rates and commodity prices; and
- other prospects of our business and operations.

The words "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "plan", "seek", "will" and "would" and similar expressions, as they related to us, are intended to identify a number of these forward-looking statements.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that will occur in the future and are beyond our control. The forward-looking statements reflect our current views with respect to future events and are not a guarantee of future performance. Actual results may differ materially from information contained in the forward-looking statements as a result of a number of factors, including, without limitation, the risk factors set forth in this annual report and the following:

- fluctuations in crude oil and natural gas prices;
- effects of the COVID-19 pandemic;
- failure to achieve continued exploration success;
- failures or delays in achieving production from development projects;

- continued availability of capital and financing;
- acquisitions and other business opportunities that we may pursue;
- general economic, market and business conditions, including volatility in interest rates, changes in foreign exchange rates and volatility in commodity markets;
- liability for remedial actions under environmental regulations;
- the actions of competitors;
- wars and acts of terrorism or sabotage;
- changes in policies, laws or regulations of the PRC, including changes in applicable tax rates and oil and gas pipeline network reforms;
- the other changes in global economic and political conditions affecting the production, supply and demand and pricing of crude oil, refined products, petrochemical products and natural gas; and
- the other risk factors discussed in this annual report, and other factors beyond our control.

You should not place undue reliance on any forward-looking statements.

PART I

Item 1 — *IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS*

Not applicable. However, see "Item 6 — Directors, Senior Management and Employees — Directors, Senior Management and Supervisors" and "Item 16C — Principal Accountant Fees and Services".

Item 2 — *OFFER STATISTICS AND EXPECTED TIMETABLE*

Not applicable.

Item 3 — *KEY INFORMATION*

Selected Financial Data

Historical Financial Information

You should read the selected historical financial data set forth below in conjunction with our consolidated financial statements and the notes and "Item 5 — Operating and Financial Review and Prospects" included elsewhere in this annual report. The selected consolidated statement of comprehensive income (except for ADS data) and cash flow data for the years ended December 31, 2018, 2019 and 2020 and the selected consolidated statement of financial position data as of December 31, 2019 and 2020 set forth below are derived from our audited consolidated financial statements included elsewhere in this annual report. The selected consolidated statement of comprehensive income data (except for ADS data) and cash flow data for the years ended December 31, 2016 and 2017 and the selected consolidated statement of financial position data as of December 31, 2016, 2017 and 2018 set forth below are derived from our audited financial statements not included in this annual report. Our consolidated financial statements were prepared in accordance with IFRS as issued by the International Accounting Standards Board. The financial information included in this section may not necessarily reflect our results of operations, financial position and cash flows in the future.

	As of or for the Year Ended December 31,				
	2016[4]	2017[4]	2018[4]	2019[4]	2020
	(RMB in millions, except for per share, per ADS data and percentages)				
Consolidated Statement of Comprehensive Income Data					
Revenue	1,627,588	2,032,298	2,374,934	2,516,810	1,933,836
Total operating expenses	(1,564,926)	(1,961,462)	(2,251,992)	(2,395,048)	(1,857,899)
Profit from operations	62,662	70,836	122,942	121,762	75,937
Profit before income tax expense	46,574	55,691	116,770	103,214	56,073
Income tax expense	(15,919)	(16,296)	(42,790)	(36,199)	(22,588)
Profit for the year	30,655	39,395	73,980	67,015	33,485
Attributable to:					
Owners of the Company	8,222	23,537	53,036	45,682	19,006
Non-controlling interests	22,433	15,858	20,944	21,333	14,479
Basic and diluted earnings per share attributable to owners of the Company[1]	0.04	0.13	0.29	0.25	0.10
Basic and diluted net earnings per ADS[2]	4.49	12.86	28.98	24.96	10.38
Consolidated Statement of Financial Position Data					
Total current assets	385,199	430,294	438,241	466,913	486,767
Total non-current assets	2,019,003	1,983,205	2,002,636	2,265,997	2,001,359
Total assets	2,404,202	2,413,499	2,440,877	2,732,910	2,488,126
Total current liabilities	507,530	588,551	596,430	661,419	605,418
Total non-current liabilities	529,870	446,960	435,556	627,186	516,087
Total liabilities	1,037,400	1,035,511	1,031,986	1,288,605	1,121,505
Equity attributable to owners of the Company	1,187,337	1,192,572	1,213,783	1,230,156	1,215,158
Non-controlling interests	179,465	185,416	195,108	214,149	151,463
Total equity	1,366,802	1,377,988	1,408,891	1,444,305	1,366,621
Other Financial Data					
Dividend declared and proposed per share	0.06	0.13	0.18	0.14	0.17
Dividend declared and proposed per ADS	5.93	13.00	17.88	14.37	17.48
Capital expenditures	172,961	219,346	256,106	296,776	246,493
Return on net assets (%)[3]	0.7	2.0	4.4	3.7	1.6
Consolidated Statement of Cash Flow Data					
Net cash flows from operating activities	268,897	368,729	353,256	359,610	318,575
Net cash flows used for investing activities	(176,310)	(243,790)	(267,812)	(332,948)	(181,986)
Net cash flows used for financing activities	(70,454)	(96,746)	(125,703)	(27,276)	(99,400)

(1) For the years ended December 31, 2016, 2017, 2018, 2019 and 2020, respectively, basic and diluted earnings per share were calculated by dividing the profit attributable to owners of the Company by 183,021 million, the total number of shares outstanding in each of these financial years.

(2) Each ADS represents 100 H Shares. The basic and diluted earnings per ADS were calculated with the same method as that used for the calculation of the basic and diluted earnings per share.

(3) Return on net assets is calculated as "Profit for the year attributable to owners of the Company" divided by "Equity attributable to owners of the Company".

(4) (a) The comparative data in the table was presented as if Dalian West Pacific Petrochemical Co., Ltd. had been consolidated since the earliest year presented. Please refer to "Item 4 — Information on the Company — Acquisitions and Divestments" and Note 40 to our consolidated financial statements in our Form 20-F filed with the SEC on April 29, 2020.

(b) We initially applied IFRS 16 on January 1, 2019 and IFRS 15 and IFRS 9 on January 1, 2018. According to the adopted transition plan, the comparative data has not been restated. For a detailed description of the changes and impacts of these accounting standards, please refer to Note 3 (aa) to our financial statements included in our Form 20-F filed with the SEC on April 29, 2020.

Risk Factors

Our business is subject to various changing competitive, economic, social, political and regulatory and other related conditions. Such changing conditions entail certain risks, which are described below.

Risks Related to Macro Economic Conditions

Our operations may be adversely affected by international and domestic economic conditions. As the oil and gas industry is sensitive to macro-economic trends, oil and gas prices tend to fluctuate along with changes in macro-economic conditions. We may experience pricing pressure on our refined products in recessionary periods, which would have an adverse effect on our profitability**.** Changes in macro-economic conditions can affect the demand for certain of our products. These factors may also lead to intensified competition for market share, with consequential potential adverse effects on sales volumes. Inflation may lead to increase in our operating costs. Notwithstanding the measures taken by the PRC government to control inflation, China may experience an increase in inflation in the future and our operating costs may become higher than anticipated. The financial, economic or political situation may also have a negative impact on third parties with whom we do business, and may impact their ability to perform contractual obligations to us. In addition, other factors that affect the macro economy, such as declining population growth rates, geopolitical tensions, conflicts and wars, trade and tariff policies, and major public health events, such as the COVID-19 pandemic, may have an adverse impact on oil and gas and petrochemical industries, including us. Any of these factors may adversely affect our financial condition, results of operations and liquidity.

Risks Related to Competition

The oil, gas and petrochemicals industries are highly competitive. There is strong competition, both within the oil and gas industry and with other industries, in supplying the fuel needs of commercial, industrial and residential markets. In recent years, with the intensive reform of China's petroleum, refining and chemical, natural gas, LNG, pipelines and refined oils sales industries, we have been facing increasingly intense competition in the exploration, refinery, chemical, sales, and oil and gas service sectors from privately-owned companies, foreign-invested enterprises and other state-owned enterprises that recently entered the oil and gas industries. In addition, the rapid development of unconventional oil and gas resources, new energy sources and new products also poses competition with the conventional energy and petrochemical industries. In particular, the booming of the new energy vehicle industry confronts the oil industry with tough challenges. In October 2020, the State Council issued the New Energy Vehicle Industry Development Plan (for 2021-2035), according to which, China expects that the share of new energy vehicles out of total vehicle sales in China to rise to 20% by 2025 and pure electric vehicles to account for the majority of vehicle sales by 2035. We expect to see continued rapid development of the new energy vehicle industry, which will adversely affect the consumption of refined oil products. Competition puts pressure on product prices, affects oil products marketing and requires continuous management focus on identifying new trends, reducing unit costs and improving efficiency. The implementation of our growth strategy requires continued technological advances and innovation, including advances in exploration, production, refining, petrochemicals manufacturing technology and advances in technology related to energy usage. Our performance could be impeded if competitors developed or acquired intellectual property rights to technology that we required or if our innovation lagged the industry.

The Eastern and Southern regions of China have a higher demand for refined products and chemical products than the Western and Northern regions. Although we have strived to increase our refinery capacity in the Southern regions of China over recent years, most of our refineries and chemical plants are located in the Northeastern and Northwestern regions of China. We incur relatively higher transportation costs for delivery of our refined products and chemical products to certain areas of the Eastern and Southern regions from our refineries and chemical plants in Western and Northern China. We face strong competition from other traditional domestic oil companies, local independent refineries and other competitors. As a result, we

expect that we will continue to encounter difficulty in increasing our sales of refined products and chemical products in these regions.

Risks Related to Outbound Investments and Trading

We are subject to various political, legal and regulatory environments in foreign countries where we operate, some of which are known to be unstable and differ in certain significant respects from those prevailing in developed countries. The main factors affecting our outbound investments include unstable political situations, unstable tax policies and unstable regulatory regimes. CNPC, our controlling shareholder, and its affiliates and subsidiaries may choose to undertake, without our involvement, overseas investments, operations and trading in the oil and gas industry, including certain exploration and production of oil and gas, refining, transportation, trading, engineering construction and technical services, operations of pipelines and liquefied natural gas, or LNG projects, or other business activities in certain countries or with certain entities that are subject to U.S. economic sanctions or are designated as State Sponsors of Terrorism, including Iran, Sudan, Cuba, Russia, Burma and Venezuela.

In 2018, the United States withdrew from the Joint Comprehensive Plan of Action ("JCPOA") and reimposed certain sanctions against Iran, which were conditionally lifted in 2015 following entry into the JCPOA. These reimposed sanctions have implications for non-U.S. companies, including requiring foreign companies to cease participation in projects in certain sectors of Iran (including the energy sector), and prohibiting or restricting oil imports from Iran, except for eight countries and regions (including China) which were granted a Significant Reduction Exception ("SRE") to be able to continue to import limited oil until May 2019. Pursuant to section 13(r) to the U.S. Securities Exchange Act of 1934, reporting issuers are required to disclose whether they or any of their affiliates have knowingly engaged in certain activities, transactions, or dealings related to Iran during the reporting period, including activities not prohibited by U.S. or other law. Based on CNPC's response to our inquiries, in 2020, a subsidiary of CNPC (the "CNPC Sub") held interests in certain oil and gas development projects in Iran, namely, (i) the MIS oilfields in which the CNPC Sub obtained a 100% interest in 2010, and (ii) the North Azadegan oilfield, in which the CNPC Sub obtained a 100% interest in 2009. From the re-imposition of U.S. sanctions, the CNPC Sub has been providing minimal support and services to the two oilfields. Since May 2019 when the SRE expired, the two oilfields have suspended lifting oil for investment recovery and did not generate any revenue for the CNPC Sub.

Since July 2014, the United States has adopted economic sanctions against certain Russian persons and entities, including various entities operating in the financial, energy and defense sectors, such as Rosneft, Gazprom, Transneft, and OAO Novatek as well as those companies in which the foregoing companies independently or jointly hold a 50% or more interest. These sanctions prohibit U.S. persons from transacting in, providing financing for or otherwise dealing in debt issuance by certain of these entities, or exporting, transferring, or providing certain technologies, equipment or services to certain oil-development projects in Russia. CNPC and our company had certain pre-existing trading and investment relationships with some of these sanctioned Russian entities, which are not subject to any such restrictions. For example, CNPC entered into a long-term agreement with each of Rosneft and Transneft to import crude oil from Russia in 2009 and a long-term agreement with Rosneft to import crude oil from Russia in June 2013. CNPC has resold, and will for the foreseeable future resell, all or a substantial portion of the imported crude oil from Rosneft and Transneft under the crude oil agreements to us. In May 2014, CNPC signed a long-term agreement with Gazprom to import natural gas from Russia, which was assigned to one of our subsidiaries in 2019. CNPC also indirectly holds 20% equity interest in OAO Yamal LNG and 10% equity interest in Arctic LNG 2, in both of which OAO Novatek holds more than 50% interest. In May 2014, we entered into a long-term LNG import agreement with a subsidiary of OAO Yamal LNG to import LNG from Russia.

In August 2017, the United States imposed economic sanctions against the Government of Venezuela and certain state-owned entities, including Petroleos de Venezuela, S.A. ("PdVSA"). These sanctions prohibit U.S. persons from transacting in, providing financing for or otherwise dealing in "new debt" issued by these

entities on or after August 25, 2017, with certain exceptions for short-term debt. Neither CNPC nor PetroChina purchased such new debt securities issued by the Government of Venezuela or by PdVSA, nor did they provide any assistance to third parties in this regard. In 2019, the United States issued enhanced sanction measures against Venezuela, which included blocking the property of Venezuelan government and its controlled entities (including PdVSA), and introducing new restrictions on Venezuela's oil sector. Under these programs, persons determined to be operating in the oil sector of the Venezuelan economy, or to have materially assisted, sponsored, or provided financial, material, or technological support for, or goods or services to or in support of, any person included on the list of SDNs and Blocked Persons, may also be subject to risk of being designated for blocking sanctions. CNPC has longstanding trading and investment activities in Venezuela, but has suspended purchases of oil from Venezuela since 2019. In 2008, CNPC Exploration and Development Company Limited ("CNPC E&D"), a joint venture held as to 50% by us and 50% by a wholly-owned subsidiary of CNPC, established a joint venture with PdVSA (the "JV") to operate the Sinovensa block located in Carabobo, Monagas State, Venezuela., which block produces and sells heavy oil. CNPC E&D holds a 40% interest in the JV and PdVSA holds the remaining 60%. In 2020, CNPC E&D contributed no new investment in the JV. We also indirectly hold minority interests in a few other small projects in Venezuela. For the year ended December 31, 2020, the share of profit generated from the Sinovensa block and these other projects in aggregate accounted for approximately 0.008% of our total profit.

We closely monitor the possible impacts of U.S. sanctions against the countries and entities which have trading or investment relationships with CNPC or us. We will continue to manage our risk exposure and to endeavor that our activities do not violate any applicable economic sanctions administered by the United States. However, we cannot assure you that current or future regulations or developments related to economic sanctions will not have a material adverse impact on our business or reputation. Certain U.S. based investors may not wish to invest and have proposed or adopted divestment or similar initiatives regarding investments in companies that do business with countries and entities that are subject to U.S. sanctions. These investors may not wish for CNPC or us to make investments or conduct activities in the countries or with the entities that are the subject of U.S. sanctions and may divest their investment in us because of our relationship with CNPC and its investments and activities in those countries or with those entities that are the subject of U.S. sanctions. As a result, the trading prices of our ADSs may be adversely affected.

In July 2012, OFAC added Bank of Kunlun Co., Ltd., or Kunlun Bank, an affiliate of our company due to common control by CNPC, to its "List of Foreign Financial Institutions Subject to Part 561", which was replaced by the list of Correspondent Account of Payable-Through Account Sanctions, pursuant to the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010. OFAC reported that Kunlun Bank provided financial services to at least six Iranian banks that were on OFAC's sanctions list during 2012. These financial services included holding accounts, making transfers and paying letters of credit on behalf of the designated banks. In 2018, Kunlun Bank has discontinued the business activities which are subject to U.S. sanctions. In 2020, Kunlun Bank's settlement business involving Iran has been limited to settlement of humanitarian materials and other business activities that are not subject to sanctions, and it has ceased business cooperation with the banks that are subject to secondary sanctions. Beginning in May 2019, Kunlun Bank further ceased involvement in settlement activities related to Iranian crude oil trade. Our company has no involvement in or control over such activities of Kunlun Bank or CNPC and CNPC subsidiaries and affiliates, and we have never received any revenue or profit derived from these activities.

Risks Related to Government Regulation

Although we have business operations in other countries and regions, our operations in China currently contribute the large majority of our revenue. Accordingly, our financial condition and results of operations are affected to a significant extent by economic, political and legal developments in China. The PRC government regulates industry development by implementing industrial policies. The PRC government also plays a significant role in China's economic growth by allocating resources, imposing market-entry

conditions, setting financial and tax policy, foreign exchange policy and monetary policy, regulating financial services and institutions, and providing preferential treatment to certain industries. Some of these measures may benefit the overall Chinese economy, but may also have an adverse effect on us.

Our operations, like those of other PRC oil and gas companies, are subject to extensive regulations and control by the PRC government. These regulations and control affect many material aspects of our operations, such as exploration and production licensing, pricing, industry-specific and product-specific taxes and fees and environmental and safety standards. As a result, we may face significant constraints on our ability to implement our business strategies, to develop or expand our business operations or to maximize our profitability.

Currently, the PRC government must approve the construction and major renovation of significant refining and petrochemical facilities as well as the construction of significant crude oil, natural gas and refined product pipelines and storage facilities. We presently have several significant projects pending approval from the relevant government authorities and will need approvals from the relevant government authorities in connection with several other significant projects. We do not have control over the timing and outcome of the final project approvals.

Because PRC laws, regulations and legal requirements dealing with economic matters continue to evolve, and because of the limited volume of published judicial interpretations and the non-binding nature of prior court decisions, the interpretation and enforcement of these laws, regulations and legal requirements involve some uncertainty. The PRC laws and regulations with respect to companies, securities and litigations are different in certain important aspects from those in the United States, Hong Kong and other common law jurisdictions, and most of our assets are located in the PRC and most of our directors and substantially all of our executive officers reside in the PRC. As a result, it may be difficult or impossible for our shareholders (including holders of our ADSs) to bring an action against us or our directors and officers in an event that they believe their rights have been infringed. Even if any shareholders are successful in an action of this kind, they may be unable to enforce a judgment against our assets or the assets of our directors and officers.

Furthermore, due to jurisdictional limitations, the ability of U.S. authorities, such as the U.S. Securities and Exchange Commission, or the SEC, and the U.S. Department of Justice, or the DOJ, to investigate and bring enforcement actions against us may be limited. PRC laws may constrain the ability of our company and our directors and officers to cooperate with such an investigation or action. For example, according to Article 177 of the newly amended PRC Securities Law, which became effective in March 2020, no overseas securities regulator is allowed to directly conduct investigations or evidence collection activities within the territory of the PRC. Without the consent of China Securities Regulatory Commission, or CSRC, and other relevant PRC authorities, no organization or individual may provide documents or materials relating to securities business activities to overseas parties. As a result of the foregoing, you may have more difficulty in protecting your interests through actions against our company, directors, officers or our majority shareholder. Shareholder protection through actions initiated by the SEC, DOJ and other U.S. authorities may also be limited.

Risks Relating Financial Reporting Differences

As a foreign private issuer, we are exempt from certain disclosure requirements under the U.S. Exchange Act, which may afford less protection to you than you would enjoy if we were a domestic U.S. company. As a foreign private issuer, we are exempt from, among other things, the rules prescribing the furnishing and content of proxy statements under the U.S. Exchange Act and the rules relating to selective disclosure of material nonpublic information under Regulation FD under the U.S. Exchange Act. In addition, our executive officers, directors and principal shareholders are exempt from the reporting and short-swing profit and recovery provisions contained in Section 16 of the U.S. Exchange Act. We are also not required under the U.S. Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as domestic U.S. companies with securities registered under the U.S. Exchange Act. For example, in addition to annual reports with audited financial statements, domestic U.S. companies are required to file

with the SEC quarterly reports that include interim financial statements reviewed by an independent registered public accounting firm and certified by the companies' principal executive and financial officers. By contrast, as a foreign private issuer, we are not required to file such quarterly reports with the SEC or to provide quarterly certifications by our principal executive and financial officers. Although we are required by the listing rules of Shanghai Stock Exchange with respect to our A Shares to publish quarterly and semi-annual reports and also required by listing rules of Hong Kong Stock Exchange with respect to our H Shares to publish semi-annual reports, and such reports are furnished to the SEC on Form 6-K, our financial statements included in the reports are not reviewed by our independent registered public accounting firms, and are only reviewed and signed by all our directors, president and CFO.

Risks Related to Controlling Shareholder

As of December 31, 2020, CNPC beneficially owned approximately 80.41% of our share capital. This ownership percentage enables CNPC to elect our entire board of directors without the concurrence of any of our other shareholders. Accordingly, CNPC is in a position to:

- control our policies and management affairs;
- subject to applicable PRC laws and regulations and provisions of our articles of association, affect the timing and amount of dividend payments and adopt amendments to certain of the provisions of our articles of association; and
- otherwise determine the outcome of most corporate actions and, subject to the regulatory requirements of the jurisdictions in which our shares are listed, cause our company to effect corporate transactions without the approval of minority shareholders.

CNPC's interests may sometimes conflict with those of some or all of our minority shareholders. We cannot assure you that CNPC, as our controlling shareholder, will always vote its shares in a way that benefits our minority shareholders.

In addition to its relationship with us as our controlling shareholder, CNPC by itself or through its affiliates also provides us with certain services and products necessary for our business activities, such as construction and technical services, production services, materials supply services, social services and financial services. The interests of CNPC and its affiliates as providers of these services and products to us may conflict with our interests.

Risks Related to Pricing and Exchange Rate

Our operations are affected by the volatility of prices for crude oil, refined products and natural gas. We set our crude oil median prices monthly based on the international trading prices for crude oil.

In recent years, international prices for crude oil have fluctuated substantially in response to changes in global and regional economy, politics and supply and demand for crude oil. We do not have, and will not have, control over factors affecting international prices for crude oil. Fluctuations and volatility in crude oil prices have a significant impact in our results of operations. A decline in crude oil prices may reduce revenues from, and may result in a loss in, our exploration and production segment. For example, during the first half of 2020, due to the outbreak of COVID-19 pandemic and some other reasons, there was a rarely seen drastic drop in oil prices with an unprecedented negative oil price reported. The decline in international crude oil prices is expected to greatly affect our upstream business profits and oil and gas import costs, and affect our downstream business profits through China's pricing mechanism of refined oil products, thereby adversely affecting our overall sales revenue and profits. Further, if crude oil prices remain at a low level for a prolonged period, we would be required to determine and estimate whether our oil and gas assets may suffer impairment and, if so, the amount of the impairment. An increase in crude oil prices may, however, increase the production costs of refined products, reduce demand for our products and affect our operating profits.

Under the current refined oil pricing mechanism implemented by the PRC government, when there is a change in the average crude oil price in the international market during a given time period, the PRC government can adjust refined oil prices. When international crude oil price experiences sustained increases or becomes significantly volatile, the PRC government may increase its control over the refined oil prices. As a result, the regulation on refined product prices by the PRC government may reduce our profit and cause our refining assets to suffer impairment.

We negotiate the actual settlement price with natural gas users within the price range permitted by the PRC government. When the domestic price is lower than the international natural gas price, the cost of our imported natural gas will be higher than the sales price of our natural gas, which may reduce our revenues and profit, or result in losses, cause our natural gas assets to suffer impairment.

We receive most of our revenues in Renminbi. A portion of our Renminbi revenues must be converted into other currencies to meet our foreign currency obligations. The existing foreign exchange limitations under the PRC laws and regulations could affect our ability to obtain foreign exchange through debt financing, or to obtain foreign exchange for capital expenditures. The value of Renminbi against U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in China's political and economic conditions. The PRC government has implemented a floating exchange rate system to allow the value of the Renminbi to fluctuate within a regulated band based on market supply and demand and by reference to a basket of foreign currencies. Because a substantial part of our imports and our outbound investments are settled in foreign currencies, the exchange rates between RMB and U.S. dollars and any other relevant foreign currencies may have an effect on our purchase costs and our investment costs.

Risks Related to Environmental Protection and Safety Production

Compliance with changes in laws, regulations and obligations relating to environmental protection and safety production could result in substantial expenditures and reduced profitability from increases in operating costs. In recent years, the PRC government has implemented environmental protection and safety production laws and regulations and has gradually improved refined oil standards which have stricter requirements for our business, and led to an increase in our operating costs. In the future, the PRC government will implement more stringent environmental protection and safety production regulations and impose higher standards on refined oil products. Compliance with these new regulations and standards will increase our costs and expenses.

Our oil and gas exploration and production activities shall comply with relevant PRC environmental protection laws and regulations governing abandonment and disposal processes for oil and gas exploration and production activities. We have established standard abandonment procedures pursuant to these laws and regulations. We have included under our asset retirement obligations the costs for these abandonment activities and this asset retirement obligation is based on our best estimate of future abandonment expenditures. In addition, PRC national or local governments may enact stricter environmental protection regulations and our abandonment costs may increase as a result.

Exploring for, producing and transporting crude oil and natural gas and producing and transporting refined products and chemical products involve many hazards. These hazards may result in fires, explosions, spills, blow-outs and other unexpected or dangerous conditions causing personal injuries or death, property damage, environmental damage and interruption of operations.

Some of our oil and natural gas fields are surrounded by residential areas or located in areas where natural disasters, such as earthquakes, floods and sandstorms, tend to occur more frequently than in other areas. As with many other companies around the world that conduct similar businesses, we have experienced accidents that have caused property damage and personal injuries and death.

Significant operating hazards and natural disasters such as earthquake, tsunami and health epidemics such as the COVID-19 pandemic, may cause partial interruptions to our operations and property and environmental damage that could have an adverse impact on our financial condition.

Risks Related to COVID-19

During the first half of 2020, affected by the COVID-19 pandemic, the global oil supply and demand were severely imbalanced, resulting in a precipitous fall in oil prices, creating heavy pressure on the oil and gas industry, which in turn posed a tough challenge to our operations. Many countries' governments have imposed increasingly stringent restrictions to help avoid, or slow down, the spreading of COVID-19, including, for example, restrictions on international and local travel, public gatherings and participation in meetings, as well as closures of universities, schools, stores and restaurants, with some countries imposing strict curfews. In China, various forms of restrictions were imposed and certain of them continue to be in place, and there can be no assurance that these restrictions will not be extended further on one or more occasions. These measures have led to a significant decline in demand for, and prices of, our refined oil products and natural gas, and the restrictions had an adverse effect in the short to medium-term on our oil and gas business chains. Globally, these widespread restrictions in various countries across the world resulted in a decrease in demand for oil, thereby also putting pressure on global oil prices. Although some of the measures, particularly in China, have been lifted, there can be no assurance that these measures will not be reinstated.

Moving forward, the impact of the COVID-19 pandemic on our business will depend on a range of factors which we are not able to accurately predict, including the duration, severity and scope of the pandemic, including any variants or resurgence and efficacy of any vaccines, the geographies impacted, the impact of the pandemic on economic activity in China and globally, and the nature and aggressiveness of measures adopted by governments. These factors include, but are not limited to:

- The deterioration of socio-economic conditions and disruptions to our operations, such as its supply chain, or refining or distribution capabilities, which may result in increased costs due to the need for more complex supply chain arrangements, to expand existing facilities or to maintain inefficient facilities, or in a reduction of our sales volumes.
- Reductions or volatility in demand for crude oil and refined and petrochemical products due to quarantine or other travel restrictions, economic hardship, retail closures or illness, which may impact our revenue and market share.
- Significant volatility in financial markets (including exchange rate volatility) and measures adopted by governments and central banks that further restrict liquidity, which may limit our access to funds, lead to shortages of cash or increase the cost of raising such funds.
- An adverse impact on our ability to engage in new, or consummate pending, strategic transactions on the agreed terms and timetable or at all.

As of the date of this report, there is significant uncertainty relating to the severity of the long-term adverse impact of the COVID-19 pandemic on the global economy, global financial markets and the Chinese economy, and we are unable to accurately predict the long-term impact of the COVID-19 pandemic on our business. To the extent the COVID-19 pandemic will adversely affect our business and financial results, it may also have the effect of heightening many of the other risks described in this ''Risk Factors'' section, such as those relating to macro-economic conditions, pricing and our liquidity. See also "Risk Factors — Risks Related to Marco Economic Conditions", "Risk Factors — Risks Related to Pricing and Exchange Rate." and "Risk Factors — Risks Related to Liquidity".

Risks Related to Climate Change

In recent years, the oil industry has faced an increasingly severe challenge imposed by global climate change. Numerous international, domestic and regional treaties and agreements that restrict carbon emissions have been executed and become effective. China and some other countries in which we operate have adopted, or are considering the adoption of, regulations to reduce carbon emissions. These include adoption of carbon emission quota and trade regimes, carbon taxes, increased efficiency standards, and

incentives or mandates for clean energy. The Chinese government has announced that China aims to hit peak emissions before 2030 and realize carbon neutrality by 2060. These policies and measures will bring opportunities to our new energy business, but may lead to an increase in our expenditures for our conventional oil and gas business, make our oil products more expensive and reduce their demand. As a result, we have to adjust our investment plans and change our business strategies, and our results of operations may be adversely affected. See "Risk Factors — Risks Related to Environmental Protection and Safety Production".

Risks Related to Insurance

Due to the fact that oil industry is susceptible to high and industry-specific risks in nature, the current ordinary commercial insurance cannot cover all the business areas in which we operate. We maintain insurance coverage against liability risks relating to assets that have significant operational risks, auto risks, and third-party liabilities for personal, property, and environmental risks, but not all, potential losses. We may suffer material losses resulting from uninsurable or uninsured risks or insufficient insurance coverage.

Risks Related to Oil and Gas Reserves

The crude oil and natural gas reserves data in this annual report are only estimates. The reliability of reserves estimates depends on a number of factors, assumptions and variables, such as the quality and quantity of our technical and economic data and the prevailing oil and gas prices applicable to our production, some of which are beyond our control and may prove to be incorrect over time. Results of drilling, testing and production after the date of estimates may require substantial upward or downward revisions in our reserves data. Our actual production, revenues and expenditures with respect to our reserves may differ materially from these estimates because of these revisions.

We are actively pursuing business opportunities outside China to improve our international operations. We cannot assure you, however, that we can successfully locate sufficient, if any, alternative sources of crude oil supply due to the complexity of the international political, economic and other conditions. If we fail to obtain sufficient alternative sources of crude oil supply, our results of operations and financial condition may be materially and adversely affected.

Risks Related to Liquidity

We have made best endeavors to ensure an appropriate level of liquidity and financing ability. However, as we are currently making our efforts to find high-quality large-scale reserves, strengthening capacity building in key areas, constructing new, and expanding some existing, refinery and petrochemical facilities and expanding the oil and gas terminal markets, we may have to make substantial capital expenditures and investments. We cannot assure you that the cash generated by our operations will be sufficient to fund these development plans or that our actual future capital expenditures and investments will not significantly exceed our current planned amounts. If either of these conditions arises, we may have to seek external financing to satisfy our capital needs. Our inability to obtain sufficient funding for our development plans could adversely affect our business, financial condition and results of operations.

Risks Related to Effectiveness of Internal Control over Financial Reporting

The SEC, as required by Section 404 of the Sarbanes-Oxley Act of 2002, has adopted rules requiring every public company in the United States to include a management report on such company's internal control over financial reporting in its annual report, which contains management's assessment of the effectiveness of our internal control over financial reporting. In addition, an independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Although our management concluded that our internal control over our financial reporting as of December 31, 2020 was

effective, and our independent registered public accounting firm has issued an attestation report, which concluded that our internal control over financial reporting was effective in all material aspects as of December 31, 2020, we may discover other deficiencies in the course of our future evaluation of our internal control over our financial reporting and may be unable to remediate such deficiencies in a timely manner. If we fail to maintain the adequacy of our internal control over financial reporting, we may not be able to conclude that we have effective internal control over financial reporting on an ongoing basis, in accordance with the Sarbanes-Oxley Act. Moreover, effective internal control is necessary for us to produce reliable financial reports and is important to prevent fraud. As a result, our failure to maintain effective internal control over financial reporting could result in the loss of investor confidence in the reliability of our financial statements, which in turn could harm our business and negatively impact the trading prices of our shares.

Risks Related to Audit Reports Prepared by an Auditor who is not Inspected by the Public Company Accounting Oversight Board

As a company with shares registered with the SEC, and traded publicly in the United States, our independent registered public accounting firm is required under the laws of the United States to be registered with the Public Company Accounting Oversight Board, or the PCAOB, and undergo regular inspections by the PCAOB to assess its compliance with the laws of the United States and professional standards. Under PRC laws, however, the PCAOB is currently unable to inspect a registered public accounting firm's audit work relating to a company's operations in China without the approval of the Chinese authorities. The CSRC also stated that cross-border audit supervision should be realized through regulatory cooperation between China and the United States. Accordingly, our independent registered public accounting firm's audit of our operations in China is not subject to PCAOB inspections. In recent years, the SEC and the PCAOB have issued a number of joint statements highlighting continued challenges faced by the U.S. regulators in their oversight of financial statement audits of U.S.-listed companies with significant operations in China. In December 2020, the *Holding Foreign Companies Accountable Act*, or the HFCA Act, was signed into law. Among others, the HFCA Act requires (i) the SEC to prohibit securities of an identified foreign company listed in the U.S. from being traded on any national securities exchange or over-the-counter market in the U.S., if for three consecutive years, the company's auditor that has a branch or office located in a foreign jurisdiction, and the PCAOB is unable to inspect or investigate the auditor completely because of a position taken by an authority in the foreign jurisdiction; (ii) such identified company to satisfy certain disclosure requirements. In March 2021, the SEC issued interim final rules to implement the disclosure requirements of the HFCA Act. We will be required to comply with these disclosure rules if the SEC identifies us as a covered issuer under a process to be subsequently established by the SEC. Rules of SEC to implement the trading prohibition requirement of the HFCA Act has not yet issued. Besides, in August 2020, the United State President's Working Group on Financial Markets, or the PWG, released the *Report and Recommendations on Protecting Investors from Significant Risks from Chinese Companies,* or the Report. The PWG recommended that the SEC take steps to implement the recommendations outlined in the report. In particular, to address companies from jurisdictions, such as China, that do not provide the PCAOB with sufficient access to fulfill its statutory mandate, the PWG recommended enhanced listing standards on U.S. exchanges and require, as a condition to initial and continued exchange listing, PCAOB access to work papers of the principal audit firm for the audit of the listed companies. The PWG recommended the new listing standards could provide for a transition period until January 1, 2022 for currently listed companies. Implementation of the HFCA Act, the Report or other efforts to increase U.S. regulatory access to audit information could result in a suspension of trading or even mandatory delisting of our ADSs from the NYSE. This would subject our investors and us to uncertainty and have an adverse effect on the market price of our ADSs.

The PCAOB has conducted inspections of independent registered public accounting firms outside of China and has at times identified deficiencies in the audit procedures and quality control procedures of those accounting firms. Such deficiencies may be addressed in those accounting firms' future inspection process

to improve their audit quality. Due to the lack of PCAOB regular inspections of audit work undertaken in China, our investors do not have the benefit of the PCAOB inspection of our independent registered public accounting firm's audit work and audit quality control procedures.

Risks Related to SEC Litigation Against the "Big Four" PRC-based Accounting Firms

On January 22, 2014, Judge Cameron Elliot, an SEC administrative law judge, issued an initial decision suspending the Chinese member firms of the "Big Four" accounting firms, including our independent registered public accounting firm, from, among other things, practicing before the SEC for six months. In February 2014, the initial decision was appealed. While under appeal and in February 2015, the Chinese member firms of "Big Four" accounting firms reached a settlement with the SEC. As part of the settlement, each of the Chinese member firms of "Big Four" accounting firms agreed to settlement terms that include a censure, undertakings to make a payment to the SEC, procedures and undertakings as to future requests for documents by the SEC and possible additional proceedings and remedies should those undertakings not be adhered to.

Had the settlement terms not been adhered to, the Chinese member firms of "Big Four" accounting firms could have been suspended from practicing before the SEC, which could in turn delay the timely filing of our financial statements with the SEC. In addition, it could be difficult for us to timely identify and engage another registered public accounting firm to audit and issue an opinion on our financial statements and our internal control over financial reporting. A delinquency in our filing of the annual report with the SEC may result in the NYSE initiating delisting procedures, which could harm our reputation and have other material adverse effects on our overall growth and prospect.

Risks Related to Pipeline Asset Restructuring

In 2020, we sold our interests in certain branch companies, subsidiaries and associated companies, which together held our major pipeline assets to China Oil & Gas Pipeline Network Corporation ("PipeChina") in exchange for 29.9% of the equity interests in PipeChina and a cash consideration. In 2021, our subsidiary Kunlun Energy sold its equity interests in two entities holding pipeline assets to PipeChina for a cash consideration. After completion of the transactions, PipeChina will be responsible for operating the pipeline assets and providing us with the pipeline transmission services pursuant to the arrangements under the agreements entered into between us and PipeChina, and we will enjoy the rights as a shareholder of PipeChina according to its articles of association. We cannot assure you that PipeChina can duly perform all the arrangements agreed with us and properly operate, maintain and manage its assets, serve our best interests, or that the dividends received from PipeChina are of a level comparable with that of the historical earnings made by us from our own operation of the pipeline assets. Should PipeChina fail to perform any arrangement agreed with us, or to properly operate, maintain or manage the assets, or to provide us with stable services, or to maintain its profitability, our operational and financial conditions may suffer an adverse effect. In addition, the business model of PipeChina is expected to be able to promote the competition in both the upstream supply market and the downstream sales market in China, which in turn may adversely affect our competitiveness. See "Item 4 — Information on the Company — Acquisitions and Divestments".

Risks Related to Employee Misconduct

We may not be able to detect or prevent employee misconduct, including misconduct by senior management, and such misconduct may damage our reputation and could adversely affect the trading price of our ordinary shares and ADSs.

We have gradually reinforced and enhanced our internal control and corporate governance policies and procedures in order to strengthen our ability to detect and prevent employee misconduct. We cannot assure you, however, that we will be able to detect or prevent such misconduct in a timely fashion, or at all. If we

fail to prevent employee misconduct, our reputation may be harmed, and the trading price of our ordinary shares and ADSs could be adversely affected.

Risks Related to Cyber Security

Our activities depend heavily on the reliability and security of our information technology ("IT") systems. Our IT systems may suffer disruptions due to cyber-attack, computer intrusions and viruses, technical failure and disruptions, power and network outages or natural disasters. We have adopted multi-layer technological measures for prevention and detection of cybersecurity problems, and we also train our employees in order to improve their awareness and ability to detect and respond to cybersecurity situations. If our measures prove to be insufficient, the cybersecurity disruptions could damage or destroy assets, compromise business systems, result in proprietary information being altered, lost, or stolen; result in employee, customer, or third-party information or material intellectual property being compromised, cause physical harm to people or the environment, or otherwise disrupt our business operations. We could incur significant costs to remedy the effects of a major cybersecurity disruption in addition to costs in connection with resulting regulatory actions, litigation or reputational harm. As a result, we and our customers, employees, or third parties could be adversely affected, potentially having a material adverse effect on our business and financial conditions.

Item 4 — *INFORMATION ON THE COMPANY*

Introduction

History and Development of Our Company

Our legal name is "中国石油天然气股份有限公司" and its English translation is PetroChina Company Limited.

We are the largest oil and gas producer and seller occupying a leading position in the oil and gas industry in the PRC and one of the largest companies in the world. We are engaged in a broad range of petroleum and natural gas related activities, mainly including the exploration, development, production and marketing of crude oil and natural gas; the refining of crude oil and petroleum products, as well as the production and marketing of basic petrochemical products, derivative chemical products and other chemical products; the marketing of refined oil products and trading; and the transmission of natural gas, crude oil and refined oil products as well as the sale of natural gas.

Currently, substantially all of our crude oil and natural gas reserves and production-related assets are located in China. Our exploration, development and production activities commenced in the early 1950s. For seven decades, we have conducted crude oil and natural gas exploration activities in many regions of China. We commenced limited refining activities in the mid-1950s. Our chemicals operations commenced in the early 1950s. In the early 1960s, we began producing ethylene. Our natural gas transmission and marketing activities commenced in Sichuan in Southwestern China in the 1950s.

We have increased our efforts to pursue attractive business opportunities outside China as part of our business growth strategy to utilize both domestic and international resources to strengthen our competitiveness. Since 2005, we have acquired interests in various oil and natural gas assets in several countries, which significantly expanded our overseas operations and effectively increased our oil and gas reserves and production volumes. We are currently assessing the feasibility of making further investments in international oil and gas markets. At the same time, we have been maintaining certain proportion of imported crude oil and natural gas in accordance with our needs. In 2020, we imported approximately 679.3 million barrels of crude oil, as compared to 684.9 million barrels and 711.0 million barrels of crude oil in 2018 and 2019, respectively.

We were established as a joint stock company with limited liability under the Company Law of the PRC on November 5, 1999 as part of a restructuring in which CNPC transferred to us most of the assets and liabilities of CNPC relating to its exploration and production, refining and marketing, chemicals and natural gas businesses.

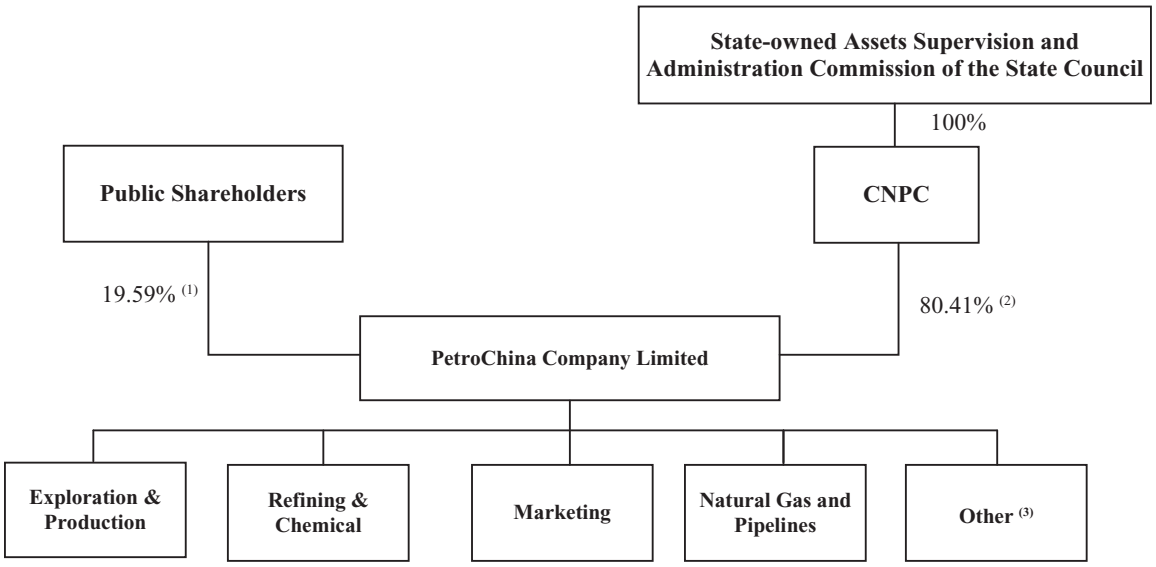
On April 7, 2000, we completed a global offering of H Shares and ADSs. In September 2005, we completed a follow-on offering of over 3 billion H Shares. In October 2007, we issued 4 billion A Shares. The A Shares were listed on the Shanghai Stock Exchange on November 5, 2007. As of December 31, 2020, CNPC beneficially owned 146,882,339,136 A Shares and 291,518,000 H Shares in us, representing approximately 80.41% of our share capital in aggregate. The H Shares held by CNPC were through Fairy King Investments Limited, an overseas wholly owned subsidiary of CNPC.

For a description of our principal subsidiaries, see Note 18 to our consolidated financial statements.

Our headquarters are located at 9 Dongzhimen North Street, Dongcheng District, Beijing, China, 100007, and our telephone number at this address is (86-10) 5998-2622. Our website address is www.petrochina.com.cn. The information on our website is not part of this annual report. Our annual report on form 20-F and other reports filed electronically with the SEC can be found on the SEC's website www.sec.gov.

Our Corporate Organization Structure

The following chart illustrates our corporate organization structure as of December 31, 2020.



(1) Indicates approximate shareholding.
(2) Indicates approximate shareholding, including the 291,518,000 H Shares indirectly held by CNPC as of December 31, 2020 through Fairy King Investments Limited, a wholly owned overseas subsidiary of CNPC, and not including the 5,871,459,673 A Shares transferred to and held in a trust account as collaterals for the exchangeable bonds issued by CNPC.
(3) Includes PetroChina Exploration & Development Research Institute, PetroChina Planning & Engineering Institute, IT Service Center, PetroChina Petrochemical Research Institute and several other companies.

Acquisitions and Divestments

On July 23, 2020, we entered into a series of agreements with PipeChina, including (i) the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets, (ii) ten sub-agreements (including the Equity

Acquisition Agreements on PetroChina Pipeline Co., Ltd., and others) and (iii) the Production and Operation Agreement. Pursuant to these agreements, we agreed to sell, and PipeChina agreed to buy, our interests in certain of our subsidiaries, branches, associated companies ("target entities"), which together held our major oil and gas pipelines, certain gas storage facilities, oil storage facilities, LNG terminals and ancillary facilities, and the initial oil and gas inventory contained therein (together, the "target assets") in exchange for 29.9% of the equity interests in PipeChina and a cash consideration (the "transaction"). The consideration for the transaction was based on the appraised value of the target assets as of December 31, 2019. The final consideration shall be determined based on an audit taking into account such factors as the profit and loss of the target assets during the transitional period, the adjustments for subsequent events after the base date and the value of the initial oil and gas inventory at the time of delivery. PipeChina warranted that after completion of the transactions, the target assets shall remain in normal operations, and the quality of the services provided to us to be no lower than the previous level. Furthermore, PipeChina undertook that it will not take any action or allow any nonaction that may adversely affect our continuous normal use of any target assets in our production or operation.

On September 28, 2020, the transaction was approved at the general meeting of our company by 99.9963% of votes. On September 30, 2020, all the conditions precedent to the closing of the transaction were satisfied, and the ownership, obligations, responsibilities and risk of the target assets were passed from our company to PipeChina at 24:00 on September 30, 2020.

The total assets sold in the transaction amounted to RMB356,447 million and the book value of net assets attributable to the owners of the Company was RMB200,525 million. The total final consideration was RMB247,471 million, including (i) RMB149,500 million that we recognized as long-term equity investment in PipeChina corresponding to the 29.9% equity interests in PipeChina, and (ii) a cash consideration of RMB97,971 million. For this transaction, we recognized pre-tax profit of RMB46,946 million. The difference between the final adjusted amounts and the amounts that we initially annouced reflected the adjustment mainly due to (i) the changes in prices and quantity of the initial oil and gas inventory and (ii) distribution of profits by certain of the target entities in advance of closing of the transaction.

On December 22, 2020, Kunlun Energy Company Limited ("Kunlun Energy"), a subsidiary of our company, entered into an Equity Transfer Agreement with PipeChina, pursuant to which Kunlun Energy agreed to sell and PipeChina agreed to purchase 60% equity interests in PetroChina Beijing Gas Pipeline Co., Ltd. ("Beijing Pipeline") and 75% equity interests in PetroChina Dalian LNG Co., Ltd. ("Dalian LNG") held by Kunlun Energy at a base consideration of approximately RMB40,886 million (subject to the adjustments according to the price adjustment mechanism as set out in the agreement), which shall all be settled in cash by PipeChina. This transaction was completed at 24:00 on March 31, 2021, upon which, Kunlun Energy ceased to hold any equity interests in Beijing Pipeline and Dalian LNG.

We believe that the pipeline restructuring transaction will help us focus more on our upstream exploration and development business as well as our downstream distribution business, and can relieve our pressure on capital expenditures, and help us get greater access to the nationwide oil and gas storage and transmission facilities, so to improve our operational efficiency and value creation capabilities.

See also "Item 3 — Key Information — Risks Related to Pipeline Asset Restructuring". For details, please refer to the English translation of the transaction agreements included as exhibits to this annual report on Form 20-F.

For information on capital expenditures, please see "Item 5 — Operating and Financial Review and Prospects — Liquidity and Capital Resources — Capital Expenditures and Investments."

Exploration and Production

We engage in crude oil and natural gas exploration, development and production. Substantially all of our total estimated proved crude oil and natural gas reserves are located in China, principally in Northeastern, Northern, Southwestern and Northwestern China. Meanwhile, we have enhanced our overseas cooperation and expanded our strategic presence in five major overseas oil and gas cooperation regions by conducting new project development. In 2020, the crude oil and natural gas produced by us at overseas regions accounted for 19.3%% and 5.4% of our total production of crude oil and natural gas, respectively.

We currently hold exploration and exploitation licenses for oil and gas (including coal seam gas) covering a total area of approximately 272.4 million acres, including the exploration licenses covering a total area of approximately 240.3 million acres and the production licenses covering a total area of approximately 32.1 million acres.

The following table sets forth the financial and operating data of our exploration and production segment for each of the years ended December 31, 2018, 2019 and 2020:

	Year Ended December 31,		
	2018	2019	2020
Revenue (RMB in millions)	658,712	676,320	530,807
Profit from operations (RMB in millions)	73,519	96,097	23,092
Proved developed and undeveloped reserves			
Crude oil (million barrels)	7,640.8	7,253.3	5,206.1
Natural gas (Bcf)	76,467.0	76,236.0	76,437.1
Production			
Crude oil (million barrels)	890.3	909.3	921.8
Natural gas for sale (Bcf)	3,607.6	3,908.0	4,221.0

Reserves

As of December 31, 2020, our total estimated proved reserves of crude oil was approximately 5,206.1 million barrels and our total estimated proved reserves of natural gas was approximately 76,437.1 Bcf. As of December 31, 2020, proved developed reserves for crude oil and natural gas accounted for 89.4% and 55.0% of our total proved crude hydrocarbon reserves, respectively. Total proved hydrocarbon reserves, including our overseas crude oil reserves of 831.1 million barrels and overseas natural gas reserves of 1,642.90 Bcf, decreased by 10.1% from approximately 19,959.3 million BOE as of December 31, 2019 to approximately 17,945.6 million BOE as of December 31, 2020, primarily due to the decrease in oil and natural gas prices. Natural gas as a percentage of total proved hydrocarbon reserves increased from 63.7% as of December 31, 2019 to 71.0% as of December 31, 2020.

Approximately 33%, 54% and 54% of our estimated proved reserves as of December 31, 2018, 2019 and 2020, respectively, were assessed by our internal assessment team and audited by our independent engineering consultants. Other information regarding our estimated proved reserves was based on the reserves reports prepared by our independent engineering consultants DeGolyer and MacNaughton, Ryder Scott Company L.P., GLJ Petroleum Consultants and McDaniel & Associates Consultants Ltd. in accordance with the reserves assessment methodology generally adopted in the U.S. The reserves assessments and reports of our company were performed and prepared in compliance with SEC's oil and gas reserves reporting rules. Our reserves estimates include only crude oil and natural gas which we believe can be reasonably produced within the current terms of our production licenses or within the terms of the licenses which we are reasonably certain to be renewed. See "Regulatory Matters — Exploration Licenses and Production Licenses" for a discussion of our production licenses. Also see "Item 3 — Key Information — Risk Factors — Risks Related to Oil and Gas Reserves" for a discussion of the uncertainty inherent in the estimation of proved reserves.

Internal Controls Over Reserves Estimates

We have appointed a reserves assessment directing team, or the RAD Team. The leader of the RAD Team is our vice president in charge of our upstream business.

We have implemented a practicing professional certification regime to supervise our employees engaged in oil and gas reserves evaluation and auditing functions. We have set up a team of reserves auditors covering our headquarter office and regional companies to perform reserves evaluation and audits. Meanwhile, we have established a special reserves management department in our exploration and production segment. Each of the officers and employees of that department has over 20 years of experience in oil industry and many years of experience in SEC-guided reserves evaluation. All of the members of that department have been recoginized as national-level reserves experts. Each regional company has established a reserves management committee and a multi-disciplinary reserves research office. Mr. Duan Xiaowen from the Reserves Administration Division of our exploration and production branch company, is the person in charge of our reserves estimation. Mr. Duan holds a bachelor's degree in geology and a master's degree in business administration. He has many years of work experience in oil and gas exploration and development industry and has been engaged in reserves estimate and management for a long time. Since 2008, Mr. Duan has been involved in the supervision of reserves estimation and management in our company. In 2016, Mr. Duan became the division head primarily responsible for overseeing the preparation of the reserves estimates, estimation technology and management. The reserves research offices of the regional companies are responsible for estimating newly discovered reserves and updating the estimates of existing reserves. The results of our oil and gas reserves assessment are subject to a two-level review by both the regional companies and our exploration and production branch company, with final examination and approval of the RAD Team.

In addition, we commissioned independent assessment firms to independently reassess or audit our annually assessed proved reserves in accordance with relevant SEC rules. We disclose the reserves in accordance with the SEC requirements.

Third-Party Reserves Reports

DeGolyer and MacNaughton, an independent petroleum engineering consulting firm based in the United States, carried out an independent assessment and audit of our reserves in China and certain other countries as of December 31, 2018, 2019 and 2020. Mr. Thomas C. Pence, a senior vice president of DeGolyer and MacNaughton, was responsible for supervising the preparation of our reserves report. Mr. Pence is a Registered Professional Engineer in Texas, a member of the International Society of Petroleum Engineers, and has many years of experience in oil and gas reservoir studies and reserves evaluations.

Ryder Scott Company, L.P. ("Ryder Scott"), an independent petroleum engineering consulting firm based in the United States, carried out an independent assessment of certain of our selected petroleum assets such as in Chad, Iraq and Peru as of December 31, 2018, 2019 and 2020. Mr. Timour Baichev, a vice president of Ryder Scott, was responsible for overseeing the estimate of the reserves, future production and income as stated in the reserves report. Mr. Timour Baichev is a licensed professional engineer and has many years of experience in the petroleum reserves estimation and evaluation.

GLJ Petroleum Consultants ("GLJ"), a petroleum consulting firm based in Canada, carried out an independent assessment of our reserves for certain gas and oil properties in Canada as of December 31, 2018, 2019 and 2020. Ms. Trisha S. MacDonald was the project manager for the evaluation. She is a senior engineer and has many years of experience in oil and gas reservoir studies and reserves evaluations.

McDaniel & Associates Consultants Ltd. ("McDaniel"), a petroleum consulting firm with its headquarters in Canada, carried out an independent assessment of our reserves in Kazakhstan as of December 31, 2018, 2019 and 2020. Mr. Cam T. Boulton, McDaniel's executive vice president, was responsible for supervising the preparation

of our reserves report. Mr. Boulton is a member of the Association of Professional Engineers and Geoscientists of Alberta. He has many years of experience in oil and gas reservoir studies and reserves evaluations.

None of the above consulting firms or their partners, senior officers or employees has any direct or indirect financial interest in our company and the remunerations to the firms are not in any way contingent upon reported reserves estimates.

For detailed information about our net proved reserves estimates, please refer to the summary reports of reserves filed herewith as exhibits to this annual report on Form 20-F.

The following table sets forth our estimated proved reserves (including proved developed reserves and proved undeveloped reserves), proved developed reserves and proved undeveloped reserves of crude oil and natural gas as of December 31, 2018, 2019 and 2020.

	Crude Oil and Condensate[1]	Natural Gas[2]	Combined
	(Million barrels)	(Bcf)	(BOE, in millions)
Proved developed and undeveloped reserves On a consolidated basis:			
Reserves as of December 31, 2017	7,481.3	76,887.6	20,295.9
Revisions of previous estimates	334.7	(1,377.9)	105.2
Extensions and discoveries	427.5	4,564.9	1,188.3
Improved recovery	95.9	—	95.9
Purchased	191.7	—	191.7
Production for the year	(890.3)	(3,607.6)	(1,491.7)
Reserves as of December 31, 2018	7,640.8	76,467.0	20,385.3
Revisions of previous estimates	(49.7)	(765.6)	(177.1)
Extensions and discoveries	480.6	4,442.6	1,221.0
Improved recovery	90.9	—	90.9
Production for the year	(909.3)	(3,908.0)	(1,560.8)
Reserves as of December 31, 2019	7,253.3	76,236.0	19,959.3
Revisions of previous estimates	(1,553.1)	(595.3)	(1,652.2)
Extensions and discoveries	385.2	4,976.1	1,214.6
Improved recovery	107.7	—	107.7
Purchased	15.0	106.9	32.8
Sold	(80.2)	(65.6)	(91.1)
Production for the year	(921.8)	(4,221.0)	(1,625.5)
Reserves as of December 31, 2020	5,206.1	76,437.1	17,945.6
Proved developed reserves			
As of December 31, 2018	5,843.1	40,128.2	12,531.1
Of which: domestic	5,203.4	38,433.2	11,609.0
Overseas	639.7	1,695.0	922.1
As of December 31, 2019	5,473.8	39,869.6	12,118.7
Of which: domestic	4,840.0	38,376.3	11,236.0
Overseas	633.8	1,493.3	882.7
As of December 31, 2020	4,653.6	42,076.7	11,666.4
Of which: domestic	3,987.0	40,732.3	10,775.8
Overseas	666.6	1,344.4	890.6
Proved undeveloped reserves			
As of December 31, 2018	1,797.7	36,338.8	7,854.2
Of which: domestic	1,626.4	36,046.9	7,634.2
Overseas	171.3	291.9	220.0
As of December 31, 2019	1,779.5	36,366.4	7,840.6
Of which: domestic	1,659.8	36,156.8	7,686.0
Overseas	119.7	209.6	154.6
As of December 31, 2020	552.5	34,360.4	6,279.2
Of which: domestic	387.9	34,062.0	6,064.9
Overseas	164.6	298.4	214.3
Share of proved developed and undeveloped reserves in associates and joint ventures calculated by the equity method			
As of December 31, 2018	321.4	429.4	392.9
As of December 31, 2019	287.1	393.6	352.7
As of December 31, 2020	195.5	362.7	256.0

(1) The crude oil and condensate oil reserves as of December 31, 2020 include 88.2 million barrels of NGLs.

(2) Represents natural gas remaining after field separation for condensate removal and reduction for flared gas.

As of December 31, 2018, 2019 and 2020, our total proved developed and undeveloped reserves on consolidated basis and on equity method, were 20,778 million BOE, 20,312 million BOE, and 18,202 million BOE, including 7,962 million, 7,540 million and 5,402 million barrels of crude oil and condense, and 76,896.4 Bcf, 76,629.6 Bcf and 76,799.8 Bcf of natural gas.

Our proved undeveloped reserves were 6,279.2 million BOE as of December 31, 2020, representing a decrease of 19.9% as compared to 2019. The main changes in our proved undeveloped reserves in 2020 included (i) an increase of 1,214.6 million BOE through extensions and discoveries; (ii) an increase of 107.7 million BOE through improved recovery; (iii) a decrease of 1,263.2 million BOE primarily due to the decrease in oil prices; (iv) the conversion of 1,631.1 million BOE of proved undeveloped reserves into proved developed reserves; and (v) purchase of 10.6 million BOE of proved undeveloped reserves. In 2020, we spent RMB127,576 million on developing proved undeveloped reserves. The overwhelming majority of our proved undeveloped reserves were situated around the oil fields that are currently producing. The majority of our proved undeveloped reserves are already scheduled for development within five years after initial booking.

Some of our proved undeveloped reserves of natural gas are being developed more than five years after their initial disclosure primarily due to the effect of long-term natural gas supply contracts. The sale of natural gas produced from our reserves located in China is subject to our long-term contractual obligations to provide a stable supply of natural gas to customers. We sell all of the natural gas under long-term supply arrangements with customers.

There are mainly two types of long-term supply arrangements. The first is multi-year supply contracts with terms ranging from 20 to 30 years that can be extended upon mutual agreement. The second type is renewable annual contracts. The majority of the natural gas produced in our gas fields in China is put into the nationwide, long-range pipeline system to be sold to customers who have entered into multi-year supply contracts with us in the areas where the long-range pipeline system covers. A small portion of the natural gas produced by our company is put into local pipeline systems to be sold to customers in the areas adjacent to our gas fields. These customers typically have formed de-facto long-term relationships with our company over the years and enter into supply contracts with us before the year end to determine the amount of gas to be purchased for the next year, with such contracts being renewed every year. In general, our supply relationships with customers under the annual contracts have existed for more than ten years.

Mainly as a result of our contractual obligations to ensure a long-term, stable supply of natural gas to customers, we must maintain a relatively large amount of proved undeveloped natural gas reserves and develop them over an extended period of time (in some cases, longer than five years).

The following tables set forth our crude oil and natural gas proved reserves and proved developed reserves by region as of December 31, 2018, 2019 and 2020.

	As of December 31,					
	2018		2019		2020	
	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed
	(Million barrels)					
Crude oil reserves						
Daqing	1,487.4	1,272.5	1,300.9	1,137.4	928.6	881.5
Changqing	2,095.2	1,423.6	2,098.7	1,376.2	1,262.5	1,185.8
Xinjiang	1,000.0	894.6	975.8	834.3	717.2	677.8
Other regions[1]	3,058.2	2,252.4	2,877.9	2,125.9	2,297.8	1,908.5
Total	7,640.8	5,843.1	7,253.3	5,473.8	5,206.1	4,653.6

	As of December 31,					
	2018		2019		2020	
	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed	Proved Developed and Undeveloped	Proved Developed
	(Bcf)					
Natural gas reserves[2]						
Changqing	25,425.8	9,406.5	25,589.5	9,362.5	25,969.8	10,700.7
Tarim	22,805.9	13,844.9	22,633.8	14,184.2	22,680.6	15,091.9
Chuanyu	13,882.7	7,857.5	14,421.5	7,953.2	14,933.6	8,316.5
Other regions[1]	14,352.6	9,019.3	13,591.2	8,369.7	12,853.1	7,967.6
Total	76,467.0	40,128.2	76,236.0	39,869.6	76,437.1	42,076.7

(1) Represents other oil regions in China and our overseas oil and gas fields.
(2) Represents natural gas remaining after field separation for condensate removal and reduction for flared gas.

Exploration and Development

We are currently conducting exploration and development efforts in 12 provinces, two municipalities under the direct administration of the central government and three autonomous regions in China as well as in certain regions in other countries. We believe that we have more extensive experience in the exploration and development of crude oil and natural gas than any of our principal competitors in China.

The following table sets forth the number of wells we drilled, or in which we participated, and the results thereof, in 2018, 2019 and 2020.

Year		Daqing	Xinjiang	Changqing	Others[1]	Total
2018						
	Net exploratory wells drilled[2]	231	130	885	532	1,778
	Crude oil	207	100	503	299	1,109
	Natural gas	15	11	65	89	180
	Dry[3]	9	19	317	144	489
	Net development wells drilled[2]	3,421	1,630	6,233	3,893	15,177
	Crude oil	3,398	1,619	4,086	2,990	12,093
	Natural gas	16	11	2,098	885	3,010
	Dry[3]	7	—	49	18	74
2019						
	Net exploratory wells drilled[2]	211	157	584	627	1,579
	Crude oil	195	148	359	381	1,083
	Natural gas	2	9	49	109	169
	Dry[3]	14	—	176	137	327
	Net development wells drilled[2]	3,008	1,274	5,948	4,273	14,503
	Crude oil	2,990	1,270	4,319	3,243	11,822
	Natural gas	12	4	1,586	1,007	2,609
	Dry[3]	6	—	43	23	72
2020						
	Net exploratory wells drilled[2]	166	151	661	561	1,539
	Crude oil	142	120	380	356	998
	Natural gas	9	9	53	73	144
	Dry[3]	15	22	228	132	397
	Net development wells drilled[2]	3,264	1,048	4,630	3,121	12,063
	Crude oil	3,240	1,040	3,082	2,406	9,768
	Natural gas	11	8	1,512	701	2,232
	Dry[3]	13	—	36	14	63

(1) Represents the Liaohe, Jilin, Huabei, Dagang, Sichuan, Tarim, Tuha, Qinghai, Jidong, Yumen, Zhejiang, Southern and other oil regions.
(2) "Net" wells refer to the wells after deducting interests of others. No third parties own any interests in any of our wells.
(3) "Dry" wells are wells with insufficient reserves to sustain commercial production.

We had 363 wells in the process of being drilled and 6,459 wells with multiple completions as of December 31, 2020.

Oil-and-Gas Properties

The following table sets forth our interests in developed and undeveloped acreage by oil region and in productive crude oil and natural gas wells as of December 31, 2020.

			Acreage[1] (Thousand acres)			
	Productive Wells[1]		Developed		Undeveloped	
Oil Region	Crude Oil	Natural Gas	Crude Oil	Natural Gas	Crude Oil	Natural Gas
Daqing	75,399	640	1,316.64	107.85	622.71	160.09
Changqing	67,747	20,981	1,623.46	6,704.16	968.00	3,194.00
Xinjiang	35,692	327	435.17	65.55	297.50	21.24
Other regions[2]	76,657	14,914	1,821.57	1,647.62	1,037.78	1,770.04
Total	255,495	36,862	5,196.84	8,525.18	2,925.99	5,145.37

(1) Includes all wells and acreage in which we have an interest. No third parties own any interests in any of our wells or acreage.
(2) Represents the Liaohe, Jilin, Huabei, Dagang, Southwestern, Tarim, Tuha, Qinghai, Jidong, Yumen, Zhejiang, Southern and other oil regions.

Production

The following table sets forth our historical average net daily crude oil and natural gas production by region and our average sales price for the years ended December 31, 2018, 2019 and 2020.

	For the Year Ended December 31,			% of
	2018	2019	2020	Total
Crude oil production[1]				
(thousand barrels per day, except percentages or otherwise indicated)				
Daqing	632.6	608.7	595.7	23.7
Changqing	480.9	488.8	497.7	19.8
Xinjiang	232.2	252.1	262.2	10.4
Other[2]	1,093.4	1,141.6	1,162.9	46.1
Total	2,439.1	2,491.2	2,518.5	100.0
Annual production (million barrels)	890.3	909.3	921.8	
Domestic	733.7	739.7	743.8	
Overseas	156.6	169.6	178.0	
Average sales price (US$ per barrel)	68.28	60.96	40.33	
Natural gas production[1][3]				
(million cubic feet per day, except percentages or otherwise indicated)				
Changqing	3,275.3	3,481.3	3,757.6	32.6
Tarim	2,353.4	2,535.2	2,748.0	23.8
Chuanyu	1,979.9	2,375.6	2,793.7	24.2
Other[4]	2,275.3	2,314.9	2,233.5	19.4
Total	9,883.9	10,707.0	11,532.8	100.0
Annual production (Bcf)	3,607.6	3,908.0	4,221.0	
Domestic	3,324.7	3,633.0	3,993.8	
Overseas	282.9	275.0	227.2	
Average realized price (US$ per Mcf)	5.85	5.39	4.80	

(1) Production volumes for each region include our share of the production from all of our cooperative projects with foreign companies in that region.

(2) Represents production from the Liaohe, Jilin, Huabei, Dagang, Tarim, Tuha, Qinghai, Jidong, Yumen, Southern and other oil regions and our share of overseas production as a result of our acquisition of overseas assets.

(3) Represents production of natural gas for sale.

(4) Represents production from the Daqing, Qinghai, Tuha, Xinjiang, Liaohe, Huabei, Dagang, Jilin, Jidong, Yumen, Zhejiang, Southern and other oil and gas regions and our share of overseas production as a result of our acquisition of overseas assets.

In 2020, we supplied a substantial majority of our total crude oil sales to our own refineries. In addition, we and Sinopec supply crude oil to each other's refineries to allow supplies to be easily obtained from nearby resources.

The following table sets forth our average sales prices and average lifting costs of crude oil and natural gas of our company on an overall basis and those in China in 2018, 2019 and 2020.

	Crude Oil Average Realized Prices (RMB/ton)	Natural Gas Average Realized Prices (RMB/Kilostere)	Average Lifting Cost (US$/BOE)
2018			
Overall	3,338	1,367	12.31
—China	3,289	1,338	13.55
2019			
Overall	3,107	1,313	12.11
—China	3,097	1,437	13.29
2020			
Overall	2,056	1,170	11.10
—China	2,111	1,314	12.19

Principal Oil and Gas Regions

Daqing Oil Region

The Daqing oil region, our largest oil and gas producing property, is located in the Songliao basin and covers an area of approximately one million acres. In 2018, 2019 and 2020, our average crude oil production volume in the Daqing oil region was 632.6 thousand barrels, 608.7 thousand barrels and 595.7 thousand barrels per day, respectively. As of December 31, 2020, we produced crude oil from 40 fields in the Daqing oil region.

As of December 31, 2020, our proved crude oil reserves in the Daqing oil region were 928.6 million barrels, representing 17.8% of our total proved crude oil reserves. As of December 31, 2018 and 2019, the proved crude oil reserves in Daqing oil region were 1,487.4 million barrels and 1,300.9 million barrels, respectively. As of December 31, 2020, the crude oil reserves-to-production ratio of the Daqing oil region was approximately 4.2 years.

Daqing's crude oil has low sulfur and high paraffin content. As many refineries in China, particularly those in Northeastern China, are configured to refine Daqing crude oil, we have a stable market for the crude oil we produce in the Daqing oil region.

Changqing Oil and Gas Region

In the early 1990s, we discovered the Changqing oil and gas region, which covers parts of Shaanxi Province, Gansu Province, Ningxia, Inner Mongolia and Shanxi Province. In 2019, we discovered the Qingcheng oilfied in the Changqing oil and gas region. As of December 31, 2020, the proved reserves in the Qingcheng oilfied were 34.6 million barrels. As of December 31, 2020, our proved crude oil reserves in the Changqing oil region were 1,262.5 million barrels, representing 24.2% of our total proved crude oil reserves. In 2020, our crude oil production in the Changqing oil region averaged 497.7 thousand barrels per day, representing approximately 19.8% of our total daily crude oil production.

The Changqing oil and gas region had total proved natural gas reserves of 25,969.8 Bcf as of December 31, 2020, representing 34.0% of our total proved natural gas reserves. In January 2001, we discovered the Sulige gas field in the Changqing oil and gas region, which had total proved natural gas reserves of 14,215.8 Bcf as of December 31, 2020. Sulige gas field is currently the largest gas field in China. In 2020, the Changqing oil and gas region produced 1,375.3 Bcf of natural gas for sale, representing an increase of 8.2% from 1,270.7 Bcf in 2019.

As of December 31, 2020, the crude oil and gas reserves-to-production ratio at the Changqing oil region was approximately 13.6 years.

Xinjiang Oil Region

The Xinjiang oil region is one of our four largest crude oil producing properties and is located in the Junggar basin in Northwestern China. We commenced our operations in the Xinjiang oil region in 1951. The Xinjiang oil region covers a total area of approximately 900,000 acres.

As of December 31, 2020, our proved crude oil reserves in the Xinjiang oil region were 717.2 million barrels, representing 13.8% of our total proved crude oil reserves. In 2020, our oil fields in the Xinjiang oil region produced an average of 262.2 thousand barrels of crude oil per day, representing approximately 10.4% of our total daily crude oil production. As of December 31, 2020, the crude oil reserves-to-production ratio at the Xinjiang oil region was approximately 7.5 years.

Tarim Oil and Gas Region

The Tarim oil and gas region is located in the Tarim basin in Northwestern China with a total area of approximately 590,000 acres. In 1998, we discovered the Kela 2 natural gas field in the Tarim oil and gas region. In 2019, we discovered the Bozi-Dabei gas field in the Tarim oil and gas region. As of December 31, 2020, the proved reserves in the Bozi-Dabei gas field were 4,368.2 Bcf. As of December 31, 2020, the proved natural gas reserves in the Tarim oil and gas region were 22,680.6 Bcf, representing 29.7% of our total proved natural gas reserves.

In 2020, we produced 1,005.8 Bcf of natural gas for sale in the Tarim oil and gas region. We deliver natural gas in the Tarim oil and gas region through gas pipelines to the central and eastern regions of China where there is strong demand for natural gas. As of December 31, 2020, the oil and natural gas reserves-to-production ratio in the Tarim oil and gas region was approximately 19.4 years.

Chuanyu Gas Region

We began natural gas exploration and production in the Chuanyu gas region in the 1950s. The Chuanyu gas region covers a total area of approximately 2.3 million acres. As of December 31, 2020, we had 115 natural gas fields under development in the Chuanyu gas region. In 2019, we discovered the Sichuan shale gas field in the Chuanyu gas region. As of December 31, 2020, the proved reserves in the Sichan shale gas field were 1,556.2 Bcf.

As of December 31, 2020, our proved natural gas reserves in the Chuanyu gas region were 14,933.6 Bcf, representing 19.5% of our total proved natural gas reserves and an increase of 3.6% from 14,421.5 Bcf as of December 31, 2019. In 2020, our natural gas production for sale in the Chuanyu gas region reached 1,022.5 Bcf, representing 24.2% of our total natural gas production for sale. As of December 31, 2020, the natural gas reserves-to-production ratio in the Chuanyu gas region was approximately 14.6 years.

Refining and Chemicals

We now operate 32 enterprises located in nine provinces, four autonomous regions and three municipalities to engage in refining of crude oil and petroleum products, as well as the production and marketing of basic petrochemical products, derivative chemical products and other chemical products.

The comparative data throughout the section of "Refining and Chemical" was presented as if (i) Dalian West Pacific had been consolidated from the earliest year presented. Please refer to "Item 4 — Information on the Company — Acquisitions and Divestments" and Note 40 to our consolidated financial statements in our Form 20-F filed with the SEC on April 29, 2020; and (ii) PetroChina Fuel Oil Company Limited ("Fuel Oil Company") and PetroChina Lubricant Company ("Lubricant Company") were transferred from the marketing segment to the refining and chemicals segment from the earliest year presented. See Note 38 to our financial statements included in this Form 20-F. The following table sets forth the financial and operating data of our refining and chemicals segment for each of the years ended December 31, 2018, 2019 and 2020.

	Year Ended December 31,		
	2018	2019	2020
Revenue (RMB in millions)	1,013,413	1,000,062	774,775
Profit from operations/(loss) (RMB in millions)	46,879	16,077	(1,834)
Crude oil processed (million barrels)	1,180.5	1,228.4	1,177.5
Crude oil primary distillation capacity (million barrels/year)	1,454.2	1,463.0	1,492.6
Production of refined oil products (thousand tons)	111,148	117,791	107,042

Refining

Refined Products

We produce a wide range of refined products at our refineries. Some of the refined products are for our internal consumption and used as raw materials in our petrochemical operation. The table below sets forth production volumes for our principal refined products for each of the years ended December 31, 2018, 2019 and 2020.

	Year Ended December 31,		
Principal Products	2018	2019	2020
	(In thousand tons)		
Diesel	54,311	54,628	50,719
Gasoline	45,794	50,430	46,280
Kerosene	11,043	12,733	10,043
Lubricants	1,600	1,630	1,575
Fuel oil	1,937	1,672	4,086
Naphtha	11,950	12,829	12,706

Our Refineries

Most of our refineries are strategically located close to our crude oil production and storage bases along the crude oil and refined product transmission pipelines and railways, which provide our refineries with secure supplies of crude oil and facilitate our distribution of refined products to the domestic markets.

In 2020, facing the excessive oil refining capacity in China, to enhance our competition and efficiency in the refining and chemical business, we scientically arranged the production in the refining and chemicals segment, continuouly optimized product mix, reasonably adjusted the diesel to gasoline ratio, actively increased the production of chemical products while striving to reduce the production of refined oil products, and maintained a high-load operation of our chemicals production facilities in response to market demand, and increased the production of high value-added products.

In 2018, 2019 and 2020, our exploration and production operations supplied approximately 56.7%, 55.7% and 57.6%, respectively, of the crude oil processed in our refineries.

In 2020, Jilin Petrochemical, Fushun Petrochemical, Lanzhou Petrochemical, Dushanzi Petrochemical, Dalian Petrochemical, Dalian West Pacific, Guangxi Petrochemical, Sichuan Petrochemical and Yunnan Petrochemical were our principal refineries in terms of both primary distillation capacity and refining throughput. The table below sets forth the primary distillation capacity and refining throughput of our principal refineries as of December 31, 2018, 2019 and 2020.

	As of December 31,		
	2018	2019	2020
Primary distillation capacity[1] (thousand barrels per day)			
Jilin Petrochemical	198.4	198.4	198.4
Fushun Petrochemical	222.7	222.7	222.7
Lanzhou Petrochemical	212.6	212.6	212.6
Dushanzi Petrochemical	202.4	202.4	202.4
Dalian Petrochemical	415.0	415.0	415.0
Dalian West Pacific	202.4	202.4	202.4
Guangxi Petrochemical	202.4	202.4	202.4
Sichuan Petrochemical	202.4	202.4	202.4
Yunnan Petrochemical	263.2	263.2	263.2
Other refineries	1,862.5	1886.8	1,967.8
Total	3,984.0	4,008.3	4,089.3

(1) Represents the primary distillation capacity of crude oil and condensate.

	As of December 31,		
	2018	2019	2020
Refining throughput (thousand barrels per day)			
Jilin Petrochemical	164.4	186.1	178.8
Fushun Petrochemical	175.1	176.4	162.8
Lanzhou Petrochemical	187.7	185.2	183.7
Dushanzi Petrochemical	147.2	124.9	143.6
Dalian Petrochemical	323.0	324.4	269.0
Dalian West Pacific	158.0	146.0	166.0
Guangxi Petrochemical	186.6	196.5	157.5
Sichuan Petrochemical	131.5	177.2	207.3
Yunnan Petrochemical	204.4	216.9	154.8
Other refineries	1,556.4	1,632.0	1,602.4
Total	3,234.3	3,365.6	3,225.9

In 2020, the production restructuring and upgrading project of Daqing Petrochemical, the ethylene production capacity recovery project at Lanzhou Petrochemical, and a series of aviation kerosene production increasing projects and low-sulfur marine fuel oil projects were completed and launched. The construction of the key projects such as the refining-chemical integrated project at Guangdong Petrochemical and the projects to produce ethylene with ethane at Tarim and Changqing progressed in an orderly manner.

The table below sets forth the major indicators of the realized productivity of our refineries in each of 2018, 2019 and 2020.

	2018	2019	2020
Average utilization rate of primary distillation capacity (%)	82.5	85.1	80.0
Average yield for principal refined products (%)[1][2]	70.6	71.8	68.2
Overall refining yield (%)	93.7	93.5	93.5

(1) Principal refined products include gasoline, kerosene, diesel and lubricant.

(2) "Yield" represents the number of tons of a refined product expressed as a percentage of the number of tons of crude oil from which that product is processed.

To maintain efficient operations of our facilities and lower production costs, we have endeavored to achieve the most cost-efficient mix of various types of crude oil in our refining process. We purchase a portion of our crude oil requirements from third-party international suppliers located in different countries and regions. In 2020, we purchased crude oil sourced from Russian companies Roseneft and Transneft which are subject to U.S. economic sanctions, and Sudan which was designated as a State Sponser of Terrorism by the U.S. (the U.S. removed Sudan from the list of State Sponsors of Terriorism in December 2020), for use in our refining operations. The revenue generated from our refineries from the crude oil sourced from the Russian companies Rosneft and Transneft, and Sudan accounted for 3.16%, and 0.07% of our total revenue in 2020. See "Item 3 — Key Information — Risk Factors — Risks Related to Outbound Investments and Trading."

Chemicals

Most of our chemical plants are close to our refineries and are connected to the refineries by pipelines, providing additional production flexibility and opportunities for cost competitiveness. The raw materials required by our chemicals operations are mainly supplied by our own refineries.

Our Chemical Products

The table below sets forth the production volumes of our principal chemical products for each of the years ended December 31, 2018, 2019 and 2020.

	Year Ended December 31,		
	2018	2019	2020
	(In thousand tons)		
Basic petrochemicals			
Ethylene	5,569	5,863	6,345
Derivative petrochemicals			
Synthetic resin	9,165	9,580	10,287
Synthetic fiber raw materials and polymers	1,388	1,309	1,278
Synthetic rubber	869	910	1,001
Other chemicals			
Urea	828	1,208	2,163

We are one of the major producers of ethylene in China. We use the bulk of the ethylene we produce as a principal feedstock for the production of many chemical products, such as polyethylene. As of December 31, 2020, our annual ethylene production capacity was 6,010 thousand tons. We produce a number of synthetic resin products, including polyethylene, polypropylene and ABS. As of December 31, 2020, our annual production capacities for polyethylene, polypropylene and ABS were 5,060 thousand tons, 4,220 thousand tons and 710 thousand tons, respectively.

Marketing of Chemicals

Our chemical products are distributed to a number of industries including the automotive, construction, electronics, medical manufacturing, printing, electrical appliances, household products, insulation, packaging, paper, textile, paint, footwear, agriculture and furniture industries.

The following table sets forth the sales volumes of our chemical products by principal product category for each of the years ended December 31, 2018, 2019 and 2020.

Products	Year Ended December 31,		
	2018	2019	2020
	(In thousand tons)		
Derivative petrochemicals			
Synthetic resin	9,489.1	9,777.8	10,912.8
Synthetic fiber	75.8	39.1	25.2
Synthetic rubber	899.6	1,011.1	1,098.4
Intermediates	10,480.2	11,354.7	12,929.0
Other chemicals			
Urea	732.3	1,561.2	2,596.9

Marketing

We engage in the marketing of refined products through 34 regional sales companies including two distribution branch companies and one convenience store chain company, PetroChina uSmile Company Limited, operated under the trade name "uSmile". These operations include the transportation and storage of the refined products, the wholesale, retail and export of gasoline, diesel, kerosene and other refined products, and non-oil business. In addition, with respect to our international trading sector, we have optimized the import and export resources, focused on synergies, actively expanded into the high-end markets, and maintained growth in trading volume and improved operation results.

The comparative data throughout this section of "Marketing" was presented as if (i) Dalian West Pacific had been consolidated from the earliest year presented (see "Item 4 — Information on the Company — Acquisitions and Divestments" and Note 40 to our consolidated financial statements in our Form 20-F filed on April 29, 2020); and (ii) Fuel Oil Company and Lubricant Company were transferred from the marketing segment to the refining and chemicals segment from the earliest year presented. See Note 38 to our financial statements.

The following table sets forth the financial and operating data of our marketing segment for each of the years ended December 31, 2018, 2019 and 2020:

	Year Ended December 31,		
	2018	2019	2020
Revenue (RMB in millions)	1,891,743	2,075,044	1,497,533
Loss from operations (RMB in millions)	8,628	2,878	2,906
External sales volume of refined oil products (thousand tons)	178,648	187,712	161,230

With respect to our domestic sales business, we market a wide range of refined products, including gasoline, diesel, kerosene and lubricants, through an extensive network of sales personnel and independent distributors and a broad wholesale and retail distribution network across China. Our marketing network consists of:

- Nationwide wholesale distribution outlets. Almost all of these outlets are located in high demand areas across China, particularly in the coastal areas, along major railways and along the Yangtze River. We sell refined products both directly and through distributors to various wholesale markets, as well as to utility, commercial, petrochemical, aviation, agricultural, fishery and transportation companies in China. Our gasoline and diesel sales also include the amount we sold to our retail operations; and
- Service stations owned and operated by us and franchised service stations owned and operated by third parties across China including Hong Kong.

In order to adapt to changes in market condition and customer demand, we enhanced integrated marketing for refined products, fuel cards, non-oil business, lubricants and gas, and enhanced marketing through internet. We optimized our supply chain, upgraded the facilities and services at our gas stations, and enhanced the marketing of our non-oil businesses.

Our international trade business actively played a role in adjusting supply and demand, creating profit through business synergy. We optimized crude oil and natural gas imports, strengthened oil and gas sales, expanded refined oil exports and the high-end market, strengthened terminal network layout and cross-region and cross-city operations, enhanced transactions ability, and effectively managed operational risks.

The PRC government and other institutional customers, including railway, transportation and fishery operators, are long-term purchasers of the gasoline and diesel that we produce. We sell gasoline and diesel to these customers based on the supply prices for special customers prescribed by the PRC government. See "— Regulatory Matters — Pricing — Refined Products" for a discussion of refined product pricing.

The following table sets forth information relating to our sales for each of the years ended December 31, 2018, 2019 and 2020 in the marketing segment:

	As of December 31,		
	2018	2019	2020
Sales volume of gasoline, kerosene and diesel (thousand tons)	178,648	187,712	161,230
Of which: Gasoline	71,125	76,366	66,084
Kerosene	20,619	21,183	14,350
Diesel	86,904	90,163	80,796
Domestic sales volume of gasoline, kerosene and diesel (thousand tons)	116,356	118,995	105,896
Of which: gasoline	52,222	53,546	49,188
Kerosene	9,260	8,696	8,331
Diesel	54,874	56,753	48,377
Lubricants (thousand tons)	1,158	977	1,404
Market share in domestic refined oil market (%)	36.4	36.7	35.9
Number of service stations	21,783	22,365	22,619
Of which: owned service stations	20,555	20,955	21,042
Sales volume per service station (tons/day)	10.28	10.08	8.48
Number of convenience stores	19,709	20,021	20,212

Natural Gas and Pipeline

We are China's largest natural gas seller. We sell natural gas primarily to industrial companies, power plants, fertilizer and chemical companies, commercial users and municipal utilities owned by local governments. In addition, we also engage in oil and gas transmission in the natural gas and pipeline segment.

The following table sets forth the financial and operating data of our natural gas and pipeline segment for each of the years ended December 31, 2018, 2019 and 2020:

	As of December 31, or Year Ended December 31,		
	2018	2019	2020
Revenue (RMB in millions)	362,626	391,023	370,771
Profit from operations (RMB in millions)	25,515	26,108	72,410
Total length of natural gas pipelines (km)	51,751	53,291	22,555
Total length of crude oil pipeline (km)	20,048	20,091	7,190
Total length of refined oil products pipeline (km)	11,728	13,762	1,406
Total volume of natural gas sold (Bcf)	7,654.7	9,149.8	8,784.4

Our Principal Markets for Natural Gas

We sell our natural gas across China. Our natural gas supply covers all provinces, municipalities under direct administration of the central government, autonomous regions and Hong Kong of China, except Macau and Taiwan. We supply natural gas to Tibet by LNG tanker trucks.

The Bohai Rim is one of our principal markets for natural gas. The natural gas supplied to Bohai Rim is primarily sourced from the Changqing oil and gas region and transmitted through the natural gas pipelines.

The Yangtze River Delta and Southwestern region in China are also our principal markets. We supply natural gas to these regions primarily from our domestic production sites and through long-distance pipelines and by LNG tanker trucks.

In addition, provinces such as Inner Mongolia, and Anhui consume more and more natural gas and have become another significant natural gas market of us.

Driven by environmental and efficiency concerns, the PRC government is increasingly encouraging industrial and residential use of natural gas. The PRC government has adopted a number of laws, regulations and policy goals to encourage the use of clean energy, such as natural gas and liquefied petroleum gas, to reduce carbon emissions and environmental pollution. The PRC government has granted preferential tax rate to natural gas operations. The current value-added tax rate for natural gas is 9%, while the value-added tax rate for crude oil and refined oil products is 13%. In 2017, the PRC government issued a new policy to accelerate the large-scale and high-efficient utilization of natural gas in urban gas, industrial fuel, gas-fired power generation and transportation, and to significantly increase the proportion of use of natural gas in primary energy consumption. The overall goal of the policy is that the proportion of natural gas in the primary energy consumption to reach around 10% by 2020 and 15% by 2030, and the underground gas storage to form an effective working gas volume of over 14.8 billion cubic meters by 2020 and over 35 billion cubic meters by 2030.

We believe that these policies have had a positive effect on the development and consumption of natural gas in our existing or potential markets for natural gas. We believe that these favorable policies will continue to benefit our natural gas business.

Pipeline Business

In 2020, we sold our interests in certain branch companies, subsidiaries and associated companies, which together held our major pipeline assets to PipeChina in exchange for 29.9% of the equity interests in PipeChina and a cash consideration. The assets included our major oil and gas pipelines, certain gas storage facilities, oil storage facilities, LNG terminals and ancillary facilities, and the initial oil and gas inventory contained therein. In 2021, our subsidiary Kunlun Energy sold its equity interests in two entities holding pipeline assets to PipeChina for a cash consideration. Upon completion of the transactions, PipeChina has become the operator of the pipeline assets, providing us and other customers with pipeline transmission services. Pursuant to our agreements with PipeChina, PipeChina warranted that after completion of the transactions, the target assets shall remain in normal operations, and the quality of the services provided to us to be no lower than the previous level. Furthermore, PipeChina undertook that it will not take any action or allow any nonaction that may adversely affect our continuous normal use of any target assets in our production and operation. The pipeline assets retained by us after completion of the transactions mainly consist of the internal pipelines within our oil and gas fields and the pipelines connecting our oilfields to our refineries. As a shareholder of PipeChina, we expect to participate in the corporate governance of PipeChina according to its articles of association and we will coordinate with PipeChina on our requirements and proposals with respect to the pipeline operations according the agreements entered into between PipeChina and us.

See “Item 4 — Information on the Company — Acquisitions and Divestments”.

During the past three years, we have not experienced any delays in delivering natural gas, crude oil and refined products due to pipeline capacity constraints.

Competition

As an oil and gas company operating in a competitive industry, we compete in each of our business segments in both China and international markets for desirable business prospects and for customers. At present, our principal competitors in China are China Petrochemical Corporation, or Sinopec Group, and China National Offshore Oil Corporation, or CNOOC.

Exploration and Production Operations

We are the largest onshore oil and gas company in China in terms of proved crude oil and natural gas reserves as well as crude oil and natural gas production and sales. However, we compete with other domestic oil and gas companies for the acquisition of desirable crude oil and natural gas prospects. Similarly, we face some competition in the development of offshore oil and gas resources. In 2019, the Chinese government lifted the restrictions on foreign investment in oil and gas exploration and development, which had been limited to joint ventures and cooperation, introduced market competition mechanisms in the oil and gas industry to support private enterprises participating in oil and gas exploration and development. These policy changes mean that the barriers to entering the area of oil and gas exploration have been removed, and our exploration and development business may face heightened competition from foreign capital and private enterprises. In addition, the competition of international energy supply has intensified, the crude oil market continues to fluctuate, and price volatility has become frequent. We believe that our experience in crude oil and natural gas exploration and production and our advanced exploration and development technologies that are suitable for the diverse geological conditions in China will enable us to maintain our dominant position in discovering and developing crude oil and natural gas reserves in China.

Refining and Chemicals Operations and Marketing Operations

We compete with our primary competitor Sinopec in our refining and chemicals operations and marketing operations on the basis of price, quality and customer service. Most of our refineries and chemical plants are

located in the Northeastern and Northwestern regions of China where we have the dominant market share for refined products and chemical products. We sell the remainder of our refined products and chemical products to the Eastern, Southern, Southwestern and Central-southern regions of China, where our products have a considerable market share. The Eastern and Southern regions of China, where refined products and chemical products are in higher demand, are important markets for our refined products and chemical products. Sinopec has a strong presence in the Eastern and Southern regions of China in competition with us, and most of Sinopec's refineries, chemical plants and distribution networks are located in these regions in close proximity to these markets. Moreover, as the newly constructed facilities of CNOOC commenced operation in the same region, large quantity of chemical products have been marketed into that area, which made the competition even intense. We expect that we will continue to face competition in our refined products and chemical products sales in these regions.

In recent years, China has gradually liberalized the restrictions on market access for the refining and chemical industry. The refining and chemical industry led by us and Sinopec has been rapidly transformed into diversified market participants. Some large state-owned enterprises and private enterprises have entered the refining and chemical industry. Local refineries have rapidly emerged, and international refining and chemical companies have recently opened large refineries in China. The restrictions on foreign investment in wholesale and retail chains of refined oil have been further liberalized. In 2019, the Chinese government issued policies to further liberalize market access for private enterprises, encouraging private enterprises to enter the industries of refineries and sales, and to construct storage and transportation infrastructure for refined oil, and encourage qualified enterprises to participate in crude oil imports and refined oil exports. We expect to continue to face strong market competition.

We also face competition from imported refined products and chemical products in terms of price and quality. In recent years, competition from foreign producers of refined products and chemical products has increased as a result of changes in China's tariff policies toward imported refined products and chemical products. In response, we have sought to reduce our production costs, improve the quality of our products and optimize our product mix.

In addition, we also face competition from alternative energy. Alternative energy is developing rapidly in China, and electric power, liquefied gas, natural gas and biodiesel have increasingly become effective alternatives to refined oil, continually reducing the market for refined oil. Among them, vehicular natural gas is still the main substitute for refined oil. Driven by the national policy and breakthroughs in battery and self-driving technologies, China's electric vehicle industry has developed rapidly, which has led to a rapid growth in the number of electric cars in China. Electricity is expected to replace vehicular natural gas as the primary alternative energy source for refined oils and will continuously reduce the importance of refined oils as a major energy source. In October 2020, the State Council issued the New Energy Vehicle Industry Development Plan (for 2021-2035), according to which China expects that the share of new energy vehicles out of total vehicle sales in China will rise to 20% by 2025 and pure electric vehicles will account for the majority of vehicle sales by 2035.

Natural Gas and Pipeline Operations

We are the largest natural gas supplier in the PRC in terms of sales volume. Currently, we mainly face competition from Sinopec, CNOOC, coal-based natural gas producers and importers of natural gas and LNG in the supply of natural gas to Beijing, Tianjin, Hebei Province, Shanghai, Jiangsu Province, Anhui Province, Henan Province, Hubei Province, Hunan Province and the Northwestern regions of China, our existing principal markets for natural gas. Currently, Sinopec has natural gas fields in Sichuan Province and Chongqing Municipality and sells natural gas to users in places such as Sichuan Province, Chongqing, Hunan Province, Jiangsu Province, Zhejiang Province and Shanghai. We have also expanded into the coastal regions in Eastern and Southern China where we may face competition from CNOOC and Sinopec. Over the recent years, as the reform of the oil and gas regulatory system has continuously progressed amidst macro-economic changes, the

reshaping of the oil and gas industry has accelerated in China. In addition to us, Sinopec and CNOOC, more and more other companies are exepcted to join the competition in the natural gas resources sector and oil and gas terminal business. In 2020, PipeChina acquired certain major pipeline assets from our company and several other oil and gas companies, making it the largest pipeline operator in China and enabling it to provide market participants with equal access to pipeline resources. This is expected to have a far reaching effect on the competitive landscape of the oil and gas industry in China and is expected to intensify the competition at the upstream resources segment and the downstream sales segment. See "Item 3 — Risk Factors — Risks Related to Government Regulation", Item 3 — Risk Factors — Risks Related to Pipeline Asset Restructuring", "Item 4 — Information on the Company — Acquisitions and Divestments", "Item 4 — Information on the Company — Natural Gas and Pipeline" and "Item 5 — Operating and Financial Review and Prospects — Trend Information". We believe that our advantages in natural gas resources, production, sales and technologies will enable us continue to be a dominant player in the natural gas markets in China.

See "Item 3 — Key Information — Risk Factors — Risks Related to Competition".

Environmental Matters

Like other companies in the industries in which we operate, we are subject to numerous national, regional and local environmental laws and regulations promulgated by the governments in those jurisdictions. These laws and regulations concern our oil and gas exploration and production operations, petroleum and petrochemical products and other activities. In particular, some of these laws and regulations:

- require an environmental evaluation report to be submitted and approved prior to the commencement of exploration, production, refining and chemical projects;
- restrict the type, quantities, and concentration of various substances that can be released into the environment in connection with drilling and production activities;
- limit or prohibit drilling activities within protected areas and certain other areas; and
- impose penalties for pollution resulting from oil, natural gas and petrochemical operations, including criminal and civil liabilities for serious pollution.

These laws and regulations may also restrict the emissions into the air and discharges into surface and subsurface water from our gas processing plants, chemical plants, refineries, pipeline systems and other facilities that we own or operate. In addition, our operations are subject to laws and regulations relating to the generation, handling, storage, transportation, disposal and treatment of solid waste materials.

We anticipate that the environmental laws and regulations to which we are subject will become increasingly strict and are therefore likely to have an increasing impact on our operations. It is difficult, however, to predict accurately the effect of future developments in such laws and regulations on our future earnings and operations. Some risk of environmental costs and liabilities is inherent in our operations and products, as it is with other companies engaged in similar businesses. We cannot assure you that material costs and liabilities will not be incurred. However, we do not currently expect any material adverse effect on our financial condition or results of operations as a result of compliance with such laws and regulations. In 2018, 2019 and 2020, we paid a total environmental protection tax of approximately RMB140 million, RMB139 million and RMB143 million, respectively.

To meet future environmental obligations, we are engaged in a continuous program to develop effective environmental protection measures. These measures include:

- building environment-friendly projects;
- reducing sulfur in gasoline and diesel fuel;

- reducing olefins and benzene in gasoline, and continuously reducing emissions and effluents from our refineries and petrochemical plants; and
- installing monitoring systems at our pollutant discharge openings.

Our capital expenditures on environmental programs in 2018, 2019 and 2020 were approximately RMB2.70 billion, RMB2.30 billion and RMB2.94 billion, respectively.

Because a number of our production facilities are located in populated areas, we have established a series of preventative measures to improve the safety of our employees and surrounding residents and minimize disruptions or other adverse effects on our business. These measures include:

- providing the residents surrounding our production facilities with printed materials to explain and illustrate safety and protection knowledge and skills; and
- enhancing the implementation of various effective safety production measures we have adopted previously.

We believe that these preventative measures have helped reduce the possibility of incidents that may result in serious casualties and environmental consequences. In addition, the adoption of these preventative measures has not required significant capital expenditures to date, and therefore, will not have a material adverse effect on our results of operations and financial condition.

See "Item 3 — Key Information — Risk Factors — Risks Related to Environmental Protection and Safety" and "Item 3 — Key Information — Risk Factors — Risks Related to Climate Change".

Properties, Plants and Equipment

We own substantially all of our properties, plants and equipment relating to our business activities. We hold exploration and production licenses covering all of our interests in developed and undeveloped acreage, oil and natural gas wells and relevant facilities.

See the description of our properties, plants and equipment relating to our business activities included elsewhere in this "Item 4 — Information on the Company" and "Item 7 — Major Shareholders and Related Party Transactions — Related Party Transactions".

Intellectual Property

Our company logo "" is jointly owned by us and CNPC and has been used since December 26, 2004. Together with CNPC, we have applied for trademark registrations of the logo both in China and abroad. We have received 506 International Trademark Registration Certificates for our logo covering more than 50 jurisdictions.

As of December 31, 2020, we owned approximately 20,587 patents in China and other jurisdictions. We were granted 2,784 patents in 2020.

Regulatory Matters

Overview

China's oil and gas industry is subject to extensive regulation by the PRC government with respect to exploration, production, transmission and marketing of crude oil and natural gas as well as production, transportation and marketing of refined products and chemical products. The following central government authorities exercise control over China's oil and gas industry:

- The National Energy Administration, or the NEA, is primarily responsible for the formulation of energy development plans and annual directive plans, approving major energy-related projects and facilitating the implementation of sustainable development of energy strategies, coordinating the development and utilization of renewable energies and new energies, and organizing matters relating to energy conservation and comprehensive utilization as well as environmental protection for the energy industries.
- The Ministry of Natural Resources, or the MNR, has the authority to grant, examine and approve mineral resources exploration and production licenses, and to oversee the registration and transfer of exploration and production licenses;
- The Ministry of Commerce, or the MOFCOM,
  - sets and grants import and export volume quotas for crude oil and refined products in accordance with the market supply and demand in China as well as WTO requirements for China;
  - issues import and export licenses for crude oil and refined products to oil and gas companies that have obtained import and export quotas;
  - is responsible for the record-filing of Sino-foreign joint venture contracts, and monitoring the foreign investors' oil and gas exploration projects in the PRC; and
  - is responsible for approving and filing of overseas investment projects by PRC enterprises.
- The National Development and Reform Commission, or the NDRC:
  - is responsible for industry administration, industry policy and policy coordination over China's oil and gas industry;
  - publishes guidance prices for natural gas and maximum retail prices for gasoline and diesel;
  - formulates the plan for aggregate import and export volume of crude oil and refined products in accordance with the market supply and demand in China;
  - approves significant petroleum, natural gas, oil refinery and chemical projects set forth under the Catalogs of Investment Projects Subject to Approval of the Central Government; and
  - approves Sino-foreign equity and cooperative projects of certain types.

Exploration Licenses and Production Licenses

The *Mineral Resources Law* authorizes the MNR to exercise administrative authority over the exploration and production of mineral resources within the PRC. The *Mineral Resources Law* and its supplementary regulations provide the basic legal framework under which exploration licenses and production licenses are granted. License applicants must be companies approved by the State Council to engage in oil and gas exploration and production activities.

Applicants for exploration licenses must first register the blocks that they intend to engage in exploration activities with the MNR. The holder of an exploration license is obligated to make a progressively increasing annual minimum exploration investment in each corresponding block. Investments range from RMB2,000 per

square kilometer for the initial year to RMB5,000 per square kilometer for the second year, and to RMB10,000 per square kilometer for the third and subsequent years. Additionally, the holder has to pay royalty fees that starts at RMB100 per square kilometer per year for each of the first three years and increases by an additional RMB100 per square kilometer per year for subsequent years up to a maximum of RMB500 per square kilometer per year. The maximum term of an oil and natural gas exploration license is seven years, subject to renewal upon expiration of the original term, with each renewal being up to two years. At the exploration stage, an applicant can also apply for a progressive exploration and production license that allows the holder to test and develop reserves not yet fully proven. Upon the detection and confirmation of the quantity of reserves in a certain block, the holder must apply for a production license based on economic evaluation, market conditions and development planning in order to shift into the production phase in a timely fashion. In addition, the holder needs to obtain the right to use that block of land. Generally, the holder of a full production license must obtain a land use rights certificate for industrial land use covering that block of land.

The MNR issues production licenses to applicants on the basis of the reserves reports approved by the relevant authorities. Production license holders are required to pay a royalty of RMB1,000 per square kilometer per year. Administrative rules issued by the State Council provide that the maximum term of a production license is 30 years, 20 years, or 10 years as applicable to large, medium and small mineral blocks, respectively. In accordance with a special approval from the State Council, the MNR has issued production licenses with terms coextensive with the projected productive life of the assessed proven reserves as discussed above. Each of our production licenses is renewable upon our application 30 days prior to expiration. If oil and gas prices increase, the productive life of our crude oil and natural gas reservoirs may be extended beyond the current terms of the relevant production licenses.

The MNR comprehensively promotes the manner which mining rights are granted through competitive ways, such as bidding, auction or listing, while strictly limites the non-competitive ways.

China has impletemented the regulation of unified licensing of oil and gas exploration and production, pursuant to which, if an oil and gas exploration license holder discovers any oil and gas reservoir available for production, it may commence production immediately after having submitted a report to the local natural resource authorities, and is not required to obtain a separate oil and gas production license. If such oil and gas exploration license holder has since then conducted oil and gas production activities, it is required to enter into a mining rights grant contract and complete the mining rights registration in accordance with applicable laws within five years thereafter.

Among the major PRC oil and gas companies, the exploration licenses and production licenses held by us, Sinopec and CNOOC account for the majority of mining rights in China. Among those companies, we and Sinopec primarily engage in onshore exploration and production, while CNOOC primarily engages in offshore exploration and production. According to the new policies of the Chinese government, private enterprises and foreign-invested enterprises are allowed to obtain exploration licenses.

Pricing

In recent years, the pricing of gasoline, diesel, natural gas and pipeline transmission services, depending on the situation, has either been subject to government guiding prices or goverment set prices, while the pricing of crude oil and other refined oil products is not subject to government regulation.

Gasoline and Diesel

According to the *Measures for Administration of Petroleum Products Pricing issued* by the NDRC on January 13, 2016, (i) the retail prices and wholesale prices of gasoline and diesel, and the prices for supply of gasoline and oil to special customers such as social wholesale enterprises, railway and other transportation operators are expected to follow government guiding prices, and (ii) the supply prices for supply of gasoline and

diesel to the country's Strategic Petroleum Reserve and Xinjiang Production and Construction Corps are expected to follow government set prices. The ceiling retail prices of gasoline and diesel are determined on the basis of international crude oil prices, by taking into consideration the average domestic processing cost, tax, reasonable circulation costs and appropriate profit margin. Further, when the international crude oil prices drop to US$40 per barrel or below, the prices of refined oil products in China will be calculated as if the crude oil price were still US$40 per barrel and by taking into consideration a normal processing profit margin. When the international crude oil prices rise to the range between US$40 per barrel (exclusive) and US$80 per barrel (inclusive), the prices of refined oil products in China will be calculated by taking into consideration a normal processing profit margin. When the international crude oil prices surge to more than US$80 per barrel, the processing profit margin used to determine the prices of refined oil products will be reduced until to zero. When the international crude oil prices surge to US$130 per barrel or above, appropriate financial and taxation policies will be adopted to ensure the production and supply of refined oil products but the prices of gasoline and diesel will in principle remain unadjusted or will only be slightly adjusted upwards in principle by adhering to the principle of taking into account the interests of both the producers and the consumers so as to maintain the smooth operation of the national economy. The government would adjust the gasoline and diesel prices every 10 working days in line with fluctuations in international crude oil prices. Refined oil retail enterprises have freedom to set their own specific retail prices as long as their retail prices do not exceed the ceiling prices set by the government. The ceiling supply prices of gasoline and diesel to be supplied to special customers such as railway, transportation and other business operators by domestic refined oil production and marketing enterprises are determined by reducing the ceiling national average retail price by RMB400 per ton. Domestic refined oil production and marketing enterprises may determine the specific supply prices with special customers such as railway, transportation and other business operators through negotiations subject to the ceiling supply prices published by the government. When market retail prices drop, the supply prices set for special customers will be adjusted downward accordingly. The so-called "special customers" means big customers who have for historical reasons established their own independent oil supply system, as identified in a list formulated by the NDRC. The supply prices of gasoline and diesel to be supplied to the country's Strategic Petroleum Reserve and Xinjiang Production and Construction Corps by domestic refined oil production and marketing enterprises are determined by deducting circulation markup from the ceiling national average retail price.

On March 13, 2020, the NDRC issued the updated version of the *Central Pricing Catalog*. According to the updated Catalog, in the interim, prices of refined oil products will continue to be determined by the existing pricing mechanism, as adjusted in line with the fluctuations in international oil prices. The updated Catalog indicates that based on the progress of the oil and gas reform, China will fully liberalize the pricing of refined oil products and allow it to be entirely market-based in due course.

Natural Gas

According to the updated Central Pricing Catalog issued by the NDRC on March 13, 2020, the prices of offshore gas, shale gas, coal bed methane, coal gas, LNG, gas supplied directly to certain customers, gas supplied to and resold by gas storage facilities, gas publicly traded on trading platforms, gas imported through pipelines put into operation after 2015, and citygate gas prices in those provinces possessing conditions for determining citygate gas prices through competition should become market based. The prices of other domestically produced onshore pipeline gas and the citygate prices of the gas imported through pipelines put into operation before the end of 2014 should in the interim continue to be determined by the existing pricing mechanism, and will be liberalized and become market-based in due course as the reform to marketize the natural gas sector progresses. Pursuant to the natural gas pricing reform programs issued by the NDRC in recent years, at present, the PRC government regulates natural gas pricing mainly through the citygate benchmark price. Under this regime, gas suppliers and purchasers would determine the specific citygate prices for their transactions through negotiations by using the citygate benchmark prices published by the relevant local governments as the base and then adjusting the base either upwards by no more than 20% or downwards without limit. The NDRC also rolled out seasonal natural gas prices to encourage market-oriented pricing. Natural gas production and marketing enterprises and users are encouraged to proactively trade on natural gas trading platforms. Prices of natural gas

publicly traded on natural gas exchanges such as Shanghai Oil and Gas Exchange and Chongqing Oil and Gas Exchange are entirely driven by market conditions.

Pipeline Transmission Tariff

Pipeline transmission tariffs for crude oil, refined oil and natural gas are set by the government. Cross province transmission tariffs are set by the NDRC and provincial transmission tariffs are set by the provincial level branches of the NDRC.

For those pipelines constructed prior to 1984, which were funded by the government, the transmission tariff is a uniform flat tariff determined based on the principle of minimum profit margin. For those pipelines constructed with the funds of the enterprises after 1984, the tariffs must be submitted to the NDRC for examination and approval on a case by case basis and based on the capital investment made in the pipeline, the operation period for the pipeline and a reasonable profit margin.

On October 9, 2016, the NDRC issued *Regulation on Administration of the Pipeline Transmission Tariff for Natural Gas (on trial)* and *Rules on Supervision and Review of the Costs Used in Setting the Pipeline Transmission Tariff (on trial)*, which provides that effective January 1, 2017, the pipeline transmission tariff for natural gas shall be reviewed and determined on the principle of "permissible costs plus reasonable margins", and the rules intended to regulate the tariff charged by companies engaged in cross-province pipeline transmission operation.

On March 27, 2019, the NDRC issued the N*otice on Adjusting the Inter-provincial Pipeline Natural Ga*s *Transmission Tariff*, which adjusted the transmission tariff for 13 inter-provincial pipelines companies including PetroChina Beijing Natural Gas Pipeline Co., Ltd. and others.

Production and Marketing

Crude Oil

Each year, the NDRC publishes the projected target for the production and process of crude oil in China based on the domestic consumption estimates submitted by domestic producers, including but not limited to us, Sinopec and CNOOC, the production of these companies as well as the forecast of international crude oil prices. The actual production volumes are determined by the producers themselves and may vary from estimates. The MOFCOM and its local branches were previously responsible for supervising and managing the crude oil market. Enterprises that meet certain operating conditions may apply for the permit for crude oil sales and warehousing business. On December 3, 2019, the MOFCOM issued the *Notice on Proper Implementation of the Reform to "Streamline Administration, Delegate Power, Strengthen Regulation and Improve Services" in the Administration of Circulation of Refined Petroleum Products*. According to the Notice, MOFCOM offices will no longer accept applications for qualifications for crude oil marketing or warehousing business, or for amendment, renewal or cancelation of the certificates of such qualifications, and such certificates shall expire automatically upon expiration and will not be taken back. This means that the operation of crude oil marketing and warehousing business will no longer be subject to MOFCOM approval.

Refined Products

Previously, only we, Sinopec and joint ventures of the two companies had the right to conduct gasoline and diesel wholesale business. Other companies, including foreign invested companies, were not allowed to engage in wholesale of gasoline and diesel in China's domestic market. In general, only domestic companies, including Sino-foreign joint venture companies, were permitted to engage in retail of gasoline and diesel. Since December 11, 2004, wholly foreign-owned enterprises are permitted to conduct refined oil retail business. Since January 1, 2007, when the *Measures on the Administration of the Refined Products Market* became effective, all

entities meeting certain requirements are allowed to submit applications to the MOFCOM to conduct refined oil products wholesale, retail and storage businesses. On July 28, 2018, the PRC government removed the restriction that a Chinese partner must hold a majority share in the construction and operation of a retail oil station chain which has more than 30 outlets and sells refined products of different types and brands supplied through multiple channels. On August 27, 2019, the State Council canceled government approval of qualifications for operation of refined oil wholesale warehousing and delegated the approval of refined oil retail qualifications to local municipal governments.

On December 3, 2019, the MOFCOM issued the *Notice on Proper Implementation of the Reform to "Streamline Administration, Delegate Power, Strengthen Regulation and Improve Services" in the Administration of Circulation of Refined Petroleum Products.* According to the Notice, any market player proposed to engage in the refined petroleum product wholesale and warehousing activities may commence and carry out such activities in accordance with applicable laws and regulations after they meet relevant criteria and obtain relevant qualifications or pass relevant acceptance tests and is not required to obtain operating licenses from MOFCOM. On December 31, 2020, the General Office of the MOFCOM issued the *Guidelines for the Administration of the Refined Petroleum Product Circulation Sector*. According to the Guidelines, any market player engaged in refined petroleum product wholesale and warehousing business activities shall comply with laws and regualtions and criteria related to enterprise registration, land and resources administration, planning and construction, oil product quality, safety production, environmental protection, firefighting, terrorism-fighting, tax, transportation, meteorology, metering, etc., obtain relevant qualifications or pass relevant acceptance tests, and shall carry out business operation in accordance with laws and regulations. This means that the operation of refined oil marketing and warehousing business will no longer be subject to MOFCOM approval.

Natural Gas

The NDRC determines each year the annual national natural gas production target based on the natural gas production targets submitted by domestic natural gas producers. Domestic natural gas producers determine their annual natural gas production targets on the basis of consumption estimates. The actual production volume of each producer is determined by the producer itself, which may deviate from the production target submitted by it. The NDRC also formulates the annual natural gas supply guideline, which requires natural gas producers to distribute a specified amount of natural gas to the designated key municipalities and key enterprises.

Foreign Investments

Cooperation in Exploration and Production with Foreign Companies

Currently, CNPC is one of the few Chinese companies that have the right to cooperate with foreign companies in onshore crude oil and natural gas exploration and production in China. CNOOC has the right to cooperate with foreign companies in offshore crude oil and natural gas exploration and production in China.

Sino-foreign cooperation projects and foreign parties in onshore oil and gas exploration and production in China are generally selected through open bids and bilateral negotiations. Those projects are generally conducted through production sharing contracts. The MOFCOM must approve those contracts.

As authorized by the Regulations of the PRC on Exploration of Onshore Petroleum Resources in Cooperation with Foreign Enterprises, CNPC has the right to enter into joint cooperation arrangements with foreign oil and gas companies for onshore crude oil and natural gas exploration and production. We do not have the capacity to enter into production sharing contracts directly with foreign oil and gas companies under existing PRC law. Accordingly, CNPC will enter into production sharing contracts. After signing a production sharing contract, CNPC will, subject to approval of the MOFCOM, assign to us most of its commercial and operational rights and obligations under the production sharing contract as required by the Non-competition Agreement between CNPC and us.

In 2019, the Chinese government lifted the restrictions on foreign investment in oil and gas exploration. As a result, foreign companies are allowed to enter the oil and gas exploration and production sector by wholly-owned enterprieses.

Transportation and Refining

Since December 1, 2007, PRC regulations have encouraged foreign investment in the construction and operation of oil and gas pipelines and storage facilities. On March 10, 2015, PRC lifted the restrictions on foreign investment in refineries with a production capacity of below 10 million tons per annum. Furthermore, when appropriate, projects must receive necessary approvals from relevant PRC government agencies. See "Item 3 — Key Information — Risk Factors — Risks Related to Government Regulation."

The State Further Liberalized Oil And Gas Market Access

On June 30, 2019, the NDRC and the MOFCOM jointly issued *Special Management Measures for Foreign Investment Access (Negative List) (2019 Edition)*, pursuant to which, the restrictions on oil and gas exploration and development that were previously limited to joint ventures and cooperation were lifted.

On December 22, 2019, the Central Committee of the Communist Party of China and the State Council issued the *Opinions on Creating a Better Development Environment to Support the Reform and Development of Private Enterprises*, which further liberalized market access for private enterprises. It states that in key industries and fields such as power, telecommunications, railways, oil and gas, the state liberalizes competitive businesses and further introduces market competition mechanisms. It encourages private enterprises to enter the industries of oil and gas exploration and development, refining and sales, and construction of infrastructures such as storage, transportation and pipeline transportation of crude oil, natural gas and refined oil. It encourages qualified enterprises to participate in crude oil imports and refined oil exports.

Import and Export

Since January 1, 2002, state-owned trading companies have been allowed to import crude oil under an automatic licensing system. Non-state-owned trading companies have been allowed to import crude oil and refined products subject to quotas. The export of crude oil and refined oil products by both state-owned trading companies and non-state-owned trading companies is subject to quota control. The MOFCOM has granted us the right to conduct crude oil and refined product import and export business.

Capital Investment and Financing

Capital investments in exploration and production of crude oil and natural gas made by Chinese oil and gas companies are subject to approval by or filing with relevant government authorities. The following projects are subject to approval by the NDRC or the competent local authorities:

- facilities for taking delivery of and storing liquefied petroleum gas (excluding accessory projects of oil or gas fields or refineries);
- new facilities for taking delivery of or storing imported liquefied natural gas (including expansion on a different site other than the original facilities);
- oil or gas transmission pipeline networks (excluding gathering and transmission pipeline networks of oil or gas fields);
- new refineries, expansion of existing primary processing refineries;
- new ethylene, paraxylene (PX), diphenylmethane diisocyanate (MDI) projects; and
- new coal-to-olefins projects, new coal to paraxylene (PX) projects, and new coal-to-methanol projects with a capacity of 1 million tons per annum or more.

Taxes, Fees and Royalties

We are subject to a variety of taxes, fees and royalties. The table below sets forth the major taxes, fees and royalty fees payable by us or by Sino-foreign oil and gas exploration and development cooperative projects. Our subsidiaries which have legal person status should report and pay enterprise income tax to the relevant tax authorities based on the applicable laws and regulations.

Tax Item	Tax Base	Tax Rate
Enterprise income tax	Taxable income	25%; and from January 1, 2021 to December 31, 2030, the corporate income tax on enterprises incorporated in encouraged industries in the western region of China will be levied at a reduced rate of 15%.
Value-added tax	Revenue	Prior to July 1, 2017, value added tax rates were 17%, 13%, 11% and 6%, as applicable. In particular, 13% was for liquefied natural gas, natural gas, liquefied petroleum gas, agricultural film and fertilizers and 17% for oil products and other products. Effective July 1, 2017, the rate of 13% was canceled and the applicable rate for natural gas has been changed from 13% to 11%. Effective May 1, 2018, the rate of 17% was changed to 16% and the rate of 11% was changed to 10%. Effective April 1, 2019, the rate of 16% was changed to 13% and the rate of 10% was changed to 9%.
Consumption tax	Aggregate volume sold or self-consumed	RMB1.52 per liter for gasoline, naphtha, solvent naphtha and lubricant and RMB1.2 per liter for diesel, aviation kerosene and fuel oil.
Resource tax	Sales	6%, exemption or reduction may apply if qualified. From April 1, 2018 to March 31, 2021, shale gas production enjoys a 30% reduction.
Crude oil special gain levy	Sales amount above specific threshold	Five-level progressive tax rates from 20% to 40%, taxable if the crude oil price reaches the threshold of US$65 per barrel.
Environmental protection tax	Air pollution equivalent, water pollution equivalent, solid waste pollution equivalent and noise exceeding the standard decibel	Effective January 1, 2018, the PRC government started to impose environmental protection tax. Different emissions apply their corresponding tax rates. If a taxpayer's emission of taxable atmospheric pollutants or water pollutants is less than 30% of the national and local pollutant discharge standards, the environmental protection tax shall be levied at 75%. If the taxpayer's emission of taxable atmospheric pollutants or water pollutants is less than 50% of the national and local pollutant discharge standards, the environmental protection tax shall be levied at 50%.
Mining right royalty	Area	RMB100 to RMB500 per square kilometer per year for exploration; RMB1,000 per square kilometer per year for production.
Royalty fee[(1)]	Production volume	Progressive rate of 0-12.5% for crude oil and 0-3% for natural gas.

(1) It shall be paid in cash and is only applicable to Sino-foreign oil and gas exploration and development cooperative projects in China. However, effective December 1, 2010, the royalty fee payable by new Sino-foreign oil and gas exploration and development cooperative projects in Western regions was replaced by the resource tax, while those cooperative projects under contracts signed before December 1, 2010 continue to be subject to the royalty fee until the contracts expire. Effective November 1, 2011, the royalty fee payable by new Sino-foreign oil and gas exploration and development cooperative projects in the whole country was replaced by the resource tax, while those cooperative projects under contracts signed before November 1, 2011 continue to be subject to the royalty fee until the contracts expire.

Environmental Regulations

We are subject to various PRC national environmental laws and regulations and also environmental regulations promulgated by the local governments in whose jurisdictions we have operations. The PRC government has adopted extensive environmental laws and regulations that affect the operation of the oil and gas industry. There are national and local standards applicable to emissions control, discharges to surface and subsurface water and disposal, generation, handling, storage, transportation, treatment and disposal of solid waste materials, reduction of carbon emission and upgrade of the standards for refined products.

The environmental regulations require a company, such as us, to register or file an environmental impact report with the relevant environmental authority for approval before it undertakes any construction of a new production facility or any major expansion or renovation of an existing production facility. The new facility or the expanded or renovated facility will not be permitted to operate unless the relevant environmental authority has inspected the environmental equipment installed at the facility and decides it satisfies the environmental protection requirements. Companies that need to discharge pollutants, whether in the form of gas, water or solid wastes, must submit application for pollutant discharge permits. The application must state in detail the types of discharge, discharge outlet, types of pollutants, concentration and amount of discharge. After reviewing the application materials, the relevant environmental administrative department will determine to issue a discharge permit to the company, specifying the types of permitted pollutants, the permitted concentration and amount. If a company's discharges deviated from what were permitted, the relevant administrative department may impose fines on the company or order the company to suspend or close down its operation for resolving the issues. In addition, companies discharging taxable pollutants should declare and pay corresponding environmental protection taxes in accordance with the PRC Environmental Protection Tax Law and its implementing regulations.

In recent years, the Chinese government has endeavored to promote low-carbon policies. It has set a goal of increasing the proportion of non-fossil energy consumption and announced the aim to hit peak emissions before 2030 and realize carbon neutrality by 2060. In order to reduce environmental pollution, the Chinese government has also raised the standards of oil products several times in recent years. After several years of upgrading and renovating our oil refining facilities, we have satisfied the relevant standards on time. In addition, we are also required to comply with relevant laws and regulations regarding management of hazardous chemicals.

Item 4*A* — *UNRESOLVED STAFF COMMENTS*

We do not have any unresolved staff comment.

Item 5 — *OPERATING AND FINANCIAL REVIEW AND PROSPECTS*

General

You should read the following discussion together with our consolidated financial statements and their notes included elsewhere in this annual report. Our consolidated financial statements have been prepared in accordance

with IFRS. The comparative data throughout Item 5 was presented as if (i) Dalian West Pacific had been consolidated from the earliest financial year presented (see "Item 4 — Information on the Company — Acquisitions and Divestments" and Note 40 to our consolidated financial statements in our Form 20-F filed with the SEC on April 29, 2020); and (ii) Fuel Oil Company and Lubricant Company were transfered from the marketing segment to the refining and chemicals segment from the earliest financial year presented (see Note 38 to our financial statements). In addition, we initially applied IFRS 16 on January 1, 2019. According to the adopted transition plan, the comparative data throughout this Item 5 has not been restated. For a detailed description of the changes and impacts of these accounting standards, please refer to Note 3 (ac) to our financial statements.

Overview

We are engaged in a broad range of petroleum and natural gas related activities, including:

- exploration, development, production and sale of crude oil and natural gas;
- refining of crude oil and petroleum products, and production and marketing of primary petrochemical products, derivative chemical products and other chemical products;
- marketing and trading of refined oil products; and
- transmission of natural gas, crude oil and refined oil products as well as sale of natural gas.

We are China's largest producer of crude oil and natural gas and are one of the largest companies in China in terms of revenue. In 2020, we produced approximately 921.8 million barrels of crude oil and approximately 4,221.0 Bcf of natural gas for sale. Our refineries processed approximately 1,177.5 million barrels of crude oil in 2020. In 2020, our revenue was RMB1,933,836 million and net profit attributable to owners of the Company was RMB19,006 million.

Factors Affecting Results of Operations

Our results of operations and the period-to-period comparability of our financial results are affected by a number of external factors, including changes in the prices, production and sales volume of our principal products, operating costs and the regulatory environment.

Prices of Principal Products

The fluctuations in the prices of crude oil, refined products, chemical products and natural gas have a significant impact on our revenue. In the first half of 2020, due to the impact of the COVID-19 pandemic, the oil output policies implemented by certain oil-producing countries and other factors, the international crude oil price displayed in a "V" shape. A rarely seen drastic drop in oil price and an unprecedented negative oil price was reported in the first half of 2020. Although the crude oil price rose steadily after reaching a low point in late April 2020, the crude oil price was generally at a low level throughout the year. The average spot price of North Sea Brent and WTI crude oil in 2020 was US$41.78 per barrel and US$39.28 per barrel, respectively, representing a decrease of 34.9% and 31.1% over 2019, respectively. As a result, 2020 witnessed a drastic decline in the prices of refined oil products and natural gas. See "Item 4 — Information on the Company — Regulatory Matters — Pricing" for a more detailed discussion of current PRC pricing regulations, "Item 3 — Risk Factors — Risks Related to COVID-19" and "Item 3 — Risk Factors — Risks Related to Pricing and Exchange Rate".

The table below sets forth the average realized prices of our principal products in 2018, 2019 and 2020.

	2018	2019	2020
Crude oil (US$/barrel)	68.28	60.96	40.33
Natural gas (US$/thousand cubic feet)	5.85	5.39	4.80
Gasoline (US$/barrel)	124.88	110.63	94.86
Kerosene (US$/barrel)	86.73	78.08	48.67
Diesel (US$/barrel)	110.38	102.16	81.59

Production and Sales Volume for Oil and Gas Products

Our results of operations are also affected by production and sales volumes. Our crude oil and natural gas production volumes depend primarily on the level of the proved developed reserves in the fields in which we have an interest, as well as other factors such as the general macroeconomic environment and market supply and demand conditions, while the sales of crude oil, natural gas, refined oil and chemical products are subject to marketing capabilities and competitive environment.

Operating costs

The general macroeconomic environment and market supply and demand conditions may also affect our operating costs. For example, labor costs and the price index (CPI) in general in the countries where we operate are affected by the global and local macroeconomic environment. Changes in commodity prices may also affect our operating costs, as it would affect our ability to pass on the change in such commodity prices through a change in the prices of our products.

Regulatory Environment

Our operating activities are subject to extensive regulations and control by the PRC government, including the issuance of exploration and production licenses, the imposition of industry-specific taxes or product-specific taxes and levies and the implementation of environmental policies and safety standards. Our results of operations will be affected by any future changes of such regulatory environment.

Pipeline Assets Restructuring

In 2020, we recognized a pre-tax gain of RMB46,946 million from the pipeline assets restructuring transaction. See “Item 4 — Information on the Company — Acquisitions and Divestments”. As a result of the pipeline assets restructuring, we will no longer record revenue and costs (including depreciation and amortization) associated from the disposed target assets. As a shareholder of PipeChina, we apply the equity method to account for the investment in an associate and expect to receive dividends from PipeChina in accordance with their dividend policy. For further details associated with the risks relating to the pipeline asset restructuring, see “Item 3 — Key Information — Risks Related to Pipeline Asset Restructuring”.

Critical Accounting Policies

The preparation of our consolidated financial statements requires our management to select and apply significant accounting policies, the application of which may require management to make judgments and estimates that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities as of the date of our financial statements, and the reported amounts of revenue and expenses during the reporting period. Notwithstanding the presentation of our principal accounting policies in Note 3 to our consolidated financial statements included elsewhere in this annual report, we have identified the accounting policies below as most critical to our business operations and the understanding of our financial condition and results of operations presented in accordance with IFRS. Although these estimates are based on our management’s best knowledge of current events and actions, actual results ultimately may differ from those estimates.

Accounting for Oil and Gas Exploration and Production Activities

We use the successful efforts method of accounting, with specialized accounting rules that are unique to the oil and gas industry, for oil and gas exploration and production activities. Under this method, geological and geophysical costs incurred are expensed when incurred. However, all costs for developmental wells, support equipment and facilities, and proved mineral interests in oil and gas properties are capitalized. Costs of exploratory wells are capitalized as construction in progress pending determination of whether the wells find proved reserves. For exploratory wells located in regions that do not require substantial capital expenditures before the commencement of production, the evaluation of the economic benefits of the reserves in such wells will be completed within one year following the completion of the exploration drilling. Where such evaluation indicates that no economic benefits can be obtained, the relevant costs of exploratory wells will be converted to dry well exploration expenses. The relevant costs will be classified as oil and gas assets and go through impairment review if the evaluation indicates that economic benefits can be obtained. For wells with economically viable reserves in areas where a major capital expenditure would be required before production can begin, the related well costs remain capitalized only if additional drilling is under way or firmly planned. Otherwise the well costs are expensed as dry wells. We have no material costs of unproved properties capitalized in oil and gas properties.

Oil and Gas Reserves

The estimation of the quantities of recoverable oil and gas reserves in oil and gas fields is integral to effective management of our exploration and production operations. Because of the subjective judgments involved in developing and assessing such information, engineering estimates of the quantities of recoverable oil and gas reserves in oil and gas fields are inherently imprecise and represent only approximate amounts.

Before estimated oil and gas reserves are designated as “proved”, certain engineering criteria must be met in accordance with industry standards and the regulations of the SEC. Proved oil and gas reserves are the estimated quantities of crude oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate. Therefore, these estimates do not include probable or possible reserves. Our proved reserves estimates are assessed or audited annually by independent, qualified and experienced oil and gas reserves engineering firms in the United States and Canada. Our oil and gas reserves engineering department has policies and procedures in place to ensure that these estimates are consistent with these authoritative guidelines. Among other factors required by authoritative guidelines, this estimation takes into account recent information about each field, including production and seismic information, estimated recoverable reserves of each well, and oil and gas prices and operating costs as of the date the estimate is made. The price shall be the average price during the 12-month period before the ending date of the period covered by this report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The costs shall be that prevailing at the end of the period.

Despite the inherent imprecision in these engineering estimates, estimated proved oil and gas reserves quantity has a direct impact on certain amounts reported in the financial statements. In addition to the capitalization of costs related to oil and gas properties on the balance sheet discussed earlier, estimated proved reserves also impact the calculation of depreciation, depletion and amortization expenses of oil and gas properties. The cost of oil and gas properties is amortized at the field level on the unit of production method. Unit of production rates are based on the total oil and gas reserves estimated to be recoverable from existing facilities based on the current terms of our production licenses. Our reserves estimates include only crude oil and natural gas which the management believes can be reasonably produced within the current terms of the production

licenses that are granted by the Ministry of Natural Resources, ranging from 30 years to 55 years from the effective date of issuance in March 2000, renewable upon application 30 days prior to expiration. Consequently, the impact of changes in estimated proved reserves is reflected prospectively by amortizing the remaining book value of the oil and gas property assets over the expected future production. If proved reserves estimates are revised downward, earnings could be affected by higher depreciation expense or an immediate write-down of the property's book value had the downward revisions been significant See "— Property, Plant and Equipment" below. Given our large number of producing properties in our portfolio, and the estimated proved reserves, it is unlikely that any changes in reserves estimates will have a significant effect on prospective charges for depreciation, depletion and amortization expenses.

In addition, due to the importance of these estimates in understanding the perceived value and future cash flows of a company's oil and gas operations, we have also provided supplemental disclosures of "proved" oil and gas reserves estimates prepared in accordance with authoritative guidelines elsewhere in this annual report.

Property, Plant and Equipment

Where it is probable that property, plant and equipment, including oil and gas properties, will generate future economic benefits, their costs are initially recorded in the consolidated statement of financial position as assets. Cost represents the purchase price of the asset and other costs incurred to bring the asset into expected use. Subsequent to their initial recognition, property, plant and equipment are carried at cost less accumulated depreciation, depletion and amortization (including any impairment).

Depreciation, to write off the cost of each asset, other than oil and gas properties, to their residual values over their estimated useful lives is calculated using the straight-line method. The Company uses the following useful lives for depreciation purposes:

Buildings and plants	8-40 years
Equipment and machinery	4-30 years
Motor vehicles	4-14 years
Other	5-12 years

No depreciation is provided on construction in progress until the assets are completed and ready for use.

The assets' residual values and useful lives are reviewed, and adjusted as appropriate, at the end of each reporting period.

Property, plant and equipment, including oil and gas properties, are reviewed for possible impairments when events or changes in circumstances indicate that the carrying amount may not be recoverable. Determination as to whether and how much an asset is impaired involves management estimates and judgments such as future crude oil prices, prices of refined products and chemical products, the operation costs, the product mix, production volumes and the oil and gas reserves. Certain estimates and assumptions adopted by the management in the impairment reviews and calculations are formed by the internal professional team (including operations and finance teams) by reference to external institutions' analysis reports and taking into account current economic conditions. The other estimates and assumptions are consistent with the assumptions used in our business plans.

In forming the relevant estimates and assumptions for impairment tests by our management, our internal professional team (including operations and finance teams) forms a preliminary conclusion by reference to the external institutions' analysis reports and our historical financial data, and taking into account current economic conditions and our business plans. Then, the preliminary conclusion is reviewed and approved by the management. The approved estimates and assumptions are then utilized by our subsidiaries and branches to perform the impairment tests.

When determining whether there are indications of impairment for oil and gas properties, we consider internal factors, mainly including the decline of production and reserves volumes at the late development stage of certain oil blocks and a significant drop in economic benefits of certain oil blocks resulting from the lower price of crude oil, and external factors, mainly including a significant drop in international prices of crude oil, resulting from the imbalance of supply and demand of crude oil. When an indication of impairment of certain oil blocks is identified, we will perform the impairment tests on the oil blocks. An impairment loss is recognized for the amount by which the carrying amount of the cash-generating unit exceeds the higher of its fair value less costs to sell and its value in use. Value in use is determined by reference to the discounted expected future cash flows to be derived from the cash-generating unit.

The expected medium-to-long-term future international prices of crude oil utilized by us when estimating the expected future cash flows are determined mainly based upon the forecast of the international prices of crude oil made by principal international investment institutions combined with the judgment and analysis of the future trends of international prices of crude oil made by us. We calculated the expected future cash flows of each oil block according to the estimates of future production volume levels per year stated in the oil and gas reserves reports, the estimates of operation costs of oil and gas made by us, and taking into account its future capital expenditure plan. We refer to the weighted average cost of capital of the oil and gas industry when determining the discount rate and makes relevant adjustments according to specific risks in different countries or regions. In the years ended December 31, 2018, 2019 and 2020, the after-tax discount rates adopted by most of our oil and gas regions were in the range of 7.3% -11.5%, 6.4%-15.4% and 5.9%-12.0%, respectively.

Given the broad scope of our property, plant and equipment, the impairment test involves numerous assumptions, which are interrelated to each other to a certain extent. For example, the estimates and judgments with respect to the product mix, production costs and oil and gas reserves may vary along with the changes in crude oil prices. The sensitivity analysis performed after taking into account the interrelationship among all of the estimates and judgments would be neither cost efficient nor time efficient. As a result, the management believes that a sensitivity analysis of relevant assumptions on impairment is not practicable. Favorable changes to some assumptions might have avoided the need to impair any assets or make it necessary to reverse an impairment loss recognized in prior periods, whereas unfavorable changes might have caused an additional unknown number of other assets to become impaired, or resulted in larger impacts on impaired assets.

Our operating results in the following fiscal year may deviate from management's estimates or judgments. This would require an adjustment to the provision for impairment of the property, plant and equipment disclosed in Note 15 to the consolidated financial statements.

Gains and losses on disposals of property, plant and equipment are determined by reference to their carrying amounts and are recorded in the consolidated profit or loss.

Interest and other costs on borrowings to finance the purchase and construction of property, plant and equipment are capitalized during the period of time that is required to complete and prepare the asset for its intended use. Costs for repairs and maintenance activities are expensed as incurred except for costs of components that result in improvements or betterments which are capitalized as part of property, plant and equipment and depreciated over their useful lives.

Asset Retirement Obligation

Provision is recognized for the future decommissioning and restoration of oil and gas properties. The amounts of the provision recognized are the present values of the estimated future expenditures. The estimation of the future expenditures is based on current local conditions and requirements, including legal requirements, technology, price level, etc. In addition to these factors, the present values of these estimated future expenditures are also impacted by the estimation of the economic lives of oil and gas properties. Changes in any of these estimates will impact the operating results and the financial position of the Company over the remaining economic lives of the oil and gas properties.

Operating Results

The following discussion is based on our historical results of operations. As a result of the factors discussed above, such results of operations may not be indicative of our future operating performance.

Our statement of comprehensive income for each of the years ended December 31, 2018, 2019 and 2020 is summarized in the table below.

	Year Ended December 31,		
	2018	2019	2020
	(RMB in millions)		
Revenue	2,374,934	2,516,810	1,933,836
Operating expenses	(2,251,992)	(2,395,048)	(1,857,899)
Profit from operations	122,942	121,762	75,937
Exchange gain, net	1,120	1	108
Interest expense, net	(18,939)	(26,778)	(23,505)
Share of profit of affiliates and joint ventures	11,647	8,229	3,533
Profit before income tax expense	116,770	103,214	56,073
Income tax expense	(42,790)	(36,199)	(22,588)
Profit for the year attributable to non-controlling interests	20,944	21,333	14,479
Profit for the year attributable to owners of the Company	53,036	45,682	19,006

The table below sets forth our revenue by business segment for each of the years ended December 31, 2018, 2019 and 2020 as well as the percentage changes in revenue for the periods shown.

	2018	2019	2019 vs. 2018	2020	2020 vs. 2019
	(RMB in millions, except percentages)				
Revenue					
Exploration and production	658,712	676,320	2.7%	530,807	(21.5)%
Refining and chemicals	1,013,413	1,000,062	(1.3)%	774,775	(22.5)%
Marketing	1,891,743	2,075,044	9.7%	1,497,533	(27.8)%
Natural gas and pipeline	362,626	391,023	7.8%	370,771	(5.2)%
Headquarters and others	2,376	3,700	55.7%	3,547	(4.1)%
Total	3,928,870	4,146,149	5.5%	3,177,433	(23.4)%
Less: elimination	(1,553,936)	(1,629,339)	4.9%	(1,243,597)	(23.7)%
Consolidated net sales from operations	2,374,934	2,516,810	6.0%	1,933,836	(23.2)%

The table below sets forth our operating income by business segment for each of the years ended December 31, 2018, 2019 and 2020, as well as the percentage changes in operating income for the periods shown. Loss from operations for headquarters and others shown below consists of expenses for research and development, business services and infrastructure support to our operating business segments.

	2018	2019	2019 vs. 2018	2020	2020 vs. 2019
	(RMB in millions, except percentages)				
Profit/(loss) from operations					
Exploration and production	73,519	96,097	30.7%	23,092	(76.0)%
Refining and chemicals	46,879	16,077	(65.7)%	(1,834)	(111.4)%
Marketing	(8,628)	(2,878)	(66.6)%	(2,906)	1.0%
Natural gas and pipeline	25,515	26,108	2.3%	72,410	177.3%
Headquarters and others	(14,343)	(13,642)	(4.9)%	(14,825)	8.7%
Total	122,942	121,762	(1.0)%	75,937	(37.6)%

Year Ended December 31, 2020 Compared to Year Ended December 31, 2019

Consolidated Results of Operations

Overview

In 2020, our revenue was RMB1,933,836 million, representing a decrease of 23.2% as compared to 2019. Net profit attributable to owners of the Company was RMB19,006 million, representing a decrease of 58.4% as compared to 2019. Basic earnings per share were RMB0.10, representing a decrease of RMB0.15 as compared to 2019.

Revenue Revenue decreased by 23.2% from RMB2,516,810 million in 2019 to RMB1,933,836 million in 2020. This was primarily due to the decrease in the sales volume and a sharp decrease in selling prices of the majority of our oil and gas products.

The table below sets out external sales volume and average realized prices for our major products in 2019 and 2020 and the respective percentage of change:

	Sales Volume ('000 ton)			Average Realized Price (RMB/ton)		
	2019	2020	Percentage of Change (%)	2019	2020	Percentage of Change (%)
Crude oil*	150,322	158,266	5.3	3,162	2,070	(34.5)
Natural gas (hundred million cubic meters, RMB/'000 cubic meter)**	2,590.91	2,487.45	(4.0)	1,313	1,170	(10.9)
Gasoline	76,366	66,084	(13.5)	6,487	5,561	(14.3)
Diesel	90,163	80,796	(10.4)	5,286	4,221	(20.1)
Kerosene	21,183	14,350	(32.3)	4,255	2,652	(37.7)
Heavy oil	18,095	30,253	67.2	3,249	2,313	(28.8)
Polyethylene	4,985	5,659	13.5	7,443	6,725	(9.6)
Lubricant	977	1,404	43.7	8,047	6,426	(20.1)

* The sales volumes of crude oil listed above represents all our external sales volume of crude oil.

** The sales volumes of natural gas listed above represents all our external sales volume of natural gas.

Operating Expenses Operating expenses decreased by 22.4% from RMB2,395,048 million in 2019 to RMB1,857,899 million in 2020, of which:

Purchases, Services and Other Expenses Purchases, services and other expenses decreased by 25.3% from RMB1,697,834 million in 2019 to RMB1,267,797 million in 2020. This was primarily due to the decrease in expenses for purchasing oil and gas products and trading.

Employee Compensation Costs Employee compensation costs (including salaries, insurances, housing provident funds and training fees, etc.) decreased by 4.4% from RMB154,318 million in 2019 to RMB147,604 million in 2020. This was primarily due to our performance-compensation linkage mechanism and that the local governments reduced or exempted certain social insurance fees in 2020.

Exploration Expenses Exploration expenses decreased by 6.9% from RMB20,775 million in 2019 to RMB19,333 million in 2020. This was primarily due to the fact that we optimized our exploration plans responding to the changes in oil prices, and controlled exploration expenses.

Depreciation, Depletion and Amortization Depreciation, depletion and amortization decreased by 5.1% from RMB225,262 million in 2019 to RMB213,875 million in 2020. This was primarily due to the combined effect of the decrease in our oil and gas reserves as a result of the decline in oil prices and the pipeline assets restructuring.

Selling, General and Administrative Expenses Selling, general and administrative expenses decreased by 6.2% from RMB68,596 million in 2019 to RMB64,345 million for 2020. This was primarily attributable to our efforts to further promote the improvement of quality and profitability, and strictly control non-production expenses.

Taxes other than Income Taxes Taxes other than income taxes decreased by 14.3% from RMB228,436 million in 2019 to RMB195,850 million in 2020, among which the consumption tax decreased by 11.8% from RMB164,973 million in 2019 to RMB145,525 million in 2020; the resource tax decreased by 24.3% from RMB24,388 million in 2019 to RMB18,468 million in 2020; and crude oil special gain levy decreased by 76.9% from RMB771 million in 2019 to RMB178 million in 2020.

Other Income, net Other income, net increased by RMB50,732 million from RMB173 million in 2019 to RMB50,905 million in 2020, primarily due to the gain from the pipeline assets restructuring in 2020.

Profit from Operations The profit from operations in 2020 was RMB75,937 million, representing a decrease of 37.6% from RMB121,762 million in 2019.

Net Exchange Gain Net exchange gain in 2020 was RMB108 million, representing an increase of RMB107 million from RMB1 million in 2019, primarily due to the impact of changes in exchange rate of US Dollar against Renminbi.

Net Interest Expense Net interest expense decreased by 12.2% from RMB26,778 million in 2019 to RMB23,505 million in 2020, primarily due to the repayment of interest-bearing debts, optimization of debt structure, and the reduction of cost of debts.

Profit Before Income Tax Expense Profit before income tax expense decreased by 45.7% from RMB103,214 million in 2019 to RMB56,073 million in 2020.

Income Tax Expense The income tax expense decreased by 37.6% from RMB36,199 million in 2019 to RMB22,588 million in 2020, which was primarily due to a sharp decrease in the Company's profit before income tax expense over the same period 2019.

Profit for the Year Net profit in 2020 decreased by 50.0% to RMB33,485 million from RMB67,015 million in 2019.

Profit Attributable to Non-controlling Interests Profit attributable to non-controlling interests decreased by 32.1% from RMB21,333 million in 2019 to RMB14,479 million in 2020, which was primarily due to a sharp decrease in profits of our subsidiaries over the same period 2019.

Profit Attributable to Owners of the Company Profit attributable to owners of the Company decreased by 58.4% from RMB45,682 million in 2019 to RMB19,006 million in 2020.

Segment Results

Exploration and Production

Revenue Revenue of the exploration and production segment in 2020 was RMB530,807 million, representing a decrease of 21.5% from RMB676,320 million in 2019, which was primarily due to the overall impact from the increase in sales volume and the decrease in prices of oil and gas products including crude oil and natural gas in this segment. In 2020, the oil imported from Russia, Kazakhstan and others by our company amounted to 39.03 million tons, representing a decrease of 2.3% from 39.95 million tons in 2019. The revenue from the sales of imported oil from Russia, Kazakhstan and others was RMB85,080 million in 2020, representing a decrease of 35.4% from RMB131,723 million in 2019. The average realized crude oil price of our company in 2020 was US$40.33 per barrel, representing a decrease of 33.8% from US$60.96 per barrel in 2019.

Operating Expenses Operating expenses of the exploration and production segment decreased by 12.5% from RMB580,223 million in 2019 to RMB507,715 million in 2020, which was primarily due to the decrease in procurement expenses and taxes other than income tax. In 2020, the cost for importing oil from Russia, Kazakhstan and others amounted to RMB86,388 million, representing a decrease of 34.0% from RMB130,941 million in 2019.

In 2020, our unit oil and gas lifting cost was US$11.10 per barrel, representing a decrease of 8.3% from US$12.11 per barrel in 2019.

Profit from Operations In 2020, our domestic business of the exploration and production segment continued with profitable development, optimized the development plan of each block based on the calculation of marginal profit, enhanced integrated administration covering matters in respect of investment, reserves and costs, and strictly controlled the development cost. Our overseas business coordinated the COVID-19 prevention and control with production and operation, took various measures simultaneously to promote the improvement of quality and profitability, and strived to control and reduce investment and costs. In 2020, affected by a sharp decrease in oil and gas prices, our exploration and production segment realized an operating profit of RMB23,092 million, representing a decrease of 76.0% from RMB96,097 million in 2019.

Refining and Chemicals

In 2020, in order to optimize production, operation and management, we transferred Fuel Oil Company and Lubricant Company from the marketing segment to the refining and chemicals segment. Accordingly, the comparative data in respect of the refining and chemicals segment and the marketing segment have been restated, as if the two companies were incorporated in the refining and chemicals segment since the earliest financial year presented. See Note 38 to our financial statements.

Revenue Revenue of the refining and chemicals segment decreased by 22.5% from RMB1,000,062 million in 2019 to RMB774,775 million in 2020, primarily due to the comprehensive impact of various factors, including the decrease in sales volume and prices of refined oil products and the increase in sales volume, but the decrease in prices, of chemical products.

Operating Expenses Operating expenses of the refining and chemicals segment decreased by 21.1% from RMB983,985 million in 2019 to RMB776,609 million in 2020, primarily due to the decrease in procurement costs of crude oil and feedstock, and the decrease in taxes and sales and administrative expenses.

In 2020, the cash processing cost of our refineries was RMB163.90 per ton, decreased by 2.8% from RMB168.64 per ton in 2019, primarily due to the decrease in the cost of power.

(Loss)/Profit from Operations In 2020, the refining and chemicals segment adhered to market orientation, timely adjusted processing load in response to market changes and optimized product mix to use its best endeavor to ensure the safe operation of the industrial chain and maximization of profitability. We also strengthened technology research, and increased the production of high-end and high value-added chemical products to increase the profitability of our chemical business. In the meantime, we strengthened cost control by continuously reducing processing costs. However, affected by the narrowing margins of the refining business, the refining and chemicals segment in 2020 recorded an operating loss of RMB1,834 million as compared to an operating profit of RMB16,077 million in 2019. Among that, the refining operations recorded an operating loss of RMB12,801 million, as compared to an operating profit of RMB12,650 million in 2019, while the chemical operations realized an operating profit of RMB10,967 million, representing an increase of 220.0%, as compared to RMB3,427 million in 2019.

Marketing

In 2020, in order to optimize production, operation and management, we transferred Fuel Oil Company and Lubricant Company from the marketing segment to the refining and chemicals segment. Accordingly, the comparative data in respect of the refining and chemicals segment and the marketing segment have been restated, as if the two companies were incorporated in the refining and chemicals segment since the earliest financial year presented. See Note 38 to our financial statements.

Revenue Revenue of the marketing segment decreased by 27.8% from RMB2,075,044 million in 2019 to RMB1,497,533 million in 2020, primarily due to a decrease in sales volume and decline in price of refined oil products.

Operating Expenses Operating expenses of the marketing segment decreased by 27.8% from RMB2,077,922 million for 2019 to RMB1,500,439 million for 2020, primarily due to the decrease in expenditures for the external purchase of refined oil products.

Loss from Operations In 2020, the marketing segment strived to overcome the adverse impact of the COVID-19 pandemic on market demand by intensifying efforts in market analysis and flexibly adjusted marketing tactics. We used our best endeavor to increase the sales volume and output in key areas and to increase the retail sale of refined products, and strengthened refined marketing and precision marketing to improve the price realization rate. Based on our internal profitability estimation, we strengthened the interaction between the domestic and international markets and optimized the refined oil export plan, which led to an improvement in the overall profitability of the value chain. In 2020, the marketing segment recorded an operating loss of RMB2,906 million, representing an increase in loss of RMB28 million as compared to the operating loss of RMB2,878 million in 2019.

Natural Gas and Pipeline

Revenue Revenue of the natural gas and pipeline segment amounted to RMB370,771 million in 2020, representing a decrease of 5.2% as compared to RMB391,023 million in 2019, primarily due to the comprehensive impact of various factors, including the increase in the sales volume and the decrease in the price of natural gas in this segment.

Operating Expenses Operating expenses of the natural gas and pipeline segment amounted to RMB298,361 million in 2020, representing a decrease of 18.2% as compared to RMB364,915 million in 2019, primarily due to the decrease in expenditures for natural gas purchases.

Profit from Operations In 2020, the natural gas and pipeline segment actively optimized the resource structure, strived for full production and full sales of domestically produced gas, and reduced resource procurement costs. By making targeted marketing and service plans based on the customer needs and developing the profitable markets, we intensively enhanced our sales capability in respect of retail sales to end users. In 2020, benefiting from the gain from the pipeline assets restructuring and quality and profitability enhancement measures, the natural gas and pipeline segment realized an operating profit of RMB72,410 million, representing an increase of 177.3% as compared to RMB26,108 million in 2019.

In 2020, the sale of imported natural gas recorded a net loss of RMB14,159 million, representing a reduction of loss of RMB16,551 million as compared to 2019, demonstrating a remarkable achievement in loss control, primarily due to the comprehensive impact of various factors, including from quality improvement and profitability enhancement measures adopted by us and the sharp decline in the costs of imported natural gas as a result of a decrease in the price of imported gas. We expect to continue to adopt effective measures to control losses arising from sale of imported natural gas.

In 2020, our international operations (please see the note below) realized a revenue of RMB721,015 million, accounting for 37.3% of our total revenue. Profit before income tax expense amounted to RMB8,093 million. Our international operations maintained a stable development while further improving our international operating capability.

Note: Our four operating segments are exploration and production, refining and chemicals, marketing as well as natural gas and pipeline. International operations do not constitute a separate operating segment. The financial data of international operations are included in the financial data of the respective operating segments mentioned above.

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Consolidated Results of Operations

Overview

In 2019, our revenue was RMB2,516,810 million, representing an increase of 6.0% as compared to 2018. Net profit attributable to owners of the Company was RMB45,682 million, representing a decrease of 13.9% as compared to 2018. Basic earnings per share were RMB0.25, representing a decrease of RMB0.04 as compared to 2018.

Revenue Revenue increased by 6.0% from RMB2,374,934 million in 2018 to RMB2,516,810 million in 2019. This was primarily due to the comprehensive impact of the increase in sales volume, partially offset by a decrease in selling prices of a majority of oil and gas products.

The table below sets out external sales volume and average realized prices for our major products in 2018 and 2019 and the respective percentage of change:

	Sales Volume ('000 ton)			Average Realized Price (RMB/ton)		
	2018	2019	Percentage of Change (%)	2018	2019	Percentage of Change (%)
Crude oil*	110,457	150,322	36.1	3,213	3,162	(1.6)
Natural gas (hundred million cubic meters, RMB/'000 cubic meter)**	2,167.54	2,590.91	19.5	1,367	1,313	(4.0)
Gasoline	71,125	76,366	7.4	7,024	6,487	(7.6)
Diesel	86,904	90,163	3.8	5,478	5,286	(3.5)
Kerosene	20,619	21,183	2.7	4,534	4,255	(6.2)
Heavy oil	19,964	18,095	(9.4)	3,335	3,249	(2.6)
Polyethylene	4,644	4,985	7.3	8,816	7,443	(15.6)
Lubricant	1,158	977	(15.6)	7,875	8,047	(2.2)

* The sales volumes of crude oil listed above represents all our external sales volume of crude oil.

** The sales volumes of natural gas listed above represents all our external sales volume of natural gas, and the decrease in average realized price of natural gas in 2019 as compared to 2018 was primarily due to a decrease in the average realized price of natural gas in our international trade business.

Operating Expenses Operating expenses increased by 6.4% from RMB2,251,992 million in 2018 to RMB2,395,048 million in 2019, of which:

Purchases, Services and Other Expenses Purchases, services and other expenses increased by 9.3% from RMB1,553,784 million in 2018 to RMB1,697,834 million in 2019. This was primarily due to an increase in our expenses relating to purchase of oil and gas products and other international trading activities.

Employee Compensation Costs Employee compensation costs (including salaries and additional costs such as insurance, housing provident funds and training fees) increased by 6.9% from RMB144,391 million in 2018 to RMB154,318 million in 2019. This was primarily due to the increase in employee remuneration and contribution to social security funds.

Exploration Expenses Exploration expenses increased by 10.9% from RMB18,726 million in 2018 to RMB20,775 million in 2019. This was primarily due to increased exploration efforts to enhance reserves and production.

Depreciation, Depletion and Amortization Depreciation, depletion and amortization decreased by 3.0% from RMB232,276 million in 2018 to RMB225,262 million in 2019. This was primarily due to a combined effect of our provision of asset impairment in order to optimize asset structure and solidify asset quality, and implementation of the new lease standards. As a result of implementation of the new lease standards, we recognized depreciation expenses of RMB14,973 million over the assets that we had right of use in 2019.

Selling, General and Administrative Expenses Selling, general and administrative expenses decreased by 7.9% from RMB74,477 million in 2018 to RMB68,596 million in 2019. This was primarily due to the fact that we strictly controlled non-production expenses in order to continue to implement the plan of broadening sources of income, reducing expenditures and costs, and enhancing profitability, and a decrease of RMB16,682 million in lease expenditures as compared to 2018 as a result of implementation of new lease standards.

Taxes other than Income Taxes Taxes other than income taxes increased by 3.5% from RMB220,677 million for 2018 to RMB228,436 million in 2019, among which the consumption tax increased by

RMB12,479 million from RMB152,494 million in 2018 to RMB164,973 million in 2019; the resource tax increased by RMB49 million from RMB24,339 million in 2018 to RMB24,388 million in 2019; and crude oil special gain levy decreased by RMB3,979 million from RMB4,750 million in 2018 to RMB771 million in 2019.

Other Income/(Expenses), net Net other income in 2019 was RMB173 million, while the net other expenses in 2018 was RMB7,661 million, primarily due to a decrease in net losses from disposal of fixed assets and oil and gas assets.

Profit from Operations The profit from operations in 2019 was RMB121,762 million, representing a decrease of 1.0% from RMB122,942 million in 2018.

Net Exchange Gain Net exchange gain in 2019 was RMB1 million, representing a decrease of 99.9% from RMB1,120 million in 2018. This is primarily due to the changes in exchange rate of the Renminbi against the US Dollar during the period.

Net Interest Expense Net interest expense increased by 41.4% from RMB18,939 million in 2018 to RMB26,778 million in 2019, primarily due to the effects of lease liabilities recognized under the new lease standards and the accrued interest expenses. Excluding the impact of the new lease standards, net interest expenses increased by 1.9% as compared to 2018.

Profit Before Income Tax Expense Profit before income tax expense decreased by 11.6% from RMB116,770 million in 2018 to RMB103,214 million in 2019.

Income Tax Expense The income tax expense decreased by 15.4% from RMB42,790 million in 2018 to RMB36,199 million in 2019, which was primarily due to the decrease in our profit before income tax expense in 2019 as compared to 2018.

Profit for the Year Net profit in 2019 decreased by 9.4% to RMB67,015 million from RMB73,980 million in 2018.

Profit Attributable to Non-controlling Interests Profit attributable to non-controlling interests increased by 1.9% from RMB20,944 million in 2018 to RMB21,333 million in 2019, primarily due to changes in the profit structure our subsidiaries.

Profit Attributable to Owners of the Company Profit attributable to owners of the Company decreased by 13.9% from RMB53,036 million in 2018 to RMB45,682 million in 2019.

Segment Results

Exploration and Production

Revenue Revenue of the exploration and production segment in 2019 was RMB676,320 million, representing an increase of 2.7% from RMB658,712 million in 2018. This increase was primarily due to the increase in the sales volume of oil and gas, partially offset by the decline in the price of crude oil. In 2019, the oil imported from Russia, Kazakhstan and certain other countries amounted to 39.95 million tons, representing an increase of 8.9% over the 36.69 million tons in 2018. The revenue from the sales of imported oil from Russia, Kazakhstan and certain other countries was RMB131,723 million in 2019, representing an increase of 2.7% from RMB128,308 million in 2018. The average realized crude oil price of our company in 2019 was US$60.96 per barrel, representing a decrease of 10.7% from US$68.28 per barrel in 2018.

Operating Expenses Operating expenses of the exploration and production segment decreased by 0.8% from RMB585,193 million in 2018 to RMB580,223 million in 2019. This was primarily due to a decrease in

depreciation, depletion and amortization, and taxes and fees other than income tax, partially offset by an increase in exploration costs. In 2019, The cost for importing oil from Russia, Kazakhstan and certain other countries amounted to RMB130,941 million, representing an increase of 1.8% from RMB128,637 million in 2018. In 2019, the unit oil and gas lifting cost of our company was US$12.11 per barrel, representing a decrease of 1.6% from US$12.31 per barrel in 2018.

Profit from Operations In 2019, our domestic operations adhered to the principle of profit-orientation to promote the increase of reserves and production, realized an increase in crude oil production and a significant increase in natural gas production, strengthened the control of investment costs at the source, refined the management of production and operation costs, and promoted quality improvement and profitability. Our overseas operations, adhered to profitable development, strictly managed early-stage investment projects, optimized the investment structure, and strived to promote sales and maximize revenue. In 2019, the exploration and production segment realized an operating profit of RMB96,097 million, representing an increase of 30.7% from RMB73,519 million in 2018, maintaining its status as a main profit contributor of our company.

Refining and Chemicals

Revenue The revenue of the refining and chemicals segment decreased by 1.3% from RMB1,013,413 million in 2018 to RMB1,000,062 million in 2019, primarily due to a combined effect of the changes in sales volume and prices of refined oil products, and the marketization of internal settlement prices.

Operating Expenses Operating expenses of the refining and chemicals segment increased by 1.8% from RMB966,534 million in 2018 to RMB983,985 million in 2019, primarily due to an increase in the cost of crude oil and feedstock, and an increase in the production costs of auxiliary materials and power.

In 2019, the cash processing cost of refineries of our company was RMB168.64 per ton, remaining basically the same as compared to 2018.

Profit from Operations In 2019, the refining and chemicals segment continued to deepen benchmarking management to facilitate the transition from cost benchmarking to business benchmarking; tap into internal talent and vigorously strengthen management and control over costs and expenses; adhere to the principles of market and profit-orientation, promote the upgrading of refined oil quality and the research and development of high value-added chemical products, optimize product mix and enhance profitability. However, as affected by factors such as excessive domestic refining capacity, narrower margins, a fall in prices of chemical products and the marketization of internal settlement prices which resulted in a fall in prices, the refining and chemicals segment realized an operating profit of RMB16,077 million in 2019, representing a decrease of 65.7% as compared to RMB46,879 million in 2018. Specifically, the refining operations recorded an operating profit of RMB126,50 million, representing a decrease of 67.6% as compared to RMB39,056 million in 2018, while the chemical operations realized an operating profit of RMB3,427 million, representing a decrease of 56.2%, as compared to RMB7,823 million in 2018.

Marketing

Revenue The revenue of the marketing segment increased by 9.7% from RMB1,891,743 million in 2018 to RMB2,075,044 million in 2019, primarily due to an increase in international trading volume of oil and gas products.

Operating Expenses Operating expenses of the marketing segment increased by 9.3% from RMB1,900,371 million in 2018 to RMB2,077,922 million in 2019, primarily due to an increase in the expenditures for purchase of refined oil.

Loss from Operations In 2019, the marketing segment actively responded to the challenges of excessive market resources and intensified competition, deepened the regional precise marketing and integrated marketing

of refined products, fuel cards, non-oil business, and lubricants, accelerated the establishment of new retail models, and strived to pursue quality and profitability. In international trade, it accelerated the development of its global logistics and marketing network and strengthened the synergy between domestic and international resources to enhance profitability. In 2019, due to the strengthening of marketing measures and the marketization of internal settlement, the marketing segment recorded an operating loss of RMB2,878 million, representing a decrease in loss of RMB5,750 million as compared to the operating loss of RMB8,628 million in 2018.

Natural Gas and Pipeline

Revenue The revenue of the natural gas and pipeline segment amounted to RMB391,023 million in 2019, representing an increase of 7.8% as compared to RMB362,626 million in 2018, primarily due to an increase in the sales volume of natural gas.

Operating Expenses Operating expenses of the natural gas and pipeline segment amounted to RMB364,915 million in 2019, representing an increase of 8.2% as compared to RMB337,111 million in 2018, primarily due to the increase in the expenditure of natural gas purchase.

Profit from Operations In 2019, the natural gas and pipeline segment, based on the overall coordinated and effective operation of the industrial chain, deepened our resource management through "tagging", prioritized the full production and sales of domestic gas, effectively controlled resource costs, continuously optimized resource flows and sales structures, and vigorously promoted online transactions. While consolidating the wholesale market, we actively expanded the end market. In 2019, the natural gas and pipeline segment realized an operating profit of RMB26,108 million, representing an increase of 2.3% as compared to RMB25,515 million in 2018.

In 2019, the natural gas and pipeline segment took active measures to control the loss from imported natural gas. However, as the cost of imported natural gas increased due to the changes in exchange rates, while the increases in the domestic natural gas price were restricted under a nationwide policy environment of reducing taxes and fees, the segment recorded a net loss of RMB30,710 million in sales of imported natural gas, representing an increase of loss of RMB5,803 million as compared to last year. We will endeavor to adopt effective measures to control losses.

In 2019, our international operations realized a revenue of RMB1,040,117 million, accounting for 41.3% of our total revenue. Profit before income tax expenses amounted to RMB18,885 million. Our international operations maintained stable development and further improved our operating ability internationally.

Liquidity and Capital Resources

Our primary sources of funding include cash generated by operating activities and short-term and long-term borrowings, which are expected to be sufficient for our funding requirements for at least the next twelve months. Our primary uses of funds were for operating activities, capital expenditures, repayment of short-term and long-term borrowings and distributions of dividends to shareholders. Our payments to CNPC are limited to dividends and payments for services provided to us by CNPC. For 2020, we have distributed interim dividends of RMB16 billion to our shareholders. Based on an overall consideration of various factors, including our operating performance, financial status, cash flows and income from pipeline assets restructuring, our board of directors recommended the final dividends for 2020 of RMB16 billion, which once approved at our general meeting to be held in June 2021 would result in the aggregate dividends for 2020 to amount to RMB32 billion. See "Item 8 — Financial Information — Dividend Policy" for a discussion of factors which may affect the determination by our board of directors of the appropriate level of dividends.

Our financing ability may be limited by our financial condition, our results of operations and the international and domestic capital markets. Prior to accessing the international and domestic capital markets, we

generally need to obtain approval from the relevant PRC government authorities. In general, we need to obtain PRC government approval for any project involving significant capital investment for our refining and chemicals, marketing and natural gas and pipeline segments. For a more detailed discussion of factors which may affect our ability to satisfy our financing requirements, see "Item 3 — Key Information — Risk Factors — Risks Related to Liquidity".

We plan to fund the capital and related expenditures described in this annual report principally through cash from operating activities, short-term and long-term borrowings and cash and cash equivalents. Net cash flows from operating activities in the year ended December 31, 2020 was RMB318,575 million. As of December 31, 2020, we had cash and cash equivalents of RMB118,631 million. While each of the projects described in this annual report for which significant capital expenditures will be required is important to our future development, we do not believe that failure to implement any one of these projects would have a material adverse effect on our financial condition or results of operations. If the price of crude oil declines sharply in the future, it is likely that we would delay or reduce the scale of the capital expenditures for each segment.

We currently do not have any outstanding options, warrants or other rights for any person to require us to issue any common stock at a price below its market value. We do not currently intend to issue any such rights or to otherwise issue any common stock for a price below its market value.

In addition, as of December 31, 2020, we did not have any transactions, arrangements or other relationships with unconsolidated entities or other persons that are reasonably likely to materially affect the liquidity or availability of or requirements for our capital resources.

The table below sets forth our net cash flows for each of the years ended December 31, 2018, 2019 and 2020 and the balance of our cash and cash equivalents at the end of each of such years.

	Year Ended December 31,		
	2018	2019	2020
	(RMB in millions)		
Net cash flows from operating activities	353,256	359,610	318,575
Net cash flows used for investing activities	(267,812)	(332,948)	(181,986)
Net cash flows used for financing activities	(125,703)	(27,276)	(99,400)
Currency translation difference	2,513	1,069	(4,967)
Cash and cash equivalents	85,954	86,409	118,631

Our cash and cash equivalents increased by 37.3% from RMB86,409 million as of December 31, 2019 to RMB118,631 million as of December 31, 2020. The cash and cash equivalents were mainly denominated in US Dollar and Renminbi (approximately 55.1% were denominated in US Dollar, approximately 36.2% were denominated in Renminbi, approximately 6.5% were denominated in HK Dollar and approximately 2.2% were denominated in other currencies).

Net Cash Flows from Operating Activities

Our net cash flows from operating activities amounted to RMB318,575 million for the year ended December 31, 2020, representing a decrease of 11.4% from RMB359,610 million in 2019. This was mainly due to the combined impact from the decrease in profit and the change in working capital during the reporting period.

Our net cash flows from operating activities amounted to RMB359,610 million for the year ended December 31, 2019, representing an increase of 1.8% from RMB353,256 million in 2018. This was mainly due to a combined effect of the changes in inventories, receivables, payables and contract obligations during the reporting period.

Net Cash Flows Used for Investing Activities

Our net cash flows used for investing activities in 2020 amounted to RMB181,986 million, representing a decrease of 45.3% from RMB332,948 million in 2019. The decrease was primarily due to the combined effects of reduction of capital expenditures arising from our optimization of investment scale based on changes in oil prices, and the pipeline assets restructuring.

Our net cash flows used for investing activities in 2019 amounted to RMB332,948 million, representing an increase of 24.3% from RMB267,812 million in 2018. The increase was primarily due to an increase in capital expenditures in 2019.

Net Cash Flows Used for Financing Activities

Our net cash used for financing activities in 2020 was RMB99,400 million, representing an increase of 264.4% from RMB27,276 million in 2019. This was primarily due to the increase in repayment of borrowings during the reporting period.

Our net cash flows used for financing activities in 2019 was RMB27,276 million, representing a decrease of 78.3% from RMB125,703 million in 2018. This was primarily due to the changes in long and short-term borrowings during the reporting period.

Our net borrowings as of December 31, 2018, 2019 and 2020 were as follows:

	As of December 31,		
	2018	2019	2020
	(RMB in millions)		
Short-term borrowings (including current portion of long-term borrowings)	145,150	175,840	117,542
Long-term borrowings	269,422	290,882	251,379
Total borrowings	414,572	466,722	368,921
Less: cash and cash equivalents	85,954	86,409	118,631
Net borrowings	328,618	380,313	250,290

The following table sets out the remaining contractual maturity of borrowings as of December 31, 2019 and 2020 according to the earliest contractual maturity dates. The amounts set out below are contractual undiscounted cash flows, including principal and interest:

	As of December 31,	
	2019	2020
	(RMB in million)	
Within 1 year	188,771	124,777
Between 1 and 2 years	30,090	53,526
Between 2 and 5 years	253,918	188,012
After 5 years	31,576	27,894
Total	504,355	394,209

Our total borrowings as of December 31, 2020 consisted of approximately 52.1% of fixed-rate loans and approximately 47.9% of floating-rate loans. Of our borrowings as of December 31, 2020, approximately 71.2% were denominated in Renminbi, approximately 26.7% were denominated in US Dollars and approximately 2.1% were denominated in other currencies.

Our total borrowings as of December 31, 2019 consisted of approximately 53.6% of fixed-rate loans and approximately 46.4% of floating-rate loans. Of our borrowings as of December 31, 2019, approximately 76.4%

were denominated in Renminbi, approximately 21.5% were denominated in US Dollars and approximately 2.1% were denominated in other currencies.

Our total borrowings as of December 31, 2018 consisted of approximately 48.6% of fixed-rate loans and approximately 51.4% of floating-rate loans. Of our borrowings as of December 31, 2018, approximately 71.8% were denominated in Renminbi, approximately 25.9% were denominated in US Dollars and approximately 2.3% were denominated in other currencies.

Our debt to capital ratio (calculated by dividing interest-bearing debts by the aggregate of interest-bearing debts and shareholder's equity; interest-bearing debts including various long and short term borrowings) as of December 31, 2018, 2019 and 2020 was 22.7%, 24.4% and 21.3%.

As of December 31, 2020, the outstanding amount of our debts secured by CNPC and its subsidiaries and other third parties was RMB13,726 million.

Capital Expenditures and Investments

In 2020, we flexibly adjusted and optimized the scale and structure of our investments in response to changes in oil prices, operating profitability and cash flow, and coordinated the promotion of the construction of our key projects. In 2020, our capital expenditures amounted to RMB246,493 million, representing a decrease of 16.9% from RMB296,776 million in 2019.

The table below sets forth our capital expenditures and investments by business segment for each of the years ended December 31, 2018, 2019 and 2020, and the estimated amounts for 2021.

	2018		2019		2020		2021 (estimated)	
	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%	(RMB in millions)	%
Exploration and production[1]	196,109	76.57	230,117	77.54	186,620	75.71	175,200	73.31
Refining and chemicals	15,783	6.16	21,823	7.35	21,810	8.85	38,000	15.90
Marketing	16,646	6.50	17,074	5.76	16,294	6.61	12,200	5.10
Natural gas and pipeline	26,502	10.35	27,004	9.10	21,143	8.58	13,000	5.44
Headquarters and others	1,066	0.42	758	0.25	626	0.25	600	0.25
Total	256,106	100.00	296,776	100.00	246,493	100.00	239,000	100.00

(1) If investments related to geological and geophysical exploration costs are included, the capital expenditures and investments for the exploration and production segment in each of 2018, 2019, 2020, and estimated amount for 2021 would be RMB206,256 million and RMB241,992 million, and RMB1,970,19 million, and RMB186,200 million, respectively.

As of December 31, 2020, the capital commitments contracted but not provided for by us were approximately RMB714 million.

Exploration and Production

A majority of our capital expenditures and investments relate to our exploration and production segment. For the years ended December 31, 2018, 2019 and 2020, the capital expenditures in relation to the exploration and production segment amounted to RMB196,109 million, RMB230,117 and RMB186,620 million, respectively. In 2020, our capital expenditures were primarily used for exploration and development activities in the key basins such as Songliao Basin, Erdos Basin, Tarim Basin, Sichuan Basin and Bohai Bay Basin, enhancing the development of unconventional resources such as shale gas and profitable development from existing projects in joint cooperation areas in the Middle East, Central Asia, America and the Asia Pacific region.

We estimate that our capital expenditures for the exploration and production segment for 2021 will be RMB175,200 million, which is expected to be used primarily for sizable and profitable exploration and development in key basins such as Songliao, Ordos, Tarim, Sichuan and Bohai Bay, enhancing the development of unconventional resources such as shale gas and shale oil, and promotion of new energy projects including clean energy alternatives. In adherence to the principle of optimized development, our overseas operations will continue to focus on the operation of existing projects in joint cooperation areas in the Middle East, Central Asia, America and the Asia Pacific region while seeking new projects of high quality.

Refining and Chemicals

Our capital expenditures for our refining and chemicals segment for each of the years ended December 31, 2018, 2019 and 2020 were RMB15,783 million, RMB21,823 million and RMB21,810 million, respectively. In 2020, our capital expenditures were mainly spent on the construction of large-scale refining and chemicals facilities, including projects such as the refining-chemical integration project at Guangdong Petrochemical, the project in relation to adjustment of product mix at Daqing Petrochemical, the large-scale refining-chemical projects of producing ethylene out of ethane in Tarim and Changqing, and certain other upgrading projects.

It is estimated that the capital expenditures for the refining and chemicals segment for 2021 will be RMB38,000 million, which is expected to be used primarily for the construction of large-scale refining and chemical projects, such as integration project of refining and chemicals at Guangdong Petrochemical, the projects in relation to the ethane to ethylene projects at Tarim and Changqing, and certain transformation and upgrading projects in relation to reduction of refined products, enhancement of chemical products, new materials and new technologies.

Marketing

Our capital expenditures for our marketing segment for each of the years ended December 31, 2018, 2019 and 2020 were RMB16,646 million, RMB17,074 million and RMB16,294 million, respectively. Our capital expenditures for the marketing segment in 2020 were mainly used for the expansion of the end-user sales network within the domestic refined oil market, and the construction of overseas oil and gas centers for storage and transmission and sales facilities.

It is estimated that the capital expenditures for the marketing segment for 2021 will be RMB12,200 million, which is expected to be used primarily for construction and expansion of refined oil sales networks and the construction of the overseas oil and gas centers storage and transmission facilities.

Natural Gas and Pipeline

Our capital expenditures for the natural gas and pipeline segment for each of the three years ended December 31, 2018, 2019 and 2020 were RMB26,502 million, RMB27,004 million and RMB21,143 million, respectively. Our capital expenditures for the natural gas and pipeline segment in 2021 were mainly used for construction of important natural gas trunk line projects such as the China-Russia East Natural Gas Pipeline, Shenzhen LNG storage and transmission facilities for peak regulation, and branch lines and sales terminals.

We estimate that our capital expenditures for the natural gas and pipeline segment for 2021 will be RMB13,000 million, which is expected to be used primarily for the construction of LNG receiving stations, natural gas branch lines, market developments targeted at urban gas market end-users, and new energy collaboration projects such as natural gas power generations.

Headquarters and Others

Our non-segment capital expenditures and investments for each of the years ended December 31, 2018, 2019 and 2020 were RMB1,066 million, RMB758 million and RMB626 million, respectively, which were primarily used for setting up the research test platform and development of our IT system.

We estimate that our capital expenditures for the head office and other segments for 2021 will be RMB600 million, which is expected to be used primarily for the enhancement of research facilities and development of our IT systems.

Off-Balance Sheet Arrangements

As of December 31, 2020, there were no off-balance sheet arrangements that had or were reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Long-Term Contractual Obligations and Other Commercial Commitments and Payment Obligations

All information that is not historical in nature disclosed under "Item 5 — Operating and Financial Review and Prospects — Long-Term Contractual Obligations and Other Commercial Commitments and Payment Obligations" is deemed to be a forward-looking statement. See "Forward-Looking Statements" for additional information.

The tables below set forth our long-term contractual obligations outstanding as of December 31, 2020.

	Payment Due by Period				
Contractual Obligations	**Total**	**Less Than 1 Year**	**1-3 Years**	**3-5 Years**	**After 5 Years**
	(RMB in millions)				
Long-term debt	326,567	74,743	118,508	107,649	25,667
Lease obligations	205,889	11,824	20,667	19,431	153,967
Capital commitments	714	530	184	0	0
Debt-related interest	26,292	8,237	11,482	4,021	2,552
Total	559,462	95,334	150,841	131,101	182,186

We are obligated to make annual payment with respect to our exploration and production licenses to the Ministry of Natural Resources. The table below sets forth the estimated amount of the annual payments in the next five years:

Year	**Annual Payment**
	(RMB in millions)
2021	800
2022	800
2023	800
2024	800
2025	800

Assets Retirement Obligation

Most of the provinces and regions in which our oil and gas exploration and production activities are located have promulgated environmental protection regulations, which set forth specific abandonment and disposal processes for oil and gas exploration and production activities. We have established standard abandonment procedures, including plugging all retired wells, dismantling all retired metering stations and other related facilities and performing site restoration, in response to the issuance of these provincial and regional regulations. As of December 31, 2020, the balance of assets retirement obligation was RMB114,819 million.

Research and Development

We have three research institutions under the supervision of our research and development management department at our headquarters. Except for those branch companies which are engaged in marketing activities, each of our other branch companies has its own research and development management department. Most of our branch companies have their own research institutions. Our research and development management departments are mainly responsible for managing and coordinating the research and development activities conducted by each of the research institutions. As of December 31, 2020, we had 30,083 employees in our research and development departments and institutions.

In each of the years ended December 31, 2018, 2019 and 2020, our total expenditures for research and development (including capitalized expenditures) were approximately RMB21,045 million, RMB21,410 million and RMB22,921 million, respectively.

Exploration and Production

Most of China's major oil and gas fields are characterized by a broad range of geological conditions, and a majority of China's oil and gas fields are in continental sedimentary basins with complex structures. Our research and development efforts with respect to our exploration and production business focus on:

- theories and technologies of crude oil and natural gas exploration;
- oil and gas development theories and technologies;
- engineering technologies and equipment;
- theories and technologies for oil and gas storage and transportation; and
- technologies for security, energy conservation and environmental protection.

Refining and Chemicals

Currently, our research and development efforts in the refining and chemicals segment are focusing on the following areas:

- technologies for clean refined oil products;
- technologies for unqualified heavy oil processing;
- refining-chemical integration technologies;
- technologies for production of olefin aromatics;
- technologies for new products of synthetic resin and synthetic rubber;
- new catalyst and catalytic materials; and
- technologies for safety, energy saving and environmental protection.

Trend Information

In 2021, the global economy is expected to recover, thanks to the COVID-19 control measures and vaccination and economic stimuli measures implemented by major economies, although unstably and unevenly. The imbalance between strong supply and weak demand in the global oil market is expected to ease and international oil prices are expected to stabilize and rebound, but it is expected to remain in the low and medium range. China's overall economic performance is expected to be positive, but it faces risks of resurgence of COVID-19 and uncertainties from the external macro-environment. We will adhere to the new development

concept and implement the requirements for high-quality development by vigorously carrying out the five development strategies regarding innovation, resources, marketization, internationalization, green and low-carbon. We will continue to implement robust corporate governance in accordance with laws and regulations and solidify our foundation for safety and environmental protection. While further implementing reform and innovation and endeavoring to develop our main businesses, we will also actively promote a green and low-carbon transformation and focus on digital transformation and smart development. We will continue to improve the quality and profitability of our operations, and strive to create value for our shareholders.

In respect of the exploration and production business, we will strengthen risk exploration, focusing on six areas, namely marine carbonate rocks, foreland thrust belt, lithologic strata, shale oil and gas, new areas and offshore areas, striving to achieve strategic discoveries and breakthroughs. Emphasizing concentrated exploration in key areas, we will accelerate the implementation of large-scale exploration areas such as Chang 7 shale oil in Ordos and the North Slope of the central Sichuan paleo uplift, and actively prepare for strategic replacement areas or major replacement fields such as the Permian volcanic rocks in West Sichuan Basin and the Kuche Qiulitag structural belt in the Tarim Basin. We will intensify our efforts in profitable exploration by strengthening the administration of mining rights, accelerating the process from exploration to production and innovatively selecting and transferring mining rights, strengthening our operations focused on reserves value and continuously improving the replacement rate of reserves. We will focus on stable and profitable production in existing oil and gas fields, so as to control the decline rate and increase the recovery rate. We will attach importance to the profitable development in new areas, organize the implementation of production capacity construction projects in strict accordance with the design plan, and reach the standards and production targets set out in the objectives of such plan.

In respect of the refining and chemicals business, we will adhere to the concept of "molecular refining", optimize the allocation of crude oil resources based on the conditions and locations of the equipment, and give preferences to enterprises which are more profitable or equipped for refinery and chemical integrated development. We will adjust our product mix in light of market demands through intensifying our efforts in reducing oil and increasing chemicals production and increasing the output of high value-added oil refinery products such as high-grade gasoline, aviation kerosene, paraffin wax, lubricating oil, asphalt and low-sulfur fuel oil. We will also maintain the operation of chemical facilities under high load and long cycle, accelerate the development of new materials and new products, and increase the proportion of high-end, high value-added and specialized chemical products. As part of deepening our benchmark management, we will continue to improve economic and technical indicators and increase the comprehensive commodity rate. Two projects that use ethane to produce ethylene, namely, Changqing and Tarim, are expected to be completed and launched on schedule, and the construction of key projects in Guangdong Petrochemical are expected to be expedited.

In respect of the marketing business, we will strive to increase our market share and use our best endeavors to expand sales in order to ensure unobstructed marketing channels for our own refineries. In order to comprehensively optimize our marketing strategies, we will accurately study and assess the market and subdivide the market to establish a lattice client development and maintenance system, and formulate marketing plans by region, enterprise and variety. In the meantime, we will adhere to the principle of focusing on retail and enlarge the scale of retailing, endeavor to increase the price realization rate, and achieve an organic alignment between sales volume and profitability. We will develop new networks and optimize existing networks in a refined and differentiated way, while expanding the asset-light network in a diversified manner. To highlight the specialized operation of our non-oil business, we will deploy cross-sector cooperative retail outlets, accelerate the construction of our ecosystem of "people, vehicles and life", and enhance the customer service capability and profitability.

In respect of the natural gas and pipeline business, we will strengthen our study and research along the entire natural gas industry chain, and coordinate and allocate on a centralized basis domestic and foreign resources to optimize the layout of the natural gas market. For stabilizing the existing markets and exploring new markets, we will strive for all domestically-produced natural gas to be produced and sold as planned. We will also optimize

the scale and pace of natural gas imports, so as to secure a stable market supply and smooth operation of the industry chain. We will expand the terminal market and develop market layouts in advance. We will make efforts in improving the oil and gas synthesis business by accelerating the integrated operation mode of oil and gas terminals. Actively exploring new markets in the field of comprehensive energy utilization, we will strengthen the integration of gas and power, and deepen the cooperation with enterprises operating in power generation, power grid and energy grid sectors. We will use our best endeavors to develop direct sales customers, and focus on and develop new markets such as new urban fuel and power generation projects, with a view to building a multi-energy comprehensive supply and smart gas demonstration area. We will implement differentiated and refined marketing strategies by region, market and phase, use platforms such as the exchange center to promote the sale of shale gas and coalbed gas at market prices, and arrange spot LNG purchases on the principle of profitability, so as to further enhance our ability to enhance profitability.

In respect of the international business, we will optimize the structure of overseas assets, business and regional layout by emphasizing the acquisition of risk exploration projects, operator projects and natural gas projects, putting more effort into joint venture and cooperation and new project development, and striving to increase the contribution of profit by international operations so as to lay a solid foundation for sustainable development. We will focus on promoting risk exploration in Doseo Basin of Chad and rolling exploration in Aktobe Middle Block of Kazakhstan, and expect to make great efforts to solve problems to achieve a stable and increased output in existing oil fields, and flexibly adjust the workload in response to the changes in oil prices and contract models.

Other than as disclosed above and elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events for the periods covered in this annual report that are reasonably likely to have a material adverse effect on our net revenue, profit, liquidity or capital resources, or that would cause the disclosed financial information to be misleading.

Other Information

Inflation

Inflation or deflation did not have a significant impact on our results of operations for the year ended December 31, 2020.

Related Party Transactions

For a discussion of related party transactions, see “Item 7 — Major Shareholders and Related Party Transactions — Related Party Transactions” and Note 37 to our consolidated financial statements included elsewhere in this annual report.

Recent Developments in IFRS

For a detailed discussion of recent developments in IFRS, see Note 3 to our consolidated financial statements.

Item 6 — *DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES*

Directors, Senior Management and Supervisors

As of the date of this report, our board of directors consists of 11 directors, five of whom are independent non-executive directors. Directors are appointed at our general meetings for a three-year term. The directors may

be re-appointed upon the expiration of his/her term of office. The functions and duties conferred on the board of directors include:

- convening shareholders' meetings and reporting its work to the shareholders' meeting;
- implementing the resolutions of the shareholders' meeting;
- determining our business plans and investment programs;
- formulating our annual budget and final accounts;
- formulating our profit distribution and loss recovery proposals;
- formulating proposals for the increase or reduction of our registered capital and the issuance of our debentures or other securities and listings;
- proposing to redeem shares, merge, spin-off, dissolve or otherwise change the form of the company;
- deciding on our internal management structure;
- appointing or dismissing the president of the company, and upon the nomination of the president, appointing or dismissing vice president, or vice president, senior vice president, chief financial officer, or CFO, and other senior management, and determining matters relating to their remuneration;
- formulating our basic management system;
- preparing amendments to our articles of association;
- managing the information disclosures of our company; and
- exercising any other powers and duties conferred by the shareholders at general meetings.

Six of our directors are affiliated with CNPC or its subsidiaries other than us.

The PRC Company Law requires a joint stock company with limited liability to establish a supervisory committee. This requirement is reflected in our articles of association. The supervisory committee is responsible for monitoring our financial matters and overseeing the corporate actions of our board of directors and our senior management personnel. As of the date of this report, the supervisory committee consists of nine supervisors, five of whom were elected, and may be removed, by the shareholders in a general meeting, and four of whom are employees representatives who were elected by our staff, and may be removed, by our staff. The term of office of our supervisors is three years. The supervisors may be re-elected and re-appointed. A supervisor cannot concurrently hold the position of a director, president, senior vice president, vice president or CFO in our company.

The supervisory committee shall be responsible to the shareholders' meeting and shall exercise the following functions and powers in accordance with law:

- to review the periodic reports prepared by the board of directors and issue written opinions in connection with such review;
- to review our financial condition;
- to oversee the performance of duties by the directors, the president, senior vice presidents, vice presidents, the CFO and other senior officers of the company and to propose the removal of any of the foregoing persons who acts in contravention of any law, regulation, the company's articles of association or any resolutions of the shareholders' meeting;
- to demand any director, the president, senior vice president, vice president, the CFO or any other senior officer who acts in a manner which is harmful to the company's interest to rectify such behavior;
- to check the financial information such as the financial report, business report and plans for distribution of profits to be submitted by the board of directors at the shareholders' meetings and to authorize, in

the company's name, publicly certified and practicing auditors to assist in the re-examination of such information should any doubt arise in respect thereof;

- to propose the convening of an extraordinary shareholders' meeting, and convene and preside over a shareholders' meeting when the board fails to perform its duties to do so as set forth in the PRC Company Law;
- to submit proposals at the shareholders' meetings;
- to confer with any director, or initiate legal proceedings on behalf of the company against any director, the president, senior vice president, vice president, the CFO or any other senior officer in accordance with Article 152 of the PRC Company Law;
- to initiate investigations upon being aware of any extraordinary development in the operational conditions of the company;
- together with the audit committee of the board of directors, to review the performance of the outside auditors on a yearly basis, and to propose the engagement, renewal of engagement and termination of engagement of the outside auditors, as well as the service fees with respect to the audit services;
- to oversee the compliance of related party transactions; and
- other functions and powers as set forth in the articles of association of the company.

Supervisors shall attend meetings of the board of directors as observers.

In the event that any action of our directors adversely affects our interests, supervisors shall confer with or initiate legal proceedings against such directors on our behalf. A resolution proposed at any meeting of the supervisory committee shall be adopted only if it is approved by two-thirds or more of our supervisors.

Our senior management is appointed by and serves at the supervision of our board of directors. The board of directors will review, evaluate and supervise the performance of the management and reward or punish the members of the management in accordance with relevant rules and regulations.

The following table sets forth certain information concerning our directors, supervisors and executive officers as of the date of this report:

Name[1]	Age	Position	Time of Election[2]
Dai Houliang	57	Chairman of the board of directors	March 2020
Li Fanrong	57	Vice Chairman and Non-executive Director	March 2020
Duan Liangwei	53	Non-executive director	June 2017
Liu Yuezhen	59	Non-executive director	May 2014
Jiao Fangzheng	58	Non-executive director	June 2019
Huang Yongzhang	54	Executive director and president	September 2020
Elsie Leung Oi-sie	81	Independent non-executive director	June 2017
Tokuchi Tatsuhito	68	Independent non-executive director	June 2017
Simon Henry	59	Independent non-executive director	June 2017
Cai Jinyong	61	Independent non-executive director	June 2020
Jiang, Simon X.	67	Independent non-executive director	June 2020
Lv Bo	58	Chairman of the supervisory committee	
Zhang Fengshan	59	Supervisor	
Jiang Lifu	57	Supervisor	
Lu Yaozhong	55	Supervisor	
Wang Liang	58	Supervisor	
Fu Suotang	58	Employee representative elected supervisor	
Li Jiamin	57	Employee representative elected supervisor	
Liu Xianhua	57	Employee representative elected supervisor	
Li Wendong	56	Employee representative elected supervisor	
Sun Longde	58	Vice president	
Li Luguang	58	Vice president	
Tian Jinghui	58	Vice president	
Chai Shouping	59	Chief financial officer and secretary to the board of directors	
Ling Xiao	57	Vice president	
Yang Jigang	57	Vice president	

(1) The following changes have taken place to our board of directors, supervisors and senior management since our last annual report on Form 20-F:

- On June 11, 2020, Mr. Lin Boqiang and Mr. Zhang Biyi ceased to hold the position of independent director of the Company due to regulatory limitation on term of office.
- On June 11, 2020, Mr. Liu Yuezhen and Mr. Duan Liangwei were re-appointed as directors of the Company; Ms. Elsie Leung Oi-sie, Mr. Tokuchi Tatsuhito and Mr. Simon Henry were re-appointed as independent non-executive directors of the Company. Mr. Cai Jinyong and Mr. Jiang, Simon X. were newly appointed as independent non-executive directors of the Company. Mr. Xu Wenrong, Mr. Zhang Fengshan, Mr. Jiang Lifu, Mr. Lu Yaozhong, and Mr. Wang Liang were re-appointed as supervisors of the Company.
- On June 11, 2020, Mr. Fu Suotang, Mr. Li Jiamin, Mr. Liu Xianhua, and Mr. Li Wendong were re-elected as employee representative elected supervisors by the Company's employee representatives through election.
- On September 25, 2020, Mr. Wu Enlai resigned as the secretary to the Company's board of directors due to his age.

- On September 28, 2020, Mr. Huang Yongzhang was appointed as a non-executive director of the Company.
- On October 20, 2020, Mr. Lv Bo resigned as director of the Company and Mr. Xu Wenrong resigned as supervisor and the chairman of the supervisory committee of the Company.
- On October 29, 2020, Mr. Chai Shouping was appointed as the secretary to the board of the directors of the Company.
- On November 5, 2020, Mr. Lv Bo was appointed as a supervisor of the Company and on the same day he was appointed as the chairman of the supervisory committee upon being elected by the supervisory committee.
- On March 25, 2021, Mr. Duan Liangwei resigned as the president of the Company and his position in the Company was re-designated as a non-executive director. On the same day, Mr. Huang Yongzhang was appointed as the president and executive director of the Company.

(2) For directors only.

Directors

Dai Houliang, age 57, is the chairman of our company, and concurrently the secretary of the CPC Leadership Group of CNPC and the chairman of CNPC. Mr. Dai is a professor-level senior engineer with a doctorate degree, an alternate member of the 19th CPC Central Committee, and an academician of the Chinese Academy of Engineering. He has extensive work experience in China's petroleum and petrochemical industry. In December 1997, he was appointed as vice president of Yangzi Petrochemical Corporation, and appointed as a director and vice president of Yangzi Petrochemical Co., Ltd. ("YPC") in April 1998. In July 2002, he was appointed as the vice chairman, president, and a member of the standing committee of the CPC Committee, of YPC, and a director of Yangzi Petrochemical Corporation. From December 2003, he served as the chairman, president, and a member of the standing committee of the CPC Committee, of YPC and concurrently as the chairman of Yangzi Petrochemical Corporation, and from November 2004 concurrently as the chairman of BASF-YPC Company Limited. From September 2005, he served as the deputy CFO of China Petroleum & Chemical Corporation ("Sinopec"), and from November 2005 as a vice president and deputy CFO of Sinopec, and from May 2006 as a director, senior vice president and CFO of Sinopec. From June 2008, he served concurrently as a member of the CPC Committee of China Petrochemical Corporation ("Sinopec Group"). From May 2016, he served concurrently as the president, a director, and the deputy secretary of the CPC Leadership Group, of Sinopec Group, and from August 2016 as the vice chairman and president of Sinopec, and from May 2018 as the chairman and the president of Sinopec. From July 2018, he served concurrently as the chairman, and the secretary of the CPC Committee, of Sinopec Group. In January 2020, Mr. Dai was appointed as the chairman, and the secretary of the CPC Committee, of CNPC. In March 2020, Mr. Dai was appointed as a director and the chairman of our company.

Li Fanrong, age 57, is the vice chairman of our company, and concurrently a director, president, and deputy secretary of the CPC Leadership Group, of CNPC. He is a professor-level senior engineer with a master's degree and has extensive work experience in China's oil and gas industry. He was appointed as a vice president of CNOOC China Limited Shenzhen Branch Company in January 2002 and the general manager of the Development & Production Department of CNOOC Limited in November 2005. He was appointed as the president, and secretary of the CPC Committee, of CNOOC China Limited Shenzhen Branch in February 2007. From January 2009, he served as the assistant president, a member of Management Committee, of China National Offshore Oil General Company (now known as " China National Offshore Oil Corporation", "CNOOC") and the president in CNOOC Energy Technology & Services Limited, and from January 2010 concurrently as the chairman of CNOOC Infrastructure Management Co., Ltd. He served as a member of the CPC Leadership Group, and a vice president, of CNOOC from April 2010, concurrently as the president of CNOOC Limited and the chairman of CNOOC Southeast Asia Limited from September 2010, concurrently as the chief executive officer and president of CNOOC Limited from November 2011, concurrently as the chairman of Nexen Energy ULC from February 2013, and concurrently as the chairman of CNOOC International Limited from May 2015. He worked as a deputy director, and a member of the CPC Leadership Group, of National

Energy Administration from May 2016. Mr. Li has been a director, the president, and a deputy secretary of the CPC Leadership Group, of CNPC since February 2020, and concurrently the vice chairman and a director of our company since March 2020 after being so appointed in March 2020.

Duan Liangwei, age 53, is a director of our company, and a director of CNPC, the deputy secretary of the CPC Leadership Group of CNPC and the secretary of the CPC Committee of CNPC as a unit directly under the CPC Central Committee. Mr. Duan is a professor-level senior engineer and holds a doctorate degree. He has extensive work experience in China's petrochemical industry. From February 2006, Mr. Duan served as a deputy general manager, the chief safety officer, and a member of the CPC Committee, of Jilin Petrochemical Company. From March 2010, he served concurrently as the secretary of the CPC Committee, and the general manager, of Jilin Fuel Ethanol Company Limited. From September 2011, he served as the general manager, the deputy secretary of the CPC committee, of Dagang Petrochemical Company. From July 2013, he served as the general manager, and the deputy secretary of the CPC Committee, of PetroChina Dalian Petrochemical Company, the manager of Dalian Petrochemical Corporation, and the director of Dalian Regional Companies Coordination Group. He was appointed as a deputy general manager of CNPC in March 2017. Mr. Duan has served concurrently as the chief safety officer of CNPC since April 2017. Mr. Duan was appointed as a director of our company in June 2017 and the president of our company in March 2020. From September 2019, Mr. Duan has served concurrently as a member of the CPC Leadership Group of CNPC. From September 2020, Mr. Duan has served concurrently as a director, and the deputy secretary of the CPC Leadership Group, of CNPC, and from October 2020, the secretary of the CPC Committee of CNPC as a unit directly under the CPC Central Committee.

Liu Yuezhen, age 59, is a director of our company, and concurrently a member of the CPC Leadership Group of CNPC and the chief accountant of CNPC. Mr. Liu is a professor-level senior accountant, holds a master's degree and has extensive financial and accounting experience. He served as deputy general manager and chief accountant of AVIC Jianghan Aviation Life-saving Appliance Corporation since March 1996. In February 2000, he was promoted to general manager of Jianghan Aviation Life-saving Appliance Corporation and served concurrently as the director of the 610 Research Institute. Mr. Liu served as the chairman of the board of directors and general manager of AVIC Beijing Qingyun Aviation Instruments Co., Ltd. from May 2003 and as the chief accountant, and a member of the CPC Leadership Group, of CASIC (Group) Company from November 2006. He served as the chief accountant, and a member of the CPC Leadership Group, of CASIC (Group) Company from December 2007. Mr. Liu has been a member of the CPC Leadership Group and the chief accountant of CNPC since December 2013. Mr. Liu was appointed as a director of our company in May 2014.

Jiao Fangzheng*, age 58,* is a director of our company, and concurrently a vice president, and a member of the CPC Leadership Group, of CNPC. Mr. Jiao is a professor-level senior engineer, holds a doctorate degree, and has extensive work experience in China's petroleum and petrochemical industry. Mr. Jiao served as the chief geologist in Zhongyuan Petroleum Exploration Administration of Sinopec Group from January 1999, as the deputy manager and chief geologist of Sinopec Zhongyuan Oilfield Company, a branch of Sinopec from February 2000, as the deputy director general, and a member of the CPC Committee, of Sinopec Petroleum Exploration & Development Research Institute from July 2000, the deputy director general of Exploration & Production Department from March 2001, as the director general, and deputy secretary of the CPC Committee, of Northwest Petroleum Administration of Sinopec Group and as the general manager of Sinopec Northwest Oilfield Company from June 2004. He served as a vice president of Sinopec from October 2006, concurrently as the director general of Sinopec Petroleum Exploration & Production Department from July 2010, as the deputy general manager, and a member of the CPC Leadership Group, of Sinopec Group from July 2014, concurrently as the chairman of Sinopec Oilfield Service Corporation from September 2014, and concurrently as a director and a senior vice president of Sinopec from May 2015. Mr. Jiao has been a member of the CPC Leadership Group and a vice president of CNPC since June 2018. In June 2019, Mr. Jiao was appointed as a non-executive director of our company.

Huang Yongzhang, age 54, is a director and the president of our company, and concurrently a member of the CPC Leadership Group, and vice president and chief safety officer, of CNPC. Mr. Huang is a professor-level

senior engineer and holds a doctorate degree. He has extensive work experience in China's petroleum and natural gas industry. He previously served as the vice president of CNPC International (Nile) Ltd., vice president and concurrently as chief safety officer of China National Oil Exploration and Development Corporation, and the executive vice president of CNPC Middle East Corporation. He served as the leader of the coordination group of CNPC Middle East and president of CNPC Middle East Corporation from January 2018. He was appointed as a member of the CPC Leadership Group and vice president of CNPC in April 2020, and a director of our company in September 2020. Mr. Huang has served concurrently as the chief safety officer of CNPC from February 2021. He was appointed as the president of our company in March 2021.

Independent Non-executive Directors

Elsie Leung Oi-sie, age 81, is an independent non-executive director of our company. She is a consultant of Iu, Lai & Li Solicitors & Notaries, and an independent non-executive director of China Life Insurance Company Limited, United Company RUSAL, Plc. and China Resources Power Holdings Co., Ltd. Ms. Leung obtained her LLM degree from the University of Hong Kong, and is an academician of College of International Marriage Law. She holds the practicing qualifications for attorney of Hong Kong and Britain. Ms. Leung was the first Secretary for Justice of the Hong Kong Special Administrative Region, a member of Executive Council of HKSAR and the Deputy Director of Hong Kong Basic Law Committee of the Standing Committee of the National People's Congress of the PRC. Ms. Leung was appointed as the Justice of the Peace, the Notary Public, and the China-Appointed Attesting Officer, and was awarded a Grand Bauhinia Medal. Ms. Leung was appointed as an independent non-executive director of our company in June 2017.

Tokuchi Tatsuhito, age 68, is an independent non-executive director of our company. He is also the executive director & research fellow of the Center for Industrial Development and Environment Governance (CIDEG), Tsinghua University, the senior fellow of Rebuild Japan Initiative Foundation. He was a former member & expert advisor to the Foreign Advisory Committee of State Administration of Foreign Experts Affairs of the PRC. Mr. Tokuchi graduated from the Department of Chinese Language and Literature, Peking University, and received his master's degree in East Asian Economy from the Center for East Asian Studies of Stanford University. He previously held such positions as the general manager of Investment Banking Division of Daiwa Securities SMBC Co., Ltd., the president of Daiwa Securities Singapore Limited, the Executive Vice President of Daiwa Securities (Hong Kong) Inc.in charge of investment banking business, a vice president of Daiwa Securities (America) Inc., the vice chairman of Singapore Investment Banking Association, and a deputy general manager, managing director, general manager, and Investment Banking Committee chairman of CITIC Securities Co., Ltd. In 2009, Mr. Tokuchi was awarded the China Friendship Award, China's award for foreigners. Mr. Tokuchi was appointed as an independent non-executive director of our company in June 2017.

Simon Henry, age 59, is an independent non-executive director of the Company and also a fellow of the UK Chartered Institute of Management Accountants, has experience in areas of finance management, strategic planning, marketing and investor relations. Mr. Simon Henry obtained a first class bachelor's degree in mathematics from Cambridge University in 1982 and was awarded a master's degree in 1986 from Cambridge. He joined Royal Dutch Shell in 1982. He worked for 8 years until March 2017 as the CFO and executive director of the board of Royal Dutch Shell. He now serves as a non-executive director and chairman of the audit committee of the board of a non-executive director of Rio Tinto plc. From April 2021, he will join the board of Harbour Energy plc. He also serves as a member of the Defense Board for the UK Government. Mr. Simon Henry was appointed as an independent non-executive director of our company in June 2017.

Cai Jinyong, age 61, is an independent non-executive director of our company. Mr. Cai is concurrently a partner of Global Infrastructure Partners (GIP) and a board member of Aon plc. and Global Foundries. Mr. Cai received bachelor's degree in science from Peking University and doctorate degree in economics from Boston University. Mr. Cai has over 30 years' work experience in finance service industry, and has work experience in TPG Group, World Bank Group, Goldman Sachs Group, Inc. and Morgan Stanley. Mr. Cai worked at Central Europe Bureau of the Head Office of the World Bank in charge of energy sectors from 1990 to 1994. From 1994

to 2000, he served in Morgan Stanley and was a team member which established China International Capital Corporation Limited (the first domestic joint venture investment bank in the PRC). From 2000 to 2012, he worked in Goldman Sachs Group, Inc., where he was in charge of the PRC Investment Banking Business. From 2012 to 2016, he served as CEO of International Finance Corporation of the World Bank Group. From 2016 to 2018, he led the infrastructure business in emerging economies at TPG. In June 2020, Mr. Cai was appointed as an independent non-executive director of our company.

Jiang, Simon X., age 67, is an independent non-executive director of our company. Mr. Jiang has been an independent non-executive director of COSCO SHIPPING International (Hong Kong) Co., Ltd. since April 2007. He is the chairman of Cyber City International Limited. Mr. Jiang is also a director of China Foundation for Disabled Persons, and a senior associate at the Judge Business School of Cambridge University of England. He is currently a member of the United Nations Investments Committee. Mr. Jiang received his bachelor's degree from Beijing Foreign Studies University, master's degree from Australian National University and M.Phil and Ph.D degree in Economics from Cambridge University of England. Mr. Jiang has extensive investment management experience. Mr. Jiang was the deputy chief of United Nations Joint Staff Pension Fund Investment Management, a trustee of the Cambridge China Development Trust, a director of Zi Corporation, advisory board member of Capital International Inc., and an advisor of TPG Capital of the United States and Rothschild Investment Bank of England. He was a member of the 11th and 12th Sessions of the National Committee of the Chinese People's Political Consultative Conference, an independent non-executive director of China Oilfield Services Limited, Greenland Hong Kong Holdings Limited, Sinopec Corp., and Nokia Corporation. In June 2020, Mr. Jiang was appointed as an independent non-executive director of our company.

Supervisors

Lv Bo, age 58, is the chairman of the supervisory committee of our company, and concurrently a member of the CPC Leadership Group and a vice president of CNPC. Mr. Lv is a senior economist with a master's degree. He has extensive work experience in China's oil and gas industry. In January 2002, Mr. Lv was appointed as director-general of Human Resources Department of CNOOC. He was appointed as the assistant president of CNOOC in November 2006 and a member of the CPC Leadership Group of CNOOC in November 2007, and concurrently as the secretary of the CPC Committee of CNOOC as a unit directly under the CPC Central Committee in October 2008. From April 2010, he served as a vice president, and a member of the CPC Committee, of CNOOC, and from December 2012 concurrently as the chairman of CNOOC Energy Technology & Services Limited, from May 2015 concurrently as the president of CNOOC Party School, and from December 2016 concurrently as the chairman of Offshore Oil Engineering Co. Ltd. and China Oilfield Services Limited. Mr. Lv has been a vice president, and a member of the CPC Leadership Group, of CNPC since November 2019. He was appointed as a director of our company in March 2020. He was appointed as a supervisor of our company in November 2020 and concurrently the chairman of the supervisory committee of our company.

Zhang Fengshan, age 59, is a supervisor and the chief safety officer of our company, and concurrently the general manager of our Quality, Security and Environmental Protection Department. He is concurrently the deputy chief safety officer of CNPC, the general manager of Quality, Security and Environmental Protection Department of CNPC and the director of the Security, Environmental Protection Supervision Center of CNPC. Mr. Zhang is a professor-level senior engineer, holds a master's degree and has extensive experience in China's oil and gas industry. He was appointed as a deputy director and a standing member of the CPC Committee of Liaohe Oil Exploration Bureau in July 2000, the safety director of Liaohe Oil Exploration Bureau in May 2002, the director and deputy secretary of the CPC Committee of Liaohe Petroleum Exploration Bureau in August 2004, and the general manager and deputy secretary of the CPC Committee of Great Wall Drilling and Exploration Company Ltd. in February 2008, where he also served as an executive director from July 2008. Mr. Zhang has been the general manager of the Security, Environment, and Energy Conservation Department of our company and of CNPC since June 2012. In July 2014, Mr. Zhang was appointed as the chief safety officer of our company and the deputy chief safety officer of CNPC. In December 2015, Mr. Zhang was appointed as the

director of the Security, Environmental Protection Supervision Center of CNPC. In December 2016, Mr. Zhang was appointed as the general manager of our Quality, Security and Environmental Protection Department and the general manager of the Quality, Security and Environmental Protection Department of CNPC. Mr. Zhang was appointed as a supervisor of our company in May 2014.

Jiang Lifu, age 57, is a supervisor of our company, the general manager of the Reform and Enterprise Management Department of our company, and concurrently the general manager of the Reform and Enterprise Management Department of CNPC. Mr. Jiang is a professor-level senior economist, holds a doctorate degree and has extensive work experience in China's oil and gas industry. He was appointed as a deputy general manager of our Capital Operation Department in August 2003, a deputy director of CNPC's Planning Department in May 2005, a deputy general manager of our Planning Department in June 2007 and a deputy director of CNPC's Planning Department. Since April 2014, Mr. Jiang has been the general manager of the Enterprise Management Department of our company and the general manager of the Enterprise Management Department of CNPC. In April 2015, Mr. Jiang was appointed as the general manager of our Reform and Enterprise Management Department and the general manager of the Reform and Enterprise Management Department of CNPC. Mr. Jiang was appointed as a supervisor of our company in October 2014.

Lu Yaozhong, age 55, is a supervisor of our company, the general manager of our Capital Operation Department, and concurrently the general manager of the Capital Operation Department of CNPC. Mr. Lu is a professor-level senior accountant and holds a master's degree. He has extensive work experience in China's oil and gas industry. He served as the chief accountant and a member of the CPC Committee of PetroChina Kazakhstan Company from December 2009 and the chief accountant of Overseas Exploration and Development Branch Company of China National Oil and Gas Exploration and Development Corporation from August 2013. Mr. Lu has served as the general manager of the Capital Operation Department of our company and concurrently the general manager of the Capital Operation Department of CNPC since April 2017. Mr. Lu was appointed as a supervisor of our company in June 2017.

Wang Liang, age 58, is a supervisor of our company, the general manager of our Audit Department, and concurrently the general manager of the Audit Department, and director and deputy secretary of the CPC Committee of the Audit Service Center, of CNPC. Mr. Wang is a professor-level senior accountant and holds a bachelor's degree. He has extensive work experience in China's oil and gas industry. He served as a director, chief accountant and member of the CPC Committee of CNPC Offshore Engineering Company Limited from January 2005, a member of the CPC Leadership Group and deputy director of Liaoning Provincial Finance Department from April 2006, the chairman of the board of directors Generali China Insurance Co., Ltd. from April 2007, the chief accountant and a member of the CPC Committee of CNPC Chuanqing Drilling Engineering Company Limited from February 2008, the general manager and deputy secretary of the CPC Committee of CNPC Assets Management Co., Ltd. from October 2009, the chairman of the board of directors, general manager, and deputy secretary of the CPC Committee of Kunlun Trust Co., Ltd. from March 2014, the chairman of the board of directors, secretary of the CPC Committee, secretary of the discipline inspection commission, and chairman of the Labor Union of CNPC Assets Management Co., Ltd. from July 2014, and the secretary of the CPC Committee, secretary of the Discipline Inspection Commission, chairman of the Labor Union and deputy general manager of China Petroleum Finance Co., Ltd. from July 2016. In May 2017, he was appointed as the general manager of our Audit Department, and concurrently the general manager of the Audit Department of CNPC, the director and secretary of the CPC Committee of the Audit Service Center of CNPC. In November 2017, he was appointed as the general manager of our Audit Department, the general manager of the Audit Department of CNPC, the director and deputy secretary of the CPC Committee of the Audit Service Center of CNPC. Mr. Wang was appointed as a supervisor of our company in October 2017.

Fu Suotang, age 58, is a an employee representative elected supervisor of our company. He is also an executive director and the secretary of the CPC Committee of PetroChina Changqing Oilfield Company, and concurrently an executive director and the general manager of Changqing Petroleum Exploration Bureau Co., Ltd. Mr. Fu is a professor-level senior engineer and holds a doctorate degree. He has extensive work experience

in China's oil and gas industry. He served as the chief geologist and a member of the CPC Committee of PetroChina Qinghai Oilfield Company from April 2007. He served as the general manager and deputy secretary of the CPC Committee of PetroChina Qinghai Oilfield Company and concurrently the director of Qinghai Petroleum Management Bureau from April 2014. In April 2017, he was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Changqing Oilfield Company and concurrently the director of Changqing Petroleum Exploration Bureau. In April 2018, he was appointed the general manager and the secretary of the CPC Committee of PetroChina Changqing Oilfield Company, and concurrently an executive director and the general manager of Changqing Oilfield Exploration Bureau Co., Ltd. From October 2020, Mr. Fu has served as an executive director and the secretary of the CPC Committee of PetroChina Changqing Oilfield Company and concurrently as an executive director and the general manager of Changqing Oilfield Exploration Bureau Co., Ltd. Mr. Fu was appointed as an employee representative elected supervisor of our company in June 2017.

Li Jiamin, age 57, is an employee representative elected supervisor and the director of the Party and Masses' Affairs Department of our company, and concurrently the director of the Party and Masses' Affairs Department, the deputy secretary of the CPC Committee (of CNPC as a unit directly under the CPC Central Committee), and the deputy director of the CPC Leadership Group, of CNPC. Mr. Li is a professor-level senior engineer and holds a master's degree. He has extensive work experience in China's oil and petrochemical industry. He was appointed as a deputy general manager, the chief safety officer and a member of the CPC Committee of Lanzhou Petroleum & Chemical Company in August 2004. He was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Lanzhou Petrochemical Company and the general manager Lanzhou Petroleum & Chemical Company in March 2012. In November 2017, he was appointed the general manager and the secretary of the CPC Committee of PetroChina Lanzhou Petrochemical Company, and the executive director and general manager of Lanzhou Petroleum & Chemical Company. In August 2020, Mr. Li was appointed as the general manager of the Corporate Culture Department of our company, and concurrently the general manager of the Ideological and Political Work Department (and the chief of the CPC Leadership Group Propaganda Department, the general manager of the Corporate Culture Department and the director of the Press Office) of CNPC. From December 2020, Mr. Li has served as the director of the Party and Masses' Affairs Department of our company, and concurrently as the director of the Party and Masses' Affairs Department, the deputy secretary of the CPC Committee (of CNPC as a unit directly under the CPC Central Committee), and the deputy director of the CPC Leadership Group, of CNPC. Mr. Li was appointed as an employee representative elected supervisor of our company in May 2014.

Liu Xianhua, age 57*,* is an employee representative elected supervisor of our company. He is also the general manager and deputy secretary of the CPC Committee of PetroChina Liaoning Marketing Company and the executive director and general manager of CNPC Liaoning Petroleum Marketing Company. Mr. Liu is a professor-level senior economist and holds a master's degree. He has extensive work experience in China's oil and petrochemical industry. In May 2005, he was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Shandong Marketing Company. In March 2012, he was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Northeast Marketing Company. In December 2015, he was appointed as the general manager and deputy secretary of the CPC Committee of PetroChina Liaoning Marketing Company, and the general manager of CNPC Liaoning Petroleum Corporation. From 2017, he has served as the general manager and deputy secretary of the CPC Committee of PetroChina Liaoning Marketing Company, and concurrently as an executive director and the general manager of CNPC Liaoning Petroleum Marketing Company. Mr. Liu was appointed as an employee representative elected supervisor of our company in May 2016.

Li Wendong, age 56, is an employee representative elected supervisor of our company. He is also the secretary of the CPC Committee, the chairman and general manager of Beijing Natural Gas Pipelines Company. Mr. Li is a professor-level senior engineer and holds a master's degree. He has extensive work experience in China's oil and gas industry. In January 2006, he was appointed as a deputy director and a member of the CPC Committee of China Petroleum Pipeline Bureau. In August 2011, he was appointed as the secretary of the CPC

Committee, the secretary of the Discipline Inspection Commission, the chairman of the Labor Union and deputy general manager of PetroChina West Pipelines Company. In November 2013, he was appointed as the general manager, the secretary of the CPC Committee, the secretary of the Discipline Inspection Commission and the chairman of the Labor Union of PetroChina West Pipeline Company, and the general manager of PetroChina West-East Natural Gas Sales Company. Since March 2016, he has served as the general manager and secretary of the CPC Committee of PetroChina West-East Natural Gas Transmission Pipelines Company, and the general manager of PetroChina West-East Natural Gas Sales Company. In April 2018, he was appointed as the general manager and the secretary of the CPC Committee of Beijing Natural Gas Pipelines Company. In October 2018, he was appointed as the chairman, general manager and the secretary of the CPC Committee of Beijing Natural Gas Pipelines Company. Mr. Li was appointed as an employee representative elected supervisor of our company in May 2016.

Other Senior Management

Sun Longde, age 58, is a vice president of our company. He is also an executive director and the secretary of the CPC Committee of Daqing Oilfield Company Ltd., and concurrently an executive director of Daqing Petroleum Administration Bureau Co., Ltd. Mr. Sun is a professor-level senior engineer and holds a doctorate degree. Mr. Sun is an academician of the Chinese Academy of Engineering. He has extensive work experience in China's oil and geological industry. Mr. Sun was appointed as the manager of Exploration & Development Company of the Shengli Petroleum Administration Bureau in September 1997, the chief geologist and a member of the CPC Committee of Tarim Petroleum Exploration & Development Headquarters in November 1997, a deputy general manager and a member of the CPC Committee of PetroChina Tarim Oilfield Company in September 1999, and the general manager and secretary of the CPC Committee of PetroChina Tarim Oilfield Company in July 2002. He was elected as an academician of the Chinese Academy of Engineering in December 2011. In April 2014, Mr. Sun was appointed as the director of the consultancy center of CNPC. In July 2015, Mr. Sun was appointed as the general manager of our Science and Technology Management Company and the general manager of the Science and Technology Department of CNPC. He was appointed as an executive director and the general manager of Daqing Oilfield Company Ltd., the director of Daqing Petroleum Administration Bureau, and a deputy secretary of the CPC Committee of Daqing Oilfield in March 2016. In October 2018, he was appointed as an executive director and the secretary of the CPC Committee of Daqing Oilfield Company Ltd., and concurrently an executive director of Daqing Petroleum Administration Bureau Co., Ltd. Mr. Sun was appointed as a vice president of our company in June 2007.

Li Luguang, age 58, is a vice president of our company, and concurrently an executive director and the general manager and secretary of the CPC Committee of PetroChina Exploration and Production Company. Mr. Li is a professor-level senior engineer and holds a doctor degree. He has extensive work experience in China's oil and gas industry. From September 1999, Mr. Li served as the deputy general manager and Party member of PetroChina Southwest Oil and Gas Field Company, and from September 2003, as the general manager and deputy secretary of the CPC Committee of PetroChina Southwest Oil and Gas Field Company. From November 2005, he served as the general manager and secretary of the CPC Committee of PetroChina Southwest Oil and Gas Field Company, and from April 2014, as the assistant to the general manager of CNPC, and from October 2016, concurrently as the general manager and deputy secretary of the CPC Committee of PetroChina Tarim Oilfield Company. From April 2017, Mr. Li served as the general manager and secretary of the CPC Committee of PetroChina Tarim Oilfield Company, and from April 2018, as the general manager and deputy secretary of the CPC Committee of PetroChina Exploration and Production Company. From October 2020, Mr. Li has served as an executive director and the general manager and secretary of the CPC Committee of PetroChina Exploration and Production Company. Mr. Li was appointed as a vice president of our company in June 2018.

Tian Jinghui, age 58, is a vice president of our company, and concurrently the secretary of the CPC Committee and an executive director of PetroChina International Company Ltd., and the chairman of China National United Oil Corporation. Mr. Tian is a professor-level senior economist and holds a master's degree. He

has extensive experience in China's oil and gas industry. In May 1998, he was appointed as the chief of the Preparatory Group of PetroChina Northwest Marketing Company. He was appointed as a deputy general manager and member of the CPC Committee of our Refining & Marketing Company from December 1999, a deputy general manager, chief safety officer and member of the CPC Committee of PetroChina Marketing Company from November 2007. In June 2009, he was appointed as the secretary of the CPC Committee and deputy general manager of PetroChina Marketing Company. In August 2013, he was appointed as the general manager and secretary of the CPC Committee of PetroChina Marketing Company. From April 2017, Mr. Tian has served as the general manager and deputy secretary of the CPC Committee of PetroChina Marketing Company, the secretary of the CPC Committee and an executive director of PetroChina International Company Ltd., and the chairman of China National United Oil Corporation. Mr. Tian was appointed as a vice president of our company in November 2015.

Chai Shouping, age 59, is the CFO of our company, the secretary to the board of directors and manager of the Board of Directors Office of our company. Mr. Chai is a professor-level senior accountant and holds a master's degree. He has extensive work experience in financial operations and management in China's oil and petrochemical industry. In April 2002, he was appointed as a deputy general manager of the Finance Department of our company. From September 2012, Mr. Chai served as the chief accountant, and a member of the CPC Committee, of China National Oil and Gas Exploration and Development Corporation (overseas exploration and development branch), the deputy general manager and the CFO of CNPC Exploration and Development Company Limited, and the CFO of PetroChina International Investment Company Limited. In March 2013, he was appointed as the general manager of the Finance Department of our company. In January 2017, he was appointed as our CFO. In August 2020, Mr. Chai was appointed to concurrently serve as the secretary to the board of directors, and in October 2020, concurrently as the manager of Board of Directors Office of our company.

Ling Xiao, age 57, is a vice president of our company. Mr. Ling is a professor-level senior engineer and holds a doctorate degree. He has extensive experience in China's oil industry. In June 2001, Mr. Ling was appointed as a deputy director, and member of the CPC Committee, of Xinjiang Petroleum Administration Bureau, and in August 2004, the chairman of the board of directors and general manager of West Pipeline Co., Ltd. In January 2015, he was appointed as the secretary of the CPC Committee of West Pipeline Co., Ltd., and in March 2009, the general manager, and deputy secretary of the CPC Committee, of PetroChina West Pipeline Company. From November 2013, he served as the general manager, and secretary of the CPC Committee, of West-East Gas Transmission Pipeline Company, and from March 2016, concurrently as the general manager of West-East Gas Transmission Sales Company, the secretary of the CPC Committee and deputy general manager of PetroChina Natural Gas and Pipelines Company and concurrently the deputy general manager of our Natural Gas Sales Company, the secretary of the CPC Committee and deputy general manager of our Natural Gas Sales Company (PetroChina Natural Gas and Pipelines Company), and from September 2016 as the general manager, and secretary of the CPC Committee, of PetroChina Pipelines Co., Ltd. in. From November 2017, Mr. Ling served as the general manager, and deputy secretary of the CPC Committee, of our Natural Gas Sales Company (PetroChina Natural Gas and Pipelines Company), as the chairman of the board of directors, and secretary of the CPC Committee, of PetroChina Pipelines Co., Ltd., and as the chairman of Kunlun Energy Co., Ltd. From October 2018, he served as the secretary of the CPC Committee of the PetroChina Natural Gas Sales Company. He ceased to concurrently serve as the chairman of the board of directors, and secretary of the CPC Committee, of PetroChina Pipelines Co., Ltd and the chairman of Kunlun Energy Co., Ltd. from October 2020. Mr. Ling was appointed as a vice president of our company in December 2017.

Yang Jigang, age 57, is a vice president and the chief engineer of our company, and the secretary of the CPC Committee and the general manager of PetroChina Refinery and Chemical Engineering Company. Mr. Yang is a professor-level senior engineer and holds a master's degree. He has extensive experience in China's petroleum and petrochemical industry. From August 1997, Mr. Yang served as the deputy manager of Lanzhou Chemical Industry Corporation, and from November 1998, as the chief engineer of the Oil Refinery and Chemical Engineering Department of CNPC. From September 1999, Mr. Yang served as a member of the

preparatory group for the establishment of our Refining and Chemicals Marketing Company, and from December 1999, as the chief engineer, and member of the CPC Committee, of our Refinery and Marketing Branch Company. From August 2000, Mr. Yang served as a deputy general manager, chief engineer, and member of the CPC Committee, of our Chemical Engineering and Marketing Company, and from May 2005, as the general manager, and deputy secretary of the CPC Committee, of PetroChina Daqing Petrochemical Company. From December 2009, Mr. Yang served as the secretary of the CPC Committee and deputy general manager of our Refinery and Chemical Engineering Company. From November 2017, Mr. Yang has served as the secretary of the CPC Committee and the general manager of PetroChina Refinery and Chemical Engineering Company. Mr. Yang was appointed as a vice president of our company in December 2017. He was appointed as the chief engineer of our company in April 2021.

Compensation

The senior management members' compensation consists of fixed salaries and variable compensation. The variable compensation, which accounts for approximately 75% of the total compensation package, is linked to the attainment of specific performance targets, such as our income for the year, return on capital and the individual performance evaluation results. All of our senior management members have entered into performance contracts with us.

Our directors and supervisors, who hold senior management positions or are otherwise employed by us and other senior management of our company receive compensation in the form of salaries, insurance and other benefits in kind, including our contribution to the pension plans for them.

The aggregate amount of salaries and other compensation, insurance and other benefits in kind paid by us to our directors, who hold senior management positions or are otherwise employed by us, during the year ended December 31, 2020 was RMB609 thousand which does not include the fees totaling RMB1,768 thousand paid to our independent directors. The aggregate amount of salaries or other compensation, insurance and other benefits in kind paid by us to our supervisors, who hold senior management position or are otherwise employed by us during the year ended December 31, 2020 was RMB4,186 thousand. The aggregate amount of salaries or other compensation, insurance and other benefits in kind paid by us to other senior management during the year ended December 31, 2020 was RMB10,035 thousand.

In 2020, we paid RMB1,338 thousand as our contribution to the pension plans for our directors and supervisors, who hold senior management positions or are otherwise employed by us and other senior management of our company.

Save as disclosed, no other payments have been paid or are payable, with respect to the year ended December 31, 2020, by us or any of our subsidiaries to our directors. In addition, we have no service contracts with our directors that provide for benefits to our directors upon the termination of their employment with us.

For discussions about the compensations of our individual directors and supervisors, please see Note 11 to our consolidated financial statements included elsewhere in this annual report.

Board Practices

Our board of directors has five committees, namely, the nominating committee, the audit committee, the investment and development committee, the evaluation and remuneration committee and the sustainabililty committee.

Nominating Committee

Our nominating committee is composed of Mr. Dai Houliang, as chairman of the committee, and Mr. Cai Jinyong and Mr. Jiang, Simon X., as members. The nominating committee's major responsibilities include:

- reviewing and discussing the structure, size and composition of the board of directors regularly, and making recommendations on changes to the board to follow the company's corporate strategy;
- considering the criteria and procedures for selection of directors, president and other senior management, and making recommendations to the board of directors;
- considering the board diversity policy and the training systems for directors and management;
- extensively selecting qualified candidates for directorship and members of senior management, reviewing the qualifications of candidates for directorship and president, and making recommendations;
- reviewing the proposals on candidates nominated by the nominators who have the nominating rights under the Articles of Association;
- reviewing and making assessment on the independence of independent non-executive directors; and
- attending the shareholders' meeting and answer the investor's consultation on the work of the nomination committee, as well as the relevant laws, regulations, listing rules and other matters authorized by the board of directors.

Audit Committee

Our audit committee is composed of two independent non-executive directors, Mr. Cai Jinyong and Mr. Jiang, Simon X., and one non-executive director, Mr. Liu Yuezhen. Mr. Cai Jinyong serves as the chairman of the committee. Under our audit committee charter, the chairman of the committee must be an independent director and all resolutions of the committee must be approved by independent directors. The audit committee's major responsibilities include:

- reviewing and supervising the engagement of external auditors and their performance;
- reviewing and ensuring the completeness of annual reports, interim reports and quarterly reports, if any, and related financial statements and accounts, and reviewing any material opinion contained in the aforesaid statements and reports with respect to financial reporting;
- reporting to the board of directors in writing on the financial reports of the company and related information, having considered the issues raised by external auditors;
- reviewing and scrutinizing the work conducted by the internal audit department in according with the applicable PRC and international rules;
- monitoring the financial reporting system and internal control procedures of the company, as well as checking and assessing matters relating to, among others, the financial operations, internal control and risk management of the company;
- receiving, keeping and dealing with complaints or anonymous reports regarding accounting, internal accounting control or audit matters and ensuring the confidentiality of such complaints or reports;
- reporting regularly to the board of directors with respect to any significant matters which may affect the financial position of the company and its operations and with respect to the self-evaluation of the committee on the performance of their duties; and
- performing other responsibilities as may be required under relevant laws, regulations and the listing rules of the stock exchanges where our shares are listed (as amended from time to time).

Investment and Development Committee

Our investment and development committee is composed of Mr. Li Fanrong, as chairman of the committee, and Mr. Duan Liangwei and Mr. Simon Henry, as members. The investment and development committee's major responsibilities include:

- studying the long-term development strategies of the company proposed by our president and making recommendations to the board of directors;
- studying the annual investment budget and the adjustment proposal regarding the investment plan as proposed by our president and making recommendations to the board of directors;
- reviewing feasibility studies and preliminary feasibility studies for investment or financing proposals, capital operation projects and asset operation projects of great significance to our company subject to the approval of the board of directors and making recommendations to the board of directors;
- deliberating on other significant matters that may have an effect on the development of our company and making recommendations to the board of directors; and
- addressing issues related to relevant laws, regulations and listing rules and requirements of the stock exchanges on which our shares are listed and handing other matters as delegated by the board of directors.

Evaluation and Remuneration Committee

Our evaluation and remuneration committee is composed of Ms. Elsie Leung Oi-sie, as chairman of the committee, and Mr. Liu Yuezhen and Mr. Tokuchi Tatsuhito, as members. The evaluation and remuneration committee's major responsibilities include:

- studying the evaluation criteria for directors and senior officers, conducting the evaluations and proposing suggestions;
- studying and evaluating the remuneration policies and plans for directors and senior officers (including the compensation in connection with the removal or retirement of the director and senior officers);
- organizing the evaluation of the performance of our president and reporting the evaluation result to the board of directors, supervising the evaluation of the performance of our senior vice presidents, vice presidents, CFO and other senior management members conducted under the leadership of the president;
- studying our incentive plan and compensation plan, supervising and evaluating the implementation of these plans and making recommendations for improvements to and perfection of such plans; and
- studying the relevant laws, regulations and the listing rules of the stock exchanges where the shares of the company are listed (as amended from time to time) and other matters authorized by the board of directors.

Sustainability Committee

In March 2021, our health, safety and environment committee was renamed to "sustaintability committee", and was charged with more responsibilities. Our sustaintability committee is composed of Mr. Duan Liangwei, as chairman of the committee, and Mr. Jiao Fangzheng and Mr. Huang Yongzhang, as members. The sustainability committee's major responsibilities include:

- supervising and managing sustainability related matters (including without limitation, environmental, social and corporate governance) and making recommendations to the board of directors or the president;
- supervising the effective implementation of our health, safety and environmental protection plan;

- making recommendations to the board of directors and our president regarding major decisions with respect to health, safety and environmental protection;
- inquiring about the occurrence of and determining the responsibilities for material accidents of the company, and examining and supervising the treatment of such accidents; and
- addressing issues related to relevant laws, regulations and listing rules and requirements of the stock exchanges on which our shares are listed and handing other matters as delegated by the board of directors.

Employees

As of December 31, 2018, 2019 and 2020, we had 476,223, 460,724 and 432,003 employees (not including the temporary employees), respectively. During 2020, we employed 266,050 temporary employees on an average. As of December 31, 2020, we had 260,838 temporary employees. The table below sets forth the number of our employees by business segment as of December 31, 2020.

	Employees	% of Total
Exploration and production	249,643	57.78
Refining and chemicals	132,703	30.72
Marketing	39,782	9.21
Natural gas and pipeline	4,356	1.01
Headquarters and others[(1)]	5,519	1.28
Total	432,003	100.00

(1) Including the numbers of employees of the management of our headquarters, specialized companies, PetroChina Exploration & Development Research Institute, PetroChina Planning & Engineering Institute, Petrochemical Research Institute and other units.

Our employees participate in various basic social insurance plans organized by municipal and provincial governments whereby we are required to make monthly contributions to these plans at certain rates of the employees' salary as stipulated by relevant local regulations. Expenses incurred by us in connection with the retirement benefit plans were approximately RMB19,432 million and RMB20,196 million, and RMB16,833 million respectively, for the years ended December 31, 2018, 2019 and 2020, respectively.

In 2020, we did not experience any strikes, work stoppages, labor disputes or actions that affected the operation of any of our businesses. Our company maintains good relationship with our employees.

Share Ownership

As of December 31, 2020 our directors, senior officers and supervisors did not have share ownership in us or any of our affiliates.

Item 7 — *MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS*

Major Shareholders

We were established on November 5, 1999 with CNPC as its sole promoter. As of March 31, 2021, CNPC beneficially owned 147,173,857,136 shares, which include 291,518,000 H Shares indirectly held by CNPC through Fairy King Investments Limited, an overseas wholly owned subsidiary of CNPC, representing

approximately 80.41% of the share capital of us, and, accordingly, CNPC is our controlling shareholder. The following table sets forth the major shareholders of our A Shares and H Shares as of March 31, 2021:

Name of Shareholders	Class of Shares	Number of Shares Held	Capacity	Percentage of Such Share in That Class of the Issued Shares Capital (%)	Percentage in the Total Share Capital (%)
CNPC	A Shares	146,882,339,136 (long position)	Beneficial Owner	90.71	80.25
	H Shares	291,518,000 (long position)(1)	Interest of Corporation Controlled by the Substantial Shareholder	1.38	0.16
BlackRock, Inc.(2)	H Shares	1,256,444,090 (long position)	Interest of Corporation Controlled by the Substantial Shareholder	5.96	0.69
		622,000 (short position)		0.003	0.0003

(1) Held by Fairy King Investments Limited, an overseas wholly-owned subsidiary of CNPC.
(2) Blackrock, Inc., through various subsidiaries, had an interest in the H Shares of the Company.

Related Party Transactions

CNPC is a controlling shareholder of our company. We enter into extensive transactions with CNPC and other members of the CNPC group, all of which constitute related party transactions for us. We also continued to carry out existing continuing transactions with other related parties in the year ended December 31, 2020.

Continuing Related Party Transactions

Since 2000, our company has engaged a variety of continuing related party transactions with CNPC. CNPC provides various services to us and our company also provides specific products and services to CNPC. These transactions are governed by several agreements between CNPC and us, including the comprehensive products and services agreement, land lease, building lease, intellectual property licensing contracts and contract for the transfer of rights under Sino-foreign cooperative production sharing contracts, as amended.

1. The comprehensive products and services agreement between CNPC and us

The comprehensive products and services agreement (the "Comprehensive Agreement") entered into between CNPC and us is updated every three years. The latest Comprehensive Agreement (the "New Comprehensive Agreement") was signed in 2020, which covers the period from January 1, 2021 to December 31, 2023. The New Comprehensive Agreement revised the previous Comprehensive Agreement mainly as follows: (1) updated the pricing basis for refining products, natural gas, power supply, and gas supply services provided by us to CNPC and jointly-held entities; (2) updated the pricing basis for project design, project supervision, power supply, and gas supply services provided by CNPC to us; and (3) added the sharing services to the services provided by CNPC to us. Other terms and conditions remain unchanged. The New Comprehensive Agreement was approved at the extraordinary general meeting held on November 5, 2020.

Under the New Comprehensive Agreement, we and CNPC will provide the following products and services to each other:

(A) Products and services to be provided by us to CNPC mainly include: refined oil products, chemical products, crude oil, natural gas, water supply, electricity supply, gas supply and heating supply, metering and measuring, and commissioned operations, supply of materials, financial services, and other products and services

that CNPC may request us to provide from time to time for itself to consume, use or sell. In addition, we will provide financial services to jointly held companies, including without limitation, provision of entrusted loans and guarantees.

(B) Products and services to be provided by CNPC to us mainly include:

- construction and technical services, which will be mainly the products and services provided prior to official commencement of commerical operation of relevant projects, including but not limited to exploration technology service, downhole operation service, oilfield construction service, refinery construction service and engineering and design service;
- production services, which will be mainly the products and services provided in light of the requirements for our daily operations after official commencement of commerical operation of relevant projects, including but not limited to crude oil, natural gas, refined oil products, chemical products, water supply, electricity supply, gas supply and communications;
- supply of materials services, which will be mainly materials procurement services provided prior to and after official commencement of commericial operation of relevant projects, including but not limited to procurement of materials, quality inspection, storage of materials and delivery of materials;
- social and ancillary services, including but not limited to security systems, education, hospitals, property management, staff canteens, training centers and guesthouses; and
- financial services, including loans and other financial assistance, deposit services, entrusted loans, settlement services and other financial services.

The general principle of the New Comprehensive Agreement is that all products and services provided by each party shall be of good quality and fair and reasonable price. If a third party provides similar products or services or participates in similar transactions, it shall not be inferior to the conditions provided by the third party for such products or services. The pricing of the products and serivices to be provided under the New Comprehensive Agreement shall be either following government-prescribed price, market price, cost price, or contractual price, depending on the circumstances. The deposit and loan interest rates of financial services shall be subject to the interest rates and relevant charging standards for the same period as published by the people's Bank of China or relevant financial regulatory agencies, and shall not be inferior to the interest rates, charging standards and other conditions for the party to obtain funds and services from an independent third party. The New Comprehensive Agreement is not exclusive, and the parties may provide to and purchase products and services from third parties. Each party may terminate the performance of on or more products or services by giving at least six months' written notice. However, if we are unable to easily obtain services that CNPC provides from a third party, CNPC shall not terminate the provision of such services unless it get our written consent.

2. Specific product and service implementation agreements

According to the current arrangements contemplated under the New Comprehensive Agreement, from time to time and when necessary, the parties may enter into implementation agreements for specific products and services. The specific product and service implementation agreements shall not violate the principles, terms and conditions of the New Comprehensive Agreement in any material respect.

Since a specific product and service implementation agreements is only a further elaboration of the products and services as contemplated by the New Comprehensive Agreement, they do not constitute new categories of related party transactions.

3. Land Use Rights Lease Agreement

We entered into a Land Use Rights Lease Agreement with CNPC in March 2000, pursuant to which, CNPC leased to us land use right across China totaling approximately 1,145 million square meters, which were related

to our various operations and businesses, for a term of 50 years at an annual rent of RMB2 billion. The rent may, as at the expiration of 10-year term of the Land Use Rights Lease Agreement, be adjusted to reflect market conditions prevalent at such time of adjustment, including the then prevailing market prices, inflation or deflation (as applicable) and such other relevant factors.

We entered into a supplementary agreement to the Land Use Rights Lease Agreement with CNPC on August 25, 2011, whereby we adjusted the area and the rent to be effective from January 1, 2012. Thereafter, the parties adjusted the area and rent every three years. The latest adjustment happened on August 27, 2020, whereby the parties adjusted the area to 1,142 million square meters and the annual rent to RMB5,673 million (exclusive of taxes) for the three years since January 1, 2021.

All of the amendments and adjustment were approved by the relevant general meetings. The latest adjustment was approved by the extraordinary general meeting of our company on November 5, 2020.

4. Buildings Lease Agreement

We entered into a buildings lease agreement with CNPC in March 2000, pursuant to the lease, CNPC leased buildings across China to us for our business operations. Both parties agreed to adjust the area and rent of leased buildings every three years based on our needs and the changes in the market price. On August 24, 2017, we entered into a new agreemet with CNPC, pursuant to which, the area of the leased building should be 1,152,968 square meters, and the annual rent should be no more than RMB730 million. The agreement took effect on January 1, 2018, with a term of 20 years. The parties may adjust the area of building leased and the rent fees every three years as appropriate by reference to the status of the production and operations and the prevailing market price, but the adjusted rent fees shall not exceed the comparable fair market price. On August 27, 2020, the parties confirmed that effective from January 1, 2021, the area of the leased buildings should be adjusted to 1,287,486.41 square meters and the annual rent be adjusted to no more than RMB713 million. All of the amendments and adjustments were approved by the relevant general meetings. The latest adjustment was approved by the extraordinary general meeting of our company on November 5, 2020.

5. Intellectual Property Licensing Contracts

We and CNPC continue to implement the three intellectual property licensing contracts entered on March 10, 2000, namely the Trademark Licensing Contract, the Patent and Know-how Licensing Contract and the Computer Software Licensing Contract. CNPC has agreed to extend the term of the Computer Software Licensing Contract to the expiry date of the statutory protection period of the relevant software or when such software enters the public domain. Pursuant to these licensing contracts, CNPC has granted us the exclusive right to use certain trademarks, patents, know-how and computer software of CNPC at no cost.

6. Contract for the Transfer of Rights under Sino-Foreign Cooperative Production Sharing Contracts

We and CNPC continue to implement the Contract for the Transfer of Rights under Sino-Foreign Cooperative Production Sharing Contracts dated December 23, 1999. As part of the restructuring to organize our company, CNPC transferred to us relevant rights and obligations under 28 production sharing contracts executed with international oil and natural gas companies, except the rights and obligations relating to CNPC's supervisory functions.

As of December 31, 2020, a total of 29 projects were being executed by CNPC under the production sharing contracts. CNPC has assigned to us at nil consideration all of its rights and obligations under the production sharing contracts and all the related interests vested in CNPC pursuant to applicable PRC laws and regulations, except the rights and obligations relating to CNPC's supervisory functions.

Our directors believe that these continuing related party transactions were made in the normal and ordinary course of business for the benefits of our company, and are in the interests of the shareholders as a whole.

7. Caps for the Continuing Related Party Transactions

We and CNPC update the aggregate annual amount proposed for each category of continuing related party transactions every three years based on the historical transactions and transaction amounts for the provision of such category of products and services by us, CNPC and their jointly held companies to each other during the prior periods, and by taking into account the business development of our company, CNPC and the jointly held companies, and the possible magnitude of fluctuation of the prices of crude oil, petrochemical products, natural gas, and other petroleum products and services on international markets and China market, which amount, after being approved by the shareholders at the relevant general meeting, should be adopted as the proposed annual cap for the corresponding category of continuing related party transactions for each of the next three years. The transaction amounts of all the historical continuing related party transactions as described above were all within the corresponding proposed annual caps.

The total annual revenue or expenditures under any of the continuing related party transactions during the period from January 1, 2018 to December 31, 2020 did not exceed the corresponding proposed annual caps set out in the following table:

Category of Products and Services	Proposed Annual Caps		
	2018	2019	2020
	RMB (in millions)		
(i) Products and services provided by us to the CNPC and jointly-held companies	153,716	153,861	155,390
(ii) Products and services provided by CNPC to us			
(a) Construction and technical services	208,103	203,908	198,537
(b) Production services	228,730	220,525	212,833
(c) Supply of materials services	35,566	35,344	35,819
(d) Social and ancillary services	9,093	9,432	9,731
(e) Financial Services			
—Aggregate of the daily highest amount of deposits of our company in CNPC and the total amount of interest received in respect of these deposits	63,000	63,000	63,000
—Insurance fees, handling charges for entrusted loans, and fees and charges for settlement services and other intermediary business	2,417	2,753	3,110
—Rents and other payments made under financial leasing loans, and fees and charges for settlement services and other intermediary business	17,804	19,894	21,605
(iii) Financial services provided by us to the jointly-held companies	22,291	22,398	22,506
(iv) Rents for land leases paid by us to CNPC (excluding taxes)	5,783	5,783	5,783
(v) Rents for buildings paid by us to CNPC	730	730	730

Loans and Guarantees

As of December 31, 2020, we had unsecured short-term and long-term loans from CNPC and its affiliates in an aggregate amount of RMB146,579 million and with an average annual interest rate of 2.93%. The proceeds from the loans were basically used for our working capital. As of December 31, 2020, the total outstanding amount of our debts secured by CNPC and its subsidiaries was RMB12,894 million.

In 2020, we did not provide any guarantee to or for the benefit of CNPC and its subsidiaries. As of December 31, 2020, the total outstanding guarantee we provided to or for the benefit of our subsidiaries, associates and affiliates other than CNPC and its subsidiaries was RMB187,108 million.

For a detailed discussion of continuing related party transactions, please refer to Note 37 to our consolidated financial statements included in this annual report.

One-off Related Party Transactions

1. Kunlun Energy Pipeline Assets Transaction

In 2020, we and PipeChina completed the pipeline assets restructuring transaction. As part of the consideration for the transaction, we received 29.9% equity interests in PipeChina. Pursuant to the arrangements contemplated under the transaction, we appointed two directors to the board of directors of PipeChina, both of whom are incumbent directors and senior officers of our company. After completion of this transaction, our subsidiary, Kunlun Energy, entered into an equity transfer agreement with PipeChina for transfer to PipeChina of Kunlun Energy's equity interests in its pipeline business, the transaction was completed at 24:00 on March 31, 2021. Due to the fact that we holds equity interests and board seats in PipeChina, the transaction between Kunlun Energy and PipeChina as described above constitute a related party transaction. For details, please see "Item 4 — Information on the Company — Acquisitions and Divestments".

2. Increase of Capital of CNPC Finance Co., Ltd.

On June 13, 2019, our board of directors passed a resolution on the increase of capital contributions to CNPC Finance Co., Ltd. ("CPF") by CNPC, CNPC Capital Co., Ltd. ("CNPC Capital") and us in proportion to the parties' respective shareholding percentages in CPF. CNPC, CNPC Capital and we currently hold 40%, 28% and 32% equity interests in CPF, respectively. After completion of this transaction, the registered capital of CPF will be increased from RMB8,331,250,000 to RMB20,000,000,000, including (i) RMB8,064,023,100 to be converted out of the capital reserves of CPF into its registered capital, (ii) an additional capital of RMB14,000,000,000 to be subscribed for and contributed by the shareholders in cash in proportion to their then shareholding percentages, of which RMB3,604,726,900 will be recognized as registered capital and the rest shall be recognized as capital reserves. After completion of the transaction, the parties' shareholding percentages in CPF will remain unchanged. According to the arrangement, we will be required to contribute RMB4,480,000,000 in cash, which will be funded by our retained earnings. This transaction is subject to approval of the relevant governmental authorities.

We expect that this transaction will increase the returns on our investment in CPF and it will provide us with a better position to access efficient funds and financial management services provided by CPF. We expect that this transaction will not affect the continuity of our business and the stability of our management.

In addition, during the reporting period, we had a number of other continuing related party transactions with certain companies such as CNPC Exploration and Development Company Limited. Also see Note 37 to our consolidated financial statements included in this annual report.

The above-mentioned related-party transactions were within the upper limit of the amount of related party transactions as approved at the shareholders'general meeting.

See "Item 3 — Key Information — Risk Factors — Risks Related to Controlling Shareholder".

Interests of Experts and Counsel

Not applicable.

Item 8 — *FINANCIAL INFORMATION*

Financial Statements

See pages F-1 to F-79 following Item 19.

Legal Proceedings

We are involved in several legal proceedings concerning matters arising in the ordinary course of our business. We believe, based on currently available information, that these proceedings, individually or in the aggregate, will not have a material adverse effect on our results of operations or financial condition.

Dividend Policy

Our Articles of Association provided that if our net profit attributable to owners of the Company and the accumulated undistributed profit for a year are positive, and our cash flow can satisfy our normal operation and sustainable development, the amount of cash dividend to be distributed shall not be less than 30% of the net profit attributable to owners of the Company realized in that year. We distribute dividends twice a year. Distribution of final dividends needs to be passed at the general meeting by ordinary resolution. The general meeting can, by ordinary resolution, authorize the board of directors to determine the distribution of interim dividends. Since the listing of our ADSs and our shares, we have distributed dividends to the shareholders by strictly complying with the Articles of Association and other relevant regulatory requirements, and adhering to the principle of bringing returns to shareholders, and after an overall consideration of various factors, including our operating performance, financial status, and cash flows.

Our board of directors will declare dividends, if any, in Renminbi on a per share basis and will pay such dividends in Renminbi with respect to A Shares and HK dollars with respect to H Shares. The Bank of New York will convert the HK dollar dividends and distribute them to holders of ADSs in U.S. dollars, less expenses of conversion. The holders of the A Shares and H Shares will share proportionately on a per share basis in all dividends and other distributions declared by our board of directors.

We will take into account factors including the following for declaration of dividends:

- general business conditions;
- our financial results;
- capital requirements;
- contractual restrictions on the payment of dividends by us to our shareholders or by our subsidiaries to us;
- our shareholders' interests;
- the effect on our debt ratings; and
- other factors our board of directors may deem relevant.

We may only distribute dividends after we have made allowances for:

- recovery of losses, if any;
- allocations to the statutory common reserve fund; and
- allocations to a discretionary common reserve fund if approved by our shareholders.

The allocation to the statutory funds is 10% of profit for the year attributable to owners of the company determined in accordance with PRC accounting rules. Under PRC law, our distributable earnings will be equal to our profit for the year attributable to owners of the company determined in accordance with PRC accounting rules or IFRS, whichever is lower, less allocations to the statutory and discretionary funds.

We believe that our dividend policy strikes a balance between two important goals:

- providing our shareholders with a competitive return on investment; and
- assuring sufficient reinvestment of profits to enable us to achieve our strategic objectives.

In 2020, our operating performance was severely impacted by the COVID-19 pandemic and persistent low oil prices. Despite all the difficulties faced by us, we continue to attach great importance to rewarding our shareholders. After an overall consideration of factors, including our operating performance, financial status, cash flows and income from pipeline assets restructuring, we paid a dividend of RMB16,000 million in aggregate, representing RMB0.08742 per share (inclusive of applicable taxes), for the six months ended June 30, 2020 to our A shareholders and H shareholders (including ADS holders). The board of directors recommended a final dividend of RMB16,000 million in aggregate, representing RMB0.08742 per share (inclusive of applicable taxes) for the second half of 2020. The final dividend for the year ended December 31, 2020 is subject to the approval by the annual general meeting to be held on June 10, 2021, and shall be paid to our shareholders listed on our shareholder register as of the close of business on June 28, 2021. The register of members of H Shares will be closed from June 23, 2021 to June 28, 2021 (both days inclusive) during which period no transfer of H Shares will be registered. The final dividends for A Shares and H Shares (including ADSs) for 2020 will be paid on or about June 29, 2021 and July 30, 2021, respectively.

Significant Changes

None.

Item 9 — *THE OFFER AND LISTING*

Trading Market Information

Our ADSs, each representing 100 H Shares, par value RMB1.00 per H Share, have been listed and traded on the New York Stock Exchange since April 6, 2000 under the symbol "PTR". Our H Shares have been listed and traded on the Hong Kong Stock Exchange since April 7, 2000 under the symbol "857". In September 2005, our company issued an additional 3,196,801,818 H Shares. CNPC also sold 319,680,182 state-owned shares it held concurrently with our company's issuance of new H Shares in September 2005. In October 2007, we issued 4 billion A Shares and these shares were listed on the Shanghai Stock Exchange on November 5, 2007 under the symbol "601857". Following the issuance of A Shares, all the domestic shares of our company existing prior to the issuance of A Shares, i.e. the shares held by CNPC (our controlling shareholder) in our company, have been registered with China Securities Depository and Clearing Corporation Limited as tradable A Shares. The New York Stock Exchange, the Hong Kong Stock Exchange and Shanghai Stock Exchange are the principal trading markets for our ADSs, H Shares and A Shares, respectively.

As of December 31, 2020, there were 21,098,900,000 H Shares and 161,922,077,818 A Shares issued and outstanding. As of December 31, 2020, there were 144 registered holders of American depositary receipts evidencing 6,942,871 ADSs. The depositary of the ADSs is the Bank of New York Mellon.

Item 10 — *ADDITIONAL INFORMATION*

Memorandum and Articles of Association

Our Articles of Association Currently in Effect

On October 26, 2017, the amendment to the Articles of Association of the Company was approved at an extraordinary general meeting. The amendment took effect as of the same day.

The amendment includes, among others, (i) in accordance with the PRC Company Law and the Constitution of the Communist Party of China, an addition of a new Article 5, which reads as follows: "The company shall set up the CPC organizations and working bodies with adequate staff and funds; the CPC organizations shall play the role of the core of leadership and political center of the company", and an addition of a new Article 105, which

reads as follows: "The board of directors of the company shall take the CPC organization's advices before it determines such material matters as the orientations of the company's reform and development, key objectives and tasks and major work arrangements. With respect to appointment of management of the company, the CPC organizations shall consider and provide their comments and suggestions on the candidates nominated by the board of directors or the president, or the CPC organizations may recommend candidates to the board of directors and the president"; (ii) revisions implementing in the Company a cumulative voting system for election of directors and supervisors at general meeting; and (iii) revisions providing that the tenure of re-elected independent directors cannot exceed six years.

On June 11, 2020, the Proposal for the Amendments to the business scope of the Company and the Amendments to the Articles of Association was reviewed and approved at our annual general meeting, and the Articles of Association was amended to reflect the amendments to the business scope. Amendments to the business scope of the Company mainly include:

(i) amending a description in the business scope reading as "the exploration and production of crude oil and natural gas" to read as "the exploration, exploitation and sales of resources including crude oil, natural gas, coalbed methane, shale gas, shale oil and gas hydrate" and expanding the business scope to include "the exploration, exploitation and utilization of geothermal energy";

(ii) expanding the business scope to include "manufacture and sale of food additives; and manufacture and sale of non-woven fabrics"; and

(iii) expanding the business scope to include "value-added telecommunications services, online platform, online information services, online data services, and online wholesale and retail services".

The following is a summary based on the significant provisions of our Articles of Association. For details, you should read our amended and restated Articles of Association filed with SEC on June 11, 2020.

Objectives and Purposes

We are a joint stock limited company established in accordance with the PRC Company Law and certain other laws and regulations of the PRC. We are registered with the PRC State Administration for Industry and Commerce with a business license number being 1000001003252. Article 10 of our articles of association provides that our objectives are to comply with the rules of the market, to continuously explore business models which are suitable for the development of the Company, to fully utilize every resource of the Company, to place emphasis on personnel training and technological development, to provide the society with competitive products, and to use its best endeavors to maximize its profits. Article 11 of our articles of association provides that our scope of businesses includes, among other things, the exploration, exploitation and sales of resources including crude oil, natural gas, coalbed methane, shale gas, shale oil and gas hydrate; the exploration, exploitation and utilization of geothermal energy; storage and sale of crude oil and refined oil; production, sale and storage of refined oil, petrochemical and chemical products; import and export; construction and operation of oil and natural gas pipelines; technical development, consultation and service for oil exploration and production, petrochemistry and related engineering; sale of materials, equipment and machines necessary for production and construction of oil and gas, petrochemicals and pipelines construction; the sale and warehousing of lubricating oil, fuel oil, bitumen, chemical fertilizers, auto parts, commodities and agricultural materials, etc.

Directors

Our directors shall be elected at our shareholders' general meeting. Our directors shall be elected for a term of three years and may serve consecutive terms upon re-election, except that independent directors may only serve a maximum of two terms. Our directors are not required to hold any shares in us, and there is no age limit requirement for the retirement or non-retirement of our directors.

Where a director is in any way, directly or indirectly, materially interested in a proposal, arrangement or contract (other than his contract of service with the Company), he shall declare the nature and extent of his

interests to the board of directors at the earliest opportunity, whether or not the proposal, arrangement or contract therefor is subject to the approval of the board of directors. Unless the interested director discloses his interests to the board of directors and the proposal, arrangement or contract is approved by the board of directors at a meeting in which the interested director, is not counted as part of the quorum and abstain from voting, the proposal, arrangement or contract in which that director is materially interested is voidable at the discretion of the Company except as against a bona fide party thereto who does not have knowledge of the breach of duty by the interested director. For this purpose, a director is deemed to be interested in a proposal, arrangement or contract in which his associate is interested. Where a director gives to the board of directors a notice in writing stating that, by reason of the facts specified in the notice, he is interested in a proposal, arrangement or contract which may subsequently be entered into by the Company, that notice shall be deemed to be a sufficient declaration of his interests so far as the content stated in such notice is concerned, provided that such notice shall have been given before the date on which the entering into the relevant contract or arrangement is first taken into consideration by the Company.

Matters relating to the remuneration of our directors shall be determined by the shareholders' general meeting.

We shall not directly or indirectly make a loan to or provide any security for a director, unless the provision by the Company of a loan or a security or any other funds to a director to meet expenditure incurred or to be incurred by him for the sake of the Company or for the purpose of enabling him to perform his duties properly, in accordance with the terms of a service contract approved by the shareholders in a general meeting. If the ordinary business scope of the Company includes the provision of loans and security, the Company may make a loan to or provide a security to a director on normal commercial terms.

Dividends

Dividend shall be paid twice a year. The final dividends of the Company shall be decided by the shareholders by way of an ordinary resolution. The shareholders may by way of an ordinary resolution authorize the board of directors to decide on the interim dividends. The Company may pay any dividends in cash, shares or otherwise in such other way as permitted by laws and regulations. The Company will tend to pay any such dividends in cash over other methods of payment. The Company shall pay cash dividends for the year in which both the net profit attributable to the parent company and the cumulative undistributed profit are positive and so long as the cash flows of the Company may support its normal course of operation and sustainable development. Any such cash dividends shall not be less than 30% of the net profit attributable to the parent company for that year. If the shareholders' general meeting passes motions in connection with the distribution of cash dividend, allotment of bonus shares, or conversion of capital common reserve fund into share capital, the Company shall implement detailed plans thereof within two months after the conclusion of such shareholders' general meeting. If a shareholder has not claimed his dividends six years after such dividends has been declared in accordance with the Articles of Association, such shareholder is deemed to forfeit his right to claim such dividends.

When the Company distributes its after-tax profits for a given year, it shall allocate 10% of profits to its statutory common reserve fund. The Company shall no longer be required to make allocations to its statutory common reserve fund once the aggregate amount of such reserve reaches 50% or more of its registered capital. If the Company's statutory common reserve fund is insufficient to make up its losses of the previous years, such losses shall be made up from the profit for the current year before the Company makes allocations to the statutory common reserve fund. The Company may, if so resolved by the shareholders' meeting, make allocations to the discretionary common reserve fund from after-tax profits after making allocations to the statutory common reserve fund from the after-tax profits. The Company's after-tax profits remaining after it has made up its losses and made allocations to its common reserve fund shall be distributed in proportion to the shareholdings of its shareholders. If the shareholders' meeting distributes profits before the Company has made up its losses and made allocations to the statutory common reserve fund, the profits distributed must be returned to the Company.

Shareholders' Rights

A shareholder of the Company is a person who lawfully holds shares of the Company and whose name (title) is entered in the register of shareholders. Shareholders who hold shares of the same class shall enjoy the same rights. Article 49 set forth the rights of shareholders of ordinary shares such as the right to (i) receive dividends and other distributions in proportion to the number of shares held; (ii) propose, convene, preside over, attend or appoint a proxy to attend shareholders' general meetings and to vote thereat in accordance with laws; (iii) supervise management over business operations and present proposals or to raise queries; (iv) transfer, donate or pledge shares; (v) obtain financial information and other company information; (vi) participate in the distribution of residual assets of the Company in proportion to the number of shares held, in the event of the termination or liquidation of the Company, etc.

If the content of a resolution of a shareholders' general meeting or the board of directors violates any laws or administrative regulations, a shareholder has the right to file a petition with the court to invalidate the resolution. If the procedure for convening or the method of voting at a shareholders' general meeting or a meeting of the board of directors violates any laws, administrative regulations or the Company's Articles of Association, or if the contents of a resolution breaches the Company's Articles of Association, a shareholder may file a petition with the court to revoke the resolution within 60 days from the date on which the resolution was passed. If a director or any other senior officers violated any laws, administrative regulations or the Company's Articles of Association in the course of performing his or her duties to the Company, and thereby caused the Company to incur a loss, a shareholder or shareholders who individually or jointly hold one per cent (1%) or more of the Company's shares for more than one hundred and eighty (180) consecutive days may request in writing the supervisory committee to initiate proceedings in the court. If the supervisory committee has violated the laws, administrative regulations or the Articles of Association in the course of performing its duties to the Company, and thereby caused the Company to incur a loss, shareholder(s) may request in writing the board of directors to initiate proceedings in the court in respect thereof. If the supervisory committee or the board of directors refuses to initiate proceedings after receipt of a written request from the shareholder(s) as mentioned in the preceding paragraph, or fails to initiate proceedings within 30 days of the date of receipt of the request, or under urgent circumstances where failure to promptly initiate proceedings would cause irreparable harm to the Company's interests, the shareholders mentioned in the preceding paragraph are entitled to directly initiate proceedings in the court in their own name in the interests of the Company.

Shareholders' General Meetings

Shareholders' general meetings shall be convened by the board of directors. Annual general meetings are held once every year and within 6 months from the end of the preceding financial year. The board of directors shall convene an extraordinary general meeting within 2 months of the occurrence of any one of the events set forth in Article 63.

A 45-days prior written notice should be given to all of the shareholders whose names appear in the share register. A shareholder who intends to attend the meeting shall deliver to the Company his written reply concerning his attendance at such meeting 20 days before the date of the meeting. Shareholder(s) holding 3% or more of the total voting shares of the Company shall have the right to propose motions in writing to the convener 10 days prior to the date of such meeting. Any shareholder who is entitled to attend and vote at a general meeting shall be entitled to appoint one or more persons as his proxies to attend and vote on his behalf.

A shareholder (including a proxy), when voting at a general meeting, may exercise such voting rights as are attached to the voting shares which he represents, except where the cumulative voting system is adopted for voting on the election of directors and supervisors, each share shall have one vote. The voting on the election of directors and supervisors at the general meeting shall apply the cumulative voting system, which means that each share held by a shareholder shall have the same number of voting rights as the number of directors and supervisors to be elected and the voting rights held by a shareholder can be collectively exercised. At any

shareholders' general meeting, a resolution shall be decided on a show of hands unless voting by way of a poll is required under the listing rules or demanded by the following persons before or after any vote by a show of hands: (i) the chairman of the meeting; (ii) at least two shareholders present in person or by proxy entitled to vote thereat; (iii) one or more shareholders present in person or by proxy who represent(s), individually or in aggregate, 10% or more of all shares carrying the right to vote at the meeting.

An ordinary resolution must be passed by votes representing one-half or more of the voting rights represented by the shareholders (including proxies) present at the general meeting. The following matters shall be resolved by an ordinary resolution: (i) work reports of the board of directors and the supervisory committee; (ii) annual profit distribution plans and loss recovery plans formulated by the board of directors; (iii) appointment or removal of members of the board of directors and members of the supervisory committee, their remuneration and manner of payment; (iv) annual budgets and final accounts, balance sheets and profit and loss accounts and other financial statements of the Company; (v) matters other than those which are required by the laws, administrative regulations or the Company's Articles of Association to be adopted by a special resolution.

A special resolution must be passed by votes representing two-thirds or more of the voting rights represented by the shareholders (including proxies) present at the general meeting. The following matters shall be resolved by a special resolution: (i) increase or reduction in the share capital of the Company and the issue of shares of any class, warrants and other similar securities by the Company; (ii) issue of debentures of the Company; (iii) division, merger, dissolution and liquidation of the Company; (iv) amendment of the Company's Articles of Association; (v) acquisition or disposal of major assets in one year or provision of securities for third parties which exceeds 30% of the latest audited total assets of the Company; (vi) stock incentive plans; (vii) any other matters considered by the shareholders at general meeting, and resolved by way of an ordinary resolution, to be of a nature which may have a material impact on the Company and should be adopted by a special resolution in accordance with the laws, administrative regulations and the Company's Articles of Association.

Where any shareholders request for the convention of an extraordinary general meeting or a class meeting the following procedures shall be followed: (i) shareholders who individually or in aggregate hold not less than 10% of the Company's shares with voting right shall have the right to request in writing the board of directors to convene an extraordinary general meeting or a class meeting. The board of directors shall, according to the laws, administrative regulations and the Company's Articles of Association, give written feedback of consenting to or refusing the convening of such extraordinary shareholders' general meeting within 10 days after it has received the request. If the board of directors consents to convene an extraordinary general meeting or a class meeting, it shall give notice for such shareholders' general meeting within five days after it has so resolved. The consent of the concerned shareholders shall be obtained if any change is to be made to the request in the notice. If the board of directors refuses to convene an extraordinary general meeting or a class meeting, or it fails to give any feedback within 10 days after it has received the request, the shareholders who individually or in aggregate hold not less 10% of the Company's shares shall have the right to request in writing the supervisory committee to convene the extraordinary general meeting or class meeting; and (ii) If the supervisory committee consents to convene the extraordinary general meeting or the class meeting, it shall give the notice for such shareholders' general meeting within five days after it has received the request. The consent of the concerned shareholders shall be obtained if any change is to be made to the request in the notice. If the supervisory committee fails to give notice of convening the shareholders' general meeting within the provided time limit, the supervisory committee shall be deemed to have failed to convene and preside the shareholders' general meeting, and the shareholders who individually or in aggregate hold not less than 10% of the Company's shares for more than 90 consecutive days may at their own discretion convene and preside such a meeting.

The general meeting may authorize the board of directors to carry out matters on their behalf, with clear and specific authorization. For authorization of a matter that requiring an ordinary resolution, an ordinary resolution of the shareholders' general meeting shall be passed by affirmative votes representing at least 50% of the voting rights represented by the shareholders (including shareholders' proxies) present at the meeting. For authorization of a matter that requiring a special resolution, a special resolution of the shareholders' general meeting shall be

passed by affirmative votes representing at least two-thirds of the voting rights represented by the shareholders (including shareholders' proxies) present at the meeting.

Special Procedures for Voting by a Class of Shareholders and Modification of Rights

In addition to holders of other classes of shares, the holders of the domestic-invested shares and holders of overseas-listed foreign-invested shares shall be deemed to be holders of different classes of shares. Rights conferred on any class of shareholders ("class rights") may not be varied or abrogated save with the approval of a special resolution of shareholders at a general meeting and by the class shareholders affected at a separate meeting. Article 96 set forth the circumstances which shall be deemed to be variation or abrogation of the rights attaching to a particular class of shares, including but not limited to increasing or decreasing the number of shares of that class, reducing or removing preferential rights attached to shares of that class to receive dividends or the distribution of assets in the event that the Company is liquidated, etc. Shareholders of the affected class, whether or not otherwise having the right to vote at shareholders' general meetings, have the right to vote at class meetings in respect of certain matters listed in Article 96, but interested shareholder(s) shall not be entitled to vote at such class meetings. Resolutions of a class meeting shall be passed by votes representing two-thirds or more of the voting rights of shareholders of that class present at the relevant meeting who are entitled to vote. Written notice of a class meeting shall be given to all shareholders who are registered as holders of that class in the register of shareholders 45 days before the date of the class meeting. A shareholder who intends to attend the class meeting shall deliver his written reply in respect thereof to the Company 20 days before the date of the class meeting. The special procedures for approval by separate class shareholders shall not apply to the circumstances where the Company issues, upon the approval by a special resolution of its shareholders at a general meeting, either separately or concurrently once every 12 months, not more than 20% of each of its existing issued Domestic-Invested Shares and Overseas-Listed Foreign-Invested Shares.

Share Capital

The Company must have ordinary shares at all times. Subject to the applicable government approvals, the Company may create different classes of shares. Each share of the same class shall carry the same rights and the same benefits. The Company may, based on its operating and development needs, authorize the increase in its capital pursuant to the Articles of Association. The Company may increase its capital by public or non-public offering of shares; by allotting bonus shares to its existing shareholders; by converting common reserve fund into share capital; by any other means which is stipulated by law and administrative regulation and approved the relevant government authorities. Unless otherwise stipulated in the relevant laws or administrative regulations, shares of the Company shall be freely transferable and are not subject to any lien. Domestic-invested shares and overseas-listed foreign-invested shares shall be purchased, sold, donated, inherited and charged on in accordance with the PRC laws and the Company's Articles of Association. The Company may not accept its own shares as the subject matter of a pledge. Subject to certain conditions, the Company has the power to sell the shares of a shareholder who is untraceable and retain the payment. According to the procedures provided in the Company's Articles of Association, the Company may reduce its registered capital. The Company may, in accordance with the procedures set out in the Company's Articles of Association and with the approval of the relevant governing authorities, repurchase its issued shares under certain circumstances. The repurchase may be made by a general offer, stock exchange, off-market agreement, etc. The Company must obtain prior approval of the shareholders in a general meeting (in the manner stipulated in the Company's Articles of Association) before it can repurchase shares outside of the stock exchange by means of an off-market agreement.

Material Contracts

In the two years proceeding the date of this report, we have not entered into any material contracts other than in the ordinary course of business and other than those described under "Item 4 — Information on the Company", "Item 7 — Major Shareholders and Related Party Transactions" or elsewhere in this Form annual report.

Foreign Exchange Controls

The Renminbi currently is not a freely convertible currency. We receive most of our revenues in Renminbi. A portion of our Renminbi revenues must be converted into other currencies to meet our foreign currency obligations, including:

- debt service on foreign currency-denominated debt;
- external capital expenditures and equity investment;
- purchases of imported oil, gas, equipment and materials; and
- payment of any dividends declared with respect to the H Shares.

Under the existing foreign exchange regulations in China, we may undertake current account foreign exchange transactions, including the payment of dividends, without prior approval from the State Administration of Foreign Exchange by producing commercial documents evidencing such transactions.

Foreign exchange transactions under the capital account, including principal payments with respect to foreign currency-denominated obligations, continue to be subject to limitations and require the prior approval of the State Administration of Foreign Exchange. These limitations could affect our ability to obtain foreign exchange through debt financing, or to obtain foreign exchange for capital expenditures.

We have been, and will continue to be, affected by changes in exchange rates in connection with our ability to meet our foreign currency obligations and will be affected by such changes in connection with our ability to pay dividends on the H Shares in Hong Kong dollars and on ADSs in U.S. dollars. We believe that we have or will be able to obtain sufficient foreign exchange to continue to satisfy these obligations. We engage in hedging transactions with a view to managing exchange rate risk exposure.

We are not aware of any other PRC laws, decrees or regulations that restrict the export or import of capital or that affect the remittance of dividends, interest or other payments to non-resident holders.

Taxation

The following discussion addresses the main PRC and United States federal income tax consequences of the ownership of H Shares or ADSs purchased held by the investor as capital assets.

PRC Taxation

Dividends and Individual Investors

Pursuant to the Individual Income Tax Law of the PRC, all foreign individuals are subject to a 20% withholding tax on dividends paid by a PRC company on its shares listed overseas, or Overseas Shares, unless specifically exempt by the financial authority of the State Council of the PRC. However, pursuant to the *Notice on the Collection of Individual Income Tax after the Abolishment of Guoshuifa [1993] No. 045*, or Circular 348, issued by the State General Administration of Taxation of the PRC on June 28, 2011, foreign individual shareholders holding H Shares, or individual H shareholders, in a PRC company listed in Hong Kong may be subject to different levels of withholding taxes on dividends based on the tax treaties of their home countries with China. Individual H shareholders, who are residents of Hong Kong or Macau or who enjoy a 10% tax rate on dividends based on the tax treaties of their home countries with China, are subject to a withholding tax rate of 10% with respect to the H-share dividends they receive. For those individual H shareholders whose home countries have tax treaties with China prescribing a tax rate on dividends lower than 10%, the PRC company, whose shares are held by such individual H shareholders, needs to make tax filings on behalf of the individual H shareholders in order for them to enjoy such tax treatment. For individual H shareholders whose home countries

have tax treaties with China prescribing a tax rate on dividends between 10% and 20%, the PRC company, whose shares are held by such individual H shareholders, shall withhold the individual income tax at the agreed-upon tax rate. For individual H shareholders whose home countries have no tax treaties with China or whose home countries have tax treaties with China prescribing a tax rate on dividends higher than 20%, the PRC company shall withhold the tax at a rate of 20%.

Dividends and Foreign Enterprises

Pursuant to the *Enterprise Income Tax Law of the PRC* and the implementing rules thereunder, the *Circular on Issues Concerning the Withholding of Corporate Income Tax by PRC Resident Enterprises from Dividends Payable to H Share Non-resident Corporate Shareholders*, and the *Measures for the Administration of the Enjoyment by Non-residents of the Treatments under the Tax Treaties*, when paying any of its H share non-resident corporate shareholders any dividends, we withhold the corporate income tax from such dividends at a rate of 10%. For an H share non-resident corporate shareholder whose home country has a tax treaty with China prescribing a tax rate on dividends lower than 10%, such H share non-resident corporate shareholder may, by itself or through an agent or us, make filings with the competent taxation authority for the treatment under the applicable tax treaty and present the documents evidencing that such shareholder is qualified to be a beneficial owner as defined under the applicable tax treaty.

Tax Treaties

If you are a tax resident or citizen of a country that has entered into a double-taxation treaty with the PRC, you may be entitled to a reduction in the amount of tax withheld, if any, imposed on the payment of dividends. The PRC currently has such treaties with a number of countries, including but not limited to:

- the United States;
- Australia;
- Canada;
- France;
- Germany;
- Japan;
- Malaysia;
- Singapore;
- the United Kingdom; and
- the Netherlands.

Under certain treaties, the rate of withholding tax imposed by China's taxation authorities may be reduced. Pursuant to the *Measures for the Administration of the Enjoyment by Non-residents of the Treatments under Applicable Treaties* promulgated by the State Administration of Taxation on October 14, 2019, a non-PRC resident may apply the applicable benefit under tax treaties to him/herself when he/she makes tax filings or upon withholding by third parties and no prior approvals of the taxation authorities are required, if such non-PRC resident decides based on his/her own judgment that he/she is entitled to such benefits.

Capital Gains

The *Individual Income Tax Law of the PRC,* provides for a capital gains tax of 20% on individuals. The *Provisions for Implementing the Individual Income Tax Law of the PRC*, provides that the measures to levy individual income tax on the gains realized on the sale of shares will be made in the future by the Ministry of

Finance and subject to the approval of the State Council. However, the Ministry of Finance has not so far promulgated a specific taxation method to levy tax on the capital gains realized by individual holders of H Shares or ADSs from sale of shares. If in the future such specific taxation method is promulgated, an individual holder of H Shares or ADSs may be subject to a 20% tax on capital gains under the *Individual Income Tax Law of the PRC* as amended from time to time, unless exempted or reduced by an applicable double taxation treaty or relevant PRC law or regulation.

Under the *Enterprise Income Tax Law of the PRC*, capital gains realized by foreign enterprises which are non-resident enterprises in the PRC upon the sale of Overseas Shares by PRC companies are generally subject to a PRC withholding tax levied at a rate of 10%, unless exempted or reduced pursuant to an applicable double-taxation treaty or other exemptions.

Shanghai-Hong Kong Stock Connect

In April 2014, China launched the Shanghai-Hong Kong Stock Connect Program, which is a cross-boundary investment channel that connects the Shanghai Stock Exchange and the Hong Kong Stock Exchange. Under the program, investors in each market are able to trade shares on the other market using their local brokers and clearing agencies. In accordance with the current PRC tax policies, foreign investors are temporarily exempt from income tax on capital gains derived from the trading of A Shares under the program and will be subject to a 10% withholding tax on the dividends received under the program. For a shareholder whose home country has tax treaty with China prescribing a tax rate on dividends lower than 10%, such shareholder may by itself or through an agent or the withholding agent, apply to the competent taxation authority for the treatment under the applicable tax treaty and present the documents evidencing that such shareholder is qualified to be a beneficial owner as defined under the applicable tax treaty.

Additional PRC Tax Considerations

Under the Provisional Regulations of the People's Republic of China Concerning the Stamp Duty, a stamp duty is not imposed by the PRC on the transfer of shares, such as the H Shares or ADSs, of PRC publicly traded companies that take place outside of China.

United States Federal Income Taxation

The following is a general discussion of the material United States federal income tax consequences of purchasing, owning and disposing of the H Shares or ADSs if you are a U.S. holder, as defined below, and hold the H Shares or ADSs as capital assets within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended, or the Code. This discussion does not address all of the tax consequences relating to the purchase, ownership and disposition of the H Shares or ADSs, and does not take into account U.S. holders who may be subject to special rules including:

- tax-exempt entities;
- certain insurance companies;
- broker-dealers;
- traders in securities that elect to mark to market;
- U.S. expatriates;
- U.S. holders liable for alternative minimum tax;
- U.S. holders that own (directly, indirectly, or constructively) 10% or more of the voting power or value of our equity;
- U.S. holders that hold as part of a straddle or a hedging or conversion transaction; or
- U.S. holders whose functional currency is not the U.S. dollar.

This discussion is based on the Code, its legislative history, final, temporary and proposed United States Treasury regulations promulgated thereunder, published rulings and court decisions as in effect on the date hereof, all of which are subject to change, or changes in interpretation, possibly with retroactive effect. In addition, this discussion is based in part upon representations of the depositary and the assumption that each obligation in the deposit agreement and any related agreements will be performed according to its terms.

You are a "U.S. holder" if you are:

- a citizen or resident of the United States for United States federal income tax purposes;
- a corporation, or other entity treated as a corporation for United States federal income tax purposes, created or organized under the laws of the United States, or any state thereof or the District of Columbia;
- an estate the income of which is subject to United States federal income tax without regard to its source; or
- a trust:
  - subject to the primary supervision of a United States court and the control of one or more United States persons; or
  - that has elected to be treated as a United States person under applicable United States Treasury regulations.

If a partnership (or other entity treated as a partnership for United States federal income tax purposes) holds the H Shares or ADSs, the tax treatment of a partner generally will depend on the status of the partner and the activities of the partnership. If you are a partner of a partnership that holds the H Shares or ADSs, we urge you to consult your tax advisors regarding the consequences of the purchase, ownership and disposition of the H Shares or ADSs.

This discussion does not address any aspects of United States taxation other than federal income taxation.

We urge you to consult your tax advisors regarding the United States federal, state, local and non-United States tax consequences of the purchase, ownership and disposition of the H Shares or ADSs.

In general, if you hold American depositary receipts evidencing ADSs, you will be treated as owner of the H Shares represented by the ADSs. The following discussion assumes that we are not a passive foreign investment company, or PFIC, as discussed under "PFIC Rules" below.

Distributions on the H Shares or ADSs

The gross amount of any distribution (without reduction for any PRC tax withheld) we make on the H Shares or ADSs out of our current or accumulated earnings and profits (as determined for United States federal income tax purposes) will be includible in your gross income as dividend income when the distribution is actually or constructively received by you, in the case of the H Shares, or by the depositary in the case of ADSs. Distributions that exceed our current and accumulated earnings and profits will be treated as a return of capital to you to the extent of your tax basis in the H Shares or ADSs and thereafter as capital gains. Because we do not intend to determine our earnings and profits on the basis of United States federal income tax principles, any distribution paid will generally be treated as a "dividend" for United States federal income tax purposes. Subject to certain limitations, dividends paid to non-corporate U.S. holders, including individuals, currently are eligible for a reduced rate of taxation if we are deemed to be a "qualified foreign corporation" for United States federal income tax purposes. A qualified foreign corporation includes:

- a foreign corporation that is eligible for the benefits of a comprehensive income tax treaty with the United States that includes an exchange of information program; or

- a foreign corporation if its stock with respect to which a dividend is paid (or ADSs backed by such stock) is readily tradable on an established securities market within the United States (as determined for United States federal income tax purposes),

but does not include an otherwise qualified foreign corporation that is a PFIC in the taxable year that the dividend is paid or in the prior taxable year. We believe that we will be a qualified foreign corporation so long as we are not a PFIC and we are considered eligible for the benefits of the Agreement between the Government of the United States of America and the Government of the People's Republic of China for the Avoidance of Double Taxation and the Prevention of Tax Evasion with Respect to Taxes on Income, or the Treaty. Our status as a qualified foreign corporation, however, may change.

Any dividend will not be eligible for the dividends-received deduction generally allowed to United States corporations with respect to dividends received from United States corporations. The amount of any distribution of property other than cash will be the fair market value of such property on the date of such distribution.

If we make a distribution paid in HK dollars, you will be considered to receive the U.S. dollar value of the distribution determined at the spot HK dollar/ U.S. dollar rate on the date such distribution is received by you or by the depositary, regardless of whether you or the depositary convert the distribution into U.S. dollars. Any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in your income to the date you or the depositary convert the distribution into U.S. dollars will be treated as United States source ordinary income or loss for foreign tax credit limitation purposes.

Subject to various limitations, any PRC tax withheld from distributions in accordance with PRC law, as limited by the Treaty, as discussed under "— PRC Taxation," will be deductible or creditable against your United States federal income tax liability. For foreign tax credit limitation purposes, dividends paid on the H Shares or ADSs will be foreign source income, and will be treated as "passive category income" or, in the case of some U.S. holders, "general category income." You may not be able to claim a foreign tax credit (and instead may claim a deduction) for non-United States taxes imposed on dividends paid on the H Shares or ADSs if you (i) have held the H Shares or ADSs for less than a specified minimum period during which you are not protected from risk of loss with respect to such Shares, or (ii) are obligated to make payments related to the dividends (for example, pursuant to a short sale).

Sale, Exchange or Other Disposition

Upon a sale, exchange or other disposition of the H Shares or ADSs, you will recognize a capital gain or loss for United States federal income tax purposes in an amount equal to the difference between the U.S. dollar value of the amount realized and your tax basis, determined in U.S. dollars, in such H Shares or ADSs. Any gain or loss will generally be United States source gain or loss for foreign tax credit limitation purposes. Capital gain of certain non-corporate U.S. holders, including individuals, is generally taxed at a reduced rate where the property has been held more than one year. Your ability to deduct capital losses is subject to limitations. If any PRC tax is withheld from your gain on a sale, exchange or other disposition of H Shares or ADSs, as discussed under "— PRC Taxation," such tax would only be creditable against your United States federal income tax liability to the extent that you have foreign source income. However, in the event that such PRC tax is withheld, a U.S. holder that is eligible for the benefits of the Treaty may be able to treat the gain as foreign source income for foreign tax credit satisfaction purposes. You are urged to consult your tax advisors regarding the United States federal income tax consequences if PRC tax is withheld from your gain on the sale, exchange or other disposition of H Shares or ADSs, including the availability of a foreign tax credit under your particular circumstances.

If you are paid in a currency other than U.S. dollars, any gain or loss resulting from currency exchange fluctuations during the period from the date of the payment resulting from the sale, exchange or other disposition to the date you convert the payment into U.S. dollars will be treated as United States source ordinary income or loss for foreign tax credit limitation purposes.

PFIC Rules

In general, a foreign corporation is a PFIC for United States federal income tax purposes for any taxable year in which, after applying relevant look-through rules with respect to the income and assets of subsidiaries:

- 75% or more of its gross income consists of passive income, such as dividends, interest, rents and royalties; or
- 50% or more of the average quarterly value of its assets consists of assets that produce, or are held for the production of, passive income.

For this purpose, passive income generally includes dividends, interest, certain types of rents and royalties, annuities, net gains from the sale or exchange of property producing such income, net gains from commodity transactions, net foreign currency gains and net income from notional principal contracts. In addition, cash, cash equivalents, securities held for investment purposes, and certain other similar assets are generally categorized as passive assets.

We believe that we did not meet either of the PFIC tests in the taxable year that ended December 31, 2020 and believe that we will not meet either of the PFIC tests in the current or subsequent taxable years and therefore will not be treated as a PFIC for such periods. We must make a separate determination after the close of each taxable year as to whether we were a PFIC for that year. Accordingly, there can be no assurance that we will not be a PFIC in the current or subsequent taxable years.

If we were a PFIC in any taxable year that you held the H Shares or ADSs, you generally would be subject to special rules with respect to "excess distributions" made by us on the H Shares or ADSs and with respect to gain from your disposition of the H Shares or ADSs. An "excess distribution" generally is defined as the excess of the distributions you receive with respect to the H Shares or ADSs in any taxable year over 125% of the average annual distributions you have received from us during the shorter of the three preceding years or your holding period for the H Shares or ADSs. Generally, you would be required to allocate any excess distribution or gain from the disposition of the H Shares or ADSs ratably over your holding period for the H Shares or ADSs. The portion of the excess distribution or gain allocated to a prior taxable year, other than a year prior to the first year in which we became a PFIC, would be taxed at the highest United States federal income tax rate on ordinary income in effect for such taxable year, and you would be subject to an interest charge on the resulting tax liability, determined as if the tax liability had been due with respect to such particular taxable years. The portion of the excess distribution or gain that is not allocated to prior taxable years, together with the portion allocated to the years prior to the first year in which we became a PFIC, would be included in your gross income for the taxable year of the excess distribution or disposition and taxed as ordinary income.

The foregoing rules with respect to excess distributions and dispositions may be avoided or reduced if you are eligible for and timely make a valid "mark-to-market" election. If your H Shares or ADSs were treated as shares regularly traded on a "qualified exchange" for United States federal income tax purposes and a valid and timely mark-to-market election was made, in calculating your taxable income for each taxable year, you generally would be required to take into account as ordinary income or loss the difference, if any, between the fair market value and the adjusted tax basis of your H Shares or ADSs at the end of your taxable year. However, the amount of loss you would be allowed is limited to the extent of the net amount of previously included income as a result of the mark-to–market election. The New York Stock Exchange on which the ADSs are traded is a qualified exchange for United States federal income tax purposes.

Alternatively, a timely election to treat us as a qualified electing fund under Section 1295 of the Code could be made to avoid the foregoing rules with respect to excess distributions and dispositions. You should be aware, however, that if we become a PFIC, we do not intend to satisfy record keeping requirements that would permit you to make a qualified electing fund election.

If you own the H Shares or ADSs during any year that we are a PFIC, you must annually file Internal Revenue Service, or IRS, Form 8621(or any other form subsequently specified by the United States Treasury

Department), subject to certain exceptions based on the value of PFIC stock held. We encourage you to consult your own tax advisor concerning the United States federal income tax consequences of holding the H Shares or ADSs that would arise if we were considered a PFIC.

Backup Withholding and Information Reporting

In general, information reporting requirements will apply to dividends with respect to the H Shares or ADSs or the proceeds of the sale, exchange or other disposition of the H Shares or ADSs paid within the United States, and in some cases, outside of the United States, other than to various exempt recipients, including corporations. In addition, you may, under some circumstances, be subject to "backup withholding" with respect to dividends paid on the H Shares or ADSs or the proceeds of any sale, exchange or other disposition of the H Shares or ADSs, unless you:

- are a corporation or fall within various other exempt categories, and, when required, demonstrate this fact; or
- provide a correct taxpayer identification number on a properly completed IRS Form W-9 or a substitute form, certify that you are exempt from backup withholding and otherwise comply with applicable requirements of the backup withholding rules.

Backup withholding is not an additional tax. Any amount withheld under the backup withholding rules generally will be creditable against your United States federal income tax liability provided that you furnish the required information to the IRS in a timely manner and you may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the IRS in a timely manner and furnishing any required information. If you do not provide a correct taxpayer identification number you may be subject to penalties imposed by the IRS.

In addition, certain U.S. holders who are individuals that hold certain foreign financial assets (which may include the H Shares or ADSs) may be required to report information relating to such assets, subject to certain exceptions. You should consult your own tax advisors regarding the effect, if any, of this requirement on your ownership and disposition of the H Shares or ADSs.

Documents on Display

You may find our annual reports on Form 20-F, the exhibits and other documents filed with the SEC on its website www.sec.gov and our company's website www.petrochina.com.cn. Upon request, we will provide hardcopies of our annual report on Form 20-F to you free of charge.

The SEC allows us to "incorporate by reference" the information we file with the Commission. This means that we can disclose important information to you by referring you to another document filed separately with the Commission. The information incorporated by reference is considered to be part of this annual report on Form 20-F. This annual report contains exhibits and schedules. Any statement in this annual report about any of our contracts or other documents is not necessarily complete. If the contract or document is filed or incorporated by reference as an exhibit to this annual report, the contract or document is deemed to modify the description contained in this annual report. You must review the exhibits themselves for a complete description of the contracts or documents.

As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

Item 11 — *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

In the normal course of business, we hold or issue various financial instruments which expose us to interest rate and foreign exchange rate risks. We hedge part of the exchange rate risk through hedging instruments. Additionally, our operations are affected by certain commodity price movements. We use derivative instruments such as commodity futures, commodity swaps and commodity options for hedging some price risks efficiently. Substantially all of the financial instruments we hold are for purposes other than trading. We regard an effective market risk management system as an important element of our treasury function and are currently enhancing our systems. A primary objective of our market risk management is to implement certain methodologies to better measure and monitor risk exposures.

The following discussions and tables, which constitute "forward-looking statements" that involve risks and uncertainties, summarize our market-sensitive financial instruments including fair value, maturity and contract terms. Such discussions address market risk only and do not present other risks which we face in the normal course of business.

Interest Rate Risk

Our interest risk exposure arises from changing interest rates. The tables below provide information about our financial instruments including various debt obligations that are sensitive to changes in interest rates. The tables present principal cash flows and related weighted-average interest rates at expected maturity dates. Weighted-average variable rates are based on effective rates as of December 31, 2018, 2019 and 2020. The information is presented in Renminbi equivalents, our reporting currency.

Foreign Exchange Rate Risk

We conduct our business primarily in Renminbi. However, a portion of our RMB revenues are converted into other currencies to be used in foreign investment and trading, to meet foreign currency financial instrument obligations and to pay for imported oil, gas, equipment and other materials. Foreign currency payments for imported oil and gas represented 24.4%, 23.6% and 21.6% of our total purchases, services and other expenses in 2018, 2019 and 2020, respectively. These are the main foreign exchange payments of the company.

The Renminbi is not a freely convertible currency. Limitation in foreign exchange transactions imposed by the PRC government could cause future exchange rates to vary significantly from current or historical exchange rates.

The tables below provide information about our financial instruments including foreign currency denominated debt instruments that are sensitive to foreign currency exchange rates. The tables below summarize such information by presenting principal cash flows and related weighted-average interest rates at expected maturity dates in RMB equivalents, using the exchange rates in effect as of December 31, 2018, 2019 and 2020, respectively.

December 31, 2020

	Expected Maturity Date							Percentage to Total Long-Term Borrowings	Fair Value
	2021	2022	2023	2024	2025	Thereafter	Total		
	(RMB equivalent in millions, except percentages)								
Long term debt									
Loans in RMB									
Fixed Rate Loan Amount	1,291	16,877	7,657	2,880	13,353	278	42,336	12.96%	40,972
Average Interest Rate	4.01%	4.10%	3.42%	2.89%	4.04%	3.77%	—	—	—
Variable Rate Loan Amount	15,844	15,035	29,828	3,200	1,750	8,603	74,260	22.74%	74,260
Average Interest Rate	3.56%	3.63%	2.60%	3.80%	4.20%	4.03%	—	—	—
Loans in Euro									
Fixed Rate Loan Amount	—	—	4	—	—	124	128	0.04%	243
Average Interest Rate	—	—	2.00%	—	—	3.88%	—	—	—
Variable Rate Loan Amount	—	—	—	—	3,812	—	3,812	1.17%	3,812
Average Interest Rate	—	—	—	—	1.18%	—	—	—	—
Loans in United States Dollar									
Fixed Rate Loan Amount	11	22	—	—	—	131	164	0.05%	161
Average Interest Rate	1.55%	1.55%	—	—	—	0.05%	—	—	—
Variable Rate Loan Amount	11,597	12,646	9,437	—	29,415	5,513	68,608	21.00%	68,608
Average Interest Rate	4.37%	1.39%	1.33%	—	1.39%	2.16%	—	—	—
Loans in Japanese Yen									
Fixed Rate Loan Amount	—	—	—	—	—	18	18	0.01%	13
Average Interest Rate	—	—	—	—	—	1.76%	—	—	—
Variable Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Loans in CFA Franc									
Fixed Rate Loan Amount	—	2	—	—	—	—	2	—	2
Average Interest Rate	—	2.00%	—	—	—	—	2.00%	—	—
Variable Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Debentures in United States Dollar									
Fixed Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Debentures in RMB									
Fixed Rate Loan Amount	31,000	2,000	4,000	—	—	11,000	48,000	14.70%	47,333
Average Interest Rate	3.09%	4.09%	4.88%	—	—	3.84%	—	—	—
Medium Term Notes in RMB									
Fixed Rate Loan Amount	15,000	—	21,000	—	50,000	—	86,000	26.34%	85,230
Average Interest Rate	3.45%	—	2.42%	—	3.64%	—	—	—	—
Medium Term Notes in United State Dollar									
Fixed Rate Loan Amount	—	—	—	—	3,239	—	3,239	0.99%	3,175
Average Interest Rate	—	—	—	—	3.75%	—	—	—	—
Total	74,743	46,582	71,926	6,080	101,569	25,667	326,567	100.00%	323,809

December 31, 2019

	Expected Maturity Date							Percentage to Total Long-Term Borrowings	Fair Value
	2020	2021	2022	2023	2024	Thereafter	Total		
	(RMB equivalent in millions, except percentages)								
Long term debt									
Loans in RMB									
Fixed Rate Loan Amount	10,537	4,645	33,010	2,855	17,716	10,152	78,915	20.97%	76,027
Average Interest Rate	4.00%	2.79%	4.07%	4.30%	3.17%	4.15%	—	—	—
Variable Rate Loan Amount	2,854	17,515	51,274	315	768	7,839	80,565	21.41%	80,565
Average Interest Rate	4.52%	4.37%	4.12%	5.00%	4.32%	4.11%	—	—	—
Loans in Euro									
Fixed Rate Loan Amount	4	1	1	1	—	126	133	0.04%	239
Average Interest Rate	2.00%	2.00%	2.00%	2.00%	—	3.88%	—	—	—
Variable Rate Loan Amount	3,595	—	—	—	—	—	3,595	0.96%	3,595
Average Interest Rate	2.35%	—	—	—	—	—	—	—	—
Loans in United States Dollar									
Fixed Rate Loan Amount	36	36	17	9	9	105	212	0.06%	188
Average Interest Rate	0.49%	0.49%	0.36%	0.05%	0.05%	0.05%	—	—	—
Variable Rate Loan Amount	42,838	12,544	14,769	—	—	13	70,164	18.65%	70,164
Average Interest Rate	4.34%	4.38%	4.03%	—	—	5.41%	—	—	—
Loans in Japanese Yen									
Fixed Rate Loan Amount	1	—	3	3	3	8	18	0.00%	18
Average Interest Rate	2.30%	—	2.30%	2.30%	2.30%	1.77%	—	—	—
Variable Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Loans in Hong Kong Dollar									
Variable Rate Loan Amount	6	2	672	—	—	—	680	0.18%	680
Average Interest Rate	2%	2%	3.77%	—	—	—	—	—	—
Debentures in Canadian Dollar									
Fixed Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Variable Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Debentures in United States Dollar									
Fixed Rate Loan Amount	—	—	—	—	—	—	—	—	—
Debentures in RMB									
Fixed Rate Loan Amount	2,000	—	31,000	—	10,300	6,700	50,000	13.29%	49,622
Average Interest Rate	4.30%	—	3.09%	—	4.10%	3.84%	—	—	—
Medium Term Note in RMB									
Fixed Rate Loan Amount	20,000	—	15,000	—	50,000	—	85,000	22.59%	83,894
Average Interest Rate	3.85%	—	3.45%	—	3.64%	—	—	—	—
Medium Term Notes in United State Dollar									
Fixed Rate Loan Amount	3,472	—	—	—	—	3,471	6,943	1.85%	6,815
Average Interest Rate	2.88%	—	—	—	—	3.75%	—	—	—
Total	85,343	34,743	145,746	3,183	78,796	28,414	376,225	100.00%	371,807

December 31, 2018

	Expected Maturity Date							Percentage to Total Long-Term Borrowings	Fair Value
	2019	2020	2021	2022	2023	Thereafter	Total		
	(RMB equivalent in millions, except percentages)								
Long term debt									
Loans in RMB									
Fixed Rate Loan Amount	36,351	10,583	1,310	26,585	2,626	20,114	97,569	28.30%	94,272
Average Interest Rate	4.31%	3.99%	4.43%	3.66%	4.30%	4.58%	—	—	—
Variable Rate Loan Amount	32,508	3,091	28,339	165	266	7,624	71,993	20.88%	71,993
Average Interest Rate	3.94%	4.53%	4.08%	4.85%	4.89%	4.11%	—	—	—
Loans in Euro									
Fixed Rate Loan Amount	13	—	—	—	—	52	65	0.02%	166
Average Interest Rate	2.00%	—	—	—	—	0.95%	—	—	—
Variable Rate Loan Amount	—	2,354	—	—	—	—	2,354	0.68%	2,354
Average Interest Rate	—	2.35%	—	—	—	—	—	—	—
Loans in United States Dollar									
Fixed Rate Loan Amount	36	36	36	17	9	110	244	0.07%	206
Average Interest Rate	1.17%	1.17%	1.17%	0.75%	0.09%	0.04%	—	—	—
Variable Rate Loan Amount	2,483	48,621	12,752	12,890	—	—	76,746	22.26%	76,746
Average Interest Rate	2.58%	4.55%	4.71%	4.04%	—	—	—	—	—
Loans in Japanese Yen									
Fixed Rate Loan Amount	8	—	3	3	3	6	23	0.01%	27
Average Interest Rate	2.40%	—	2.30%	2.30%	2.30%	0.36%	—	—	—
Variable Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Loans in Hong Kong Dollar									
Variable Rate Loan Amount	664	6	2	1	—	—	673	0.20%	673
Average Interest Rate	2.57%	2.00%	2.00%	2.00%	—	—	—	—	—
Debentures in Canadian Dollar									
Fixed Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Variable Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Debentures in United States Dollar									
Fixed Rate Loan Amount	—	—	—	—	—	—	—	—	—
Average Interest Rate	—	—	—	—	—	—	—	—	—
Debentures in RMB									
Fixed Rate Loan Amount	3,307	2,000	31,000	2,000	8,300	6,700	53,307	15.46%	52,287
Average interest rate	1.63%	4.30%	3.09%	4.90%	4.24%	3.96%	—	—	—
Medium Term Note in RMB									
Fixed Rate Loan Amount	—	—	35,000	—	—	—	35,000	10.15%	34,458
Average interest rate	—	—	2.20%	—	—	—	—	—	—
Medium Term Notes in United State Dollar									
Fixed Rate Loan Amount	—	3,410	—	—	—	3,408	6,818	1.98%	6,696
Average Interest Rate	—	2.87%	—	—	—	3.76%	—	—	—
Total	75,370	70,101	108,442	41,661	11,204	38,014	344,792	100.00%	339,878

See “Item 3 — Key Information — Risk Factors — Risks Related to Pricing and Exchange Rate”.

Commodity Price Risk

We are engaged in a wide range of petroleum-related activities and purchase certain quantity of oil from the international market to meet our demands. The prices of crude oil and refined products in the international market are affected by various factors such as changes in global and regional politics and economy, the demand and supply of crude oil and refined products, as well as unexpected events and disputes with international repercussions. The domestic crude oil price is determined with reference to the international price of crude oil whereby the domestic refined oil prices adjust with changes in crude oil prices in the international market. We

use derivative instruments such as commodity futures, commodity swaps and commodity options to hedge some commodity price risks. We have strict internal control requirements with respect to the purpose, types, holding volumes of any derivative instruments as against the inventories, and the transaction process of the derivatives. Any derivative instruments we have are entered into solely for non-trading purposes. We do not expect any material market risks to our financial position, results of operations or liquidity exist as a result of entering into such derivatives. See "Item 3 — Key Information — Risk Factors — Risks Related to Pricing and Exchange Rate".

Item 12 — *DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES*

Fees paid by our ADS holders

The Bank of New York Mellon, the depositary of our ADS program, collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may refuse to deliver ADSs or the deposited shares or provide any distributions until its fees for those services are paid.

Persons Depositing or Withdrawing Shares Must Pay:	For:
$5.00 (or less) per 100 ADSs (or portion thereof)	Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property
	Cancelation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates
$0.05 (or less) per ADS (or portion thereof)	Any cash distribution to ADS holders
$0.05 (or less) per ADS per calendar year	Depositary services
A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs	Distribution of securities distributed to holders of deposited securities which are distributed by the depositary to ADS holders
Registration or transfer fees	Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares
Expenses of the depositary	Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement)
	Converting foreign currency to U.S. dollars
Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes	As necessary
Any charges incurred by the depositary or its agents for servicing the deposited securities	As necessary

Fees and Payments from the Depositary to Us

In the year ended December 31, 2020, we received from the depositary a reimbursement of US$171,635.09, net of withholding tax, for our continuing annual stock exchange listing fees and our expenses incurred in

connection with investor relationship programs. In addition, the depositary has agreed to reimburse us certain amount per year of the facility, including but not limited to, investor relations expenses or any other American depositary receipts program related expenses. The amount of such reimbursements is subject to certain limits.

PART II

Item 13 — *DEFAULTS, DIVIDENDS ARREARAGES AND DELINQUENCIES*

None.

Item 14 — *MATERIAL MODIFICATIONS TO THE RIGHTS TO SECURITY HOLDERS AND USE OF PROCEEDS*

None.

Item 15 — *CONTROLS AND PROCEDURES*

Evaluation of the Management on Disclosure Controls and Procedures

Our chairman, president and CFO, after evaluating the effectiveness of our disclosure controls and procedures (as defined in the United States Exchange Act Rules 13a-15(e) and 15d(e)) as of the end of the period covered by this annual report, have concluded that, as of such date, our company's disclosure controls and procedures were effective to ensure that material information required to be disclosed in the reports that we file and furnish under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and regulations and that such information is accumulated and communicated to our company's management, including our principal executive and financial officers, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Exchange Act Rules 13a-15(f). Under the supervision and with the participation of our company's management, including our principal executive officer and principal financial officer, our company evaluated the effectiveness of its internal control over financial reporting based on criteria established in the framework in *Internal Control — Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our company's management has concluded that our internal control over financial reporting was effective as of December 31, 2020.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

The effectiveness of our company's internal control over financial reporting as of December 31, 2020 has been audited by KPMG Huazhen LLP, our company's independent registered public accountants, as stated below.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
PetroChina Company Limited:

Opinion on Internal Control Over Financial Reporting

We have audited PetroChina Company Limited and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial position of the Company as of December 31, 2020 and 2019, the related consolidated statements of comprehensive income, cash flows and changes in equity for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements), and our report dated April 29, 2021 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that

controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ **KPMG Huazhen LLP**
Beijing, China
April 29, 2021

Changes in Internal Control over Financial Reporting

During the year ended December 31, 2020, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our company's internal control over financial reporting.

Item 16A — *AUDIT COMMITTEE FINANCIAL EXPERT*

Our audit committee is composed of two independent non-executive directors, Cai Jinyong and Mr. Jiang, Simon X., and one non-executive director, Mr. Liu Yuezhen. See "Item 6 — Directors, Senior Management and Employees — Board Practices — Audit Committee". Mr. Cai Jinyong, our independent non-executive director, has been confirmed as a "financial expert" as defined in Item 16A of Form 20-F.

Item 16B — *CODE OF ETHICS*

We adopted our code of business conduct and ethics for senior management on March 23, 2004 and our code of business conduct and ethics for employees on March 2, 2005 and have disclosed the content of both codes on our website.

These two Codes of Ethics may be accessed as follows:

1. From our main web page, first click on "Investor Relations".

2. Next, click on "Corporate Governance Structure".

3. Finally, click on "Code of Ethics for Senior Management" or "Code of Ethics for Employees of PetroChina Company Limited".

This 20-F also includes both of the codes as exhibit 11.1 and 11.2.

Item 16C — *PRINCIPAL ACCOUNTANT FEES AND SERVICES*

KPMG Huazhen LLP ("KPMG Huazhen") served as our independent accountant for the fiscal years of 2019 and 2020. The office of KPMG Huazhen is located at 8th Floor, KPMG Tower, Oriental Plaza, 1 East Chang An Avenue, Beijing, China.

The following table presents the aggregate fees paid by us (not including our subsidiaries) for professional audit services, tax and other services rendered by KPMG Huazhen to us for each of the years ended December 31, 2019 and 2020, respectively.

	December 31,	
	2019	2020
	RMB in millions	
Audit fees	53	49
Audit-related fees	—	—
Tax fees	—	—
All other fees	—	—
Total	53	49

The auditors' remuneration above represented the annual fees paid by us for the years indicated. The remuneration did not include fees of RMB62 million (2019: RMB60 million) paid by our subsidiaries to KPMG Huazhen and its network firms which primarily included audit fees of RMB52 million (2019: RMB50 million), audit-related fees of RMB6 million (2019: RMB7 million) and tax fees of RMB3 million (2019: RMB2 million), and other service fees of RMB1 million (2019: RMB1 million), respectively.

Audit Committee Pre-approved Policies and Procedures

Currently, all services to be provided by our independent registered public accountant must be pre-approved by our audit committee.

During the year ended December 31, 2020, services relating to all non-audit related fees provided to us by KPMG Huazhen were approved by our audit committee in accordance with the de minimis exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

Item 16D — *EXEMPTIONS FROM LISTING STANDARDS FOR AUDIT COMMITTEES*

We rely on an exemption contained in paragraph (b)(1)(iv)(D) of Rule 10A-3 under the Securities and Exchange Act of 1934, as amended, from the New York Stock Exchange listing requirement that each member of the audit committee of a listed issuer must be independent. Our single non-independent audit committee member, who is a representative of CNPC, is not a voting member, nor the chairman of the audit committee of our board of directors, which qualifies us for the exemption from the independence requirements available under paragraph (b)(1)(iv)(D) of Rule 10A-3. See "Item 6 — Directors, Senior Management and Employees — Board Practice — Audit Committee." We believe our reliance on this exemption does not have any adverse effect on the ability of our audit committee to act independently.

Item 16E — *PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS*

Not applicable.

Item 16F — *CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT*

Pursuant to the applicable regulatory requirement of the PRC government in relation to mandatory auditor rotation, on March 25, 2021, our board of directors approved not to re-appoint KPMG Huazhen as our principal accountant, upon completion of their audits of our consolidated financial statements as of and for the year ended December 31, 2020 and the effectiveness of the internal control over financial reporting as of December 31, 2020, and the issuance of their reports thereon. Our board of directors, pursuant to an open selection process and as recommended by the audit committee, resolved to propose to appoint PricewaterhouseCoopers Zhong Tian LLP ("PwC") as our principal accountant for the year ended December 31, 2021, with effect from being approved at the general meeting to be held on June 10, 2021.

The audit reports of KPMG Huazhen on our consolidated financial statements as of and for the years ended December 31, 2020 and 2019 did not contain any adverse opinion or disclaimer of opinion, nor was qualified or modified as to uncertainties, audit scope or accounting principles, except as follows: KPMG Huazhen's report on the consolidated financial statements of the Company as of and for the years ended December 31, 2020 and 2019, contained a separate paragraph stating that "As discussed in Note 3(ac)(ii) to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of International Financial Reporting Standard 16 "Leases"."

During the fiscal years ended December 31, 2020 and 2019 and through April 29, 2021, there were no: (1) disagreements with KPMG Huazhen on any matter of accounting principles or practices, financial statements

disclosure, or auditing scope or procedures, which disagreements, if not resolved to their satisfaction, would have caused them to make reference in connection with their opinion to the subject matter of the disagreements; or (2) reportable events (as defined in Item 16F(a)(1)(v) of Form 20-F).

We have provided KPMG Huazhen with the foregoing disclosure and requested KPMG Huazhen to furnish us with a letter addressed to the SEC stating whether they agree with such disclosure, and if not, stating the respects in which they do not agree. A copy of the letter furnished by KPMG Huazhen, dated April 29, 2021, is filed as Exhibit 15.6 to this annual report on Form 20-F.

During the fiscal years ended December 31, 2020 and 2019 and through April 29, 2021, neither we nor anyone on our behalf consulted PwC regarding either (i) the application of accounting principles to a specific completed or proposed transaction or regarding the type of audit opinion that might be rendered on our financial statements, or (ii) any matter that was either the subject of a disagreement (as defined in Item 16F(a)(1)(iv) of Form 20-F) or a reportable event (as defined in Item 16F(a)(1)(v) of Form 20-F) . Also, during the two most recent fiscal years and through April 29, 2021, we have not obtained any written report or oral advice that PwC concluded was an important factor considered by us in reaching a decision as to the accounting, auditing or financial reporting issue.

Item 16G — *CORPORATE GOVERNANCE*

We are incorporated under the laws of the PRC, with A Shares publicly traded on the Shanghai Stock Exchange, or the SSE, and H Shares publicly traded on the Hong Kong Stock Exchange, or the HKSE, and American Deposit Shares representing H Shares on the NYSE. As a result, our corporate governance framework is subject to the mandatory provisions of the PRC Company Law and the Corporate Governance Rules as well as the securities laws, regulations and the listing rules of Hong Kong and the United States.

The following discussion summarizes the significant differences between our corporate governance practices and those that would apply to a U.S. domestic issuer under the NYSE corporate governance rules.

Director Independence

Under the NYSE corporate governance rule 303A.01, a listed company must have a majority of independent directors on its board of directors. A company of which more than 50% of the voting power is held by an individual, a group or another company, or a controlled company, is not required to comply with this requirement. We are not required under the PRC Company Law and the HKSE Listing Rules to have a majority of independent directors on our board of directors. As of the date of this report, five of our 11 directors were independent non-executive directors.

Under the NYSE corporate governance rule 303A.03, the non-management directors of a listed company must meet at regularly scheduled executive sessions without management. There are no mandatory requirements under the PRC Company Law and the HKSE Listing Rules that a listed company should hold, and we currently do not hold, such executive sessions.

Nominating/Corporate Governance Committee

Under the NYSE corporate governance rule 303A.04, a listed company must have a nominating/corporate governance committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties, but a controlled company is not required to comply with this requirement. The Corporate Governance Code as amended by the Stock Exchange of Hong Kong provides that issuers shall establish a nominating committee, and a majority of which should be independent non-executive directors and the chairman shall be served by an independent non-executive director or the board chairman. We are not required under the PRC Company Law to have a nominating/corporate governance committee. We set up a nominating committee, which consists of the chairman of our board of directors and two independent non-executive directors.

Compensation Committee

Under the NYSE corporate governance rule 303A.05, a listed company must have a compensation committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties. A controlled company is not required to comply with this requirement. We are not required under the PRC Company Law to have a compensation committee. Under the Corporate Governance Code of the HKSE Listing Rules, a listed company must have a remuneration committee composed of a majority of independent non-executive directors, with a written term of references that covers certain minimum specified duties.

We currently do not have a compensation committee composed entirely of independent directors. However, we have an evaluation and remuneration committee including a majority of independent non-executive directors.

Corporate Governance Guidelines

Under the NYSE corporate governance rule 303A.09, a listed company must adopt and disclose corporate governance guidelines that cover certain minimum specified subjects. We are not required under the PRC Company Law and the HKSE Listing Rules to have, and we do not currently have, formal corporate governance guidelines. However, we have the Articles of Association, the Rules and Procedures of Board of Directors and the Implementation Rules for Compensation of Senior Management that address the following subjects:

- director qualification standards and responsibilities;
- key board committee responsibilities;
- director compensation; and
- director orientation and continuing education.

In 2009, we formulated the Administrative Measures on Independent Directors, the Administrative Rules on Holding of Company Shares by Directors, Supervisors and Senior Management, the Administrative Measures on Investor's Relationship and the rules and procedures of the Audit Committee, the Performance Review and Compensation Committee, the Investment and Development Committee, and the Safety and Environmental Protection Committee. All these policies have further enhanced our corporate governance system and can ensure the better performance of duties of directors, supervisors, senior managers and committee members. In 2015, we set up a nominating committee and formulated the Rules of Procedures of the Nominating Committee. In 2017, we revised our articles of association according to relevant regulatory requirements. We added the cumulative voting provisions, and defined the role of the CPC's core leadership in the articles of association. Our by-laws with respect to general meeting, board of directors and supervisory committee were also amended in line with the amendment to the articles. In 2018, we formulated the Corporate Guarantee Management Measures and revised the Measures for Registration of Insiders of Insider Information. In 2019, we formulated the Procedures of Appointment of Directors.

Code of Business Conduct and Ethics

Under the NYSE corporate governance rule 303A.10, a listed company must adopt and disclose its code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers. See "Item 16B – Code of Ethics". We are not required under the PRC Company Law and the HKSE Listing Rules to have, and we do not currently have, a code of business conduct and ethics for directors. However, pursuant to the HKSE Listing Rules, all of our directors must comply with the Model Code for Securities Transactions by Directors of Listed Companies (the "Model Code") as set out in the Listing Rules. The Model Code sets forth required standards with which the directors of a listed company must comply in securities transactions of the listed company.

CEO Certification Requirements

Under the NYSE corporate governance rule 303A.12(a), each listed company's CEO must certify to the NYSE each year that he or she is not aware of any violation by the company of NYSE corporate governance listing standards. The PRC Company Law and the HKSE Listing Rules do not have such requirements. Our chairman performs the certification under the rule 303A.12(a).

Item 16H — *MINE SAFETY DISCLOSURE*

Not applicable.

PART III

Item 17 — *FINANCIAL STATEMENTS*

We have elected to provide the financial statements and related information specified in Item 18 in lieu of Item 17.

Item 18 — *FINANCIAL STATEMENTS*

See page F-1 to F-79 following Item 19.

Item 19 — *EXHIBITS*

(a) See Item 18 for a list of the financial statements as part of this annual report.

(b) Exhibits to this annual report.

Exhibit Number	Description of Exhibits
1.1	Articles of Association (as amended on June 11, 2020) (English translation)[4]
2.1	A description of rights of each class of securities registered under Section 12 of the Securities Exchange Act of 1934[3]
4.1	Non-competition Agreement between CNPC and PetroChina (English translation)[1]
4.2	Trademark Licensing Contract between CNPC and PetroChina (English translation)[1]
4.3	Patent and Know-how Licensing Contract between CNPC and PetroChina (English translation)[1]
4.4	Computer Software Licensing Contract between CNPC and PetroChina (English translation)[1]
4.5	Contract for Transfer of Rights under Production Sharing Contracts between CNPC and PetroChina (English translation)[1]
4.6	Contract for the Supervision of Certain Sales Enterprises between CNPC and PetroChina (English translation)[1]
4.7*	Comprehensive Products and Services Agreement, dated August 27, 2020, between CNPC and PetroChina (English translation)
4.8*	Letter of Confirmation regarding the Land Use Rights Lease Agreement and Building Lease Agreement, dated August 27, 2020, between CNPC and PetroChina (English translation)
4.9*	Framework Agreement on the Transaction of Oil and Gas Pipeline Related Assets between PipeChina and PetroChina (English Translation)
4.10*	Equity Acquisition Agreement on PetroChina Pipeline Co., Ltd. between PipeChina and PetroChina (English Translation)

Exhibit Number	Description of Exhibits
4.11*	Equity Acquisition Agreement on PetroChina Shandong Natural Gas Pipeline Co., Ltd. between PipeChina and PetroChina (English Translation)
4.12*	Equity Acquisition Agreement on PetroChina Shandong Oil Transmission Co., Ltd. between PipeChina and PetroChina (English Translation)
4.13*	Equity Acquisition Agreement on PetroChina Huixin Oil Products Storage and Transmission Co., Ltd. between PipeChina and PetroChina (English Translation)
4.14*	Equity Acquisition Agreement on PetroChina Jilin Gas Pipeline Co., Ltd. between PipeChina and PetroChina (English Translation)
4.15*	Equity Acquisition Agreement on PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd.
4.16*	Equity Acquisition Agreement on Jiangxi Natural Gas Investment Co., Ltd. between PipeChina and PetroChina (English Translation)
4.17*	Equity Acquisition Agreement on Shengang Natural Gas Pipeline Co, Ltd. between PipeChina and PetroChina (English Translation)
4.18*	Disposal Agreement on Relevant Assets of Oil and Gas Pipelines from Guangdong Natural Gas Pipeline Network Co., Ltd. and Others between PipeChina and PetroChina (English Translation)
4.19*	Production and Operation Agreement between PipeChina and PetroChina (English Translation)
4.20*	Equity Transfer Agreement on PetroChina Beijing Gas Pipeline Co., Ltd. and PetroChina Dalian LNG Company Limited between PipeChina and Kunlun Energy (English Translation)
8.1*	List of major subsidiaries
11.1	Code of Ethics for Senior Management[(2)]
11.2	Code of Ethics for Employees[(2)]
12.1*	Certification of Chairman required by Section 302 of the Sarbanes-Oxley Act of 2002
12.2*	Certification of President required by Section 302 of the Sarbanes-Oxley Act of 2002
12.3*	Certification of CFO required by Section 302 of the Sarbanes-Oxley Act of 2002
13.1*	Certification of Chairman required by 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2*	Certification of President required by 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.3*	Certification of CFO required by 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1*	Reserves Report for the year ended on December 31, 2020 prepared by DeGolyer and MacNaughton
15.2*	Reserves Audit Report for the year ended on December 31, 2020 prepared by DeGolyer and MacNaughton

Exhibit Number	Description of Exhibits
15.3*	Reserves Report for the year ended on December 31, 2020 prepared by Ryder Scott
15.4*	Reserves Report for the year ended on December 31, 2020 prepared by GLJ Petroleum Consultants
15.5*	Reserves Report for the year ended on December 31, 2020 prepared by McDaniel & Associates Consultants, Ltd.
15.6*	Letter of KPMG Huazhen
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* To be filed as exhibits to this Form 20-F.

** To be furnished as exhibits to this Form 20-F.

(1) Paper filing; incorporated into this annual report by reference to our Registration Statement on Form F-1 (File No. 333-11566) filed with the Commission, as declared effective on March 29, 2000.

(2) Incorporated into this annual report by reference to the exhibits to Form 20-F for the fiscal year ended December 31, 2004 (File No. 1-15006) filed with the Commission.

(3) Incorporated into this annual report by reference to the exhibits to Form 20-F for the fiscal year ended December 31, 2020 (File No. 1-15006) filed with the Commission.

(4) Incorporated into this annual report by reference to Exhibit 99.2 to Form 6-K (File No. 1-15006) furnished to the Commission on June 12, 2020.

SIGNATURE

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

PETROCHINA COMPANY LIMITED

/s/Chai Shouping

Name: Chai Shouping
Title: Chief Financial Officer and Secretary to Board of Directors

Date: April 29, 2021

INDEX OF CONSOLIDATED FINANCIAL STATEMENTS

	Page
PetroChina Company Limited and its Subsidiaries **Consolidated Financial Statements**	
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Statements of Comprehensive Income for the years ended December 31, 2020, 2019 and 2018	F-4
Consolidated Statements of Financial Position as of December 31, 2020 and 2019	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2020, 2019 and 2018	F-6
Consolidated Statements of Changes in Equity for the years ended December 31, 2020, 2019 and 2018	F-8
Notes to the Financial Statements	F-9
Supplementary Information on Oil and Gas Exploration and Production Activities (Unaudited)	F-71

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
PetroChina Company Limited:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of PetroChina Company Limited and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of comprehensive income, cash flows and changes in equity for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with International Financial Reporting Standards as issued by International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated April 29, 2021 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 3(ac)(ii) to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of International Financial Reporting Standard 16 "Leases".

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical

audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Assessment of impairment of oil and gas properties

The critical audit matter

As discussed in notes 3(g), 3(h), 5(b) and 15 to the consolidated financial statements, oil and gas properties as included in property, plant and equipment amounted to Renminbi ("RMB")813,888 million as at December 31, 2020 and the impairment losses recognized for oil and gas properties for the year ended December 31, 2020 were RMB13,908 million.

The Company allocates oil and gas properties to separately identifiable cash-generating units ("CGUs") and reviews these CGUs for possible impairment by considering events or changes in circumstances indicating that their carrying amounts may not be recoverable. Such events and changes in circumstances include the economic impact on these CGUs resulting from lower oil and gas prices, higher production costs and decline in oil and gas reserve volumes as estimated by the reserves specialists in accordance with recognized industry standards.

For those CGUs where an impairment indicator is identified, the Company compares the carrying amount of individual CGU with its recoverable amount, which is estimated by calculating the value in use using a discounted cash flow forecast, to determine the impairment loss to be recognized, if any.

We identified assessment of impairment of oil and gas properties as a critical audit matter because the recoverable amounts of these CGUs are sensitive to the changes to future selling prices and production costs for crude oil and natural gas; future production profiles; and discount rates and therefore a higher degree of subjective auditor judgment was required to evaluate the Company's impairment assessment of oil and gas properties.

How the matter was addressed in our audit

The primary procedures we performed to address this critical audit matter included the following:

- tested certain internal controls over the processes for impairment assessment of oil and gas properties;
- evaluated the Company's identification of CGUs, allocation of assets to the CGUs and identification of impairment indicators;
- assessed the competence, capabilities and objectivity of the Company's reserves specialists and evaluated the methodology adopted by them in estimating the oil and gas reserves against the recognized industry standards;
- evaluated the future selling prices for crude oil and natural gas used in the discounted cash flow forecasts by comparing them with the Company's business plans and forecasts by external analysts;
- evaluated the future production costs and future production profiles used in the discounted cash flow forecasts by comparing them with oil and gas reserves reports issued by the reserves specialists;
- involved our internal professionals with skills and knowledge on valuation to assist us in assessing the discount rate applied in the discounted cash flow forecasts against a discount rate range that was independently developed using publicly available market data for comparable companies in the same industry; and
- compared the actual results for current year with the Company's forecasts prepared in prior year to assess the Company's ability to accurately forecast.

/s/ KPMG Huazhen LLP

We have served as the Company's auditor since 2013.

Beijing, China
April 29, 2021

PETROCHINA COMPANY LIMITED
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
For the Years Ended December 31, 2020, 2019 and 2018
(Amounts in millions, except for the per share data)

	Notes	2020	2019	2018[Note]
		RMB	RMB	RMB
REVENUE	6	1,933,836	2,516,810	2,374,934
OPERATING EXPENSES				
Purchases, services and other		(1,267,797)	(1,697,834)	(1,553,784)
Employee compensation costs	8	(147,604)	(154,318)	(144,391)
Exploration expenses, including exploratory dry holes		(19,333)	(20,775)	(18,726)
Depreciation, depletion and amortization		(213,875)	(225,262)	(232,276)
Selling, general and administrative expenses		(64,345)	(68,596)	(74,477)
Taxes other than income taxes	9	(195,850)	(228,436)	(220,677)
Other income/(expenses) net	41	50,905	173	(7,661)
TOTAL OPERATING EXPENSES		(1,857,899)	(2,395,048)	(2,251,992)
PROFIT FROM OPERATIONS		75,937	121,762	122,942
FINANCE COSTS				
Exchange gain		14,387	10,017	12,701
Exchange loss		(14,279)	(10,016)	(11,581)
Interest income		3,023	3,631	3,779
Interest expense	10	(26,528)	(30,409)	(22,718)
TOTAL NET FINANCE COSTS		(23,397)	(26,777)	(17,819)
SHARE OF PROFIT OF ASSOCIATES AND JOINT VENTURES		3,533	8,229	11,647
PROFIT BEFORE INCOME TAX EXPENSE	7	56,073	103,214	116,770
INCOME TAX EXPENSE	12	(22,588)	(36,199)	(42,790)
PROFIT FOR THE YEAR		33,485	67,015	73,980
OTHER COMPREHENSIVE INCOME				
Item that will not be reclassified to profit or loss				
Fair value changes in equity investment measured at fair value through other comprehensive income		113	156	(201)
Items that are or may be reclassified subsequently to profit or loss				
Currency translation differences		(10,802)	8,357	(2,667)
Share of the other comprehensive income of associates and joint ventures accounted for using the equity method		(441)	417	220
OTHER COMPREHENSIVE INCOME, NET OF TAX		(11,130)	8,930	(2,648)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		22,355	75,945	71,332
PROFIT FOR THE YEAR ATTRIBUTABLE TO:				
Owners of the Company		19,006	45,682	53,036
Non-controlling interests		14,479	21,333	20,944
		33,485	67,015	73,980
TOTAL COMPREHENSIVE INCOME FOR THE YEAR ATTRIBUTABLE TO:				
Owners of the Company		14,634	50,323	48,072
Non-controlling interests		7,721	25,622	23,260
		22,355	75,945	71,332
BASIC AND DILUTED EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE COMPANY(RMB)	13	0.10	0.25	0.29

The accompanying notes are an integral part of these financial statements.

Note: The Group has initially applied IFRS 16 at January 1, 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated in this respect (see Note 3(ac)).

PETROCHINA COMPANY LIMITED
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
As of December 31, 2020 and 2019
(Amounts in millions)

	Notes	2020	2019
		RMB	RMB
NON-CURRENT ASSETS			
Property, plant and equipment	15	1,452,091	1,783,224
Investments in associates and joint ventures	16	250,603	102,073
Equity investments measured at fair value through other comprehensive income	17	902	922
Right-of-use assets	42	209,786	254,736
Intangible and other non-current assets	19	67,494	100,663
Deferred tax assets	31	11,364	24,259
Time deposits with maturities over one year		9,119	120
TOTAL NON-CURRENT ASSETS		2,001,359	2,265,997
CURRENT ASSETS			
Inventories	20	128,539	181,921
Accounts receivable	21	52,325	64,184
Prepayments and other current assets	22	109,262	103,127
Notes receivable	23	8,076	7,016
Time deposits with maturities over three months but within one year		27,319	24,256
Cash and cash equivalents	24	118,631	86,409
Assets held for sale	25	42,615	—
TOTAL CURRENT ASSETS		486,767	466,913
CURRENT LIABILITIES			
Accounts payable and accrued liabilities	26	316,140	328,314
Contract liabilities	27	91,477	82,490
Income taxes payable		3,730	7,564
Other taxes payable		59,994	59,818
Short-term borrowings	28	117,542	175,840
Lease liabilities	42	6,579	7,393
Liabilities directly associated with the assets held for sale	25	9,956	—
TOTAL CURRENT LIABILITIES		605,418	661,419
NET CURRENT LIABILITIES		(118,651)	(194,506)
TOTAL ASSETS LESS CURRENT LIABILITIES		1,882,708	2,071,491
EQUITY			
EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY:			
Share capital	29	183,021	183,021
Retained earnings		727,955	743,124
Reserves	30	304,182	304,011
TOTAL EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY		1,215,158	1,230,156
NON-CONTROLLING INTERESTS		151,463	214,149
TOTAL EQUITY		1,366,621	1,444,305
NON-CURRENT LIABILITIES			
Long-term borrowings	28	251,379	290,882
Asset retirement obligations	32	114,819	137,935
Lease liabilities	42	122,644	164,143
Deferred tax liabilities	31	16,380	21,411
Other long-term obligations		10,865	12,815
TOTAL NON-CURRENT LIABILITIES		516,087	627,186
TOTAL EQUITY AND NON-CURRENT LIABILITIES		1,882,708	2,071,491

The accompanying notes are an integral part of these financial statements.

PETROCHINA COMPANY LIMITED
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the Years Ended December 31, 2020, 2019 and 2018
(Amounts in millions)

	2020	2019	2018[Note]
	RMB	RMB	RMB
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit for the year	33,485	67,015	73,980
Adjustments for:			
Income tax expense	22,588	36,199	42,790
Depreciation, depletion and amortization	213,875	225,262	232,276
Capitalized exploratory costs charged to expense	8,934	8,900	8,579
Safety fund reserve	(1,505)	(1,318)	608
Share of profit of associates and joint ventures	(3,533)	(8,229)	(11,647)
Accrual/(reversal) of provision for impairment of receivables, net	343	(1,367)	15
Write down in inventories, net	8,151	1,260	4,230
Impairment of other non-current assets	—	22	77
Loss on disposal of property, plant and equipment	5,398	9,809	16,761
Gain on disposal of other non-current assets	(1,142)	(501)	(501)
Gain on disposal of subsidiaries	(1,242)	(49)	(45)
Gain on Pipeline restructuring	(46,946)	—	—
Dividend income	(25)	(22)	(52)
Interest income	(3,023)	(3,631)	(3,779)
Interest expense	26,528	30,409	22,718
Changes in working capital:			
Accounts receivable, prepayments and other current assets	14,751	(5,017)	(9,280)
Inventories	43,645	(5,624)	(34,705)
Accounts payable and accrued liabilities	8,410	27,416	49,127
Contract liabilities	8,987	14,346	892
CASH FLOWS GENERATED FROM OPERATIONS	337,679	394,880	392,044
Income taxes paid	(19,104)	(35,270)	(38,788)
NET CASH FLOWS FROM OPERATING ACTIVITIES	318,575	359,610	353,256

The accompanying notes are an integral part of these financial statements.

PETROCHINA COMPANY LIMITED
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
For the Years Ended December 31, 2020, 2019 and 2018
(Amounts in millions)

	2020	2019	2018[Note]
	RMB	RMB	RMB
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	(248,376)	(319,686)	(267,310)
Acquisition of investments in associates and joint ventures	(2,599)	(4,326)	(2,911)
Acquisition of equity investments measured at fair value through other comprehensive income	—	—	(2)
Prepayments on long-term leases	(3,048)	(3,820)	(3,856)
Acquisition of intangible assets and other non-current assets	(5,303)	(3,256)	(4,668)
Acquisition of subsidiaries	(1,947)	(183)	—
Proceeds from disposal of property, plant and equipment	1,195	1,830	1,616
Proceeds from disposal of other non-current assets	2,224	507	224
Proceeds from Pipeline restructuring	80,621	—	—
Interest received	2,532	2,860	2,963
Dividends received	4,778	4,865	5,438
(Increase)/decrease in time deposits with maturities over three months	(12,063)	(11,739)	694
NET CASH FLOWS USED FOR INVESTING ACTIVITIES	(181,986)	(332,948)	(267,812)
CASH FLOWS FROM FINANCING ACTIVITIES			
Repayments of short-term borrowings	(797,892)	(614,525)	(646,396)
Repayments of long-term borrowings	(219,770)	(171,226)	(123,745)
Repayments of lease liabilities	(12,794)	(17,623)	—
Interest paid	(16,700)	(16,830)	(19,392)
Dividends paid to non-controlling interests	(14,264)	(14,245)	(15,207)
Dividends paid to owners of the Company	(28,078)	(30,684)	(27,369)
Cash paid to acquire non-controlling interests	(2)	(1,059)	—
Capital reduction of subsidiaries	(5)	(182)	(86)
Increase in short-term borrowings	751,157	634,896	615,781
Increase in long-term borrowings	238,335	201,562	88,500
Cash contribution from non-controlling interests	613	2,640	2,211
NET CASH FLOWS USED FOR FINANCING ACTIVITIES	(99,400)	(27,276)	(125,703)
TRANSLATION OF FOREIGN CURRENCY	(4,967)	1,069	2,513
Increase/(decrease) in cash and cash equivalents	32,222	455	(37,746)
Cash and cash equivalents at beginning of the year	86,409	85,954	123,700
Cash and cash equivalents at end of the year	118,631	86,409	85,954

The accompanying notes are an integral part of these financial statements.

Note: The Group has initially applied IFRS 16 at January 1, 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated in this respect (see Note 3(ac)).

PETROCHINA COMPANY LIMITED
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
For the Years Ended December 31, 2020, 2019 and 2018
(Amounts in millions)

	Attributable to owners of the Company				Non-controlling Interests	Total Equity
	Share Capital	Retained Earnings	Reserves	Subtotal		
	RMB	RMB	RMB	RMB	RMB	RMB
Balance at January 1, 2018	183,021	710,973	298,578	1,192,572	185,416	1,377,988
Profit for the year ended December 31, 2018	—	53,036	—	53,036	20,944	73,980
Other comprehensive income for the year ended December 31, 2018	—	—	(4,964)	(4,964)	2,316	(2,648)
Special reserve-safety fund reserve	—	—	465	465	143	608
Transfer to reserves	—	(5,476)	5,476	—	—	—
Dividends	—	(27,369)	—	(27,369)	(15,423)	(42,792)
Transaction with non-controlling interests in subsidiaries	—	—	13	13	(24)	(11)
Capital contribution from non-controlling interests	—	—	—	—	2,300	2,300
Disposal of subsidiaries	—	—	—	—	(879)	(879)
Other	—	(1)	31	30	315	345
Balance at December 31, 2018	183,021	731,163	299,599	1,213,783	195,108	1,408,891
Balance at January 1, 2019[Note]	183,021	731,163	299,599	1,213,783	195,108	1,408,891
Profit for the year ended December 31, 2019	—	45,682	—	45,682	21,333	67,015
Other comprehensive income for the year ended December 31, 2019	—	—	4,641	4,641	4,289	8,930
Special reserve-safety fund reserve	—	—	(1,388)	(1,388)	70	(1,318)
Transfer to reserves	—	(3,037)	3,037	—	—	—
Dividends	—	(30,684)	—	(30,684)	(14,279)	(44,963)
Transaction with non-controlling interests in subsidiaries	—	—	(2,007)	(2,007)	938	(1,069)
Capital contribution from non-controlling interests	—	—	120	120	6,647	6,767
Disposal of subsidiaries	—	—	—	—	(50)	(50)
Other	—	—	9	9	93	102
Balance at December 31, 2019	183,021	743,124	304,011	1,230,156	214,149	1,444,305
Balance at January 1, 2020	183,021	743,124	304,011	1,230,156	214,149	1,444,305
Profit for the year ended December 31, 2020	—	19,006	—	19,006	14,479	33,485
Other comprehensive income for the year ended December 31, 2020	—	—	(4,372)	(4,372)	(6,758)	(11,130)
Special reserve-safety fund reserve	—	—	(1,633)	(1,633)	128	(1,505)
Transfer to reserves	—	(6,275)	6,275	—	—	—
Dividends	—	(28,078)	—	(28,078)	(14,827)	(42,905)
Transaction with non-controlling interests in subsidiaries	—	—	—	—	(2)	(2)
Capital contribution from non-controlling interests	—	—	2	2	823	825
Pipeline restructuring	—	—	—	—	(57,425)	(57,425)
Acquisition of subsidiaries	—	—	1	1	1,186	1,187
Disposal of subsidiaries	—	—	—	—	(489)	(489)
Other	—	178	(102)	76	199	275
Balance at December 31, 2020	183,021	727,955	304,182	1,215,158	151,463	1,366,621

The accompanying notes are an integral part of these financial statements.

Note: The Group has initially applied IFRS 16 at January 1, 2019 using the modified retrospective approach. Under this approach, the comparative information is not restated in this respect (see Note 3(ac)).

1 ORGANIZATION AND PRINCIPAL ACTIVITIES

PetroChina Company Limited (the "Company") was established as a joint stock company with limited liability on November 5, 1999 by 中国石油天然气集团公司 (China National Petroleum Corporation ("CNPC")) as the sole proprietor in accordance with the approval Guo Jing Mao Qi Gai [1999] No. 1024 "Reply on the approval of the establishment of PetroChina Company Limited" from the former State Economic and Trade Commission of the People's Republic of China ("China" or "PRC"). CNPC restructured ("the Restructuring") and injected its core business and the related assets and liabilities into the Company. 中国石油天然气集团公司 was renamed 中国石油天然气集团有限公司 (CNPC before and after the change of name) on December 19, 2017. CNPC is a wholly state-owned company registered in China. The Company and its subsidiaries are collectively referred to as the "Group".

The Group is principally engaged in (i) the exploration, development and production and marketing of crude oil and natural gas; (ii) the refining of crude oil and petroleum products, production and marketing of primary petrochemical products, derivative petrochemical products and other chemical products; (iii) the marketing of refined products and trading business; and (iv) the transmission of natural gas, crude oil and refined products and the sale of natural gas (Note 38).

2 BASIS OF PREPARATION

The consolidated financial statements and the statement of financial position of the Company have been prepared in accordance with the International Financial Reporting Standards ("IFRSs") as issued by the International Accounting Standards Board ("IASB"). The consolidated financial statements and the statement of financial position of the Company have been prepared under the historical cost convention except as disclosed in the accounting policies below.

The preparation of financial statements in conformity with IFRSs requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the statement of financial position and the reported amounts of revenues and expenses during the reporting period. Although these estimates are based on management's best knowledge of current events and actions, actual results may ultimately differ from those estimates. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 5.

3 SUMMARY OF PRINCIPAL ACCOUNTING POLICIES

(a) Basis of consolidation

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has right to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

A subsidiary is consolidated from the date on which control is transferred to the Group and is no longer consolidated from the date that control ceases. The Group accounts for business combinations (except for business combination under common control) using the acquisition method when the acquired set of activities and assets meets the definition of a business and control is transferred to the Group. In determining whether a set of activities and assets is a business, the Group assesses whether the set of assets and activities acquired includes, at a minimum, an input and substantive process and whether the acquired set has the ability to produce outputs. The Group has an option to apply a 'concentration test' that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The optional concentration test is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar

identifiable assets. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Contingent liabilities assumed in a business combination are recognized in the acquisition accounting if they are present obligations and their fair value can be measured reliably. On an acquisition-by-acquisition basis, the Group recognizes any non-controlling interests in the acquiree either at fair value or at the non-controlling interests' proportionate share of the acquiree's net assets.

The excess of the consideration transferred, the amount of any non-controlling interests in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognized directly in the consolidated statement of comprehensive income.

An acquisition of a business which is a business combination under common control is accounted for in a manner similar to a uniting of interests whereby the assets and liabilities acquired are accounted for at carryover predecessor values to the other party to the business combination with all periods presented as if the operations of the Group and the business acquired have always been combined. The difference between the consideration paid by the Group and the net assets or liabilities of the business acquired is adjusted against equity.

Intercompany transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment. Where necessary, accounting policies of subsidiaries have been changed to ensure consistency with the policies adopted by the Group.

For purpose of the presentation of the Company's statement of financial position, investments in subsidiaries are accounted for at cost less impairment.

A listing of the Group's principal subsidiaries is set out in Note 18.

(b) Investments in associates

Associates are entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for by the equity method of accounting in the consolidated financial statements of the Group and are initially recognized at cost.

Under this method of accounting, the Group's share of the post-acquisition profits or losses of associates is recognized in profit or loss and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amounts of the investments. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associate.

Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates; unrealized losses are also eliminated unless the transaction provides evidence

of an impairment of the asset transferred. The Group's investment in associates includes goodwill identified on acquisition, net of any accumulated impairment loss and is tested for impairment as part of the overall balance. Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the fair value of net identifiable assets of the acquired associate at the date of acquisition. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group. The gain or loss resulting from a downstream transaction involving assets that constitute a business, as defined in IFRS 3, between the Group and its associate or joint veture is recognized in full in the consolidated financial statement.

A listing of the Group's principal associates is shown in Note 16.

(c) Investments in joint ventures

Joint ventures are arrangements in which the Group with one or more parties have joint control, whereby the Group has rights to the net assets of the arrangements, rather than rights to their assets and obligations for their liabilities. The Group's interests in joint ventures are accounted for by the equity method of accounting (Note 3(b)) in the consolidated financial statements.

A listing of the Group's principal joint ventures is shown in Note 16.

(d) Transactions with non-controlling interests

Transactions with non-controlling interests are treated as transactions with owners in their capacity as owners of the Group. Gains and losses resulting from disposals to non-controlling interests are recorded in equity. The differences between any consideration paid and the relevant share of the carrying value of net assets of the subsidiary acquired resulting from the purchase of non-controlling interests, are recorded in equity.

When the Group ceases to have control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. The amounts previously recognized in other comprehensive income are reclassified to profit or loss.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognized in other comprehensive income are reclassified to profit or loss where appropriate.

(e) Foreign currencies

Items included in the financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). Most assets and operations of the Group are located in the PRC (Note 38), and the functional currency of the Company and most of the consolidated subsidiaries is the Renminbi ("RMB"). The consolidated financial statements are presented in the presentation currency of RMB.

Foreign currency transactions of the Group are accounted for at the exchange rates prevailing at the respective dates of the transactions; monetary assets and liabilities denominated in foreign currencies are

translated at exchange rates at the date of the statement of financial position; gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities are recognized in profit or loss.

For the Group entities that have a functional currency different from the Group's presentation currency, assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of the statement of financial position. Income and expenses for each statement of comprehensive income presented are translated at the average exchange rates for each period and the resulting exchange differences are recognized in other comprehensive income.

(f) Discontinued operation

A discontinued operation is a component of the Group's business, the operation and cash flows of which can be clearly distinguished from the rest of the Group and which:

- represents a separate major line of business of geographic area of operations;
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographic area of operations; or
- is a subsidiary acquired exclusively with a view to resale.

Classification as a discontinued operation occurs at the earlier of disposal or when the operation meets the criteria to be classified as held-for-sale.

When an operation is classified as a discontinued operation, the comprehensive statement of profit or loss and other comprehensive income ("OCI") is re-presented as if the operation had been discontinued from the start of the comparative year.

(g) Property, plant and equipment

Property, plant and equipment, including oil and gas properties (Note 3(h)), are initially recorded in the consolidated statement of financial position at cost if it is probable that they will generate future economic benefits. Cost represents the purchase price of the asset and other costs incurred to bring the asset into intended use. Subsequent to their initial recognition, property, plant and equipment are carried at cost less accumulated depreciation, depletion and amortization (including any impairment).

Depreciation, to write off the cost of each asset, other than oil and gas properties (Note 3(h)), to their residual values over their estimated useful lives is calculated using the straight-line method.

The Group uses the following estimated useful lives, estimated residual value ratios and annual depreciation rates for depreciation purposes:

	Estimated useful lives	Estimated residual value ratio %	Annual depreciation rate %
Buildings	8 to 40 years	5	2.4 to 11.9
Equipment and Machinery	4 to 30 years	3 to 5	3.2 to 24.3
Motor Vehicles	4 to 14 years	5	6.8 to 23.8
Other	5 to 12 years	5	7.9 to 19.0

No depreciation is provided on construction in progress until the assets are completed and ready for use.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

Property, plant and equipment, including oil and gas properties (Note 3(h)) and right-of-use assets (Note 3(m)), are reviewed for possible impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the carrying amount of a cash-generating unit exceeds the higher of its fair value less costs to sell and its value in use. Value in use is the estimated net present value of future cash flows to be derived from the cash-generating unit.

Gains and losses on disposals of property, plant and equipment are determined by reference to their carrying amounts and are recorded in profit or loss.

Interest and other costs on borrowings to finance the construction of property, plant and equipment, including oil and gas properties (Note 3(h)), are capitalized during the period of time that is required to complete and prepare the asset for its intended use. Costs for repairs and maintenance activities are expensed as incurred except for costs of components that result in improvements or betterments which are capitalized as part of property, plant and equipment and depreciated over their useful lives.

(h) Oil and gas properties

The successful efforts method of accounting is used for oil and gas exploration and production activities. Under this method, all costs for development wells, support equipment and facilities, and proved mineral interests in oil and gas properties are capitalized. Geological and geophysical costs are expensed when incurred. Costs of exploratory wells are capitalized pending determination of whether the wells find proved oil and gas reserves. Proved oil and gas reserves are the estimated quantities of crude oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate. Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period before the ending date of the period covered by the proved oil and gas reserve report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The costs shall be that prevailing at the end of the period.

Exploratory wells in areas not requiring major capital expenditures are evaluated for economic viability within one year of completion of drilling. The related well costs are expensed as dry holes if it is determined that such economic viability is not attained. Otherwise, the related well costs are reclassified to oil and gas properties and are subject to impairment review (Note 3(g)). For exploratory wells that are found to have economically viable reserves in areas where major capital expenditure will be required before production can commence, the related well costs remain capitalized only if additional drilling is underway or firmly planned. Otherwise the related well costs are expensed as dry holes. The Group does not have any significant costs of unproved properties capitalized in oil and gas properties.

The Ministry of Natural Resources in China issues production licenses to applicants on the basis of the reserve reports approved by relevant authorities.

The cost of oil and gas properties is amortized at the field level based on the units of production method. Units of production rates are based on oil and gas reserves estimated to be recoverable from existing facilities based on the current terms of the Group's production licenses.

(i) Intangible assets and goodwill

Expenditures on acquired patents, trademarks, technical know-how and licenses are capitalized at historical cost and amortized using the straight-line method over their estimated useful lives. Intangible assets are not subsequently revalued. The carrying amount of each intangible asset is reviewed and adjusted for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized whenever the carrying amount of an intangible asset exceeds its recoverable amount and is recognized in profit or loss. The recoverable amount is measured as the higher of fair value less costs to sell and value in use. Value in use is the estimated net present value of future cash flows to be derived from the asset.

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred over the net fair value of identifiable assets, liabilities and contingent liabilities of the acquiree and the amount of any non-controlling interests in the acquiree.

Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. An impairment loss is recognized if the carrying amount of the cash-generating unit containing goodwill exceeds its recoverable amount. Impairment losses are allocated first to reduce the carrying amount of any goodwill allocated to the cash-generating unit, and then to reduce the carrying amounts of the other assets in the cash-generating unit on a pro rata basis. Any impairment is recognized immediately as an expense and is not subsequently reversed.

(j) Assets held for sale

Non-current assets, or disposal groups comprising assets and liabilities, are classified as held-for-sale if it is highly probable that they will be recovered primarily through sale rather than through continuing use.

Such assets, or disposal groups, are generally measured at the lower of their carrying amount and fair value less costs to sell. Any impairment loss on a disposal group is allocated first to goodwill, and then to the remaining assets and liabilities on a pro rata basis, except that no loss is allocated to inventories, financial assets, deferred tax assets, employee benefit assets, investment property or biological assets, which continue to be measured in accordance with the Group's other accounting policies. Impairment losses on initial classification as held-for-sale and subsequent gains and losses on remeasurement are recognized in profit or loss.

Once classified as held-for-sale, intangible assets and property, plant and equipment are no longer amortized or depreciated, and any equity-accounted investee is no longer equity accounted.

(k) Financial instruments

(a) Recognition and initial measurement

Accounts receivable and debt securities issued are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is an accounts receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at Fair value through profit or loss ("FVTPL"), transaction costs that are directly attributable to its acquisition or issue. An accounts receivable without a significant financing component is initially measured at the transaction price.

(b) Classification and subsequent measurement

On initial recognition, a financial asset is classified as measured at: amortized cost; Fair value through other comprehensive income ("FVOCI") – debt investment; FVOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cashflows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets.

The Group makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management.

For the purposes of this assessment whether contractual cash flows are solely payments of principal and interest, "principal" is defined as the fair value of the financial asset on initial recognition. "Interest" is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition.

Detailed accounting policies for subsequent measurement of financial assets are set out below:

Financial assets at FVTPL	These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.
Financial assets at amortized cost	These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.
Debt investments at FVOCI	These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.
Equity investments at FVOCI	These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.

(c) Derecognition

Financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group enters into transactions whereby it transfers assets recognized in its consolidated statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognized.

Financial liabilities

The Group derecognizes a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

(d) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the consolidated statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

(l) Impairment for financial assets

The Group recognizes loss allowances for expected credit losses ("ECLs") on:

- financial assets measured at amortized cost;
- debt investments measured at FVOCI; and
- contract assets.

The Group measures loss allowances at an amount equal to lifetime ECLs, except for the financial assets for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition, which are measured as 12-month ECLs. When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort.

Loss allowances for accounts receivable are always measured at an amount equal to lifetime ECLs. The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

At each reporting date, the Group assesses whether financial assets carried at amortized cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. Impairment losses on trade and other receivables are presented under 'Selling, general and administrative expenses', similar to the presentation under IAS 39.

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. For customers, the Group individually makes an assessment with respect to the timing and amount of write-off based on whether there is a reasonable expectation of recovery. The Group expects no significant recovery from the amount written off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

(m) Leases

The Group has applied IFRS 16"Lease" ("IFRS 16") using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17"Lease" ("IAS 17") and IFRIC 4"Determining Whether an Arrangement Contains a Lease" ("IFRIC 4"). The details of accounting policies under IAS 17 and IFRIC 4 are disclosed separately.

(a) As a lessee

At commencement or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices.

The Group recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee; and
- the exercise price under a purchase option that the Group is reasonably certain to exercise, lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Group is reasonably certain not to terminate early.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, if the Group changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a revised in-substance fixed lease payment.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Group present right-of-use assets and lease liabilities separately in the statement of financial position.

The Group has elected not to recognize right-of-use assets and lease liabilities for leases of low-value assets and short-term leases. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Payments made to the Ministry of Natural Resources to secure land use rights (excluding mineral properties) are treated as leases.

(b) As a lessor

At inception or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease.

To classify each lease, the Group makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset. There are no significant finance lease for the Group.

If an arrangement contains lease and non-lease components, then the Group applies IFRS 15 to allocate the consideration in the contract.

The Group recognizes lease payments received under operating leases as income on a straight-line basis over the lease term as part of “other revenue”.

Generally, the accounting policies applicable to the Group as a lessor in the comparative period were not different from IFRS 16 except for the classification of the sub-lease entered into during current reporting period that resulted in a finance lease classification.

Policy applicable before January 1, 2019

Leases of property, plant and equipment where the Group assumes substantially all the benefits and risks of ownership are classified as finance leases. The Group has no significant finance leases.

Leases of assets under which a significant portion of the risks and benefits of ownership are effectively retained by the lessors are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessors) are expensed on a straight-line basis over the lease terms. Payments made to the Ministry of Natural Resources to secure land use rights (excluding mineral properties) are treated as operating leases. Land use rights are generally obtained through advance lump-sum payments and the terms of use range up to 50 years.

(n) Inventories

Inventories include oil products, chemical products and materials and supplies which are stated at the lower of cost and net realizable value. Cost is primarily determined by the weighted average cost method. The cost of finished goods comprises raw materials, direct labor, other direct costs and related production overheads, but excludes borrowing costs. Net realizable value is the estimated selling price in the ordinary course of business, less the cost of completion and directly attributable marketing and distribution costs.

(o) Contract costs

Contract costs are either the incremental costs of obtaining a contract with a customer or the costs to fulfil a contract with a customer which are not capitalized as inventory (Note 3(n)), property, plant and equipment (Note 3(g)), oil and gas properties (Note 3(h)) or intangible assets (Note 3(i)).

Incremental costs of obtaining a contract are those costs that the Group incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained. Incremental costs of obtaining a contract are capitalized when incurred if the costs relate to revenue which will be recognized in a future reporting period and the costs are expected to be recovered, unless the expected amortization period is one year or less from the date of initial recognition of the asset, in which case the costs are expensed when incurred. Other costs of obtaining a contract are expensed when incurred.

Costs to fulfil a contract are capitalized if the costs relate directly to an existing contract or to a specifically identifiable anticipated contract; generate or enhance resources that will be used to provide goods or services in the future; and are expected to be recovered.

Capitalized contract costs are stated at cost less accumulated amortization and impairment losses. Impairment losses are recognized to the extent that the carrying amount of the contract cost asset exceeds the net of (i) remaining amount of consideration that the Group expects to receive in exchange for the goods or services to which the asset relates, less (ii) any costs that relate directly to providing those goods or services that have not yet been recognized as expenses.

Amortization of capitalized contract costs is charged to profit or loss when the revenue to which the asset relates is recognized.

(p) Contract assets and contract liabilities

A contract asset is recognized when the Group recognizes revenue before being unconditionally entitled to the consideration under the payment terms set out in the contract. Contract assets are assessed for ECLs in accordance with the policy set out in Note 3(l) and are reclassified to receivables when the right to the consideration has become unconditional (Note 3(q)).

A contract liability is recognized when the customer pays consideration before the Group recognizes the related revenue. A contract liability would also be recognized if the Group has an unconditional right to receive consideration before the Group recognizes the related revenue. In such cases, a corresponding receivable would also be recognized (Note 3(q)).

When the contract includes a significant financing component, the contract balance includes interest accrued under the effective interest method (Note 3(v)).

(q) Accounts receivable

Accounts receivable are recognized when the Group has an unconditional right to receive consideration. A right to receive consideration is unconditional if only the passage of time is required before payment of that consideration is due (Note 3(p)).

Receivables are stated at amortized cost using the effective interest method less allowance for credit losses (Note 3(l)).

(r) Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, deposits held with banks and highly liquid investments with original maturities of three months or less from the time of purchase.

(s) Accounts payable

Accounts payable are recognized initially at fair value and subsequently measured at amortized cost unless the effect of discounting would be immaterial, in which case they are stated at cost.

(t) Borrowings

Borrowings are recognized initially at fair value, net of transaction costs incurred. In subsequent periods, borrowings are stated at amortized cost using the effective interest method.

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

Borrowings are classified as current liabilities unless the Group has unconditional rights to defer settlements of the liabilities for at least 12 months after the reporting period.

(u) Share capital

Incremental costs directly attributable to the issue of ordinary shares are recognized as a deduction from equity. Income tax relating to transaction costs of an equity transaction is accounted for in accordance with IAS 12 “Income Taxes”.

(v) Interest income and interest expense

Interest income or expense is recognized using the effective interest method.

The “effective interest rate” is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to:

- the gross carrying amount of the financial asset; or
- the amortized cost of the financial liability.

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortized cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortized cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

(w) Taxation

Income tax expense comprises current and deferred tax. It is recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

The Group has determined that interest and penalties related to income taxes, including uncertain tax treatments, do not meet the definition of income taxes, and therefore accounted for them under IAS 37 "Provisions, Contingent Liabilities and Contingent Assets".

(a) Current tax

Current tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date. Current tax also includes any tax arising from dividends.

Current tax assets and liabilities are offset only if certain criteria are met.

(b) Deferred tax

Deferred tax is provided in full, using the liability method, for temporary differences arising between the tax bases of assets and liabilities and their carrying values in the financial statements. However, deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax is determined using tax rates that have been enacted or substantively enacted by the date of the statement of financial position and are expected to apply to the period when the related deferred tax asset is realized or deferred tax liability is settled, and reflects uncertainty related to income taxes, if any.

The principal temporary differences arise from depreciation on oil and gas properties and equipment and provision for impairment of receivables, inventories, investments and property, plant and equipment. Deferred tax assets relating to the carry forward of unused tax losses and deductible temporary differences are recognized to the extent that it is probable that future taxable income will be available against which they can be used.

(c) Taxes other than income tax

The Group also incurs various other taxes and levies that are not income taxes. "Taxes other than income taxes", which form part of operating expenses, primarily comprise consumption tax (Note 9), resource tax (Note 9), crude oil special gain levy (Note 9), urban construction tax and education surcharges.

(x) Revenue recognition

Income is classified by the Group as revenue when it arises from the sale of goods, the provision of services in the ordinary course of the Group's business.

Revenue is recognized when control over a product or service is transferred to the customer at the amount of promised consideration to which the Group is expected to be entitled, excluding those amounts collected on behalf of third parties. Revenue excludes value added tax or other sales taxes and is after deduction of any trade discounts.

Where the contract contains a financing component more than 12 months, interest income is accrued or interest expense is accrued separately under the effective interest method. The Group does not adjust the consideration for any effects of a significant financing component if the period of financing is 12 months or less.

(y) Provisions

Provisions are recognized when the Group has present legal or constructive obligations as a result of past events, it is probable that an outflow of resources will be required to settle the obligations, and reliable estimates of the amounts can be made.

Provision for future decommissioning and restoration is recognized in full on the installation of oil and gas properties. The amount recognized is the present value of the estimated future expenditure determined in accordance with local conditions and requirements. A corresponding addition to the related oil and gas properties of an amount equivalent to the provision is also created. This is subsequently depreciated as part of the costs of the oil and gas properties. Any change in the present value of the estimated expenditure other than due to passage of time which is regarded as interest expense, is reflected as an adjustment to the provision and oil and gas properties. Due to technological progress, legal requirements or changes in the market environment, changes in the provisions caused by changes in the amount of expenditure, estimated time of retirement obligations, discount rate, etc., may occur in fulfilling the retirement obligation. For an increase in provisions, the cost of oil and gas properties will be increased accordingly; for a decrease in provisions, the cost of oil and gas properties will be deducted within the limit of the carrying amount of assets related to decommissioning expenses. If a decrease in the provision exceeds the carrying amount of the oil and gas properties recognized corresponding to the provision, the excess shall be recognized immediately in profit or loss.

Provision for onerous contracts is measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract. Before a provision is established, the Group recognizes any impairment loss on the assets associated with that contract.

(z) Research and development

Research expenditure incurred is recognized as an expense. Costs incurred on development projects are recognized as intangible assets to the extent that such expenditure is expected to generate future economic benefits.

(aa) Retirement benefit plans

The Group contributes to various employee retirement benefit plans organized by PRC municipal and provincial governments under which it is required to make monthly contributions to these plans at prescribed rates for its employees in China. The relevant PRC municipal and provincial governments undertake to assume the retirement benefit obligations of existing and future retired employees of the Group in China. The Group has

similar retirement benefit plans for its employees in its overseas operations. Contributions to these PRC and overseas plans ("defined contribution plan") are charged to expense as incurred. In addition, the Group joined the corporate annuity plan approved by relevant PRC authorities. Contribution to the annuity plan is charged to expense as incurred. The Group currently has no additional material obligations outstanding for the payment of retirement and other post-retirement benefits of employees in the PRC or overseas other than what described above.

(ab) Related parties

(a) A person, or a close member of that person's family, is related to the Group if that person:

- (i) has control or joint control over the Group;
- (ii) has significant influence over the Group; or
- (iii) is a member of the key management personnel of the Group or the Group's parent.

(b) An entity is related to the Group if any of the following conditions applies:

- (i) The entity and the Group are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).
- (ii) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
- (iii) Both entities are joint ventures of the same third party.
- (iv) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
- (v) The entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group.
- (vi) The entity is controlled or jointly controlled by a person identified in (a).
- (vii) A person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).
- (viii) The entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the Group's parent.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that person in their dealings with the entity.

(ac) Changes in significant accounting policies

(i) New and amended standards adopted by the Group in 2020

The Group has initially adopted Definition of a Business (Amendments to IFRS 3) and early adopted Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28) from 1 January 2020. The details of accounting policies are set out in Note 3(a) and 3(b). A number of other new standards are also effective from 1 January 2020 but they do not have a material effect on the Group's financial statements.

(ii) New and amended standards adopted by the Group in 2019

The Group initially applied IFRS 16 from January 1, 2019. A number of other new standards are also effective from January 1, 2019 but they do not have a material effect on the Group's financial statements.

The Group applied IFRS 16 using the modified retrospective approach, under which the cumulative effect of initial application is recognized in retained earnings at January 1, 2019. Accordingly, the comparative information presented for 2018 is not restated. The details of the changes in accounting policies are disclosed below. Additionally, the disclosure requirements in IFRS 16 have not generally been applied to comparative information.

(a) Definition of a lease

Previously, the Group determined at contract inception whether an arrangement was or contained a lease under IFRIC 4. The Group now assesses whether a contract is or contains a lease based on the definition of a lease, as explained in Note 3(m).

On transition to IFRS 16, the Group elected to apply the practical expedient to grandfather the assessment of which transactions are leases. The Group applied IFRS 16 only to contracts that were previously identified as leases. Contracts that were not identified as leases under IAS 17 and IFRIC 4 were not reassessed for whether there is a lease under IFRS 16. Therefore, the definition of a lease under IFRS 16 was applied only to contracts entered into or changed on or after January 1, 2019.

(b) As a lessee

As a lessee, the Group leases many assets including land, building and equipment. The Group previously classified leases as operating or finance leases based on its assessment of whether the lease transferred significantly all of the risks and rewards incidental to ownership of the underlying asset to the Group. Under IFRS 16, the Group recognizes right-of-use assets and lease liabilities for most of these leases.

At commencement or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone price.

Previously, the Group classified property leases as operating leases under IAS 17. On transition, for these leases, lease liabilities were measured at the present value of the remaining lease payments, discounted at the Group's incremental borrowing rate as at January 1, 2019. Right-of-use assets are measured at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments: the Group applied this approach to all other leases.

The Group used a number of practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17. In particular, the Group:

- did not recognize right-of-use assets and liabilities for leases for which the lease term ends within 12 months of the date of initial application;
- applied a single discount rate to leases with similar characteristics when measuring lease liabilities;
- excluded initial direct costs from the measurement of the right-of-use asset at the date of initial application;
- used hindsight when determining the lease term;

- relied on the previous assessment for onerous contract provisions as at December 31, 2018 as an alternative to performing an impairment review; and
- no retrospective adjustment shall be made to the lease changes generated before the beginning of the year when the IFRS 16 is initially applied, and accounting treatment shall be carried out based on the IFRS 16 according to the final arrangement of the lease changes.

(c) Impact on transition

When measuring lease liabilities, the Group discounted lease payments using its incremental borrowing rate at January 1, 2019. The weighted-average rate applied by the Group is 4.275%.

	The Group
The total future minimum lease payments of significant operating leases disclosed in the consolidated financial statements as at December 31, 2018	227,935
Present value discounted using the Group's incremental borrowing rate at January 1, 2019	166,955
Lease liabilities under new leases standard at January 1, 2019	163,196
Difference between the present value and lease liabilities above[Note]	3,759

Note: The difference principally represents the lease payments that will be matured within 12 months after January 1, 2019 or low-value.

(iii) New and amended standards adopted by the Group in 2018

The Group has initially adopted IFRS 15 and IFRS 9 from January 1, 2018. A number of other new standards are effective from January 1, 2018 but they do not have a material effect on the Group's financial statements.

Due to the transition methods chosen by the Group in applying these standards, comparative information throughout these financial statements has not been restated to reflect the requirements of the new standards.

(a) IFRS 15 "Revenue from contracts with customers"

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaced IAS 18 "Revenue" ("IAS 18"), IAS 11 "Construction Contracts" ("IAS 11") and related interpretations. Under IFRS 15, revenue is recognized when a customer obtains control of the goods or services. Determing the timing of the transfer of contract – at point time or over time – requires judgment.

The Group has adopted IFRS 15 using the cumulative effect method (without practical expedients), with the effect of initially applying this standard recognized at the date of initial application (i.e. January 1, 2018). Accordingly, the information presented for 2017 has not been restated – i.e. it is presented, as previously reported, under IAS 18, IAS 11 and related interpretations.

There was no material impact on the Group's statement of comprehensive income and statement of cash flows for the year ended December 31, 2018.

(b) IFRS 9 "Financial Instruments"

IFRS 9 sets out requirements for recognizing and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39 "Financial Instruments: Recognition and Measurement" ("IAS 39").

Impacts of the new requirements on the Group's financial statements are as follow:

Classification and measurement of financial assets and financial liabilities

The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. IFRS 9 eliminates the previous IAS 39 categories of held to maturity, loans and receivables and available for sale. IFRS 9 largely retains the existing requirements in IAS 39 for the classification and measurement of financial liabilities.

As for the classification and measurement of financial instruments, financial assets used to be carried at amortized costs and those at FVTPL shall continue to maintain their existing classification and measurement methods after adopting IFRS 9. As for the non-trading equity instrument investments used to be classified as "Available-for-sale financial assets", the Group chooses to irrevocably designate them as carried at FVOCI (not to be carried forward into current profit or loss in the future).

Impairment of financial assets

IFRS 9 replaces the 'incurred loss' model in IAS 39 with an 'expected credit loss' model. The new impairment model applies to financial assets measured at amortized cost, debt investments at FVOCI and contract assets.

Subject to the new standards on financial instruments, the Group has made an assessment on the gap between the original carrying amount and the carrying amount at the date of adoption of the new standards. The adoption of the new standard exerts no material impact on the retained earnings and other comprehensive income as at January 1, 2018.

Transition

Changes in accounting policies resulting from the adoption of IFRS 9 have been applied retrospectively, except the Group has used an exemption not to restate comparative information for prior periods with respect to classification and measurement (including impairment) requirements. There is no differences in the carrying amounts of financial assets and financial liabilities resulting from the adoption of IFRS 9 are recognized in retained earnings and reserves as at January 1, 2018.

4 FINANCIAL RISK AND CAPITAL MANAGEMENT

4.1 Financial risk factors

The Group's activities expose it to a variety of financial risks, including market risk, credit risk and liquidity risk.

(a) Market risk

Market risk is the possibility that changes in foreign exchange rates, interest rates and the prices of oil and gas products will adversely affect the value of assets, liabilities and expected future cash flows.

(i) Foreign exchange risk

The Group conducts its domestic business primarily in RMB, but maintains a portion of its assets in other currencies to pay for imported crude oil, imported equipment and other materials and to meet foreign currency

financial liabilities. The Group is exposed to currency risks arising from fluctuations in various foreign currency exchange rates against the RMB. The RMB is not a freely convertible currency and is regulated by the PRC government. Limitations on foreign exchange transactions imposed by the PRC government could cause future exchange rates to vary significantly from current or historical exchange rates.

Additionally, the Group operates internationally and foreign exchange risk arises from future acquisitions and commercial transactions, recognized assets and liabilities and net investments in foreign operations. Certain entities in the Group might use currency derivatives to manage such foreign exchange risk.

(ii) Interest rate risk

The Group has no significant interest rate risk on interest-bearing assets. The Group's exposure to interest rate risk arises from its borrowings. The Group's borrowings at floating rates expose the Group to cash flow interest rate risk and its borrowings at fixed rates expose the Group to fair value interest rate risk. However, the exposure to interest rate risk is not material to the Group. A detailed analysis of the Group's borrowings, together with their respective interest rates and maturity dates, is included in Note 28.

(iii) Price risk

The Group is engaged in a wide range of oil and gas products-related activities. Prices of oil and gas products are affected by a wide range of global and domestic factors which are beyond the control of the Group. The fluctuations in such prices may have favorable or unfavorable impacts on the Group.

The Group uses derivative financial instruments, including commodity futures, commodity swaps and commodity options, to hedge some price risks efficiently.

(b) Credit risk

Credit risk arises from cash and cash equivalents, time deposits with banks and credit exposure to customers with outstanding receivable balances.

A substantial portion of the Group's cash at bank and time deposits are placed with the major state-owned banks and financial institutions in China and management believes that the credit risk is low.

The Group performs ongoing assessment of the credit quality of its customers and sets appropriate credit limits taking into account the financial position and past history of defaults of customers. The aging analysis of accounts receivable (net of impairment of accounts receivable) is presented in Note 21. The Group measures loss allowance for accounts receivable at an amount equal to lifetime ECLs. The ECLs were calculated based on historical actual credit loss experience. The rates were considered the differences between economic conditions during the period over which the historical data has been collected, current conditions and the Group's view of economic conditions over the expected lives of the receivables. The Group performed the calculation of ECL rates by the operating segment and geography.

The following table provides information about the exposure to credit risk and ECLs for accounts receivable as at December 31, 2020 and 2019.

			Impairment provision on provision matrix basis		
December 31, 2020	Gross carrying amount	Impairment provision on individual basis	Weighted-average loss rate	Impairment provision	Loss allowance
	RMB	RMB	%	RMB	RMB
Current (not past due)	46,849	—	0.1%	34	34
Within 1 year past due	5,326	154	0.4%	19	173
1 to 2 years past due	386	65	6.9%	22	87
2 to 3 years past due	50	11	25.6%	10	21
Over 3 years past due	854	342	94.3%	483	825
Total	53,465	572		568	1,140

			Impairment provision on provision matrix basis		
December 31, 2019	Gross carrying amount	Impairment provision on individual basis	Weighted-average loss rate	Impairment provision	Loss allowance
	RMB	RMB	%	RMB	RMB
Current (not past due)	58,382	3	0.1%	30	33
Within 1 year past due	5,534	11	0.4%	24	35
1 to 2 years past due	127	24	10.7%	11	35
2 to 3 years past due	411	48	45.5%	165	213
Over 3 years past due	2,161	1,719	89.6%	396	2,115
Total	66,615	1,805		626	2,431

The carrying amounts of cash and cash equivalents, time deposits placed with banks, accounts receivable, other receivables and notes receivable included in the consolidated statement of financial position represent the Group's maximum exposure to credit risk. No other financial assets carry a significant exposure to credit risk.

The Group has no significant concentration of credit risk.

(c) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting obligations associated with financial liabilities.

In managing its liquidity risk, the Group has access to funding at market rates through equity and debt markets, including using undrawn committed borrowing facilities to meet foreseeable borrowing requirements.

Given the low level of gearing and continued access to funding, the Group believes that its liquidity risk is not material.

Analysis of the Group's borrowings and lease liabilities based on the remaining period at the date of the statement of financial position to the contractual maturity dates is presented in Note 28 and Note 42.

4.2 Capital management

The Group's objectives when managing capital are to safeguard its ability to continue as a going concern, optimize returns for owners and to minimize its cost of capital. In meeting its objectives of managing capital, the Group may issue new shares, adjust its debt levels or the mix between short-term and long-term borrowings.

The Group monitors capital on the basis of the gearing ratio which is calculated as interest-bearing borrowings / (interest-bearing borrowings + total equity), interest-bearing borrowings include short-term and long-term borrowings. The gearing ratio at December 31, 2020 is 21.3% (December 31, 2019: 24.4%).

4.3 Fair value estimation

The methods and assumptions applied in determining the fair value of each class of financial assets and financial liabilities of the Group at December 31, 2020 and 2019 are disclosed in the respective accounting policies.

The carrying amounts of the following financial assets and financial liabilities approximate their fair value as all of them are short-term in nature: cash and cash equivalents, time deposits with maturities over three months but within one year, accounts receivable, other receivables, trade payables, other payables and short-term borrowings. The fair values of fixed rate long-term borrowings are likely to be different from their respective carrying amounts. Analysis of the fair values and carrying amounts of long-term borrowings is presented in Note 28.

The equity investments that are not held for trading and notes receivable are measured at fair value at the end of the reporting period. The fair value of such equity investments are mainly categorized into level 1 of the fair value hierarchy which are based on the unadjusted quoted prices in active markets for identical assets or liabilities as inputs used in the valuation techniques. Notes receivable are short-term bills of acceptance issued by banks, their fair values approximate the face values of the bills.

5 CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Estimates and judgments are regularly evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The matters described below are considered to be the most critical in understanding the estimates and judgments that are involved in preparing the Group's consolidated financial statements.

(a) Estimation of oil and gas reserves

Estimates of oil and natural gas reserves are key elements in the Group's investment decision-making process. They are also an important element in testing for impairment. Changes in proved oil and gas reserves, particularly proved developed reserves, will affect unit-of-production depreciation, depletion and amortization recorded in the Group's consolidated financial statements for property, plant and equipment related to oil and gas production activities. A reduction in proved developed reserves will increase depreciation, depletion and amortization charges. Proved oil and gas reserves estimates are subject to revision, either upward or downward, based on new information, such as from development drilling and production activities or from changes in economic factors, including product prices, contract terms, evolution of technology or development plans, etc.

(b) Estimation of impairment of property, plant and equipment

Property, plant and equipment, including oil and gas properties, are reviewed for possible impairments when events or changes in circumstances indicate that the carrying amount may not be recoverable. Determination as to whether and how much an asset is impaired involves management estimates and judgments such as the future price of crude oil, natural gas, refined and chemical products, the operation costs, the product mix, production volumes, production profile and the oil and gas reserves. The impairment reviews and calculations are based on assumptions that are consistent with the Group's business plans taking into account current economic conditions. Favorable changes to some assumptions, may allow the Group to avoid the need to impair any assets or make it necessary to reverse an impairment loss recognized in prior periods, whereas unfavorable changes may cause the assets to become impaired. For example, when the assumed future price and production profile of crude oil used for the expected future cash flows are different from the actual price and production profile of crude respectively experienced in future, the Group may either over or under recognize the impairment losses for certain assets.

(c) Estimation of asset retirement obligations

Provision is recognized for the future decommissioning and restoration of oil and gas properties. The amount of the provision recognized is the present values of the estimated future expenditures. The estimation of the future expenditures is based on current local conditions and requirements, including legal requirements, technology, price levels, etc. In addition to these factors, the present values of these estimated future expenditures are also impacted by the management plan for the decommissioning of oil and gas properties, the estimation of the economic lives of oil and gas properties and estimates of discount rates. The estimations and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future period. Changes in any of these estimates will impact the operating results and the financial position of the Group over the remaining economic lives of the oil and gas properties.

According to changes in the internal and external environment, accounting standards and company asset retirement expense measures and other relevant regulations, oil and gas field companies recalculate their asset retirement obligations of oil and gas properties based on the latest parameters, to more objectively reflect the actual situation of the Company's asset retirement obligation of oil and gas properties.

(d) Deferred tax assets

According to the requirements of the competent tax authority, the Company paid income taxes of its branches in the Eastern and Western China Regions in aggregate. The tax losses recorded by the branches in the Eastern China Region has given rise to deferred tax assets, which are expected to be recoverable from future taxable profits generated by the branches in the Eastern China Region. Any policy adjustments may increase or decrease the amount of income tax expenses of the Company.

6 REVENUE

Revenue represents revenues from the sale of crude oil, natural gas, refined products and chemical products and from the transmission of crude oil, refined products and natural gas. The revenue information for the year ended December 31, 2020, 2019 and 2018 are as follows:

2020 Type of contract	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
Type of goods and services						
Crude oil	333,557	—	447,384	—	—	780,941
Natural gas	118,388	—	173,696	294,297	—	586,381
Refined products	—	616,063	822,192	—	—	1,438,255
Chemical products	—	150,296	30,344	—	—	180,640
Pipeline transportation business	—	—	—	52,273	—	52,273
Non-oil sales in gas stations	—	—	22,360	—	—	22,360
Others	78,631	8,254	1,300	23,800	3,515	115,500
Elimination	(437,670)	(492,667)	(276,503)	(35,437)	(1,320)	(1,243,597)
Revenue from contracts with customers	92,906	281,946	1,220,773	334,933	2,195	1,932,753
Other revenue						1,083
Total						1,933,836
Geographical Region						
Mainland China	27,028	281,946	554,620	334,933	2,195	1,200,722
Others	65,878	—	666,153	—	—	732,031
Revenue from contracts with customers	92,906	281,946	1,220,773	334,933	2,195	1,932,753
Other revenue						1,083
Total						1,933,836

2019 Type of contract	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
Type of goods and services						
Crude oil	476,974	—	623,757	—	—	1,100,731
Natural gas	110,837	—	238,999	291,641	—	641,477
Refined products	—	834,879	1,161,054	—	—	1,995,933
Chemical products	—	156,938	28,348	—	—	185,286
Pipeline transportation business	—	—	—	70,568	—	70,568
Non-oil sales in gas stations	—	—	21,146	—	—	21,146
Others	88,284	8,036	1,513	28,341	3,684	129,858
Elimination	(552,672)	(702,207)	(332,164)	(40,652)	(1,644)	(1,629,339)
Revenue from contracts with customers	123,423	297,646	1,742,653	349,898	2,040	2,515,660
Other revenue						1,150
Total						2,516,810
Geographical Region						
Mainland China	41,596	297,646	784,379	349,898	2,040	1,475,559
Others	81,827	—	958,274	—	—	1,040,101
Revenue from contracts with customers	123,423	297,646	1,742,653	349,898	2,040	2,515,660
Other revenue						1,150
Total						2,516,810

2018 Type of Category	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
Type of goods and services						
Crude oil	477,512	—	445,567	—	—	923,079
Natural gas	104,927	—	222,387	256,810	—	584,124
Refined products	—	841,535	1,168,549	—	—	2,010,084
Chemical products	—	164,565	30,894	—	—	195,459
Pipeline transportation business	—	—	—	70,068	—	70,068
Non-oil sales in gas stations	—	—	22,274	—	—	22,274
Others	76,044	7,819	1,192	35,545	2,372	122,972
Elimination	(539,295)	(696,614)	(281,522)	(35,899)	(606)	(1,553,936)
Revenue from contracts with customers	119,188	317,305	1,609,341	326,524	1,766	2,374,124
Other revenue						810
Total						2,374,934
Geographical Region						
Mainland China	30,711	317,305	850,130	326,524	1,766	1,526,436
Others	88,477	—	759,211	—	—	847,688
Revenue from contracts with customers	119,188	317,305	1,609,341	326,524	1,766	2,374,124
Other revenue						810
Total						2,374,934

7 PROFIT BEFORE INCOME TAX EXPENSE

	2020	2019	2018
	RMB	RMB	RMB
Items credited and charged in arriving at the profit before income tax expense include:			
Credited			
Dividend income from equity investments measured at fair value through other comprehensive income	25	22	52
Reversal of provision for impairment of receivables	95	1,630	1,370
Reversal of write down in inventories	186	201	77
Government grants[(i)]	11,236	12,281	11,775
Gain on disposal of investment in subsidiaries	1,242	49	45
Gain on Pipeline restructuring (Note 41)	46,946	—	—
Charged			
Amortization of intangible and other assets	5,944	4,992	4,897
Depreciation and impairment losses:			
Owned property, plant and equipment	194,015	205,297	222,195
Right-of-use assets[(ii)]	13,916	14,973	—
Auditors' remuneration[(iii)]	49	53	53
Cost of inventories recognized as expense	1,527,271	1,981,628	1,820,838
Provision for impairment of receivables	438	263	1,385
Loss on disposal of property, plant and equipment	5,398	9,809	16,761
Total minimum lease payments for leases previously classified as operating lease under IAS 17[(ii)]	—	—	20,196
Variable lease payments, low-value and short-term lease payment not included in the measurement of lease liabilities	3,362	3,514	—
Research and development expenses	15,746	15,666	14,093
Write down in inventories	8,337	1,461	4,307

(i) Comprises proportionate refund of import value-added tax relating to the import of natural gas (including liquefied natural gas) provided by the PRC government and value-added tax refund upon levy for pipeline transportation service over which portion of value-added tax actual tax burden exceeds 3%. This value-added tax refund is applicable from January 1, 2011 to December 31, 2020 and available when the import prices of the natural gas and liquefied natural gas imported under any State-sanctioned pipelines are higher than their prescribed selling prices.

(ii) The Group has initially applied IFRS 16 under the modified retrospective approach and adjusted the opening balances at January 1, 2019 to recognize right-of-use assets relating to leases which were previously classified as operating leases under IAS 17. The depreciated carrying amount of the finance lease assets which were previously included in property, plant and equipment is also identified as a right-of-use asset. After initial recognition of right-of-use assets at January 1, 2019, the Group as a lessee is required to recognize the depreciation of right-of-use assets, instead of the previous policy of recognizing rental expenses incurred under operating leases on a straight-line basis over the lease term. Under this approach, the comparative information is not restated.

(iii) The auditors' remuneration above represents the annual audit fees paid by the Company. This remuneration does not include fees of RMB 62 (2019: RMB 60, 2018: RMB 52) paid by subsidiaries to the Company's current auditor and its network firms which primarily relates to audit, tax compliance and other advisory services.

8 EMPLOYEE COMPENSATION COSTS

	2020	2019	2018
	RMB	RMB	RMB
Wages, salaries and allowances	98,832	101,815	95,761
Social security costs	48,772	52,503	48,630
	147,604	154,318	144,391

Social security costs mainly represent contributions to plans for staff welfare organized by the PRC municipal and provincial governments and others including contributions to the retirement benefit plans (Note 33).

9 TAXES OTHER THAN INCOME TAXES

	2020	2019	2018
	RMB	RMB	RMB
Consumption tax	145,525	164,973	152,494
Resource tax	18,468	24,388	24,339
Crude oil special gain levy	178	771	4,750
Other	31,679	38,304	39,094
	195,850	228,436	220,677

10 INTEREST EXPENSE

	2020	2019	2018
	RMB	RMB	RMB
Interest on:			
Bank loans	1,677	3,094	2,134
Other loans	14,342	15,476	16,313
Lease liabilities	6,297	7,476	—
Accretion expense (Note 32)	5,107	5,525	5,678
Less: Amounts capitalized	(895)	(1,162)	(1,407)
	26,528	30,409	22,718

Amounts capitalized are borrowing costs that are attributable to the construction of qualifying assets. The average interest rate used to capitalize such general borrowing cost was 4.23% per annum for the year ended December 31, 2020 (2019: 4.28% per annum, 2018: 4.28% per annum).

11 EMOLUMENTS OF DIRECTORS AND SUPERVISORS

Details of the emoluments of directors and supervisors for the years ended December 31, 2020, 2019 and 2018 are as follows:

	2020				2019	2018
Name	Fee for directors and supervisors	Salaries, allowances and other benefits	Contribution to retirement benefit scheme	Total	Total	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Chairmen:						
Mr. Dai Houliang[(i)]	—	—	—	—	—	—
Mr. Wang Yilin[(i)]	—	—	—	—	—	—
Vice chairmen:						
Mr Li Fanrong[(i)]	—	—	—	—	—	—
Mr. Zhang Wei[(ii)]	—	—	—	—	—	—
Mr. Zhang Jianhua[(iii)]	—	—	—	—	—	633
Mr. Wang Dongjin[(iv)]	—	—	—	—	—	409
Executive directors:						
Mr Duan Liangwei[(v)]	—	609	126	735	—	—
Mr. Hou Qijun[(vi)]	—	—	—	—	983	888
	—	609	126	735	983	1,930
Non-executive directors:						
Mr. Yu Baocai [(vii)]	—	—	—	—	—	—
Mr. Liu Yuezhen	—	—	—	—	—	—
Mr. Liu Hongbin[(viii)]	—	—	—	—	—	—
Mr. Jiao Fangzheng[(ix)]	—	—	—	—	—	—
Mr. Huang Yongzhang[(x)]	—	—	—	—	—	—
Mr. Qin Weizhong[(xi)]	—	—	—	—	—	—
Mr. Lin Boqiang[(xii)]	388	—	—	388	386	365
Mr. Zhang Biyi[(xii)]	398	—	—	398	386	399
Ms. Elsie Leung Oi-sie	331	—	—	331	319	334
Mr. Tokuchi Tatsuhito	331	—	—	331	351	334
Mr. Simon Henry	320	—	—	320	340	340
Mr Cai Jinyong[(xii)]	—	—	—	—	—	—
Mr Jiang Xiaoming[(xii)]	—	—	—	—	—	—
	1,768	—	—	1,768	1,782	1,772

	2020				2019	2018
Name	Fee for directors and supervisors	Salaries, allowances and other benefits	Contribution to retirement benefit scheme	Total	Total	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Supervisors:						
Mr. Lv Bo(xiii)	—	—	—	—	—	—
Mr. Xu Wenrong(xiii)	—	—	—	—	—	—
Mr. Zhang Fengshan	—	—	—	—	—	—
Mr. Jiang Lifu	—	—	—	—	—	—
Mr. Lu Yaozhong	—	—	—	—	—	—
Mr. Wang Liang	—	—	—	—	—	—
Mr. Fu Suotang	—	1,281	86	1,367	1,155	967
Mr. Li Jiamin	—	911	95	1,006	978	850
Mr. Liu Xianhua	—	900	111	1,011	845	743
Mr. Li Wendong	—	1,094	99	1,193	1,067	960
	—	4,186	391	4,577	4,045	3,520
	1,768	4,795	517	7,080	6,810	7,222

(i) Mr. Wang Yilin ceased being the chairman from January 19, 2020. Mr. Dai Houliang was elected as the chairman and Mr Li Fanrong was elected as the vice chariman from March 25, 2020.
(ii) Mr. Zhang Wei was elected as the non-executive director and vice chairman from June 13, 2019 and ceased being the non-executive director and vice chairman from December 9, 2019.
(iii) Mr. Zhang Jianhua was appointed as executive director and president from June 5, 2018 and ceased being the executive director and president from November 14, 2018.
(iv) Mr. Wang Dongjin ceased being the executive director and president from April 2, 2018.
(v) Mr. Duan liangwei was appointed as the president and executive director from March 9, 2020.
(vi) Mr. Hou Qijun was appointed as the president from March 21, 2019 and ceased being the executive director and president from December 9, 2019.
(vii) Mr. Yu Baocai ceased being the non-executive director from June 7, 2018.
(viii) Mr. Liu Hongbin ceased being the non-executive director from December 3, 2019.
(ix) Mr. Jiao Fangzheng was elected as the non-executive director from June 13, 2019
(x) Mr. Huang Yongzhang was elected as the non-executive director from September 28, 2020
(xi) Mr. Qin Weizhong ceased being the non-executive director from April 15, 2019.
(xii) Mr. Cai Jinyong and Mr Jiang Xiaoming was elected as independent non-executive director from June 11, 2020, and began to perform their duties.The remuneration has not been paid at the end of December 31, 2020. Mr Zhang Biyi and Mr Lin Boqiang ceased being the independent non-executive director from December 31, 2020.
(xiii) Mr. Xu Wenrong ceased being the Chairman of Supervisory Committee and supervisor and Mr Lv Bo ceased being the non-executive director from October 20, 2020. Mr Lv Bo was elected as the Chairman of Supervisory Committee and supervisor from November 5, 2020.
(xiv) The emoluments above are all pre-tax amounts.

None of the directors and supervisors has waived their remuneration during the year ended December 31, 2020. (2019: None of the directors and supervisors has waived their remuneration. 2018: None of the directors and supervisors has waived their remuneration)

The five highest paid individuals in the Company for the year ended December 31, 2020 include one supervisor whose emolument are reflected in the analysis shown above and the note; and four senior managements whose allowances and other benefits was RMB 1.550, RMB 1.310, RMB 1.292 and RMB 1.270, respectively, and whose contribution to retirement benefit scheme was RMB 0.116, RMB 0.116, RMB 0.116 and RMB 0.116, respectively.

The five highest paid individuals in the Company for the year ended December 31, 2019 include three supervisors and one director whose emoluments are reflected in the analysis shown above and the note; and one senior management whose allowances and other benefits was RMB 0.940, and whose contribution to retirement benefit scheme was RMB 0.161.

The five highest paid individuals in the Company for the year ended December 31, 2018 include one supervisor whose emoluments are reflected in the analysis shown above and the note; and four senior managements whose allowances and other benefits were RMB 0.912, RMB 0.899, RMB 0.866 and RMB 0.847, respectively, and whose contribution to retirement benefit scheme were RMB 0.148, RMB 0.148, RMB 0.148 and RMB 0.148, respectively.

During 2020, 2019 and 2018, the Company did not incur any severance payment to any director for loss of office or any payment as inducement to any director to join the Company.

12 INCOME TAX EXPENSE

	2020	2019	2018
	RMB	RMB	RMB
Current taxes	14,922	32,714	34,983
Deferred taxes (Note 31)	7,666	3,485	7,807
	22,588	36,199	42,790

In accordance with the relevant PRC income tax rules and regulations, the PRC corporate income tax rate applicable to the Group is principally 25%. In accordance with the Circular jointly issued by the Ministry Of Finance ("MOF"), the General Administration of Customs of the PRC and the SAT on Issues Concerning Tax Policies for In-depth Implementation of Western Development Strategy (Cai Shui [2011] No.58), the corporate income tax for the enterprises engaging in the encouraged industries in the Western China Region is charged at a preferential corporate income tax rate of 15% from January 1, 2011 to December 31, 2020. Certain branches and subsidiaries of the Company in the Western China Region obtained the approval for the use of the preferential corporate income tax rate of 15%. On April 23, 2020, the MOF, the State Administration of Taxation ("SAT") and National Development and Reform Commission ("NDRC") issued the Notice on Continuing the Income Tax Policy for Western Development (Notice No.23 of 2020 of the MOF, the SAT, the NDRC), the corporate income tax for the enterprises engaging in the encouraged industries in the Western China Region is charged at a preferential corporate income tax rate of 15% from January 1, 2021 to December 31, 2030.

The tax on the Group's profit before taxation differs from the theoretical amount that would arise using the corporate income tax rate in the PRC applicable to the Group as follows:

	2020	2019	2018
	RMB	RMB	RMB
Profit before income tax expense	56,073	103,214	116,770
Tax calculated at a tax rate of 25%	14,018	25,804	29,193
Tax return true-up	256	691	554
Effect of income taxes from international operations different from taxes at the PRC statutory tax rate	1,522	6,112	4,414
Effect of preferential tax rate	(1,312)	(5,529)	(3,855)
Tax effect of income not subject to tax	(3,612)	(3,767)	(3,278)
Tax effect of expenses not deductible for tax purposes	5,455	4,479	8,278
Tax effect of temporary differences and losses unrecognized as deferred tax assets	6,261	8,409	7,484
Income tax expense	22,588	36,199	42,790

13 BASIC AND DILUTED EARNINGS PER SHARE

Basic and diluted earnings per share for the years ended December 31, 2020, 2019 and 2018 have been computed by dividing profit for the year attributable to owners of the Company by 183,021 million shares issued and outstanding for the year.

There are no potentially dilutive ordinary shares.

14 DIVIDENDS

	2020	2019	2018
	RMB	RMB	RMB
Interim dividends attributable to owners of the Company for 2020 [(a)]	16,000	—	—
Proposed final dividends attributable to owners of the Company for 2020 [(b)]	16,000	—	—
Interim dividends attributable to owners of the Company for 2019 [(c)]	—	14,212	—
Final dividends attributable to owners of the Company for 2019 [(d)]	—	12,081	—
Interim dividends attributable to owners of the Company for 2018 [(e)]	—	—	16,252
Final dividends attributable to owners of the Company for 2018 [(f)]	—	—	16,472
	32,000	26,293	32,724

(a) Interim dividends attributable to owners of the Company in respect of 2020 of RMB 0.08742 yuan per share amounting to a total of RMB 16,000. The dividends were paid on September 22, 2020 (A shares) and November 13, 2020 (H shares).

(b) At the 8th meeting of the 8th Board, the Board of Directors proposed final dividends attributable to owners of the Company in respect of 2020 of RMB 0.08742 yuan per share amounting to a total of RMB 16,000. These consolidated financial statements do not reflect this dividend payable as the final dividends were proposed after the reporting period and will be accounted for in equity as an appropriation of retained earnings for the year ended December 31, 2020 when approved at the forthcoming Annual General Meeting.

(c) Interim dividends attributable to owners of the Company in respect of 2019 of RMB 0.07765 yuan per share amounting to a total of RMB 14,212. The dividends were paid on September 24, 2019 (A shares) and November 1, 2019 (H shares).

(d) Final dividends attributable to owners of the Company in respect of 2019 of RMB 0.06601 yuan per share amounting to a total of RMB 12,081 and were paid on June 30, 2020 (A shares) and July 31, 2020 (H shares).

(e) Interim dividends attributable to owners of the Company in respect of 2018 of RMB 0.08880 yuan per share amounting to a total of RMB 16,252. The dividends were paid on September 21, 2018 (A shares) and November 1, 2018 (H shares).

(f) Final dividends attributable to owners of the Company in respect of 2018 of RMB 0.09 yuan per share amounting to a total of RMB 16,472 and were paid on June 28, 2019 (A shares) and August 2, 2019 (H shares).

15 PROPERTY, PLANT AND EQUIPMENT

Year Ended December 31, 2020	Buildings	Oil and Gas Properties	Equipment and Machinery	Motor Vehicles	Other	Construction in Progress	Total
	RMB	RMB	RMB	RMB	RMB	RMB	RMB
Cost							
At beginning of the year	252,174	2,261,203	1,153,616	27,148	36,155	255,302	3,985,598
Additions	3,620	1,044	8,425	1,419	776	188,591	203,875
Transfers	16,827	152,389	23,618	—	12,169	(205,003)	—
Disposals or write offs	(22,910)	(39,497)	(438,169)	(5,661)	(3,340)	(8,934)	(518,511)
Currency translation differences	(763)	(19,214)	(1,086)	(49)	(746)	(1,074)	(22,932)
At end of the year	248,948	2,355,925	746,404	22,857	45,014	228,882	3,648,030
Accumulated depreciation and impairment							
At beginning of the year	(107,943)	(1,429,389)	(615,770)	(19,947)	(23,092)	(6,233)	(2,202,374)
Charge for the year and others	(11,005)	(136,433)	(45,912)	(1,260)	(10,573)	—	(205,183)
Impairment charge	(214)	(13,908)	(113)	—	(837)	(295)	(15,367)
Disposals or write offs or transfers	7,948	24,234	173,196	3,739	2,031	1,012	212,160
Currency translation differences	315	13,459	490	37	534	(10)	14,825
At end of the year	(110,899)	(1,542,037)	(488,109)	(17,431)	(31,937)	(5,526)	(2,195,939)
Net book value							
At end of the year	138,049	813,888	258,295	5,426	13,077	223,356	1,452,091

Year Ended December 31, 2019	Buildings	Oil and Gas Properties	Equipment and Machinery	Motor Vehicles	Other	Construction in Progress	Total
	RMB	RMB	RMB	RMB	RMB	RMB	RMB
Cost							
At beginning of the year	237,038	2,113,366	1,102,423	27,911	34,080	226,623	3,741,441
Additions	1,330	5,990	6,111	1,325	752	283,170	298,678
Transfers	21,265	174,749	52,449	—	1,234	(249,697)	—
Disposals or write offs	(7,605)	(40,253)	(7,528)	(2,096)	(549)	(8,900)	(66,931)
Currency translation differences	146	7,351	161	8	638	4,106	12,410
At end of the year	252,174	2,261,203	1,153,616	27,148	36,155	255,302	3,985,598
Accumulated depreciation and impairment							
At beginning of the year	(100,767)	(1,312,907)	(570,120)	(20,276)	(21,714)	(6,269)	(2,032,053)
Charge for the year and others	(11,402)	(128,859)	(50,360)	(1,386)	(1,365)	—	(193,372)
Impairment charge	(237)	(11,562)	(1,159)	(4)	(38)	(419)	(13,419)
Disposals or write offs or transfers	4,532	28,241	5,945	1,724	436	491	41,369
Currency translation differences	(69)	(4,302)	(76)	(5)	(411)	(36)	(4,899)
At end of the year	(107,943)	(1,429,389)	(615,770)	(19,947)	(23,092)	(6,233)	(2,202,374)
Net book value							
At end of the year	144,231	831,814	537,846	7,201	13,063	249,069	1,783,224

The Group's exploration and production segment determines whether there are any indications of impairment for the oil blocks according to the Group's guidance of identification of impairment indications for oil and gas properties, performs the impairment tests on those oil blocks with indications of impairment, and reports the results to the Group's internal professional team (including operation and finance team) for further overall assessment and evaluation. The final results of the impairment tests have been submitted to the Group's management for review and approval. The Group recorded impairment losses amounting to RMB 13,908 related to oil and gas properties under the exploration and production segment for the year ended December 31, 2020 (2019: RMB 11,562 related to oil and gas properties under the exploration and production segment, 2018: RMB 19,856 and RMB 2,904 related to oil and gas properties and construction in progress respectively under the exploration and production segment) due to the decline of oil and gas reserves, the higher production costs and significant drop in the economic benefits of certain oil blocks at the late stage of production. The carrying amount of those impaired oil and gas properties was written down to their respective recoverable amounts, which were determined based on the present values of the expected future cash flows of the assets. The Group referred to the weighted average cost of capital of the oil and gas industry when determining discount rate, and made relevant adjustments according to specific risks in different countries or regions. In 2020, the after-tax discount rates adopted by most oil fields or blocks of the Group ranged 5.9% to 12% (2019: 6.4% to 15.4%, 2018: 7.3% to 11.5%).

The following table indicates the changes to the Group's exploratory well costs, which are included in construction in progress, for the years ended December 31, 2020, 2019 and 2018.

	2020	2019	2018
	RMB	RMB	RMB
At beginning of the year	36,101	26,905	22,843
Additions to capitalized exploratory well costs pending the determination of proved reserves	30,104	35,098	28,045
Reclassified to wells, facilities, and equipment based on the determination of proved reserves	(18,464)	(17,002)	(15,404)
Capitalized exploratory well costs charged to expense	(8,934)	(8,900)	(8,579)
At end of the year	38,807	36,101	26,905

The following table provides an aging of capitalized exploratory well costs based on the date the drilling was completed.

	December 31, 2020	December 31, 2019
	RMB	RMB
One year or less	23,428	23,924
Over one year	15,379	12,177
Balance at December 31	38,807	36,101

Capitalized exploratory well costs over one year are principally related to wells that are under further evaluation of drilling results or pending completion of development planning to ascertain economic viability.

16 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

The summarized financial information of the Group's principal associates and joint ventures, including the aggregated amounts of assets, liabilities, revenue, profit or loss and the interest held by the Group were as follows:

Name	Country of Incorporation	Registered Capital	Principal Activities	Interest Held	
				Direct %	Indirect %
China Oil & Gas Piping Network Corporation ("PipeChina")	PRC	500,000	Pipeline transport, storage service, import of equipment, import and export of techniques, science and technology research, research and application of informatization, technology consulting, technology service, technology transfer, promotion of technology	29.90	—
China Petroleum Finance Co., Ltd.	PRC	8,331	Deposits, loans, settlement, lending, bills acceptance discounting, guarantee and other banking business	32.00	—
CNPC Captive Insurance Co., Ltd.	PRC	5,000	Property loss insurance, liability insurance, credit insurance and deposit insurance; as well as the application of the above insurance reinsurance and insurance capital business	49.00	—
China Marine Bunker (PetroChina) Co., Ltd.	PRC	1,000	Oil import and export trade and transportation, sale and storage	—	50.00
Mangistau Investment B.V.	Netherlands	USD 131 million	Engages in investing activities, the principle activities of its main subsidiaries are exploration, development and sale of oil and gas.	—	50.00
Trans-Asia Gas Pipeline Co., Ltd.	PRC	5,000	Main contractor, investment holding, investment management, investment consulting, enterprise management advisory, technology development, promotion and technology consulting	—	50.00

Dividends received or receivable from associates and joint ventures were RMB 4,517 in 2020 (2019: RMB 4,432, 2018: RMB 6,558).

In 2020, investments in associates and joint ventures of RMB 1,687 (2019: RMB 119, 2018: RMB 207) were disposed of, resulting in a loss of RMB 5 (2019: a gain of RMB 238, 2018: a gain of RMB 7).

In 2020, the share of profit and other comprehensive income in all individually immaterial associates and joint ventures accounted for using equity method in aggregate was loss of RMB 2,468 (2019: profit of RMB 2,207, 2018: profit of RMB 8,996) and profit of RMB 3,631 (2019: profit of RMB 2,098, 2018: profit of RMB 480), respectively.

Interest in Associates

Summarized financial information in respect of the Group's principal associates and reconciliation to carrying amount is as follow:

	PipeChina (Note 41)	China Petroleum Finance Co., Ltd.		CNPC Captive Insurance Co., Ltd.	
	December 31, 2020	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
	RMB	RMB	RMB	RMB	RMB
Percentage ownership interest (%)	29.90	32.00	32.00	49.00	49.00
Current assets	74,012	313,741	261,520	11,267	10,823
Non-current assets	655,982	177,344	228,933	2,956	2,618
Current liabilities	55,562	404,201	403,052	4,752	4,752
Non-current liabilities	104,150	12,617	17,234	2,776	2,232
Net assets	570,282	74,267	70,167	6,695	6,457
Group's share of net assets	151,135	23,765	22,453	3,281	3,164
Goodwill	—	349	349	—	—
Carrying amount of interest in associates	151,135	24,114	22,802	3,281	3,164

Summarized statement of comprehensive income and dividends received by the Group are as follow:

	PipeChina (Note 41)	China Petroleum Finance Co., Ltd.			CNPC Captive Insurance Co., Ltd.		
	From Oct 01, 2020 to Dec 31, 2020	2020	2019	2018	2020	2019	2018
	RMB	RMB	RMB	RMB	RMB	RMB	RMB
Revenue	22,766	7,954	9,672	8,520	735	712	706
Profit for the year	6,444	7,819	7,810	7,554	389	349	315
Other comprehensive income	—	(1,603)	1,356	651	—	(1)	—
Total comprehensive income	6,444	6,216	9,166	8,205	389	348	315
Group's share of total comprehensive income	1,532	1,989	2,933	2,626	191	170	154
Dividends received by the Group	—	677	1,268	983	74	62	63

Interest in Joint Ventures

Summarized statement of financial position as included in their own financial statements, adjusted for fair value adjustments and differences in accounting policies in respect of the Group's principal joint ventures and reconciliation to carrying amount is as follows:

	China Marine Bunker (PetroChina) Co., Ltd.		Mangistau Investment B.V.		Trans-Asia Gas Pipeline Co., Ltd.	
	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
	RMB	RMB	RMB	RMB	RMB	RMB
Percentage ownership interest (%)	50.00	50.00	50.00	50.00	50.00	50.00
Non-current assets	1,685	1,750	10,586	11,980	39,809	43,258
Current assets	7,319	8,666	830	1,211	2,886	2,680
Including: cash and cash equivalents	1,343	1,206	74	292	739	73
Non-current liabilities	158	152	3,008	3,062	2,330	2,355
Including: Non-current financial liabilities	1	5	848	907	2,330	2,100
Current liabilities	5,927	7,349	575	567	235	445
Including: Current financial liabilities excluding trade and other payables	3,267	3,599	—	—	—	—
Net assets	2,919	2,915	7,833	9,562	40,130	43,138
Net assets attributable to owners of the Company	2,672	2,672	7,833	9,562	40,130	43,138
Group's share of net assets	1,336	1,336	3,917	4,781	20,065	21,569
Carrying amount of interest in joint ventures	1,336	1,336	3,917	4,781	20,065	21,569

Summarized statement of comprehensive income as included in their own financial statements, adjusted for fair value adjustments and differences in accounting policies and dividends received by the Group is as follows:

	China Marine Bunker (PetroChina) Co., Ltd.			Mangistau Investment B.V.			Trans-Asia Gas Pipeline Co., Ltd.		
	2020	2019	2018	2020	2019	2018	2020	2019	2018
	RMB	RMB	RMB	RMB	RMB	RMB	RMB	RMB	RMB
Revenue	36,695	42,116	43,924	8,152	15,104	16,085	18	23	14
Depreciation, depletion and amortization	(195)	(81)	(90)	(1,048)	(883)	(807)	(38)	(37)	(4)
Interest income	16	23	18	4	2	5	42	51	59
Interest expense	(60)	(88)	(96)	(160)	(158)	(154)	(58)	(57)	(46)
Income tax expense	(57)	(92)	(37)	(293)	(925)	(1,077)	1	—	10
Net profit	185	142	126	362	2,818	3,324	3,060	4,070	1,931
Total comprehensive income	140	169	151	(650)	2,978	3,020	(3,007)	7,940	2,505
Group's share of total comprehensive income	46	85	76	(325)	1,489	1,510	(1,504)	3,970	1,253
Dividends received by the Group	—	—	8	539	1,115	1,650	—	175	—

17 EQUITY INVESTMENTS MEASURED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31, 2020	December 31, 2019
	RMB	RMB
China Pacific Insurance (Group) Co.,Ltd.	188	185
Chengdu Huaqi Houpu Holding Co.,Ltd.	228	191
Other items	486	546
	902	922

The above equity investments are planned to be held for a long term by the Group for strategic purpose, the Group designates them as equity investments at fair value through other comprehensive income.

Dividends amounting to RMB 25 were received on these investments during the year ended December 31, 2020 (2019: RMB 22, 2018: RMB 52).

18 SUBSIDIARIES

The principal subsidiaries of the Group are:

Company Name	Country of Incorporation	Registered Capital	Type of Legal Entity	Attributable Equity Interest %	Voting Rights %	Principal Activities
Daqing Oilfield Company Limited	PRC	47,500	Limited liability company	100.00	100.00	Exploration, production and sale of crude oil and natural gas
CNPC Exploration and Development Company Limited[(i)]	PRC	16,100	Limited liability company	50.00	57.14	Exploration, production and sale of crude oil and natural gas outside the PRC
PetroChina Hong Kong Limited	Hong Kong	HKD 7,592 million	Limited liability company	100.00	100.00	Investment holding. The principal activities of its subsidiaries, associates and joint ventures are the exploration, production and sale of crude oil in and outside the PRC as well as natural gas sale and transmission in the PRC
PetroChina International Investment Company Limited	PRC	31,314	Limited liability company	100.00	100.00	Investment holding. The principal activities of its subsidiaries, associates and joint ventures are the exploration, development and production of crude oil, natural gas, oil sands and coalbed methane outside the PRC
PetroChina International Company Limited	PRC	18,096	Limited liability company	100.00	100.00	Marketing of refined products and trading of crude oil and petrochemical products, storage, investment in refining, chemical engineering, storage facilities, service station, and transportation facilities and related business in and outside the PRC
PetroChina Sichuan Petrochemical Company Limited	PRC	10,000	Limited liability company	90.00	90.00	Production and sale of oil refining, petrochemical and chemical products

(i) The Company consolidated the financial statements of the entity because it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Summarized financial information in respect of the Group's principal subsidiaries with significant non-controlling interests is as follows:

	CNPC Exploration and Development Company Limited		PetroChina Sichuan Petrochemical Company Limited	
	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
	RMB	RMB	RMB	RMB
Percentage ownership interest (%)	50.00	50.00	90.00	90.00
Current assets	16,046	20,604	4,278	3,600
Non-current assets	182,392	186,792	26,371	25,904
Current liabilities	21,820	18,911	5,382	4,444
Non-current liabilities	22,566	25,326	486	615
Net assets	154,052	163,159	24,781	24,445

Summarized statement of comprehensive income is as follows:

	CNPC Exploration and Development Company Limited			PetroChina Sichuan Petrochemical Company Limited		
	2020	2019	2018	2020	2019	2018
	RMB	RMB	RMB	RMB	RMB	RMB
Revenue	33,312	47,096	45,618	35,319	49,858	39,887
Profit from continuing operations	6,006	14,126	15,563	520	544	735
Total comprehensive income	(6,972)	17,879	17,577	520	544	735
Profit attributable to non-controlling interests	3,311	8,274	8,844	52	54	74
Dividends paid to non-controlling interests	1,498	1,923	2,038	12	19	—

Summarized statement of cash flows is as follows:

	CNPC Exploration and Development Company Limited			PetroChina Sichuan Petrochemical Company Limited		
	2020	2019	2018	2020	2019	2018
	RMB	RMB	RMB	RMB	RMB	RMB
Net cash inflow from operating activities	5,681	17,780	22,467	5,119	3,413	2,236
Net cash (outflow) / inflow from investing activities	(16,187)	(17,306)	(33,466)	(380)	537	178
Net cash (outflow) / inflow from financing activities	7,410	(1,118)	7,865	(3,186)	(4,035)	(2,332)
Effect of foreign exchange rate changes on cash and cash equivalents	(776)	220	(1,350)	—	—	—
Net (decrease) / increase in cash and cash equivalents	(3,872)	(424)	(4,484)	1,553	(85)	82
Cash and cash equivalents at the beginning of the year	13,074	13,498	17,982	8	93	11
Cash and cash equivalents at the end of the year	9,202	13,074	13,498	1,561	8	93

19 INTANGIBLE AND OTHER NON-CURRENT ASSETS

	December 31, 2020			December 31, 2019		
	Cost	Accumulated amortization, including impairment losses	Net	Cost	Accumulated amortization, including impairment losses	Net
	RMB	RMB	RMB	RMB	RMB	RMB
Patents and technical know-how	7,846	(6,657)	1,189	7,782	(6,370)	1,412
Computer software	12,517	(9,528)	2,989	12,356	(9,116)	3,240
Goodwill[(i)]	8,161	(36)	8,125	46,555	(3,747)	42,808
Other	26,135	(9,797)	16,338	23,880	(8,949)	14,931
Intangible assets	54,659	(26,018)	28,641	90,573	(28,182)	62,391
Other assets			38,853			38,272
			67,494			100,663

(i) The impairment of goodwill shall be tested in combination with its related asset groups. The recoverable amount of all cash-generating units has been determined based on value-in-use calculations. These calculations use post-tax cash flow projections based on financial budgets prepared by management. The post-tax discount rates reflect specific risks relating to the cash-generating unit.

For impairment test of the goodwill, the post-tax discount rates ranged 4.9% to 10.5% (2019: 6.5% to 10.5%, 2018: 9.1% to 11.0%) were used by the management, and no impairment loss was charged for the goodwill for the year ended December 31, 2020 (2019: nil, 2018: RMB 38). In September 2020, the Group sold its major oil and gas pipelines to PipeChina, thus losing control of PetroChina United Pipelines Co., Ltd. (Note 41). The related goodwill generated from the acquisition of CNPC pipeline United Co., Ltd. in 2015, with carrying amount of RMB 34,285 (including relevant impairment provision), was derecognized accordingly.

20 INVENTORIES

	December 31, 2020	December 31, 2019
	RMB	RMB
Crude oil and other raw materials	35,855	56,166
Work in progress	12,387	15,159
Finished goods	80,739	112,003
Spare parts and consumables	75	88
	129,056	183,416
Less: Write down in inventories	(517)	(1,495)
	128,539	181,921

21 ACCOUNTS RECEIVABLE

	December 31, 2020	December 31, 2019
	RMB	RMB
Accounts receivable	53,465	66,615
Less: Provision for impairment of receivables	(1,140)	(2,431)
	52,325	64,184

The aging analysis of accounts receivable (net of impairment of accounts receivable) based on the invoice date (or date of revenue recognition, if earlier), at December 31, 2020 and 2019 is as follows:

	December 31, 2020	December 31, 2019
	RMB	RMB
Within 1 year	51,641	63,392
Between 1 and 2 years	374	419
Between 2 and 3 years	209	267
Over 3 years	101	106
	52,325	64,184

The Group offers its customers credit terms up to 180 days.

Movements in the provision for impairment of accounts receivable are as follows:

	2020	2019	2018
	RMB	RMB	RMB
At beginning of the year	2,431	4,053	4,771
Provision for impairment of accounts receivable	426	226	561
Reversal of provision for impairment of accounts receivable	(76)	(1,604)	(1,178)
Receivables written off as uncollectible	(1,641)	(244)	(101)
At end of the year	1,140	2,431	4,053

22 PREPAYMENTS AND OTHER CURRENT ASSETS

	December 31, 2020	December 31, 2019
	RMB	RMB
Other receivables	21,128	23,072
Advances to suppliers	22,330	17,747
	43,458	40,819
Less: Provision for impairment	(3,378)	(3,413)
	40,080	37,406
Value-added tax to be deducted	44,514	48,560
Prepaid expenses	373	360
Prepaid income taxes	5,997	5,649
Other current assets	18,298	11,152
	109,262	103,127

23 NOTES RECEIVABLE

Notes receivable represent mainly bills of acceptance issued by banks for the sale of goods and performance of services. Notes receivable are measured at fair value through other comprehensive income. All notes receivable are due within one year, and their fair values approximate the face values of the bills.

24 CASH AND CASH EQUIVALENTS

The weighted average effective interest rate on bank deposits was 1.69% per annum for the year ended December 31, 2020 (2019: 1.69% per annum, 2018: 1.55% per annum).

25 ASSETS AND LIABILITIES HELD FOR SALE

On 22 December 2020, the subsidiary of the Company, Kunlun Energy Company Limited (Kunlun Energy), and PipeChina entered into the an agreement. Kunlun Energy agreed to transfer the 60% equity interest in PetroChina Beijing Gas Pipeline Co., Ltd ("Beijing Pipeline") and 75% equity interest in PetroChina Dalian LNG Company Limited ("Dalian LNG") (Beijing Pipeline and Dalian LNG collectively refer as "Target Companies") at a base consideration of approximately RMB 40,886 (subject to the adjustments according to the price adjustment mechanism as set out in the agreement), which all will be settled in cash by PipeChina. The estimated completion time of the transaction will be April 2021. Upon completion of the transaction, the Group will cease to hold any equity interests in the Target Companies, thus losing the control of these two companies. The assets and liabilities of the Target. The assets and liabilities of Beijing Pipeline and Dalian LNG are presented as assets held for sale RMB 42,615 and liabilities held for sale RMB 9,956 respectively on 31 December 2020. The assets held for sale mainly including Property, plant and equipment amounted to RMB 41,158, and the liabilities held for sale mainly including long-term and short-term borrowings amounted to RMB 6,500 and accounts payable and other payables amounted to RMB 3,291.

26 ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	December 31, 2020	December 31, 2019
	RMB	RMB
Trade payables	113,119	148,335
Salaries and welfare payable	8,649	10,169
Dividends payable by subsidiaries to non-controlling shareholders	952	389
Interests payable	4,034	4,719
Construction fee and equipment cost payables	107,199	111,767
Other[(i)]	82,187	52,935
	316,140	328,314

(i) Other consists primarily of notes payables, insurance payable, etc.

The aging analysis of trade payables at December 31, 2020 and 2019 is as follows:

	December 31, 2020	December 31, 2019
	RMB	RMB
Within 1 year	104,812	136,670
Between 1 and 2 years	1,696	5,472
Between 2 and 3 years	2,342	3,180
Over 3 years	4,269	3,013
	113,119	148,335

27 CONTRACT LIABILITIES

As of December 31, 2020 and December 31, 2019, contract liabilities mainly represented advances from customers related to the sales of natural gas, crude oil and refined oil, etc. The majority of related obligations were expected to be performed and the corresponding revenue will be recognized within one year. Substantially all of contract liabilities at the beginning of the year has been recognized as revenue for the year ended December 31, 2020.

28 BORROWINGS

	December 31, 2020	December 31, 2019
	RMB	RMB
Short-term borrowings excluding current portion of long-term borrowings	42,354	90,497
Current portion of long-term borrowings	75,188	85,343
	117,542	175,840
Long-term borrowings	251,379	290,882
	368,921	466,722

Borrowings of the Group of RMB 13,726 were guaranteed by CNPC, its fellow subsidiaries and a third party at December 31, 2020 (December 31, 2019: RMB 22,313).

The Group's borrowings include secured liabilities totaling RMB 3,486 at December 31, 2020 (December 31, 2019: RMB 1,983).

	December 31, 2020	December 31, 2019
	RMB	RMB
Total borrowings:		
– interest free	110	124
– at fixed rates	192,079	250,297
– at floating rates	176,732	216,301
	368,921	466,722
Weighted average effective interest rates:		
– bank loans	2.20%	3.20%
– corporate debentures	3.49%	3.52%
– medium-term notes	3.32%	3.63%
– other loans	3.47%	3.80%

The borrowings by major currency at December 31, 2020 and December 31, 2019 are as follows:

	December 31, 2020	December 31, 2019
	RMB	RMB
RMB	262,458	356,704
US Dollar	98,553	100,374
Other currency	7,910	9,644
	368,921	466,722

The fair values of the Group's long-term borrowings including the current portion of long-term borrowings are RMB 323,809 at December 31, 2020 (December 31, 2019: RMB 371,807). The carrying amounts of short-term borrowings approximate their fair values.

The fair values are based on discounted cash flows using applicable discount rates based upon the prevailing market rates of interest available to the Group for financial instruments with substantially the same terms and characteristics at the dates of the consolidated statement of financial position. Such discount rates ranged from -0.49% to 4.65% per annum as of December 31, 2020 (December 31, 2019: -0.27% to 4.90% per annum) depending on the type of the borrowings.

The following table sets out the borrowings' remaining contractual maturities at the date of the consolidated statement of financial position, which are based on contractual undiscounted cash flows including principal and interest, and the earliest contractual maturity date:

	December 31, 2020	December 31, 2019
	RMB	RMB
Within 1 year	124,777	188,771
Between 1 and 2 years	53,526	30,090
Between 2 and 5 years	188,012	253,918
After 5 years	27,894	31,576
	394,209	504,355

Reconciliation of movements of borrowings to cash flows arising from financing activities:

	2020	2019
	RMB	RMB
At beginning of the year	466,722	414,572
Changes from financing cash flows:		
Increase in borrowings	989,492	836,458
Repayments of borrowings	(1,017,662)	(785,751)
Total changes from financing cash flows	(28,170)	50,707
Exchange adjustments	(6,282)	1,443
Pipeline restructuring (Note 41)	(56,849)	—
Reclassified as liabilities held for sale (Note 25)	(6,500)	—
At end of the year	368,921	466,722

29 SHARE CAPITAL

	December 31, 2020	December 31, 2019
	RMB	RMB
Registered, issued and fully paid:		
A shares	161,922	161,922
H shares	21,099	21,099
	183,021	183,021

In accordance with the Restructuring Agreement between CNPC and the Company effective as of November 5, 1999, the Company issued 160 billion state-owned shares in exchange for the assets and liabilities transferred to the Company by CNPC. The 160 billion state-owned shares were the initial registered capital of the Company with a par value of RMB 1.00 yuan per share.

On April 7, 2000, the Company issued 17,582,418,000 shares, represented by 13,447,897,000 H shares and 41,345,210 ADSs (each representing 100 H shares) in a global initial public offering ("Global Offering") and the trading of the H shares and the ADSs on the Stock Exchange of Hong Kong Limited and the New York Stock Exchange commenced on April 7, 2000 and April 6, 2000, respectively. The H shares and ADSs were issued at prices of HK$ 1.28 per H share and US$ 16.44 per ADS respectively for which the net proceeds to the Company were approximately RMB 20 billion. The shares issued pursuant to the Global Offering rank equally with existing shares.

Pursuant to the approval of the China Securities Regulatory Commission, 1,758,242,000 state-owned shares of the Company owned by CNPC were converted into H shares for sale in the Global Offering.

On September 1, 2005, the Company issued an additional 3,196,801,818 new H shares at HK$ 6.00 per share and net proceeds to the Company amounted to approximately RMB 19,692. CNPC also sold 319,680,182 state-owned shares it held concurrently with PetroChina's sale of new H shares in September 2005.

On October 31, 2007, the Company issued 4,000,000,000 new A shares at RMB 16.70 yuan per share and net proceeds to the Company amounted to approximately RMB 66,243 and the listing and trading of the A shares on the Shanghai Stock Exchange commenced on November 5, 2007.

Following the issuance of the A shares, all the existing state-owned shares issued before November 5, 2007 held by CNPC have been registered with the China Securities Depository and Clearing Corporation Limited as A shares.

Shareholders' rights are governed by the Company Law of the PRC that requires an increase in registered capital to be approved by the shareholders in shareholders' general meetings and the relevant PRC regulatory authorities.

30 RESERVES

	2020	2019
	RMB	RMB
Capital Reserve		
Beginning balance	133,308	133,308
Ending balance	133,308	133,308
Statutory Common Reserve Fund[(a)]		
Beginning balance	197,282	194,245
Transfer from retained earnings	6,275	3,037
Ending balance	203,557	197,282
Special Reserve-Safety Fund Reserve		
Beginning balance	12,443	13,831
Safety fund reserve	(1,633)	(1,388)
Ending balance	10,810	12,443
Currency Translation Differences[(b)]		
Beginning balance	(28,939)	(33,067)
Currency translation differences	(3,909)	4,128
Ending balance	(32,848)	(28,939)
Other Reserves		
Beginning balance	(10,083)	(8,718)
Transaction with non-controlling interests	—	(2,007)
Fair value changes in equity investments measured at fair value through other comprehensive income	(22)	96
Share of the other comprehensive income of associates and joint ventures accounted for using the equity method	(441)	417
Other	(99)	129
Ending balance	(10,645)	(10,083)
	304,182	304,011

(a) Pursuant to the PRC regulations and the Company's Articles of Association, the Company is required to transfer 10% of its net profit, as determined under the PRC accounting regulations, to a Statutory Common Reserve Fund ("Reserve Fund"). Appropriation to the Reserve Fund may cease when the fund aggregates to 50% of the Company's registered capital. The transfer to this reserve must be made before distribution of dividends to shareholders.

The Reserve Fund shall only be used to make good previous years' losses, to expand the Company's production operations, or to increase the capital of the Company. Upon approval of a resolution of shareholders' in a general meeting, the Company may convert its Reserve Fund into share capital and issue bonus shares to existing shareholders in proportion to their original shareholdings or to increase the nominal value of each share currently held by them, provided that the balance of the Reserve Fund after such issuance is not less than 25% of the Company's registered capital.

(b) The translation reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

(c) According to the relevant PRC regulations, the distributable reserve is the lower of the retained earnings computed under PRC accounting regulations and IFRS. As of December 31, 2020, the Company's distributable reserve amounted to RMB 619,102 (December 31, 2019: RMB 590,727).

31 DEFERRED TAXATION

The movements in the deferred taxation account are as follows:

	2020	2019	2018
	RMB	RMB	RMB
At beginning of the year	2,848	6,483	14,064
Transfer to profit and loss (Note 12)	(7,666)	(3,485)	(7,807)
(Debit) / credit to other comprehensive income	(198)	(150)	226
At end of the year	(5,016)	2,848	6,483

Deferred tax balances before offset are attributable to the following items:

	December 31, 2020	December 31, 2019
	RMB	RMB
Deferred tax assets:		
Receivables and inventories	4,740	6,841
Tax losses	24,646	20,391
Impairment of long-term assets	6,309	9,676
Other	6,622	8,643
Total deferred tax assets	42,317	45,551
Deferred tax liabilities:		
Accelerated tax depreciation	24,147	27,646
Other	23,186	15,057
Total deferred tax liabilities	47,333	42,703
Net deferred tax (liabilities)/ assets	(5,016)	2,848

Tax losses that can be carried forward to future years include deferred tax assets arising from the losses of the branches in the Eastern China Region. The tax expenses of the Company's branches in the Eastern and Western China Regions were paid in aggregate according to the requirements of the competent tax authority.

Deferred tax balances after offset are listed as follows:

	December 31, 2020	December 31, 2019
	RMB	RMB
Deferred tax assets	11,364	24,259
Deferred tax liabilities	16,380	21,411

32 ASSET RETIREMENT OBLIGATIONS

	2020	2019	2018
	RMB	RMB	RMB
At beginning of the year	137,935	132,780	131,546
Net liabilities incurred, including reassessment[(i)]	(24,059)	2,026	(2,220)
Liabilities settled	(3,510)	(2,427)	(2,034)
Accretion expense (Note 10)	5,107	5,525	5,678
Currency translation differences	(654)	31	(190)
At end of the year	114,819	137,935	132,780

(i) In 2020, domestic oil and gas field companies adjusted the discount period with reference to the remaining life corresponding to the proved developed reserves in each block, updated various oil and gas assets retirement standards based on the latest legal requirements, technology and price levels, reviewed the adopted discount rate, and then recalculate and adjust the provision for the asset retirement expense of oil and gas properties at the end of the year. The changes in related accounting estimates and new liabilities provided resulted in a reduction in estimated liabilities of RMB 24,059.

Asset retirement obligations relate to oil and gas properties (Note 15).

33 PENSIONS

The Group participates in various employee retirement benefit plans (Note 3(aa)). Expenses incurred by the Group in connection with the retirement benefit plans for the year ended December 31, 2020 amounted to RMB 16,833 (2019: RMB 20,196, 2018: RMB 19,432).

34 CONTINGENT LIABILITIES

(a) Bank and other guarantees

At December 31, 2020 and 2019, the Group did not guarantee related parties or third parties any significant borrowings or others.

(b) Environmental liabilities

China has adopted extensive environmental laws and regulations that affect the operation of the oil and gas industry. Under existing legislation, however, management believes that there are no probable liabilities, except for the amounts which have already been reflected in the consolidated financial statements, which may have a material adverse effect on the financial position of the Group.

(c) Legal contingencies

During the reporting period, the Group has complied with domestic and overseas laws and regulatory requirements. Notwithstanding certain insignificant lawsuits as well as other proceedings outstanding, management believes that any resulting liabilities will not have a material adverse effect on the financial position of the Group.

(d) Group insurance

The Group has insurance coverage for vehicles and certain assets that are subject to significant operating risks, third-party liability insurance against claims relating to personal injury, property and environmental damages that result from accidents and also employer liabilities insurance. The potential effect on the financial position of the Group of any liabilities resulting from future uninsured incidents cannot be estimated by the Group at present.

35 COMMITMENTS

(a) Capital commitments

At December 31, 2020, the Group's capital commitments contracted but not provided for mainly relating to property, plant and equipment were RMB 714 (December 31, 2019: RMB 56,856).

The operating lease and capital commitments above are transactions mainly with CNPC and its fellow subsidiaries.

(b) Exploration and production licenses

The Company is obligated to make annual payments with respect to its exploration and production licenses to the Ministry of Natural Resources. Payments incurred were RMB 700 for the year ended December 31, 2020 (2019: RMB 535, 2018: RMB 650).

According to the current policy, estimated annual payments for the next five years are as follows:

	December 31, 2020	December 31, 2019
	RMB	RMB
Within one year	800	800
Between one and two years	800	800
Between two and three years	800	800
Between three and four years	800	800
Between four and five years	800	800

36 MAJOR CUSTOMERS

The Group's major customers are as follows:

	2020		2019		2018	
	Revenue	Percentage of Total revenue	Revenue	Percentage of Total revenue	Revenue	Percentage of Total revenue
	RMB	%	RMB	%	RMB	%
China Petroleum & Chemical Corporation	98,636	5	105,855	4	96,990	4
CNPC and its fellow subsidiaries	63,623	3	99,279	4	83,670	4
	162,259	8	205,134	8	180,660	8

37 RELATED PARTY TRANSACTIONS

CNPC, the controlling shareholder of the Company, is a limited liability company directly controlled by the PRC government.

Related parties include CNPC and its fellow subsidiaries, their associates and joint ventures, other state-owned enterprises and their subsidiaries which the PRC government has control, joint control or significant influence over and enterprises which the Group is able to control, jointly control or exercise significant influence over, key management personnel of the Company and CNPC and their close family members.

(a) Transactions with CNPC and its fellow subsidiaries, associates and joint ventures of the Group

The Group has extensive transactions with other companies in CNPC and its fellow subsidiaries. Due to these relationships, it is possible that the terms of the transactions between the Group and other members of CNPC and its fellow subsidiaries are not the same as those that would result from transactions with other related parties or wholly unrelated parties.

The principal related party transactions with CNPC and its fellow subsidiaries, associates and joint ventures of the Group which were carried out in the ordinary course of business, are as follows:

On August 25, 2011, based on the terms of the Comprehensive Products and Services Agreement amended in 2008, the Company and CNPC entered into a new Comprehensive Products and Services Agreement ("the Comprehensive Products and Services Agreement") for a period of three years which took effect on January 1, 2012. The Comprehensive Products and Services Agreement provides for a range of products and services which may be required and requested by either party. The products and services to be provided by CNPC and its fellow subsidiaries to the Group under the Comprehensive Products and Services Agreement include construction and technical services, production services, supply of material services, social services, ancillary services and financial services. The products and services required and requested by either party are provided in accordance with (1) government-prescribed prices; or (2) where there is no government-prescribed price, with reference to relevant market prices; or (3) where neither (1) nor (2) is applicable, the actual cost incurred or the agreed contractual price. On the basis of the existing Comprehensive Products and Services Agreement, the Company and CNPC entered into a new Comprehensive Products and Services Agreement on August 24, 2017 for a period of three years which took effect on January 1, 2018. The new Comprehensive Products and Services Agreement has already incorporated the terms of the current Comprehensive Products and Services Agreement which amended in 2014. On the basis of the existing Comprehensive Products and Services Agreement, the Company and CNPC entered into a new Comprehensive Products and Services Agreement on August 27, 2020 for a period of three years which took effect on January 1, 2021. The new Comprehensive Products and Services Agreement has already incorporated the terms of the current Comprehensive Products and Services Agreement which amended in 2017.

On August 25, 2011, based on the Land Use Rights Leasing Contract signed in 2000, the Company and CNPC entered into a Supplemental Land Use Rights Leasing Contract which took effect on January 1, 2012. The Company and CNPC each issued a confirmation letter to the Land Use Rights Leasing Contract on August 24, 2017, which adjusted the rental payable and the area for the leased land parcels. The Company agreed to rent from CNPC parcels of land with an aggregate area of approximately 1,773 million square metres with annual rental payable (exclusive of tax and government charges) adjusted to no more than RMB 5,783 in accordance with the area of leased land parcels and the current situation of the property market. The Land Use Rights Leasing Contract shall remain unchanged, apart from the rental payable and the leased area. The confirmation

letter shall be effective from January 1, 2018. The Company and CNPC each issued a confirmation letter to the Land Use Rights Leasing Contract on August 27, 2020, which adjusted the rental payable and the area for the leased land parcels. The Company agreed to rent from CNPC parcels of land with an aggregate area of approximately 1,142 million square metres with annual rental payable (exclusive of tax and government charges) adjusted to no more than RMB 5,673 in accordance with the area of leased land parcels and the current situation of the property market. The Land Use Rights Leasing Contract shall remain unchanged, apart from the rental payable and the leased area. The confirmation letter shall be effective from January 1, 2021.

On August 25, 2011, based on the Buildings Leasing Contract and Supplemental Building Leasing Agreement, the Company and CNPC entered into a Revised Buildings Leasing Contract which took effect thereafter. On August 24, 2017, based on the Buildings Leasing Contract and Supplemental Building Leasing Agreement, the Company and CNPC entered into a Revised Buildings Leasing Contract which took effect on January 1, 2018. Under this contract, buildings covering an aggregate area of 1,152,968 square meters were leased at annual rental payable approximately RMB 730. The Revised Building Leasing Contract will expire at December 31, 2037. On August 27, 2020, based on the Buildings Leasing Contract and Supplemental Building Leasing Agreement, the Company and CNPC each issued a contract which took effect on January 1, 2021. Under this contract, buildings covering an aggregate area of 1,287,486 square meters were leased at annual rental payable approximately RMB 713. The area and total fee payable for the lease of all such property may, every three years, be adjusted with the Company's operating needs and by reference to market price which the adjusted prices will not exceed.

- Sales of goods represent the sale of crude oil, refined products, chemical products and natural gas, etc. The total amount of these transactions amounted to RMB 105,535 for the year ended December 31, 2020 (2019: RMB 122,927, 2018: RMB 105,434).
- Sales of services principally represent the provision of services in connection with the transportation of crude oil and natural gas, etc. The total amount of these transactions amounted to RMB 8,593 for the year ended December 31, 2020 (2019: RMB 10,055, 2018: RMB 7,938).
- Purchases of goods and services principally represent construction and technical services, production services, social services, ancillary services and material supply services, etc. The total amount of these transactions amounted to RMB 321,858 for the year ended December 31, 2020 (2019: RMB 388,802, 2018: RMB 364,912).
- Purchases of assets principally represent the purchases of manufacturing equipment, office equipment and transportation equipment, etc. The total amount of these transactions amounted to RMB 767 for the year ended December 31, 2020 (2019: RMB 1,701, 2018: RMB 1,195).
- Interest income represents interests from deposits placed with CNPC and its fellow subsidiaries. The total interest income amounted to RMB 381 for the year ended December 31, 2020 (2019: RMB 460, 2018: RMB 535). The balance of deposits at December 31, 2020 was RMB 40,377 (December 31, 2019: RMB 28,304).
- Purchases of financial service principally represents interest charged on the loans from CNPC and its fellow subsidiaries, insurance fee, etc. The total amount of these transactions amounted to RMB 8,051 for the year ended December 31, 2020 (2019: RMB 8,759, 2018: RMB 11,970).
- The borrowings from CNPC and its fellow subsidiaries at December 31, 2020 were RMB 96,298 (December 31, 2019: RMB 179,699).
- Rents and other payments paid to CNPC and its fellow subsidiaries represent (1) the rental expense paid by the Group according to Land Use Rights Leasing Contract and Buildings Leasing Contract;

(2) the payable by the Group (including all rents, leasing service fees and prices for exercising purchase options) for the period according to the leasing agreements entered into by the Group and CNPC and its fellow subsidiaries. The total rents and other payments amounted to RMB 8,294 for the year ended December 31, 2020. (2019: RMB 10,106, 2018: RMB 7,092).

Amounts due from and to CNPC and its fellow subsidiaries, associates and joint ventures of the Group included in the following accounts captions are summarized as follows:

	December 31, 2020	December 31, 2019
	RMB	RMB
Accounts receivable	8,651	12,784
Prepayments and other receivables	24,117	11,441
Other current assets	10,946	11,951
Other non-current assets	15,251	16,242
Accounts payable and accrued liabilities	67,262	61,205
Contract liabilities	2,692	792
Lease liabilities	99,725	139,250
Other non-current liabilities	—	827

(b) Key management compensation

	Year End December 31,		
	2020	2019	2018
	RMB'000	RMB'000	RMB'000
Emoluments and other benefits	16,598	13,042	13,385
Contribution to retirement benefit scheme	1,338	1,796	1,781
	17,936	14,838	15,166

(c) Transactions with other state-controlled entities in the PRC

Apart from transactions with CNPC and its fellow subsidiaries, associates and joint ventures of the Group, the Group's transactions with other state-controlled entities include but is not limited to the following:

- Sales and purchases of goods and services,
- Purchases of assets,
- Lease of assets; and
- Bank deposits and borrowings

These transactions are conducted in the ordinary course of the Group's business.

38 SEGMENT INFORMATION

The Group is principally engaged in a broad range of petroleum related products, services and activities. The Group's operating segments comprise: Exploration and Production, Refining and Chemicals, Marketing, and Natural Gas and Pipeline. On the basis of these operating segments, the management of the Company assesses the segmental operating results and allocates resources. Sales between operating segments are conducted principally at market prices. Additionally, the Group presents geographical information based on entities located in regions with a similar risk profile.

The Exploration and Production segment is engaged in the exploration, development, production and marketing of crude oil and natural gas.

The Refining and Chemicals segment is engaged in the refining of crude oil and petroleum products, production and marketing of primary petrochemical products, derivative petrochemical products and other chemical products.

The Marketing segment is engaged in the marketing of refined products and the trading business.

The Natural Gas and Pipeline segment is engaged in the transmission of natural gas, crude oil and refined products and the sale of natural gas.

The Head Office and Other segment relates to cash management and financing activities, the corporate center, research and development, and other business services supporting the operating business segments of the Group.

In 2020, in order to promote the transformation and upgrading of refining and chemicals business, promote the quality-oriented business development of refined products and lubricating oil production and marketing, promote specialized operation, market-oriented operation, lean management and integrated coordination, the Group transferred PetroChina Fuel Oil Co., Ltd. and PetroChina Lubricant Company from Marking to Refining and Chemicals, and synchronize budget control and performance evaluation indicator accordingly. The comparative data regarding the Refining and Chemicals and the Marketing segment in the same period of 2019 and 2018 are restated, and two companies above are as included in the Refining and Chemicals segment from the earliest reporting period as reported.

The accounting policies of the operating segments are the same as those described in Note 3 – “Summary of Principal Accounting Policies”.

The segment information for the operating segments for the years ended December 31, 2020, 2019 and 2018 are as follows:

	Year Ended December 31, 2020					
	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
	RMB	RMB	RMB	RMB	RMB	RMB
Revenue	530,807	774,775	1,497,533	370,771	3,547	3,177,433
Less: elimination	(437,670)	(492,667)	(276,503)	(35,437)	(1,320)	(1,243,597)
Revenue from external customers	93,137	282,108	1,221,030	335,334	2,227	1,933,836
Depreciation, depletion and amortization	(150,849)	(23,893)	(17,833)	(19,475)	(1,825)	(213,875)
Including: Impairment losses of property, plant and equipment	(15,364)	—	(3)	—	—	(15,367)
Profit / (loss) from operations	23,092	(1,834)	(2,906)	72,410	(14,825)	75,937
Finance costs:						
Exchange gain						14,387
Exchange loss						(14,279)
Interest income						3,023
Interest expense						(26,528)
Total net finance costs						(23,397)
Share of (loss)/profit of associates and joint ventures	(616)	(24)	(728)	2,128	2,773	3,533
Profit before income tax expense						56,073
Income tax expense						(22,588)
Profit for the year						33,485
Segment assets	1,452,554	432,022	489,984	195,353	1,631,577	4,201,490
Other assets						17,361
Investments in associates and joint ventures	41,461	1,289	18,239	160,730	28,884	250,603
Elimination of intersegment balances[(a)]						(1,981,328)
Total assets						2,488,126
Capital expenditures	186,620	21,810	16,294	21,143	626	246,493
Segment liabilities	658,521	186,332	321,460	192,456	573,340	1,932,109
Other liabilities						80,104
Elimination of intersegment balances[(a)]						(890,708)
Total liabilities						1,121,505

	Year Ended December 31, 2019					
	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
	RMB	RMB	RMB	RMB	RMB	RMB
Revenue	676,320	1,000,062	2,075,044	391,023	3,700	4,146,149
Less: elimination	(552,672)	(702,207)	(332,164)	(40,652)	(1,644)	(1,629,339)
Revenue from external customers	123,648	297,855	1,742,880	350,371	2,056	2,516,810
Depreciation, depletion and amortization	(158,874)	(25,469)	(16,657)	(22,375)	(1,887)	(225,262)
Including: Impairment losses of property, plant and equipment	(11,562)	(1,444)	(1)	(412)	—	(13,419)
Profit / (loss) from operations	96,097	16,077	(2,878)	26,108	(13,642)	121,762
Finance costs:						
Exchange gain						10,017
Exchange loss						(10,016)
Interest income						3,631
Interest expense						(30,409)
Total net finance costs						(26,777)
Share of profit of associates and joint ventures	3,513	—	1,460	501	2,755	8,229
Profit before income tax expense						103,214
Income tax expense						(36,199)
Profit for the year						67,015
Segment assets	1,520,697	404,264	485,085	536,298	1,409,368	4,355,712
Other assets						29,908
Investments in associates and joint ventures	45,721	1,371	18,810	9,713	26,458	102,073
Elimination of intersegment balances[(a)]						(1,754,783)
Total assets						2,732,910
Capital expenditures	230,117	21,823	17,074	27,004	758	296,776
Segment liabilities	720,028	151,051	305,804	277,370	594,000	2,048,253
Other liabilities						88,793
Elimination of intersegment balances[(a)]						(848,441)
Total liabilities						1,288,605

	Year Ended December 31, 2018					
	Exploration and Production	Refining and Chemicals	Marketing	Natural Gas and Pipeline	Head Office and Other	Total
	RMB	RMB	RMB	RMB	RMB	RMB
Revenue	658,712	1,013,413	1,891,743	362,626	2,376	3,928,870
Less: elimination	(539,295)	(696,614)	(281,522)	(35,899)	(606)	(1,553,936)
Revenue from external customers	119,417	316,799	1,610,221	326,727	1,770	2,374,934
Depreciation, depletion and amortization	(169,622)	(25,750)	(13,079)	(21,985)	(1,840)	(232,276)
Including: Impairment losses of property, plant and equipment	(26,002)	(3,393)	—	(530)	—	(29,925)
Profit / (loss) from operations	73,519	46,879	(8,628)	25,515	(14,343)	122,942
Finance costs:						
Exchange gain						12,701
Exchange loss						(11,581)
Interest income						3,779
Interest expense						(22,718)
Total net finance costs						(17,819)
Share of profit of associates and joint ventures	4,224	92	4,185	496	2,650	11,647
Profit before income tax expense						116,770
Income tax expense						(42,790)
Profit for the year						73,980
Segment assets	1,227,613	358,316	396,146	519,553	1,371,525	3,873,153
Other assets						24,759
Investments in associates and joint ventures	39,235	(1,973)	20,420	7,022	24,658	89,362
Elimination of intersegment balances[(a)]						(1,546,397)
Total assets						2,440,877
Capital expenditures	196,109	15,783	16,646	26,502	1,066	256,106
Segment liabilities	466,097	73,200	225,095	158,153	566,129	1,488,674
Other liabilities						100,303
Elimination of intersegment balances[(a)]						(556,991)
Total liabilities						1,031,986

Geographical information

	Revenue			Non-current assets[b]	
	2020	2019	2018	December 31, 2020	December 31, 2019
	RMB	RMB	RMB	RMB	RMB
Mainland China	1,212,821	1,476,693	1,538,315	1,789,349	2,027,428
Other	721,015	1,040,117	836,619	190,625	213,268
	1,933,836	2,516,810	2,374,934	1,979,974	2,240,696

(a) Elimination of intersegment balances represents elimination of intersegment accounts and investments.
(b) Non-current assets mainly include non-current assets other than financial instruments and deferred tax assets.

39 APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved by the Board of Directors on April 29, 2021.

40 BUSINESS COMBINATION INVOLVING ENTITIES UNDER COMMON CONTROL

Business combination involving entities under common control during the period

Name of acquiree	Proportion of equity interests acquired in business combination	Basis for business combination under common control	Acquisi-tion Date	Basis for determina-tion of acquisition date	From the beginning of the period to the acquisition date			2018	
					Revenue	Net profit	Net cash outflow	Revenue	Net profit
Dalian West Pacific	56.04%	The Company and Dalian West Pacific are under the ultimate control of CNPC before and after the business combination and the control is not temporary	May 31, 2019	Acquisition of actual control	10,763	1	(53)	37,385	1,564

Dalian West Pacific was established in December 1990. It principally engages in the manufacturing and sale of petroleum and petrochemical products. Before the acquisition date, the Company holds 28.44% equity of Dalian West Pacific. After the completion of the equity acquisition, the Company holds 84.48% equity of Dalian West Pacific in total.

As the Company and Dalian West Pacific are under the ultimate control of CNPC and the control is not temporary. The acquisition of Dalian West Pacific has been reflected in the accompanying consolidated financial statements as combination of entities under common control. Consequently, Dalian West Pacific has been included in the scope of consolidation during the historical period. The opening balance of the final consolidated financial statements of 2019 and the comparative statements have been adjusted accordingly.

41 TRANSACTION ON PIPELINE RESTRUCTURING

In 2020, the other income, net mainly included the gain on Pipeline restructuring.

On July 23, 2020, the Company entered into the Framework Agreement on Transaction of Oil and Gas Pipeline Relevant Assets and 10 sub-agreements including the Equity Acquisition Agreement on PetroChina Pipeline Co., Ltd., and the Production and Operation Agreement with PipeChina ("Transaction Agreements") upon approval by sixth meeting of the Board of Directors of the Company in 2020 and forth meeting of the Supervisory Committee of the Company in 2020. The Company sold its major oil and gas pipelines, certain gas storages, LNG terminals and initial oil and gas (including its equity interests) ("Target Assets") to PipeChina for 29.9% of its equity interests (RMB 149,500) and corresponding cash consideration (the "Pipeline restructuring").

On September 28, 2020, the Pipeline restructuring was reviewed and approved by the second extraordinary general meeting of the Company in 2020.

On September 30, 2020, all of the conditions precedent set out in the Transaction Agreements have been satisfied. The ownership and risk of the Target Assets has been passed to PipeChina by 24:00 on September 30, 2020.

In this transaction, the equity consideration and cash consideration received by the Company amount to RMB 247,471, and the net assets attributable to the Company on the disposal date amount to RMB 200,525, and the corresponding gain on Pipeline restructuring was RMB 46,946.

	September 30, 2020
	RMB
Current assets	36,573
Non-current Assets	319,874
Total assets	356,447
Current liabilities	36,886
Non-current Liabilities	61,611
Total liabilities	98,497
Net assets	257,950
Net assets attributable to the Company	200,525
Consideration	247,471
Gain on Pipeline restructuring	46,946

42 LEASES

The leases where the Group is a lessee

(a) Right-of-use assets

	January 1, 2020	Addition	Reduction	December 31, 2020
Cost				
Land	172,897	19,547	(20,503)	171,941
Buildings	91,920	6,020	(40,603)	57,337
Equipment and Machinery	2,934	29	(322)	2,641
Other	2,068	723	(596)	2,195
Total	269,819	26,319	(62,024)	234,114
Accumulated depreciation				
Land	(6,595)	(7,344)	2,328	(11,611)
Buildings	(7,369)	(6,601)	3,131	(10,839)
Equipment and Machinery	(718)	(703)	255	(1,166)
Other	(401)	(426)	115	(712)
Total	(15,083)	(15,074)	5,829	(24,328)
Net book value				
Land	166,302			160,330
Buildings	84,551			46,498
Equipment and Machinery	2,216			1,475
Other	1,667			1,483
Total	254,736			209,786

	January 1, 2019	Addition	Reduction	December 31, 2019
Cost				
Land	153,178	20,471	(752)	172,897
Buildings	83,552	8,368	—	91,920
Equipment and Machinery	2,295	639	—	2,934
Other	1,617	451	—	2,068
Total	240,642	29,929	(752)	269,819
Accumulated depreciation				
Land	—	(6,696)	101	(6,595)
Buildings	—	(7,369)	—	(7,369)
Equipment and Machinery	—	(718)	—	(718)
Other	—	(401)	—	(401)
Total	—	(15,184)	101	(15,083)
Net book value				
Land	153,178			166,302
Buildings	83,552			84,551
Equipment and Machinery	2,295			2,216
Other	1,617			1,667
Total	240,642			254,736

The lease term of the Group's lease land use right ranges from two to thirty years. The lease underlying assets classified as buildings are mainly the leased gas filling station, oil storage and office building. The lease underlying assets classified as equipment and machinery are mainly drilling equipment, production equipment and other movable equipment.

(b) Lease liabilities

	December 31, 2020	December 31, 2019
	RMB	RMB
Lease liabilities	129,223	171,536
Less: Lease liabilities due within one year	(6,579)	(7,393)
	122,644	164,143

Depreciation charged to profit or loss provided on right-of-use assets for the year ended December 31, 2020 was RMB 13,916 (2019:RMB 14,973).

Analysis of the undiscounted cash flow of the lease liability is as follows:

	December31, 2020	December31, 2019
	RMB	RMB
Within 1 year	11,824	14,304
Between 1 and 2 years	10,236	13,569
Between 2 and 5 years	29,862	37,531
Over 5 years	153,967	210,750
	205,889	276,154

PETROCHINA COMPANY LIMITED
SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES (UNAUDITED)
(All amounts in millions, except for the per share data and otherwise stated)

In accordance with the Accounting Standards Update 2010-03 Extractive Activities – Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures (an update of Accounting Standards Codification Topic 932 Extractive Activities – Oil and Gas or "ASC 932") issued by the Financial Accounting Standards Board and corresponding disclosure requirements of the U.S. Securities and Exchange Commission, this section provides supplemental information on oil and gas exploration and development; and results of operation related to oil and gas producing activities of the Company and its subsidiaries (the "Group") and also the Group's investments that are accounted for using the equity method of accounting.

The supplemental information presented below covers the Group's proved oil and gas reserves estimates, historical cost information pertaining to capitalized costs, costs incurred for property acquisitions, exploration and development activities, result of operations for oil and gas producing activities, standardized measure of estimated discounted future net cash flows and changes in estimated discounted future net cash flows.

The "Other" geographic area includes oil and gas producing activities principally in countries such as Kazakhstan, Venezuela and Indonesia. As the Group does not have significant reserves held through its investments accounted for using the equity method, information presented in relation to these equity method investments is presented in the aggregate.

Proved Oil and Gas Reserve Estimates

Proved oil and gas reserves cannot be measured exactly. Reserve estimates are based on many factors related to reservoir performance that require evaluation by the engineers interpreting the available data, as well as price and other economic factors. The reliability of these estimates at any point in time depends on both the quality and quantity of the technical and economic data, and the production performance of the reservoirs as well as engineering judgment. Consequently, reserve estimates are subject to revision as additional data become available during the producing life of a reservoir. When a commercial reservoir is discovered, proved reserves are initially determined based on limited data from the first well or wells. Subsequent data may better define the extent of the reservoir and additional production performance, well tests and engineering studies will likely improve the reliability of the reserve estimate. The evolution of technology may also result in the application of improved recovery techniques such as supplemental or enhanced recovery projects, or both, which have the potential to increase reserves.

Proved oil and gas reserves are the estimated quantities of crude oil and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate.

Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period before the ending date of the period covered by this report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The costs shall be that prevailing at the end of the period.

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered:

a. Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared with the cost of a new well.

b. Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Proved undeveloped oil and gas reserves are proved reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

The taxes, fees and royalty in China are domestic tax schemes and are paid in cash to PRC authorities. The proved reserves includes quantities that are ultimately produced and sold to pay these taxes, fees and royalty.

Proved reserve estimates as of December 31, 2020, 2019 and 2018 were based on reports prepared by DeGolyer and MacNaughton, Gaffney, Cline & Associates, McDaniel & Associates, Ryder Scott and GLJ independent engineering consultants.

PETROCHINA COMPANY LIMITED
SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES (UNAUDITED) — (Continued)
(All amounts in millions, except for the per share data and otherwise stated)

Estimated quantities of net proved crude oil and condensate and natural gas reserves and of changes in net quantities of proved developed and undeveloped reserves for each of the periods indicated are as follows:

	Crude Oil and Condensate	Natural Gas	Total- All products
	(million barrels)	(billion cubic feet)	(million barrels of oil equivalent)
Proved developed and undeveloped reserves			
The Group			
Reserves at December 31, 2017	7,481	76,888	20,296
Changes resulting from:			
Revisions of previous estimates	526	(1,378)	297
Improved recovery	96	—	96
Extensions and discoveries	428	4,565	1,188
Production	(890)	(3,608)	(1,492)
Reserves at December 31, 2018	7,641	76,467	20,385
Changes resulting from:			
Revisions of previous estimates	(50)	(766)	(177)
Improved recovery	91	—	91
Extensions and discoveries	480	4,443	1,221
Production	(909)	(3,908)	(1,561)
Reserves at December 31, 2019	7,253	76,236	19,959
Changes resulting from:			
Purchase	15	107	33
Revisions of previous estimates	(1,553)	(595)	(1,652)
Improved recovery	108	—	108
Extensions and discoveries	385	4,976	1,215
Sales	(80)	(66)	(91)
Production	(922)	(4,221)	(1,626)
Reserves at December 31, 2020	5,206	76,437	17,946
Proved developed reserves at:			
December 31, 2018	5,843	40,128	12,531
December 31, 2019	5,474	39,870	12,119
December 31, 2020	4,654	42,077	11,667
Proved undeveloped reserves at:			
December 31, 2018	1,798	36,339	7,854
December 31, 2019	1,779	36,366	7,840
December 31, 2020	552	34,360	6,279
Equity method investments			
Share of proved developed and undeveloped reserves of associates and joint ventures			
December 31, 2018	321	429	393
December 31, 2019	287	394	353
December 31, 2020	196	363	256

At December 31, 2020, total proved developed and undeveloped reserves of the Group and equity method investments is 18,202 million barrels of oil equivalent (December 31, 2019: 20,312 million barrels of oil equivalent, December 31, 2018: 20,778 million barrels of oil equivalent), comprising 5,402 million barrels of crude oil and condensate (December 31, 2019: 7,540 million barrels, December 31, 2018: 7,962 million barrels) and 76,800 billion cubic feet of natural gas (December 31, 2019: 76,630 billion cubic feet, December 31, 2018: 76,896 billion cubic feet).

At December 31, 2020, 4,375 million barrels (December 31, 2019: 6,500 million barrels, December 31, 2018: 6,830 million barrels) of crude oil and condensate and 74,794 billion cubic feet (December 31, 2019: 74,533 billion cubic feet, December 31, 2018: 74,480 billion cubic feet) of natural gas proved developed and undeveloped reserves of the Group are located within Mainland China, and 831 million barrels (December 31, 2019: 753 million barrels, December 31, 2018: 811 million barrels) of crude oil and condensate and 1,643 billion cubic feet (December 31, 2019: 1,703 billion cubic feet, December 31, 2018: 1,987 billion cubic feet) of natural gas proved developed and undeveloped reserves of the Group are located overseas.

Capitalized Costs

	December 31, 2020	December 31, 2019
	RMB	RMB
The Group		
Property costs and producing assets	1,890,903	1,820,481
Support facilities	465,022	440,722
Construction-in-progress	150,535	149,068
Total capitalized costs	2,506,460	2,410,271
Accumulated depreciation, depletion and amortization	(1,542,037)	(1,429,389)
Net capitalized costs	964,423	980,882
Equity method investments		
Share of net capitalized costs of associates and joint ventures	20,465	24,785

Costs Incurred for Property Acquisitions, Exploration and Development Activities

	2020		
	Mainland China	Other	Total
	RMB	RMB	RMB
The Group			
Property acquisition costs	—	3,712	3,712
Exploration costs	35,862	1,051	36,913
Development costs	129,738	16,420	146,158
Total	165,600	21,183	186,783
Equity method investments			
Share of costs of property acquisition, exploration and development of associates and joint ventures	—	1,462	1,462

PETROCHINA COMPANY LIMITED
SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES (UNAUDITED) — (Continued)
(All amounts in millions, except for the per share data and otherwise stated)

	2019		
	Mainland China	Other	Total
	RMB	RMB	RMB
The Group			
Exploration costs	41,687	1,972	43,659
Development costs	166,321	21,375	187,696
Total	208,008	23,347	231,355
Equity method investments			
Share of costs of property acquisition, exploration and development of associates and joint ventures	—	2,178	2,178

	2018		
	Mainland China	Other	Total
	RMB	RMB	RMB
The Group			
Exploration costs	33,618	1,546	35,164
Development costs	134,634	25,047	159,681
Total	168,252	26,593	194,845
Equity method investments			
Share of costs of property acquisition, exploration and development of associates and joint ventures	—	3,114	3,114

Results of Operations for Oil and Gas Producing Activities

The results of operations for oil and gas producing activities for the years ended December 31, 2020, 2019 and 2018 are presented below. "Revenue" includes sales to third parties and inter-segment sales (at arm's-length prices), net of value-added taxes. Resource tax, crude oil special gain levy and other taxes are included in "taxes other than income taxes". Income taxes are computed using the applicable statutory tax rate, reflecting tax deductions and tax credits for the respective years ended.

	2020		
	Mainland China	Other	Total
	RMB	RMB	RMB
The Group			
Revenue			
Sales to third parties	32,662	30,855	63,517
Inter-segment sales	306,623	12,408	319,031
	339,285	43,263	382,548
Production costs excluding taxes	(124,154)	(9,605)	(133,759)
Exploration expenses	(18,851)	(482)	(19,333)
Depreciation, depletion and amortization	(134,007)	(15,953)	(149,960)
Taxes other than income taxes	(18,865)	(2,690)	(21,555)
Accretion expense	(4,905)	(202)	(5,107)
Income taxes	(9,369)	(5,340)	(14,709)
Results of operations from producing activities	29,134	8,991	38,125
Equity method investments			
Share of profit for producing activities of associates and joint ventures	—	(76)	(76)
Total of the Group and equity method investments results of operations for producing activities	29,134	8,915	38,049

PETROCHINA COMPANY LIMITED
SUPPLEMENTARY INFORMATION ON OIL AND GAS EXPLORATION AND PRODUCTION ACTIVITIES (UNAUDITED) — (Continued)
(All amounts in millions, except for the per share data and otherwise stated)

	2019		
	Mainland China	Other	Total
	RMB	RMB	RMB
The Group			
Revenue			
Sales to third parties	44,001	50,611	94,612
Inter-segment sales	379,968	14,956	394,924
	423,969	65,567	489,536
Production costs excluding taxes	(127,900)	(11,011)	(138,911)
Exploration expenses	(19,821)	(954)	(20,775)
Depreciation, depletion and amortization	(115,648)	(24,792)	(140,440)
Taxes other than income taxes	(24,876)	(5,853)	(30,729)
Accretion expense	(5,294)	(231)	(5,525)
Income taxes	(24,085)	(11,729)	(35,814)
Results of operations from producing activities	106,345	10,997	117,342
Equity method investments			
Share of profit for producing activities of associates and joint ventures	—	3,253	3,253
Total of the Group and equity method investments results of operations for producing activities	106,345	14,250	120,595

	2018		
	Mainland China	Other	Total
	RMB	RMB	RMB
The Group			
Revenue			
Sales to third parties	46,051	57,975	104,026
Inter-segment sales	381,740	4,542	386,282
	427,791	62,517	490,308
Production costs excluding taxes	(118,979)	(9,761)	(128,740)
Exploration expenses	(17,767)	(959)	(18,726)
Depreciation, depletion and amortization	(120,378)	(33,008)	(153,386)
Taxes other than income taxes	(30,140)	(6,262)	(36,402)
Accretion expense	(5,483)	(195)	(5,678)
Income taxes	(25,991)	(10,114)	(36,105)
Results of operations from producing activities	109,053	2,218	111,271
Equity method investments			
Share of profit for producing activities of associates and joint ventures	—	3,867	3,867
Total of the Group and equity method investments results of operations for producing activities	109,053	6,085	115,138

Standardized Measure of Discounted Future Net Cash Flows

The standardized measure of discounted future net cash flows related to proved oil and gas reserves at December 31, 2020, 2019 and 2018 is based on the prices used in estimating the Group's proved oil and gas reserves, year-end costs, currently enacted tax rates related to existing proved oil and gas reserves and a 10% annual discount factor. "Future cash inflows" are net of value-added taxes. Corporate income taxes are included in "future income tax expense". Other taxes are included in "future production costs" as production taxes.

The standardized measure of discounted future net cash flows related to proved oil and gas reserves at December 31, 2020, 2019 and 2018 is as follows:

	RMB
The Group	
At December 31, 2020	
Future cash inflows	4,366,906
Future production costs	(1,470,460)
Future development costs	(445,462)
Future income tax expense	(441,668)
Future net cash flows	2,009,316
Discount at 10% for estimated timing of cash flows	(947,035)
Standardized measure of discounted future net cash flows	1,062,281

	RMB
The Group	
At December 31, 2019	
Future cash inflows	5,872,624
Future production costs	(1,947,039)
Future development costs	(640,281)
Future income tax expense	(746,506)
Future net cash flows	2,538,798
Discount at 10% for estimated timing of cash flows	(1,213,729)
Standardized measure of discounted future net cash flows	1,325,069

	RMB
The Group	
At December 31, 2018	
Future cash inflows	6,234,378
Future production costs	(2,087,979)
Future development costs	(556,893)
Future income tax expense	(809,594)
Future net cash flows	2,779,912
Discount at 10% for estimated timing of cash flows	(1,397,846)
Standardized measure of discounted future net cash flows	1,382,066

At December 31, 2020, RMB 1,028,640 (December 31, 2019: RMB 1,278,180, December 31, 2018: RMB 1,320,478) of standardized measure of discounted future net cash flows related to proved oil and gas reserves located within mainland China and RMB 33,641 (December 31, 2019: RMB 46,889 , December 31, 2018: RMB 61,588) of standardized measure of discounted future net cash flows related to proved oil and gas reserves located overseas.

Share of standardized measure of discounted future net cash flows of associates and joint ventures:

December 31, 2020	8,573
December 31, 2019	20,356
December 31, 2018	24,805

Changes in Standardized Measure of Discounted Future Net Cash Flows

Changes in the standardized measure of discounted net cash flows for the Group for each of the years ended December 31, 2020, 2019 and 2018 are as follows:

	Year Ended December 31,		
	2020	2019	2018
	RMB	RMB	RMB
The Group			
Beginning of the year	1,325,069	1,382,066	1,024,526
Sales and transfers of oil and gas produced, net of production costs	(215,390)	(303,222)	(308,217)
Net changes in prices and production costs and other	(358,008)	(87,046)	510,325
Extensions, discoveries and improved recovery	112,834	134,631	129,824
Development costs incurred	39,238	53,450	39,725
Revisions of previous quantity estimates	(138,772)	(17,380)	10,018
Accretion of discount	146,137	149,693	103,225
Net change in income taxes	156,122	12,877	(127,360)
Net change due to purchases and sales of minerals in place	(4,949)	—	—
End of the year	1,062,281	1,325,069	1,382,066

Exhibit 4.7

English Translation of Chinese Original

CHINA NATIONAL PETROLEUM CORPORATION

AND

PETROCHINA COMPANY LIMITED

COMPREHENSIVE PRODUCTS AND SERVICES AGREEMENT

THIS AGREEMENT is entered into on this 27th day of August 2020 in Beijing by and between:

CHINA NATIONAL PETROLEUM CORPORATION ("Party A"), a limited liability company duly organized and validly existing under the laws of the People's Republic of China (the "PRC"), with its Unified Social Credit Code being 91110000100010433L and its registered address being at Liupukang, Xicheng District, Beijing, PRC; and

PETROCHINA COMPANY LIMITED ("Party B"), a joint stock limited company duly organized and validly existing under the laws of the PRC, with its Unified Social Credit Code being 91110000710925462X and its registered address being at 16 Andelu, Dongcheng District, Beijing.

1. Background

Upon approval by the State Council, Party A implemented a restructuring (the "Restructuring") and in its capacity as the sole promoter, incorporated Party B on November 5, 1999 in accordance with the laws of the PRC and owned 100% equity interest in Party B. Party B issued overseas shares through public offering, including "overseas-listed foreign shares" ("H shares") listed on the Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange"), and American Depositary Shares listed on the New York Stock Exchange of the USA (the "ADS").

Party A transferred into Party B the businesses which, prior to the Restructuring, constituted the principal businesses of Party A and its affiliated enterprises or units, including the exploration and exploitation of crude oil and natural gas, crude oil refining, chemical business, pipeline transmission, marketing, relevant research institutes and the related assets, liabilities and interests. After the Restructuring, Party A retained the businesses of construction and technical services, production services, supply of materials services, ancillary services, social services, etc., and the relevant assets, liabilities and interests.

Upon completion of the combined offering (including the issue of H Shares and ADS) in April 2000, Party A continued to be the controlling shareholder of Party B. Following the issuance of domestic common shares dominated in Renminbi ("A shares") by Party B in October 2007 and the listing of the same on the Shanghai Stock Exchange, Party A has remained the controlling shareholder of Party B.

Party A owns the construction and technical services, production services, supply of materials services, ancillary services, social services, financial services etc. in relation to the production and operation of oil and natural gas. Such business can provide necessary services for the production and operation and the life of employees of Party B and its affiliates. Party A and its affiliates have the advantage of talents, technology and region, and have experience of long-term cooperation with each unit of Party B prior to the Restructuring. Therefore, Party B is willing to receive the aforesaid products and services from Party A pursuant to this Agreement.

Party B owns crude oil, natural gas, refining and chemical products and the relevant by-products and semi-finished products, and is in the position to provide the services including supply of water, electricity, gas, heating, measurement, quality inspection and entrusted operations and management. Party B and its affiliates had experience in long-term cooperation with Party A and its affiliates prior to the Restructuring. Therefore, Party A is willing to receive the aforesaid products and services from Party B pursuant to this Agreement.

On such basis, Party A and Party B are willing to sign this Agreement and provide each other with the relevant products and services pursuant to this Agreement. Therefore, both parties agree and guarantee to procure their respective entities, including their respective subsidiaries, branches and other relevant units, to provide the products and services hereof in accordance with the terms and principles of this Agreement.

NOW, THEREFORE, Party A and Party B hereby agree as follows:

2. Agreement

Article 1 Scope of Products and Services

The Products and services provided by Party A and Party B to each other under this Agreement are as follows:

1.1 The products and services provided by Party B to Party A include: crude oil, natural gas, refining oil products, chemical products, supply of water, electricity, gas and heating; measurement, quality inspection, entrusted operations and management and other relevant or similar products and services.

1.2 The products and services provided by Party A to Party B include:

(a) Construction and technical services: geological surveying, drilling, well cementing, logging, mud logging, well testing, downhole operation, oilfield construction (including construction and installation), oil refinery construction (including construction and installation), engineering and design, project monitoring and management, equipment repairing and maintenance, equipment antiseptic testing and technology research (including the service of patent, know-how and computer software provided for the aforesaid service), information service, public construction (the road of oilfields and factories, municipal construction, civil buildings and public facilities), risk operation services and other relevant or similar products or services.

(b) Production services: supply of water, electricity, gas, heating; communications, firefighting, security, library information and filing services, asset leasing, environmental protection and sanitation in the factory and mining areas, repair of machinery, manufacture of machinery, transportation, maintenance of roads and other relevant or similar products or services.

(c) Supply of materials services: purchase of materials, quality inspection, storage of materials, delivery of materials and other relevant or similar products or services.

(d) Ancillary services: property management, training centers, guesthouses, canteens, management of shower rooms and other relevant or similar services.

(e) Social services: regional security services, education (including affiliated schools, technician training schools, educational qualification schools), hospitals, kindergartens, daycare centers, cultural propaganda (including TV station, radio, newspaper publishing house), public transportation, municipal facilities (including greening of road, city and mining area), retirement administration, re-employment services centers, miscellaneous social services, and other relevant or similar services.

(f) Financial services: making loan and accepting deposits in Renminbi and foreign currencies, payment and receipt of interests, providing guarantee and clearance and settlement services, entrusted management of production safety guarantee fund related to refining and chemical, and other financial services engaged in by Party A through financial institutions such as its affiliate, China National Petroleum Company Finance Co., Ltd., subject to the applicable regulations.

1.3 Party A and Party B agree to enter into separate agreements in connection with the supervision of the sales business of certain oil companies, the lease of buildings and the lease and use of use rights, the licensing of intellectual property (including patents, trademarks, know-now, computer software, but excluding those mentioned in 1.2(a)), the transfer of the rights and obligations of those cooperation agreements with foreign entities regarding oil explorations and exploration, the guarantee of part of Party B's debts, which are in relation to relevant oil companies.

1.4 Party B shall provide financial assistance to those companies jointly owned by Party A and Party B in which Party A and its subordinate companies and entities (including subsidiaries, branches and other entities) hold 10% or more of the voting securities, whether individually or in the aggregate, (hereinafter referred to as "Jointly-owned Companies"), including (a) the provision of entrusted loans to the Jointly-owned Companies through China National Petroleum Company Finance Co., Ltd. or other financial institutions, and (b) the provision of guarantee for the Jointly-owned Companies.

1.5 The Jointly-owned Companies shall provide financial assistance to Party B, including (a) the provision of entrusted loans to Party B through China National Petroleum Company Finance Co., Ltd. or other financial institutions, and (b) the provision of guarantee for Party B.

1.6 Products provided by Jointly-owned Companies include: crude oil, oil products, chemical products, and natural gas etc. Pricing standards for the foregoing products shall refer to the pricing standards of the same services as listed in Appendix 1 hereto.

Article 2 General Principles

Party A and Party B agree that the products and services hereof shall be provided under the following general principles:

2.1 The quality of products and services to be provided shall be excellent, the prices at which such products and services are to be provided shall be fair and reasonable, and the terms and conditions on which such products and services are to be provided shall be no less favorable than those offered by any third parties if such third parties provide the same products or services, or participate in the similar trade.

2.2 The products and services hereof shall be provided and standardized by contracting and in compliance with the provisions of the relevant regulations of the places where Party B are listed (including but not limited to listing rules).

2.3 The products and services shall be provided in accordance with the requirement of the reform and opening and establishment of socialist market economy and in compliance with the relevant laws and regulations in accordance with the principle of orderly competition by comparison of quality and price, equality and priority.

2.4 Subject to the compliance with the interests of Party B and the relevant regulations of the local places where its shares are listed (including but not limited to the listing rules), and with the continuing development of the production and operation of both parties, Party A and Party B will determine the terms and conditions of transactions according to the general principles and pricing principles hereof after negotiations if both parties are willing to provide to each other the products and services other than those covered in this Agreement.

Article 3 Pricing Principles

The products and services hereof shall be provided in accordance with the principles of this article.

3.1 The price of any product and service provided pursuant to this Agreement shall be determined in accordance with the general principles and order of this article: (a) if there is Government-Set-Price, the price for any product and service hereof shall be determined by reference to such Government-Set-Price; (b) if there is no Government-Set-Price but there is Market Price, the price for any product and service hereof shall be determined by reference to such Market Price; (c) if there is neither Government-Set-Price nor Market Price, the price for any product and service hereof shall be determined on the basis of the actual cost or the Agreed Contractual Price.

3.2 Specific pricing principles:

The prices for the products and services of 3.2(a), (b), (c) and (d) shall be determined according to the specific principles as follows and mentioned in the Appendixes. Where such specific principles are not applicable, then the prices for the relevant products and services shall be re-determined according to the general principles of 3.1 hereof.

(a) Production services

Oil and gas providing services (including the supply of water, electricity, gas and heating) shall be priced according to the Government-Set-Price plus costs of sub-supply (if applicable).

(b) Construction and technical services

The service of carrying out construction shall be provided in accordance with the lump-sum budgetary estimates and budgets. The lump-sum price or fee rate of the construction services for special purposes shall be determined in accordance with the following principles: before the State issues the uniform standard of lump-sum price or fee rate, the price for special-purpose construction shall be determined by reference to the Agreed Contractual Price, but shall be more favorable than the price standard of the similar construction in the international market. After the State issues such uniform standard, the price for the same shall be determined according to such uniform standard.

The lump-sum price or fee rate for the public construction services (refer to the services in connection with roads, municipal facility, civil building and public facility in oil field areas and factory areas) are that where there is a uniform standard of lump-sum price or fee rate set by the State, the price for such services shall be determined by reference to such standard; where there is no such standard, prior to January 1, 2000, the price for such services shall be determined according to Market Price. From and after January 1, 2000, by public bidding according to the provisions of the Law of the People's Republic of China on Invitation and Submission of Bids which came into effect on January 1, 2000.

(c) Social services

Please refer to Appendix II hereto for specific pricing principles. For the actual cost and the Agreed Contractual Price, the following provisions shall be complied with:

(i) The prices of security services shall not be higher than the actual expenditures in respect of security services incurred by Party B in 1998.

(ii) The prices of education, medical, cultural publicity services shall be shared reasonably according to the actual expenditures incurred by Party A's enterprises in 1998 and the ratio of interests enjoyed by both parties (that is, the units now comprising Party A and Party B and their affiliates) in 1998. The prices of such services thereafter shall not be higher than the expenditures shared by Party B and calculated in the aforesaid way, and be reduced annually as such services are transferred to the relevant governmental authorities.

(iii) The prices for retirement administration and reemployment service center shall be shared reasonably by the Parties after negotiation by both Parties according to the actual Cost Price and the extent of benefits enjoyed by Party A and Party B as well as their affiliates, and be reduced on an annual basis as the national social security system is gradually improved.

(d) Financial services provided by financial institutions

The fees for financial services provided by financial institutions such as China National Petroleum Company Finance Co., Ltd. shall be determined by reference to the interest rate of the same period and relevant fee standard announced by People's Bank of China ("PBOC") or other competent financial regulatory authorities, and shall be no less favorable than the interest of the same period and the standard of fees and other conditions for the money and services obtained by Party B from any independent third party.

Apart from the provisions in (a), (b), (c) and (d) above, prices for other products and services shall be determined in accordance with the general principle stipulated in Article 3.1 herein.

3.3 (a) Pricing standards of the various financial assistance provided by Party B to Jointly-owned Companies shall refer to the pricing standards of the same services as listed in the financial service category of Appendix II hereto;

(b) Pricing standards of the various financial assistance provided by Jointly-owned Companies to Party B shall refer to the pricing standards of the same services as listed in the financial service category of Appendix II hereto.

Article 4 Operation

4.1 Both parties are required to submit to each other an annual plan detailing the demand for products or services provided by the other party for the forthcoming year before October 31 every year, and prepare an annual plan detailing the provision of products or services to the other party and submit plan to the other party before November 30 of that year.

4.2 Both parties shall guarantee their branches, subsidiaries and other controlled units to enter into specific product or service implementation agreements according to the corresponding annual plans for supply and demand of products or services.

4.3 Unless both parties terminate this Agreement in advance according to 6.1(b) hereof, the annual plan of supply and demand of products or services of both parties can be adjusted. However, Party A or Party B or its branches, subsidiaries and other controlled units shall, prior to the annual supply plan in respect of such products or services is ascertained by the counterparty, put forward and submit the adjustment to Party A or Party B with which they are affiliated. Both parties shall make the corresponding adjustment of the annual plan for products or services respectively with consensus. The plan for supply and demand of products or services can be adjusted during the course of implementation as required and agreed by both parties, failing which, Party A shall, subject to the conditions of 6.1(b) hereof, provide with the relevant products or services to Party B according to the demand plan submitted by Party B to Party A.

4.4 The term of product or service implementation agreements entered into according to this Agreement shall normally be one year. The product or service implementation agreements with a term of more or less than one year shall be reached by parties through mutual consultation. The terms for financial services can be negotiated by both parties according to the different requirements of various specific projects.

Article 5 Rights and Obligations of Both Parties

5.1 The rights and obligations of Party A

(a) Party A has the right to:

(i) Party A has the right to obtain the products and services provided by Party B in accordance with this Agreement;

(ii) Party A has the right to receive, including through its entities (including its subsidiaries, branches and other relevant units) fees pursuant to the provisions of this Agreement;

(iii) prepare the plan for the supply of products and services according to the plan of Party B for demand of products or services; and

(iv) choose to provide the services listed in Appendix II to third parties, provided Party A shall guarantee the provision of products and services to Party B according to the provisions of this Agreement.

(b) The obligations of Party A include:

(i) to procure and guarantee its entities, including its subsidiaries, branches and other relevant units, to enter into the relevant product or service implementation agreements with Party B and its entities, including its subsidiaries, branches and other relevant units, pursuant to the provisions of this Agreement and the annual product or service supply and demand plans;

(ii) to supervise its affiliated companies to provide specialized services such as the supply of water, electricity and gas, communications, and fire fighting, and ensure good quality of services is delivered pursuant to the provisions of this Agreement and as required by Party B;

(iii) to supervise its affiliated companies and units to provide services according to the pricing standards provided under Appendix 2 of this Agreement;

(iv) to coordinate the relevant matters relating to such product or service implementation agreements upon the request of the parties to such agreements;

(v) to designate or establish special organizations responsible for liaison in relation to, preparation of documents for, making plans and arrangements for, balancing supply and demand for, supervision and coordination of the performance of all relevant contracts in respect of, and other matters relating to products and services to be rendered under this Agreement;

(vi) to procure its entities, including its subsidiaries, branches and other relevant units, to provide relevant services to Party B and its entities, including its subsidiaries, branches and other relevant units, and guarantee to indemnify Party B or the corresponding parties against any loss suffered by the same arising from any breach of any provision of this Agreement or the relevant product and service implementation agreements; and

(vii) to provide to the auditors of Party B with the accounting records of Party A and its associates in respect of the connected transactions.

5.2 the rights and obligations of Party B

(a) Party B has the right:

(i) Party B has the right to obtain, including through its entities (including its subsidiaries, branches and other relevant units), the products and services provided by Party A;

(ii) to choose to receive products or services, including the services set forth in Appendix II, from any third party subject to the provisions of this Agreement and provided that quality of products or services of the same type offered by such third parties shall be superior to those offered by Party A given the same terms and conditions. But either of parties shall continue to perform its obligations according to the agreements entered into by both parties before this Agreement came into force in respect of one or more of the products or services herein;

(iii) to prepare the annual plan for supply and demand and make the corresponding adjustments thereof in its discretion;

(iv) to receive, including through its entities (including its subsidiaries, branches and other relevant units), the fees for services pursuant to this Agreement;

(v) to provide with the services listed in Appendix I to any third parties without prejudicing Party A and in compliance with the provisions of this Agreement; and

(vi) to audit the accounting records of Party A and its associates in respect of connected transactions.

(b) The obligations of Party B include:

(i) to procure and guarantee its entities, including its subsidiaries, branches and other relevant units, to enter into the relevant product and service implementation agreements with Party A and its entities, including its subsidiaries, branches and other relevant units thereof, pursuant to the provisions of this Agreement and the supply and demand plan;

(ii) to supervise its subsidiary companies and units providing services of good quality in accordance with the pricing standards set forth in Appendix I hereto;

(iii) to coordinate the relevant matters relating to product and services implementation agreements upon the request of the parties to such agreements;

(iv) to designate or establish special organizations responsible for liaison in relation to, preparation of documents for, making plans and arrangements for, balancing supply and demand for, supervision and coordination of the performance of all relevant contracts in respect of, and other matters relating to products and services to be rendered under this Agreement;

(v) to pay the relevant service fees according to the provisions of this Agreement and each product and service implementation agreement; and

(vi) to ensure the indemnification against any loss suffered by Party A or the corresponding parties arising from any breach of any provision of this Agreement or the relevant product and service implementation agreements, unless the breach is committed by any of Party A's subsidiaries in which Party B has any interests.

5.3 Party A and Party B have the obligation to take further necessary actions including the execution of other relevant agreements or contracts or documents so as to ensure the realization of the purpose and contents provided in this Agreement.

Article 6 Term and Termination of Specific Contracts

6.1 Termination of supply.

(a) In the event Party B is unable to obtain conveniently certain services provided by Party A from any third party (including but not limited to any third party affiliated to Party A) and Party B notifies Party A of such situation from time to time, unless permitted by Party B in writing, Party A shall not terminate the supply of such services (other than for any breach of the provisions of this Agreement by Party B).

(b) Any party to the product and service implementation agreements (this Agreement excluded) entered into according to this Agreement may issue, in compliance with the Article 6.1(a) and 6.1(c), a written notice to the other to terminate the provision of products or services not less than six months in advance. Such notice shall stipulate what products or services will cease to be supplied and when such termination will take effect. If the supply of certain products or services is terminated according to this article, such termination shall neither affect other rights or obligations of Party A or Party B under this Agreement, nor affect other rights or obligations of any party to the product and service implementation agreements entered into according to this Agreement.

(c) If either party has issued a notice terminating the supply of certain services according to 6.1(b) hereof, unless otherwise agreed by both parties, such notice shall not terminate or affect the supply of such services agreed by both parties at the time of or prior to issuing such notice.

6.2 This Agreement shall come into effect as of January 1, 2021 after it is chopped with the common seals of the parties hereto and approved at Party B's general meeting of shareholders, and shall remain valid for a period of three (3) years. The term of this Agreement may be extended subject to the mutual consent between the parties to this Agreement and the approval of the stock exchanges of the places where Party B is listed, and/or the ratification of Party B's general meeting of shareholders (as required by the stock exchanges and the competent regulatory authorities of the places of listing).

6.3 If one party breaches any provision of this Agreement (the "Defaulting Party") and the other party (the "Non-defaulting Party") issues a written notice notifying the Defaulting Party of its breach and requires the Defaulting Party to remedy within the reasonable period determined by the Non-defaulting Party, the Non-defaulting Party may immediately terminate this Agreement if the Defaulting Party fails to remedy such breach within the aforesaid period. The Non-defaulting Party reserves the rights of recourse and compensation and other rights and claims against the Defaulting Party permitted by any law. If the Non-defaulting Party fails to issue such notice to the Defaulting Party According to the provisions of this article, such failure shall not be construed as a waiver of any right provided in this Agreement and permitted by laws.

6.4 The termination of this Agreement shall not affect the rights or obligations of either party hereto accrued under this Agreement prior to the termination.

Article 7 Representations and Warranties

7.1 The Party A represents and warrants as follows:

(a) Party A is a limited liability company established in accordance with law with independent legal-person status and holds a valid business license;

(b) Party A has carried out its businesses in accordance with law and has never engaged in any activities beyond the business scope prescribed by law;

(c) Party A has obtained all governmental approvals (if necessary) and has obtained or completed all internal authorizations necessary for the execution of this Agreement; the signor of this Agreement on its behalf is a duly authorized representative of Party A; and this Agreement, when executed, shall constitute binding obligations of Party A; and

(d) The execution of this Agreement and the performance of its obligations hereunder by Party A will not violate any other agreements to which Party A is a party, the Party A's articles of association or any laws, regulations and rules and will not legally or commercially conflict with any other agreement to which Party A is a party or the Party A's articles of association. Party A has not been in breach of any agreement to which it is a party.

7.2 Party B represents and warrants as follows:

(a) Party B is a joint stock company with limited liability which was established in accordance with law with independent legal-person status and holds a valid business license;

(b) Party B has carried out its business in accordance with law and has never engaged in any activities beyond the business scope prescribed by law;

(c) Party B has obtained or completed all the internal authorizations necessary for the execution of this Agreement; the signor of this Agreement on its behalf is a duly authorized representative of Party B; and this Agreement, when executed, shall constitute binding obligations of Party B; and

(d) The execution of this Agreement and the performance of the obligations hereunder by Party B will not violate any other agreements to which Party B is a party, Party B's articles of association or any laws, regulations and rules, and will not legally or commercially conflict with any other agreements to which Party B is a party, or Party B's articles of association. Party B has not been in breach of any agreement to which it is a party.

Article 8 Force Majeure

8.1 If a party hereto fails to perform all or part of its obligations under this Agreement due to an Event of Force Majeure (an Event of Force Majeure means an event beyond the reasonable control of the affected party and is unforeseeable, or unavoidable and insurmountable if foreseeable, and which happens after the execution of this Agreement and renders the full or partial performance of this Agreement impossible or impracticable in effect. An Event of Force Majeure includes but not limited to flood, fire, draught, typhoon, earthquake, and other natural disaster, traffic accident, strike, insurrection, turmoil and war (whether declared or not) and any action or inaction of any governmental authorities), the performance of such obligations shall be suspended during the period being affected by the Event of Force Majeure.

8.2 The party claiming being affected by an Event of Force Majeure shall notify the other in writing of the occurrence of such an event as soon as possible, and shall, within 15 days after the occurrence of such an event, provide the other party by courier or registered air mail with appropriate evidence proving the occurrence of the Event of Force Majeure and the period of time it lasts. The party claiming that its performance of this Agreement has become impossible or impracticable due to an Event of Force Majeure shall take all the reasonable measures to eliminate or minimize the effects of the Event of Force Majeure.

8.3 In case of the occurrence of an Event of Force Majeure, both parties shall immediately consult with each other in respect of the performance of this Agreement and shall immediately resume their respective obligations under this Agreement after the cease of the Event of Force Majeure or the elimination of the effects of the same.

Article 9 Public Announcement

Without the prior written consent of the other party, no party may issue any public announcements on matters relating to this Agreement, other than public announcements issued in accordance with the provisions of the China Securities Regulatory Commission, the Shanghai Stock Exchange, the Hong Kong Stock Exchange, the Hong Kong Securities and Futures Commission, the New York Stock Exchange, the U.S. Securities and Exchange Commission or any other governmental or securities regulatory body.

Article 10 Miscellaneous

10.1 Unless otherwise provided for in this Agreement, without the written consent from the other party, no party shall transfer all or part of its rights or obligations under this Agreement.

10.2 This Agreement and the appendices hereto constitute the entire agreement between the parties, and supersede all previous oral and written agreements, contracts, understandings and communications between the parties in respect of the subject matter of this Agreement.

10.3 The illegality, invalidity or unenforceability of any article of this Agreement shall not affect the validity and enforceability of any other provisions of this Agreement.

10.4 Both parties agree to bear their respective fees and expenses incurred for execution of this Agreement in accordance with applicable PRC laws. Where no law addresses the matter, both parties shall share the fees and expenses equally.

10.5 Any amendments to this Agreement or its appendices may be made only by a written agreement executed by authorized representatives of both parties and shall be approved by both parties through appropriate corporate actions. In the event that such amendments constitute material and significant amendments to this Agreement and /or its appendices, the amendment shall not come into effect until it is notified to or approved by the Stock Exchange of Hong Kong Limited or (if applicable) the shareholders meeting of Party B (as then required by the Stock Exchange of Hong Kong Limited).

10.6 The delay or failure on the part of either party hereto to exercise any right, power or privilege under this Agreement shall not operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege preclude exercise of any other right, power or privilege.

10.7 The appendices hereto shall constitute an integral part of this Agreement and have the same binding effect on the parties hereto as if the appendices were incorporated into this Agreement.

Article 11 Communications

11.1 Notices and other communications required to be given by any party pursuant to this Agreement shall be written in Chinese and may be delivered personally, or by registered mail to the address of the other party or sent by facsimile transmission to the number of the other party set forth below. The dates on which notices shall be deemed to have been effectively delivered shall be determined as follows:

(a) Notices given by personal delivery shall be deemed effectively delivered on the date of personal delivery;

(b) Notices given by registered mail shall be deemed effectively delivered on the 7th day (if the last day falls on a Sunday or a public holiday, than such date shall be postponed to the next working day) after the date on which they were mailed (as indicated by the postmark);

(c) Notices given by facsimile transmission shall be deemed effectively delivered at the time when the transmission is completed, provided that the sender shall produce the transmission report evidencing the successful transmission of relevant documents;

The addresses and facsimile numbers of the parties are as follows:

If to Party A:
China National Petroleum Corporation
Mailing Address: 9 Dongzhimen North Street, Dongcheng District, Beijing, the PRC
Facsimile Number: 010-6209 9428
Post Code: 100007

If to Party B:
PetroChina Company Limited
Mailing Address: 9 Dongzhimen North Street, Dongcheng District, Beijing, the PRC
Facsimile Number: 010-6209 9436
Post Code: 100007

A party shall, in accordance with the provisions in this Article and as soon as possible, notify the other party in writing of any change to its address or facsimile number set forth above.

Article 12 Governing Law and Dispute Settlement

12.1 This Agreement shall be governed by and interpreted in accordance with the PRC law.

Any dispute arising from or in connection with this Agreement shall be resolved through friendly consultation between the parties. If the dispute cannot be settled in the aforesaid manner, either party shall be entitled to submit the dispute to Beijing Arbitration Commission for arbitration to be conducted in accordance with the Commission's arbitration rules in effect at the time of the arbitration. The arbitral award shall be final and binding upon both parties.

12.2 The provisions in each of the specific contracts in respect of dispute settlement shall be made with reference to the dispute settlement clauses set forth herein.

Article 13 Definition and Interpretation

13.1 Unless the context otherwise requires, the following terms shall have the following meanings in this Agreement:

"Financial Year"	the calendar year from 1 January to 31 December.
"Services"	the transactional activities in which the parties hereto provide each other with the services within the service scope stipulated in this Agreement.
"Government-Set-Price"	the price for such type of services as determined in any laws, regulations, decisions, orders or guidelines enacted by any government of the relevant country/region (including but not limited to any central government, federal government, local government, state/league government and any other instrumentality that rules a certain territory by controlling domestic issues and foreign affairs thereof, in whatever name, structure and form), and any other regulatory authority.
"Market Price"	the price determined according to the following order of priority: (1) the price determined by reference to the prices then charged by at least two independent third parties for services of comparable size provided on an arm's length basis in the place where the subject services are provided or in the vicinity thereof; (2) the price determined by reference to the prices then charged by at least two independent third parties for services of comparable size provided on an arm's length basis in the neighboring region/country of the place where the subject services are provided.
"Cost Price"	the price determined by the actual cost incurred by Party A, but not more than the actual cost at which the relevant services were provided by Party A in 1998.

"Agreed Contractual Price"	as for the geological surveying, drilling, well cementing, logging, mud logging, well testing, downhole operation, and oilfield construction, the Agreed Contractual Price shall be the actual cost for the provision of such product or services plus an additional margin of not more than 15%, provided that, such Agreed Contractual Price shall not be higher than the prices available for the provision of such products and services in the international market. As for other products and services priced in accordance with the Agreed Contractual Price, the Agreed Contractual Price shall be the actual cost for the provision of such product or service plus an additional margin of not more than 3%. For the avoidance of doubt, the aggregate value of all products and services provided at Cost Price and at Agreed Contractual Price and at the ratio of benefits received by Party A and Party B pursuant to this Agreement during the financial year ended 31 December 1998 was RMB 36.9 billion, calculated on a pro-forma adjusted basis (the "1998 Amount"). The aggregate value of, in each future financial year, of products and services provided by Party A to Party B at Cost Price, or at Agreed Contractual Price pursuant to this Agreement shall not exceed the 1998 Amount. But in the event the cost of certain products or services changes due to inflation, the aggregate value of products or services purchased by Party B from Party A may exceed the 1998 Amount, but the margin shall not be higher than the extra amount calculated on the basis of the national average inflation promulgated by the State. If, due to the development of new projects or natural disasters or other special events, Party B is required to purchase additional products or services such that the aggregate value of all such products or services to be priced at cost or at Agreed Contractual Prices exceeds the 1998 Amount, the decision for such purchase shall be made by the board of directors and the management of Party B on the basis of the comprehensive analysis of Party B's business plan and financial situation, to ensure that such purchases allow for the reasonable returns to Party B's shareholders.

"Pricing Standards"	Government-Set-Prices, Market Prices, Agreed Contractual Prices or Cost Prices.
"Supply"	The activities of providing products and services by Party A and Party B to each other according to the provisions of this Agreement.
"Risk Operation Services"	Within certain conventional reserve blocks with exploitation difficulties and certain unconventional reserve blocks specified by Party B, Party A provides comprehensive risk operation services to Party B for its exploitation and production within these reserve blocks by supplying capital and bear the risks. Party B is responsible to pay a service fee to Party A only when there are crude oil and natural gas outputs in these reserve blocks. Such services are contractual services. The mineral interests and ownership of reserves of such reserve blocks remain unchanged. The outputs of crude oil and natural gas shall be recorded to Party B, who is responsible for the centralized sales of such outputs. Taking into consideration the quality level and the difficulties of exploitation of the reserve blocks where Party A provides risk operation services and the investment made by Party A thereinto, the service fee payable by Party B shall be calculated based on a certain percentage of the then prevailing Market Price of the crude oil and natural gas outputs under the risk operation services Party A provided, and shall be paid in cash. For conventional oil and gas and unconventional oil and gas respectively, different rates of service fee shall apply. The term "conventional oil and gas" refers to the oil and gas resources that can be extracted by using technologies already mastered and are economically viable. For conventional oil and gas, the service fee for the risk operation services during the investment payback period shall be 60% - 70% of the then prevailing Market Price of crude oil and gas, and shall be 50% of the then prevailing Market Price of crude oil and gas after the investment payback period expires.

	The term “unconventional oil and gas” refers to the oil and gas resources from which an economically viable output cannot be obtained unless by using large-sized enhanced production measures or special extraction processes. For unconventional oil and gas, the service fee for the risk operation services during the investment payback period shall be equal to the then prevailing Market Price of the crude oil and gas plus the price subsidy granted by the State (if any), and after the investment payback period expires shall be determined subject to further negotiations between the parties based on the then prevailing market conditions and corresponding approval procedures.
“Entrusted Operation and Management”	In view of the close linking between Party A and Party B in terms of certain units and many business processes and with a view to realizing the optimal allocation of internal resources, reducing operation costs, improving management efficiency and giving better play to the synergy of various business segments, Party B will selectively accept the demands raised by Party A from time to time for the provision of management services in connection with its related businesses so as to give full play to the advantages of Party B in terms of business management and realize the coordinated and sustainable development of the company’s business operations.
“Appendices”	Appendix I or Appendix II, or both of them, unless otherwise stated in this Agreement.

13.2 In this Agreement, unless the context otherwise requires:

(a) A party shall include its successors;

(b) Articles or appendices refer to the articles or appendices of this Agreement;

(c) Unless this Agreement otherwise requires, this Agreement may be extended, amended, altered or supplemented through negotiations between both parties;

(d) Headings are inserted for reference only and shall not affect the interpretation of this Agreement.

Article 14 Others

14.1 This Agreement is written in Chinese.

14.2 This Agreement is made in six (6) originals. This Agreement shall come into effect as of January 1, 2021 after it is affixed with the signature of the authorized representative and the appropriate seal of each party hereto and approved at Party B's general meeting of shareholders. Each original shall have the same legal effect.

14.3 In witness whereof, each of the parties hereto has caused this Agreement to be executed on the day as stated on the first page of this Agreement.

Party A:

China National Petroleum Corporation
(affixed with Party A's seal specifically for contracting purpose)

Authorized Representative: /s/
LIU Yuezhen

Party B:

PetroChina Company Limited
(affixed with Party B's seal specifically for contracting purpose)

Authorized Representative: /s/
CHAI Shouping

Appendix I Services provided by Party B and it subsidiary entities to Party A and its subsidiary entities

Services	No.	Service items	Pricing principles
Supply of oil and natural gas etc.	1	Crude oil	Market Price
	2	Refined products	Government-Set-Prices and Government-Guiding Prices. Pursuant to the *Notice of the National Development and Reform Commission on Further Improvement of Refined Oil Pricing Mechanism* promulgated by the National Development and Reform Commission *(Fa Gai Jia Ge [2016] No. 64)* on January 13, 2016, (i) the retail prices and wholesale prices of gasoline and diesel, and the supply prices of the gasoline and oil to be supplied to special customers such as social wholesale operators, railway and other transportation operators shall follow government guiding prices, and (ii) the supply prices of the gasoline and diesel for natural reserve purpose and for the use by Xinjiang Production and Construction Corps shalll follow government set prices. The prices of gasoline and diesel shall be adjusted every 10 business days in line with the change of crude oil prices on international market. The National Development and Reform Commission (the "NDRC") shall publish on its portal website the retail price ceilings per ton of standard gasoline and diesel products and the supply prices per ton of the gasoline and diesel for national reserve purpose and for the use by Xinjiang Production and Construction Corps. Accordingly the provincial-level pricing authority of each province shall publish on a designated website the local wholesale price ceilings and retail price ceilings of standard and nonstandard gasoline and diesel products.
	3	Chemical products	Market Price

4	Natural gas	Government-Set-Price and Government-Guiding Prices. Pursuant to the *Circular of NDRC regarding Adjustment of Natural Gas Price* promulgated by NDRC on June 28, 2013 *(Fa Gai Jia Ge [2013] No. 1246),* the regulation of the pricing mechanism of natural gas shall be changed from ex-factory-price-controlled to citygate-price-controlled. The NDRC currently classifies the natural gas subject to citygate price regulation policy into two categories, which are (i) the natural gas of which the pricing shall be market-driven, including shale gas, coal-bed methane, coal gas and other types of unconventional natural gas and domestically produced offshore natural gas; the imported natural gas supplied to the market sourced through LNG importation and through those pipeline gas importation projects put into operation before the end of 2014; the natural gas supplied to the market via gas storages and gas trading platforms such as Shanghai Oil and Gas Exchange and Chongqing Oil and Gas Exchange; and the natural gas supplied to LNG producers, fertilizer producers and other directly supplied industrial enterprises; and (ii) the natural gas of which the pricing shall be government guided. Any other types of natural gas that do not fall into any of the foregoing categories shall be priced by following the government guiding prices. Specifically, gas suppliers and purchasers would determine the specific settlement prices of such other types of natural gas through negotiations by using the citygate benchmark prices published by the competent government authorities as the base and then adjusting the base within the prescribed range (upwards no more than 20% or downwards limitlessly). The types of natural gas to be priced by following the government-guiding prices mainly include the domestically produced onshore conventional gas to be supplied to municipal gas companies and the pipeline gas imported through natural gas pipeline projects put into operation before the end of 2014.
5	Supply of water	Government-Set-Price plus cost (if applicable). Pursuant to *the Measures for Administration of Urban Water Supply Price (Ji Jia Ge [1998] No. 1810)* enacted by the original Planning Commission and the Ministry of Housing and Urban-Rural Development ("MHURD"), as amended by NDRC and MHURD on November 29, 2004, the urban water supply price shall be set by the competent governmental authorities in accordance with the authority as set forth in the applicable List of Pricing Regulation Authority Allocation.

	6	Supply of electricity	Government-Set-Price plus cost (if applicable). Pursuant to the *Electric Power Law of the PRC* enacted on December 28, 1995 and amended on August 27, 2009, April 24, 2015 and December 29, 2018 respectively, the on-grid tariffs of the electric power distributed through the grids crossing different provinces, autonomous regions and centrally administered municipalities, or provincial-level grids shall be proposed by the power production enterprises in consultation with the grid operators and then submitted to the pricing regulatory department under the State Council. The on-grid tariffs of the electric power distributed through independent grids shall be proposed by the power production enterprises in consultation with the grid operators and then submitted to the competent pricing regulatory authorities for approval. The electric power generated by any local invested power producer, if distributed through independent grids running within the local province or for self-use by the power producer itself, may be administered by the local provincial (autonomous region or centrally administered municipality) people's government.
	7	Supply of gas	Government-Set-Price plus cost (if applicable). Pursuant to the *Regulations on Administration of Urban Gas* promulgated by the State Council on October 19, 2010 under State Council Decree No. 583 and amended by the State Council Decree No. 666 dated February 6, 2016, the pricing regulatory authority under the people's government above the county level shall determine and adjust the selling price of the pipeline delivered gas.
	8	Supply of heating	Government-Set-Price plus cost (if applicable). Since there are currently no documents addressing uniform standard of lump-sum price or fee rate for heating supply published by the State, the price of heating supply is set by the local government.
	9	Quantifying and Measuring	Market Price
	10	Quality Inspection	Market Price
	11	Entrusted Operation and Management	Market Price
	12	Materials Supply	Market Price
Financial Services	1	Entrusted lending	The price shall be determined on the basis of the lending interest rate of the same period and the relevant fee standard published by PBOC and with reference to the Market Price.
	2	Guarantee	Market Price
	3	Others	The applicable prices set by and the fee rates published by PBOC, China Banking Regulatory Commission, China Insurance Regulatory Commission and other similar governmental authorities, and applicable Market Prices.

Appendix II Services provided by Party B and it subsidiary entities to Party A and its subsidiary entities

Services	No.	Services items	Pricing principles
Engineering And Technical Services	1	Geological surveying	Before the State publishes any uniform standard of lump-sum price or fee rate, the price of each item of services shall be determined by reference to the Agreed Contractual Price. After the State publishes such uniform standard of lump-sum price or fee rate, the price of each item of services shall be determined on the basis of the same. The State has not yet published any document addressing such uniform standard of lump-sum price or fee rate.
	2	Drilling	
	3	Well cementing	
	4	Logging	
	5	Mud logging	
	6	Well testing	
	7	Downhole operation	
	8	Oilfield construction (including building installation)	
	9	Oil refinery construction (including building installation)	Government-Set-Price. For the construction part, the lump-sum price set by the people's government of the relevant province, autonomous region or centrally administered municipality shall be adopted, and for the installation part, the prevailing industrial lump-sum price shall be adopted.
	10	Engineering and design	Market-Driven-Price. Pursuant to the *Notice on Further Liberating Prices of Professional Services for Construction Projects* promulgated by the NDRC on February 10, 2015, on the basis of liberation of the prices of those professional services to construction projects that are not invested or commissioned by the government, the prices of the following professional services to construction projects previously subject to the government-guiding-price-based regulation regime shall be fully liberated and become market-driven: project exploration and design fee, including the fee charged for project exploration and the fee charged for design.

Services	No.	Services items	Pricing principles
	11	Project monitoring and management	Market-Driven-Price. Pursuant to the *Notice on Further Liberating Prices of Professional Services for Construction Projects* promulgated by the NDRC on February 10, 2015, drawing on the liberation of the prices of those professional services to construction projects that are not invested or commissioned by the government, fully liberate the prices of the following professional services to construction projects previously subject to the government-guiding-price-based regulation regime and allow them to become market-driven: project monitoring and management fee.
	12	Equipment repairing and maintenance	Agreed Contractual Price
	13	Equipment antiseptic testing and research	Agreed Contractual Price
	14	Process and Technology services	Agreed Contractual Price
	15	Public construction (roads of oilfields and factories, municipal construction, civil buildings and public facilities)	Where there is a uniform standard of lump-sum price or fee rate set by the State, the prices shall be determined by reference to such standard. Where there is no such standard, prior to January 1, 2000, the prices shall be determined on the basis of the Market Price, and from and after January 1, 2000, the price shall be determined by public bidding in accordance with the provisions of the *Law of the People's Republic of China on Invitation and Submission of Bids* coming into effect on January 1, 2000.
	16	Risk Operation Services	Market Price
	17	Other services (including information services)	Market Price

Services	No.	Services items	Pricing principles
Production Services	1	Supply of water	Government-Set-Price plus cost (if applicable). Pursuant to *the Measures for Administration of Urban Water Supply Price (Ji Jia Ge [1998] No. 1810)* enacted by the original Planning Commission and MHURD, as amended by NDRC and MHURD on November 29, 2004, the urban water supply price shall be set by the competent governmental authorities in accordance with the authority as set forth in the applicable List of Pricing Regulation Authority Allocation.
	2	Supply of electricity	Government-Set-Price plus cost (if applicable). Pursuant to the *Electric Power Law of the PRC* enacted on December 28, 1995 and amended on August 27, 2009, April 24, 2015 and December 29, 2018 respectively, the on-grid tariffs of the electric power distributed through the grids crossing different provinces, autonomous regions and centrally administered municipalities, or provincial-level grids shall be proposed by the power production enterprises in consultation with the grid operators and then submitted to the pricing regulatory department under the State Council. The on-grid tariffs of the electric power distributed through independent grids shall be proposed by the power production enterprises in consultation with the grid operators and then submitted to the competent pricing regulatory authorities for approval. The electric power generated by any local invested power producer, if distributed through independent grids running within the local province or for self-use by the power producer itself, may be administered by the local provincial (autonomous region or centrally administered municipality) people's government.

Services	No.	Services items	Pricing principles
	3	Supply of gas	Government-Set-Price plus cost (if applicable). Pursuant to the *Regulations on Administration of Urban Gas* promulgated by the State Council on October 19, 2010 under State Council Decree No. 583 and amended by the State Council Decree No. 666 dated February 6, 2016, the pricing regulatory authority under the people's government above the county level shall determine and adjust the selling price of the pipeline delivered gas.
	4	Supply of heating	Government-Set-Price plus cost (if applicable). Since there are currently no documents addressing uniform standard of lump-sum price or fee rate for heating supply published by the State, the price of heating supply is set by the local government.
	5	Communications	Agreed Contractual Price
	6	Fire fighting	Agreed Contractual Price
	7	Library information and filing services	Cost Price
	8	Maintenance of roads	Cost Price
	9	Security	Market Price
	10	Asset leasing	Market Price
	11	Environment and sanitation	Market Price
	12	Repair of machinery	Market Price
	13	Manufacture of machinery	Market Price
	14	Transportation	Market Price
	15	Others (including shared services)	Market Price
Supply of Materials	1	Purchase of materials	Market Price
	2	Quality inspection, Storage, delivery	Agreed Contractual Price
Ancillary Services	1	Property management	Market Price
	2	Training centers	Agreed Contractual Price
	3	Guesthouses	Market Price
	4	Canteens	Market Price
	5	Public shower rooms	Market Price
	6	Others	Market Price
Social Service	1	Security	The actual cost incurred by Party B in 1998.
	2	Education	The actual cost shared by Party B in 1998, reduced gradually.
	3	Hospitals	
	4	Cultural and publicity	
	5	Kindergarten	Market Price
	6	Daycare	
	7	Public transportation	

Services	No.	Services items	Pricing principles
Social Services	8	Municipal facilities	
	9	Comprehensive services	
	10	Retirement Administration	To be shared by the parties based on the Cost Price and the extent of benefits enjoyed.
	11	Reemployment service Centers	
	12	Others	Market Price
Financial Services	1	Loan, deposits, and payment of interest	Based on the interest rate of the same period and relevant fee standard promulgated by PBOC, and no less favorable than those offered by independent third parties.
	2	Interest income	
	3	Guarantee	Not higher than the guarantee provision fees charged by PRC policy banks for provision of guarantees.
	4	Others	The applicable prices set by and the fee rates published by PBOC, China Banking Regulatory Commission, China Insurance Regulatory Commission and other similar governmental authorities, and applicable Market Prices.

Exhibit 4.8

English Translation of Chinese Original

PetroChina Company Limited

Confirmation Letter

This letter refers to the Land Use Rights Leasing Contract (the "Land Lease Contract") dated March 10, 2000 by and between **PetroChina Company Limited** (as lessee) (the "Company", "we", "us" or "our") and **China National Petroleum Corporation** (as lessor) ("CNPC"), and the Supplemental Agreement to Land Use Rights Leasing Contract (the "Supplemental Agreement") dated August 25, 2011 by and between the Company and CNPC in respect of the parcels of land with an aggregate area of approximately 1,782,970,000 square meters owned by CNPC and its subsidiary or controlled companies, enterprises or units (the "Leased Land"). In accordance with Article 5 of the Supplemental Agreement, adjustments to the area of the Leased Land or the rent may be made by confirmation letter agreed by both parties.

In addition, this letter also refers to the Buildings Leasing Contract (the "Buildings Lease Contract") dated August 24, 2017 by and between the Company (as lessee) and CNPC (as lessor) in respect of the Company's lease from CNPC of certain buildings with an aggregate area of 1,152,968.01 square meters owned by CNPC and its subsidiaries or controlled companies, enterprises or units (the "Leased Buildings"). In accordance with Section 11.4 of the Buildings Lease Contract, adjustments to the area of the Leased Buildings or the rent may be made by confirmation letter agreed by both parties.

We hereby confirm as follows in respect of the adjustments to the area of and the rent for the Leased Land under the Land Lease Contract and the Supplemental Agreement and the adjustments to the area of and the rent for the Leased Buildings under the Buildings Lease Contract:

1. Starting from January 1, 2021, the area of and the rent for the Leased Land shall be adjusted in accordance with the "Schedule of Leased Land" attached hereto as Appendix 1. Other than those adjustments to the area of and the rent for the Leased Land under the Land Lease Contract and the Supplemental Agreement, the provisions of the Land Lease Contract and Supplemental Agreement shall remain unchanged.

2. Starting from January 1, 2021, the area of and the rent for the Leased Buildings shall be adjusted in accordance with the "Schedule of Leased Buildings" attached hereto as Appendix 2. Other than those adjustments to the area of and the rent for the Leased Buildings under the Buildings Lease Contract, the provisions of the Buildings Lease Contract shall remain unchanged.

You are hereby notified of our confirmation as set forth above.

PetroChina Company Limited *(affixed with the company seal of PetroChina)*

Authorized Representative: /s/
CHAI Shouping

August 27, 2020

Appendix 1: Schedule of Leased Land

No.	Business Segments	Area of Plots (in 10,000 m^2)	Estimated Annual Rent for 2021 (in RMB10,000)(The actual rent shall be the amount agreed in the executed Land Lease Contract)
I.	**Oil & Gasfield Enterprises**	105,797.60	488,974.47
1.	Daqing Oilfield Co., Ltd.	60,952.97	308,391.47
2.	PetroChina Liaohe Oilfield Company	5,190.35	12,225.18
3.	PetroChina Changqing Oilfield Company	3,135.91	11,792.11
4.	PetroChina Tarim Oilfield Company	5,683.74	18,574.67
5.	PetroChina Xinjiang Oilfield Company	9,797.74	54,867.39
6.	PetroChina Southwest Oil & Gasfield Company	1,474.23	5,218.16
7.	PetroChina Jilin Oilfield Company	4,341.35	20,055.24
8.	PetroChina Dagang Oilfield Company	2,371.59	20,634.18
9.	PetroChina Qinghai Oilfield Company	929.75	2,492.94
10.	PetroChina Huabei Oilfield Company	1,767.42	3,629.74
11.	PetroChina Tuha Oilfield Company	7,770.82	21,810.83
12.	PetroChina Jidong Oilfield Company	1,274.88	6,505.45
13.	PetroChina Yumen Oilfield Company	1,106.86	2,777.11
II.	**Refineries**	7311.88	68,548.99
1	PetroChina Daqing Petrochemical Company	1,245.94	8,669.34
2	PetroChina Jilin Petrochemical Company	244.59	3,220.47
3	PetroChina Fushun Petrochemical Company	743.66	8,150.05
4	PetroChina Liaoyang Petrochemical Company	925.90	7,905.64
5	PetroChina Lanzhou Petrochemical Company	496.51	6,972.15
6	PetroChina Dushanzi Petrochemical Company	785.31	5,698.58
7	PetroChina Urumqi Petrochemical Company	976.91	5,194.40
8	PetroChina Ningxia Petrochemical Company	121.48	500.00
9	PetroChina Dalian Petrochemical Company	223.40	4,064.74
11	PetroChina Jinzhou Petrochemical Company	312.17	4,871.33
12	PetroChina Jinxi Petrochemical Company	373.73	3,962.10
13	PetroChina Daqing Refinery Company	12.42	64.05
14	PetroChina Harbin Petrochemical Company (Harbin Refinery)	97.23	1,575.01
15	PetroChina North China Petrochemical Company	69.06	324.56
16	PetroChina Huhhot Petrochemical Company	256. 78	2,062.68
17	PetroChina Liaohe Petrochemical Company	142.63	2,570.93
18	PetroChina Changqing Petrochemical Company	3.91	143.00
19	PetroChina Karamay Petrochemical Company	280.24	2,599.96
III.	**Natural Gas and Pipeline Storage and Transportation Enterprises**	959.83	8,005.75
1	PetroChina Pipeline Company	498.94	5,730.98
2	PetroChina West Pipeline Co., Ltd.	460.89	2,274.77
IV.	**Marketing Companies**	101.11	1,707.58
1	PetroChina Qinghai Marketing Company	84.63	381.08
2	PetroChina Xinjiang Marketing Company	16.48	1,326.50
V.	**Scientific Research and Social Institutions**	2.30	80. 16
1	CNPC Science and Technology Research Institute	2.04	78.60
2	PetroChina HK	0.26	1. 56
Total		114,172.71	567,316.95

Appendix 2: Schedule of Leased Buildings

No.	Business Segments	Area of Plots (in m^2)	Estimated Annual Rent for 2021 (in RMB) (The actual rent shall be the amount agreed in the executed Land Lease Contract)
I.	**Oil & Gasfield Enterprises**	644,857.73	230,811,000.00
1	Daqing Oilfield Co., Ltd.	31,906.6	7,779,000.00
2	PetroChina Changqing Oilfield Company	203,106.92	88,233,000.00
3	PetroChina Xinjiang Oilfield Company	68,090.45	3,891,000.00
4	PetroChina Southwest Oil & Gasfield Company	82,644.99	22,022,000.00
5	PetroChina Coalbed Methane Co., Ltd.	30,472.92	37,265,000.00
6	PetroChina Jilin Oilfield Company	101,757.58	27,085,000.00
7	PetroChina Dagang Oilfield Company	55,720.75	34,136,000.00
8	PetroChina Liaohe Oilfield Company	13,642.27	826,000.00
9	PetroChina Jidong Oilfield Company	44,469.73	8,890,000.00
10	PetroChina North China Oilfield Company	223.00	172,000.00
11	PetroChina Tuha Oilfield Company	12,822.52	1,153,000.00
II.	**Refineries**	393,831.48	191,183,000.00
1	PetroChina Daqing Petrochemical Company	26,482.00	7,957,000.00
2	PetroChina Daqing Refining & Petrochemical Company-Linyuan Energy	25,238.84	18,048,000.00
3	PetroChina Dushanzi Petrochemical Company	48,019.45	4,318,000.00
4	PetroChina Guangdong Petrochemical Company	1,064.62	889,000.00
5	PetroChina Jilin Petrochemical Company	564. 12	98,000.00
6	PetroChina Lanzhou Petrochemical Company	53,662.11	44,785,000.00
7	PetroChina Urumqi Petrochemical Company	60,101.48	5,401,000.00
8	PetroChina Changqing Petrochemical Company	2,870.00	1,924,000.00
9	PetroChina Karamay Petrochemical Company	28,047.56	2,522,000.00
11	PetroChina Dalian Petrochemical Company	23,800.00	8,389,000.00
12	PetroChina Jinxi Petrochemical Company	28,833.67	31,468,000.00
13	PetroChina Fushun Petrochemical Company	58,774.19	22,639,000.00
14	PetroChina South China Chemicals & Marketing Company	4,133.70	4,861,000.00
15	PetroChina East China Chemicals & Marketing Company	148. 10	445,000.00
16	PetroChina Northeast Chemicals & Marketing Company	7,928.70	7,975,000.00
17	PetroChina Lubricant Company	18,565.94	26,220,000.00
18	PetroChina Fuel Oil Company Limited	5,597.00	3,244,000.00
III.	**Marketing Companies**	95,267.54	99,553,000.00
1	PetroChina Shanghai Marketing Company	14,604.50	30,326,000.00
2	PetroChina Hubei Marketing Company	3,480.90	1,612,000.00
3	PetroChina Yunnan Marketing Company	9,268.61	9,530,000.00
4	PetroChina Northwest Marketing Company	14,550.00	14,490,000.00
5	PetroChina Guangxi Marketing Company	8,742.96	6,680,000.00
6	PetroChina Guangdong Marketing Company	14,853.18	19,522,000.00
7	PetroChina Northeast Marketing Company	17,893.00	6,029,000.00
8	PetroChina Beijing Marketing Company	513.01	931,000.00
9	PetroChina Xinjiang Marketing Co., Ltd.	234.00	472,000.00
10	PetroChina Hebei Marketing Company	3,438.60	2,249,000.00
11	PetroChina Hunan Marketing Company	7,080.84	7,509,000.00
12	PetroChina Sichuan Marketing Company	607.94	203,000.00
IV.	**Natural Gas Marketing Enterprises**	39,468.26	43,073,000.00
1	PetroChina Natural Gas Marketing Branch (Kunlun Energy Company Limited)	25,089.30	28,534,000.00
2	PetroChina Natural Gas Marketing General Company	14,378.96	14,539,000.00

V.	**International Operations**	3,305	9,359,000.00
1	PetroChina International Co., Ltd.	3,305	9,359,000.00
VI.	**Scientific Research and Other Entities**	110,756.40	138,380,000.00
1	PetroChina Planning & Engineering Institute	25,952.45	14,495,000.00
2	Petrochemical Research Institute	61,570.45	34,390,000.00
3	PetroChina Company Limited	23,233.50	89,495,000.00
Total		1,287,486.41	713,000,000.00

Exhibit 4.9

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

FRAMEWORK AGREEMENT ON TRANSACTION OF OIL AND GAS PIPELINE RELATED ASSETS

July 2020
Beijing

Table of Contents

1. TARGET ASSETS AND TRANSACTION ARRANGEMENT 2
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 2
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 3
4. CONDITIONS PRECEDENT TO CLOSING 4
5. CLOSING AND HANDOVER 6
6. HANDOVER ARRANGEMENT AND JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 11
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 11
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 12
10. LIABILITY FOR BREACH 14
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 15
12. CONFIDENTIALITY 15
13. NO ASSIGNMENT 16
14. FURTHER ASSURANCE 17
15. TAXES AND EXPENSES 17
16. NOTICE 18
17. CONFLICTS WITH OTHER AGREEMENTS 19
18. WAIVERS, RIGHTS AND REMEDIES 19
19. LANGUAGE AND COUNTERPARTS 19
20. EFFECTIVENESS AND AMENDMENTS 19
21. SEVERABILITY 20
22. GOVERNING LAW AND DISPUTE RESOLUTION 20
23. MISCELLANEOUS 21

APPENDIX 1: DEFINITIONS AND INTERPRETATION 23

APPENDIX 2: SHAREHOLDING STRUCTURE POST RESTRUCTURING 29

APPENDIX 3: TARGET ASSETS AND PAYMENT METHOD 30

APPENDIX 4: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 37

This Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. The State Council holds 100% of the equity interests in PipeChina.

(B) On the terms and conditions set forth in this Agreement, PetroChina intends to sell to PipeChina, and PipeChina intends to purchase from PetroChina, the Target Assets listed in Appendix 3 hereto, consisting of (i) Equity Assets, and (ii) Non-equity Assets, including oil and gas pipelines, gas storage facilities, LNG terminals and the accessory facilities thereto, and initial oil and gas inventory (such sale and purchase hereinafter referred to as this "Transaction").

(C) On the even date of the Signing Date, PipeChina is in the process of negotiating separately with a group of other Relevant Investors holding oil and gas pipeline related assets about PipeChina's purchase of such investors' assets by issuance of additional equity and/or payment of cash as consideration, and another group of Relevant Investors about such investors' subscription of equity interests in PipeChina for Cash Consideration, in each case, at a same subscription price for the equity interests in PipeChina (together with this Transaction, collectively referred to as the "Restructuring"). It is intended that immediately after the Restructuring, PipeChina shall have a registered capital of RMB500 billion and an equity ownership structure as set forth in Appendix 2 hereto.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of this Transaction, after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET ASSETS AND TRANSACTION ARRANGEMENT

1.1 PipeChina shall purchase from PetroChina the Target Assets listed in Appendix 3 hereto in accordance with the terms and conditions set forth herein. The specific scope of the Target Assets is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

1.2 PipeChina shall acquire the Target Assets for a consideration consisting of (i) 29.9% of PipeChina's restructured equity and (ii) a corresponding amount in cash.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 Both Parties agree that the transaction consideration for the Target Assets (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Assets confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject to final adjustments to be made for the Profits and Losses during the Transitional Period and for the subsequent events after the Base Date under Article 3 of this Agreement.

2.2 PipeChina will satisfy the Transaction Consideration payable to PetroChina by issuing to PetroChina the corresponding portion of PipeChina's equity subscribed by PetroChina and paying the remaining amount in cash to PetroChina (the "Cash Consideration"). Specifically,

(1) Based on the appraised value of the Target Assets, PipeChina agrees to issue to PetroChina part of PipeChina's increased registered capital representing 29.9% of PipeChina's equity upon completion of the Restructuring (the "Equity Consideration") in exchange for part of the Target Assets.

(2) PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.1 and the Equity Consideration agreed in Section 2.2(1).

(3) The valuation, transaction consideration and specific payment method for different packages of Target Assets shall be subject to applicable sub-agreements for transactions on different asset packages executed by and between the Parties in accordance with Section 17.2 hereof.

2.3 Both Parties agree that, unless as otherwise specified in Section 2.5, PipeChina shall pay PetroChina the Cash Consideration in two instalments as follows:

(1) <u>first instalment of Cash Consideration</u>: on October 15, 2020, PipeChina shall pay PetroChina 90% of an amount equal to (i) the appraised value of the Target Assets as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period, and procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(2) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.1 less (ii) the Equity Consideration and (iii) the first instalment of Cash Consideration paid under (1) above, together with the interest accrued thereon from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.4 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Transaction to a bank account designated by PetroChina, as set forth in detail in Appendix 4 hereto.

2.5 Both Parties agree that, the price and payment of the crude oil, refined oil, and natural gas injected and stored by PetroChina and its Affiliates in the pipelines forming part of the Target Assets, as well as the initial crude oil inventory and refined oil inventory in the storage facilities of the first, last, and transition stations ("initial oil and gas inventory"), the transactions in respect of which shall be closed simultaneously with the closing of the Target Assets, shall be further set forth in the individual initial oil and gas inventory sale agreements by and between PetroChina and/or its Affiliates on the one hand and PipeChina on the other hand, each of which agreements shall upon signing, constitute a sub-agreements referred to in Section 17.2 in this Agreement, and automatically become an appendix to this Agreement.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Assets, PipeChina and PetroChina shall cause an audit to be conducted on the Target Assets and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses of the Target Assets during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated in the Transitional Period in respect of the Target Assets shall belong to PetroChina. Any distributable profits that are declared for distribution in respect of the Target Assets during the Transitional Period shall be excluded from the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Assets during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the relevant Target Companies. Dividend resolutions of the Target Companies shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Assets suffer a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Transaction.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Assets before the Base Date that are declared for declaration during the Transitional Period shall be excluded from the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Assets as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Transaction. On the contrary, in the event that there is an increase in the net asset value of the Target Assets as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the target equity. The dividend resolution of the Target Companies shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared for distribution during the Transitional Period shall be excluded from the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The closing of this Transaction is subject to satisfaction or waiver of the following conditions:

(1) All the representations, undertakings and warranties made by each Party on the Signing Date are true, accurate, complete, and free from misleading, false statements and omissions in all material respects as of the Closing Date;

(2) PetroChina has approved this Transaction in accordance with its constitutional documents, and has ratified the articles of association of PipeChina after the Restructuring;

(3) PipeChina has approved this Transaction in accordance with its constitutional documents;

(4) This Transactions have been filed for concentration of undertakings clearance and has been cleared;

(5) Each of the other Relevant Investors participating in the Restructuring of PipeChina has received required approvals for participation in the Restructuring, and has ratified the articles of association of PipeChina following the Restructuring. PipeChina has issued a notice of shareholders' meeting indicating that it will hold a shareholders' meeting within 10 Business Days after the Closing Date to review and sign the articles of association and review and approve the relevant matters relating to the Restructuring;

(6) PipeChina has provided PetroChina with a certificate of capital contribution, has registered PetroChina into its internal register of shareholders, has conducted adequate communications with and obtained unofficial approval from the competent administration for market regulation regarding the amended business registration after the completion of the Restructuring, including but not limited to, registration of PetroChina as its shareholder and record-keeping filing of the appointment of the directors nominated by PetroChina with the competent administration for market regulation;

(7) The Asset Appraisal Report has been certified and filed for record in accordance with applicable PRC laws and regulations;

(8) All the other approvals, licences, filings and registrations known to be necessary for this Transaction have been obtained from or completed with the competent governmental authorities in the PRC;

(9) The Parties have entered into the Production and Operation Agreement; and

(10) All the other Relevant Investors participating in the Restructuring have entered into appropriate transaction agreements with PipeChina respectively, each of which has key terms and conditions not substantially different from this Agreement, and is designed for a closing of the transaction and payment of cash capital contribution to PipeChina on the same date as this Transaction (if applicable).

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. If the satisfaction of any conditions precedent applicable to either Party requires the assistance of the other Party, the other Party shall use its best efforts to provide such assistance. Both Parties shall keep each other posted on matters related to the conditions precedent through the joint work group under Section 6.7 of this Agreement, and coordinate with each other to solve problems encountered in the process in a timely fashion. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 hereof.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of this Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING AND HANDOVER

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Assets will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of this Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Assets and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Assets and relevant business and personnel will be deemed to have been received and legally owned by PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Assets shall be assumed by PipeChina. Except for the obligations for the Handover as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Assets.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of any Target Assets/target equity entities or as a result of any major defect existing in any Target Assets in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or such target equity entities, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the Handover of the Target Assets, and work with each other to undertake the Handover of the Target Assets starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Handover of the Target Assets shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Handover as soon as possible as otherwise agreed by and between them. On the contrary, if the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Handover as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of all the target equity entities forming part of the Target Assets evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the equity transfers contemplated hereunder. The Parties shall complete no later than 60 Days after the Closing Date, the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to all the target equity entities forming part of the Target Assets, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Companies, such as removing such words as "PetroChina" or any variation thereof from the name of the companies, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) The land use rights, buildings and other related assets shall be handed over together with their ownership certificates and other related documents. For those land use rights and buildings with respect to which the complete ownership certificates have been granted, PipeChina shall be responsible for, and PetroChina shall render assistance in, the handling of the registration/ownership transfer procedures for the relevant certificates of building ownership and certificates of land use rights. For those land parcels, buildings and related assets forming part of the Target Assets with respect to which the applicable ownership certificates cannot be handled or have not yet been granted, both Parties agree that after the Closing Date, such land parcels, buildings and related assets shall be handed over to PipeChina for it to actually occupy, use and dispose of, in connection with which PetroChina shall render assistance.

(4) For all those debts included in the Non-equity Assets of the Target Assets which are owed to financial institutions, PetroChina shall, after the effective date of this Agreement, promptly notify and obtain the no-action confirmations from such financial institution creditors, and such debts shall be borne by PipeChina from and after the Closing Date. While for those debts included in the Non-equity Assets of the Target Assets which are owed to persons other than financial institutions, PetroChina shall, after the effective date of this Agreement, notify such non-financial-institution creditors in an appropriate manner, and such debts shall be borne by PipeChina from and after the Closing Date. In the event that any such non-financial-institution creditor raises an objection to PipeChina's assumption of such debts, the Parties shall resolve such issue through consultations. For the creditor's rights included in the Non-equity Assets of the Target Assets, PetroChina shall, after the effective date of this Agreement, notify the debtors in an appropriate manner. From and after the Closing Date, these creditor's rights shall be assumed and enjoyed by PipeChina and the debtors shall satisfy the obligations towards PipeChina. In connection with such transfer and assumption of debts and creditor's rights, PetroChina shall perform the notification obligations in appropriate manners, including but not limited to, publishing relevant announcements in accordance with the applicable rules of the Shanghai Stock Exchange.

Specifically, the contracts signed by PetroChina with respect to the Non-equity Assets among the Target Assets shall be novated to PipeChina in principle ("Novatable Contracts"). It is understood that the rights and obligations under the Novatable Contracts shall be allocated as follows: (i) those rights and obligations of PetroChina arising prior to the Closing Date shall be enjoyed and performed by PetroChina and (ii) those rights and obligations of PetroChina arising after the Closing Date shall be enjoyed and performed by PipeChina. Both Parties shall cooperate with each other to procure that the novation of the Novatable Contracts will be completed within 60 Days after the Closing Date. After the Closing Date, with respect to those contracts for which the consents from the other parties thereto approving the formal novation of those contracts have not yet been received as at the Closing Date (the "Non-novated Contracts"), the Parties shall continue to cooperate with each other and make great efforts to complete the transfer of the rights and obligations under and the novation of the Non-novated Contracts. Any rights and obligations, profits and losses arising from and after 24:00pm on the Closing Date under the Non-novated Contracts held by PetroChina shall be all vested in PipeChina. PipeChina shall indemnify PetroChina against any losses suffered by and any reasonable additional expenses incurred by PetroChina in connection with the holding of any contracts in trust for PipeChina, other than those losses or expenses attributable merely to PetroChina.

Notwithstanding the foregoing, both Parties agree that the consummation of this Transaction shall not change the independent legal person status of the Target Companies forming part of the Equity Assets included in the Target Assets, and the creditor's rights, debts, business, employment matters, and contracts of all the Target Companies shall continue to be enjoyed, borne and performed by the respective Target Companies under PipeChina's centralized management.

(5) Both Parties agree that the Handover and management of the employees and related personnel forming a part of the Target Assets shall be implemented by adhering to the principle of "people follow assets (business)".

(6) Should any Target Assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the Target Assets bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. HANDOVER ARRANGEMENT AND JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Transaction.

6.2 PetroChina shall facilitate to the fullest extent PipeChina's check and takeover of the Target Assets and the personnel thereof, including by permitting the Representatives of PipeChina to access subject to prior reasonable notice the entities and premises managed and used by the Target Assets, and furnishing PipeChina with all the necessary information, materials and assistance.

6.3 In order to ensure the smooth Handover, operation and management of the Target Assets and the personnel thereof as well as the normal operation of the business that depends on the Target Assets so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina agrees to operate the Target Assets in the ordinary course of business prior to the Completion of Handover. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Handover of the Target Assets has not been completed by then, the operational risks and safe production responsibilities of the Target Assets shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Handover to procure an earliest Completion of Handover in accordance with this Agreement, and shall not refuse or delay the Handover or takeover of any Target Assets.

6.4 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc. forming a part of the Equity Assets among the Target Assets but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets forming a part of the Equity Assets among the Target Assets but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and transfer the Target Assets to PipeChina in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Assets in such internal restructuring and any other restructuring undertaken by PetroChina for the purpose of this Transaction shall be recorded as profits and losses attributable to the Target Assets during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the Target Assets. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to PetroChina's shareholding percentage in the target equity entities that own the Outside Assets.

6.5 After the Closing Date and prior to the Completion of Handover, other than any normal provisions for depreciation, amortization, depletion and scrapping, collection of receivables, repayment of debts falling due, conversion of constructions in progress into fixed assets (the "Fixed Asset Conversion") , and other normal disposals in relation to the Target Assets in the ordinary course of business, PetroChina covenants that it will not on its own initiative, make any decision on the taking of any of the following actions, including to make any major adjustments to any Target Assets, grant any third party guarantee on any Target Assets other than as necessary in the ordinary course of business, make any major business change related to any Target Assets or any adjustments to principal business activities, make any major personnel adjustments, make any major adjustments to any accounting policies related to any Target Assets other than as required by applicable laws and regulations, or take any other action that may have a Material Adverse Effect on the normal operation of any Target Assets.

6.6 In order to ensure the smooth operation and transition of the Target Assets and the personnel thereof, the Parties agree to organize a joint work group to be responsible for the Handover of the Target Assets under their respective control.

6.7 The joint work group shall carry out the preparatory work for the Handover, including but not limited,

(1) to procure that the Parties will each set up a workgroup to establish communication policies and mechanisms, and jointly organize Handover training to learn from each other the organizational structures, work and business processes, etc.;

(2) to procure that the Parties will jointly confirm the scope of equipment required for the Handover, and jointly discuss and agree on the methods, locations and points of time for the Handover, including the tools, vehicles, handover forms, labels, etc.;

(3) to import the details of the appraised assets into the asset inventory system to generate a preliminary Target Assets list, and a physical Handover list will be made as the data basis for on-site Handover;

(4) to procure that the Parties will negotiate and jointly determine the specific arrangements for the Handover, including but not limited to the timing plan, routing plan, and organization and implementation arrangements;

(5) to procure that the Parties will negotiate and jointly determine the specific arrangements for the Handover of information and contracts;

(6) to make itemized information lists and prepare related materials;

(7) to carry out other preparations in response to actual needs.

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the completion of this Transaction and the Restructuring, PetroChina shall as a shareholder of PipeChina, enjoy all the shareholder rights and assume corresponding shareholder obligations as stipulated in the Company Law of the PRC and relevant legal documents, as set forth in detail in the articles of association of PipeChina.

7.2 The board of directors of PipeChina shall consist of 11 directors and PetroChina shall have two seats thereon.

7.3 Each shareholder of PipeChina shall receive the distribution of profits of PipeChina and remaining assets upon liquidation in proportion to the amount of its respective paid-in capital contributions to PipeChina. In principle, the aggregate cash dividend distribution by PipeChina for each year shall not be less than 30% of its distributable profits in such year. The specific distribution plan and distribution ratio for each year shall be determined by the board of directors and the general meeting of shareholders of PipeChina based on the availability of funds, business development needs and other facts surrounding PipeChina after having gone through the internal approval procedures set forth in the articles of association of PipeChina.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the transfer of the Target Assets as contemplated hereunder, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of any Target Assets;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Assets provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Assets under this Transaction. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and its equity entities, a) with respect to the Equity Assets that PetroChina intends to sell, PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards each and all of the Target Companies included in such Equity Assets, without any false capital contribution or surreptitious withdrawal of capital contribution, and none of the Equity Assets are to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and Handover as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the transfer of the Target Assets as contemplated hereunder, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and Handover as soon as possible;

(5) PipeChina warrants that after the Handover of the Target Assets, the business operation of the Target Assets will remain normal and the quality of the services provided by the Target Assets will not be lower than the current level. PipeChina undertakes that after the Handover of the Target Assets, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of any Target Assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administrations for market regulation for any Target Company, or refuses to handle the handover of any Target Assets or any business or personnel related thereto as scheduled herein and required hereby, for each Day on which any such registration or handover remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Assets failing to be handed over as scheduled herein, other than any delay in the handover of any Target Assets not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for any Target Company, or refuses to handle the handover of any Target Assets or any business or personnel related thereto as scheduled herein and required hereby, for each Day on which any such registration or handover remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Assets failing to be handed over as scheduled herein, other than any delay in the handover of any Target Assets not attributable to the fault of PipeChina, such as any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) hereinabove, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 5.5(2) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has legal force), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Assets, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. Taxes and EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Transaction.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Transaction, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the Handover of the Target Assets shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 In the event that (i) as of the Closing Date, the registered VAT payer of any branch company which owns any Target Assets has any amount of the incoming VAT that has not yet been used for deduction (the "Unused Offsettable Amount") and is included into the Transaction Consideration and (ii) PetroChina elects to transfer all the Target Assets of such branch company to PipeChina as a whole, PetroChina shall within 12 months as of the completion of this Transaction, transfer the Unused Offsettable Amount to PipeChina, together with the statutory evidence therefor. In the event PetroChina elects not to transfer all the Target Assets of such branch company to PipeChina as a whole, the Parties shall cooperate with each other to procure that PipeChina will receive the corresponding Unused Offsettable Amount in any other reasonable and legal commercial form. Where the Unused Offsettable Amount fails to be transferred to PipeChina within the said 12 months and PetroChina fails to take any active and effective measures to procure that PipeChina will receive the corresponding Unused Offsettable Amount in any other reasonable and legal commercial form, PetroChina shall pay PipeChina a corresponding compensatory amount within 10 Business Days after 12 months following completion of this Transaction. Where the Unused Offsettable Amount fails to be transferred to PipeChina within 12 months after the Closing Date due to the impact of any state policy, the Parties shall resolve the problem through negotiations in light of the actual situation. In the event that PetroChina fails to comply with any of the foregoing covenants or undertakings, PipeChina shall have the right to claim against PetroChina for the actual losses arising from such failure.

15.5 Both Parties agree that the tax costs of the Target Assets shall be transferred together with the Target Assets. For the avoidance of doubt, from and after the Closing Date, in the event that any Target Assets suffer a claim of tax deficiency brought by any competent tax authority and incur any additional tax liability as a result, such additional tax liability shall be borne by the relevant legal entity that owns such Target Assets by then. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.6 As long as this Transaction is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Transaction in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in any Target Companies in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that none of the Target Companies will substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Companies and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

15.7 Both Parties agree that if it is necessary to go through the tax de-registration for a branch company taxpayer which originally owns any Non-equity Assets, PetroChina shall authorize the relevant legal entity which owns such Non-equity Assets by then to complete such tax de-registration, including the tax declaration obligations for the period from the Closing Date until the de-registration date, with any costs, taxes and expenses incurred in connection with such tax de-registration to be borne as agreed between the Parties.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 4 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 This Agreement and all the appendices hereto shall constitute all the legal documents for this Transaction. In the event of any discrepancy between this Agreement and any prior oral discussion or written agreement between the Parties in respect of this Transaction, this Agreement shall prevail.

17.2 Notwithstanding the foregoing provisions, both Parties agree that to the extent necessary for this Transaction, they will enter into separate transaction agreements for specific Target Assets, that the contents of the separate transaction agreements shall be based on the contents of this Agreement and shall not be in material conflict with this Agreement; and in case of any conflict between any such separate transaction agreement and this Agreement in terms of any provision, this Agreement shall prevail. Any such separate transaction agreement shall, upon execution, automatically constitute an appendix to this Agreement and therefore an integral part of the legal documents for this Transaction. Both Parties have agreed that the specific Handover matters in relation to the Target Assets shall be carried out in accordance with the relevant agreements or memoranda to be otherwise signed by the Parties in the subsequent Handover processes.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect upon satisfaction of both of the following conditions:

(1) PipeChina's shareholders have resolved to approve this Transaction; and

(2) PetroChina's shareholders have approved this Transaction at the relevant general meeting.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of an event of force majeure (a "Force Majeure Event"), such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of force majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of force majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the *Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets* on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	*this Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets.*
"PipeChina"	means	China Oil&Gas Pipeline Network Corporation.
"PetroChina"	means	PetroChina Company Limited.
"Target Assets" or "Appraised Assets"	has	the meaning set forth in Section 1.1, including Equity Assets and Non-equity Assets, among which, the term "Equity Assets" refers to PetroChina's equity interests in the Target Companies listed on Appendix 3 that PetroChina intends to sell to PipeChina; and the term "Non-equity Assets" refers to the oil and gas pipelines, gas storage facilities and LNG terminals and their accessory facilities, initial gas and oil inventory and other related assets owned by PetroChina that PetroChina intends to sell to PipeChina, as set forth in further detail in Appendix 3.
this "Transaction" or "Acquisition"	means	the transaction contemplated by this Agreement through which PetroChina intends to sell to PipeChina, and PipeChina intends to purchase and take over all the Target Assets listed on Appendix 3 in accordance with the terms and conditions set forth in this Agreement.
"Relevant Investors"	means	all the investors participating in the Restructuring other than PetroChina, as recorded in the new articles of association of PipeChina upon completion of the Restructuring.
"Restructuring"	means	collectively all the transactions through which the Relevant Investors intend to subscribe for shares in PipeChina by a combined payment partly in cash and partly in kind and this Transaction. It is intended that PipeChina will have a registered capital of RMB500 billion upon consummation of the Restructuring.

"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Closing"	means	the completion of the sale and purchase of the Target Assets in accordance with Article 4 of this Agreement.
"Affiliate"	means	with respect to either Party, any entity controlled by such Party, or the parent company of such Party, or any entity controlled by the parent company of such Party from time to time.
"Transitional Period"	means	the period between the Base Date (excluding the very Day) and the Closing Date (including the very Day).
"Base Date"	means	December 31, 2019, the base date specified in the Asset Appraisal Report
"Closing Date"	means	September 30, 2020
"Target Companies" or "Equity Entities" or "Equity Assets"	means	those corporate legal persons listed as "Equity Assets" on Appendix 3.
"Conditions Precedent"	means	the conditions precedent listed in Section 4.1, and a "condition precedent" means any of them.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.
"Handover"	means	the handover of the Target Assets, employees, relevant information, and contracts between the Parties in accordance with Article 5 of this Agreement.

“Material Adverse Effect” or “Material Adverse Change”	means	an event / change that causes an actual loss to the Target Assets and relevant business as a whole in excess of 10% of the Transaction Consideration.
“Material Loss”	means	an actual loss in excess of 5% of the Transaction Consideration suffered by the Target Assets and relevant business as a whole.
“Novatable Contracts”	has	the meaning set forth in Section 5.5(3).
“Non-novated Contracts”	has	the meaning set forth in Section 5.5(3).
“Third Party”	means	any entity or individual other than the Parties to this Agreement
“joint work group”	has	the meaning ascribed thereto in Article 6 of this Agreement.
“Representative”	means	with respect to either Party and/or its respective Affiliates, any director, senior officer, employee, agent, consultant, accountant and legal advisor of such Party or an Affiliate thereof.
“Completion of Handover”	means	the completion of the Handover of the Target Assets, relevant documents, contracts, and maintenance work in accordance with Article 5 of this Agreement, or as otherwise agreed between the Parties.
“Liabilities”	means	any and all the debts, liabilities and obligations of any nature, whether arising from contracts, laws or otherwise, whether present or future, actual or contingent, determined or nondetermined, whether owed or incurred solely or jointly with any other person as an obligor or guarantor.
“Taxes”	include	(a) taxes imposed with respect to gross or net receipts, profits and income, and (b) any other taxes, levies, customs duties, import taxes, fees and withholding taxes (if applicable) of any nature, including any excise tax, value added tax and surcharge, corporate income tax, individual income tax (if applicable), property tax, land value added tax, deed tax, cultivated land usage tax, urban land use tax, environmental protection tax, stamp duty, etc., or withholdings of any nature, in each case, including any relevant fine, penalty, late payment penalty and interest.
“Fixed Asset Conversion”	means	the fact that the constructions in progress are completed, have passed the completion acceptance test and have been put into use, and are converted into fixed assets on PetroChina’s accounts.

"Target Assets Schedule"	means	the Target Asset schedule to be checked and confirmed by both Parties in accordance with this Agreement.
"Transaction Documents"	means	this Agreement and the appendices hereto, any and all the supplementary agreements executed from time to time, the Asset Appraisal Report (including the breakdowns of all the appraised assets), the amended articles of association of PipeChina and any other related documents.
"Force Majeure"	means	an objective circumstance unforeseeable, unavoidable and insurmountable, including act of God, such as earthquake, typhoon, flood or rainstorm (as evidenced by the information published by the local government or meteorological authority), fire, war, epidemic outbreak, act of government, or any change in law, or promulgation of any law, etc., the occurrence of which would have a direct effect on the performance of this Agreement or render it impossible to perform this Agreement in accordance with the agreed conditions.
"Disclosing Party"	has	the meaning set forth in Section 12.1.
"Receiving Party"	has	the meaning set forth in Section 12.1.
"Confidential Information"	means	with respect to the confidentiality obligations of PipeChina, any information relating to PetroChina or the Target Assets that is received or possessed by PipeChina (or any of its Representatives), or any information relating to the Target Assets that is received or possessed by PipeChina prior to the Closing; and with respect to the confidentiality obligations of PetroChina, any information relating to PipeChina that is received or possessed by PetroChina (or any of its Representatives), or any information relating to the Target Assets that is received or possessed by PetroChina, whether prior to or after the Closing, or any information relating to the terms of this Agreement or any other Transaction Document or the negotiations thereon.
"Restructuring Date"	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the procedures necessary for effectuation of all the equity transfers involved in this Transaction fail to be completed within 12 months after this Agreement comes into force.
"CIETAC"	has	the meaning set forth in Section 22.3.

"Day"	means	a calendar day, unless otherwise indicated; provided however, that where a deadline agreed herein falls on a Day that is not a Business Day, the deadline shall be extended to the first Business Day after such Day, and unless otherwise specified, references to "before a Day" shall include such Day itself, while references to "after a Day" shall not include such Day.
"Business Day"	means	any Day other than Saturday, Sunday and national holidays announced by the Chinese government.
"PRC" or "China"	means	the People's Republic of China, for purposes of this Agreement, excluding the Hong Kong Special Administrative Region, the Macau Special Administrative Region and Taiwan, in terms of law applicability.

2. Interpretation. For purposes of this Agreement, unless otherwise specified,

(1) When a reference is made in this Agreement to a "person", such reference shall include any individual, firm, group, company (whether or not possessing the independent legal person status), government (including but not limited to central and local governments and the departments thereof), joint venture, association, partnership, public institution, works council, or employee representative organisation (whether or not possessing the independent legal person status);

(2) When a reference is made in this Agreement to an "Article", such reference shall be to any article of this Agreement;

(3) Headings used in this Agreement are for convenience only, and shall not in any way affect the meaning or interpretation of this Agreement;

(4) All references to currency or monetary values in this Agreement shall mean RMB, and all amounts denominated in other currencies shall be deemed to have been converted into their RMB equivalents at the exchange rates on the relevant dates;

(5) Expressions following such words or phrases as "include", "includes", "including", "in particular", or words or phrases of similar import are for illustrative purposes only and are not intended to limit the meaning of the expressions preceding such words or phrases;

(6) Laws and regulations shall include statutes, administrative regulations, administrative rules and local regulations, except as otherwise specified in this Agreement. Any specific reference to any law (including any law of any jurisdiction) shall include (a) such law or regulation, as amended, merged or re-enacted by or on the basis of any other law or regulation heretofore or hereafter; (b) such law or regulation as re-promulgated, whether or not amended; and (c) any supporting law or regulation (including rule) enacted heretofore or hereafter under such law or regulation as amended, merged or re-enacted as described in (a) or (b) above, unless any event described in (a) to (c) occurs after the Signing Date and increases or modifies PipeChina's or PetroChina's obligations under this Agreement.

3. Appendices. All appendices hereto shall constitute an integral part of this Agreement.

4. Discrepancy. In the event of any discrepancy between any definition set forth in Appendix 1 and any definition set forth in any article hereof or any other appendix hereto, the definition set forth in such article or other appendix shall prevail for purposes of the interpretation of such article or other appendix.

APPENDIX 2: SHAREHOLDING STRUCTURE POST RESTRUCTURING

While PipeChina negotiates this Agreement with PetroChina, it is negotiating with other relevant persons who own certain oil and gas pipeline related assets for the purchase of assets from such persons by issuing equity interests or paying cash to such persons as consideration, and with other Relevant Investors separately regarding such investors' subscription of PipeChina's equity interests by cash payments. Each of the abovementioned Relevant Investors will subscribe for the new PipeChina equity at the same price. The Parties hereby further agree and acknowledge that PipeChina's shareholding structure immediately after consummation of the Restructuring shall be as set forth below, and will be recorded into PipeChina's articles of association amended to reflect the changes to PipeChina as a result of the consummation of the Restructuring:

Name of Investors	Capital Contribution (in RMB billion)	Shareholding (%)
PetroChina Company Limited	149.50	29.90%
China Chengtong Holdings Group Ltd.	64.35	12.87%
China Reform Holdings Corporation Ltd.	64.35	12.87%
National Council for Social Security Fund	50.00	10.00%
China Petroleum & Chemical Corporation	47.10	9.42%
China Insurance Investment Co., Ltd.	45.00	9.00%
SINOPEC Gas Company	22.90	4.58%
State-owned Assets Supervision and Administration Commission	22.30	4.46%
CNOOC Gas and Power Group	14.50	2.90%
CIC International Co., Ltd.	10.00	2.00%
Silk Road Fund Co., Ltd.	10.00	2.00%
Total	**500.00**	**100.00%**

APPENDIX 3: TARGET ASSETS AND PAYMENT METHOD

Pursuant to Article 1 of this Agreement, the Target Assets shall be the Equity Assets and Non-equity Assets (including oil and gas pipelines, gas storage facilities, LNG terminals, and their accessory facilities, initial oil and gas inventory) owned by PetroChina prior to the Closing Date that both Parties agree to be injected / transferred to PipeChina, as set forth in further detail in the scope of appraised assets identified in the Asset Appraisal Report.

1. Target Assets Schedule

	No.	Company Name	Methods of Payment
Equity Assets	1	PetroChina Pipeline Co., Ltd.	Equity & Cash
	2	PetroChina Shandong Gas Pipeline Co., Ltd.	Equity & Cash
	3	PetroChina Shandong Oil Transmission Co., Ltd.	Equity & Cash
	4	PetroChina Huixin Oil Products Storage and Transmission Co., Ltd.	Equity & Cash
	5	PetroChina Jilin Gas Pipeline Co., Ltd.	Equity & Cash
	6	PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd.	Equity & Cash
	7	Jiangxi Natural Gas Investment Co., Ltd.	Equity & Cash
	8	Shengang Natural Gas Pipeline Co, Ltd.	Equity & Cash
	9	Jiangsu Rudong United Pipeline Co., Ltd.	Cash
	10	PetroChina Jilin Natural Gas Pipeline Network Co., Ltd.	Cash
	11	Fujian Natural Gas Pipeline Network Co., Ltd.	Cash
	12	Guangdong Natural Gas Pipeline Network Co., Ltd.	Cash

	No.	Company Name	Methods of Payment
Non-equity Assets	1	PetroChina Pipeline Company (the closing with respect to this entity will be consummated by delivery to PipeChina of 100% equity interests in this entity after it is converted into a wholly-owned subsidiary of PetroChina)	Cash
	2	PetroChina Southwest Pipeline Company (Delivery of 100% equity by changing into a wholly owned subsidiary)	Cash
	3	PetroChina West-To-East Gas Pipeline Company	Cash
Non-equity Assets	4	PetroChina West Pipeline Company	Cash
	5	PetroChina Pipeline Construction Project Management Department	Cash
	6	PetroChina Beijing Oil and Gas Control Center	Cash
	7	PetroChina Northwest Marketing Company—Nanning Oil Storage Facility	Cash
	8	PetroChina Shenzhen LNG Project Management Department	Cash
	9	Initial Oil and Gas Inventory	Cash

2. Equity Assets – Basic Company Information

No.	Company Name	Principal Business Activities	Registered Capital (in RMB million)	Equity Interests Held by PetroChina (%)	Domicile	Date of Establishment
1	PetroChina Pipeline Co., Ltd.	Pipeline transportation; project investments; importation and exportation of goods, acting as importation and exportation agent and importation and exportation of technology; technology promotion services; professional contracting and EPC contracting.	80,000	72.2616%	Room 2510, Building 3, No. 9 Chaoqian Road, Science Park, Changping District, Beijing	Nov 23, 2015
2	PetroChina Shandong Gas Pipeline Co., Ltd.	Natural gas pipeline transmission and related business(; provided, that the company may not commence official operation until after it has received safety production license).	1,170	70%	2nd Floor, Huate Plaza Area A, No. 17703 Jingshi Road, Ji'nan	Jun 18, 2010
3	PetroChina Shandong Oil Transmission Co., Ltd.	Crude oil pipeline construction and transmission(; provided that, the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	762	70%	No. 27 Huanghe Road, Dongming County, Shandong Province	Oct 29, 2009
4	PetroChina Huixin Oil Products Storage and Transmission Co., Ltd.	Warehousing (other than hazardous substances); storage of crude oil (at South 2nd Road, Nanjiang Dock, Tianjin Port); storage of hazardous chemicals subject to required approval certificate; fuel oil marketing; and oil pipeline maintenance(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	240	51%	Room 212-09, 2nd Floor, Office Building D, Complex Service Office Area, Tianjin Economic-Technological Development Area	Dec 6, 2005
5	PetroChina Jilin Gas Pipeline Co., Ltd.	Natural gas pipeline transmission services; pipeline engineering construction, maintenance and emergency repair(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	500	60%	Rm. 407, No. 306 South Alley, Huguang Road, Chaoyang District, Changchun	May 12, 2009

No.	Company Name	Principal Business Activities	Registered Capital (in RMB million)	Equity Interests Held by PetroChina (%)	Domicile	Date of Establishment
6	PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd.	The Company may not engage in any line of business that is prohibited by any law, regulation or decision of the State Council; may not commence any line of business requiring regulatory permits (or approvals) under any law, regulation or decision of the State Council until after receipt of the required permits or approvals from the competent examination and approval authorities and shall conduct such line of business in accordance with such permits (or approvals); may autonomously choose to engage in any line of business not requiring any regulatory permits (or approval) under any law, regulation or decision of the State Council; (and may engage in long distance pipeline operation, management, and construction subject to prior regulatory approvals).	300	60%	Room B241, Standard Workshop Auxiliary Room, Jinyang Science and Technology Industrial Park, Guiyang National High-tech Industrial Development Zone, Guiyang, Guizhou Province	Sep 28, 2012

No.	Company Name	Principal Business Activities	Registered Capital (in RMB million)	Equity Interests Held by PetroChina (%)	Domicile	Date of Establishment
7	Jiangxi Natural Gas Investment Co., Ltd.	Planning, investment, construction and management of natural gas pipeline networks; planning, investment, construction and management of urban gas pipeline network projects; construction, design, installation, maintenance of gas construction projects; procurement and transmission of natural gas; operation of natural gas pipeline networks; construction, management, operation and marketing in Jiangxi Province of compressed natural gas (CNG), liquefied natural gas (LNG) (only for those branches possessing relevant permits), natural gas vehicle fueling stations, mobile pressure vessel /cylinder filling stations, and coal bed methane and other energy projects; sales, installation and maintenance of kitchenware and gas appliances; wholesale and retail of daily necessities; leasing of complete equipment; information consulting services(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	400	50%	No. 238, Wuyi Road, Nanchang County, Nanchang, Jiangxi Province	May 11, 2010
8	Shengang Natural Gas Pipelines Co., Ltd.	General business activities: construction, ownership, management and maintenance of the Hong Kong Branch Pipeline Project of the Second West to East Gas Pipeline Project, and provision of natural gas transmission services through the Hong Kong Branch Pipeline.	1,226.58	60%	West Half of 22nd Floor, Building A, Shenzhen International Innovation Center, 1006 Shennan Avenue, Huafu Street, Futian District, Shenzhen	Dec 12, 2013

No.	Company Name	Principal Business Activities	Registered Capital (in RMB million)	Equity Interests Held by PetroChina (%)	Domicile	Date of Establishment
9	Jiangsu Rudong United Pipeline Co., Ltd.	Construction of oil and gas pipelines; operation of the Rudong – Haimen – Chongming Island Natural Gas Pipeline Transmission Project; pipeline natural gas technical services, equipment and facilities maintenance, inspection and repair services, and management of third party natural gas sub-transmission stations upon entrustment of third party companies; equipment leasing services(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	400	50%	Comprehensive Business Building, Yangkou Port Economic Development Zone, Jiangsu Province (Brigade 9, Gangcheng Village, Changsha Town)	Jul 2, 2015
10	PetroChina Jilin Natural Gas Pipeline Network Co., Ltd.	pipeline engineering construction, maintenance and emergency repair(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	481.40	51%	No. 1119, Jingyang Road, Lvyuan District, Changchun	Sep 2, 2016
11	Fujian Natural Gas Pipeline Network Co., Ltd.	Marketing of pipeline gas, cylinder gas, gas offered at fueling stations for natural gas vehicles and other types of gas; construction of gas supply facilities and gas supply pipeline facilities; gas warehousing (other than hazardous chemicals); gas supply consulting services; gas project design services; retail of refined petroleum products (excluding hazardous chemicals and precursor chemicals) (; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	150.06	50%	17th Floor, Xinhe Plaza, 137 Wusi Road, Gulou District, Fuzhou, Fujian Province	Sep 17, 2015

No.	Company Name	Principal Business Activities	Registered Capital (in RMB million)	Equity Interests Held by PetroChina (%)	Domicile	Date of Establishment
12	Guangdong Natural Gas Pipeline Network Co., Ltd.	Construction and operation of natural gas pipeline network in Guangdong Province; procurement, sales and transmission of natural gas and related business activities (the company may not commence any line of business requiring regulatory approvals under any law, regulation or decision of the State Council until after receipt of the required permits or approvals from the competent examination and approval authorities and shall conduct such line of business in accordance with such permits (or approvals)); importation and exportation of goods and technology (other than those lines of business prohibited by the laws or regulations. The Company may not commence any line business restricted by laws or regulations until after receipt of the required permits) (. And to the extent that the operation of any lines of business is subject to the receipt of certain approvals, the company may not commence such line of business until after receipt of such approvals from competent governmental authorities).	3,984.615385	23%	Room 502, Building A1, No. 191, Kexue Avenue, Science Park, Guangzhou Hi-tech Industrial Development Zone, Luogang District, Guangzhou	Mar 21, 2008

APPENDIX 4: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

Exhibit 4.10

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA PIPELINE CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 12
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 14
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 16
16. NOTICE 16
17. CONFLICTS WITH OTHER AGREEMENTS 17
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 18
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 18

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 23

APPENDIX 3: SCHEDULE OF OUTSIDE ASSETS 23

This Equity Acquisition Agreement on PetroChina Pipeline Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Pipeline Co., Ltd. (the "Target Company") was established on November 23, 2015 and its unified social credit code is 91110114MA00219G96. The Target Company is mainly engaged in pipeline transportation; project investments; importation and exportation of goods, acting as importation and exportation agent and importation and exportation of technology; technology promotion services; professional contracting and EPC contracting (The Target Company may autonomously choose lines of business and conduct business activities in accordance with law; may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities and shall conduct such line of business in compliance with such approvals; and may not conduct any business activities that fall into the "prohibited" or "restricted" category under the industrial policies of the State or its home municipality). The Target Company currently has a registered capital of RMB80,000 million. The registered address of the Target Company is Room 2510, Building 3, No. 9 Chaoqian Road, Science Park, Changping District, Beijing. PetroChina holds 72.2616% of the equity interests in the Target Company (the "Target Equity", represented by RMB57,809,240,132 in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 72.2616% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 72.2616% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB172,164,594,359.38 (in words: One Hundred and Seventy-Two Billion One Hundred and Sixty-Four Million Five Hundred and Ninety-Four Thousand Three Hundred and Fifty-Nine Point Three Eight Renminbi Yuan).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject to final adjustments to be made for the Profits and Losses during the Transitional Period and for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration") : Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 28.3347% of PipeChina's equity resulting from the Restructuring with a value equal to RMB141,673,500,000.00 (in words: One Hundred and Forty-One Billion Six Hundred and Seventy-Three Million Five Hundred Thousand Renminbi Yuan only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of an amount equal to (i) the appraised value of the Target Equity as adjusted, minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay an amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall be excluded from the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the Cash Consideration not yet paid. To the extent that the unpaid Cash Consideration isn't sufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall be excluded from the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the Cash Consideration not yet paid. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall be excluded from the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina agrees to operate the Target Company in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company which are not included in the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3.

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has legal force), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of the stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, in the event that the Target Company suffers a claim of tax deficiency brought by any competent tax authority and incurs any additional tax liability as a result, such additional tax liability shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of force majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Pipeline Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Pipeline Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Pipeline Co., Ltd., with its unified social credit code being 91110114MA00219G96.
"Target Equity "	means	72.2616% of the equity interests in the Target Company, represented by RMB 57,809.240132 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

“Restructuring Date”	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company’s amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

APPENDIX 3: SCHEDULE OF OUTSIDE ASSETS

No.	Name	Category	Note
1	Shanghai Shengda Base Real Estate Co., Ltd.	Long-Term Equity Investment	100% owned by the Target Company
2	Dingyuan-Hefei Branch Line	Fixed Assets	
3	Changcheng Aluminum Branch Line	Fixed Assets	
4	Yangba Branch Line	Fixed Assets	
5	Wangting Branch Line	Fixed Assets	
6	Jinling Power Plant Branch	Fixed Assets	
7	Luoyang Branch Line	Fixed Assets	
8	Jiayuguan City Gas Supply Branch	Fixed Assets	
9	Wuwei Sub-transmission Branch Line	Fixed Assets	
10	Jiuquan Gas Supply Branch Line	Fixed Assets	
11	Zhangye City Gas Supply Branch Line	Fixed Assets	
12	Jinchang Sub-transmission Branch Line	Fixed Assets	

13	Wuhan-Huangshi Branch Line	Fixed Assets
14	Jingtai Branch Line	Fixed Assets
15	Baiyin Branch Line	Fixed Assets
16	Cebei—Xi'ning-Lanzhou Pipe-Liuhua Branch Line	Fixed Assets
17	Lanzhou Aluminum Branch Line	Fixed Assets
18	Xi'ning Branch Line	Fixed Assets
19	Southwestern Gansu Branch Line	Fixed Assets
20	Northern Xinjiang Connection Line	Fixed Assets
21	Urumqi Petro Branch Line	Fixed Assets
22	Terminal Station of Urumqi Petrochemical	Fixed Assets
23	Wangjiagou Oil Depot (including 434,500m^3 refined oil storage tanks, Wangjiazhou-Urumqi Petrochemical Crude Oil Pipeline, Urumqi-Wangjiagou Refined Oil Pipeline, Urumqi-Wangjiagou Refined Oil Double Line and station valve chambers)	Fixed Assets

24	Korla Crude Oil Station 145,000m^3 storage tanks, pig receiving systems, metering room and other related supporting facilities (within the scope of the terminal station of the original Lunnan-Korla Line)	Fixed Assets
25		

Exhibit 4.11

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA SHANDONG GAS PIPELINE CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 6
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 12
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 13
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 15
16. NOTICE 16
17. CONFLICTS WITH OTHER AGREEMENTS 16
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 17
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 19

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 23

APPENDIX 3: SCHEDULE OF OUTSIDE ASSETS 23

This Equity Acquisition Agreement on PetroChina Shandong Gas Pipeline Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Shandong Gas Pipeline Co., Ltd. (the "Target Company") was established on June 18, 2010 and its unified social credit code is 913700005589118238. The Target Company is mainly engaged in natural gas pipeline transmission and related business(; provided, that the Target Company may not commence official operation until after it has received safety production license). The Target Company currently has a registered capital of RMB1,170 million. The registered address of the Target Company is 2nd Floor, Huate Plaza Area A, No. 17703 Jingshi Road, Ji'nan. PetroChina holds 70% of the equity interests in the Target Company (the "Target Equity", represented by RMB819 million in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 70% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 70% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB2,046,955,400.00 (in words: Two Billion Forty-Six Million Nine Hundred and Fifty-Five Thousand Four Hundred Renminbi Yuan only).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject finally to the Profits and Losses during the Transitional Period and the adjustments for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration"): Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 0.4094% of PipeChina's equity resulting from the Restructuring with a value equal to RMB2,047,000,000 (in words: Two Billion Forty-Seven Million Renminbi Yuan only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the amount equal to (i) the appraised value of the Target Equity as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the Cash Consideration not yet paid. To the extent that the unpaid Cash Consideration isn't sufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the Cash Consideration not yet paid. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00 pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall complete no late than 60 Days after the Closing Date, the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina agrees to operate the Target Company in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3.

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1(5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of the stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be passed together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that the Target Company incur any additional tax because any competent authority raises a challenge, such additional tax shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of an event of force majeure (a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Shandong Gas Pipeline Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Shandong Gas Pipeline Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Shandong Gas Pipeline Co., Ltd., with its unified social credit code being 913700005589118238.
"Target Equity "	means	70% of the equity interests in the Target Company, represented by RMB819 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

“Restructuring Date”	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company’s amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

APPENDIX 3: SCHEDULE OF OUTSIDE ASSETS

No.	Name	Category	Note
1	Rizhao Branch Line	Fixed Assets	
2	Laiwu Steel Branch Line	Fixed Assets	

Exhibit 4.12

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA SHANDONG OIL TRANSMISSION CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 12
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 14
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 15
16. NOTICE 16
17. CONFLICTS WITH OTHER AGREEMENTS 17
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 17
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 19

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 22

This Equity Acquisition Agreement on PetroChina Shandong Oil Transmission Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Shandong Oil Transmission Co., Ltd. (the "Target Company") was established on October 29, 2009 and its unified social credit code is 91371728696853676G. The Target Company is mainly engaged in crude oil pipeline construction and transmission (provided that, the Target Company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities). The Target Company currently has a registered capital of RMB762 million. The registered address of the Target Company is No. 27 Huanghe Road, Dongming County, Shandong Province. PetroChina holds 70% of the equity interests in the Target Company (the "Target Equity", represented by RMB533.40 million in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 70% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 70% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB1,096,407,130 (in words: One Billion Ninety-Six Million Four Hundred and Seven Thousand One Hundred and Thirty Renminbi Yuan only).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject to final adjustments to be made for the Profits and Losses during the Transitional Period and for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration"): Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 0.2088% of PipeChina's equity resulting from the Restructuring with a value equal to RMB1,044,000,000 (in words: One Billion Forty-Four Million Renminbi Yuan only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the amount equal to (i) the appraised value of the Target Equity as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina agrees to operate the Target Company in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3 (as applicable).

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that the Target Company suffers a claim of tax deficiency brought by any competent tax authority and incurs any additional tax liability as a result, such additional tax shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Shandong Oil Transmission Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Shandong Oil Transmission Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Shandong Oil Transmission Co., Ltd., with its unified social credit code being 91371728696853676G.
"Target Equity "	means	70% of the equity interests in the Target Company, represented by RMB533.40 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

"Restructuring Date"	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company's amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

Exhibit 4.13

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA HUIXIN OIL PRODUCTS STORAGE AND TRANSMISSION CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 12
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 14
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 15
16. NOTICE 16
17. CONFLICTS WITH OTHER AGREEMENTS 17
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 18
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 19

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 23

This Equity Acquisition Agreement on PetroChina Huixin Oil Products Storage and Transmission Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Huixin Oil Products Storage and Transmission Co., Ltd. (the "Target Company") was established on December 6, 2005 and its unified social credit code is 91120116783304261R. The Target Company is mainly engaged in warehousing (other than hazardous substances); storage of crude oil (at South 2nd Road, Nanjiang Dock, Tianjin Port); storage of hazardous chemicals subject to required approval certificate; fuel oil marketing; and oil pipeline maintenance(; provided, that the Target Company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities). The Target Company currently has a registered capital of RMB240 million. The registered address of the Target Company is Room 212-09, 2nd Floor, Office Building D, Complex Service Office Area, Tianjin Economic-Technological Development Area. PetroChina holds 51% of the equity interests in the Target Company (the "Target Equity", represented by RMB122.40 million in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 51% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 51% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB183,817,707.71 (in words: One Hundred and Eighty-Three Million Eight Hundred and Seventeen Thousand Seven Hundred and Seven Point Seven One Renminbi Yuan).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject to final adjustments to be made for the Profits and Losses during the Transitional Period and for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration") : Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 0.0368% of PipeChina's equity resulting from the Restructuring with a value equal to RMB184,000,000.00 (in words: One Hundred and Eighty-Four Million only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the amount equal to (i) the appraised value of the Target Equity as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina agrees to operate the Target Company in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3 (as applicable).

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that the Target Company suffers a claim of tax deficiency brought by any competent tax authority and incurs any additional tax liability as a result, such additional tax liability shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Huixin Oil Products Storage and Transmission Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Huixin Oil Products Storage and Transmission Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Huixin Oil Products Storage and Transmission Co., Ltd., with its unified social credit code being 91120116783304261R.
"Target Equity "	means	51% of the equity interests in the Target Company, represented by RMB122.40 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

"Restructuring Date" means the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company's amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

Exhibit 4.14

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA JILIN GAS PIPELINE CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 12
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 14
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 15
16. NOTICE 16
17. CONFLICTS WITH OTHER AGREEMENTS 17
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 17
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 19

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 23

This Equity Acquisition Agreement on PetroChina Jilin Gas Pipeline Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Jilin Gas Pipeline Co., Ltd. (the "Target Company") was established on May 12, 2009 and its unified social credit code is 91220701686972479B. The Target Company is mainly engaged in natural gas pipeline transmission services; pipeline engineering construction, maintenance and emergency repair(; provided, that the Target Company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities). The Target Company currently has a registered capital of RMB500 million. The registered address of the Target Company is Rm. 407, No. 306 South Alley, Huguang Road, Chaoyang District, Changchun. PetroChina holds 60% of the equity interests in the Target Company (the "Target Equity", represented by RMB 300 million in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 60% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 60% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB 614,817,780.00 (in words: Six Hundred and Fourteen Million Eight Hundred and Seventeen Thousand Seven Hundred and Eighty Renminbi Yuan only).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject to final adjustments to be made for the Profits and Losses during the Transitional Period and for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration") : Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 0.1230% of PipeChina's equity resulting from the Restructuring with a value equal to RMB 615,000,000.00 (in words: Six Hundred and Fifteen Million Renminbi Yuan only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the amount equal to (i) the appraised value of the Target Equity as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4 (1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina agrees to operate the Target Company in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3 (as applicable).

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that the Target Company suffers a claim of tax deficiency brought by any competent tax authority and incurs any additional tax liability as a result, such additional tax shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Jilin Gas Pipeline Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Jilin Gas Pipeline Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Jilin Gas Pipeline Co., Ltd., with its unified social credit code being 91220701686972479B.
"Target Equity "	means	60% of the equity interests in the Target Company, represented by RMB300 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

“Restructuring Date”	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company’s amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

Exhibit 4.15

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA GUIZHOU NATURAL GAS PIPELINE NETWORK CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 12
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 14
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 16
16. NOTICE 16
17. CONFLICTS WITH OTHER AGREEMENTS 17
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 18
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 19

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 23

This Equity Acquisition Agreement on PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd. (the "Target Company") was established on September 28, 2012 and its unified social credit code is 915201150550163927. The principal business activities of the Target Company are as set forth below: it may not engage in any line of business that is prohibited by any law, regulation or decision of the State Council; may not commence any line of business requiring regulatory permits (or approvals) under any law, regulation or decision of the State Council until after receipt of the required permits or approvals from the competent examination and approval authorities and shall conduct such line of business in accordance with such permits (or approvals); may autonomously choose to engage in any line of business not requiring any regulatory permits (or approval) under any law, regulation or decision of the State Council (; and may engage in long distance pipeline operation, management, and construction subject to prior regulatory approvals). The Target Company currently has a registered capital of RMB300 million. The registered address of the Target Company is Room B241, Standard Workshop Auxiliary Room, Jinyang Science and Technology Industrial Park, Guiyang National High-tech Industrial Development Zone, Guiyang, Guizhou Province. PetroChina holds 60% of the equity interests in the Target Company (the "Target Equity", represented by RMB180 million in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 60% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 60% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB 273,659,111.94 (in words: Two Hundred and Seventy-Three Million Six Hundred and Fifty-Nine Thousand One Hundred and Eleven Point Nine Four Renminbi Yuan).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject to final adjustments to be made for the Profits and Losses during the Transitional Period and for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration") : Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 0.0546% of PipeChina's equity resulting from the Restructuring with a value equal to RMB 273,000,000.00 (in words: Two Hundred and Seventy-Three Million Renminbi Yuan only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the amount equal to (i) the appraised value of the Target Equity as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition by wire transfer to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina undertakes to procure the Target Company to operate in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3 (as applicable).

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that the Target Company suffers a claim of tax deficiency brought by any competent tax authority and incurs any additional tax liability as a result, such additional tax liability shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Guizhou Natural Gas Pipeline Network Co., Ltd., with its unified social credit code being 915201150550163927.
"Target Equity "	means	60% of the equity interests in the Target Company, represented by RMB180 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

"Restructuring Date"	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company's amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

Exhibit 4.16

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA JIANGXI NATURAL GAS INVESTMENT CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 13
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 14
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 16
16. NOTICE 17
17. CONFLICTS WITH OTHER AGREEMENTS 17
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 18
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 19

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 23

This Equity Acquisition Agreement on PetroChina Jiangxi Natural Gas Investment Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Jiangxi Natural Gas Investment Co., Ltd. (the "Target Company") was established on May 11, 2010 and its unified social credit code is 91360000553544112U. The Target Company is mainly engaged in planning, investment, construction and management of natural gas pipeline networks; planning, investment, construction and management of urban gas pipeline network projects; construction, design, installation, maintenance of gas construction projects; procurement and transmission of natural gas; operation of natural gas pipeline networks; construction, management, operation and marketing in Jiangxi Province of compressed natural gas (CNG), liquefied natural gas (LNG) (only for those branches possessing relevant permits), natural gas vehicle fueling stations, mobile pressure vessel /cylinder filling stations, and coal bed methane and other energy projects; sales, installation and maintenance of kitchenware and gas appliances; wholesale and retail of daily necessities; leasing of complete equipment; information consulting services(; provided, that the Target Company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities). The Target Company currently has a registered capital of RMB 400 million. The registered address of the Target Company is No. 238, Wuyi Road, Nanchang County, Nanchang, Jiangxi Province. PetroChina holds 50% of the equity interests in the Target Company (the "Target Equity", represented by RMB200 million in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 50% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 50% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB914,163,550.00 (in words: Nine Hundred and Fourteen Million One Hundred and Sixty-Three Thousand Five Hundred and Fifty Renminbi Yuan only).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject to final adjustments to be made for the Profits and Losses during the Transitional Period and for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration"): Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 0.1813% of PipeChina's equity resulting from the Restructuring with a value equal to RMB906,500,000.00 (in words: Nine Hundred and Six Million Five Hundred Thousand Renminbi Yuan only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the amount equal to (i) the appraised value of the Target Equity as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition by wire transfer to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina undertakes to procure the Target Company to operate in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3 (as applicable).

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that the Target Company suffers a claim of tax deficiency brought by any competent authority and incurs any additional tax liability as a result, such additional tax liability shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Jiangxi Natural Gas Investment Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation

(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited

(Company Seal)

Signed by: _____
Legal representative or his/her authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Jiangxi Natural Gas Investment Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Jiangxi Natural Gas Investment Co., Ltd., with its unified social credit code being 91360000553544112U.
"Target Equity"	means	50% of the equity interests in the Target Company, represented by RMB200 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

“Restructuring Date”	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company’s amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

Exhibit 4.17

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

EQUITY ACQUISITION AGREEMENT ON PETROCHINA SHENGANG NATURAL GAS PIPELINE CO., LTD.

July 2020
Beijing

Table of Contents

1. TARGET EQUITY 4
2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT 4
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 5
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING 7
6. JOINT WORK GROUP 9
7. SHAREHOLDER'S RIGHTS OF PETROCHINA 10
8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA 10
9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 11
10. LIABILITY FOR BREACH 12
11. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
12. CONFIDENTIALITY 14
13. NO ASSIGNMENT 15
14. FURTHER ASSURANCE 15
15. TAXES AND EXPENSES 15
16. NOTICE 16
17. CONFLICTS WITH OTHER AGREEMENTS 17
18. WAIVERS, RIGHTS AND REMEDIES 17
19. LANGUAGE AND COUNTERPARTS 17
20. EFFECTIVENESS AND AMENDMENTS 17
21. SEVERABILITY 17
22. GOVERNING LAW AND DISPUTE RESOLUTION 18
23. MISCELLANEOUS 19

APPENDIX 1: DEFINITIONS AND INTERPRETATION 21

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES 23

This Equity Acquisition Agreement on PetroChina Shengang Natural Gas Pipeline Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion. PipeChina proposes to undertake a restructuring so as to increase its registered capital to RMB500 billion.

(B) PetroChina is a joint stock company, with its unified social credit code being 91110000710925462X.

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

(D) PetroChina Shengang Natural Gas Pipeline Co., Ltd. (the "Target Company") was established on December 12, 2013 and its unified social credit code is 91440300717885512M. The Target Company is mainly engaged in such general business activities as ownership, management and maintenance of the Hong Kong Branch Pipeline Project of the Second West to East Gas Pipeline Project, and provision of natural gas transmission services through the Hong Kong Branch Pipeline. The Target Company currently has a registered capital of RMB1,226.58 million. The registered address of the Target Company is West Half of 22nd Floor, Building A, Shenzhen International Innovation Center, 1006 Shennan Avenue, Huafu Street, Futian District, Shenzhen. PetroChina holds 60% of the equity interests in the Target Company (the "Target Equity", represented by RMB735.948 million in the registered capital of the Target Company as of the date hereof).

(E) On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from PetroChina, and PetroChina intends to sell to PipeChina, the Target Equity for a consideration consisting of (i) a certain portion of PipeChina's restructured equity and (ii) a corresponding amount in cash.

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of PipeChina's acquisition of the Target Equity (this "Acquisition"), after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET EQUITY

1.1 The Parties agree that PipeChina shall purchase from PetroChina all of PetroChina's 60% equity interests in the Target Company, and upon consummation of such purchase, PipeChina shall hold 60% equity interests, and PetroChina shall cease to hold any equity interests in the Target Company.

1.2 The specific scope of the Target Assets underlying the Target Equity is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Equity on the Base Date is equal to RMB 2,862,534,180.00 (in words: Two Billion Eight Hundred and Sixty-Two Million Five Hundred and Thirty-Four Thousand One Hundred and Eighty Renminbi Yuan only).

2.2 Both Parties agree that the transaction consideration for the Target Equity (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Equity confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject finally to the Profits and Losses during the Transitional Period and the adjustments for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 The Parties agree that PipeChina will pay the Transaction Consideration to PetroChina as follows:

(1) For the consideration to be paid in the form of the equity interests in PipeChina (the "Equity Consideration"): Based on the appraised value of the Target Equity, PipeChina agrees to issue to PetroChina 0.5514% of PipeChina's equity resulting from the Restructuring with a value equal to RMB 2,757,000,000.00 (in words: Two Billion Seventy Hundred and Fifty-Seven Million Renminbi Yuan only) (the "Equity Consideration") in exchange for part of the Target Equity; and

(2) For the consideration to be paid in the form of cash (the "Cash Consideration"): PipeChina will pay PetroChina in cash the difference between the Transaction Consideration finally confirmed in Section 2.2 and the Equity Consideration agreed in Section 2.3(1).

2.4 Both Parties agree that, PipeChina shall pay PetroChina the Equity Consideration and the Cash Consideration as agreed below:

(1) payment of the Equity Consideration: PipeChina shall complete its amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars of PipeChina with the competent administration for market regulation;

(2) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the amount equal to (i) the appraised value of the Target Equity as adjusted minus (ii) the Equity Consideration, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. PipeChina shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(3) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2, minus (ii) the Equity Consideration, minus (iii) the first instalment of Cash Consideration paid under Section 2.4(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.5 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Acquisition by wire transfer to a bank account designated by PetroChina, as set forth in detail in Appendix 2 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Equity, PipeChina and PetroChina shall cause an audit to be conducted on the Target Equity and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses attributable to the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated by the Target Company in the Transitional Period shall belong to PetroChina. Any distributable profits of the Target Company that are declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Company during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the Target Company. Dividend resolutions of the Target Company shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Company suffers a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct in proportion to the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Company before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct in proportion of the Target Equity the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Acquisition. On the contrary, in the event that there is an increase in the net asset value of the Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of the Target Company shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Acquisition shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Equity will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of the Framework Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity will be deemed to have been transferred to PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations to complete the Target Company's amended business registration with the competent administration for market regulation as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of the Target Company or as a result of any major defect existing in the Target Company in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or the Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the completion of the amended business registration for the Target Company, and work with each other to complete the Target Company's amended business registration with the competent administration for market regulation starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Target Company's amended business registration shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 10.2; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them. On the contrary, if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 10.3; and if the Target Company's amended business registration fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Target Company's amended business registration as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of the Target Company evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the transfer of the Target Equity contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to the Target Company, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Company, such as removing such words as "PetroChina" or any variation thereof from the name of the Target Company, in connection with which, PetroChina shall render assistance.

(2) Both Parties agree that PipeChina shall complete the amended business registration with the competent administration for market regulation in relation to the Restructuring no later than 15 Business Days after the Closing Date, including but not limited to completing the registered capital change registration, shareholder change registration, and record-keeping filing of the amendments to the articles of association and replacement of directors, supervisors, and senior management members, and other relevant business particulars with the competent administration for market regulation, in connection with which, PetroChina shall render assistance.

(3) Both Parties agree that the consummation of this Acquisition shall not change the independent legal person status of the Target Company, and the creditor's rights, debts, business, employment matters, and contracts of the Target Company shall continue to be enjoyed, borne and performed by the Target Company under PipeChina's centralized management.

(4) Should the Target Company or any of its assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the assets of the Target Company bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Acquisition.

6.2 In order to ensure the smooth closing of the Target Equity, the stable operation of the Target Company, and the normal operation of the business that depends on the Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina undertakes to procure the Target Company to operate in the ordinary course of business prior to the completion of the Target Company's amended business registration with the competent administration for market regulation. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Target Company's amended business registration has not been completed by then, the operational risks and safe production responsibilities related to the Target Equity shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Target Company's amended business registration to procure an earliest completion of the same in accordance with this Agreement, and shall not refuse or delay the handling of the Target Company's amended business registration.

6.3 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc., of the Target Company but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets of the Target Company but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and work with PipeChina to handle the Target Company's amended business registration in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Company in such internal restructuring shall be recorded as profits and losses attributable to the Target Company during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the appraised assets of the Target Company. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to the Target Equity held by PetroChina. The schedule of the Outside Assets of the Target Company is attached hereto as Appendix 3 (as applicable).

7. SHAREHOLDER'S RIGHTS OF PETROCHINA

7.1 From and after the consummation of this Acquisition, PetroChina shall become a shareholder of PipeChina, and have the shareholder rights in and to PipeChina as set forth in Article 7 of the Framework Agreement.

8. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

8.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of the Target Company;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Equity provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Equity under this Acquisition. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and the Target Company, a) PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards the Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and the Target Equity is not subject to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and the Target Company's amended business registration as soon as possible in accordance with the terms and conditions set forth in this Agreement.

8.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

9. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

9.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the completion of the Target Company's amended business registration, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and the Target Company's amended business registration as soon as possible;

(5) PipeChina warrants that after the completion of the Target Company's amended business registration, the business operation of the Target Company will remain normal and the quality of the services provided by the Target Company will not be lower than the current level. PipeChina undertakes that after the completion of the Target Company's amended business registration, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of the Target Company's assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

9.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

10. LIABILITY FOR BREACH

10.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

10.2 If PetroChina refuses to handle any amended registration with the competent administration for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PetroChina, including any delay as a result of Force Majeure or any reason on the part of PipeChina or any Third Party.

10.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for the Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Equity, other than any delay in the completion of the Target Company's amended business registration not attributable to the fault of PipeChina, including any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

10.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

10.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) in the Framework Agreement, or fails to complete any amended business registration with the competent administration for market regulation in relation to the Restructuring as required by 2.4(1) hereinabove, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

11. ANNOUNCEMENTS OF TRANSACTION INFORMATION

11.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

11.2 The restrictions under Section 11.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 11.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

12. CONFIDENTIALITY

12.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

12.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

12.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

12.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

12.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

12.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

12.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

13. NO ASSIGNMENT

13.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 13 shall be null and void.

14. FURTHER ASSURANCE

14.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

15. TAXES AND EXPENSES

15.1 Subject to Section 15.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Acquisition.

15.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

15.3 For purposes of this Acquisition, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handling of the Target Company's amended business registration shall be reasonably apportioned by the Parties and settled through negotiation.

15.4 Both Parties agree that the tax costs attached to the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that the Target Company suffers a claim of tax deficiency brought by any competent tax authority and incurs any additional tax liability as a result, such additional tax shall be borne by the Target Company. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15.5 As long as this Acquisition is eligible for a special tax treatment, PipeChina shall guarantee that it will adopt the principle of special tax treatment for this Acquisition in accordance with *Notice of the Ministry of Finance and the State Administration of Taxation on Some Issues Concerning the Treatment of Corporate Income Tax in Enterprise Restructuring (Finance & Tax [2009] No. 59)*, pursuant to which, within 12 months from the first Day after the Restructuring Date, PipeChina will not transfer any of its equity interests in the Target Company in any manner, and PipeChina will procure to the extent of its rights as a shareholder, that the Target Company will not substantially change its original business activities. Accordingly, within 12 consecutive months from the first Day after the date on which PetroChina is registered as a shareholder of PipeChina, PetroChina shall not transfer any of its equity interests in PipeChina. All the parties participating in the Restructuring, including PipeChina, the Target Company and PetroChina, shall complete the tax declaration or filing in accordance with tax related requirements. In the event that either Party fails to comply with any of the foregoing undertakings or guarantees, the breaching Party shall be liable to the other Party for the actual losses suffered by the other party arising from such failure.

16. NOTICE

16.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

16.2 The Parties' contact details to be used for the purpose of Section 16.1, such as addresses and fax numbers shall be as set forth in Appendix 2 hereto.

17. CONFLICTS WITH OTHER AGREEMENTS

17.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Acquisition.

17.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail.

18. WAIVERS, RIGHTS AND REMEDIES

18.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

19. LANGUAGE AND COUNTERPARTS

19.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

20. EFFECTIVENESS AND AMENDMENTS

20.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

20.2 From the date of the formation of this Agreement, Article 11 (*Announcements of Transaction Information*), Article 12 (*Confidentiality*), Article 13 (*No Assignment*), Article 15 (*Taxes and Expenses*), Article 16 (*Notices*), Article 17 (*Conflicts with Other Agreements*), Article 18 (*Waivers, Rights and Remedies*), Article 20 (*Effectiveness and Amendments*), Article 21 (*Severability*), Article 22 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

20.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

21. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

22. GOVERNING LAW AND DISPUTE RESOLUTION

22.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

22.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

22.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

22.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

22.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

22.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

22.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

23. MISCELLANEOUS

23.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed the Equity Acquisition Agreement on PetroChina Shengang Natural Gas Pipeline Co., Ltd. on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Equity Acquisition Agreement on PetroChina Shengang Natural Gas Pipeline Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
"Target Company"	means	PetroChina Shengang Natural Gas Pipeline Co., Ltd., with its unified social credit code being 91440300717885512M.
"Target Equity "	means	60% of the equity interests in the Target Company, represented by RMB735.948 million in the registered capital of the Target Company as of the date hereof.
this "Acquisition"	means	the transaction contemplated by this Agreement through which PipeChina will purchase the Target Equity from PetroChina in accordance with this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Transaction Consideration"	has	the meaning set forth in Article 2.
"Equity Consideration"	has	the meaning set forth in Article 2.
"Cash Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

"Restructuring Date"	means	the date on which this Agreement comes into force and each Target Company has completed the amended registration with the local administration for market regulation; provided however, that the date on which this Agreement comes into force shall be deemed as the Restructuring Date where the Target Company's amended business registration fails to be completed within 12 months after this Agreement comes into force.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

Exhibit 4.18

China Oil&Gas Pipeline Network Corporation

and

PetroChina Company Limited

DISPOSAL AGREEMENT ON RELEVANT ASSETS OF OIL AND GAS PIPELINES FROM GUANGDONG NATURAL GAS PIPELINE NETWORK CO., LTD. AND OTHERS

July 2020
Beijing

Table of Contents

1. Target Assets and Transaction Arrangement 1
2. Transaction Consideration and Method of Payment 2
3. Profits and Losses During The Transitional Period and Adjustments For Events After Base Date 3
4. Conditions Precedent to Closing 4
5. Closing and Handover 4
6. Handover Arrangement and Joint Work Group 7
7. Representations and Warranties of Petrochina 9
8. Representations and Warranties of Pipechina 10
9. Liability For Breach 12
10. Announcements of Transaction Information 12
11. Confidentiality 13
12. No Assignment 14
13. Further Assurance 14
14. Taxes and Expenses 15
15. Notice 16
16. Conflicts With Other Agreements 16
17. Waivers, Rights and Remedies 16
18. Language and Counterparts 16
19. Effectiveness and Amendments 17
20. Severability 17
21. Governing Law and Dispute Resolution 17
22. Miscellaneous 18

Appendix 1: Definitions and Interpretation 20
Appendix 2: Target Assets and Appraised Value 1
Appendix 3: Bank Account and Contact Information of The Parties 3
Appendix 4: Schedule of Outside Assets 3

This Disposal Agreement on Relevant Assets of Oil and Gas Pipelines from Guangdong Natural Gas Pipeline Network Co., Ltd. and Others (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road,
Chaoyang District, Beijing

PetroChina Company Limited ("**PetroChina**")
Legal Representative: Dai Houliang
Registered Address: 16 Ande Road, Dongcheng District, Beijing

Certain terms used in this Agreement shall have the meanings as defined and interpreted in Appendix 1.

Whereas:

(A) On the Signing Date of this Agreement, PipeChina has a registered capital of RMB20 billion, and mainly engages in pipeline transmission, storage services, equipment importation, technology importation and exportation, science and technology research, informatization research and application, and technology consulting, services, transfer and promotion.

(B) On the terms and conditions set forth in this Agreement, PetroChina intends to sell to PipeChina, and PipeChina intends to purchase from PetroChina, the Target Assets listed in Appendix 3 hereto, consisting of (i) Equity Assets, and (ii) Non-equity Assets, including oil and gas pipelines, gas storage facilities, LNG terminals and the accessory facilities thereto (such sale and purchase hereinafter referred to as this "Transaction").

(C) PipeChina and PetroChina entered into a Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets dated July 23, 2020 (the "Framework Agreement").

For purposes of this Agreement, each of PetroChina and PipeChina shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

NOW, THEREFORE, for purposes of this Transaction, after friendly negotiations and by adhering to the principle of equality and mutual benefit, the Parties enter into this Agreement as follows:

1. TARGET ASSETS AND TRANSACTION ARRANGEMENT

1.1 PipeChina shall purchase from PetroChina the Target Assets listed in Appendix 3 hereto in accordance with the terms and conditions set forth herein. According to the Asset Appraisal Report, the appraised value of the Target Assets under this Agreement is equal to RMB58,204,337,423.91 (in words: Fifty-Eight Billion Two Hundred and Four Million Three Hundred and Thirty-Seven Thousand Four Hundred and Twenty-Three Point Nine One Renminbi Yuan) in aggregate. The specific scope of the Target Assets is subject to the scope of the assets appraised and recorded in the Asset Appraisal Report.

1.2 PipeChina shall pay in cash all the consideration payable for its purchase of the Target Assets hereunder (the "Cash Consideration") in accordance with the terms and conditions set forth herein.

2. TRANSACTION CONSIDERATION AND METHOD OF PAYMENT

2.1 According to the Asset Appraisal Report, the appraised value of the Target Assets under this Agreement is equal to RMB58,204,337,423.91 (in words: Fifty-Eight Billion Two Hundred and Four Million Three Hundred and Thirty-Seven Thousand Four Hundred and Twenty-Three Point Nine One Renminbi Yuan) in aggregate, as broken down in Appendix 2 hereto.

2.2 Both Parties agree that the transaction consideration for the Target Assets (the "Transaction Consideration") shall be determined on the basis of the appraised value of the Target Assets confirmed after the approval/record-keeping procedures are performed in accordance with applicable PRC laws and regulations, and subject finally to the Profits and Losses during the Transitional Period and the adjustments for subsequent events after the Base Date under Article 3 of this Agreement.

2.3 Both Parties agree that PipeChina shall pay PetroChina the Cash Consideration in two instalments as follows:

(1) first instalment of Cash Consideration: on October 15, 2020, PipeChina shall pay PetroChina 90% of the Cash Consideration, i.e., RMB 52,383,903,681.52 (in words: Fifty-Two Billion Three Hundred and Eighty-Three Million Nine Hundred and Three Thousand Six Hundred and Eighty-One Point Five Two), together with the interest accrued thereon from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period, and shall procure that such payment will arrive at PetroChina's designated bank account on October 16, 2020; and

(2) second instalment of Cash Consideration: within 10 Business Days after completion of the Closing Audit under Section 3.2, PipeChina shall pay the amount equal to (i) the Transaction Consideration finally determined under Section 2.2 minus (ii) the first instalment of Cash Consideration paid under Section 2.3(1) above, together with the interest accrued on the amount payable so calculated as above from October 1, 2020 to the date on which such payment arrives at PetroChina's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period.

2.4 Unless otherwise notified in writing, PipeChina shall pay the Cash Consideration for this Transaction to a bank account designated by PetroChina, as set forth in detail in Appendix 3 hereto.

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 For purposes of this Agreement, the term "Transitional Period" shall refer to the period between the Base Date (excluding the very date) and the Closing Date (including the very date).

3.2 Both Parties agree that, within 60 Days after the Closing Date of the Target Assets, PipeChina and PetroChina shall cause an audit to be conducted on the Target Assets and have an audit report issued thereon (the "Closing Audit ") for the purpose of determining the profits and losses of the Target Assets during the Transitional Period and the adjustments for subsequent events after the Base Date. The Closing Audit shall be performed by an accounting firm qualified for securities and futures business practice jointly engaged by and acceptable to both Parties, and the audit fee shall be equally shared between the Parties.

3.3 Profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated in the Transitional Period in respect of the Target Assets shall belong to PetroChina. Any distributable profits that are declared for distribution in respect of the Target Assets during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by the Target Assets during the Transitional Period or the net asset value increases as a result of other profits and losses incurred during the Transitional Period, PipeChina agrees that PetroChina is entitled to obtain such increased income through dividend distribution by the relevant Target Companies. Dividend resolutions of the Target Companies shall be declared prior to the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the target equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration. In the event that the Target Assets suffer a loss or the net asset value decreases as a result of other profits and losses arising during the Transitional Period, PetroChina agrees that PipeChina shall have priority to deduct the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Transaction.

3.4 Adjustments for subsequent events after the Base Date. The amount of any distributable profits generated by the Target Assets before the Base Date that are declared for declaration during the Transitional Period shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of the Target Assets as a result of the adjustments for subsequent events after the Base Date, PetroChina agrees that PipeChina shall have priority to deduct the corresponding amount from the unpaid Cash Consideration. To the extent that the unpaid Cash Consideration cannot cover the decrease, the shortfall shall be paid by

PetroChina to PipeChina in cash no later than the payment of the second instalment Cash Consideration of this Transaction. On the contrary, in the event that there is an increase in the net asset value of the Target Assets as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that PetroChina is entitled to obtain such increased income through distribution of distributable profits attributable to the target equity. The dividend resolution of the Target Companies shall be declared prior to the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared or distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by PetroChina through dividend shall be included into the Cash Consideration, and shall be paid no later than the payment of the second instalment of the Cash Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The conditions precedent to the closing of this Transaction shall be the same as the closing conditions set forth in Section 4.1 of the Framework Agreement.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of the Framework Agreement shall be satisfied as soon as practicable prior to the Closing Date. After the Signing Date, neither Party may engage in any act for the purpose of hindering or restricting the satisfaction of any condition precedent set forth in Section 4.1 of the Framework Agreement.

4.3 If for any reason not attributable to either Party, any condition precedent agreed in Section 4.1 of the Framework Agreement fails to be satisfied or waived by September 30, 2021 (the "Long Stop Date"), each Party shall have the right to unilaterally terminate this Agreement in writing within 30 Days immediately following the Long Stop Date without any liability.

5. CLOSING AND HANDOVER

5.1 Closing date. Both Parties hereby acknowledge and agree that the ownership and risk of the Target Assets will be transferred from PetroChina to PipeChina at 24:00pm on September 30, 2020 (the "Closing Date"). In the event that by September 30, 2020, not all the conditions precedent set forth in Section 4.1 of this Agreement have been satisfied or waived, the Parties shall further discuss and confirm another date for closing.

5.2 Transfer of Target Assets and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Assets and relevant business and personnel will be deemed to have been received and legally owned by PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Assets shall be assumed by PipeChina. Except for the obligations for the Handover as explicitly stipulated in this Agreement, after the Closing Date (excluding the very date), PetroChina will no longer assume any obligation, responsibility or risk related to the Target Assets.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes material losses to PipeChina as a result of any violation of any applicable rules or regulations committed by PetroChina in its operation and management of any Target Assets/target equity entities or as a result of any major defect existing in any Target Assets in each case prior to the Closing Date, except as disclosed by PetroChina to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of PetroChina and/or such target equity entities, the Parties shall resolve the issue through amicable consultations.

5.3 Both Parties agree to cooperate with each other and assist each other in the preparation for the Handover of the Target Assets, and work with each other to undertake the Handover of the Target Assets starting from 24:00pm on the Closing Date.

5.4 Both Parties agree that the Handover of the Target Assets shall be completed within 60 Days after the Closing Date, and the specific Handover procedures shall be performed in the manners agreed by both Parties. If the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PetroChina's fault, PetroChina shall bear the liability for breach in accordance with Section 9.2; and if the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PetroChina, the Parties agree to cooperate with each other to complete the Handover as soon as possible as otherwise agreed by and between them. On the contrary, if the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period due to PipeChina's fault, PipeChina shall bear the liability for breach in accordance with Section 9.3; and if the Handover fails to be completed prior to the expiration of the above-mentioned 60-Day period for any reason not attributable to PipeChina, the Parties agree to cooperate with each other to complete the Handover as soon as possible as otherwise agreed by and between them.

5.5 Special Covenants

(1) Both Parties agree that PetroChina shall make its best efforts to obtain prior to the Closing Date the written documents from all the other shareholders of all the target equity entities forming part of the Target Assets evidencing such other shareholders' approval of and waiver of their right of first refusal with respect to the equity transfers contemplated hereunder. The Parties shall no later than 60 Days after the Closing Date, complete the procedures necessary for the amended business registration and effectuation of the change in ownership with respect to all the target equity entities forming part of the Target Assets, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and other relevant business particulars with the competent administration for market regulation, and changing the name of the Target Companies, such as removing such words as "PetroChina" or any variation thereof from the name of the companies, in connection with which, PetroChina shall render assistance.

(2) The land use rights, buildings and other related assets shall be handed over together with their ownership certificates and other related documents. For those land use rights and buildings with respect to which the complete ownership certificates have been granted, PipeChina shall be responsible for, and PetroChina shall render assistance in, the handling of the registration/ownership transfer procedures for the relevant certificates of building ownership and certificates of land use rights. For those land parcels, buildings and related assets forming part of the Target Assets with respect to which the applicable ownership certificates cannot be handled or have not yet been granted, both Parties agree that after the Closing Date, such land parcels, buildings and related assets shall be handed over to PipeChina for it to actually occupy, use and dispose of, in connection with which PetroChina shall render assistance.

(3) For all those debts included in the Non-equity Assets of the Target Assets which are owed to financial institutions, PetroChina shall, after the effective date of this Agreement, promptly notify and obtain the no-action confirmations from such financial institution creditors, and such debts shall be borne by PipeChina from and after the Closing Date. While for those debts included in the Non-equity Assets of the Target Assets which are owed to persons other than financial institutions, PetroChina shall, after the effective date of this Agreement, notify such non-financial-institution creditors in an appropriate manner, and such debts shall be borne by PipeChina from and after the Closing Date. In the event that any such non-financial-institution creditor raises an objection to PipeChina's assumption of such debts, the Parties shall resolve such issue through consultations. For the creditor's rights included in the Non-equity Assets of the Target Assets, PetroChina shall, after the effective date of this Agreement, notify the debtors in an appropriate manner. From and after the Closing Date, these creditor's rights shall be assumed and enjoyed by PipeChina and the debtors shall satisfy the obligations towards PipeChina. In connection with such transfer and assumption of debts and creditor's rights, PetroChina shall perform the notification obligations in appropriate manners, including but not limited to, publishing relevant announcements in accordance with the applicable rules of the Shanghai Stock Exchange.

Specifically, the contracts signed by PetroChina with respect to the Non-equity Assets among the Target Assets shall be novated to PipeChina in principle ("Novatable Contracts"). It is understood that the rights and obligations under the Novatable Contracts shall be allocated as follows: (i) those rights and obligations of PetroChina arising prior to the Closing Date shall be enjoyed and performed by PetroChina and (ii) those rights and obligations of PetroChina arising after the Closing Date shall be enjoyed and performed by PipeChina. Both Parties shall cooperate with each other to procure that the novation of the Novatable Contracts will be completed within 60 Days after the Closing Date. After the Closing Date, with respect to those contracts for which the consents from the other parties thereto approving the formal novation of those contracts have not yet been received as at the Closing Date (the "Non-novated Contracts"), the Parties shall continue to cooperate with each other and make great efforts to complete the transfer of the rights and obligations under and the novation of the Non-novated Contracts. Any rights and obligations, profits and losses arising from and after 24:00pm on the Closing Date under the Non-novated Contracts held by PetroChina shall be all vested in PipeChina. PipeChina shall indemnify PetroChina against any losses suffered by and any reasonable additional expenses incurred by PetroChina in connection with the holding of any contracts in trust for PipeChina, other than those losses or expenses attributable merely to PetroChina.

Notwithstanding the foregoing, both Parties agree that the consummation of this Transaction shall not change the independent legal person status of the Target Companies forming part of the Equity Assets included in the Target Assets, and the creditor's rights, debts, business, employment matters, and contracts of all the Target Companies shall continue to be enjoyed, borne and performed by the respective Target Companies under PipeChina's centralized management.

(4) Both Parties agree that the Handover and management of the employees and related personnel forming a part of the Target Assets shall be implemented by adhering to the principle of "people follow assets (business)".

(5) Should any Target Assets bear the trademarks or logos of PetroChina, PipeChina shall remove the relevant trademarks and logos within 6 months after the Closing Date as extended as otherwise agreed by PetroChina. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) arising from the Target Assets bearing PetroChina's trademarks or logos shall be borne by PipeChina.

6. HANDOVER ARRANGEMENT AND JOINT WORK GROUP

6.1 Both Parties agree to cooperate with each other to procure that after execution of this Agreement they will make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Transaction.

6.2 PetroChina shall facilitate to the fullest extent PipeChina's check and takeover of the Target Assets and the personnel thereof, including by permitting the Representatives of PipeChina to access subject to prior reasonable notice the entities and premises managed and used by the Target Assets, and furnishing PipeChina with all the necessary information, materials and assistance.

6.3 In order to ensure the smooth Handover, operation and management of the Target Assets and the personnel thereof as well as the normal operation of the business that depends on the Target Assets so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, PetroChina agrees to operate the Target Assets in the ordinary course of business prior to the Completion of Handover. For the avoidance of doubt, from and after 24:00pm on the Closing Date, even if the Handover of the Target Assets has not been completed by then, the operational risks and safe production responsibilities of the Target Assets shall be actually borne by PipeChina. Both Parties shall work with each other in a timely and proactive manner in the handling of the Handover to procure an earliest Completion of Handover in accordance with this Agreement, and shall not refuse or delay the Handover or takeover of any Target Assets.

6.4 On the Signing Date, PetroChina is still in the process of undertaking a necessary internal restructuring of certain assets, liabilities, personnel, etc. forming a part of the Equity Assets among the Target Assets but not covered under the scope of asset appraisal (subject to the actual scope of asset appraisal), including but not limited to long-term equity investments and branch pipeline related assets forming a part of the Equity Assets among the Target Assets but not covered under the scope of asset appraisal (the "Outside Assets"). Both Parties agree and acknowledge that PetroChina shall make reasonable best efforts to complete such internal restructuring prior to the Closing Date and transfer the Target Assets to PipeChina in accordance with this Agreement. Any and all the taxes and expenses incurred by the Target Assets in such internal restructuring and any other restructuring undertaken by PetroChina for the purpose of this Transaction shall be recorded as profits and losses attributable to the Target Assets during the Transitional Period.

Both Parties acknowledge that, the fact as to whether the internal restructuring described in this Section is completed or not shall not change in any way the scope of the Target Assets. In consideration of the Outside Assets, no later than the payment of the second instalment of the Cash Consideration, PipeChina shall pay PetroChina an appropriate amount in cash based on the appraised value of the Outside Assets as adjusted by the profits and losses arising during the Transitional Period and in proportion to PetroChina's shareholding percentage in the target equity entities that own the Outside Assets. The schedule of the Outside Assets is attached hereto as Appendix 3.

6.5 After the Closing Date and prior to the Completion of Handover, other than any normal provisions for depreciation, amortization, depletion and scrapping, collection of receivables, repayment of debts falling due, conversion of constructions in progress into fixed assets (the "Fixed Asset Conversion") , and other normal disposals in relation to the Target Assets in the ordinary course of business, PetroChina covenants that it will not on its own initiative, make any decision on the taking of any of the following actions, including to make any major adjustments to any Target Assets, grant any third party guarantee on any Target Assets other than as necessary in the ordinary course of business, make any major business change related to any Target Assets or any adjustments to principal business activities, make any major personnel adjustments, make any major adjustments to any accounting policies related to any Target Assets other than as required by applicable laws and regulations, or take any other action that may have a Material Adverse Effect on the normal operation of any Target Assets.

6.6 In order to ensure the smooth operation and transition of the Target Assets and the personnel thereof, the Parties agree to organize a joint work group to be responsible for the Handover of the Target Assets under their respective control.

6.7 The joint work group shall carry out the preparatory work for the Handover, including but not limited,

(1) to procure that the Parties will each set up a workgroup to establish communication policies and mechanisms, and jointly organize Handover training to learn from each other the organizational structures, work and business processes, etc.;

(2) to procure that the Parties will jointly confirm the scope of equipment required for the Handover, and jointly discuss and agree on the methods, locations and points of time for the Handover, including the tools, vehicles, handover forms, labels, etc.;

(3) to import the details of the appraised assets into the asset inventory system to generate a preliminary Target Assets list, and a physical Handover list will be made as the data basis for on-site Handover;

(4) to procure that the Parties will negotiate and jointly determine the specific arrangements for the Handover, including but not limited to the timing plan, routing plan, and organization and implementation arrangements;

(5) to procure that the Parties will negotiate and jointly determine the specific arrangements for the Handover of information and contracts;

(6) to make itemized information lists and prepare related materials;

(7) to carry out other preparations in response to actual needs.

7. REPRESENTATIONS AND WARRANTIES OF PETROCHINA

7.1 PetroChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the transfer of the Target Assets as contemplated hereunder, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PetroChina is a joint stock company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PetroChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PetroChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PetroChina;

ii. any material contract, agreement or license to which PetroChina is a party, or any order, judgement or decree binding upon PetroChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PetroChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PetroChina, except to the extent that PetroChina's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of any Target Assets;

(2) Except as otherwise specified in this Agreement, PetroChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PetroChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PetroChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to the Target Assets provided by PetroChina to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PetroChina has the legal ownership of and/or disposal rights to and in the Target Assets under this Transaction. Except as otherwise disclosed to PipeChina by PetroChina and reflected in the financial accounts, audit reports or asset appraisal reports of PetroChina and its equity entities, a) with respect to the Equity Assets that PetroChina intends to sell, PetroChina has satisfied in accordance with applicable laws its capital contribution obligations towards each and all of the Target Companies included in such Equity Assets, without any false capital contribution or surreptitious withdrawal of capital contribution, and none of the Equity Assets are to any undisclosed pledge, freeze, any other encumbrance or security interest; b) PetroChina's operation and management of the Non-equity Assets it intends to sell is consistent with the industrial practice; and

(5) PetroChina will complete the Closing and Handover as soon as possible in accordance with the terms and conditions set forth in this Agreement.

7.2 If any unforeseeable situation occurs to PetroChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PetroChina herein to be untrue, inaccurate or misleading in any material aspect, PetroChina will notify PipeChina in writing within 5 Days from the date of such occurrence.

8. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

8.1 PipeChina represents and warrants that, as of the Signing Date and the Closing Date, and prior to the transfer of the Target Assets as contemplated hereunder, subject to such exceptions as are disclosed in the Transaction Documents:

(1) PipeChina is a limited liability company with full capacity for civil conduct under the laws of the PRC, and has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

i. any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

ii. any material contract, agreement or license to which PipeChina is a party, or any order, judgement or decree binding upon PipeChina entered by any court, governmental authority or regulatory authority; or

iii. the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law or regulation and/or any agreement or document binding upon PipeChina,

(2) Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter;

(3) Any and all the materials related to PiepeChina provided by PipeChina to PetroChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects;

(4) PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and Handover as soon as possible;

(5) PipeChina warrants that after the Handover of the Target Assets, the business operation of the Target Assets will remain normal and the quality of the services provided by the Target Assets will not be lower than the current level. PipeChina undertakes that after the Handover of the Target Assets, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect PetroChina's continuous normal use of any Target Assets in its production or operation; and

(6) PipeChina warrants that it will fully perform the Production and Operation Agreement and the supporting sub-agreements separately executed and effectuated by and between the Parties so as to support and secure the stable, continuous and safe production and operation of PetroChina.

8.2 If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify PetroChina in writing within 5 Days from the date of such occurrence.

9. LIABILITY FOR BREACH

9.1 In the event that any representation and/or warranty made by either Party in this Agreement is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or violates any undertaking made by such Party under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

9.2 If PetroChina refuses to handle any amended registration with the competent administrations for market regulation for any Target Company, or refuses to handle the handover of any Target Assets or any business or personnel related thereto as scheduled herein and required hereby, for each Day on which any such registration or handover remains overdue, PetroChina shall pay PipeChina liquidated damages equal to 0.05% of the consideration for the Target Assets failing to be handed over as scheduled herein, other than any delay in the handover of any Target Assets not attributable to the fault of PetroChina, including any delay as a result of force majeure or any reason on the part of PipeChina or any Third Party.

9.3 If PipeChina refuses to handle any amended registration with the competent administrations for market regulation for any Target Company, or refuses to handle the handover of any Target Assets or any business or personnel related thereto as scheduled herein and required hereby, for each Day on which any such registration or handover remains overdue, PipeChina shall pay PetroChina liquidated damages equal to 0.05% of the consideration for the Target Assets failing to be handed over as scheduled herein, other than any delay in the handover of any Target Assets not attributable to the fault of PipeChina, such as any delay as a result of Force Majeure or any reason on the part of PetroChina or any Third Party.

9.4 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, PipeChina shall pay PetroChina liquidated damages at the rate of 0.05% per Day of the overdue payment, other than any failure to pay attributable to PetroChina's fault.

9.5 Unless PetroChina breaches this Agreement first or an event of Force Majeure (a "Force Majeure Event") occurs, to the extent that PipeChina fails to satisfy any condition precedent set forth in 4.1 (5) of the Framework Agreement, PetroChina shall have the right to bring a claim against PipeChina for the actual losses suffered by it arising from such failure.

10. ANNOUNCEMENTS OF TRANSACTION INFORMATION

10.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

10.2 The restrictions under Section 10.1 shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in Section 10.1 by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

11. CONFIDENTIALITY

11.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Assets, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

11.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict as the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

11.3 The Receiving Party may provide the Confidential Information to its counsels, accountants, contractors and consultants as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

11.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

11.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

11.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

11.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

12. NO ASSIGNMENT

12.1 Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article 12 shall be null and void.

13. FURTHER ASSURANCE

13.1 Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

13.2 Each Party shall cause its Affiliates to comply with all the obligations expressly applicable to them.

14. TAXES AND EXPENSES

14.1 Subject to Section 14.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall bear its own costs, fees and any other expenses incurred by it in connection with this Transaction.

14.2 Pursuant to applicable laws, regulations or orders or decisions of the PRC, each Party shall bear and pay all taxes arising from and all fees charged by competent governmental or regulatory authorities and stock exchanges in connection with this Agreement or any other Transaction Document.

14.3 For purposes of this Transaction, unless otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the Handover of the Target Assets shall be reasonably apportioned by the Parties and settled through negotiation.

14.4 In the event that (i) as of the Closing Date, the registered VAT payer of any branch company which owns any Target Assets has any amount of the incoming VAT that has not yet been used for deduction (the "Unused Offsettable Amount") and is included into the Transaction Consideration and (ii) PetroChina elects to transfer all the Target Assets of such branch company to PipeChina as a whole, PetroChina shall within 12 months as of the completion of this Transaction, transfer the Unused Offsettable Amount to PipeChina, together with the statutory evidence therefor. In the event PetroChina elects not to transfer all the Target Assets of such branch company to PipeChina as a whole, the Parties shall cooperate with each other to procure that PipeChina will receive the corresponding Unused Offsettable Amount in any other reasonable and legal commercial form. Where the Unused Offsettable Amount fails to be transferred to PipeChina within the said 12 months and PetroChina fails to take any active and effective measures to procure that PipeChina will receive the corresponding Unused Offsettable Amount in any other reasonable and legal commercial form, PetroChina shall pay PipeChina a corresponding compensatory amount within 10 Business Days after 12 months following completion of this Transaction. Where the Unused Offsettable Amount fails to be transferred to PipeChina within 12 months after the Closing Date due to the impact of any state policy, the Parties shall resolve the problem through negotiations in light of the actual situation. In the event that PetroChina fails to comply with any of the foregoing covenants or undertakings, PipeChina shall have the right to claim against PetroChina for the actual losses arising from such failure.

14.5 Both Parties agree that the tax costs of the Target Assets shall be transferred together with the Target Assets. For the avoidance of doubt, from and after the Closing Date, to the extent that any Target Assets suffers a claim of tax deficiency brought by any competent authority and incurs any additional tax liability as a result, such additional tax liability shall be borne by the relevant legal entity that owns such Target Assets. Where PetroChina or PipeChina is required to pay any additional tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

14.6 Both Parties agree that if it is necessary to go through the tax de-registration for a branch company taxpayer which originally owns any Non-equity Assets, PetroChina shall authorize the relevant legal entity which owns such Non-equity Assets by then to complete such tax de-registration, including the tax declaration obligations for the period from the Closing Date until the de-registration date, with any costs, taxes and expenses incurred in connection with such tax de-registration to be borne as agreed between the Parties.

15. NOTICE

15.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received (a) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service; or (b) upon successful transmission by the sender as indicated on the fax machine if by fax; or (c) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

15.2 The Parties' contact details to be used for the purpose of Section 15.1, such as addresses and fax numbers shall be as set forth in Appendix 3 hereto.

16. CONFLICTS WITH OTHER AGREEMENTS

16.1 The Framework Agreement, this Agreement and all the appendices thereto and hereto shall constitute all the legal documents for this Transaction.

16.2 This Agreement shall upon execution, constitute an appendix to the Framework Agreement. In case of any conflict between this Agreement and the Framework Agreement in terms of any provision, the Framework Agreement shall prevail. Both Parties have agreed that the specific Handover matters in relation to the Target Assets shall be carried out in accordance with the relevant agreements or memoranda to be otherwise signed by the Parties in the subsequent Handover processes.

17. WAIVERS, RIGHTS AND REMEDIES

17.1 Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

18. LANGUAGE AND COUNTERPARTS

18.1 This Agreement is written in Chinese. This Agreement shall be executed in ten (10) counterparts with equal legal force, five (5) for each party.

19. EFFECTIVENESS AND AMENDMENTS

19.1 This Agreement shall be formed upon being signed by the authorized representatives and affixed with the company seals of both Parties, and shall take effect on the date on which the Framework Agreement becomes effective.

19.2 From the date of the formation of this Agreement, Article 10 (*Announcements of Transaction Information*), Article 11 (*Confidentiality*), Article 12 (*No Assignment*), Article 14 (*Taxes and Expenses*), Article 15 (*Notices*), Article 16 (*Conflicts with Other Agreements*), Article 17 (*Waivers, Rights and Remedies*), Article 19 (*Effectiveness and Amendments*), Article 20 (*Severability*), Article 21 (*Governing Law and Dispute Resolution*), and Appendix 1 (*Definitions and Interpretation*) shall be binding upon both Parties.

19.3 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the Parties' legal representative or his/her authorized representative and stamped by the Parties.

20. SEVERABILITY

21.1 Provisions in this Agreement and other Transaction Documents are severable. In the event that any provision in this Agreement or any other Transaction Document is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect, and the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such provision in such aspect.

21. GOVERNING LAW AND DISPUTE RESOLUTION

21.1 This Agreement shall be governed by and construed in accordance with the laws of the PRC.

21.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

21.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

21.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

21.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

21.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

21.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

22. MISCELLANEOUS

22.1 Force Majeure

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of a Force Majeure Event, such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of Force Majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

[*End of text. Signature pages and appendices follow*]

In witness whereof, the Parties have signed this Disposal Agreement on Relevant Assets of Oil and Gas Pipelines from Guangdong Natural Gas Pipeline Network Co., Ltd. and Others on the date first written above.

China Oil&Gas Pipeline Network Corporation
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

PetroChina Company Limited
(Company Seal)

Signed by: _____
Legal representative or his/her
authorized representative

Dated and signed on July 23, 2020

APPENDIX 1: DEFINITIONS AND INTERPRETATION

1. Definitions. Capitalized terms used in this Agreement if not otherwise defined herein shall have the meanings ascribed thereto in Appendix 1 to the Framework Agreement. For purposes of this Agreement, the following terms shall have the meanings set forth below:

this "Agreement"	means	this Disposal Agreement on Relevant Assets of Oil and Gas Pipelines from Guangdong Natural Gas Pipeline Network Co., Ltd.
"Framework Agreement"	means	the Framework Agreement on Transaction of Oil and Gas Pipeline Related Assets entered into by and between PipeChina and PetroChina on July 23, 2020.
this "Transaction"	means	the transaction contemplated by this Agreement through which PetroChina intends to sell to PipeChina, and PipeChina intends to purchase and take over all the Target Assets listed on Appendix 2 in accordance with the terms and condition set forth in this Agreement.
"Asset Appraisal Report"	means	the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 888*) prepared in connection with the transaction through which China Oil&Gas Pipeline Network Corporation intends to purchase certain oil and gas pipeline related assets from PetroChina Company Limited by issuing additional shares and paying cash to PetroChina Company Limited as the consideration.
"Target Assets" or "Appraised Assets"	has	the meaning set forth in Section 1.1, including Equity Assets and Non-equity Assets, among which, the term "Equity Assets" refers to PetroChina's equity interests in the Target Companies listed on Appendix 2 that PetroChina intends to sell to PipeChina; and the term "Non-equity Assets" refers to the oil and gas pipelines, gas storage facilities and LNG terminals and their accessory facilities and other related assets owned by PetroChina that PetroChina intends to sell to PipeChina, as set forth in further detail in Appendix 2.
"Target Companies" or "Equity Entities" or "Equity Assets"	means	those corporate legal persons listed as "Equity Assets" on Appendix 2.
"Target Assets Schedule"	means	the Target Asset schedule to be checked and confirmed by both Parties in accordance with this Agreement.

"Transaction Consideration"	has	the meaning set forth in Article 2.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal representative or his/her authorised representative and the company seal of each of PipeChina and PetroChina.

2. Interpretation. Interpretation of relevant terms used in this Agreement shall be consistent with the Framework Agreement.

APPENDIX 2: TARGET ASSETS AND APPRAISED VALUE

According to Article 1 of this Agreement, the Target Assets consist of PetroChina's Equity Assets and Non-equity Assets including the oil and gas pipelines, gas storage facilities and LNG terminals and their accessory facilities that PetroChina intends to contribute/transfer to PipeChina, as set forth in further detail below:

1. Equity Assets

No.	Equity Entities	Appraised Value (RMB)
1	PetroChina Jilin Natural Gas Pipeline Network Co., Ltd.	123,766,008.04
2	Fujian Natural Gas Pipeline Network Co., Ltd.	4,177,191.26
3	Guangdong Natural Gas Pipeline Network Co., Ltd.	1,651,367,432.00
4	Jiangsu Rudong United Pipeline Co., Ltd.	269,846,400.00

2. Non-equity Assets

No.	Target Assets	Appraised Value (RMB)
1	PetroChina Pipeline Company (the closing with respect to this entity will be consummated by delivery to PipeChina of 100% equity interests in this entity after it is converted into a wholly-owned subsidiary of PetroChina)	38,118,531,165.37
2	PetroChina Southwest Pipeline Company (the closing with respect to this entity will be consummated by delivery to PipeChina of 100% equity interests in this entity after it is converted into a wholly-owned subsidiary of PetroChina)	17,644,832,572.68
3	PetroChina West-To-East Natural Gas Pipeline Company	1,012,792,311.07
4	PetroChina West Pipeline Company	42,989,776.76
5	PetroChina Pipeline Construction Project Management Department	-1,214,958,739.20
6	PetroChina Beijing Oil and Gas Control Center	39,869,055.15
7	PetroChina Northwest Marketing Company, Nanning Oil Storage	334,690,895.28
8	PetroChina Shenzhen LNG Project Management Department	176,433,355.51

3. **Equity Assets—Basic Company Information**

No.	Company Name	Unified Social Credit Code	Principal Business Activities	Registered Capital (in RMB million)	Equity Interests Held by PetroChina (%)	Domicile	Date of Establishment
1.	PetroChina Jilin Natural Gas Pipeline Network Co., Ltd.	91220000MA0Y61BU9M	Pipeline engineering construction, maintenance and emergency repair(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	481.40	51%	No. 1119, Jingyang Road, Lvyuan District, Changchun	Sep 2, 2016
2.	Fujian Natural Gas Pipeline Network Co., Ltd.	91350000MA32TB9U5E	Marketing of pipeline gas, cylinder gas, gas offered at fueling stations for natural gas vehicles and other types of gas; construction of gas supply facilities and gas supply pipeline facilities; gas warehousing (other than hazardous chemicals); gas supply consulting services; gas project design services; retail of refined petroleum products (excluding hazardous chemicals and precursor chemicals)(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	150.06	50%	17th Floor, Xinhe Plaza, 137 Wusi Road, Gulou District, Fuzhou, Fujian Province	Sep 17, 2015

No.	Company Name	Unified Social Credit Code	Principal Business Activities	Registered Capital (in RMB million)	Equity Interests Held by PetroChina (%)	Domicile	Date of Establishment
3.	Guangdong Natural Gas Pipeline Network Co., Ltd.	91440000673076616B	Construction and operation of natural gas pipeline network in Guangdong Province; procurement, sales and transmission of natural gas and related business activities (the company may not commence any line of business requiring regulatory approvals under any law, regulation or decision of the State Council until after receipt of the required permits or approvals from the competent examination and approval authorities and shall conduct such line of business in accordance with such permits (or approvals)); importation and exportation of goods and technology (other than those lines of business prohibited by the laws or regulations. The Company may not commence any line business restricted by laws or regulations until after receipt of the required permits) (. And to the extent that the operation of any lines of business is subject to the receipt of certain approvals, the company may not commence such line of business until after receipt of such approvals from competent governmental authorities).	3,984.615385	23%	Room 502, Building A1, No. 191, Kexue Avenue, Science Park, Guangzhou Hi-tech Industrial Development Zone, Luogang District, Guangzhou	Mar 21, 2008
4.	Jiangsu Rudong United Pipeline Co., Ltd.	9132062334616765XD	Construction of oil and gas pipelines; operation of the Rudong – Haimen – Chongming Island Natural Gas Pipeline Transmission Project; pipeline natural gas technical services, equipment and facilities maintenance, inspection and repair services, and management of third party natural gas sub-transmission stations upon entrustment of third party companies; equipment leasing services(; provided, that the company may not commence any line of business requiring regulatory approvals under law until after receipt of the required approvals from the competent governmental authorities).	400	50%	Comprehensive Business Building, Yangkou Port Economic Development Zone, Jiangsu Province (Brigade 9, Gangcheng Village, Changsha Town)	Jul 2, 2015

APPENDIX 3: BANK ACCOUNT AND CONTACT INFORMATION OF THE PARTIES

APPENDIX 4: SCHEDULE OF OUTSIDE ASSETS

No.	Name	Category	Note
1	Changting Furan Natural Gas Co., Ltd.	Long-Term Equity Investment	69% owned by Fujian Natural Gas Pipeline Network Co., Ltd.
2	Fujian Zhongming Natural Gas Co., Ltd.	Long-Term Equity Investment	75% owned by Fujian Natural Gas Pipeline Network Co., Ltd.
3	Zhangzhou Jingfa Gas Co., Ltd.	Long-Term Equity Investment	30% owned by Fujian Natural Gas Pipeline Network Co., Ltd.

Exhibit 4.19

PetroChina Company Limited

China Oil & Gas Pipeline Network Corporation

Production and Operation Agreement

July 2020

Beijing

This Agreement is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") on July 23, 2020:

The Shipper: PetroChina Company Limited
Legal Representative: Dai Houliang
Registered Address: No. 16, Ande Road, Dongcheng District, Beijing

The Carrier: China Oil & Gas Pipeline Network Corporation
Legal Representative: Zhang Wei
Registered Address: Rooms 08-10, Floor 6, Building A, No. 5, Dongtucheng Road, Chaoyang District, Beijing

After amicable negotiations by adhering to the principle of equality and mutual benefit and win-win cooperation, the Parties hereby reach agreement as follows:

1. Goals and Objectives. Subject to PRC laws & regulations and other relevant requirements, the parties shall closely coordinate and cooperate with each other and support each other's development, and jointly establish a long-term cooperation mechanism for coordination of production and operation with a view to securing orderly interfacing between and ensuring a smooth and steady operation of the oil and gas production business of the Shipper and the pipeline transportation business.

2. Operation Coordinating Entities. The parties have agreed after consultations to conduct the interfacing at three levels, i.e., the headquarters level, the Production and Operation Command Center level and the regional company level. The interfacing entities shall be as follows: the Production and Operation Management Department of the Shipper and the Production and Operation Headquarters of the Carrier, the Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier, and Regional Companies of the parties having business dealings with each other.

3. Operation Coordination Principle. The parties have agreed after consultations that the operation coordination management shall be carried out by adhering to the following principles:

3.1 Principle of contract-based operation management and consistency of plans

3.1.1 In accordance with this Agreement, the parties will enter into individual agreements in respect of the oil and gas pipeline networks, LNG receiving stations, gas depots, and other related facilities and corresponding services to specify their respective rights and obligations, and will strictly perform this Agreement and such individual agreements (contracts), so as to jointly establish a new contractual pipeline transportation service relationship.

3.1.2 The parties shall establish a joint workgroup for operation coordination to regularly verify the alignment between the annual, quarterly and monthly production and operation and pipeline transportation plans of the parties, with a view to securing the consistency between and the strict compliance with such plans.

3.1.3 The Carrier shall station an on-site representative at the Shipper to conduct the interfacing in relation to plans and operations and handle business related matters, etc.

3.2 Principle of fair opening, compliant operation and smooth and steady interfacing

3.2.1 The Carrier shall preferentially guarantee the due performance of the existing services of the Shipper. Subject to the *Measures for the Supervision and Administration of Fair Opening of Oil and Gas Pipeline Network Facilities*, the Carrier shall guarantee the transportation of the oil and gas resources under the long-term trade contracts signed by the Shipper before the handover of domestic oil and gas and assets to the Carrier. The Carrier shall ensure that all the pipelines, gas depots, oil depots and LNG receiving stations, etc. handed over by the Shipper to the Carrier shall continue to satisfy the Shipper's requirements for contents and quantity of services used by the Shipper prior to the handover. The Carrier shall procure that the capacity of pipelines and depots and the opening of the window periods of the LNG receiving stations will accommodate the full digestion of the imported resources under the long-term trade contracts signed by the Shipper prior to the handover of relevant domestic oil and gas related assets to the Carrier. In addition, the Carrier shall satisfy the additional needs of the Shipper. In respect of the outgoing oil and gas transportation pipelines constructed by or for the Shipper's oil/gas field, refining and chemicals, and marketing branches as their supporting facilities, the Carrier shall procure smooth outgoing transportation of and adequate logistic support for further distribution of the oil and gas resources supplied by the Shipper's relevant branches, in accordance with contracts or plans to be further executed or agreed by and between them.

3.2.2 Both parties acknowledge that the obligations under the Pipeline Entry Opening Agreement and the Pipeline Transportation Agreement (including supplemental agreements thereto) executed by and between the Shipper's Natural Gas Marketing Branch and PetroChina Pipeline Co., Ltd., shall, if fully satisfied, be deemed to have been completely performed, and if not yet fully satisfied, be handled subject to further negotiations between the parties through a special workgroup jointly established by the parties. Such special workgroup shall discuss such obligations on a case-by-case basis without violating the principle of fair opening of oil and gas pipeline facilities.

3.2.3 No major adjustment will be made to the existing routine interfacing model between regional companies of the parties. Except that the crude oil sales shall operate by the new mechanism, delivery metering and other similar operations shall to the extent possible, continue to follow the routine interfacing practice prior to the handover of relevant assets from the Shipper to the Carrier.

3.3 Principle to jointly promote the operation management innovation and data sharing

3.3.1 Labeling management of crude oil and refined product transportation. The Carrier shall adopt the oil labeling management for the crude oil and refined product pipeline transportation services, and procure that the oil products will enter and exit from the pipelines in an orderly manner and allow separate quality control.

3.3.2 By bearing in mind the “pipelines deliver the qualified products” concept, the Carrier shall be responsible for blending treatment of refined products, and pay the treatment expenses. The refining and chemicals, marketing and transportation branches of the Shipper may, in accordance with the commissioned service contracts signed with the relevant pipeline transportation enterprises, cooperate with such enterprises in the processing and re-refining, mixing and blending, and transportation of mixed oil, and charge corresponding expenses based on market practice. The parties may set forth such matters in relevant individual agreements.

3.3.3 When purchasing the self-used natural gas fuel, the Carrier shall, in principle, determine the purchase volume of fuel gas for the current year based on the proportion of the Shipper’s actually supplied self-used gas in the preceding year, at a price agreed between the parties.

3.3.4 The parties shall open to and share with each other the operational parameters of the delivery points and the related oil and gas resources, main oil/gas pipelines, gas storage depots and LNG receiving stations, etc. in the vicinity.

4. Contents of Operation Coordination

4.1 The Production and Operation Management Department of the Shipper and the Production and Operation Headquarters of the Carrier shall be in charge of the coordination and interfacing in connection with the following work:

4.1.1 The Shipper’s annual, quarterly and monthly plans for crude oil, refined product and natural gas pipeline transportation; plans for injections and withdrawals at gas storage depots; and plans for LNG receiving, unloading, and gasified LNG external transportation for LNG receiving stations, shall, after being developed into formal plans through interfacing between the parties, be issued to the subordinate enterprises of the parties; and

4.1.2 Both parties shall summarize the overhaul and maintenance plans of their subordinate enterprises, formulate the company-level annual, quarterly and monthly overhaul and maintenance plans for upstream and downstream operations. The parties shall then organize a centralized interfacing to develop formal plans on that basis and issue such formal plans to the subordinate enterprises.

4.1.3 Coordinated handling of major issues in oil/gas pipeline transportation operations

4.2 The Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier shall be in charge of the coordination and interfacing in connection with the performance of the following work:

4.2.1 joint preparation of the weekly balancing plans, intraday capacity nomination schedules (or batch plans) and other pipeline transportation plans and organization of the implementation of such schedules and plans;

4.2.2 interfacing in relation to the day-to-day production and operation, pipeline transportation plan adjustment and other work;

4.2.3 collection and organization of statistical reports of oil/gas pipeline transportation business, gas storage depots and LNG receiving stations; and

4.2.4 establishment of a joint emergency response mechanism for production and operation, and provision of assistance to each other in the preparation of the emergency plan.

4.3 Regional Companies of the parties shall be in charge of the coordination and interfacing in connection with the performance of the following work:

4.3.1 The Shipper's oil field, refining and chemicals, refined product marketing, and natural gas marketing branches, Sino-Pipeline International Company Limited and other related enterprises will enter into a delivery metering agreement, a dispatch operation agreement and any other necessary agreement with the applicable subordinate enterprises of the Carrier. The parties shall maintain the day-to-day operation related interfacing at the regional company level.

4.3.2 Crude oil business. The Northeast Marketing Center and West Marketing Center of the Shipper's Crude Oil Marketing Branch and other relevant enterprises shall entrust applicable subordinate enterprises of the Carrier to provide the relevant services in accordance with the monthly plans. The parties shall work with each other to resolve problems arising in day-to-day crude oil business operation.

4.3.3 Refined product business. As the purchaser and seller of refined product resources, the northeast and northwest regional companies of the Shipper's Petroleum Product Marketing Branch shall entrust the applicable subordinate enterprises of the Carrier to provide the relevant services in accordance with the monthly plans. The parties shall work with each other to resolve problems arising in day-to-day refined product business operation.

4.3.4 Natural gas business. As the entity of centralized purchase and marketing of natural gas, the Natural Gas Marketing Branch of the Shipper, and the Production and Operation Headquarters of the Carrier or other applicable enterprises subordinate thereunder to provide the relevant services in accordance with the monthly plans pursuant to the agreements signed by both parties. The parties shall work with each other to resolve problems arising in the day-to-day natural gas business operation.

5. Preparation and Implementation of Pipeline Transportation Schedules and Plans

5.1 The Production and Operation Management Department of the Shipper shall take the lead and work with the Production and Operation Headquarters of the Carrier in the preparation of the annual, quarterly and monthly oil/gas pipeline transportation plans pursuant to this Agreement and the applicable individual agreements, which plans shall, after being agreed by both parties through consultations, be issued to the respective subordinate enterprises of the parties.

5.2 After interfacing between the parties, the annual pipeline transportation plan of each party for each year shall be agreed by October of the preceding year; the quarterly pipeline transportation plan for each quarter shall be agreed by the 15th day of the third month in the preceding quarter and the monthly plan for the next month shall be proposed on the 10th day of each month when the remaining transportation capacity is announced; and the monthly pipeline transportation plan for each month shall be agreed by the 20 day of the preceding month.

5.3 In preparing annual, quarterly and monthly pipeline transportation plans, subject to relevant national policies for fair opening of oil and gas pipeline network facilities, to the extent permitted by its pipeline transportation capacity, the Carrier shall satisfy the Shipper's requirements in relation to the imported resources under long-term trade contracts signed by the Shipper before the handover of certain domestic oil and gas related assets of the Shipper to the Carrier. The parties shall strictly perform each plan confirmed after interfacing.

5.4 The preparation of the weekly balancing plans (or intraday capacity nomination schedules, or batch plans) of the parties shall be jointly led by the Production and Operation Management Department of the Shipper and the Production and Operation Headquarters of the Carrier, and the interfacing in relation thereto shall be conducted between the Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier, with the specific timing for interfacing to be set forth in related pipeline operation plans or otherwise.

6. Working Mechanism for Classified Coordination of Operation Management

6.1 Matters related to day-to-day oil/gas pipeline transportation business shall be handled through interfacing and coordination between the Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier.

6.2 In case any major problem or periodical problem arises in the production and operation which requires joint efforts of the parties, such problem shall be resolved through interfacing and coordination between the Production and Operation Management Department of the Shipper and the Production and Operation Headquarters of the Carrier.

6.3 In case of any abnormality of any pipeline storage and transportation facilities or material imbalance between the demand and supply of resources which is material enough to require the taking of an emergency response action, such abnormality or imbalance shall be addressed through the joint emergency response mechanism for production and operation. The materiality of any issue or matter or problem shall be defined in relevant agreements or emergency response plans.

7. Operation Management of Crude Oil Pipeline Transportation

7.1 In case of any matter arising from the day-to-day operation of crude oil pipeline transportation, the Production and Operation Management Department of the Shipper shall direct the Production and Operation Command Center of the Shipper to coordinate and interface with the Oil and Gas Control Center of the Carrier to find a solution.

7.2 The Northeast Marketing Center and West Marketing Center of the Shipper's Crude Oil Marketing Branch shall work with the applicable subordinate enterprise of the Carrier to handle matters related to the day-to-day operation of pipeline transportation of crude oil within the area subject to their authority. Any such matter that cannot be so resolved shall be escalated level-by-level to the competent authorities for coordination and resolution.

7.3 Each crude oil pipeline transportation capacity allocation schedule and batch plan shall, after being agreed between the Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier through interfacing and coordination, be implemented by the parties in accordance with the terms thereof.

7.3.1 During the period when upstream and downstream enterprises are in normal production or conducting an overhaul as planned, intraday nominated capacity shall be the equilibrium level during the relevant number of days in operation, and the quantity of each batch shall be properly determined by coordination with the upstream and downstream enterprises on the condition that the monthly plans can be fulfilled. Where the single-day or weekly inflow and outflow volume difference fluctuates within a range permitted by the monthly plan, the Northeast Crude Oil Marketing Center and West Crude Oil Marketing Center of the Shipper shall enter into negotiations with the applicable subordinate enterprise of the Carrier for an appropriate adjustment.

7.3.2 In case of a substantial imbalance between the pipeline inflow volume and outflow volume due to decrease in the upstream resource supply or decline in the oil receiving quantity of downstream refineries, the Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier shall coordinate with each other to find a solution.

7.4 As for those depots serving as production and operation supporting facilities which have been transferred to the Carrier from the Shipper, to the extent permitted by the depot capacity, the Carrier shall make its best endeavors to satisfy the Shipper's requirements for crude oil pipeline transportation, resource balancing and optimized allocation.

8. Operation Management of Refined Product Pipeline Transportation

8.1 In case of any matter arising from the day-to-day operation of refined product pipeline transportation, the Production and Operation Management Department of the Shipper shall direct the Production and Operation Command Center of the Shipper to coordinate and interface with the Oil and Gas Control Center of the Carrier on a centralized basis to find a solution.

8.2 The northeast and northwest regional companies of the Refined Product Marketing Branch of the Shipper shall work with the applicable subordinate enterprises of the Carrier to handle matters related to the day-to-day operation of pipeline transportation of crude oil within the area subject to their authority. Any such matter that cannot be resolved in such way shall be escalated level-by-level to the competent authorities for coordination and resolution.

8.3 A batch plan for refined product pipeline transportation shall be submitted by the Production and Operation Command Center of the Shipper to the Oil and Gas Control Center of the Carrier. The Oil and Gas Control Center of the Carrier shall then make an operation schedule based on such proposed batch plan and organize the implementation of the schedule. In case of an adjustment to a batch plan within a tolerable range within a single day, the northeast and northwest regional companies of Refined Product Marketing Branch of the Shipper shall coordinate with the applicable subordinate enterprise of the Carrier to accommodate such adjustment. In case of a substantial local imbalance between inflow volume and outflow volume of the pipelines, the Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier shall coordinate with each other to find a solution.

8.4 As for those crude oil depots serving as production and operation supporting facilities which have been transferred to the Carrier, to the extent permitted by the depot capacity, the Carrier shall make its best endeavors to satisfy the Shipper's requirements for refined product pipeline transportation, resource balancing and optimized allocation.

9. Operation Management of Natural Gas Pipeline Transportation

9.1 In case of any matter arising from the day-to-day operation of natural gas pipeline transportation, the Production and Operation Management Department of the Shipper shall direct the Production and Operation Command Center of the Shipper to coordinate and interface with the Oil and Gas Control Center of the Carrier on a centralized basis to find a solution.

9.2 The intraday natural gas capacity nomination schedule shall be submitted by the Production and Operation Command Center of the Shipper to the Oil and Gas Control Center of the Carrier, and after being confirmed by the Oil and Gas Control Center of the Carrier by taking into consideration the pipeline transmission capacity and the operation of the pipeline network, be issued for implementation. Fluctuations in the difference between the inflow volume and outflow volume of the pipeline network on a single day within a tolerable range shall be regulated by the Oil and Gas Control Center of the Carrier through linepack. In case of a substantial local imbalance between the inflow volume and outflow volume of the pipeline network, the Oil and Gas Control Center of the Carrier shall enter into negotiations with the Operation Command Center of the Shipper for a solution.

9.3 As for those gas storage depots and LNG receiving stations which were previously owned by the Shipper and have by now been transferred to the Carrier, subject to the principle of fair opening of oil and gas network facilities in accordance with law, the Carrier shall satisfy the Shipper's existing service requirements. The Shipper's intraday capacity requirement forecast shall be submitted to the Oil and Gas Control Center of the Carrier by being incorporated into the intraday capacity nomination schedule by the Production and Operation Command Center of the Shipper. The Production and Operation Command Center of the Shipper shall organize the implementation of the intraday capacity nomination schedule submitted by the Production and Operation Command Center of the Shipper after balancing it based on the relevant service contact.

10. Delivery Metering and Payment Settlement

10.1 By adhering to the international delivery metering principle of "metered by the deliverer under the supervision of the receiver", the parties shall work with each other to procure a satisfactory delivery metering. Metering at the loading point when the Shipper's resources are loaded onto the pipelines shall be mainly performed by the Shipper under the supervision of the Carrier; and on the contrary, metering at the unloading point of the pipelines shall be mainly performed by the Carrier under the supervision of the Shipper. For any unloading point at which the metering facilities are not adequate to satisfy the delivery metering requirement, the party who is the owner of such delivery metering facilities shall upgrade such facilities to ensure accurate metering.

10.2 Metering data shall be subject to confirmation by the Shipper, the Carrier and the related upstream or downstream operator. The authentication certificates of relevant instruments and calibration curves shall comply with applicable national standards, and shall be fully open to each other. The metering dispute reconciliation mechanism and resolution method shall be set forth in the relevant delivery metering agreement among such three parties.

10.3 Oil and gas transportation shall be managed by following the "delivery at the loading point and confirmation and settlement at the unloading point" model. The Carrier shall satisfy the Shipper's requirements for physical inventory check at the oil and gas depots (for natural gas, such check shall be done against account books) and shall follow the yearly check and yearly settlement practice. For crude oil and refined products, the actual pipeline transmission loss shall be calculated based on actual loss, and any loss in excess the designed loss rate shall be borne by the Carrier, and any surplus oil (if any) shall be returned to the Shipper in proportion to the Shipper's pipeline transportation volume. The surplus oil (if any) shall be returned to the Shipper in a manner to be jointly considered and determined by the parties. The parties shall establish a joint inventory check coordination mechanism and develop an inventory check implementation plan through consultations.

10.4 The parties have jointly determined that the designed loss rate for both crude oil pipeline transmission and refined product pipeline transmission is ≤0.06%. In the event that the actual pipeline transmission loss rate in the course of operation deviates materially from the designed loss rate for three consecutive years, the parties shall establish a mechanism to resolve such issue through consultations and jointly consider making an appropriate amendment to the designed pipeline transmission loss rate. Matters related to natural gas pipeline transmission loss shall be governed by the *Measures for Supervision and Examination of the Cost Base for Natural Gas Pipeline Transportation Pricing* (the *2017 version, trial*). Considering the fact that the loss cost is inclusive in the pipeline transportation price, the transmission loss for natural gas arising from actual operations shall be borne by the Carrier. It is recommended that the transmission loss rate for natural gas to be adopted for those natural gas pipelines transferred to the Carrier from the Shipper should be close to the actual loss rate incurred in actual operation during the three years immediately prior to handover of such pipelines to the Carrier.

10.5 The quality of refined products entering the pipelines shall comply with the sequential transportation requirements and the line entry quality standard agreed between the parties, and the refined products for offtake shall comply with the applicable national standards. The crude oil for offtake shall be substantially consistent with the quality of the crude oil entered the pipeline. And natural gas transported through pipelines shall comply with the transmission and distribution quality requirements, and the parties shall work with each other to promote the measurement of natural gas transported through pipelines by caloric value.

10.6 The pipeline transportation, gas storage, and LNG gasification services shall be priced in accordance with the applicable pricing policies currently in effect, which consist of such three types as government-guiding prices, agreed prices and negotiated prices. The parties agree that, subject to applicable national natural gas pipeline transportation pricing policies, the natural gas pipeline transportation fee shall be settled at the freight rate adopted in asset appraisal. For those pipelines crossing provinces appraised by the income approach shall be adjusted based on the impact of changes in turnover volume (=Pipeline transportation volume × Average transportation distance) on the freight rate.

10.7 The parties agree that the settlement period for pipeline transportation fee shall be seven to ten days. The pipeline transportation fee for refined products and natural gas shall be paid by following the existing methods. The pipeline transportation fee for crude oil shall be paid by using the agency collection and payment method. In the event that either party raises a dispute over any metering data, settlement bill or invoice, the part of the pipeline transportation fee that is not subject to dispute shall be paid first, with the remaining amount of pipeline transportation fee to be paid after the dispute is eliminated.

11. Overhaul and Maintenance of Production Equipment and Facilities

11.1 Planned Overhaul and Maintenance

11.1.1 Both parties shall schedule window periods for planned overhaul and maintenance in line with the overhaul and maintenance needs, and strive to synchronize the overhaul and maintenance of upstream, midstream and downstream operations. In the course of actual operation, the overhaul and maintenance shall be arranged by following the principle of "annual negotiation, quarterly confirmation and monthly implementation". The parties shall work with each other to make the planned inspection and maintenance more seriously observed. In the event that the performance of any other contract is adversely affected by the rescheduling of any planned overhaul and maintenance, such issues such be resolved in accordance with the applicable provisions in relevant contract(s).

11.1.2 As for crude oil transmission pipelines, the overhaul and maintenance of transnational pipelines and storage tanks shall be synchronized with that of domestic refineries. Before the Carrier and the applicable foreign party determine any plan to suspend the operation of any international pipeline, the Carrier shall have adequate discussions with the Shipper. The parties shall jointly formulate the oil gas resource balancing plan for the overhaul and maintenance period of refineries designed to reduce the linepack to the lowest level immediately prior to the commencement of the overhaul and maintenance and increase the pipeline transportation capacity to the highest level during the overhaul and maintenance period.

11.1.3 As for refined product transmission pipelines, the overhaul and maintenance of pipelines and refineries shall be synchronized. The parties shall jointly formulate the pipeline refined product stock balancing plan for the overhaul and maintenance period of pipelines and refineries so as to secure a steady supply of resources.

11.1.4 As for natural gas transmission pipelines, the overhaul and maintenance of cross-border pipelines, domestic pipelines and domestic gas fields shall be synchronized. The window periods for centralized overhaul and maintenance of domestic pipelines and large gas fields shall be May and September each year. In anticipation of such overhaul and maintenance, the parties shall formulate the resource balancing plan in advance, and strive to synchronize the overhaul of natural gas pipelines, gas storage depots and downstream users.

11.2 Temporary Overhaul and Maintenance

11.2.1 Any unplanned overhaul and maintenance operation shall be temporary overhaul and maintenance. The parties shall conduct any temporary overhaul and maintenance by adhering to the "who raises the temporary overhaul and maintenance request, who shall bear the responsibility" principle and on the precondition that the production and operation of the other party will not be disrupted to the extent possible. In the event that any temporary overhaul and maintenance of either party causes material losses to the other party, the party who is obligated to bear the responsibility as determined above shall assume corresponding liability for compensation, as specified in further detail in the relevant contract.

11.2.2 When the Carrier needs to carry out a temporary overhaul and maintenance, and such overhaul and maintenance may have an adverse effect on the upstream receiving capacity or downstream offtake capacity, the Oil and Gas Control Center of the Carrier shall notify as first priority the Production and Operation Command Center of the Shipper of the relevant information regarding such overhaul and maintenance, together with assessment and explanation of the possible consequences, in response to which, the Production and Operation Command Center of the Shipper shall coordinate with applicable subordinate enterprises to make adjustment to operations accordingly.

11.2.3 When any related resource supplier of the Shipper or any of the Shipper's owned storage or transportation facilities conducts any temporary overhaul and maintenance, Production and Operation Command Center of the Shipper shall notify as first priority the Oil and Gas Control Center of the Carrier of the information regarding such overhaul and maintenance, in case of which, the Production and Operation Command Center of the Shipper shall coordinate with applicable subordinate enterprises to make corresponding adjustments to operations and make corresponding arrangements for or changes to the intraday capacity nomination schedule.

12. Operation Emergency Response Coordination

12.1 The Production and Operation Command Center of the Shipper and the Oil and Gas Control Center of the Carrier shall establish a joint emergency response mechanism. The parties shall assist each other in the preparation of the emergency plan in accordance with the emergency response regulations of the State for oil/gas pipelines. Before the establishment of the Production and Operation Command Center of the Shipper, the Production and Operation Management Department of the Shipper shall take the lead, and the Shipper's relevant specialized branches shall be specifically responsible for working with the Oil and Gas Control Center of the Carrier to establish the joint emergency response mechanism during the transitional period.

12.2 The production and operation emergencies mainly include: overall imbalance between supply and demand due to abnormality of resources, local imbalance between supply and demand due to abnormality of pipeline storage and transportation facilities, and overall imbalance between supply and demand due to abnormality of the demand side under extreme weather (or national intervention). The definition of emergency shall be jointly determined by the parties by referring to the emergency plans of the Shipper's specialized branches adopted under the existing operation model and by taking into consideration the status of production and operation.

12.3 In the event that any temporary pipeline operation or temporary adjustment of pipeline transportation volume becomes necessary in response to production and operation emergency, the operator of such operation or adjustment shall, pursuant to the relevant agreement and by following the relevant procedures, submit a an application therefor in a timely fashion. After having reached agreement through consultations, the parties shall determine the proposed adjustment(s) and then organize the implementation of such adjustment(s).

12.4 In case of any abnormality of any oil and gas resources or storage and transportation facilities of the Shipper, after the operator of such resources or facilities makes an application by following relevant procedures, the Oil and Gas Control Center of the Carrier will adjust the pipeline transportation volume accordingly. When the Shipper arranges any on-site maintenance and repair in response to such abnormality, the Production and Operation Command Center of the Shipper shall update regularly the Oil and Gas Control Center of the Carrier on the progress of such emergency maintenance and repair.

12.5 In the event that any abnormity of any oil/gas pipeline of the Carrier results in any production cut by any oil/gas field or has an adverse effect on resource importation or downstream sales, the Production and Operation Command Center of the Shipper shall adjust the production, supply, storage and marketing of upstream and downstream resources. When the Carrier arranges any on-site emergency maintenance and repair in response to such abnormality, the Oil and Gas Control Center of the Carrier shall update regularly the Production and Operation Command Center of the Shipper on the progress of such emergency maintenance and repair.

12.6 In case of emergency, the regional companies of the parties shall interface with each other in the same way as currently conducted, and the party who conducts any operation in response to such emergency shall be obligated to keep the other party updated of the progress in the on-site emergency maintenance and repair.

12.7 Unless arising from force majeure, in case of any interruption in pipeline operation, any pipeline operating under a pressure lower than the design pressure for a long time, failure of any LNG receiving station to conduct the receiving and unloading of LNG or external transportation of gasified LNG, failure of any gas storage depot to allow gas injection or withdrawal, or abnormality of any oil/gas storage and transportation facilities, which is attributable to any reason on the part of the Carrier, and results in any production cut by any oil/gas field, default in resource importation, default under any downstream sales contract, failure to fulfill any plan, or disruption to the normal operation of any of the Shipper's oil/gas storage and transportation facilities or otherwise, and in in turn causes economic losses to the Shipper, the Carrier shall assume corresponding liability for breach, as specified in further detail in the applicable individual agreement.

12.8 Unless arising from force majeure, in case the Carrier suffers any pipe pressure buildup, breakage, condensation or explosion or equipment failure, which is attributable to any reason on the part of the Shipper, and disrupts the normal operation of any oil/gas storage and transportation facilities, and results in a default by the Carrier under any pipeline capacity order, or default by the Carrier under any shipping contract with any other party, etc., and in turn causes any economic loss to the Carrier, the Shipper shall assume corresponding liability for breach, as specified in further detail in the applicable individual agreement

13. Data Sharing

13.1 The Carrier shall agree to share with the Shipper the operational data of the Shipper's delivery points and the related main oil/gas pipelines, gas storage depots and LNG receiving stations in the vicinity, including the operational parameters of the related oil/gas fields, gas entry points at the first station of the relevant international pipelines and offtake unloading points along the downstream lines as well as such parameters as linepack, tank stock and interface location of each batch of oil products.

13.2 The Shipper shall agree to share with the Carrier the operational data of the Carrier's delivery points and the related main oil/gas pipelines, gas storage depots and LNG receiving stations in the vicinity, including the operational parameters of the last station of the upstream section before the oil or gas entering the pipeline network, the operational parameters of the first station of the downstream section of the branch line owned by the Shipper extending from the national trunk line network as well as such parameters as linepack and tank stock.

13.3 The parties shall transmit the relevant data on a real-time basis through self-built or leased dedicated information channels, as specified in further detail in the applicable service agreement.

14. Miscellaneous

14.1 The Shipper shall invite the Carrier to attend the operation coordination meetings for Central Asia, China-Myanmar and other oil/gas pipelines in which by PetroChina participates, and establish the internal signing and confirmation mechanism for the Chinese party, so as to ensure the consistency between Chinese party's plans and foreign party's plans and consistency between internal plans and external plans.

14.2 During the transitional period after the completion of the handover of relevant assets from the Shipper to the Carrier and before the establishment of the Production and Operation Command Center of the Shipper, the Shipper may entrust the Oil and Gas Control Center of the Carrier to manage its intraday capacity nomination schedule and other similar matters for the entry of upstream natural gas resources into the larger pipe network. To that end, the parties may sign a separate agreement.

14.3 Based on the principles and mechanisms determined in this Agreement, the parties and/or their subordinate enterprises will negotiate on and enter into five individual service agreements (contracts) in respect of the use of crude oil, refined product, natural gas pipeline transportation facilities and gas storage depots and LNG receiving stations.

14.4 Each party shall be obligated to keep confidential this Agreement and any and all the information related to the other party obtained by such party in connection with the performance of this Agreement, including but not limited to trade secrets such as development strategies, planning and deployment, investment projects and production and operation, and other non-public information. To the extent necessary, the parties may enter into a supplemental agreement for this purpose, and such supplemental agreement so entered shall have the same effect as this Agreement.

14.5 Any and all disputes arising from this Agreement shall be resolved by the parties through friendly negotiations. Any such dispute shall be resolved by the relevant grassroots entities or regional companies of the parties as soon as practicable within 15 days. In case the parties fail to reach an agreement on any such dispute through negotiations after expiration of such 15 day-period, the parties shall submit such dispute to their respective headquarters for resolution through negotiations, or apply to the competent governmental authority for resolution through reconciliation.

14.6 In case of any change in any relevant policy or law or regulation or enactment of any new legislation which is inconsistent with any provision hereof during the period when this Agreement is under performance, the parties shall negotiate with each other and enter into a written supplementary agreement.

14.7 This Agreement shall take effect after being signed by and affixed with the seals of both parties, and shall be renegotiated and amended every three years. In case of any change in any national industrial policy or in the actual operational status, the parties shall negotiate with each other and amend this Agreement accordingly in a timely manner. This Agreement shall be executed in 12 counterparts with equal legal force, six for each party.

[*End of text. Signature pages follow*].

In witness whereof, the Parties have signed this Production and Operation Agreement on the date first written above.

China Oil&Gas Pipeline Network Corporation

(Company Seal)

Signed by:
/s/
Legal or authorized representative

Date: July 23, 2020

PetroChina Company Limited

(Company Seal)

Signed by:
/s/
Legal or authorized representative

Date: July 23, 2020

Exhibit 4.20

Kunlun Energy Company Limited

and

China Oil&Gas Pipeline Network Corporation

Equity Transfer Agreement in respect of PetroChina Beijing Gas Pipeline Co., Ltd. and PetroChina Dalian LNG Co., Ltd.

December 2020
Beijing

Table of Contents

1. DEFINITIONS AND INTERPRETATION 1
2. TRANSACTIONARRANGEMENT AND CONSIDERATION 5
3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE 6
4. CONDITIONS PRECEDENT TO CLOSING 7
5. CLOSING ARRANGEMENT 8
6. HANDOVER ARRANGEMENT 9
7. REPRESENTATIONS AND WARRANTIES OF KUNLUN ENERGY 10
8. REPRESENTATIONS AND WARRANTIES OF PIPECHINA 12
9. LIABILITY FOR BREACH 13
10. ANNOUNCEMENTS OF TRANSACTION INFORMATION 13
11. CONFIDENTIALITY 14
12. NO ASSIGNMENT 15
13. FURTHER ASSURANCE 15
14. TAXES AND EXPENSES 15
15. NOTICE 16
16. WAIVERS, RIGHTS AND REMEDIES 17
17. EFFECTIVENESS AND AMENDMENTS 17
18. GOVERNING LAW AND DISPUTE RESOLUTION 17
19. FORCE MAJEURE 18
20. MISCELLANEOUS 19

This Equity Transfer Agreement in respect of PetroChina Beijing Gas Pipeline Co., Ltd. and PetroChina Dalian LNG Co., Ltd. (this "Agreement") is entered into by and between the following parties in Beijing, the People's Republic of China (hereinafter referred to as "China" or the "PRC") in December 2020:

Kunlun Energy Company Limited ("**Kunlun Energy**")
Contact Address: 39th Floor, 118 Connaught Road West, Hong Kong

China Oil&Gas Pipeline Network Corporation ("**PipeChina**")
Contact Address: Rooms 08-10, Floor 6, Building A, 5 Dongtucheng Road, Chaoyang District, Beijing

For purposes of this Agreement, each of the parties hereto shall hereinafter be referred to individually as a "Party", and collectively as the "Parties".

Whereas:

1. Kunlun Energy, an integrated energy player, is a company incorporated in Bermuda and listed on the Main Board of the Stock Exchange of Hong Kong Limited (the "SEHK") under Stock Code: 00135.HK.
2. PipeChina is a limited liability company duly established and validly existing under PRC Laws (for purposes of this Agreement, excluding the laws and regulation of Hong Kong Special Administrative Region, the Macau Special Administrative Region and China Taiwan region).
3. PetroChina Beijing Gas Pipeline Co., Ltd. and PetroChina Dalian LNG Co., Ltd. (collectively, the "Target Companies") are both limited liability companies duly established and validly existing under PRC Laws, and are currently 60% owned and 75% owned by Kunlun Energy respectively.
4. On the terms and conditions set forth in this Agreement, PipeChina intends to purchase from Kunlun Energy, and Kunlun Energy intends to sell to PipeChina, all of Kunlun Energy's equity interests in both Target Companies (this "Transaction").

NOW, THEREFORE, pursuant to applicable provisions in the *Company Law of the People's Republic of China* and *the Contract Law of the People's Republic of China*, the Parties enter into this Agreement as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 For purposes of this Agreement, unless otherwise specified, the following terms shall have the meanings set forth below:

"Kunlun Energy"	means	Kunlun Energy Company Limited.
"PipeChina"	means	China Oil&Gas Pipeline Network Corporation.

"Target Companies"	means	collectively PetroChina Beijing Gas Pipeline Co., Ltd. and PetroChina Dalian LNG Co., Ltd., and "Target Company" means either of them.
"Target Equity"	means	the 60% equity interests in PetroChina Beijing Gas Pipeline Co., Ltd. and the 75% equity interests in PetroChina Dalian LNG Co., Ltd. owned by Kunlun Energy.
this "Transaction"	means	the transaction contemplated by this Agreement through which PipeChina will purchase from Kunlun Energy for a cash consideration the Target Equity in accordance with the terms and conditions set forth in this Agreement.
"Transaction Consideration"	means	the amount of the consideration payable by PipeChina to Kunlun Energy for PipeChina's acquisition of the Target Equity.
"Signing Date"	means	the date on which this Agreement is affixed with the signature of the legal or authorised representative and the company seal of each Party.
"Base Date"	means	December 31, 2019, being the reference date selected by the Parties for the audit and appraisal of the Target Equity performed to determine the price of the Target Equity.
"Closing"	means	the closing of the sale and purchase of the Target Equity in accordance with Article 5 of this Agreement.
"Closing Date"	means	March 31, 2021, or any other date otherwise agreed between the Parties for the holding of the Closing.
"Transitional Period"	means	the period from the Base Date (excluding the very date) to the Closing Date (including the very date).
"Closing Audit"	means	the audit to be performed (together with an audit report to be issued) on the Target Companies within 60 days following the Closing Date by an accounting firm acceptable to both parties and possesses qualifications for securities and futures business practice jointly engaged by the Parties in order to ascertain the profit and loss in respect of the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date.
"Appraiser"	means	China United Assets Appraisal Group Co., Ltd.
"Asset Appraisal Reports"	means	collectively the Asset Appraisal Report in respect of the Transaction for the Proposed Transfer by Kunlun Energy Company Limited of its Equity Interests in Beijing Gas Pipeline Co., Ltd. to China Oil&Gas Pipeline Network Corporation and the Asset Appraisal Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 889*) in respect of the Transaction for the Proposed Transfer by Kunlun Energy Company Limited of its Equity Interests in Dalian LNG Co., Ltd. to China Oil&Gas Pipeline Network Corporation Report (*Reference No.: China United Assets Appraisal Group Limited Appraisal Report Zi [2020] No. 889*) prepared by the Appraiser in respect of the entire owner's equity in each of the Target Companies by adopting December 31, 2021 as the Base Date.

"Appraised Assets"	means	the assets listed in the appraised asset breakdown tables contained in the Asset Appraisal Reports.
"Transaction Documents"	means	this Agreement and any and all the supplementary agreements executed from time to time, the Asset Appraisal Reports (including the breakdown tables of the Appraised Assets).
"Representative"	means	with respect to either Party and/or its respective Affiliates, any director, senior officer, employee, agent, consultant, accountant and legal advisor of such Party or an Affiliate thereof.
"Fixed Asset Conversion"	means	the fact that the constructions in progress are completed, have passed the completion acceptance test and have been put into use, and are converted into fixed assets on a Target Company's accounts.
"Affiliate"	means	with respect to either Party, any entity which is controlled by such Party or upon which such Party has a significant influence, or the actual controlling person of such Party, or any entity which is controlled by the actual controlling person of such Party from time to time.
"IP Rights"	means	patents, trademarks, service marks, company logos, tradenames, domain names, design rights, copyrights (including but not limited to computer software copyrights) and database rights, mask work rights, utility models, industrial design rights, inventions, know-hows and any other intellectual property (whether or not registered), and any other rights or forms of protection that have the same or similar effect in any jurisdiction in the world, and the term "registration" includes registrations and applications for registration.
"Liabilities"	means	any and all the debts, liabilities and obligations of any nature, whether arising from contracts, laws or otherwise, whether present or future, actual or contingent, determined or nondetermined, whether owed or incurred solely or jointly with any other person as an obligor or guarantor.
"Taxes"	means	(a) taxes imposed with respect to gross or net receipts, profits and income, and (b) any other taxes, levies, customs duties, import taxes, fees and withholding taxes (if applicable) of any nature, including any excise tax, value added tax and additional tax, corporate income tax, individual income tax (if applicable), real property tax, land value added tax, deed tax, cultivated land usage tax, urban land use tax, environmental protection tax, stamp duty, etc., or withholdings of any nature, in each case, including any relevant fine, penalty, late payment penalty and interest.
"Material Adverse Effect" or "Material Adverse Change"	means	any event / change that causes an actual loss to the Target Equity and relevant business as a whole in excess of 10% of the Transaction Consideration.
"Material Loss"	means	an actual loss in excess of 5% of the Transaction Consideration suffered by the Target Equity and relevant business as a whole.

"Force Majeure"	means	an objective circumstance unforeseeable, unavoidable and insurmountable, including act of God, such as earthquake, typhoon, flood or rainstorm (as evidenced by the information published by the local government or meteorological authority), fire, war, epidemic outbreak (including COVID-19 pandemic), act of government, or any change in law, or promulgation of any law, etc., the occurrence of which would have a direct effect on the performance of this Agreement or render it impossible to perform this Agreement in accordance with the agreed conditions.
"Internal Restructuring"	means	the restructuring that Kunlun Energy (including any person (other than the Target Companies) controlled or actually controlled by it) proposes to implement in order to acquire the relevant assets of Beijing Zhongyou Huiyuan Gas Technology Development Co., Ltd. (a subsidiary of Beijing Gas Pipeline Co., Ltd.).
"PRC" or "China"	means	the People's Republic of China, for purposes of this Agreement, excluding the Hong Kong Special Administrative Region, the Macau Special Administrative Region and Taiwan.
"PRC Laws"	means	the laws of the People's Republic of China, which for purposes of this Agreement, exclude the laws and regulations of the Hong Kong Special Administrative Region, the Macau Special Administrative Region and Taiwan.
"Day"	means	a calendar day, unless otherwise indicated; provided however, that where a deadline agreed herein falls on a Day that is not a Business Day, the deadline shall be extended to the first Business Day after such Day, and unless otherwise specified, references to "before a Day" shall include such Day itself, while references to "after a Day" shall not include such Day.
"Business Day"	means	any statutory working day other than Saturday, Sunday and statutory holidays.
"Month"	means	a calendar month.
"RMB"	means	Renminbi Yuan.

1.2 Interpretation. For purposes of this Agreement, unless otherwise specified,

(1) Any reference herein to any law or regulation or any provision thereof shall include the references to any and all the interpretations, amendments and supplements of such law, regulation or provision, as well as any and all the relevant laws and regulations newly promulgated as successors thereof or any and all the relevant supporting or subsidiary legislations thereof;

(2) Headings used in this Agreement are for convenience only, and shall not in any way affect the interpretation of the meaning of this Agreement;

(3) For the purpose of denominating any monetary value in RMB, all amounts denominated in other currencies shall be deemed to have been converted into their RMB equivalents at the exchange rates on the relevant dates; and

(4) Laws and regulations shall include statutes, administrative regulations, administrative rules and local regulations, except as otherwise specified in this Agreement. Any specific reference to any law (including any law of any jurisdiction) shall include (a) such law or regulation, as amended, merged or re-enacted by or on the basis of any other law or regulation heretofore or hereafter; (b) such law or regulation as re-promulgated, whether or not amended; and (c) any supporting legislation (including requirement) enacted heretofore or hereafter under such law or regulation as amended, merged or re-enacted as described in (a) or (b) above, unless any event described in (a) to (c) occurs after the Signing Date and increases or modifies Kunlun Energy's or PipeChina's obligations under this Agreement.

2. TRANSACTION ARRANGEMENT AND CONSIDERATION

2.1 On the terms and conditions set forth in this Agreement, Kunlun Energy intends to transfer to PipeChina, and PipeChina intends to purchase from Kunlun Energy the Target Equity for a cash consideration.

2.2 According to the Asset Appraisal Reports, the appraised value of the Target Equity is equal to RMB40,885,718,745. And the record-keeping procedures for the appraisal result have already been completed in accordance with applicable PRC Laws and regulations. The Parties agree that the Transaction Consideration shall be determined on the basis of the appraised value of the Target Equity and subject finally to the profits and losses during the Transitional Period and the adjustments for subsequent events after the Base Date as described in Article 3 herein below.

2.3 Both Parties agree that PipeChina shall pay Kunlun Energy the Transaction Consideration in cash in two instalments as follows:

(1) first instalment of Transaction Consideration: Within 20 Days after the Closing Date, PipeChina shall pay Kunlun Energy 85% of the appraised value of the Target Equity, together with the interest accrued thereon from the date immediately following the Closing Date to the date on which such payment arrives at Kunlun Energy's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period; and

(2) second instalment of Transaction Consideration: within 15 Business Days after completion of the Closing Audit under Section 3.1, PipeChina shall pay the remaining amount of the Transaction Consideration which shall be equal to (i) the Transaction Consideration finally determined minus (ii) the first instalment of Transaction Consideration paid under (1) above, together with the interest accrued on the remaining amount from the date immediately following the Closing Date to the date on which such payment arrives at Kunlun Energy's designated bank account to be calculated at the RMB benchmark interest rate for demand deposits adopted by financial institutions during the same period. In the event that PipeChina fails to complete the foregoing agreed payment within the foregoing agreed time limit due to any PRC governmental examination and approval process, the payment due time shall be extended accordingly, but in no event for more than 5 Business Days.

2.4 Unless otherwise notified in writing, the details of the bank account to be used by the Parties to receive the Transaction Consideration, liquidated damages or any other amount, as the case may be, payable by the other Party hereunder shall be as set forth below:

(1) Kunlun Energy's Designated Bank Account Information

[Bank account information is redacted]

(2) PipeChina's Designated Bank Account Information

[Bank account information is redacted]

3. PROFITS AND LOSSES DURING THE TRANSITIONAL PERIOD AND ADJUSTMENTS FOR EVENTS AFTER BASE DATE

3.1 Closing Audit. For the purpose of determining the profits and losses of the Target Equity during the Transitional Period and the adjustments for subsequent events after the Base Date, the Parties agree that, within 60 Days after the Closing Date of the Target Equity, they will jointly engage an accounting firm qualified for securities and futures business practice and acceptable to both Parties to perform the Closing Audit, with the audit fee to be equally shared between the Parties.

3.2 Ownership of the profits and losses during the Transitional Period. PipeChina agrees that, the profits and losses generated during the Transitional Period attributable to the Target Equity shall belong to Kunlun Energy. Any distributable profits of either Target Company that are declared for distribution during the Transitional Period, if attributable to the Target Equity, shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit any net profits are generated by either Target Company during the Transitional Period or the net asset value of either Target Company increases as a result of other profits and losses generated during the Transitional Period, PipeChina agrees that Kunlun Energy is entitled to obtain such increased income through dividend distribution by such Target Company. Resolutions of each Target Company for such dividend distribution shall be declared by the Closing Date (including the very date), and the amount of dividends shall be determined on the basis of the amount of distributable profits attributable to the Target Equity generated during the Transitional Period as specified in the Closing Audit Report. The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. Any amount of such increased income that cannot be obtained by Kunlun Energy through dividend shall be included into the Transaction Consideration, and shall be paid no later than the payment of the second instalment of the Transaction Consideration. In the event that either Target Company suffers a loss or the net asset value of either Target Company decreases as a result of other profits and losses arising during the Transitional Period, Kunlun Energy agrees that PipeChina shall have priority to deduct an amount equal to such decrease from the unpaid Transaction Consideration. To the extent that the unpaid Transaction Consideration is insufficient to cover such loss or decrease, the shortfall shall be paid by Kunlun Energy to PipeChina in cash no later than the payment of the second instalment Transaction Consideration.

3.3 Adjustments for subsequent events after the Base Date. Any distributable profits generated by either Target Company before the Base Date that are declared for declaration during the Transitional Period, if attributable to the Target Equity, shall not be included into the Transaction Consideration. To the extent that as determined in the Closing Audit, there is a decrease in the net asset value of either Target Company as a result of the adjustments for subsequent events after the Base Date, Kunlun Energy agrees that PipeChina shall have priority to deduct an amount equal to such decrease from the unpaid Transaction Consideration. To the extent that the unpaid Transaction Consideration cannot cover the decrease, the shortfall shall be paid by Kunlun Energy to PipeChina in cash no later than the payment of the second instalment of the Transaction Consideration. On the contrary, in the event that as determined in the Closing Audit, there is an increase in the net asset value of either Target Company as a result of the adjustments for subsequent events after the Base Date, PipeChina agrees that Kunlun Energy is entitled to obtain such increased income through distribution of distributable profits attributable to the Target Equity. The dividend resolution of each Target Company shall be declared by the Closing Date (including the very date). The dividend payment date shall be no later than 30 Days from the date of completion of the Closing Audit. The amount of dividends declared for distribution during the Transitional Period shall not be included into the Transaction Consideration. Any amount of such increased income that cannot be obtained by Kunlun Energy through dividend shall be included into the Transaction Consideration, and shall be paid no later than the payment of the second instalment of the Transaction Consideration.

4. CONDITIONS PRECEDENT TO CLOSING

4.1 The Parties acknowledge that the closing of the purchase and sale of the Target Equity is subject to satisfaction of each and all of the following conditions:

(1) All the representations, undertakings and warranties made by each Party on the Signing Date are true, accurate, complete, and free from misleading, false statements and omissions in all material respects as of the Closing Date;

(2) Kunlun Energy has approved this Transaction in accordance with its own constitutional documents and the regulatory requirements of the competent regulatory authorities (including the SEHK);

(3) PipeChina has approved this Transaction in accordance with its constitutional documents;

(4) Each Target Companies has approved this Transaction in accordance with its constitutional documents;

(5) All the other shareholders of each Target Company have waived in writing their right of first refusal with respect to the Target Equity;

(6) The concentration of undertakings filing for this Transaction has either been cleared or is not subject to further review;

(7) The Asset Appraisal Reports have been certified and filed for record in accordance with applicable PRC Laws and regulations; and

(8) All the other approvals, licences, filings and registrations known to be necessary for this Transaction have been obtained from or completed with the competent governmental authorities in the PRC, Among the foregoing conditions precedent to Closing, those conditions set forth in Items (2), (4), (5) and (7) shall be the responsibility of Kunlun Energy, the condition set forth in Item (3) shall be the responsibility of PipeChina, and those set forth in Items (1), (6), and (8) shall be the responsibility of both Parties. Other than the condition set forth in Item (1), any of the closing conditions may not be waived, whether unilaterally or mutually.

4.2 Both Parties agree that all conditions precedent set forth in Section 4.1 of this Agreement shall be satisfied as soon as practicable prior to the Closing Date. If the satisfaction of any conditions precedent applicable to either Party requires the assistance of the other Party, the other Party shall use its best efforts to provide such assistance. Both Parties shall keep each other posted on matters related to the conditions precedent, and coordinate with each other to solve problems encountered in the process in a timely fashion. After the Signing Date, neither Party may engage in any act that may hinder or restrict the satisfaction of any condition precedent set forth in Section 4.1 hereof.

4.3 If for any reason not attributable to either Party, any of the conditions precedent agreed in Section 4.1 of this Agreement fails to be satisfied and/or waived by March 31, 2021, the Parties shall agree on an extended Closing Date; provided, that where the Parties fail to reach agreement on the extended Closing Date by March 31, 2022, each Party shall have the right to unilaterally terminate this Agreement in writing on the date immediately thereafter without any liability.

5. CLOSING ARRANGEMENT

5.1 Closing date. Both Parties hereby agree that all the rights, obligations, liabilities and risks attached to the Target Equity will be transferred from Kunlun Energy to PipeChina at 24:00pm on the Closing Date.

5.2 Transfer of Target Equity and relevant obligations on the Closing Date. Starting from 24:00pm on the Closing Date, the Target Equity and relevant business and personnel of the Target Companies will be deemed to have been received and legally owned by PipeChina on an "as is basis", and all the obligations, responsibilities and risks related to the Target Equity shall be assumed by PipeChina. Except for the obligations for the handover as explicitly stipulated in this Agreement, from and after 24:00pm on Closing Date, Kunlun Energy will no longer have any obligation, responsibility or risk related to the Target Equity.

In the event that within three years after the Closing Date there occurs any third party claim or administrative penalty which causes Material Losses to PipeChina as a result of any violation of any applicable rules or regulations committed by Kunlun Energy in its operation and management of either Target Company or as a result of any major defect existing in the Target Equity in each case prior to the Closing Date, except as disclosed by Kunlun Energy to PipeChina and reflected in the financial accounts, audit reports, or appraisal reports of Kunlun Energy and/or such Target Company, the Parties shall resolve the issue through amicable consultations.

5.3 Notwithstanding the foregoing, both Parties agree that the consummation of this Transaction shall not change the independent legal person status of either Target Company, and the creditor's rights, debts, business, employment matters, and contracts of either Target Company shall continue to be enjoyed, borne and performed by such Target Companies under PipeChina's centralized management. Both Parties agree that the handover and management of the employees and related personnel of the Target Companies shall be implemented by adhering to the principle of "people follow assets (business)".

5.4 Should any assets of either Target Company bear such trademarks or logos as "昆仑能源", "Kunlun Energy" , "中石油", "中国石油", "PetroChina", any use by PipeChina of any such trademark or logo after its receipt of the Target Equity and prior to the removal of such trademarks or logos from such assets, shall not be deemed an infringement of any relevant IP Rights or goodwill of Kunlun Energy; provided however, that PipeChina shall remove the foregoing relevant trademarks and logos within 6 months after the Closing Date, unless otherwise agreed in this Agreement. For the avoidance of doubt, from and after 24:00pm on the Closing Date, any legal liability (including but not limited to liability for tort) incurred by either Target Company arising from the bearing of any such trademarks or logos as "昆仑能源", "Kunlun Energy" or "中石油","中国石油","PetroChina", shall be borne by PipeChina.

5.5 On the Signing Date, Kunlun Energy is still in the process of undertaking the Internal Restructuring of relevant assets of Beijing Zhongyou Huiyuan Gas Technology Development Co., Ltd. (a subsidiary of Beijing Gas Pipeline Co., Ltd.) which is expressly excluded from this Transaction as agreed between the Parties. Both Parties agree and acknowledge that Kunlun Energy shall make reasonable best efforts to complete the Internal Restructuring prior to the Closing Date and transfer the Target Equity to PipeChina in accordance with this Agreement. Kunlun Energy undertakes that other than as a result of the Internal Restructuring under this Article, it will not take any action to change the scope of the Appraised Assets of either Target Company.

It is acknowledged that any net profit arising from any transfer or divestiture by Kulun Energy of any Appraised Assets during the Transitional Period shall not be included into the profits and loss generated during the Transitional Period.

6. HANDOVER ARRANGEMENT

6.1 Both Parties agree to cooperate with each other and assist each other in the preparatory work for the handover of the Target Equity, and work with each other to undertake the handover of the Target Equity starting from 24:00pm on the Closing Date.

6.2 The Parties shall coordinate with each other to assist the Target Companies to complete, no later than 60 Days after the Closing Date, the procedures necessary for the amended business registration of the Target Companies to reflect the transfer of the Target Equity, including but not limited to completing the shareholder change registration and record-keeping filing of the amendments to the articles of association, and replacement of directors, supervisors, and senior management members and company name change (in particular, by removing such words as "PetroChina" or any variation thereof from the names of the Target Companies) with the competent administration for market regulation. The receipt of the new business licenses of both Target Companies shall constitute full satisfaction by both Parties of their obligations for the handover of the Target Equity hereunder.

6.3 Both Parties agree to cooperate with each other and make their reasonable efforts to prepare, deliver and submit all necessary documents in a timely manner so as to complete all the necessary applications, notifications, requests, record-keeping filings and other submissions, and to obtain as soon as practicable from all third parties and governmental authorities any and all the necessary or applicable licenses, consents, approvals and authorizations required for this Transaction. For the avoidance of doubt, PipeChina shall lead and be responsible for the concentration of undertakings filing for this Transaction and Kunlun Energy shall render necessary assistance therein.

6.4 Kunlun Energy shall facilitate to the fullest extent PipeChina's check and takeover of the assets, liabilities, business and the personnel of each Target Company, including subject to prior reasonable notice to Kunlun Energy and the applicable Target Company permitting the Representatives of PipeChina to access the entities and premises managed and used by such Target Company, and furnishing PipeChina with all the necessary information, materials and assistance.

6.5 In order to ensure the smooth handover, operation and management of the assets, liabilities, business and the personnel of each Target Company as well as the normal operation of the business that depends on either Target Company so as to maintain the service quality and avoid any Material Adverse Effect on the existing production and operation procedures of either Party, Kunlun Energy agrees that prior to the completion of handover it will participate in the operation and management of each Target Company in a way consistent with past practice in accordance with applicable laws and regulations and the articles of association of each Target Company.

7. REPRESENTATIONS AND WARRANTIES OF KUNLUN ENERGY

Kunlun Energy represents and warrants to PipeChina that, as of the Signing Date and the Closing Date, and prior to the handover of the Target Equity, subject to such exceptions as are disclosed in the Transaction Documents:

7.1 Kunlun Energy has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and Kunlun Energy's execution and performance of this Agreement will not conflict with or result in a violation of:

(1) any applicable provisions in any of Kunlun Energy's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to Kunlun Energy;

(2) any order, judgement or decree issued by any court, governmental authority or regulatory authority prior to the execution of this Agreement; or

(3) the completion by Kunlun Energy prior to the Closing Date of any necessary procedures as required by any applicable law and/or any agreement or document binding upon Kunlun Energy, except to the extent that Kunlun Energy's failure to so complete any such procedures will not have a Material Adverse Effect on PipeChina's operation of either Target Company;

7.2 Except as otherwise specified in this Agreement, Kunlun Energy has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for Kunlun Energy's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by Kunlun Energy in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter.

7.3 Any and all the materials related to the Target Equity provided by Kunlun Energy to PipeChina or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects.

7.4 Kunlun Energy has the legal ownership of and/or disposal rights to and in the Target Equity under this Transaction. Kunlun Energy has satisfied in accordance with applicable laws its capital contribution obligations towards each Target Company, without any false capital contribution or surreptitious withdrawal of capital contribution, and neither of the Target Companies is subject to any undisclosed pledge, freeze, any other encumbrance or security interest.

7.5 Kunlun Energy will complete the Closing and handover of the Target Equity as soon as possible in accordance with the terms and conditions set forth in this Agreement.

7.6 Prior to the completion of handover of the Target Equity, other than the Internal Restructuring to be undertaken in accordance with Section 5.5 and any normal provisions for depreciation, amortization, depletion and scrapping, collection of receivables, repayment of debts falling due, Fixed Asset Conversion of constructions in progress, and other normal disposals by either Target Company in the ordinary course of business, Kunlun Energy covenants that it will not make any decision on the taking of any of the following actions, including to make any major adjustments to any assets or business of either Target Company, grant any third party guarantee on the Target Equity, make any major business change or adjustment to the principal business activities concerning either Target Company, make any major adjustments to any accounting policies concerning either Target Company other than as required by applicable laws and regulations, or take any other action that may have a Material Adverse Effect on the normal operation of either Target Company.

If any unforeseeable situation occurs to Kunlun Energy between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by Kunlun Energy herein to be untrue, inaccurate or misleading in any material aspect, Kunlun Energy will notify PipeChina in writing within 15 Days from the date of such occurrence.

8. REPRESENTATIONS AND WARRANTIES OF PIPECHINA

PipeChina represents and warrants to Kunlun Energy that, as of the Signing Date and the Closing Date, and prior to the handover of the Target Equity, subject to such exceptions as are disclosed in the Transaction Documents:

8.1 PipeChina has the right, power and capacity to enter into and perform this Agreement and all obligations and responsibilities hereunder, and PipeChina's execution and performance of this Agreement will not conflict with or result in a violation of:

(1) any applicable provisions in any of PipeChina's constitutional documents or any other relevant documents or in any law, regulation or rule applicable to PipeChina;

(2) any order, judgement or decree issued by any court, governmental authority or regulatory authority prior to the execution of this Agreement; or

(3) the completion by PipeChina prior to the Closing Date of any necessary procedures as required by any applicable law and/or any agreement or document binding upon PipeChina.

8.2 Except as otherwise specified in this Agreement, PipeChina has obtained, or if not yet obtained, will make every possible endeavor to obtain, all the licenses, authorizations and approvals necessary for PipeChina's execution and performance of this Agreement as required by applicable laws and regulations currently in effect. All such licenses, authorizations and approvals so obtained by PipeChina in order to ensure the effectuation of this Agreement are legal and effective, and not subject to any situation that may render any of them to be revoked, suspended or terminated hereafter.

8.3 Any and all the materials related to the Target Equity provided by PipeChina to Kunlun Energy or any of its Representatives and consultants are true, accurate and complete in material aspects, and free from false statements, material omissions and misleading statements in material aspects.

8.4 PipeChina will pay the Transaction Consideration in accordance with the terms and conditions set forth in this Agreement so as to complete the Closing and handover of the Target Equity as soon as possible.

8.5 PipeChina warrants that after the handover of the Target Equity, the business operation of the Target Companies will remain normal and the quality of the services provided by the Target Companies will not be lower than the current level. PipeChina undertakes that after the handover of the Target Equity, it shall not take any material adverse action or allow any material adverse nonaction that may adversely affect Kunlun Energy's continuous normal use of any equipment or facilities of either Target Company in its production or operation.

If any unforeseeable situation occurs to PipeChina between the Signing Date and the Closing Date, which may cause any representation, warranty or covenant made by PipeChina herein to be untrue, inaccurate or misleading in any material aspect, PipeChina will notify Kunlun Energy in writing within 15 Days from the date of such occurrence.

9. LIABILITY FOR BREACH

9.1 In the event that either Party makes any representation and/or warranty in this Agreement which is untrue, inaccurate or incomplete in any material aspect or contains any misstatement, omission or misleading statement in any material aspect, or that either Party violates any of its undertakings under this Agreement, or violates any provision of this Agreement, it shall be deemed that such Party has breached this Agreement, in which case, the breaching Party shall indemnify the non-breaching Party against any loss arising therefrom.

9.2 If Kunlun Energy fails to complete any amended business registration with the competent administrations for market regulation for either Target Company as scheduled herein and required hereby, for each Day on which any such registration remains overdue, Kunlun Energy shall pay PipeChina liquidated damages equal to 0.05% of the amount paid by PipeChina by then hereunder, other than any failure not attributable to the fault of Kunlun Energy, including any failure as a result of Force Majeure or any delay attributable to PipeChina or for any reason on the part of any third party.

9.3 If PipeChina fails to pay the Transaction Consideration in accordance with this Agreement, for each Day on which any amount of the Transaction Consideration remains overdue, PipeChina shall pay Kunlun Energy liquidated damages equal to 0.05% of such amount, other than any failure not attributable to the fault of PipeChina, such as any failure as a result of Force Majeure or for any reason on the part of Kunlun Energy or any third party.

10. ANNOUNCEMENTS OF TRANSACTION INFORMATION

10.1 Either Party (including any of its Affiliates) shall not, without the other Party's prior consent (which may not be unreasonably withheld or delayed), publish in any form any information in relation to the existence or main contents of this Agreement or any other Transaction Agreement.

10.2 The restrictions under the preceding section shall not apply in case either Party is required to publish a notice, announcement or circular in relation to any restricted information specified in the preceding section by any law, or applicable listing rule, or any competent stock exchange or any other competent regulatory or supervisory authority or department (whether or not such requirement has the force of law), in case of which, the publishing Party shall, prior to such publication, provide the form, contents and timing of such notice, announcement or circular to the other Party, and the other Party shall promptly communicate with the publishing Party and provide written feedback if it has any substantive comments thereon.

11. CONFIDENTIALITY

11.1 Any information possessed and provided by either Party (in this case, the "Disclosing Party") to the other Party (in this case, the "Receiving Party") , including but not limited to, any data relating to the Target Equity, or any information relating to the terms of or negotiations on this Agreement or any other Transaction Document (the "Confidential Information") shall be used by the Receiving Party or its personnel for the purpose of this Agreement only. Unless otherwise specified herein, without prior written consent of the Disclosing Party, neither the Receiving Party nor its personnel to whom any Confidential Information is made known may provide, disclose or transfer, or license to any Third Party, or advise any Third Party in reliance on, in any form, whether directly or indirectly, any Confidential Information provided by the Disclosing Party. For purposes of this Article, the term "Third Party" means any natural person, legal person, or any other entity other than the Parties to this Agreement, but excluding any Affiliate of either Party.

11.2 Any Confidential Information furnished or disclosed by the Disclosing Party to the Receiving Party may not be disclosed to any person other than to designated employees of the Receiving Party to the extent necessary for the performance of this Agreement; provided, that the Receiving Party may not disclose any Confidential Information to any of its employees until after it has taken all reasonable protective measures, including without limitation, to inform such employees of the confidential nature of the information to be disclosed, and to cause such employees to make confidentiality undertakings no less strict than the confidentiality obligations hereunder so as to prevent any such employee from using any Confidential Information for personal benefits or making any unauthorized disclosure to any Third Party. Any breach by any employee of the Receiving Party shall be deemed a breach by the Receiving Party itself.

11.3 The Receiving Party may provide the Confidential Information to the counsels, accountants, contractors and consultants engaged by it as and when such persons need to know the Confidential Information in order to provide professional assistance to the Receiving Party; provided, that the Receiving Party shall cause each such person to whom such disclosure is made to sign a confidentiality agreement or perform confidentiality obligations in accordance with the applicable code of professional ethics.

11.4 In the event that the Receiving Party is required to disclose any Confidential Information by any rule of any stock exchange on which the Receiving Party is listed or by any competent governmental or regulatory department or authority, the Receiving Party may make the disclosure to the extent so required, without liability hereunder; provided, that the Receiving Party shall, to the extent practicable, prior to such disclosure, promptly notify the Disclosing Party in writing of such required disclosure so as to enable the Disclosing Party to take necessary protective measures, and the Receiving Party shall use commercially reasonable efforts to ensure that all the confidential information so disclosed will be accorded confidential treatment by the applicable governmental or regulatory authorities.

11.5 The obligation of confidentiality set forth in this Article shall be in force and effect in perpetuity.

11.6 The obligation of confidentiality set forth in this Article shall not apply to the following information:

(1) any information that is already generally known to the public at the time of disclosure by the Disclosing Party, or becomes generally known to the public after disclosure by the Disclosing Party not through any neglect of the Receiving Party or any of its employees, counsels, accountants, contractors, consultants or any other related persons;

(2) any information that is possessed by the Receiving Party at the time of disclosure by the Disclosing Party and not sourced directly or indirectly from the Disclosing Party, in each case, as demonstrated by written evidence; and

(3) any information that has already been disclosed to the Receiving Party by a Third Party who is not under confidentiality obligation towards the Disclosing Party and has the right to make such disclosure, in each case, as demonstrated by written evidence.

11.7 Upon rescission or termination of this Agreement, the Receiving Party shall immediately cease to use and not permit any third party to use any Confidential Information of the Disclosing Party. In the meantime, the Receiving Party shall, at the written request of the Disclosing Party, return to the Disclosing Party, or delete or destroy the Confidential Information provided by the Disclosing Party, without keeping any of the same in any form.

12. NO ASSIGNMENT

Unless as otherwise provided in this Agreement or otherwise agreed between the Parties, neither Party may transfer, assign or otherwise dispose of all or any part of its rights under this Agreement, nor may it grant, create or dispose of any right, interests or obligation thereon or therein. Any attempted transfer or assignment or disposal in violation of this Article shall be null and void.

13. FURTHER ASSURANCE

Each Party shall sign (or cause the signing of) any other documents required by relevant laws and regulations, or necessary for implementation of or giving effect to this Agreement.

14. TAXES AND EXPENSES

14.1 Subject to Section 14.2 and unless otherwise provided in this Agreement (or any other Transaction Document), each Party shall legally bear its own costs, fees and any other expenses incurred by it in connection with this Transaction.

14.2 Considering the fact that Kunlun Energy is an offshore company and is therefore subject to certain restrictions including foreign exchange control in terms of payment of domestic PRC Taxes, PipeChina agrees to withhold and pay on behalf of Kunlun Energy the withholding tax for transfer of properties in China imposed in relation to this Transaction payable by Kunlun Energy. For that purpose, PipeChina may deduct from any amount of the Transaction Consideration payable such withholding tax in accordance with applicable PRC tax laws and regulations. After written confirmation by Kunlun Energy, PipeChina will declare and pay as Kunlun Energy's withholding agent to competent tax office(s) under the State Administration of Taxation of the PRC the withholding tax for transfer of properties in China imposed in relation to this Transaction and go through the overseas payment filings, including having necessary consultations or discussions with relevant tax authorities, in connection with which, Kunlun Energy shall render necessary assistance and cooperation. Within three Business Days after any payment of any amount of tax on behalf of Kunlun Energy as described above, PipeChina shall be obligated to provide Kunlun Energy with the tax returns and tax payment certificates. Any and all the costs and expenses incurred by PipeChina in connection with its acting as the withholding agent of Kunlun Energy under this Article, including without limitation, fees and expenses incurred in the engagement of any tax advisor to handle the payment of relevant Taxes and charges on behalf of Kunlun Energy, shall be borne by Kunlun Energy.

14.3 For purposes of this Transaction, unless as otherwise provided in laws or regulations and/or otherwise agreed between the Parties, all fees, costs and expenses incurred in connection with the handover of the Target Equity shall be reasonably apportioned by the Parties and settled through negotiation.

14.4 Both Parties agree that the tax costs of the Target Equity shall be transferred together with the Target Equity. For the avoidance of doubt, from and after the Closing Date, to the extent that either Target Company suffers a claim of tax deficiency brought by any competent tax authority and incurs any additional tax liability as a result, such additional tax liability shall be borne by such Target Company then existing. Where Kunlun Energy or PipeChina is required to pay any underpaid tax or late payment penalty in connection therewith, such issue shall be resolved through amicable consultations between the Parties.

15. NOTICE

15.1 All notices related to this Agreement shall be written in Chinese, and shall be given by personal delivery, fax, email or express mail service of couriers acceptable to both Parties, and shall be deemed to have been received as follows:

(1) upon delivery to the recipient if by personal delivery, or three Days after being sent out if by express mail service;

(2) upon successful transmission by the sender as indicated on the fax machine if by fax; or

(3) upon arrival of the relevant email message at the recipient's mailbox if by email. Notwithstanding the foregoing, in any event, a notice not given during normal business hours at the destination of the recipient shall be deemed to have been received on the opening of business hours on the next Business Day.

15.2 The Parties' contact details to be used for the purpose of Section 15.1 shall be as set forth below:

(1) Kunlun Energy's Contact Information:

Address: 9 Dongzhimen North Street, Dongcheng District, Beijing

[Contact person's information is redacted]

(2) PipeChina's Contact Information:

Address: 6 / F, Block A, No. 5 Dongtucheng Road, Chaoyang District, Beijing

[Contact person's information is redacted]

16. WAIVERS, RIGHTS AND REMEDIES

Unless otherwise specified in this Agreement, either Party's failure to exercise or delay in the exercise of any right, power or remedy under this Agreement or any other Transaction Document shall not constitute a waiver of such right, power or remedy, or preclude such Party's subsequent exercise of such right, power or remedy. Any single or partial exercise of any such right, power or remedy shall not preclude any further exercise of such right, power or remedy.

17. EFFECTIVENESS AND AMENDMENTS

17.1 This Agreement shall be formed upon being signed by the legal or authorized representatives and affixed with the company seals of both Parties, and shall take effect upon satisfaction of both of the following conditions:

(1) This Transaction has been reviewed and approved by Kunlun Energy's shareholders at the relevant general meeting; and

(2) This Transaction has been reviewed and approved by PipeChina's internal governing body empowered to do so.

17.2 After this Agreement is executed, any modification of or amendment to this Agreement or any other Transaction Document shall be in writing, and shall be signed by the legal or authorized representatives and affixed with the company seals of both Parties.

17.3 In the event that any provision in this Agreement is or becomes invalid or unenforceable in any aspect pursuant to laws or regulations, such provision shall not have force in such aspect and the validity of any other provision hereof shall not be affected thereby, in which case, the Parties shall make reasonable efforts to replace such provision with a provision which is valid and enforceable and has effect and intended effect as close as possible to such invalid provision in such aspect.

18. GOVERNING LAW AND DISPUTE RESOLUTION

18.1 The execution, validity, interpretation, performance of, and resolution of disputes under this Agreement shall be governed by PRC Laws.

18.2 In case of any dispute, controversy or claim (each a "Dispute") arising from or in connection with the interpretation or performance of this Agreement, the Parties shall endeavour to resolve such Dispute through amicable negotiations. The Parties may consult regulatory agencies in the course of such negotiation. In the event that the Parties fail to agree on a solution to any Dispute within 60 Days after the Party claiming Dispute raises the Dispute to the other Party, each Party may refer such Dispute to arbitration.

18.3 Disputes shall be submitted to China International Economic and Trade Arbitration Commission ("CIETAC") for resolution through arbitration in accordance with CIETAC's arbitration rules then in effect. The arbitral tribunal shall be composed of three arbitrators. Each Party shall appoint one arbitrator and the third arbitrator shall be jointly appointed by the first two arbitrators. Where the first two arbitrators fail to reach agreement on the appointment of the third arbitrator, the third arbitrator shall be appointed by CIETAC.

18.4 The arbitral proceeding shall be administered by CIETAC as the hosting arbitration institution, and shall be conducted in Chinese. The arbitration shall be seated in Beijing.

18.5 The arbitral award rendered in accordance with the above arbitral proceeding shall be final and binding upon both Parties, and enforceable in accordance with its terms.

18.6 Costs of arbitration shall be borne by the losing Party. The Parties agree that in the event that it is necessary for one Party to enforce the arbitral award through any legal proceeding, all reasonable fees, expenses and attorney's fees in relation to the enforcement shall be borne by the Party against whom the arbitral award is enforced.

18.7 During the period when a Dispute is being resolved, the Parties shall in all other respects continue their implementation of this Agreement, except for the matters in dispute.

19. FORCE MAJEURE

In the event that either Party is prevented from performing its obligations under this Agreement in whole or in part due to the occurrence of an event of Force Majeure (a "Force Majeure Event"), such Party shall be fully or partially released from the liability for failure to perform to the extent of the effect of such Force Majeure Event on such Party. The performance of the obligations of the Parties under this Agreement shall be suspended during the period when the performance of the obligations is rendered impossible by such Force Majeure Event, and shall be extended automatically for a period equal to such period of suspension. The Party suffering a Force Majeure Event shall notify the other Party in writing as soon as possible, and within 30 Days as of the occurrence of such Force Majeure Event, provide valid documents to evidence the occurrence and time of occurrence of such Force Majeure Event. The Party affected by such Force Majeure Event shall take all reasonable measures to mitigate the consequences of force majeure as soon as possible. Upon occurrence of a Force Majeure Event, the Parties shall immediately enter into negotiations for a fair solution and use their best efforts to mitigate the consequences of Force Majeure.

20. MISCELLANEOUS

20.1 This Agreement shall constitute all the legal documentation for this Transaction. In the event of any discrepancy between this Agreement and any prior oral discussion or written agreement between the Parties in respect of this Transaction, this Agreement shall prevail.

20.2 Any matter not covered hereunder may be set forth in a written supplementary agreement to be further executed by and between the Parties after having reached agreement thereon, which supplementary agreemen shall have equal legal force as this Agreement.

20.3 This Agreement is written in Chinese. This Agreement shall be executed in eight counterparts with equal legal force, two for each Party, and the remaining counterparts for filing with competent governmental authorities.

[*End of text*]

Kunlun Energy Company Limited (*Company seal affixed*)

Signed by: /s/
Authorized representative

China Oil&Gas Pipeline Network Corporation (*Company seal affixed*)

Signed by: Zhang Wei /s/
Legal or authorized representative

Exhibit 8.1

LIST OF SUBSIDIARIES

A list of PetroChina Company Limited's principal subsidiaries is provided in Note 18 to the consolidated financial statements included in this annual report following Item 19.

Exhibit 12.1

CERTIFICATION

I, DAI Houliang, certify that:

1. I have reviewed this annual report on Form 20-F of PetroChina Company Limited (the "Company");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;

4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

/s/ DAI Houliang

Name: DAI Houliang
Title: Chairman

Date: April 29, 2021

Exhibit 12.2

CERTIFICATION

I, HUANG Yongzhang, certify that:

1. I have reviewed this annual report on Form 20-F of PetroChina Company Limited (the "Company");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;

4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

/s/ HUANG Yongzhang

Name: HUANG Yongzhang
Title: Director and President

Date: April 29, 2021

Exhibit 12.3

CERTIFICATION

I, CHAI Shouping, certify that:

1. I have reviewed this annual report on Form 20-F of PetroChina Company Limited (the "Company");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;

4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

/s/ CHAI Shouping

Name: CHAI Shouping
Title: Chief Financial Officer

Date: April 29, 2021

EXHIBIT 13.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of PetroChina Company Limited (the "Company") on Form 20-F for the period ending December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, DAI Houliang, hereby certify that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ DAI Houliang

Name: DAI Houliang
Title: Chairman

Date: April 29, 2021

EXHIBIT 13.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of PetroChina Company Limited (the "Company") on Form 20-F for the period ending December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, HUANG Yongzhang, hereby certify that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ HUANG Yongzhang

Name: HUANG Yongzhang
Title: Director and President

Date: April 29, 2021

EXHIBIT 13.3

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of PetroChina Company Limited (the "Company") on Form 20-F for the period ending December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, CHAI Shouping, hereby certify that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ CHAI Shouping

Name: CHAI Shouping
Title: Chief Financial Officer

Date: April 29, 2021

Exhibit 15.1

DEGOLYER AND MACNAUGHTON
5001 SPRING VALLEY ROAD
SUITE 800 EAST
DALLAS, TEXAS 75244

This is a digital representation of a DeGolyer and MacNaughton report.

This file is intended to be a manifestation of certain data in the subject report and as such are subject to the same conditions thereof. The information and data contained in this file may be subject to misinterpretation; therefore, the signed and bound copy of this report should be considered the only authoritative source of such information.

DEGOLYER AND MACNAUGHTON
F-716
TEXAS REGISTERED ENGINEERING FIRM

DeGolyer and MacNaughton
5001 Spring Valley Road
Suite 800 East
Dallas, Texas 75244

March 1, 2021

PetroChina Company Limited
9 Dongzhimen North Street, Dongcheng District
Beijing 100007
P.R. China

Ladies and Gentlemen:

Pursuant to your request, this report of third party presents an independent evaluation, as of December 31, 2020, of the extent of the estimated net proved oil, condensate, natural gas liquids (NGL), liquefied petroleum gas (LPG), and gas reserves of certain properties in which PetroChina Company Limited (PetroChina) has represented it holds an interest. This evaluation was completed on March 1, 2021. The properties evaluated herein are located in China as well as Azerbaijan, Indonesia, Iraq, Kazakhstan, Mongolia, Oman, and the United Arab Emirates (collectively referred to herein as Other Countries). PetroChina has represented that these properties account for 44 percent on a net equivalent barrel basis of PetroChina's net proved reserves as of December 31, 2020. The net proved reserves estimates have been prepared in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the United States Securities and Exchange Commission (SEC). This report was prepared in accordance with guidelines specified in Item 1202 (a)(8) of Regulation S–K and is to be used for inclusion in certain SEC filings by PetroChina.

Reserves estimates included herein are expressed as net reserves. Gross reserves are defined as the total estimated petroleum remaining to be produced from these properties after December 31, 2020. Net reserves are defined as that portion of the gross reserves attributable to the interests held or controlled by PetroChina after deducting all interests held by others.

Certain properties in which PetroChina holds an interest are subject to the terms of various production sharing agreements. The terms of these agreements generally allow for working interest participants to be reimbursed for portions of capital costs and operating expenses and to share in the profits. The reimbursement and profit proceeds are converted to a barrel of oil equivalent or standard cubic foot of gas equivalent by dividing by product prices to estimate the "entitlement reserves." These entitlement reserves are equivalent in principle to net reserves and are used to calculate an equivalent net share, termed an "entitlement interest." In this report, PetroChina's net reserves or interest for certain properties subject to these agreements is the entitlement based on PetroChina's working interest.

Estimates of reserves should be regarded only as estimates that may change as further production history and additional information become available. Not only are estimates based on that information which is currently available, but such estimates are also subject to the uncertainties inherent in the application of judgmental factors in interpreting such information.

Information used in this evaluation was obtained from PetroChina. In the preparation of this report we have relied, without independent verification, upon such information furnished by PetroChina with respect to the property interests being evaluated, production from such properties, current costs of operation and development, current prices for production, agreements relating to current and future operations and sale of production, and various other information and data that were accepted as represented.

Definition of Reserves

Petroleum reserves included in this report are classified as proved. Only proved reserves have been evaluated for this report. Reserves classifications used in this report are in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the SEC. Reserves are judged to be economically producible in future years from known reservoirs under existing economic and operating conditions and assuming continuation of current regulatory practices using conventional production methods and equipment. In the analyses of production-decline curves, reserves were estimated only to the limit of economic rates of production under existing economic and operating conditions using prices and costs consistent with the effective date of this report, including consideration of changes in existing prices provided only by contractual arrangements but not including escalations based upon future conditions. The petroleum reserves are classified as follows:

Proved oil and gas reserves – Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

(i) The area of the reservoir considered as proved includes:

(A) The area identified by drilling and limited by fluid contacts, if any, and (B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and (B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

Developed oil and gas reserves – Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Undeveloped oil and gas reserves – Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in [section 210.4–10 (a) Definitions], or by other evidence using reliable technology establishing reasonable certainty.

Methodology and Procedures

Estimates of reserves were prepared by the use of appropriate geologic, petroleum engineering, and evaluation principles and techniques that are in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the SEC and with practices generally recognized by the petroleum industry as presented in the publication of the Society of Petroleum Engineers entitled "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (revised June 2019) Approved by the SPE Board on 25 June 2019" and in Monograph 3 and Monograph 4 published by the Society of Petroleum Evaluation Engineers. The method or combination of methods used in the analysis of each reservoir was tempered by experience with similar reservoirs, stage of development, quality and completeness of basic data, and production history.

Based on the current stage of field development, production performance, the development plans provided by PetroChina, and analyses of areas offsetting existing wells with test or production data, reserves were classified as proved.

The proved undeveloped reserves estimates were based on opportunities identified in the plan of development provided by PetroChina.

PetroChina has represented that its senior management is committed to the development plan provided by PetroChina and that PetroChina has the financial capability to execute the development plan, including the drilling and completion of wells and the installation of equipment and facilities.

When applicable, the volumetric method was used to estimate the original oil in place (OOIP) and original gas in place (OGIP). Structure maps were prepared to delineate each reservoir, and isopach maps were constructed to estimate reservoir volume. Electrical logs, radioactivity logs, core analyses, and other available data were used to prepare these maps as well as to estimate representative values for porosity and water saturation. When adequate data were available and when circumstances justified, material-balance methods were used to estimate OOIP and OGIP.

Estimates of ultimate recovery were obtained after applying recovery factors to OOIP and OGIP. These recovery factors were based on consideration of the type of energy inherent in the reservoirs, analyses of the petroleum, the structural positions of the properties, and the production histories. When applicable, material balance and other engineering methods were used to estimate recovery factors based on an analysis of reservoir performance, including production rate, reservoir pressure, and reservoir fluid properties.

For depletion-type reservoirs or those whose performance disclosed a reliable decline in producing-rate trends or other diagnostic characteristics, reserves were estimated by the application of appropriate decline curves or other performance relationships.

In certain cases, reserves were estimated by incorporating elements of analogy with similar wells or reservoirs for which more complete data were available.

Reserves were estimated only to the limits of economic production as defined under the Definition of Reserves heading of this report or the expiration of the fiscal agreement, as appropriate.

For the evaluation of unconventional reservoirs, a performance-based methodology integrating the appropriate geology and petroleum engineering data was utilized for this report. Performance-based methodology primarily includes (1) production diagnostics, (2) decline-curve analysis, and (3) model-based analysis (if necessary, based on availability of data). Production diagnostics include data quality control, identification of flow regimes, and characteristic well performance behavior. These analyses were performed for all well groupings (or type-curve areas).

Characteristic rate-decline profiles from diagnostic interpretation were translated to modified hyperbolic rate profiles, including one or multiple b-exponent values followed by an exponential decline. Based on the availability of data, model-based analysis may be integrated to evaluate long-term decline behavior, the effect of dynamic reservoir and fracture parameters on well performance, and complex situations sourced by the nature of unconventional reservoirs.

Data provided by PetroChina from wells drilled through November 2020 and made available for this evaluation were used to prepare the reserves estimates herein. These reserves estimates were based on consideration of monthly production data available for certain properties only through August 2020. Estimated cumulative production as of December 31, 2020, was deducted from the estimated gross ultimate recovery to estimate gross reserves. This required that production be estimated for up to 4 months.

Oil and condensate reserves estimated herein are to be recovered by normal field separation. NGL reserves estimated herein include propane and butane fractions and pentanes and heavier fractions (C5+). NGL reserves estimated herein are the result of low-temperature plant processing. LPG reserves estimated herein consists primarily of propane and butane fractions and are the result of low-temperature plant processing. Oil, condensate, NGL, and LPG reserves included in this report are expressed in thousands of barrels (10^3bbl). In these estimates, 1 barrel equals 42 United States gallons. For reporting purposes, oil, condensate, and NGL reserves have been estimated separately and are presented herein as a summed quantity.

Gas quantities estimated herein are expressed as marketable gas, fuel gas, and sales gas. Marketable gas is defined as the total gas produced from the reservoir after reduction for shrinkage resulting from field separation; processing, including removal of the nonhydrocarbon gas to meet pipeline specifications; and flare and other losses but not from fuel usage. Fuel gas is defined as that portion of the gas consumed in field operations. Sales gas is defined as the total gas to be produced from the reservoirs, measured at the point of delivery, after reduction for fuel usage, flare, and shrinkage resulting from field separation and processing. Gas reserves estimated herein are reported as marketable gas, sales gas, and fuel gas.

Gas quantities associated with the properties in China are expressed at a temperature base of 68 degrees Fahrenheit (°F) and at a pressure base of 14.696 pounds per square inch absolute (psia). Gas quantities associated with the properties in Other Countries are expressed at a temperature base of 60°F and at a pressure base of 14.7 psia. Gas quantities included in this report are expressed in millions of cubic feet (10^6ft^3).

Gas quantities are identified by the type of reservoir from which the gas will be produced. Nonassociated gas is gas at initial reservoir conditions with no oil present in the reservoir. Associated gas is both gas-cap gas and solution gas. Gas-cap gas is gas at initial reservoir conditions and is in communication with an underlying oil

zone. Solution gas is gas dissolved in oil at initial reservoir conditions. Gas quantities estimated herein include both associated and nonassociated gas.

At the request of PetroChina, marketable gas reserves estimated herein were converted to oil equivalent using an energy equivalent factor of 6,000 cubic feet of gas per 1 barrel of oil equivalent.

Primary Economic Assumptions

This report has been prepared using initial prices, expenses, and costs provided by PetroChina in United States dollars (U.S.$). Future prices were estimated using guidelines established by the SEC and the Financial Accounting Standards Board (FASB). The following economic assumptions were used for estimating the reserves reported herein:

Oil, Condensate, and NGL Prices

PetroChina has represented that the oil, condensate, and NGL prices were based on reference prices, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual agreements. PetroChina supplied the appropriate differentials to the reference prices.

PetroChina has represented that the 12-month average oil, condensate, and NGL prices for the fields in China were based on a 12-month average Dubai reference price of U.S.$42.61 per barrel with appropriate differentials applied to this reference price. The volume-weighted average oil and condensate price in China attributable to the estimated proved reserves was U.S.$43.33 per barrel. The volume-weighted average NGL price in China attributable to the estimated proved reserves was U.S.$30.98 per barrel. The oil, condensate, and NGL prices in China were held constant for the lives of the properties.

PetroChina has also represented that the 12-month average oil and condensate prices for the fields in Other Countries were based on 12-month average reference prices of U.S.$41.31 per barrel for an international Brent reference price, U.S.$41.10 per barrel for a Brent reference price in Azerbaijan, U.S.$42.61 per barrel for a Dubai reference price, and U.S.$46.09 per barrel for an Oman reference price with appropriate differentials applied to these reference prices. The volume-weighted average oil and condensate price in Other Countries attributable to the estimated proved reserves was U.S.$32.50 per barrel. The oil and condensate prices in Other Countries were held constant for the lives of the properties.

LPG Prices

PetroChina has represented that the LPG prices were based on a reference price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual agreements. These prices were held constant over the lives of the properties. The volume-weighted average LPG price attributable to the estimated proved reserves was U.S.$9.93 per barrel.

Gas Prices

PetroChina furnished the gas prices in China and has represented that the gas prices in China are defined by contractual agreements. The volume-weighted average gas price in China attributable to the estimated proved reserves was U.S.$5.96 per thousand cubic feet. The gas prices in China were held constant for the lives of the properties.

PetroChina has also represented that all of the gas reserves in Other Countries will be sold through contractual agreements and the gas prices are defined by these contracts. The volume-weighted average gas price in Other Countries attributable to the estimated proved reserves was U.S.$0.94 per thousand

cubic feet. The gas prices in Other Countries were held constant for the lives of the properties, except for certain properties where escalations are contractually allowed under the terms of the gas sales agreements.

Operating Expenses, Capital Costs, and Abandonment Costs

Operating expenses and capital costs were provided by PetroChina and were used in estimating future expenses and capital costs required to operate the properties. In certain cases, forecasts of future operating expenses and capital costs, either higher or lower than existing expenses and capital costs, may have been used because of anticipated changes in operating conditions. Abandonment costs were also provided by PetroChina. Abandonment costs are represented by PetroChina to be inclusive of those costs associated with the removal of equipment, plugging of wells, and reclamation and restoration costs associated with the abandonment. Estimates of operating expenses, capital costs, and abandonment costs were considered in determining the economic viability of the undeveloped reserves estimated herein. Operating expenses, capital costs, and abandonment costs were not escalated for inflation.

Taxes

For PetroChina's properties in China, local taxes and value-added taxes were considered in determining the economic limit for reserves estimated herein. The tax provisions provided by PetroChina were assumed to remain unchanged from current legislation.

For PetroChina's properties in Other Countries, local taxes were applied where appropriate. The tax provisions provided by PetroChina were assumed to remain unchanged from current legislation.

Royalties

In properties where royalties are paid in kind, the petroleum quantities associated with these royalties are excluded from the net proved reserves estimates. For properties where royalties are paid in cash, these royalties are considered production taxes and associated quantities have not been excluded from the net proved reserves estimates. PetroChina has represented that it has no royalty obligations for the properties in China that were evaluated for this report.

In our opinion, the information relating to estimated proved reserves of oil, condensate, NGL, LPG, and gas contained in this report has been prepared in accordance with Paragraphs 932-235-50-4 and 932-235-50-6 through 932-235-50-9 of the Accounting Standards Update 932-235-50, *Extractive Industries – Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures* (January 2010) of the FASB and Rules 4–10(a) (1)–(32) of Regulation S–X and Rules 302(b), 1201, 1202(a) (1), (2), (3), (4), (8), and 1203(a) of Regulation S–K of the SEC; provided, however, that estimates of proved developed and proved undeveloped reserves are not presented at the beginning of the year.

To the extent the above-enumerated rules, regulations, and statements require determinations of an accounting or legal nature, we, as engineers, are necessarily unable to express an opinion as to whether the above-described information is in accordance therewith or sufficient therefor.

Summary of Conclusions

The estimated net proved reserves, as of December 31, 2020, attributable to the properties evaluated herein, which represent 44 percent of PetroChina's reserves on a net equivalent basis, were based on the definition of proved reserves of the SEC and are summarized as follows, expressed in thousands of barrels (10^3bbl), millions of cubic feet (10^6ft^3), and thousands of barrels of oil equivalent (10^3boe):

	Estimated by DeGolyer and MacNaughton Net Proved Reserves as of December 31, 2020		
	Proved Developed	Proved Undeveloped	Total Proved
China			
Oil, Condensate, and NGL, 10^3bbl	1,549,609	133,261	1,682,870
LPG, 10^3bbl	0	0	0
Marketable Gas, 10^6ft^3	14,141,036	18,653,600	32,794,636
Fuel Gas, 10^6ft^3	1,171,782	1,251,678	2,423,460
Sales Gas, 10^6ft^3	12,969,254	17,401,922	30,371,176
Oil Equivalent, 10^3boe	3,906,448	3,242,194	7,148,642
Other Countries			
Oil and Condensate, 10^3bbl	465,582	98,064	563,646
LPG, 10^3bbl	38,168	5,019	43,187
Marketable Gas, 10^6ft^3	842,818	106,295	949,113
Fuel Gas, 10^6ft^3	1,326	0	1,326
Sales Gas, 10^6ft^3	841,492	106,295	947,787
Oil Equivalent, 10^3boe	644,220	120,799	765,019
Total China and Other Countries			
Oil Condensate, and NGL, 10^3bbl	2,015,191	231,325	2,246,516
LPG, 10^3bbl	38,168	5,019	43,187
Marketable Gas, 10^6ft^3	14,983,854	18,759,895	33,743,749
Fuel Gas, 10^6ft^3	1,173,108	1,251,678	2,424,786
Sales Gas, 10^6ft^3	13,810,746	17,508,217	31,318,963
Oil Equivalent, 10^3boe	4,550,668	3,362,993	7,913,661

Notes:

1. The estimates of PetroChina's net proved reserves in Other Countries include 201,687 103bbl of oil and condensate reserves, 23,291 103bbl of LPG reserves, and 513,390 106ft3of sales gas reserves that are attributable to minority interests held by others.
2. Estimates of total proved reserves include 17,853 103bbl of NGL reserves in China.
3. Marketable gas reserves estimated herein were converted to oil equivalent using an energy equivalent factor of 6,000 cubic feet of gas per 1 barrel of oil equivalent.

While the oil and gas industry may be subject to regulatory changes from time to time that could affect an industry participant's ability to recover its reserves, we are not aware of any such governmental actions which would restrict the recovery of the December 31, 2020, estimated reserves.

DeGolyer and MacNaughton is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1936. DeGolyer and MacNaughton does not have any financial interest, including stock ownership, in PetroChina. Our fees were not contingent on the results of our evaluation. This report has been prepared at the request of PetroChina. DeGolyer and MacNaughton has used all assumptions, data, procedures, and methods that it considers necessary and appropriate to prepare this report.

Submitted,

/s/ Degolyer and Macnaughton

DeGOLYER and MacNAUGHTON
Texas Registered Engineering Firm F-716

Thomas C. Pence, P.E.
Senior Vice President
DeGolyer and MacNaughton

CERTIFICATE of QUALIFICATION

I, Thomas C. Pence, Petroleum Engineer with DeGolyer and MacNaughton, 5001 Spring Valley Road, Suite 800 East, Dallas, Texas, 75244 U.S.A., hereby certify:

1. That I am a Senior Vice President with DeGolyer and MacNaughton, which firm did prepare the report of third party addressed to PetroChina dated March 1, 2021, and that I, as Senior Vice President, was responsible for the preparation of this report of third party.

2. That I attended Texas A&M University, and that I graduated with a degree in Petroleum Engineering in the year 1982; that I am a Registered Professional Engineer in the State of Texas; that I am a member of the Society of Petroleum Engineers; and that I have in excess of 38 years of experience in oil and gas reservoir studies and reserves evaluations.

/s/ Thomas C. Pence, P.E.

Thomas C. Pence, P.E.
Senior Vice President
DeGolyer and MacNaughton

Exhibit 15.2

DEGOLYER AND MACNAUGHTON
5001 SPRING VALLEY ROAD
SUITE 800 EAST
DALLAS, TEXAS 75244

This is a digital representation of a DeGolyer and MacNaughton report.

This file is intended to be a manifestation of certain data in the subject report and as such are subject to the same conditions thereof. The information and data contained in this file may be subject to misinterpretation; therefore, the signed and bound copy of this report should be considered the only authoritative source of such information.

DEGOLYER AND MACNAUGHTON
F-716
TEXAS REGISTERED ENGINEERING FIRM

DEGOLYER AND MACNAUGHTON
5001 SPRING VALLEY ROAD
SUITE 800 EAST
DALLAS, TEXAS 75244

March 1, 2021

PetroChina Company Limited
9 Dongzhimen North Street, Dongcheng District
Beijing 100007
P.R. China

Ladies and Gentlemen:

Pursuant to your request, this report of third party presents an independent audit, as of December 31, 2020, of the extent of the estimated net proved oil, condensate, natural gas liquids (NGL), and gas reserves of certain properties in which PetroChina Company Limited (PetroChina) has represented it holds an interest. This audit was completed on March 1, 2021. The properties reviewed herein are located in China. PetroChina has represented that these properties account for 54 percent on a net equivalent barrel basis of PetroChina's net proved reserves as of December 31, 2020. The net proved reserves estimates have been prepared in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the United States Securities and Exchange Commission (SEC). It is our opinion that the procedures and methodologies employed by PetroChina for the preparation of its proved reserves estimates as of December 31, 2020, comply with the current requirements of the SEC. We have reviewed information provided by PetroChina that it represents to be PetroChina's estimates of the net reserves, as of December 31, 2020, for the same properties as those which we reviewed. This report was prepared in accordance with guidelines specified in Item 1202 (a)(8) of Regulation S–K and is to be used for inclusion in certain SEC filings by PetroChina.

Reserves estimates included herein are expressed as net reserves as represented by PetroChina. Gross reserves are defined as the total estimated petroleum remaining to be produced from these properties after December 31, 2020. Net reserves are defined as that portion of the gross reserves attributable to the interests held or controlled by PetroChina after deducting all interests held by others.

Estimates of reserves should be regarded only as estimates that may change as further production history and additional information become available. Not only are estimates based on that information which is currently available, but such estimates are also subject to the uncertainties inherent in the application of judgmental factors in interpreting such information.

Information used in this evaluation was obtained from PetroChina. In the preparation of this report we have relied, without independent verification, upon such information furnished by PetroChina with respect to the property interests being evaluated, production from such properties, current costs of operation and development, current prices for production, agreements relating to current and future operations and sale of production, and various other information and data that were accepted as represented.

Definition of Reserves

Petroleum reserves included in this report are classified as proved. Only proved reserves have been evaluated for this report. Reserves classifications used in this report are in accordance with the reserves definitions of Rules 4–10(a) (1)–(32) of Regulation S–X of the SEC. Reserves are judged to be economically producible in future years from known reservoirs under existing economic and operating conditions and assuming continuation of current regulatory practices using conventional production methods and equipment. In the analyses of production-decline curves, reserves were estimated only to the limit of economic rates of production under existing economic and operating conditions using prices and costs consistent with the effective date of this report, including consideration of changes in existing prices provided only by contractual

arrangements but not including escalations based upon future conditions. The petroleum reserves are classified as follows:

Proved oil and gas reserves – Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

(i) The area of the reservoir considered as proved includes:

(A) The area identified by drilling and limited by fluid contacts, if any, and (B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when: (A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and (B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

Developed oil and gas reserves – Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Undeveloped oil and gas reserves – Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir, as defined in [section 210.4–10 (a) Definitions], or by other evidence using reliable technology establishing reasonable certainty.

Methodology and Procedures

Estimates of reserves were prepared by the use of appropriate geologic, petroleum engineering, and evaluation principles and techniques that are in accordance with the reserves definitions of Rules 4–10(a)(1)–(32) of Regulation S–X of the SEC and with practices generally recognized by the petroleum industry as presented in the publication of the Society of Petroleum Engineers entitled "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information (revised June 2019) Approved by the SPE Board on 25 June 2019." The method or combination of methods used in the analysis of each reservoir was tempered by experience with similar reservoirs, stage of development, quality and completeness of basic data, and production history.

Based on the current stage of field development, production performance, the development plans provided by PetroChina, and analyses of areas offsetting existing wells with test or production data, reserves were classified as proved.

The proved undeveloped reserves estimates were based on opportunities identified in the plan of development provided by PetroChina.

PetroChina has represented that its senior management is committed to the development plan provided by PetroChina and that PetroChina has the financial capability to drill the locations as scheduled in its development plan.

When applicable, the volumetric method was used to estimate the original oil in place (OOIP) and original gas in place (OGIP). Structure maps were prepared to delineate each reservoir, and isopach maps were constructed to estimate reservoir volume. Electrical logs, radioactivity logs, core analyses, and other available data were used to prepare these maps as well as to estimate representative values for porosity and water saturation.

Estimates of ultimate recovery were obtained after applying recovery factors to OOIP and OGIP. These recovery factors were based on consideration of the type of energy inherent in the reservoirs, analyses of the petroleum, the structural positions of the properties, and the production histories.

For depletion-type reservoirs or those whose performance disclosed a reliable decline in producing-rate trends or other diagnostic characteristics, reserves were estimated by the application of appropriate decline curves or other performance relationships. Reserves were estimated only to the limits of economic production as defined under the Definition of Reserves heading of this report.

For the evaluation of unconventional reservoirs, a performance-based methodology integrating the appropriate geology and petroleum engineering data was utilized for this report. Performance-based methodology primarily includes (1) production diagnostics, (2) decline-curve analysis, and (3) model-based analysis (if necessary, based on availability of data). Production diagnostics include data quality control, identification of flow regimes, and characteristic well performance behavior. These analyses were performed for all well groupings (or type-curve areas).

Characteristic rate-decline profiles from diagnostic interpretation were translated to modified hyperbolic rate profiles, including one or multiple b-exponent values followed by an exponential decline. Based on the availability of data, model-based analysis may be integrated to evaluate long-term decline behavior, the effect of dynamic reservoir and fracture parameters on well performance, and complex situations sourced by the nature of unconventional reservoirs.

In certain cases, reserves were estimated by incorporating elements of analogy with similar wells or reservoirs for which more complete data were available.

Data provided by PetroChina from wells drilled through November 30, 2020 and made available for this evaluation were used to prepare the reserves estimates herein. These reserves estimates were based on consideration of monthly production data available for certain properties only through August 2020. Estimated cumulative production as of December 31, 2020, was deducted from the estimated gross ultimate recovery to estimate gross reserves. This required that production be estimated for up to 4 months.

Oil and condensate reserves estimated herein are to be recovered by normal field separation. NGL reserves estimated herein include propane and butane fractions and pentanes and heavier fractions (C5+). NGL reserves estimated herein are the result of low-temperature plant processing. Oil, condensate, and NGL reserves included in this report are expressed in thousands of barrels (10^3bbl). In these estimates, 1 barrel equals 42 United States gallons. For reporting purposes, oil, condensate, and NGL reserves have been estimated separately and are presented herein as a summed quantity.

Gas quantities estimated herein are expressed as marketable gas, fuel gas, and sales gas. Marketable gas is defined as the total gas produced from the reservoir after reduction for shrinkage resulting from field separation; processing, including removal of the nonhydrocarbon gas to meet pipeline specifications; and flare and other losses but not from fuel usage. Fuel gas is defined as that portion of the gas consumed in field operations. Sales gas is defined as the total gas to be produced from the reservoirs, measured at the point of delivery, after reduction for fuel usage, flare, and shrinkage resulting from field separation and processing. Gas reserves estimated herein are reported as marketable gas, sales gas, and fuel gas. Gas quantities are expressed at a temperature base of 68 degrees Fahrenheit (°F) and at a pressure base of 14.696 pounds per square inch absolute. Gas quantities included in this report are expressed in millions of cubic feet (10^6ft^3).

Gas quantities are identified by the type of reservoir from which the gas will be produced. Nonassociated gas is gas at initial reservoir conditions with no oil present in the reservoir. Associated gas is both gas-cap gas and solution gas. Gas-cap gas is gas at initial reservoir conditions and is in communication with an underlying oil zone. Solution gas is gas dissolved in oil at initial reservoir conditions. Gas quantities estimated herein include both associated and nonassociated gas.

At the request of Petrochina, marketable gas reserves estimated herein were converted to oil equivalent using an energy equivalent factor of 6,000 cubic feet of gas per 1 barrel of oil equivalent.

Primary Economic Assumptions

This report has been prepared using initial prices, expenses, and costs provided by PetroChina in United States dollars (U.S.$). Future prices were estimated using guidelines established by the SEC and the Financial Accounting Standards Board (FASB). The following economic assumptions were used for estimating the reserves reported herein:

Oil, Condensate, and NGL Prices

PetroChina has represented that the oil, condensate, and NGL prices were based on a reference price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month

within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual agreements. PetroChina supplied the appropriate differentials a Dubai reference price of U.S.$42.61 per barrel.

The weighted average oil and condensate price attributable to the estimated proved reserves was U.S.$40.07 per barrel. The weighted average NGL price attributable to the estimated proved reserves was U.S.$26.79 per barrel. The oil, condensate, and NGL prices were held constant for the lives of the properties.

Gas Prices

PetroChina furnished the gas prices and has represented that the gas prices are defined by contractual agreements. The weighted average gas price attributable to the estimated proved reserves was U.S.$6.18 per thousand cubic feet. The gas prices were held constant for the lives of the properties.

Operating Expenses, Capital Costs, and Abandonment Costs

Operating expenses and capital costs were provided by PetroChina and were used in estimating future expenses and capital costs required to operate the properties. In certain cases, forecasts of future operating expenses and capital costs, either higher or lower than existing expenses and capital costs, may have been used because of anticipated changes in operating conditions. Abandonment costs were also provided by PetroChina. Abandonment costs are represented by PetroChina to be inclusive of those costs associated with the removal of equipment, plugging of wells, and reclamation and restoration costs associated with the abandonment. Estimates of operating expenses, capital costs, and abandonment costs were considered in determining the economic viability of the undeveloped reserves estimated herein. Operating expenses, capital costs, and abandonment costs were not escalated for inflation.

Taxes

Local taxes and value-added taxes in China were applied in the estimation of reserves.

Royalties

PetroChina has represented that it has no royalty obligations for the properties reported herein.

In our opinion, the information relating to estimated proved reserves of oil, condensate, NGL, and gas contained in this report has been prepared in accordance with Paragraphs 932-235-50-4 and 932-235-50-6 through 932-235-50-9 of the Accounting Standards Update 932-235-50, *Extractive Industries – Oil and Gas (Topic 932): Oil and Gas Reserve Estimation and Disclosures* (January 2010) of the FASB and Rules 4–10(a)(1)–(32) of Regulation S–X and Rules 302(b), 1201, 1202(a) (1), (2), (3), (4), (8), and 1203(a) of Regulation S–K of the SEC; provided, however, that estimates of proved developed and proved undeveloped reserves are not presented at the beginning of the year.

To the extent the above-enumerated rules, regulations, and statements require determinations of an accounting or legal nature, we, as engineers, are necessarily unable to express an opinion as to whether the above-described information is in accordance therewith or sufficient therefor.

Summary of Conclusions

PetroChina has represented that its estimated net proved reserves attributable to the reviewed properties were based on the definition of proved reserves of the SEC. PetroChina's estimates of the net proved reserves, as

of December 31, 2020, attributable to these properties, which represent 54 percent of PetroChina's reserves on a net equivalent basis, are summarized as follows, expressed in thousands of barrels (10^3bbl), millions of cubic feet (10^6ft^3), and thousands of barrels of oil equivalent (10^3boe):

	Estimated by PetroChina		
	Net Proved Reserves as of December 31, 2020		
	Proved Developed	Proved Undeveloped	Total Proved
Properties Reviewed by DeGolyer and MacNaughton			
China			
Oil, Condensate, and NGL, 10^3bbl	2,437,427	254,672	2,692,099
Marketable Gas, 10^6ft^3	26,591,234	15,408,344	41,999,578
Fuel Gas, 10^6ft^3	1,911,917	949,116	2,861,034
Sales Gas, 10^6ft^3	24,679,317	14,459,228	39,138,544
Oil Equivalent, 10^3boe	6,869,300	2,822,729	9,692,029

Notes:

1. Marketable gas reserves estimated herein were converted to oil equivalent using an energy equivalent factor of 6,000 cubic feet of gas per 1 barrel of oil equivalent.
2. PetroChina has represented that the estimates of total proved reserves include 70,368 103bbl of NGL reserves.
3. PetroChina has represented that the estimates of net proved reserves include 2,450 103boe attributable to minority interests held by others.

In comparing the detailed net proved reserves estimates prepared by DeGolyer and MacNaughton and by PetroChina, differences have been found, both positive and negative, resulting in an aggregate difference of 0.4 percent when compared on the basis of net equivalent barrels. It is DeGolyer and MacNaughton's opinion that the net proved reserves estimates prepared by PetroChina on the properties reviewed and referred to above, when compared on the basis of net equivalent barrels, in aggregate, do not differ materially from those prepared by DeGolyer and MacNaughton.

While the oil and gas industry may be subject to regulatory changes from time to time that could affect an industry participant's ability to recover its reserves, we are not aware of any such governmental actions which would restrict the recovery of the December 31, 2020, estimated reserves.

DeGolyer and MacNaughton is an independent petroleum engineering consulting firm that has been providing petroleum consulting services throughout the world since 1936. DeGolyer and MacNaughton does not have any financial interest, including stock ownership, in PetroChina. Our fees were not contingent on the results of our evaluation. This report has been prepared at the request of PetroChina. DeGolyer and MacNaughton has used all assumptions, data, procedures, and methods that it considers necessary and appropriate to prepare this report.

Submitted,

DeGOLYER and MacNAUGHTON
Texas Registered Engineering Firm F-716

/s/ Thomas C. Pence, P.E.

Thomas C. Pence, P.E.
Senior Vice President
DeGolyer and MacNaughton

CERTIFICATE of QUALIFICATION

I, Thomas C. Pence, Petroleum Engineer with DeGolyer and MacNaughton, 5001 Spring Valley Road, Suite 800 East, Dallas, Texas, 75244 U.S.A., hereby certify:

1. That I am a Senior Vice President with DeGolyer and MacNaughton, which firm did prepare the report of third party addressed to PetroChina dated March 1, 2021, and that I, as Senior Vice President, was responsible for the preparation of this report of third party.

2. That I attended Texas A&M University, and that I graduated with a degree in Petroleum Engineering in the year 1982; that I am a Registered Professional Engineer in the State of Texas; that I am a member of the Society of Petroleum Engineers; and that I have in excess of 38 years of experience in oil and gas reservoir studies and reserves evaluations.

/s/ Thomas C. Pence, P.E.

Thomas C. Pence, P.E.
Senior Vice President
DeGolyer and MacNaughton

Exhibit 15.3

TBPE REGISTERED ENGINEERING FIRM F-1580 FAX (713) 651-0849
1100 LOUISIANA SUITE 4600 HOUSTON, TEXAS 77002-5294 TELEPHONE (713) 651-9191

Consent of Independent Petroleum Engineers and Geologists

We consent to the references to our firm in the form and content in which they appear in this Annual Report on Form 20-F, and the inclusion of our report herein for PetroChina Company Limited, filed with the Securities and Exchange Commission.

/s/ Ryder Scott Company, L.P.
RYDER SCOTT COMPANY, L.P.
TBPE Registration No. F-1580

Houston, Texas
March 11, 2021

SUITE 2800, 350 7TH AVENUE, S.W. CALGARY, ALBERTA T2P 3N9 TEL (403) 262-2799
633 17TH STREET, SUITE 1700 DENVER, COLORADO 80202 TEL (303) 339-8110

THIRD PARTY REPORT
RESERVES ESTIMATION AND EVALUATION
OF
CHAD, WEST QURNA AND PERU (PEP) ASSETS
AS OF DECEMBER 31, 2020

Prepared for

PETROCHINA COMPANY LIMITED

MARCH 12, 2021

CONFIDENTIAL

This document is confidential and has been prepared for the exclusive use of CNODCI/PetroChina or parties named herein. It may not be distributed or made available, in whole or in part, to any other company or person without the prior knowledge and written consent of Ryder Scott. No person or company other than those for whom it is intended may directly or indirectly rely upon its contents. Ryder Scott is acting in an advisory capacity only and, to the fullest extent permitted by law, disclaims all liability for actions or losses derived from any actual or purported reliance on this document (or any other statements or opinions of Ryder Scott) by CNODCI/PetroChina or by any other person or entity.

/s/ Timour Baichev, P.Eng.

Timour Baichev, P.Eng.
APEGA License No. 87454
Vice President

RYDER SCOTT COMPANY, L.P.
TBPE Firm Registration No. F-1580

RYDER SCOTT COMPANY
PETROLEUM CONSULTANTS

TBPE REGISTERED ENGINEERING FIRM F-1580
SUITE 2800, 350 - 7TH AVENUE, S.W. CALGARY, ALBERTA T2P 3N9 TEL (403) 262-2799

March 12, 2021

PetroChina Company Limited
9 Dongzhimen North Street
Dongcheng District
Beijing 100007
China

THIRD PARTY REPORT
RESERVES ESTIMATION AND VALUATION OF
CHAD, WEST QURNA AND PERU (PEP) ASSETS
AS OF DECEMBER 31, 2020

Ladies and Gentlemen:

Ryder Scott Company, L.P. (Ryder Scott) was requested by China National Oil and Gas Exploration and Development Corporation International Holding Ltd. ("CNODCI"), to conduct reserves estimations and evaluations (as of December 31, 2020) for selected petroleum assets in Chad, West Qurna (Iraq) and Peru (PEP), in which CNODCI has current interests. Ryder Scott has completed these evaluations and submitted our results of the reserves and corresponding Net Present Value (NPV) estimates to CNODCI in separate reports dated January 6, 2021 and January 8, 2021 (Chad), February 5, 2021 (Peru) and January 29, 2021 (Iraq). These reserves were prepared in accordance with U.S. Securities and Exchange Commission (SEC) regulations. Those reports are the definitive documents concerning the reserves and related net present values estimated by Ryder Scott and presented herein.

Recently, CNODCI requested that Ryder Scott prepare this Third Party Report concerning the above reserves work, which is intended to be submitted to PetroChina Company Limited ("PetroChina"). This report is presented to PetroChina to summarize the results of the reserves estimations and evaluations as of December 31, 2020 for the selected petroleum assets. This summary report is subject to, and includes by reference, all of the discussion elements contained in the Ryder Scott report letters contained in the aforementioned reserve reports as of December 31, 2020.

METHODOLOGY

In carrying out our reserves and NPV evaluations, Ryder Scott relied upon information and data provided by CNODCI, which comprised basic engineering data; geosciences information and engineering interpretation associated with such data; other technical reports, costs and commercial data, and development plans. The available data and interpretations were reviewed for reasonableness and the latter adjusted where appropriate.

The results presented in this report are based upon information and data made available to Ryder Scott through December 2020. The reserves estimates, future production and Net Present Value (NPV) computations as presented herein are based upon these data and represent Ryder Scott's opinion as of December 31, 2020, as presented in the individual Ryder Scott reports for those assets.

Economic models were constructed based on terms of the applicable petroleum contracts as provided by CNODCI, in order to calculate CNODCI's net revenue interest in the proved reserves. As of December 31, 2020, all proved SEC reserves were estimated up to the end of the license contract period only.

As per SEC guidelines, the oil prices which were used in the evaluation are the un-weighted 12-month arithmetic averages of the first-day-of-the month price for each month within the 12-month period prior to the end of the reporting period, unless prescribed by contract. Those prices were held constant throughout the evaluation period except where alternate prices are prescribed by contract. The historical 12-month oil prices or contract prices, with supporting differentials, were supplied by CNODCI.

Future capital costs were derived from development program forecasts prepared by CNODCI for each production unit and corresponding to recent historical development cost data. The recent historical cost data for each relevant production unit were utilized to determine current operating cost conditions. These costs were not escalated throughout the evaluation period.

CNODCI's net reserve volumes are derived by converting calculated net revenues accruing to CNODCI under the terms of the relevant petroleum contract into equivalent barrels of oil utilizing the average 2020 oil pricing explained above. The CNODCI net revenue interest volumes reported in this document represent those amounts that are determined to be attributable to CNODCI's net economic interest after the deduction of amounts attributable to third parties (government and other working interest partners).

The NPV computations were also undertaken and derived using cost and production profiles input to the various economic models established for the selected assets in each country. These NPVs represent future net revenue before taxes, attributable to the interests of CNODCI, discounted over the economic life of the project at the SEC specified discount rate of ten percent per year to a present value as of December 31, 2020.

1. RESULTS SUMMARY

1.1 Net Reserves

The following table presents the net entitlement for Total Proved reserves attributable to CNODCI's working interests (WI) estimated in accordance with SEC guidelines. They were prepared using the methodology described above.

NET ENTITLEMENT PROVED RESERVES
AS OF DECEMBER 31, 2020

Country	Total Proved		
	Oil (Mbbl)	Sales Gas (MMcf)	Condensate (Mbbl)
Chad – Block H	84,704	0	0
Chad – PSA Area	10,900	0	0
Iraq – West Qurna	46,220	0	0
Peru – Block X	13,379	14,989	0
Peru – Block 57	0	351,649	21,000
TOTAL CNODCI	155,203	366,638	21,000

Notes:

1. *CNODCI holds a 90% WI in Chad – Block H, 75% WI in Chad – PSA Area, a 34.413 % WI plus Carry in West Qurna, a 100% WI in Block X (Peru) and a 46.16 % WI in Block 57 (Peru) assets. A royalty of 12 ½% in Block H (Chad) is paid in kind; therefore, it is deducted from the Gross Reserves volumes. PSA Area in Chad has a 14.25% mineral resources compensation fee (royalty) and is paid in kind; therefore, it is also deducted from the Gross Reserves volumes. Net reserves are WI volumes less royalty volumes and less shared profit oil for Chad – PSA Area. Royalty volumes are zero for both Peru Block X and Block 57 due to the fact that government takes a production tax instead. This leads to the fact that net and gross sales gas volumes are equal once adjusted for WI.*
2. *Both Chad and West Qurna assets produce oil only. Block X produces oil and solution gas. Block 57 produces gas and condensate. Gas has been discovered in some structures in Chad, but at this time there is no market available for the gas.*

1.2 Gross Volumes

Gross production volumes are presented for reference information only. Gross volumes include volumes attributable to third parties, government and other working interest partners.

GROSS PROVED RESERVES
AS OF DECEMBER 31, 2020

	Total Proved		
Country	**Oil (Mbbl)**	**Sales Gas (MMcf)**	**Condensate (Mbbl)**
Chad – Block H	109,756	0	0
Chad – PSA Area	17,295	0	0
Iraq – West Qurna	585,712	0	0
Peru – Block X	13,379	26,158	0
Peru – Block 57	0	761,804	45,494
TOTAL CNODC	726,142	787,962	45,494

1.3 Net Present Values

The NPVs as of December 31, 2020 of estimated before tax cash flows discounted at 10 percent, attributable to CNODCI's working interest in the projects identified above (excluding any balance sheet adjustments or financing costs), are summarized below.

NET PRESENT VALUES ATTRIBUTABLE TO CNODCI
AS OF DECEMBER 31, 2020
DISCOUNT RATE 10%

Country	Total Proved (US$M)
Chad – Block H	1,704,509
Chad – PSA Area	212,141
Iraq – West Qurna	263,388
Peru – Block X	262,157
Peru – Block 57	113,121
TOTAL CNODCI	2,555,316

Notes:

1. *NPVs in Chad – Block H, Chad – PSA Area, West Qurna, Block X and Block 57 assets represent CNODCI's 90%, 75%, 34.413%, 100% and 46.16% WI, respectively.*

Reserves are those estimated quantities of petroleum that are anticipated to be economically producible by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status. All categories of reserve volumes quoted herein have been determined within the context of an economic limit test (pre-tax and exclusive of accumulated depreciation amounts) assessment prior to any NPV analysis.

We are independent petroleum engineers with respect to CNODCI. Neither we nor any of our employees have any financial interest in the subject properties and neither the employment to do this work nor the compensation is contingent on our estimates of reserves for the properties which were reviewed.

The results of these studies, presented herein, are based on technical analysis conducted by teams of geoscientists and engineers from Ryder Scott.

This third party report is provided subject to all the terms, conditions and qualifications set-out in the Ryder Scott reports on these assets that are mentioned at the start of this letter report.

It should be clearly noted that the NPVs contained herein do not represent a Ryder Scott opinion as to the market value of the subject properties.

Liquid hydrocarbons are expressed in standard 42 U.S. gallon barrels and shown herein as thousands of barrels (Mbbl). All gas volumes are expressed in millions of cubic feet (MMcf) at the official temperature and pressure bases of the areas in which the gas volumes are located. All gas reserves volumes are reported on an "as sold" basis.

The results of our third party study, presented in summary form herein, were prepared in accordance with the disclosure requirements set forth in the SEC regulations.

Please contact us if we can be of further service.

Very truly yours,

RYDER SCOTT COMPANY, L.P.
TBPE Firm Registration No. F-1580

/s/ Timour Baichev, P.Eng.
Timour Baichev, P.Eng.
APEGA License No. 87454
Vice President

TB (HGA)/pl

Exhibit 15.4

PETROCHINA CANADA LTD.

RESERVES ASSESSMENT AND EVALUATION OF CANADIAN OIL AND GAS PROPERTIES

CORPORATE SUMMARY (SEC) ABBREVIATED

Effective December 31, 2020

1202582

CORPORATE SUMMARY (SEC) ABBREVIATED

TABLE OF CONTENTS

	Page
COVERING LETTER	3
INDEPENDENT PETROLEUM CONSULTANTS' CONSENT	5
INTRODUCTION	6
SUMMARY	8
RESERVES DEFINITIONS	15
PRODUCT PRICE AND MARKET FORECASTS	19

March 3, 2021

Projects 1202582 and 1202656

Mr. Alex Choo
PetroChina Canada Ltd.
2700, 707 – 5th Street S.W.
Calgary, Alberta T2P 1V8

Dear Sir:

Re: PetroChina Canada Ltd.
CNPC International Canada Ltd.
Corporate Evaluation (SEC)
Effective December 31, 2020

GLJ Ltd. (GLJ) has completed an independent reserves assessment and evaluation of the oil and gas properties of PetroChina Canada Ltd. (the "Company"). The effective date of this evaluation is December 31, 2020. Properties included in this evaluation are:

- PetroChina Canada Ltd. Properties
  - Duvernay Joint Venture
  - Groundbirch Joint Venture
- CNPC International Properties
  - Lone Rock (Sask)
  - Drumheller
  - Twining

Please note that the reserves information provided herein represents a consolidation of the PetroChina Canada Ltd.'s and CNPC International Canada Ltd.'s Corporate 2020 Year End SEC Reserves Reports, as dated January 2, 2021 (GLJ project number 1202582) and February 8, 2021 (GLJ project number 1202656), respectively.

For further details regarding the reserves contained herein, please refer to the comprehensive SEC reserves reports as described above. Details of reserves as included may not be appropriate for use in disclosure or reporting.

GLJ has prepared the reserves estimates utilizing reserves definitions contained in National Instrument 51-101 (NI 51-101) and following standards set out in the Canadian Oil and Gas Evaluation Handbook (COGEH) as required for securities reporting in Canada. Proved reserves definitions provided in NI 51-101 are similar to the U.S. SEC Reg. S-X (SEC) definitions, and guidance provided in COGEH is generally in keeping with SEC guidelines. Economic forecasts provided herein have been prepared using the SEC mandated average of previous 12 months first-day-of-the-month constant product pricing guidelines. For the subject evaluation, the application of the SEC definitions would cause no change to the proved reserves and economic forecasts prepared following COGEH using the SEC constant product prices. Accordingly, the constant pricing proved reserves estimates and economic forecasts are considered appropriate for U.S. reporting purposes.

It was GLJ's primary mandate in this evaluation to provide an independent evaluation of the oil and gas reserves of each Company individually, in aggregate. Accordingly, it may not be appropriate to extract individual property or entity estimates for other purposes. Our engagement letter notes these limitations on the use of this report.

It is trusted that this evaluation meets your current requirements. Should you have any questions regarding this analysis, please contact the undersigned.

Yours very truly,

GLJ LTD.

/s/ Trisha S. MacDonald, P. Eng.
Trisha S. MacDonald, P. Eng.
Senior Manager, Engineering

INDEPENDENT PETROLEUM CONSULTANTS' CONSENT

The undersigned firm of Independent Petroleum Consultants of Calgary, Alberta, Canada has prepared an independent evaluation of the **PetroChina Canada Ltd.** and **CNPC International Ltd.** (together referred to as the "Company") Canadian oil and gas properties and hereby gives consent to the use of their name and to the said estimates. The effective date of the evaluation is **December 31, 2020.**

In the course of the evaluation, the Company provided GLJ Ltd. personnel with basic information which included land data, well information, geological information, reservoir studies, estimates of on-stream dates, contract information, current hydrocarbon product prices, operating cost data, capital budget forecasts, financial data and future operating plans. Other engineering, geological or economic data required to conduct the evaluation and upon which this report is based, were obtained from public records, other operators and from GLJ Ltd. nonconfidential files. The Company has provided a representation letter confirming that all information provided to GLJ Ltd. is correct and complete to the best of its knowledge. Procedures recommended in the Canadian Oil and Gas Evaluation (COGE) Handbook and SPE-PRMS to verify certain interests and financial information were applied in this evaluation. In applying these procedures and tests, nothing came to GLJ Ltd.'s attention that would suggest that information provided by the Company was not complete and accurate. GLJ Ltd. reserves the right to review all calculations referred to or included in this report and to revise the estimates in light of erroneous data supplied or information existing but not made available which becomes known subsequent to the preparation of this report.

The accuracy of any reserves and production estimate is a function of the quality and quantity of available data and of engineering interpretation and judgment. While reserves and production estimates presented herein are considered reasonable, the estimates should be accepted with the understanding that reservoir performance subsequent to the date of the estimate may justify revision, either upward or downward.

Revenue projections presented in this report are based in part on forecasts of market prices, currency exchange rates, inflation, market demand and government policy which are subject to many uncertainties and may, in future, differ materially from the forecasts utilized herein. Present values of revenues documented in this report do not necessarily represent the fair market value of the reserves evaluated herein.

PERMIT TO PRACTICE
GLJ LTD.

Signature: /s/ Tim Freebom

Date: March 3, 2021

PERMIT NUMBER: P 2066
The Association of Professional Engineers and Geoscientists of Alberta

INTRODUCTION

GLJ (GLJ) was commissioned by PetroChina Canada Ltd. and CNPC International Ltd. (together referred to as the "Company") to prepare an independent evaluation of their oil and gas reserves effective December 31, 2020.

The evaluation was initiated in September 2020 and completed by January 2021. Estimates of reserves and projections of production were generally prepared using well information and production data available from public sources to approximately September 30, 2020. The Company provided land, accounting data and other technical information not available in the public domain to approximately December 10, 2020. In certain instances, the Company also provided recent engineering, geological and other information up to December 18, 2020. The Company has confirmed that, to the best of its knowledge, all information provided to GLJ is correct and complete as of the effective date.

This evaluation has been prepared in accordance with procedures and standards contained in the Canadian Oil and Gas Evaluation (COGE) Handbook, which are considered to be generally consistent with those outlined in SPE-PRMS. The reserves definitions used in preparing this report (included herein under "Reserves Definitions") are those contained in the SEC Reserves Definitions from excerpts S-X210.4-10 and those as detailed in SPE-PRMS (published in 2018).

The evaluation was conducted on the basis of the first day posted prices in each of the 12 months of the Company's fiscal year as summarized in the Product Price and Market Forecasts section of this report.

Tables summarizing production, royalties, costs, revenue projections, reserves and present value estimates for various reserves categories for individual properties and the Company total are provided in the tabbed sections of this Summary Report.

The Evaluation Procedure section outlines general procedures used in preparing this evaluation. The individual property reports, provided under separate cover, provide additional evaluation details. The following summarizes evaluation matters that have been included/excluded in cash flow projections:

- provisions for the abandonment and reclamation of all of the Company's existing and future wells to which reserves have been attributed have been included; all other abandonment and reclamation costs have not been included,
- carbon taxes associated with greenhouse gas emissions as part of the Canadian Federal Greenhouse Gas Pollution Pricing Act, Alberta Climate Change and Emissions Management Act's Technology Innovation and Emissions Reduction Regulation, British Columbia Carbon Tax Act and Saskatchewan Oil and Gas Emission Management Regulations have been included. Carbon taxes have been included as operating costs based on historical carbon tax payments and forecast carbon tax estimates provided by the Company.

Economic forecasts are provided on an after tax basis including tax pools provided by the Company in the "Evaluation Procedure" section.

The preparation of an evaluation requires the use of judgment in applying the standards and definitions contained in SEC Reserves Definitions from excerpts S-X210.4-10 and those as detailed in SPE-PRMS (published in 2018). GLJ has applied those standards and definitions based on its experience and knowledge of industry practice. While GLJ believes that the reserves data set forth in this evaluation have, in all material respects, been determined and are in accordance with these guidelines, because the application of the standards and definitions contained in the SPE-PRMS and SEC Reserves Definitions require the use of judgment there is no assurance that the applicable securities regulator(s) will not take a different view as to some of the determinations in the evaluation.

SUMMARY

TABLE OF CONTENTS

	Page
SUMMARY OF RESERVES AND VALUES	**9**
COMPANY PRODUCTION, RESERVES AND PRESENT VALUE SUMMARY	
Proved Producing	**10**
Proved Developed Non-Producing	**11**
Proved Undeveloped	**12**
Total Proved Non-Producing	**13**
Total Proved	**14**

Company:	**PetroChina Canada Ltd.**	Reserve Class:	**Various**
Property:	**Corporate**	Development Class:	**Classifications**
Description:	**Total PCC Properties (SEC)**	Pricing:	**SEC 2020-Dec-31 Posted (12 Month Avg.)**
		Effective Date:	**December 31, 2020**

Summary of Reserves and Values

	Proved Producing	Proved Developed Non-Producing	Proved Undeveloped	Total Proved Non-Producing	Total Proved
MARKETABLE RESERVES					
Heavy Oil (Mbbl)					
Total Company Interest	5.0	0.0	0.0	0.0	5.0
Working Interest	5.0	0.0	0.0	0.0	5.0
Net After Royalty	4.8	0.0	0.0	0.0	4.8
Residue Gas (MMcf)					
Total Company Interest	2.0	0.0	0.0	0.0	2.0
Working Interest	2.0	0.0	0.0	0.0	2.0
Net After Royalty	1.9	0.0	0.0	0.0	1.9
Shale Gas (MMcf)					
Total Company Interest	141,745	5,389	203,023	208,412	350,158
Working Interest	141,745	5,389	203,023	208,412	350,158
Net After Royalty	130,863	4,913	191,264	196,177	327,039
Coal Bed Methane (MMcf)					
Total Company Interest	68	0	0	0	68
Working Interest	68	0	0	0	68
Net After Royalty	65	0	0	0	65
Total Sales Gas (MMcf)					
Total Company Interest	141,816	5,389	203,023	208,412	350,228
Working Interest	141,816	5,389	203,023	208,412	350,228
Net After Royalty	130,930	4,913	191,264	196,177	327,106
Natural Gas Liquids (Mbbl)					
Total Company Interest	8,492	38	22,200	22,238	30,730
Working Interest	8,492	38	22,200	22,238	30,730
Net After Royalty	6,754	31	21,051	21,082	27,836
Oil Equivalent (Mboe)					
Total Company Interest	32,133	936	56,037	56,974	89,107
Working Interest	32,133	936	56,037	56,974	89,107
Net After Royalty	28,581	850	52,928	53,778	82,359
BEFORE TAX PRESENT VALUE (M$)					
0%	190,182	1,664	345,562	347,226	537,407
5%	164,351	1,378	143,183	144,561	308,911
8%	151,285	1,252	69,988	71,241	222,526
10%	143,567	1,181	33,890	35,071	178,639
12%	136,578	1,117	5,305	6,422	143,000
15%	127,312	1,034	-26,979	-25,945	101,366
20%	114,582	919	-61,518	-60,599	53,983
AFTER TAX PRESENT VALUE (M$)					
0%	190,182	1,664	345,562	347,226	537,407
5%	164,351	1,378	143,183	144,561	308,911
8%	151,285	1,252	69,988	71,241	222,526
10%	143,567	1,181	33,890	35,071	178,639
12%	136,578	1,117	5,305	6,422	143,000
15%	127,312	1,034	-26,979	-25,945	101,366
20%	114,582	919	-61,518	-60,599	53,983

BOE Factors:								
	HVY OIL	1.0	RES GAS	6.0	PROPANE	1.0	ETHANE	1.0
	COND	1.0	SLN GAS	6.0	BUTANE	1.0	SULPHUR	0.0

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1202582 Class (A,B1,B2,B,C), SEC 2020-Dec-31 Posted (12 Month Avg.), psum

Company:	**PetroChina Canada Ltd.**	Reserve Class:	**Proved**
Property:	**Corporate**	Development Class:	**Producing**
Description:	**Total PCC Properties (SEC)**	Pricing:	**SEC 2020-Dec-31 Posted (12 Month Avg.)**
		Effective Date:	**December 31, 2020**

Company Production, Reserves and Present Value Summary

Entity Description	2021 Company Interest Prod'n				Company Interest Reserves					Net After Royalty Reserves					Reserve Life Index	Before Income Tax Discounted Present Value (M$)				
	Gas Mcf/d	Oil bbl/d	NGL bbl/d	Oil Eq. boe/d	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	yrs	0%	5%	8%	10%	12%
Total PCC Properties																				
CNPCI Conventional Minors																				
Drumheller	3	0	0	1	2	0	0	0	0	2	0	0	0	0	1.7	-2	-2	-1	-1	-1
Lone Rock (Sask)	0	9	0	9	0	5	0	0	5	0	5	0	0	5	1.6	-24	-13	-8	-6	-3
Twining	80	0	0	13	68	0	0	0	11	65	0	0	0	11	2.4	-75	-51	-40	-34	-29
Total: CNPCI Conventional Minors	**83**	**9**	**0**	**22**	**70**	**5**	**0**	**0**	**17**	**67**	**5**	**0**	**0**	**16**		**-101**	**-65**	**-49**	**-40**	**-33**
Duvernay Joint Venture																				
Kaybob Duvernay	34,317	0	4,107	9,827	71,304	0	7,958	0	19,842	65,825	0	6,305	0	17,276	5.5	174,723	149,806	137,455	130,218	123,697
Kaybob Duvernay Resources B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay B	844	0	76	217	1,297	0	125	0	341	1,177	0	107	0	303	4.3	742	967	1,021	1,038	1,045
Willesden Green Duvernay Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Duvernay Joint Venture	**35,160**	**0**	**4,183**	**10,043**	**72,600**	**0**	**8,083**	**0**	**20,183**	**67,003**	**0**	**6,411**	**0**	**17,579**		**175,466**	**150,773**	**138,477**	**131,257**	**124,742**
Groundbirch Joint Venture																				
Greater Groundbirch Area Montney	1,836	0	8	315	3,866	0	18	0	662	3,667	0	15	0	627	5.8	197	314	338	344	344
Greater Saturn Area Montney	7,485	0	35	1,282	16,916	0	78	0	2,897	16,060	0	69	0	2,746	6.2	2,693	2,839	2,785	2,722	2,649
Greater Sunset Area Montney	22,486	0	141	3,888	48,363	0	313	0	8,373	44,133	0	258	0	7,614	5.9	11,928	10,489	9,735	9,285	8,875
Groundbirch Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Other Intervals (Non-Montney)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Groundbirch Joint Venture	**31,807**	**0**	**184**	**5,485**	**69,145**	**0**	**409**	**0**	**11,933**	**63,860**	**0**	**343**	**0**	**10,986**		**14,818**	**13,643**	**12,858**	**12,351**	**11,868**
Total: Total PCC Properties	**67,051**	9	**4,367**	**15,551**	**141,816**	**5**	**8,492**	**0**	**32,133**	**130,930**	**5**	**6,754**	**0**	**28,581**		**190,182**	**164,351**	**151,285**	**143,567**	**136,578**

BOE Factors:	HVY OIL	1.0	RES GAS	6.0	PROPANE	1.0	ETHANE	1.0
	COND	1.0	SLN GAS	6.0	BUTANE	1.0	SULPHUR	0.0

Company:	**PetroChina Canada Ltd.**	Reserve Class:	**Proved**
Property:	**Corporate**	Development Class:	**Developed Non-Producing**
Description:	**Total PCC Properties (SEC)**	Pricing:	**SEC 2020-Dec-31 Posted (12 Month Avg.)**
		Effective Date:	**December 31, 2020**

Company Production, Reserves and Present Value Summary

Entity Description	2021 Company Interest Prod'n				Company Interest Reserves					Net After Royalty Reserves					Reserve Life Index yrs	Before Income Tax Discounted Present Value (M$)				
	Gas Mcf/d	Oil bbl/d	NGL bbl/d	Oil Eq. boe/d	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe		0%	5%	8%	10%	12%
Total PCC Properties																				
CNPCI Conventional Minors																				
Drumheller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Lone Rock (Sask)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Twining	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: CNPCI Conventional Minors	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**
Duvernay Joint Venture																				
Kaybob Duvernay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Kaybob Duvernay Resources B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Duvernay Joint Venture	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**
Groundbirch Joint Venture																				
Greater Groundbirch Area Montney	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Greater Saturn Area Montney	261	0	1	45	1,119	0	5	0	192	1,071	0	5	0	183	4.9	157	179	179	177	174
Greater Sunset Area Montney	931	0	9	164	4,271	0	33	0	745	3,842	0	27	0	667	6.3	1,507	1,200	1,073	1,004	943
Groundbirch Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Other Intervals (Non-Montney)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Groundbirch Joint Venture	**1,192**	**0**	**10**	**208**	**5,389**	**0**	**38**	**0**	**936**	**4,913**	**0**	**31**	**0**	**850**		**1,664**	**1,378**	**1,252**	**1,181**	**1,117**
Total: Total PCC Properties	**1,192**	**0**	**10**	**208**	**5,389**	**0**	**38**	**0**	**936**	**4,913**	**0**	**31**	**0**	**850**		**1,664**	**1,378**	**1,252**	**1,181**	**1,117**

BOE Factors:								
	HVY OIL	1.0	RES GAS	6.0	PROPANE	1.0	ETHANE	1.0
	COND	1.0	SLN GAS	6.0	BUTANE	1.0	SULPHUR	0.0

Company: **PetroChina Canada Ltd.**
Property: **Corporate**
Description: **Total PCC Properties (SEC)**

Reserve Class: **Proved**
Development Class: **Undeveloped**
Pricing: **SEC 2020-Dec-31 Posted (12 Month Avg.)**
Effective Date: **December 31, 2020**

Company Production, Reserves and Present Value Summary

Entity Description	2021 Company Interest Prod'n				Company Interest Reserves					Net After Royalty Reserves					Reserve Life Index	Before Income Tax Discounted Present Value (M$)				
	Gas Mcf/d	Oil bbl/d	NGL bbl/d	Oil Eq. boe/d	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	yrs	0%	5%	8%	10%	12%
Total PCC Properties																				
CNPCI Conventional Minors																				
Drumheller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Lone Rock (Sask)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Twining	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: CNPCI Conventional Minors	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**
Duvernay Joint Venture																				
Kaybob Duvernay	2,811	0	557	1,026	131,825	0	21,572	0	43,543	125,234	0	20,493	0	41,366	116.3	329,666	139,582	70,375	36,114	8,905
Kaybob Duvernay Resources B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Duvernay Joint Venture	**2,811**	**0**	**557**	**1,026**	**131,825**	**0**	**21,572**	**0**	**43,543**	**125,234**	**0**	**20,493**	**0**	**41,366**		**329,666**	**139,582**	**70,375**	**36,114**	**8,905**
Groundbirch Joint Venture																				
Greater Groundbirch Area Montney	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Greater Saturn Area Montney	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Greater Sunset Area Montney	0	0	0	0	71,198	0	628	0	12,494	66,029	0	557	0	11,562	24.7	15,896	3,601	-387	-2,224	-3,600
Groundbirch Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Other Intervals (Non-Montney)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Groundbirch Joint Venture	**0**	**0**	**0**	**0**	**71,198**	**0**	**628**	**0**	**12,494**	**66,029**	**0**	**557**	**0**	**11,562**		**15,896**	**3,601**	**-387**	**-2,224**	**-3,600**
Total: Total PCC Properties	**2,811**	**0**	**557**	**1,026**	**203,023**	**0**	**22,200**	**0**	**56,037**	**191,264**	**0**	**21,051**	**0**	**52,928**		**345,562**	**143,183**	**69,988**	**33,890**	**5,305**

BOE Factors:								
	HVY OIL	1.0	RES GAS	6.0	PROPANE	1.0	ETHANE	1.0
	COND	1.0	SLN GAS	6.0	BUTANE	1.0	SULPHUR	0.0

1202582 Proved Undeveloped, SEC 2020-Dec-31 Posted (12 Month Avg.), crv

Company:	**PetroChina Canada Ltd.**	Reserve Class:	**Proved**
Property:	**Corporate**	Development Class:	**Total Non-Producing**
Description:	**Total PCC Properties (SEC)**	Pricing:	**SEC 2020-Dec-31 Posted (12 Month Avg.)**
		Effective Date:	**December 31, 2020**

Company Production, Reserves and Present Value Summary

Entity Description	2021 Company Interest Prod'n				Company Interest Reserves					Net After Royalty Reserves					Reserve Life Index	Before Income Tax Discounted Present Value (M$)				
	Gas Mcf/d	Oil bbl/d	NGL bbl/d	Oil Eq. boe/d	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	yrs	0%	5%	8%	10%	12%
Total PCC Properties																				
CNPCI Conventional Minors																				
Drumheller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Lone Rock (Sask)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Twining	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: CNPCI Conventional Minors	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**
Duvernay Joint Venture																				
Kaybob Duvernay	2,811	0	557	1,026	131,825	0	21,572	0	43,543	125,234	0	20,493	0	41,366	116.3	329,666	139,582	70,375	36,114	8,905
Kaybob Duvernay Resources B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Duvernay Joint Venture	**2,811**	**0**	**557**	**1,026**	**131,825**	**0**	**21,572**	**0**	**43,543**	**125,234**	**0**	**20,493**	**0**	**41,366**		**329,666**	**139,582**	**70,375**	**36,114**	**8,905**
Groundbirch Joint Venture																				
Greater Groundbirch Area Montney	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Greater Saturn Area Montney	261	0	1	45	1,119	0	5	0	192	1,071	0	5	0	183	4.9	157	179	179	177	174
Greater Sunset Area Montney	931	0	9	164	75,468	0	661	0	13,239	69,871	0	584	0	12,229	111.7	17,402	4,801	686	-1,220	-2,657
Groundbirch Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Other Intervals (Non-Montney)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Groundbirch Joint Venture	**1,192**	**0**	**10**	**208**	**76,587**	**0**	**666**	**0**	**13,431**	**70,942**	**0**	**588**	**0**	**12,412**		**17,560**	**4,979**	**865**	**-1,043**	**-2,483**
Total: Total PCC Properties	**4,003**	0	**567**	**1,234**	**208,412**	**0**	**22,238**	**0**	**56,974**	**196,177**	**0**	**21,082**	**0**	**53,778**		**347,226**	**144,561**	**71,241**	**35,071**	**6,422**

BOE Factors:								
	HVY OIL	1.0	RES GAS	6.0	PROPANE	1.0	ETHANE	1.0
	COND	1.0	SLN GAS	6.0	BUTANE	1.0	SULPHUR	0.0

1202582 Total Proved Non-Producing, SEC 2020-Dec-31 Posted (12 Month Avg.), crv

Company: **PetroChina Canada Ltd.**
Property: **Corporate**
Description: **Total PCC Properties (SEC)**

Reserve Class: **Proved**
Development Class: **Total**
Pricing: **SEC 2020-Dec-31 Posted (12 Month Avg.)**
Effective Date: **December 31, 2020**

Company Production, Reserves and Present Value Summary

Entity Description	2021 Company Interest Prod'n				Company Interest Reserves					Net After Royalty Reserves					Reserve Life Index	Before Income Tax Discounted Present Value (M$)				
	Gas Mcf/d	Oil bbl/d	NGL bbl/d	Oil Eq. boe/d	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	Gas MMcf	Oil Mbbl	NGL Mbbl	Sulphur Mlt	Oil Eq. Mboe	yrs	0%	5%	8%	10%	12%
Total PCC Properties																				
CNPCI Conventional Minors																				
Drumheller	3	0	0	1	2	0	0	0	0	2	0	0	0	0	1.7	-2	-2	-1	-1	-1
Lone Rock (Sask)	0	9	0	9	0	5	0	0	5	0	5	0	0	5	1.6	-24	-13	-8	-6	-3
Twining	80	0	0	13	68	0	0	0	11	65	0	0	0	11	2.4	-75	-51	-40	-34	-29
Total: CNPCI Conventional Minors	**83**	**9**	**0**	**22**	**70**	**5**	**0**	**0**	**17**	**67**	**5**	**0**	**0**	**16**		**-101**	**-65**	**-49**	**-40**	**-33**
Duvernay Joint Venture																				
Kaybob Duvernay	37,128	0	4,665	10,853	203,129	0	29,530	0	63,385	191,059	0	26,798	0	58,642	16.0	504,389	289,388	207,830	166,332	132,602
Kaybob Duvernay Resources B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Willesden Green Duvernay B	844	0	76	217	1,297	0	125	0	341	1,177	0	107	0	303	4.3	742	967	1,021	1,038	1,045
Willesden Green Duvernay Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Duvernay Joint Venture	**37,972**	**0**	**4,740**	**11,069**	**204,426**	**0**	**29,655**	**0**	**63,726**	**192,237**	**0**	**26,905**	**0**	**58,944**		**505,132**	**290,355**	**208,852**	**167,371**	**133,647**
Groundbirch Joint Venture																				
Greater Groundbirch Area Montney	1,836	0	8	315	3,866	0	18	0	662	3,667	0	15	0	627	5.8	197	314	338	344	344
Greater Saturn Area Montney	7,746	0	36	1,327	18,035	0	83	0	3,089	17,131	0	74	0	2,929	6.4	2,850	3,018	2,964	2,900	2,823
Greater Sunset Area Montney	23,417	0	149	4,052	123,832	0	974	0	21,612	114,004	0	842	0	19,843	14.6	29,330	15,290	10,421	8,065	6,218
Groundbirch Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Other Intervals (Non-Montney)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0
Total: Groundbirch Joint Venture	**32,999**	**0**	**193**	**5,693**	**145,732**	**0**	**1,075**	**0**	**25,363**	**134,803**	**0**	**931**	**0**	**23,399**		**32,377**	**18,622**	**13,723**	**11,308**	**9,386**
Total: Total PCC Properties	**71,054**	**9**	**4,934**	**16,785**	**350,228**	**5**	**30,730**	**0**	**89,107**	**327,106**	**5**	**27,836**	**0**	**82,359**		**537,407**	**308,911**	**222,526**	**178,639**	**143,000**

BOE Factors:								
	HVY OIL	1.0	RES GAS	6.0	PROPANE	1.0	ETHANE	1.0
	COND	1.0	SLN GAS	6.0	BUTANE	1.0	SULPHUR	0.0

1202582 Total Proved, SEC 2020-Dec-31 Posted (12 Month Avg.), crv

SEC RESERVES DEFINITIONS

The following definitions are excerpts from Regulation S-X 210.4-10. Portions of these definitions within square parentheses, [ ], have been transposed from other sections of Regulation S-X 210.4-10 to improve readability.

Resources

Resources are quantities of oil and gas estimated to exist in naturally occurring accumulations. A portion of the resources may be estimated to be recoverable, and another portion may be considered to be unrecoverable. Resources include both discovered and undiscovered accumulations.

Reserves

Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.

Note: Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non-productive reservoir (i.e. , absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).

Proved Oil and Gas Reserves

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

(i) The area of the reservoir considered as proved includes:

  (A) The area identified by drilling and limited by fluid contacts, if any, and

  (B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

  (A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the

reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and

(B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

Probable Reserves

Probable reserves are those additional reserves that are less certain to be recovered than proved reserves but which, together with proved reserves, are as likely as not to be recovered.

(i) When deterministic methods are used, it is as likely as not that actual remaining quantities recovered will exceed the sum of estimated proved plus probable reserves. When probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the proved plus probable reserves estimates.

(ii) Probable reserves may be assigned to areas of a reservoir adjacent to proved reserves where data control or interpretations of available data are less certain, even if the interpreted reservoir continuity of structure or productivity does not meet the reasonable certainty criterion. Probable reserves may be assigned to areas that are structurally higher than the proved area if these areas are in communication with the proved reservoir.

(iii) Probable reserves estimates also include potential incremental quantities associated with a greater percentage recovery of the hydrocarbons in place than assumed for proved reserves.

(iv) *[The proved plus probable and proved plus probable plus possible reserves estimates must be based on reasonable alternative technical and commercial interpretations within the reservoir or subject project that are clearly documented, including comparisons to results in successful similar projects.]*

[Where direct observation has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves should be assigned in the structurally higher portions of the reservoir above the HKO only if the higher contact can be established with reasonable certainty through reliable technology. Portions of the reservoir that do not meet this reasonable certainty criterion may be assigned as probable and possible oil or gas based on reservoir fluid properties and pressure gradient interpretations.]

Possible Reserves

Possible reserves are those additional reserves that are less certain to be recovered than probable reserves.

(i) When deterministic methods are used, the total quantities ultimately recovered from a project have a low probability of exceeding proved plus probable plus possible reserves. When probabilistic methods are used, there should be at least a 10% probability that the total quantities ultimately recovered will equal or exceed the proved plus probable plus possible reserves estimates.

(ii) Possible reserves may be assigned to areas of a reservoir adjacent to probable reserves where data control and interpretations of available data are progressively less certain. Frequently, this will be in areas where geoscience and engineering data are unable to define clearly the area and vertical limits of commercial production from the reservoir by a defined project.

(iii) Possible reserves also include incremental quantities associated with a greater percentage recovery of the hydrocarbons in place than the recovery quantities assumed for probable reserves.

(iv) The proved plus probable and proved plus probable plus possible reserves estimates must be based on reasonable alternative technical and commercial interpretations within the reservoir or subject project that are clearly documented, including comparisons to results in successful similar projects.

(v) Possible reserves may be assigned where geoscience and engineering data identify directly adjacent portions of a reservoir within the same accumulation that may be separated from proved areas by faults with displacement less than formation thickness or other geological discontinuities and that have not been penetrated by a wellbore, and the registrant believes that such adjacent portions are in communication with the known (proved) reservoir. Possible reserves may be assigned to areas that are structurally higher or lower than the proved area if these areas are in communication with the proved reservoir.

(vi) Where direct observation has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves should be assigned in the structurally higher portions of the reservoir above the HKO only if the higher contact can be established with reasonable certainty through reliable technology. Portions of the reservoir that do not meet this reasonable certainty criterion may be assigned as probable and possible oil or gas based on reservoir fluid properties and pressure gradient interpretations.

Developed Oil and Gas Reserves

Developed oil and gas reserves are reserves of any category that can be expected to be recovered:

(i) Through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and

(ii) Through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well.

Undeveloped Oil and Gas Reserves

Undeveloped oil and gas reserves are reserves of any category that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.

(i) Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic producibility at greater distances.

(ii) Undrilled locations can be classified as having undeveloped reserves only if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances, justify a longer time.

(iii) Under no circumstances shall estimates for undeveloped reserves be attributable to any acreage for which an application of fluid injection or other improved recovery technique is contemplated, unless such techniques have been proved effective by actual projects in the same reservoir or an analogous reservoir [see Other Definitions below], or by other evidence using reliable technology establishing reasonable certainty.

Other Pertinent Definitions

Analogous Reservoir

Analogous reservoirs, as used in resources assessments, have similar rock and fluid properties, reservoir conditions (depth, temperature, and pressure) and drive mechanisms, but are typically at a more advanced

stage of development than the reservoir of interest and thus may provide concepts to assist in the interpretation of more limited data and estimation of recovery. When used to support proved reserves, an "analogous reservoir" refers to a reservoir that shares the following characteristics with the reservoir of interest:

(i) Same geological formation (but not necessarily in pressure communication with the reservoir of interest);

(ii) Same environment of deposition;

(iii) Similar geological structure; and

(iv) Same drive mechanism.

Reasonable Certainty

If deterministic methods are used, reasonable certainty means a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate. A high degree of confidence exists if the quantity is much more likely to be achieved than not, and, as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease.

Reliable Technology

Reliable technology is a grouping of one or more technologies (including computational methods) that has been field tested and has been demonstrated to provide reasonably certain results with consistency and repeatability in the formation being evaluated or in an analogous formation.

Reservoir

A porous and permeable underground formation containing a natural accumulation of producible oil and/or gas that is confined by impermeable rock or water barriers and is individual and separate from other reservoirs.

Table 1
GLJ Ltd.
Crude Oil and Natural Gas Liquids
SEC 2020-Dec-31 Posted (12 Month Avg.)
Effective January 1, 2021

		NYMEX WTI Near Month Futures Contract Crude Oil at Cushing, Oklahoma			Brent Blend Crude Oil FOB North Sea	MSW, Light Crude Oil (40 API, 0.3%S) at Edmonton	Bow River Crude Oil Stream Quality at Hardisty	WCS Crude Oil Stream Quality at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Sour Crude Oil (35 API, 1.2%S) at Cromer	Medium Crude Oil (29 API, 2.0%S) at Cromer	Alberta Natural Gas Liquids (Then Current Dollars)			
Year	Inflation %	CADUSD Exchange Rate USD/ CAD	Constant 2021 $ USD/bbl	Then Current USD/ bbl	Then Current USD/ bbl	Then Current CAD/ bbl	Then Current CAD/ bbl	Then Current CAD/ bbl	Then Current CAD/ bbl	Then Current CAD/ bbl	Then Current CAD/ bbl	Spec Ethane CAD/ bbl	Edmonton Propane CAD/ bbl	Edmonton Butane CAD/ bbl	Edmonton C5+ Stream Quality CAD/ bbl
2021	0.0	0.7449	39.57	39.57	41.77	45.51	36.49	35.81	30.63	45.68	44.25	6.74	15.32	22.66	49.73
2022	0.0	0.7449	39.57	39.57	41.77	45.51	36.49	35.81	30.63	45.68	44.25	6.74	15.32	22.66	49.73
2023	0.0	0.7449	39.57	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr

Table 2
GLJ Ltd.
Natural Gas and Sulphur
SEC 2020-Dec-31 Posted (12 Month Avg.)
Effective January 1, 2021

	NYMEX Henry Hub Near Month Contract		Midwest Price at Chicago	AECO/NIT Spot	Dawn Price at Ontario	Alberta Plant Gate Spot		Alberta Plant Gate	Saskatchewan Plant Gate			British Columbia	
Year	Constant 2021 $ USD/ MMBtu	Then Current USD/ MMBtu	Then Current USD/ MMBtu	Then Current CAD/ MMBtu	Then Current USD/ MMBtu	Constant 2021 $ CAD/ MMBtu	Then Current CAD/ MMBtu	ARP CAD/ MMBtu	SaskEnergy CAD/ MMBtu	Spot CAD/ MMBtu	Sumas Spot USD/ MMBtu	Westcoast Station 2 CAD/ MMBtu	Spot Plant Gate CAD/ MMBtu
2021	2.03	2.03	1.87	2.17	1.87	1.94	1.94	1.94	2.04	2.00	2.03	2.15	1.88
2022	2.03	2.03	1.87	2.17	1.87	1.94	1.94	1.94	2.04	2.00	2.03	2.15	1.88
2023	2.03	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	1.94	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr	+0.0%/yr

Exhibit 15.5

February 9, 2021

China National Oil and Gas Exploration
And Development Corporation
International Holding Ltd ("CNODCI")
No.6-1 Fuchengmen Beidajie
Xicheng District
Beijing, China 100034

Attention: Mr. Ye Xian Deng, President

Reference: **CNODCI Interest in PetroKazakhstan Inc.**
Evaluation of Crude Oil Reserves
Third Party Report

Dear Sir:

1. INTRODUCTION

McDaniel & Associates Consultants Ltd. ("McDaniel") was requested by PetroKazakhstan Inc. ("PKI") to prepare an evaluation of the crude oil reserves and the net present values of these reserves for the interests of PKI in the South Turgai Basin, Republic of Kazakhstan, effective as of December 31, 2020. McDaniel submitted to PKI an Executive Summary Report and Detailed Technical Report for the evaluation of PKI in January 2021.

PKI is an integrated oil and gas company, owned 67 percent by CNODCI and 33 percent by JSC KazMunaiGas Exploration Production ("KMG EP"). PKI requested McDaniel to prepare this Third-Party Report for CNODCI based on the 67 percent interest owned by CNODCI in PKI for the assets of CNODCI that are held within three operating subsidiaries: PetroKazakhstan Kumkol Resources ("PKKR"), Kolzhan LLP ("Kolzhan") and PetroKazakhstan Ventures Inc. ("PKVI").

This report was prepared to support PKI's and CNODCI's annual securities filings with the SEC. The data employed in this evaluation and the assumptions and procedures used to estimate the reserves and net present values are consistent with standard industry reserves evaluation procedures.

2. METHODOLOGY

Crude oil reserves estimates and their associated net present values were evaluated in this report by McDaniel. for the interests of PKI in Kazakhstan.

Essentially all of the basic information employed in the preparation of this report was obtained from PKI including geological, geophysical, engineering and financial data. McDaniel utilized this data to prepare an independent assessment of the crude oil reserves as of December 31, 2020. The reserves estimates presented in this report have been prepared in accordance with the United States Securities and Exchange Commission (SEC) reserves definitions and guidance (see Section 3). Only the proved reserves and sub-classifications were included in this report.

Net present value estimates were calculated based on future revenue forecasts. As per SEC guidelines, the future net revenues and net present values presented were calculated using the first day of the month crude oil prices for each of the 12 months prior to the effective date of December 31, 2020 and were presented in United States dollars. No escalation of the prices were made nor were the operating and capital costs increased for inflation in this evaluation. Future capital costs and operating costs were based on PKI budgets for each respective property with adjustments as deemed appropriate by McDaniel.

3. RESERVES DEFINITIONS

The SEC reserves definitions are contained in the Final Rule of Modernization of Oil and Gas Reporting (17 CFR Parts 210, 211, 229 and 249) published by the SEC Regulation on January 14, 2009. A summary of the key proved reserves definitions in Regulation S-X 210.4-10 is presented below.

Reserves

Reserves are estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that there will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project.

Note: Reserves should not be assigned to adjacent reservoirs isolated by major, potentially sealing, faults until those reservoirs are penetrated and evaluated as economically producible. Reserves should not be assigned to areas that are clearly separated from a known accumulation by a non- productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results). Such areas may contain prospective resources (i.e., potentially recoverable resources from undiscovered accumulations).

Proved Oil and Gas Reserves

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible—from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations—prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

(i) The area of the reservoir considered as proved includes:

(A) The area identified by drilling and limited by fluid contacts, if any, and

(B) Adjacent undrilled portions of the reservoir that can, with reasonable certainty, be judged to be continuous with it and to contain economically producible oil or gas on the basis of available geoscience and engineering data.

(ii) In the absence of data on fluid contacts, proved quantities in a reservoir are limited by the lowest known hydrocarbons (LKH) as seen in a well penetration unless geoscience, engineering, or performance data and reliable technology establishes a lower contact with reasonable certainty.

(iii) Where direct observation from well penetrations has defined a highest known oil (HKO) elevation and the potential exists for an associated gas cap, proved oil reserves may be assigned in the structurally higher portions of the reservoir only if geoscience, engineering, or performance data and reliable technology establish the higher contact with reasonable certainty.

(iv) Reserves which can be produced economically through application of improved recovery techniques (including, but not limited to, fluid injection) are included in the proved classification when:

(A) Successful testing by a pilot project in an area of the reservoir with properties no more favorable than in the reservoir as a whole, the operation of an installed program in the reservoir or an analogous reservoir, or other evidence using reliable technology establishes the reasonable certainty of the engineering analysis on which the project or program was based; and

(B) The project has been approved for development by all necessary parties and entities, including governmental entities.

(v) Existing economic conditions include prices and costs at which economic producibility from a reservoir is to be determined. The price shall be the average price during the 12-month period prior to the ending date of the period covered by the report, determined as an unweighted arithmetic average of the first-day-of-the-month price for each month within such period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions.

Analogous Reservoir

Analogous reservoirs, as used in resources assessments, have similar rock and fluid properties, reservoir conditions (depth, temperature, and pressure) and drive mechanisms, but are typically at a more advanced stage of development than the reservoir of interest and thus may provide concepts to assist in the interpretation of more limited data and estimation of recovery. When used to support proved reserves, an "analogous reservoir" refers to a reservoir that shares the following characteristics with the reservoir of interest:

(i) Same geological formation (but not necessarily in pressure communication with the reservoir of interest);

(ii) Same environment of deposition; (iii) Similar geological structure; and (iv) Same drive mechanism.

Reasonable Certainty

If deterministic methods are used, reasonable certainty means a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90 percent probability th

at the quantities actually recovered will equal or exceed the estimate. A high degree of confidence exists if the quantity is much more likely to be achieved than not, and, as changes due to increased availability of geoscience (geological, geophysical, and geochemical), engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase or remain constant than to decrease.

4. EVALUATION SUMMARY

4.1 NET RESERVES

The net share of proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2020 attributable to CNODCI for each of the three subsidiary companies are summarized below.

CNODCI'S NET ENTITLEMENT OF PROVED RESERVES (1)
AS OF DECEMBER 31, 2020

	Proved Developed	Proved Undeveloped	Total Proved
Crude Oil, Mbbl			
PKKR	10,644	1,290	11,934
Kolzhan	5,224	2,289	7,514
PKVI	586	200	785
Total	**16,454**	**3,779**	**20,233**

(1) Net entitlement reserves are the working interest reserves in each property after deducting royalties payable to others. In the case of all properties, there are no royalties payable to others.

4.2 GROSS RESERVES

The total proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2020 for each of the three subsidiary companies are presented below for reference purposes only. These gross reserves estimates are based on a 100 percent working interest in each of the properties and include all reserves attributable to government and working interest partners.

GROSS PROVED RESERVES
AS OF DECEMBER 31, 2020

	Proved Developed	Proved Undeveloped	Total Proved
Crude Oil, Mbbl			
PKKR	15,886	1,925	17,811
Kolzhan	12,554	5,867	18,421
PKVI	1,165	397	1,562
Total	**29,605**	**8,189**	**37,794**

4.3 NET PRESENT VALUES

The net present values for the proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2020 attributable to CNODCI for each of the three subsidiary companies are presented below. All of the net present values have been presented at a 10 percent discount rate.

CNODCI NET PRESENT VALUES DISCOUNTED AT 10 PERCENT AS OF DECEMBER 31, 2020, $MM

	Proved Developed	Proved Undeveloped	Total Proved
PKKR	35	8	44
Kolzhan	42	24	65
PKVI	3	2	5
Total	**80**	**34**	**114**

4.4 NET PRESENT VALUES SENSITIVITY ANALYSIS

A sensitivity analysis has been prepared for the net present values for the proved developed, proved undeveloped and total proved crude oil reserves as of December 31, 2020 attributable to CNODCI for each of the three subsidiary companies. At the request of PKI, all of the oil prices, capital costs and operating costs have been escalated at two percent per year throughout the evaluation period.

CNODCI NET PRESENT VALUES SENSITIVITY DISCOUNTED AT 10 PERCENT AS OF DECEMBER 31, 2020, $MM

	Proved Developed	Proved Undeveloped	Total Proved
PKKR	30	7	37
Kolzhan	40	23	63
PKVI	3	2	5
Total	**73**	**32**	**105**

5 SUMMARY TABLES

Summary tables showing the reserves, reserves reconciliation, future production forecasts and future revenue forecasts are presented in the Appendix for each of the three subsidiary companies.

6 BASIS OF OPINION

McDaniel & Associates Consultants Ltd. has over 60 years of experience in the evaluation of oil and gas properties. McDaniel is registered with the Association of Professional Engineers and Geoscientists of Alberta (APEGA). All of the professionals involved in the preparation of this report have in excess of five years of experience in the evaluation of oil and gas properties. Mr. Cam Boulton, Executive Vice President, supervised the preparation of this report. Mr. Boulton is a professional engineer registered with APEGA and has over 10 years of experience in the evaluation of oil and gas properties. All of the persons involved in the preparation of this report and McDaniel & Associates are independent of PKI and CNODCI.

In preparing this report, we relied upon certain factual information including ownership, well data, production data, prices, revenues, operating costs, capital costs, contracts, and other relevant data supplied by PKI. The supplied information was only relied upon where in our opinion it appeared reasonable and consistent with our knowledge of the properties; however, no independent verification of the information was made.

This report was prepared by McDaniel for the use of PKI and CNODCI for its securities filings with the SEC and is not to be used for any other purpose without the knowledge and consent of McDaniel & Associates Consultants Ltd.

We reserve the right to revise any estimates provided herein if any relevant data existing prior to preparation of this report was not made available, if any data between the preparation date and the evaluation date of this evaluation were to vary significantly from that forecast, or if any data provided was found to be erroneous.

Sincerely,

McDANIEL & ASSOCIATES CONSULTANTS LTD.
APEGA PERMIT NUMBER: P3145

/s/ Cameron T. Boulton

Cameron T. Boulton, P. Eng.
Executive Vice President
February 9, 2021

CTB:jep
[20-0115]

CERTIFICATE OF QUALIFICATION

I, Cameron Boulton, Petroleum Engineer of 2200, 255 - 5th Avenue, S.W., Calgary, Alberta, Canada hereby certify:

1. That I am an Executive Vice President of McDaniel & Associates Consultants Ltd., APEGA Permit Number P3145, which Company did prepare, at the request of PetroKazakhstan Overseas Services Inc., the report entitled "CNODCI Interest in PetroKazakstan Inc. Evaluation of Crude Oil Reserves, Third Party Report, As of December 31, 2020", dated February 9, 2021, and that I was involved in the preparation of this report. I am also registered as a Responsible Member as outlined by APEGA for McDaniel & Associates Consultant Ltd. APEGA Permit Number 3145.
2. That I attended the Queen's University in the years 2002 to 2006 and that I graduated with a Bachelor of Science degree in Chemical Engineering, that I am a registered Professional Engineer with the Association of Professional Engineers and Geoscientists of Alberta and that I have in excess of 10 years of experience in oil and gas reservoir studies and evaluations.
3. That I have no direct or indirect interest in the properties or securities of PetroKazakhstan Overseas Services Inc., nor do I expect to receive any direct or indirect interest in the properties or securities of PetroKazakhstan Overseas Services Inc., or any affiliate thereof.
4. That the aforementioned report was not based on a personal field examination of the properties in question, however, such an examination was not deemed necessary in view of the extent and accuracy of the information available on the properties in question.

/s/ Calgary

Calgary, Alberta
Dated: February 9, 2021

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

CNODCI Interest in PKI
PetroKazakhstan Kumkol Resources
Summary of Reserves and Net Present Values
SEC Prices and Costs as of December 31, 2020

Table 1

Total Kazakhstan

Summary of Reserves (1)(2)

Reserve Category	Crude Oil Reserves - Barrels			Natural Gas Reserves			Natural Gas Liquids Reserves		
	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl	Property Gross MMcf	Company Gross MMcf	Company Net MMcf	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl
Proved Developed Reserves	15,886	10,644	10,644	—	—	—	—	—	—
Proved Undeveloped Reserves	1,925	1,290	1,290	—	—	—	—	—	—
Total Proved Reserves	**17,811**	**11,934**	**11,934**	**—**	**—**	**—**	**—**	**—**	**—**

Reserve Category	Crude Oil Reserves - Tonnes			BOE Reserves (3)		
	Property Gross MT	Company Gross MT	Company Net MT	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl
Proved Developed Reserves	2,003	1,342	1,342	15,886	10,644	10,644
Proved Undeveloped Reserves	239	160	160	1,925	1,290	1,290
Total Proved Reserves	**2,242**	**1,502**	**1,502**	**17,811**	**11,934**	**11,934**

Summary of Company Share of Net Present Values Before Income Taxes

Reserve Category	$MM US Dollars				
	0.0%	5.0%	10.0%	15.0%	20.0%
Proved Developed Reserves	32	34	35	36	36
Proved Undeveloped Reserves	8	8	8	8	7
Total Proved Reserves	40	42	**44**	**44**	**44**

Summary of Company Share of Net Present Values After Income Taxes

Reserve Category	$MM US Dollars				
	0.0%	5.0%	10.0%	15.0%	20.0%
Proved Developed Reserves	18	20	22	24	25
Proved Undeveloped Reserves	5	6	6	5	5
Total Proved Reserves	**22**	**26**	**28**	**29**	**30**

(1) The above reserves estimates are presented after applying license expiry and economic limit cutoffs.
(2) Company Gross reserves are based on Company working interest share of the reserves for each property. Company Net reserves are the working interest reserves in each property after deducting royalties payable to others. In the case of all properties, there are no royalties payable to others.
(3) Based on a gas to BOE conversion of 6:1

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

CNODCI Interest in PKI
PetroKazakhstan Kumkol Resources
Forecast of Production and Revenues
SEC Prices and Costs as of December 31, 2020
Proved Developed Reserves
Total Kazakhstan

Table 2

Property Gross Share of Production and Gross Revenues

		Crude Oil					Natural Gas			Natural Gas Liquids			
Year	Producing Well Count	Daily Rate Bopd	Annual Volume Mbbl	Annual Volume MT	Crude Oil Price US$/bbl	Sales Revenue US$MM	Annual Volume MMcf	Natural Gas Price US$/Mcf	Sales Revenue US$MM	Annual Volume Mbbl	NGL Price US$/bbl	Sales Revenue US$MM	Total Sales Revenue US$MM
2021	417	15,563	5,680	715	24	138	—	—	—	—	—	—	138
2022	381	12,704	4,637	584	25	118	—	—	—	—	—	—	118
2023	326	8,929	3,259	412	25	83	—	—	—	—	—	—	83
2024	198	5,000	1,825	230	25	46	—	—	—	—	—	—	46
2025	56	1,304	476	62	25	12	—	—	—	—	—	—	12
2026	2	23	9	1	25	0	—	—	—	—	—	—	0
2027	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total			**15,886**	**2,003**		**397**	**—**		**—**	**—**		**—**	**397**

Property Gross Share of Royalties, Expenses, Taxes and Net Cash Flow

Year	Total MET US$MM	Total MET %	Export Rent Tax US$MM	Export Rent Tax %	Total Operating Costs US$MM	Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Property Tax US$MM	Corporate Tax US$MM	Excess Profits Tax US$MM	Net Cash Flow A. Tax US$MM
2021	3	2	2	2	69	1	12	—	52	0	6	3	42
2022	4	3	6	5	60	1	12	—	36	0	4	3	28
2023	3	3	4	5	51	25	7	—	(7)	0	2	1	(10)
2024	2	4	2	5	33	23	1	—	(15)	0	0	—	(15)
2025	0	4	1	5	10	15	0	—	(15)	0	—	—	(15)
2026	0	4	0	5	0	3	—	—	(2)	0	—	—	(2)
2027	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**12**	**3**	**15**	**4**	**223**	**68**	**31**	**—**	**48**	**2**	**13**	**7**	**26**

Company Working Interest Share Summary

Year	Gross Annual Oil Prod. Mbbl	Net Annual Oil Prod. Mbbl	Net Annual Gas Prod. MMcf	Net Annual NGL Prod. Mbbl	Gross Sales Revenue US$MM	Total MET US$MM	Export Tax US$MM	Operating & Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Total Taxes US$MM	Net Cash Flow A. Tax US$MM
2021	3,806	3,806	—	—	92	2	2	46	8	—	35	7	28
2022	3,107	3,107	—	—	79	3	4	41	8	—	24	5	18
2023	2,184	2,184	—	—	55	2	3	51	5	—	(5)	2	(7)
2024	1,223	1,223	—	—	31	1	1	38	0	—	(10)	0	(10)
2025	319	319	—	—	8	0	0	17	0	—	(10)	0	(10)
2026	6	6	—	—	0	0	0	2	—	—	(2)	0	(2)
2027	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**10,644**	**10,644**	**—**	**—**	**266**	**8**	**10**	**195**	**21**	**—**	**32**	**15**	**18**

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

CNODCI Interest in PKI
PetroKazakhstan Kumkol Resources
Forecast of Production and Revenues
SEC Prices and Costs as of December 31, 2020
Total Proved Reserves
Total Kazakhstan

Table 3

Property Gross Share of Production and Gross Revenues

		Crude Oil					Natural Gas			Natural Gas Liquids			
Year	Producing Well Count	Daily Rate Bopd	Annual Volume Mbbl	Annual Volume MT	Crude Oil Price US$/bbl	Sales Revenue US$MM	Annual Volume MMcf	Natural Gas Price US$/Mcf	Sales Revenue US$MM	Annual Volume Mbbl	NGL Price US$/bbl	Sales Revenue US$MM	Total Sales Revenue US$MM
2021	422	16,123	5,885	740	24	143	—	—	—	—	—	—	143
2022	390	14,008	5,113	643	25	130	—	—	—	—	—	—	130
2023	339	10,168	3,711	468	25	94	—	—	—	—	—	—	94
2024	213	5,855	2,137	269	25	54	—	—	—	—	—	—	54
2025	80	2,167	791	101	25	20	—	—	—	—	—	—	20
2026	12	452	165	21	25	4	—	—	—	—	—	—	4
2027	2	19	7	1	25	0	—	—	—	—	—	—	0
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	6	2	0	25	0	—	—	—	—	—	—	0
Total			**17,811**	**2,242**		**445**	**—**		**—**	**—**		**—**	**445**

Property Gross Share of Royalties, Expenses, Taxes and Net Cash Flow

Year	Total MET US$MM	Total MET %	Export Rent Tax US$MM	Export Rent Tax %	Total Operating Costs US$MM	Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Property Tax US$MM	Corporate Tax US$MM	Excess Profits Tax US$MM	Net Cash Flow A. Tax US$MM
2021	3	2	3	2	69	1	15	—	52	0	7	4	41
2022	4	3	6	5	62	1	14	—	42	0	6	4	32
2023	3	3	5	5	53	25	9	—	(1)	0	3	1	(5)
2024	2	4	2	5	35	23	3	—	(12)	0	1	0	(13)
2025	1	4	1	5	17	16	0	—	(15)	0	0	—	(15)
2026	0	4	0	5	4	0	—	—	(1)	0	—	—	(1)
2027	0	4	0	5	0	3	—	—	(2)	0	—	—	(2)
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	0	4	0	5	5	—	—	—	(5)	0	—	—	(5)
Total	**14**	**3**	**17**	**4**	**245**	**69**	**41**	**—**	**59**	**2**	**15**	**9**	**33**

Company Working Interest Share Summary

Year	Gross Annual Oil Prod. Mbbl	Net Annual Oil Prod. Mbbl	Net Annual Gas Prod. MMcf	Net Annual NGL Prod. Mbbl	Gross Sales Revenue US$MM	Total MET US$MM	Export Tax US$MM	Operating & Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Total Taxes US$MM	Net Cash Flow A. Tax US$MM
2021	3,943	3,943	—	—	96	2	2	47	10	—	35	7	27
2022	3,426	3,426	—	—	87	3	4	42	9	—	28	7	22
2023	2,487	2,487	—	—	63	2	3	53	6	—	(1)	3	(3)
2024	1,432	1,432	—	—	36	1	2	39	2	—	(8)	1	(8)
2025	530	530	—	—	13	1	1	22	0	—	(10)	0	(10)
2026	111	111	—	—	3	0	0	3	—	—	(0)	0	(0)
2027	5	5	—	—	0	0	0	2	—	—	(2)	0	(2)
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	1	1	—	—	0	0	0	3	—	—	(3)	0	(3)
Total	**11,934**	**11,934**	**—**	**—**	**298**	**9**	**11**	**211**	**28**	**—**	**40**	**18**	**22**

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

CNODCI Interest in PKI
Kolzhan LLP
Summary of Reserves and Net Present Values
SEC Prices and Costs as of December 31, 2020

Table 1

Total Kazakhstan

Summary of Reserves (1)(2)

Reserve Category	Crude Oil Reserves - Barrels			Natural Gas Reserves			Natural Gas Liquids Reserves		
	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl	Property Gross MMcf	Company Gross MMcf	Company Net MMcf	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl
Proved Developed Reserves	12,554	5,224	5,224	—	—	—	—	—	—
Proved Undeveloped Reserves	5,867	2,289	2,289	—	—	—	—	—	—
Total Proved Reserves	**18,421**	**7,514**	**7,514**	**—**	**—**	**—**	**—**	**—**	**—**

Reserve Category	Crude Oil Reserves - Tonnes			BOE Reserves (3)		
	Property Gross MT	Company Gross MT	Company Net MT	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl
Proved Developed Reserves	1,605	664	664	12,554	5,224	5,224
Proved Undeveloped Reserves	752	292	292	5,867	2,289	2,289
Total Proved Reserves	**2,358**	**956**	**956**	**18,421**	**7,514**	**7,514**

Summary of Company Share of Net Present Values Before Income Taxes

Reserve Category	$MM US Dollars				
	0.0%	5.0%	10.0%	15.0%	20.0%
Proved Developed Reserves	51	46	42	38	36
Proved Undeveloped Reserves	34	28	24	20	17
Total Proved Reserves	**85**	**74**	**65**	**58**	**53**

Summary of Company Share of Net Present Values After Income Taxes

Reserve Category	$MM US Dollars				
	0.0%	5.0%	10.0%	15.0%	20.0%
Proved Developed Reserves	35	31	28	26	24
Proved Undeveloped Reserves	21	17	14	11	9
Total Proved Reserves	**55**	**48**	**42**	**37**	**33**

(1) The above reserves estimates are presented after applying license expiry and economic limit cutoffs.
(2) Company Gross reserves are based on Company working interest share of the reserves for each property. Company Net reserves are the working interest reserves in each property after deducting royalties payable to others. In the case of all properties, there are no royalties payable to others.
(3) Based on a gas to BOE conversion of 6:1

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

Table 2

CNODCI Interest in PKI
Kolzhan LLP
Forecast of Production and Revenues
SEC Prices and Costs as of December 31, 2020
Proved Developed Reserves
Total Kazakhstan

Property Gross Share of Production and Gross Revenues

		Crude Oil					Natural Gas			Natural Gas Liquids			
Year	Producing Well Count	Daily Rate Bopd	Annual Volume Mbbl	Annual Volume MT	Crude Oil Price US$/bbl	Sales Revenue US$MM	Annual Volume MMcf	Natural Gas Price US$/Mcf	Sales Revenue US$MM	Annual Volume Mbbl	NGL Price US$/bbl	Sales Revenue US$MM	Total Sales Revenue US$MM
2021	131	9,415	3,436	440	24	83	—	—	—	—	—	—	83
2022	134	7,708	2,814	360	25	71	—	—	—	—	—	—	71
2023	122	5,946	2,170	278	25	54	—	—	—	—	—	—	54
2024	102	4,429	1,616	207	25	41	—	—	—	—	—	—	41
2025	86	3,161	1,154	147	25	29	—	—	—	—	—	—	29
2026	71	2,696	984	125	25	25	—	—	—	—	—	—	25
2027	33	908	332	43	25	8	—	—	—	—	—	—	8
2028	4	131	48	6	24	1	—	—	—	—	—	—	1
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total			**12,554**	**1,605**		**312**	**—**		**—**	**—**		**—**	**312**

Property Gross Share of Royalties, Expenses, Taxes and Net Cash Flow

Year	Total MET US$MM	Total MET %	Export Rent Tax US$MM	Export Rent Tax %	Total Operating Costs US$MM	Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Property Tax US$MM	Corporate Tax US$MM	Excess Profits Tax US$MM	Net Cash Flow A. Tax US$MM
2021	2	2	1	2	19	1	14	—	46	0	9	12	25
2022	2	3	3	4	19	1	6	—	40	0	6	6	27
2023	2	3	2	4	17	1	4	—	28	0	4	3	20
2024	1	3	2	4	16	1	4	—	17	0	2	1	14
2025	1	3	1	4	13	1	4	—	9	0	1	0	8
2026	1	3	1	4	16	7	—	—	(1)	0	0	—	(1)
2027	0	3	0	4	5	4	—	—	(2)	0	0	—	(2)
2028	0	0	—	—	1	1	—	—	(0)	0	—	—	(0)
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**9**	**3**	**10**	**3**	**107**	**18**	**32**	**—**	**136**	**1**	**22**	**22**	**91**

Company Working Interest Share Summary

Year	Gross Annual Oil Prod. Mbbl	Net Annual Oil Prod. Mbbl	Net Annual Gas Prod. MMcf	Net Annual NGL Prod. Mbbl	Gross Sales Revenue US$MM	Total MET US$MM	Export Tax US$MM	Operating & Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Total Taxes US$MM	Net Cash Flow A. Tax US$MM
2021	1,414	1,414	—	—	34	1	1	10	5	—	18	7	11
2022	1,158	1,158	—	—	29	1	1	9	2	—	15	4	11
2023	897	897	—	—	23	1	1	9	2	—	10	2	8
2024	669	669	—	—	17	1	1	8	2	—	6	1	5
2025	485	485	—	—	12	0	1	7	1	—	3	0	3
2026	474	474	—	—	12	0	1	13	—	—	(2)	0	(2)
2027	111	111	—	—	3	0	0	3	—	—	(1)	0	(1)
2028	16	16	—	—	0	0	—	0	—	—	(0)	0	(0)
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**5,224**	**5,224**	**—**	**—**	**130**	**4**	**5**	**59**	**12**	**—**	**51**	**16**	**35**

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

Table 3

CNODCI Interest in PKI
Kolzhan LLP
Forecast of Production and Revenues
SEC Prices and Costs as of December 31, 2020
Total Proved Reserves
Total Kazakhstan

Property Gross Share of Production and Gross Revenues

		Crude Oil					Natural Gas			Natural Gas Liquids			
Year	Producing Well Count	Daily Rate Bopd	Annual Volume Mbbl	Annual Volume MT	Crude Oil Price US$/bbl	Sales Revenue US$MM	Annual Volume MMcf	Natural Gas Price US$/Mcf	Sales Revenue US$MM	Annual Volume Mbbl	NGL Price US$/bbl	Sales Revenue US$MM	Total Sales Revenue US$MM
2021	140	11,017	4,021	514	24	97	—	—	—	—	—	—	97
2022	155	11,448	4,179	535	25	105	—	—	—	—	—	—	105
2023	151	9,913	3,618	463	25	91	—	—	—	—	—	—	91
2024	132	7,042	2,570	329	25	65	—	—	—	—	—	—	65
2025	116	4,830	1,763	226	25	44	—	—	—	—	—	—	44
2026	101	3,882	1,417	180	25	36	—	—	—	—	—	—	36
2027	53	1,486	542	70	25	14	—	—	—	—	—	—	14
2028	47	852	311	40	25	8	—	—	—	—	—	—	8
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total			**18,421**	**2,358**		**459**	**—**		**—**	**—**		**—**	**459**

Property Gross Share of Royalties, Expenses, Taxes and Net Cash Flow

Year	Total MET US$MM	Total MET %	Export Rent Tax US$MM	Export Rent Tax %	Total Operating Costs US$MM	Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Property Tax US$MM	Corporate Tax US$MM	Excess Profits Tax US$MM	Net Cash Flow A. Tax US$MM
2021	2	2	2	2	21	1	28	—	44	0	11	13	20
2022	4	4	4	4	21	1	16	—	58	0	11	12	36
2023	4	4	4	4	20	1	7	—	55	0	9	10	36
2024	2	3	3	4	18	1	5	—	36	0	5	4	26
2025	1	3	2	4	15	1	5	—	19	0	2	1	16
2026	1	3	2	4	18	8	—	—	7	0	1	—	6
2027	0	3	1	4	7	1	—	—	5	0	0	—	4
2028	0	3	0	4	6	4	—	—	(2)	0	—	—	(2)
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**16**	**3**	**16**	**4**	**125**	**19**	**60**	**—**	**223**	**2**	**39**	**40**	**141**

Company Working Interest Share Summary

Year	Gross Annual Oil Prod. Mbbl	Net Annual Oil Prod. Mbbl	Net Annual Gas Prod. MMcf	Net Annual NGL Prod. Mbbl	Gross Sales Revenue US$MM	Total MET US$MM	Export Tax US$MM	Operating & Aband. Costs US$MM	Capital Costs US$MM	Hist. Costs & Com. Bonus US$MM	Net Cash Flow B. Tax US$MM	Total Taxes US$MM	Net Cash Flow A. Tax US$MM
2021	1,672	1,672	—	—	40	1	1	10	10	—	19	9	10
2022	1,686	1,686	—	—	42	2	2	10	6	—	22	8	14
2023	1,453	1,453	—	—	37	2	2	10	3	—	21	7	14
2024	1,041	1,041	—	—	26	1	1	9	2	—	14	4	10
2025	720	720	—	—	18	1	1	8	2	—	7	1	6
2026	656	656	—	—	17	1	1	14	—	—	1	0	0
2027	182	182	—	—	5	0	0	3	—	—	2	0	1
2028	104	104	—	—	3	0	0	3	—	—	(1)	0	(1)
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**7,514**	**7,514**	**—**	**—**	**188**	**6**	**7**	**67**	**23**	**—**	**85**	**29**	**55**

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

CNODCI Interest in PKI
PetroKazakhstan Kumkol Resources
Summary of Reserves and Net Present Values
SEC Prices and Costs as of December 31, 2020

Table 1

Total Kazakhstan

Summary of Reserves (1)(2)

Reserve Category	Crude Oil Reserves - Barrels			Natural Gas Reserves			Natural Gas Liquids Reserves		
	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl	Property Gross MMcf	Company Gross MMcf	Company Net MMcf	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl
Proved Developed Reserves	1,165	586	586	—	—	—	—	—	—
Proved Undeveloped Reserves	397	200	200	—	—	—	—	—	—
Total Proved Reserves	**1,562**	**785**	**785**	**—**	**—**	**—**	**—**	**—**	**—**

Reserve Category	Crude Oil Reserves - Tonnes			BOE Reserves (3)		
	Property Gross MT	Company Gross MT	Company Net MT	Property Gross Mbbl	Company Gross Mbbl	Company Net Mbbl
Proved Developed Reserves	152	77	77	1,165	586	586
Proved Undeveloped Reserves	52	26	26	397	200	200
Total Proved Reserves	**204**	**103**	**103**	**1,562**	**785**	**785**

Summary of Company Share of Net Present Values Before Income Taxes

Reserve Category	$MM US Dollars				
	0.0%	5.0%	10.0%	15.0%	20.0%
Proved Developed Reserves	4	3	3	3	2
Proved Undeveloped Reserves	3	2	2	2	1
Total Proved Reserves	**7**	**6**	**5**	**4**	**4**

Summary of Company Share of Net Present Values After Income Taxes

Reserve Category	$MM US Dollars				
	0.0%	5.0%	10.0%	15.0%	20.0%
Proved Developed Reserves	4	3	3	2	2
Proved Undeveloped Reserves	3	2	2	2	1
Total Proved Reserves	**7**	**6**	**5**	**4**	**3**

(1) The above reserves estimates are presented after applying license expiry and economic limit cutoffs.
(2) Company Gross reserves are based on Company working interest share of the reserves for each property. Company Net reserves are the working interest reserves in each property after deducting royalties payable to others. In the case of all properties, there are no royalties payable to others.
(3) Based on a gas to BOE conversion of 6:1

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

Table 2

CNODCI Interest in PKI
PetroKazakhstan Ventures Inc.
Forecast of Production and Revenues
SEC Prices and Costs as of December 31, 2020
Proved Developed Reserves
Total Kazakhstan

Property Gross Share of Production and Gross Revenues

		Crude Oil					Natural Gas			Natural Gas Liquids			
Year	Producing Well Count	Daily Rate Bopd	Annual Volume Mbbl	Annual Volume MT	Crude Oil Price US$/bbl	Sales Revenue US$M	Annual Volume MMcf	Natural Gas Price US$/Mcf	Sales Revenue US$M	Annual Revenue Mbbl	NGL Price US$/bbl	Sales Revenue US$M	Total Sales Revenue US$M
2021	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	18	1,241	453	59	25.41	11,514	—	—	—	—	—	—	11,514
2023	16	788	288	38	25.41	7,310	—	—	—	—	—	—	7,310
2024	16	539	197	26	25.32	4,986	—	—	—	—	—	—	4,986
2025	16	379	139	18	25.32	3,507	—	—	—	—	—	—	3,507
2026	12	244	89	12	25.32	2,255	—	—	—	—	—	—	2,255
2027	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total			**1,165**	**152**		**29,572**	**—**		**—**	**—**		**—**	**29,572**

Property Gross Share of Royalties, Expenses, Taxes and Net Cash Flow

Year	Total MET US$M	Total MET %	Export Rent Tax US$M	Export Rent Tax %	Total Operating Costs US$M	Aband. Costs US$M	Capital Costs US$M	Hist. Costs & Com. Bonus US$M	Net Cash Flow B. Tax US$M	Property Tax US$M	Corporate Tax US$M	Excess Profits Tax US$M	Net Cash Flow A. Tax US$M
2021	—	—	—	—	—	—	4,835	—	(4,835)	—	—	—	(4,835)
2022	434	4	556	5	2,641	269	758	—	6,855	83	—	—	6,772
2023	276	4	353	5	2,127	269	902	—	3,382	79	—	—	3,303
2024	181	4	230	5	1,834	269	576	—	1,895	75	—	—	1,819
2025	127	4	162	5	1,610	269	480	—	858	69	—	—	789
2026	82	4	104	5	1,223	808	—	—	39	62	—	—	(23)
2027	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**1,101**	**4**	**1,406**	**5**	**9,436**	**1,885**	**7,552**	**—**	**8,193**	**368**	**—**	**—**	**7,825**

Company Working Interest Share Summary

Year	Gross Annual Oil Prod. Mbbl	Net Annual Oil Prod. Mbbl	Net Annual Gas Prod. MMcf	Net Annual NGL Prod. Mbbl	Gross Sales Revenue US$M	Total MET US$M	Export Tax US$M	Operating & Aband. Costs US$M	Capital Costs US$M	Hist. Costs & Com. Bonus US$M	Net Cash Flow B. Tax US$M	Total Taxes US$M	Net Cash Flow A. Tax US$M
2021	—	—	—	—	—	—	—	—	2,430	—	(2,430)	—	(2,430)
2022	228	228	—	—	5,786	218	280	1,462	381	—	3,445	42	3,403
2023	145	145	—	—	3,673	139	178	1,204	453	—	1,699	40	1,660
2024	99	99	—	—	2,505	91	116	1,057	289	—	952	38	914
2025	70	70	—	—	1,762	64	81	945	241	—	431	35	396
2026	45	45	—	—	1,133	41	52	1,020	—	—	20	31	(11)
2027	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**586**	**586**	**—**	**—**	**14,860**	**553**	**707**	**5,688**	**3,795**	**—**	**4,117**	**185**	**3,932**

Prices: SEC January 1, 2021
Eff. Date: December 31, 2020
Currency: USD

CNODCI Interest in PKI
PetroKazakhstan Ventures Inc.
Forecast of Production and Revenues
SEC Prices and Costs as of December 31, 2020
Total Proved Reserves
Total Kazakhstan

Table 3

Property Gross Share of Production and Gross Revenues

		Crude Oil					Natural Gas			Natural Gas Liquids			
Year	Producing Well Count	Daily Rate Bopd	Annual Volume Mbbl	Annual Volume MT	Crude Oil Price US$/bbl	Sales Revenue US$M	Annual Volume MMcf	Natural Gas Price US$/Mcf	Sales Revenue US$M	Annual Volume Mbbl	NGL Price US$/bbl	Sales Revenue US$M	Total Sales Revenue US$M
2021	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	19	1,391	508	66	25.41	12,905	—	—	—	—	—	—	12,905
2023	18	1,050	383	50	25.41	9,739	—	—	—	—	—	—	9,739
2024	18	735	268	35	25.32	6,792	—	—	—	—	—	—	6,792
2025	18	525	192	25	25.32	4,855	—	—	—	—	—	—	4,855
2026	14	353	129	17	25.32	3,261	—	—	—	—	—	—	3,261
2027	9	226	83	11	25.32	2,092	—	—	—	—	—	—	2,092
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total			**1,562**	**204**		**39,645**	**—**		**—**	**—**		**—**	**39,645**

Property Gross Share of Royalties, Expenses, Taxes and Net Cash Flow

Year	Total MET US$M	Total MET %	Export Rent Tax US$M	Export Rent Tax %	Total Operating Costs US$M	Aband. Costs US$M	Capital Costs US$M	Hist. Costs & Com. Bonus US$M	Net Cash Flow B. Tax US$M	Property Tax US$M	Corporate Tax US$M	Excess Profits Tax US$M	Net Cash Flow A. Tax US$M
2021	—	—	—	—	—	—	4,835	—	(4,835)	—	—	—	(4,835)
2022	487	4	624	5	2,833	278	1,998	—	6,685	83	—	—	6,602
2023	367	4	471	5	2,477	278	902	—	5,244	79	25	—	5,140
2024	247	4	314	5	2,176	278	576	—	3,202	75	—	—	3,127
2025	176	4	224	5	1,906	278	480	—	1,791	69	—	—	1,722
2026	118	4	151	5	1,484	278	—	—	1,230	62	—	—	1,169
2027	76	4	97	5	1,073	556	—	—	291	52	—	—	239
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**1,472**	**4**	**1,880**	**5**	**11,948**	**1,945**	**8,792**	**—**	**13,609**	**421**	**25**	**—**	**13,163**

Company Working Interest Share Summary

Year	Gross Annual Oil Prod. Mbbl	Net Annual Oil Prod. Mbbl	Net Annual Gas Prod. MMcf	Net Annual NGL Prod. Mbbl	Gross Sales Revenue US$M	Total MET US$M	Export Tax US$M	Operating & Aband. Costs US$M	Capital Costs US$M	Hist. Costs & Com. Bonus US$M	Net Cash Flow B. Tax US$M	Total Taxes US$M	Net Cash Flow A. Tax US$M
2021	—	—	—	—	—	—	—	—	2,430	—	(2,430)	—	(2,430)
2022	255	255	—	—	6,485	245	313	1,563	1,004	—	3,359	42	3,318
2023	193	193	—	—	4,894	185	237	1,384	453	—	2,635	52	2,583
2024	135	135	—	—	3,413	124	158	1,233	289	—	1,609	38	1,571
2025	96	96	—	—	2,440	89	113	1,097	241	—	900	35	865
2026	65	65	—	—	1,639	60	76	885	—	—	618	31	587
2027	42	42	—	—	1,051	38	49	818	—	—	146	26	120
2028	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	—	—	—	—	—	—	—	—	—	—	—	—	—
Rem.	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**785**	**785**	**—**	**—**	**19,921**	**740**	**944**	**6,981**	**4,418**	**—**	**6,839**	**224**	**6,615**

Exhibit 15.6

April 29, 2021
Securities and Exchange Commission
Washington, D.C. 20549

Ladies and Gentlemen:

We were previously the principal accountant for PetroChina Company Limited (the "Company") and, under the date of April 29, 2021, we reported on the consolidated financial statements of the Company as of and for the years ended December 31, 2020 and 2019 and the effectiveness of internal control over financial reporting as of December 31, 2020. On March 25, 2021, we were notified that the Company's board of the directors, as recommended by the audit committee of the Company, resolved to propose to the shareholders of the Company at the annual general meeting of the Company to be held on June 10, 2021 (the "AGM") to approve the appointment of PricewaterhouseCoopers Zhong Tian LLP as its principal accountant for the year ending December 31, 2021 and that the auditor-client relationship with KPMG Huazhen LLP would cease upon completion of the audit of the Company's consolidated financial statements as of and for the year ended December 31, 2020, and the effectiveness of internal control over financial reporting as of December 31, 2020, and the issuance of our reports thereon. On April 29, 2021, we completed our audit and the audit-client relationship ceased.

We have read the Company's statements included under Item 16F of its Form 20-F dated April 29, 2021, and we agree with such statements, except for that we are not in a position to agree or disagree with the Company's statement of the reason for changing its principal accountant and we are unable to agree or disagree with the Company's statements regarding PricewaterhouseCoopers Zhong Tian LLP.

Very truly yours,
/s/ KPMG Huazhen LLP