PAO NOVATEK

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

FOR THE YEAR ENDED 31 DECEMBER 2019

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GENERAL PROVISIONS

You should read the following discussion and analysis of our financial condition and results of operations as of 31 December 2019 and for the year then ended in conjunction with our audited consolidated financial statements as of and for the year ended 31 December 2019. The consolidated financial statements and the related notes thereto have been prepared in accordance with International Financial Reporting Standards (IFRS).

The financial and operating information contained in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" comprises information of PAO NOVATEK, its consolidated subsidiaries and joint ventures (hereinafter jointly referred to as "we" or the "Group").

OVERVIEW

We are Russia's second largest natural gas producer and one of the world leaders in terms of proved natural gas reserves under the Petroleum Resources Management System ("PRMS") and the Securities and Exchange Commission ("SEC") reserve reporting methodologies.

Our exploration and development, production and processing of natural gas, gas condensate and crude oil are conducted mainly within the Russian Federation.

The natural gas assets of our subsidiaries and joint ventures include projects where we sell natural gas through the Unified Gas Supply System in the Russian domestic market and liquefied natural gas ("LNG") delivered to international markets.

In the fourth quarter of 2017, our joint venture OAO Yamal LNG commenced producing LNG at the first train of its liquefaction plant, and in the third and fourth quarters of 2018, the second and third LNG trains were launched. The launch of the three LNG trains with a combined nameplate capacity of 16.5 million tons per annum allowed Yamal LNG to become one of the largest suppliers of LNG to international markets. In 2019, our joint venture OOO Cryogas-Vysotsk commissioned its medium-scale LNG plant.

We deliver unstable gas condensate produced by our subsidiaries and our joint ventures Arcticgas, Nortgas and Terneftegas to our Purovsky Gas Condensate Plant (the "Purovsky Plant") for processing into stable gas condensate and natural gas liquids ("NGL"). The Purovsky Plant allows us to process more than 12 million tons of unstable gas condensate per annum.

Most of our stable gas condensate is sent for further processing to our Gas Condensate Fractionation and Transshipment Complex located at the port of Ust-Luga on the Baltic Sea (the "Ust-Luga Complex"). The Ust-Luga Complex processes our stable gas condensate into light and heavy naphtha, jet fuel, gasoil and fuel oil, nearly all of which we sell to the international markets allowing us to increase the added value of our liquid hydrocarbons sales. The Ust-Luga Complex allows us to process about seven million tons of stable gas condensate annually.

The excess volumes of stable gas condensate received from the processing at the Purovsky Plant over volumes sent for further processing to the Ust-Luga Complex are sold on both the domestic and international markets (by rail and from the port of Ust-Luga on the Baltic Sea by tankers).

A significant part of our NGL volumes produced at the Purovsky Plant is dispatched via pipeline for further processing at the refining facilities of OOO SIBUR Tobolsk (the "Tobolsk Refining Facilities"). The remaining volumes are sold directly from the Purovsky Plant without incurring additional transportation expenses. After processing at the Tobolsk Refining Facilities we receive liquefied petroleum gas ("LPG") with higher added value, the majority of which are transported by rail to our end-customers in the domestic and international markets with the remaining portion sold directly from the Tobolsk Refining Facilities without incurring additional transportation expenses. NGL sold directly from the Purovsky Plant and sales of LPG received from the processing at the Tobolsk Refining Facilities are presented within LPG sales in this report.

We deliver our crude oil to both domestic and international markets.

RECENT DEVELOPMENTS

Arctic LNG 2 project

The Group through an entity OOO Arctic LNG 2 undertakes a project to construct an LNG plant on the Gydan peninsula based on the hydrocarbon resources of the Salmanovskoye (Utrenneye) field (the "Arctic LNG 2 project").

The Arctic LNG 2 plant will be built on gravity-based platforms and consist of three processing trains with an annual capacity of 6.6 million tons of LNG each, or an aggregated capacity of 19.8 million tons of LNG per annum. The licenses for natural gas liquefaction technology were purchased from Linde AG.

By the end of 2018, the FEED work on the LNG plant construction was completed, and in the first half of 2019, the EPC agreements on the design and construction of gravity-based platforms, topsides and onshore facilities for the plant's three liquefaction trains were signed. In September 2019, the final investment decision (FID) was made. The launch of the first train is expected to be in 2023, with the subsequent launches of the second and third trains in 2024 and 2026, respectively.

Gravity-based platforms and other major units for the plant will be produced at our own LNG construction center in the Murmansk region (the "Murmansk yard"), which will also be used for the Group's subsequent LNG projects. At present, the loading berths of the gravity-based platforms construction complex, the concrete plant, the main workshops and storage facilities of the gravity-based platforms fabrication site are completed. In addition, the construction of the first dry dock is completed, and the casting of the first gravity-based platform for the first train of the Arctic LNG 2 plant commenced. The topsides fabrication complex for LNG plants is in process of construction.

The use of gravity-based platforms technology for the plant construction, as well as localizing production will contribute to lower LNG liquefaction costs compared to other LNG projects.

The Salmanovskoye (Utrenneye) field's development is ongoing. Two power plants were completed with initial production wells drilled to supply their operation. Construction of berthing facilities necessary for installation of gravity-based platforms is underway.

In 2019, the Group signed heads of agreements with several international companies to supply liquefied natural gas from the Arctic LNG 2 project as well as other Group's projects. The signing of these agreements is a vital step in the successful and timely implementation of the Arctic LNG 2 project.

In March 2019, the Group sold a 10% participation interest in OOO Arctic LNG 2 to a subsidiary of TOTAL S.A. After transaction closing, the key project's financial and operational decisions are approved unanimously by all participants, implying joint control over the company. As a result, the Group recognized Arctic LNG 2 as a joint venture and started to account for its participation interest using the equity method.

In July 2019, the Group sold a 30% participation interest in OOO Arctic LNG 2 to three new participants (10% to each participant): to China National Petroleum Corporation ("CNPC") and CNOOC Limited (through their respective subsidiaries), and to Japan Arctic LNG B.V., a joint venture of Mitsui & Co., Ltd and Japan Oil, Gas and Metals National Corporation ("JOGMEC"). As a result, the Group's participation interest in OOO Arctic LNG 2 further decreased to 60%.

In October 2019, the Group and PAO Sovcomflot established a joint venture OOO SMART LNG with parity participation interests. The new joint venture will lease ice-class LNG tankers fleet for the Arctic LNG 2 project.

Yamal LNG project

The Group, through its joint venture OAO Yamal LNG, undertakes a project on natural gas production, liquefaction and shipping based on the feedstock resources of the South-Tambeyskoye field located in YNAO (the "Yamal LNG project"). The total annual capacity of the liquefaction plant is 17.4 million tons of LNG, including first three LNG trains with an annual capacity of 5.5 million tons for each and the fourth train with an annual capacity of 0.9 million tons (currently is in the final stage of construction).

With the commencement of LNG production at the first LNG train in the end of 2017, and the launch of the second and third LNG trains in July and November 2018, respectively, 2019 became the first full year of operations for all three LNG trains.

In total, during 2019, 18.4 million tons of LNG and 1.2 million tons of stable gas condensate were produced and shipped from the port of Sabetta exceeding the project capacity at the each of the first three LNG trains (in aggregate by 1.9 million tons or 11.5%). We delivered 1.2 million tons of LNG eastbound via the Northern Sea Route to the Asia-Pacific Region utilizing our Arc7 ice-class LNG tankers. Shipping via the Northern Sea Route reduces the LNG voyage period by more than one third as compared to the traditional route via the Suez Canal and the Strait of Malacca.

LNG production at the medium-scale LNG plant at the port of Vysotsk

In March 2019, our joint venture OOO Cryogas-Vysotsk commenced initial LNG production at the first train of its medium-scale LNG plant located at the port of Vysotsk on the Baltic Sea, and in April reached the facility's nameplate capacity of 660 thousand tons per annum.

During 2019, Cryogas-Vysotsk produced and sold 0.4 million tons of LNG to customers in the Northwest Europe and the Baltic region markets via both tankers and trucks, as well as LNG used for marine bunkering.

Obskiy LNG project

In 2019, the Group established a subsidiary OOO Obskiy LNG to implement a project to construct an LNG plant based on the feedstock resources of the Verhnetiuteyskoye and the West-Seyakhinskoye fields located in YNAO (the "Obskiy LNG project").

The project envisages the construction of two liquefaction trains with an annual capacity of 2.5 million tons of LNG each, or aggregated capacity of 5 million tons of LNG per annum. The project will use a modified version of "Arctic Cascade", our proprietary patented natural gas liquefaction technology developed by the Group's specialists, as well as equipment manufactured mainly in Russia. Currently, the Group is developing the front-end engineering design (FEED) for the LNG plant construction.

Reorganization of AO Arcticgas

At the end of 2018, the Group and PAO Gazprom Neft agreed to hold a series of transactions on reorganizing its joint venture AO Arcticgas, aimed at obtaining by the Group the full ownership over the licenses for exploration and production for the North-Chaselskiy and Yevo-Yakhinskiy license areas from Arcticgas and transfer of the license for the Malo-Yamalskiy license area to Gazprom Neft.

The reorganization transactions were completed in October 2019 resulting in a net gain of RR 7.8 billion recognized by the Group and reported within the "Gain on disposal of interests in subsidiaries and joint ventures" in the consolidated statement of income.

Increasing our resource base and production facilities

In October 2019, our joint venture AO Arcticgas commenced commercial production at the East-Urengoyskoye+North-Esetinskoye field within the Samburgskiy license area, with estimated annual production capacity of more than one billion cubic meters of natural gas and 0.2 million tons of gas condensate. In addition, in January 2020, AO Arcticgas started pilot operation at the third stage of the gas condensate treatment facility at the Samburgskiy license area with an annual capacity of 1.2 million tons of gas condensate to develop the Achimov horizons.

In December 2019, the Group commenced commercial production at the North-Russkoye field with estimated annual production capacity of 5.7 billion cubic meters of natural gas and 0.7 million tons of gas condensate. The North-Russkoye field is the first launch of the North-Russkiy block of fields, which also includes the Dorogovskoye, East-Tazovskoye and Kharbeyskoye fields scheduled for launch during 2020 to 2021 with cumulative gas production capacity of more than 13 billion cubic meters per annum.

The new production facilities will contribute to the natural gas production growth at our production assets connected to the Unified Gas Supply System.

During 2019, the Group obtained rights to use nine license areas located in close proximity to the Group's other assets in YNAO:

- In May 2019, the Group obtained the rights for geological research works at five license areas in the Krasnoyarsk Territory: the Khalmeryakhskiy, Dorofeevskiy, West-Dorofeevskiy, South-Khalmeryakhskiy and South-Dorofeevskiy. The license areas are located on the Gydan peninsula in close proximity to our South-Leskinskiy license area.

- In August 2019, the Group won an auction for the right for geological research works, exploration and production of hydrocarbons at a license area, which includes the Soletskoye-Khanaveyskoye field. The license area is located on the Gydan peninsula bordering the Group's Trekhbugorniy and Gydanskiy license areas. The license area has estimated hydrocarbon resources of 2,183 billion cubic meters of natural gas and 212 million tons of liquids under the Russian reserve classification. The aggregate proved, probable and possible reserves of the Soletskoye-Khanaveyskoye field appraised under the PRMS reserve methodology as of 31 December 2019 totaled 194.6 bcm of natural gas and 1.6 million tons of gas condensate. The payment for the license amounted to RR 2,586 million.

  Further, in December 2019, the Group won an auction for the right for geological research works, exploration and production of hydrocarbons at the Bukharinskiy license area bordering the Group's Soletskoye-Khanaveyskoye field and Trekhbugorniy license area. The Bukharinskiy license area has estimated hydrocarbon resources of 1,190 billion cubic meters of natural gas and 74 million tons of liquids under the Russian reserve classification. The payment for the license was set at RR 2,346 million.

  The acquisition of both license areas allows us to expand the resource base for one more new LNG project similar in scale to Arctic LNG 2, with liquefaction trains to be located at the Utrenniy terminal.

- In December 2019, the Group won an auction for the right for geological research works, exploration and production of hydrocarbons at the South-Yamburgskiy license area located in the close proximity to the North-Urengoyskoye field of our joint venture ZAO Nortgas. The license area has estimated hydrocarbon resources of 506 billion cubic meters of natural gas and 126 million tons of liquids under the Russian resource classification. The payment for the license was set at RR 1,066 million.

- In December 2019, the Group won an auction for the right for geological research works, exploration and production of hydrocarbons at the East-Ladertoyskiy license area. The license area has estimated hydrocarbon resources of 184 billion cubic meters of natural gas and 32 million tons of liquids under the Russian resource classification. The license area is located on the Gydan Peninsula and borders with the Group's West-Solpatinskiy, Ladertoyskiy, Nyavuyahskiy and Centralno-Nadoyakhskiy license areas. The acquisition of the East-Ladertoyskiy license area is in line with the Company's strategy to expand our resource base on the Yamal and Gydan peninsulas. The payment for the license was set at RR 81 million.

BASIS OF PRESENTATION

Oil and gas production and reserves in the current report are calculated based on 100% of our subsidiaries production and reserves and our proportionate share in the production and reserves of our joint ventures including volumes of natural gas consumed in oil and gas producing and development activities. Meanwhile, production costs per barrel of oil equivalent are calculated based on production volumes net of the volume of consumed natural gas. Production and reserves of the South-Tambeyskoye field developed by the Group's joint venture OAO Yamal LNG are reported at 60% including an additional 9.9% interest not owned by the Group, since the Group assumes certain economic and operational risks related to this interest.

Our oil and gas revenues and average realized net prices are presented net of VAT and export duties, where applicable. Our LPG revenues and average realized net prices also exclude excise and fuel taxes incurred on sales in Poland. Starting from January 2019, the Group accrues excise tax on raw oil and claims the double excise tax deduction. The net result, or so-called "reverse excise", is reported as a deduction to our "Purchases of natural gas and liquid hydrocarbons" in our consolidated statement of income (see "Our tax burden and obligatory payments" below).

SELECTED DATA

millions of Russian roubles except as stated	Year ended 31 December: 2019	2018	Change %
Financial results			
Total revenues (1)	862,803	831,758	3.7%
Operating expenses	(640,463)	(603,912)	6.1%
Normalized EBITDA (2),(3)	461,157	415,296	11.0%
Normalized profit attributable to shareholders of PAO NOVATEK (3)	302,418	162,097	86.6%
Normalized profit attributable to shareholders of PAO NOVATEK (3), excluding the effect of foreign exchange gains (losses) (4)	245,002	232,930	5.2%
Normalized earnings per share (3) (in Russian roubles)	100.42	53.79	86.7%
Normalized earnings per share (3), excluding the effect of foreign exchange gains (losses) (4) (in Russian roubles)	81.35	77.29	5.3%
Net debt (5)	15,106	102,903	(85.3%)
Production volumes (6)			
Hydrocarbons production (million barrels of oil equivalent)	589.9	549.1	7.4%
Daily production (million barrels of oil equivalent per day)	1.62	1.50	7.4%
Sales volumes			
Natural gas sales volumes (million cubic meters)	78,452	72,134	8.8%
Crude oil sales volumes (thousand tons)	4,834	4,542	6.4%
Naphtha sales volumes (thousand tons)	4,511	4,185	7.8%
Liquefied petroleum gas sales volumes (thousand tons)	2,777	2,676	3.8%
Other stable gas condensate refined products (thousand tons)	2,470	2,498	(1.1%)
Stable gas condensate sales volumes (thousand tons)	1,739	1,908	(8.9%)
Oil and gas SEC reserves (6)			
Total proved reserves (billion barrels of oil equivalent)	16.3	15.8	3.0%
Total natural gas proved reserves (trillion cubic meters)	2.23	2.18	2.6%
Total liquids proved reserves (million tons)	193	181	6.6%
Cash flow results			
Net cash provided by operating activities	307,433	216,349	42.1%
Cash used for capital expenditures (7)	162,502	94,038	72.8%
Free cash flow (8)	144,931	122,311	18.5%

(1) Net of VAT, export duties, excise and fuel taxes, as well as excise and fuel taxes incurred on LPG sales in Poland.

(2) EBITDA represents profit (loss) adjusted for the add-back of depreciation, depletion and amortization, net impairment expenses (reversals), finance income (expense), income tax expense, as well as income (loss) from changes in fair value of derivative financial instruments. EBITDA includes EBITDA from subsidiaries and our proportionate share in the EBITDA of our joint ventures.

(3) Excluding the effects from the disposal of interests in subsidiaries and joint ventures (recognition of a net gain on disposal and subsequent non-cash revaluation of contingent consideration).

(4) Excluding the effect of foreign exchange gains (losses) of subsidiaries and our proportionate share in foreign exchange gains (losses) of our joint ventures (see "Profit attributable to shareholders and earnings per share" below).

(5) Net Debt represents our total debt net of cash, cash equivalents and bank deposits with original maturity more than three months.

(6) Oil and gas production and reserves are calculated based on 100% of production and reserves of our subsidiaries and our proportionate share in the production and reserves of our joint ventures including fuel gas. Production and reserves of the South-Tambeyskoye field of Yamal LNG are reported at 60% (see "Basis of presentation" above).

(7) Cash used for capital expenditures represents purchases of property, plant and equipment, materials for construction and capitalized interest paid per Consolidated Statement of Cash Flows net of payments for mineral licenses and acquisition of subsidiaries.

(8) Free cash flow represents the difference between Net cash provided by operating activities and Cash used for capital expenditures.

Reconciliation of EBITDA and normalized EBITDA is as follows:

millions of Russian roubles	Year ended 31 December: 2019	2018	Change %
Profit	**883,461**	**182,947**	**382.9%**
Depreciation, depletion and amortization	32,230	33,094	(2.6%)
Impairment expenses (reversals), net	162	287	n/a
Loss (income) from changes in fair value of commodity derivative instruments	(238)	450	n/a
Total finance expense (income)	15,712	(38,608)	n/a
Total income tax expense	119,654	45,587	162.5%
Share of loss (profit) of joint ventures, net of income tax	(149,238)	37,258	n/a
EBITDA from subsidiaries	**901,743**	**261,015**	**245.5%**
Share in EBITDA of joint ventures	**207,605**	**155,926**	**33.1%**
including:			
OAO Yamal LNG	133,478	80,617	65.6%
AO Arcticgas	64,088	64,084	0.0%
others	10,039	11,225	(10.6%)
EBITDA	**1,109,348**	**416,941**	**166.1%**
Net gain on disposal of interests in subsidiaries and joint ventures	(682,733)	(1,645)	n/a
Changes in fair value of contingent consideration reported within the "Other operating income (loss)"	34,542	-	n/a
Normalized EBITDA	**461,157**	**415,296**	**11.0%**
Normalized EBITDA from subsidiaries	**253,552**	**259,370**	**(2.2%)**

SELECTED MACRO-ECONOMIC DATA

Exchange rate, RR for one foreign currency unit [(1)]	1Q 2019	1Q 2018	2Q 2019	2Q 2018	3Q 2019	3Q 2018	4Q 2019	4Q 2018	Year 2019	Year 2018	Change Y-o-Y, %
US dollar (USD)											
Average for the period	66.13	56.88	64.56	61.80	64.57	65.53	63.72	66.48	64.74	62.71	3.2%
At the beginning of the period	69.47	57.60	64.73	57.26	63.08	62.76	64.42	65.59	69.47	57.60	20.6%
At the end of the period	64.73	57.26	63.08	62.76	64.42	65.59	61.91	69.47	61.91	69.47	(10.9%)
Depreciation (appreciation) of RR to US dollar	(6.8%)	(0.6%)	(2.5%)	9.6%	2.1%	4.5%	(3.9%)	5.9%	(10.9%)	20.6%	n/a
Euro											
Average for the period	75.17	69.87	72.52	73.75	71.83	76.18	70.54	75.92	72.50	73.95	(2.0%)
At the beginning of the period	79.46	68.87	72.72	70.56	71.82	72.99	70.32	76.23	79.46	68.87	15.4%
At the end of the period	72.72	70.56	71.82	72.99	70.32	76.23	69.34	79.46	69.34	79.46	(12.7%)
Depreciation (appreciation) of RR to Euro	(8.5%)	2.5%	(1.2%)	3.4%	(2.1%)	4.4%	(1.4%)	4.2%	(12.7%)	15.4%	n/a

[(1)] Based on the data from the Central Bank of Russian Federation (CBR). The average rates for the period are calculated as the average of the daily exchange rates on each business day (rate is announced by the CBR) and on each non-business day (rate is equal to the exchange rate on the previous business day).

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Average for the period	1Q 2019	1Q 2018	2Q 2019	2Q 2018	3Q 2019	3Q 2018	4Q 2019	4Q 2018	Year 2019	Year 2018	Change Y-o-Y, %
Benchmark natural gas prices, USD per mmbtu [(2)]											
NBP (National Balancing Point)	6.3	8.1	4.1	7.3	3.4	8.4	4.1	8.4	4.4	8.0	(45.0%)
TTF (Title Transfer Facility)	6.1	7.7	4.3	7.4	3.3	8.4	4.1	8.3	4.5	8.0	(43.8%)
Benchmark crude oil prices [(3)]											
Brent, USD per barrel	63.1	66.8	68.9	74.4	62.0	75.2	63.1	68.8	64.2	71.3	(10.0%)
Urals, USD per barrel	63.2	65.2	67.9	72.5	61.3	74.2	61.4	68.3	63.4	70.1	(9.6%)
Urals, RR per barrel	4,179	3,709	4,384	4,481	3,958	4,862	3,912	4,541	4,105	4,396	(6.6%)
Benchmark crude oil prices excluding export duties [(4)]											
Urals, USD per barrel	51.3	49.2	53.6	56.0	48.3	55.7	49.2	48.9	50.6	52.5	(3.6%)
Urals, RR per barrel	3,392	2,798	3,460	3,461	3,119	3,650	3,135	3,251	3,276	3,292	(0.5%)
Benchmark oil products [(5)] **and liquefied petroleum gas** [(6)] **prices, USD per ton**											
Naphtha Japan	519	582	542	640	495	666	539	575	524	616	(14.9%)
Naphtha CIF NWE	497	574	527	636	477	652	519	552	505	604	(16.4%)
Jet fuel	625	647	646	709	629	710	627	684	632	688	(8.1%)
Gasoil	586	588	603	647	578	661	579	637	586	633	(7.4%)
Fuel oil	396	370	414	417	387	436	408	420	401	411	(2.4%)
Liquefied petroleum gas	363	422	404	456	339	541	446	453	387	470	(17.7%)
Export duties, USD per ton [(7)]											
Crude oil, stable gas condensate	87.0	117.0	104.1	120.6	95.0	134.8	88.7	141.5	93.7	128.5	(27.1%)
Naphtha	47.8	64.3	57.2	66.2	52.2	74.1	48.7	77.8	51.5	70.6	(27.1%)
Jet fuel, gasoil	26.1	35.1	31.2	36.1	28.5	40.4	26.5	42.4	28.1	38.5	(27.0%)
Fuel oil	87.0	117.0	104.1	120.6	95.0	134.8	88.7	141.5	93.7	128.5	(27.1%)
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	8.9	0.0	36.2	0.0	11.3	n/a

[(2)] Based on spot natural gas prices at natural gas hubs in the United Kingdom (NBP) and the Netherlands (TTF).
[(3)] Based on Brent (dtd) and Russian Urals CIF Rotterdam spot assessments prices.
[(4)] Export duties per barrel were calculated based on export duties per ton divided by the coefficient 7.3.
[(5)] Based on Naphtha C+F (cost plus freight) Japan, Naphtha CIF NWE, Jet CIF NWE, Gasoil 0.1% CIF NWE, Fuel Oil 1.0% CIF NWE prices.
[(6)] Based on spot prices for propane-butane mix at the Belarusian-Polish border (DAF, Brest).
[(7)] Export duties are determined by the Russian Federation government in US dollars and are paid in Russian roubles (see "Our tax burden and obligatory payments" below).

CERTAIN FACTORS AFFECTING OUR RESULTS OF OPERATIONS

Current economic conditions

Commodity price volatility continues to exert significant influence on financial and operational results in the global oil and gas industry. Our financial results are obviously impacted by these global developments as our export sales are linked to the specific underlying benchmark commodity prices but we believe our business model, representing one of the lowest cost producers in the world, insulates us from severe financial and operational stress. In each reporting period, the Group achieved strong operating results and remained free cash flow positive.

Management continues to closely monitor the economic and political environment in Russia and abroad, including the domestic and international capital markets, to determine if any further corrective and/or preventive measures are required to sustain and grow our business. We also closely monitor the present commodity price environment and its impact on our business operations. We do not expect any asset impairments or write-offs resulting from a lower commodity price environment.

We conduct regular reviews of our capital expenditure program and existing debt obligations. In our opinion, the Group's financial position is stable and expected operating cash flows are sufficient to service and repay our debt, as well as to execute our planned capital expenditure programs.

Political events in Ukraine in the beginning of 2014 have prompted a negative reaction by the world community, including economic sanctions levied by the United States of America, Canada and the European Union against certain Russian individuals and legal entities. In July 2014, NOVATEK was included on the OFAC's Sectoral Sanctions Identification List (the "List"), which imposed sanctions that prohibit individuals or legal entities registered or working on the territory of the United States from providing new credit facilities to the Group for longer than 60 days (prior to 28 November 2017, the aforementioned restrictions related to new credit facilities with maturity of more than 90 days).

Despite the inclusion on the List, the Group may conduct any other activities, including financial transactions, with U.S. investors and partners. NOVATEK was included on the List even though the Group does not conduct any business activities in Ukraine, nor does it have any impact on the political and economic processes taking place in this country. Management has assessed the impact of the sanctions described above on the Group's activities taking into consideration the current state of the world economy, the condition of domestic and international capital markets, the Group's business, and long-term projects with foreign partners. We have concluded that the inclusion on the List does not significantly impede the Group's operations and business activities in any jurisdiction, nor does it affect the Group's assets and debt, and does not have a material effect on the Group's financial position.

We together with our international partners are undertaking all necessary actions to implement our joint investment projects on time as planned, including, but not limited to, attracting financing from domestic and non-US capital markets.

Natural gas prices

We sell our natural gas to customers in the Russian domestic market, mainly through trunk pipelines and regional distribution networks, and deliver LNG purchased primarily from our joint ventures, OAO Yamal LNG and OOO Cryogas-Vysotsk, to international markets. In addition, we sell on the European market regasified liquefied natural gas arising during the transshipment of LNG (boil-off gas), as well as during the regasification of purchased LNG at our own regasification stations in Poland.

The Group's natural gas prices in Russia are strongly influenced by the prices set by the Federal Anti-Monopoly Service, a federal executive agency of the Russian Federation that carries out governmental regulation of prices and tariffs for products and services of natural monopolies in energy, utilities and transportation (the "Regulator"), as well as present market conditions.

In 2018, wholesale natural gas prices for sales to all customer categories (excluding residential customers) on the domestic market were increased by the Regulator by 3.4% effective 21 August 2018, and remained unchanged through the end of the second quarter of 2019. Effective 1 July 2019, the Regulator increased wholesale prices by 1.4%.

In September 2019, the Ministry of Economic Development of the Russian Federation published the "Forecast of Socio-economic Development of the Russian Federation for the period until 2024" stating that wholesale natural gas prices for sales to all customer categories (excluding residential customers) will be increased from July 2020 to 2024 by an average of 3.0% on an annual basis. The Russian Federation government continues to discuss various concepts relating to the natural gas industry development, including natural gas prices and transportation tariffs growth rates on the domestic market.

The specific terms for delivery of natural gas affect our average realized prices. The majority of our natural gas volumes on the domestic market are sold directly to end-customers in the regions of natural gas consumption, so transportation tariff to the end-customer's location is included in the contract sales price. The remaining volumes of natural gas are sold "ex-field" to wholesale gas traders, in which case the buyer is responsible for the payment of further gas transportation tariff. Sales to wholesale gas traders allow us to diversify our natural gas sales without incurring additional commercial expenses.

We deliver natural gas to residential customers in the Chelyabinsk and Kostroma regions of the Russian Federation at regulated prices through our subsidiaries OOO NOVATEK-Chelyabinsk and OOO NOVATEK-Kostroma, respectively. We disclose such residential sales within our end-customers category.

In addition, we periodically sell natural gas at the Saint-Petersburg International Mercantile Exchange based on market conditions. We disclose such sales within our sales to end-customers category.

The Group's natural gas prices on international markets are influenced by many factors, such as the balance between supply and demand fundamentals, weather, the geography of sales, and the delivery terms to name a few. The Group sells LNG on international markets under short- and long-term contracts with prices based on the prices for natural gas at major natural gas hubs and on benchmark crude oil prices. We sell boil-off gas in Europe at prices linked to natural gas prices at major European natural gas hubs. The Group's prices for regasified LNG sold as natural gas on the Polish market are based on the prices regulated by the Energy Regulatory Office of Poland.

The following table shows our aggregate average realized natural gas sales prices on the domestic and international markets (excluding VAT, where applicable):

	Year ended 31 December:		**Change**
	2019	**2018**	**%**
Average natural gas price, RR per mcm	5,288	5,201	1.7%
Average natural gas price, USD per mcm [(1)]	81.6	82.3	(0.9%)

[(1)] Operations initially priced in Russian roubles were translated into US dollars using the average exchange rate for the period.

In 2019, our aggregate average price for natural gas changed marginally as a result of the offsetting effects of following factors: an increase in the share of our LNG sales volumes in total natural gas sales volumes, as well as an increase in the regulated Russian domestic price (by 3.4% effective 21 August 2018 and by 1.4% effective 1 July 2019), and an offsetting decrease in LNG prices on international markets in 2019.

Stable gas condensate and refined products, crude oil and liquefied petroleum gas prices

Crude oil, stable gas condensate, LPG and oil products prices on international markets have historically been volatile depending on, among other things, the balance between supply and demand fundamentals, the ability and willingness of oil producing countries to sustain or change production levels to meet changes in global demand and potential disruptions in global crude oil supplies due to war, geopolitical developments, terrorist activities or natural disasters.

The actual prices we receive for our liquid hydrocarbons on both the domestic and international markets are dependent on many external factors beyond the control of management. Among many other factors volatile movements in benchmark crude oil and oil products prices can have a positive and/or negative impact on the contract prices we receive for our liquids sales volumes.

In addition, our actual realized net export prices for crude oil, stable gas condensate and its refined products are affected by the so-called "export duty lag effect". This lag effect is due to the differences between actual crude oil prices for a certain period and crude oil prices based on which export duty rate is calculated for the same period (see "Our tax burden and obligatory payments" below). In periods when crude oil prices are rising, the duty lag effect normally has a positive impact on the Group's financial results, as the export duty rates are set on the basis of lower crude oil prices compared to the actual prices. Conversely, in periods of declining crude oil prices, the export duty rate is calculated based on higher prices compared to the actual prices, resulting in a negative financial impact.

Most of our liquid hydrocarbons sales prices on both the international and domestic markets include transportation expenses in accordance with the specific terms of delivery. The remaining portion of our liquids volumes is sold without additional transportation expenses (ex-works sales of liquefied petroleum gas from the Purovsky Plant and the Tobolsk Refining Facilities, as well as certain other types of sales).

We commonly sell our stable gas condensate and refined products, as well as liquefied petroleum gas to the international markets with a premium to the respective international benchmark reference products prices. We export SILCO (low-sulfur "Siberian Light Crude Oil") and ESPO ("East Siberia – Pacific Ocean") grades of crude oil to international markets with a premium or a discount to the benchmark Brent and Dubai crude oil depending on current market situation.

The following table shows our average realized net stable gas condensate and refined products, crude oil and LPG sales prices. Average realized net prices are shown net of VAT and export duties, as well as excise and fuel taxes incurred on LPG sales in Poland:

Russian roubles or US dollars per ton [(1)]	Year ended 31 December: 2019	2018	Change %
Naphtha			
Average net price, RR per ton	32,043	35,789	(10.5%)
Average net price, USD per ton	494	572	(13.6%)
Other stable gas condensate refined products			
Average net price, RR per ton	35,213	35,682	(1.3%)
Average net price, USD per ton	543	570	(4.7%)
Crude oil			
Average net price, RR per ton	23,716	23,394	1.4%
Average net price, USD per ton	367	373	(1.6%)
LPG			
Average net price, RR per ton	17,166	21,015	(18.3%)
Average net price, USD per ton	265	335	(20.9%)
Stable gas condensate			
Average net price, RR per ton	24,452	25,473	(4.0%)
Average net price, USD per ton	379	403	(6.0%)

(1) Operations initially priced in Russian roubles were translated into US dollars using the average exchange rate for the period.

In 2019, the underlying benchmark prices for all our liquids decreased compared to the prior year period (see "Selected macro-economic data" above), resulting in a decrease in our weighted-average realized net prices in US dollar terms. At the same time, our weighted-average realized net prices in Russian rouble terms decreased by a lesser extent, and for crude oil increased marginally due to the Russian rouble depreciation relative to the US dollar by 3.2%.

The dynamics of our weighted-average realized net prices for each product category also reflects changes in volumes sold within periods and changes in the geography of shipments which may significantly impact our average prices in periods of high benchmark prices volatility on international markets. In addition, specifics of pricing mechanism for each particular product (such as time lag of international benchmark crude oil prices and export duty rates used in price calculation, price setting on an individual transaction basis for some deliveries and other factors) also have an impact on the dynamics of our weighted-average realized net prices.

Transportation tariffs

Natural gas by pipelines

We transport our natural gas within the Russian Federation territory through our own pipelines into the Unified Gas Supply System ("UGSS"), which is owned and operated by PAO Gazprom, a Russian Federation Government controlled monopoly. Transportation tariffs charged to independent producers for the use of the Gas Transmission System ("GTS"), as part of the UGSS, are set by the Regulator (see "Terms and abbreviations" below).

In accordance with the existing methodology of calculating transportation tariffs for natural gas produced in the Russian Federation for shipments to consumers located within the customs territory of the Russian Federation and the member states of the Customs Union Agreement (Belarus, Kazakhstan, Kyrgyzstan and Tajikistan), the transportation tariff consists of two parts: a rate for the utilization of the trunk pipeline and a transportation rate per mcm per 100 kilometers (km). The rate for utilization of the trunk pipeline is based on an "input/output" function, which is determined by where natural gas enters and exits the trunk pipeline and includes a constant rate for end-customers using Gazprom's gas distribution systems. The constant rate is deducted from the utilization rate for end-customers using non-Gazprom gas distribution systems.

In 2018 and 2019, the average tariff for natural gas transportation through the trunk pipeline did not change. The transportation rate amounted to RR 13.04 per mcm per 100 km (excluding VAT), and the rate for utilization of the trunk pipeline was set in the range from RR 62.57 to RR 2,014.16 per mcm (excluding VAT).

According to the Forecast of the Ministry of Economic Development of the Russian Federation published in September 2019, the increase in tariffs for natural gas transportation through the trunk pipeline beginning in 2020 through 2024 will not exceed the growth rate for wholesale natural gas prices (see "Natural gas prices" above). The Russian Federation Government continues to discuss various concepts relating to the natural gas industry development, including natural gas prices and transportation tariffs growth on the domestic market.

Stable gas condensate and LPG by rail

Substantially all of our stable gas condensate and LPG (excluding volumes sold ex-works from the Purovsky Plant and the Tobolsk Refining Facilities) we transport by rail owned by Russia's state-owned monopoly railway operator – OAO Russian Railways ("RZD").

The railroad transportation tariffs are set by the Regulator and vary depending on the type of product, and the direction and the length of the transport route. In addition, the Regulator sets the range of railroad tariffs as a percentage of the regulated tariff within which RZD may vary railroad transportation tariffs within the Russian Federation territory based on the type of product, direction and length of the transportation route taking into account current railroad transportation and market conditions.

Effective January 2019, railroad freight transportation tariffs for all types of hydrocarbons were increased by 3.56% relative to the 2018 tariffs and did not change until the end of 2019. In January 2020, the Regulator increased the aforementioned tariffs by 3.5% relative to the 2019 tariffs.

In 2018 and 2019, we applied the discount coefficient of 0.94 to the existing railroad transportation tariffs for stable gas condensate deliveries from the Limbey rail station to the port of Ust-Luga and to end-customers on the domestic and international markets. The discount coefficient is set by the decision of the Management Board of RZD as part of the Strategic Partnership Agreement between the Group and RZD.

Stable gas condensate, refined products and liquefied natural gas by tankers

We deliver part of our stable gas condensate and substantially all stable gas condensate refined products, as well as liquefied natural gas (excluding volumes purchased and sold to customers in the same location) to international markets by chartered tankers. In addition to time chartering expenses, we also may incur transshipment, bunkering, port charges and other expenses depending on the delivery terms, which are included in the transportation by tankers expense category. The distance to the final port of destination, tanker availability, seasonality of deliveries and other factors also influence our tanker transportation expenses.

Crude oil

We transport nearly all of our crude oil through the pipeline network owned by PAO Transneft, Russia's state-owned monopoly crude oil pipeline operator. The Regulator sets tariffs for transportation of crude oil through Transneft's pipeline network, which includes transport, dispatch, pumping, loading, charge-discharge, transshipment and other related services. The Regulator sets tariffs for each separate route of the pipeline network, so the overall expense for the transport of crude oil depends on the length of the transport route from the producing fields to the ultimate destination, transportation direction and other factors.

Effective 1 January 2019, crude oil transportation tariffs through the pipeline network within the Russian Federation territory were increased by an average of 3.87% relative to the 2018 tariffs and remained unchanged until the end of 2019. Effective 1 January 2020, transportation tariffs were increased by an average of 3.42% relative to the 2019 tariffs.

Our tax burden and obligatory payments

We are subject to a wide range of taxes imposed at the federal, regional, and local levels, many of which are based on revenue or volumetric measures. In addition to income tax, significant taxes and obligatory payments to which we are subject include VAT, unified natural resources production tax ("UPT", commonly referred as "MET" – mineral extraction tax), export duties, excise, property tax and social contributions to non-budget funds.

In practice, Russian tax authorities often have their own interpretation of tax laws that rarely favors taxpayers, who have to resort to court proceedings to defend their position against the tax authorities. Differing interpretations of tax regulations exist both among and within government ministries and organizations at the federal, regional and local levels, creating uncertainties and inconsistent enforcement. Tax declarations and other documentation such as customs declarations, are subject to review and investigation by a number of authorities, each of which may impose fines, penalties and interest charges. Generally, taxpayers are subject to an inspection of their activities for a period of three calendar years immediately preceding the year in which the audit is conducted. Previous audits do not completely exclude subsequent claims relating to the audited period. In addition, in some instances, new tax regulations may have a retroactive effect.

We have not employed any tax minimization schemes using offshore or domestic tax zones in the Russian Federation.

Detailed information regarding UPT, export duties, excise and social contributions to non-budget funds is described below based on the current versions of the Tax Code of the Russian Federation and the law "On Customs Tariff".

Starting from 2019, significant amendments were introduced in the above laws aimed at the completion of the tax maneuver in the oil and gas industry in the Russian Federation. In particular, the UPT and the export duties rates formulas were changed, the new types of excisable goods were introduced, and specific procedures for excise tax deductions applicable for processors of raw oil were established.

The tax maneuver in the oil and gas industry envisages a gradual decrease in export duties for crude oil and oil products with a respective increase in unified production taxes for crude oil and gas condensate during the periods 2019 to 2024. Herewith, the UPT rates will be increased by the same amount of a decrease in export duty rate for crude oil, which will result in economic losses to raw oil processors as the export duty rates for oil products are calculated with a discount to crude oil export duty rate. Starting from January 2019, the excise tax for raw oil and the double deductions for this tax were introduced to compensate for these losses.

Starting from January 2019 and during the next six years, the above mentioned legislation changes, with other factors being equal, will influence line items in our consolidated financial statements by increasing our liquids net prices and revenues due to a gradual decrease in export duties, increasing our UPT expenses, as well as our hydrocarbons purchases due to an increase in UPT expenses in our joint ventures. The increase in our UPT expenses and cost of hydrocarbons purchases will be offset by excise tax deductions for raw oil.

Export duties

Procedure for calculation and payment of export duties is set in the Law of the Russian Federation "On Customs Tariff". According to this law, we are subject to export duties on our exports of liquid hydrocarbons (stable gas condensate and refined products, LPG and crude oil).

Crude oil export duty rate formulas are set by the Russian Federation Government and are based on the average Urals crude oil price (Mediterranean and Rotterdam) for the so called "monitoring period" (the period from the 15th calendar day in the previous month to the 14th calendar day of the current month).

In 2018, the calculation of the export duty rate in US dollars when the average Urals crude oil price was more than USD 182.5 per ton (or USD 25 per barrel) was set as follows: USD 29.2 plus 30% of the difference between the average Urals crude oil price and USD 182.5 per ton.

Starting from January 2019, as part of the completion stage of the tax maneuver in the oil and gas industry, the above export duty rate is multiplied by a coefficient, which will be gradually decreased on an annual basis from 0.833 in 2019 to zero in 2024, thus gradually decreasing the export duty rate for crude oil to zero by 2024. During 2020, the coefficient will be equal to 0.667.

We pay export duties for our stable gas condensate export sales volumes at the export duty rate for crude oil.

The export duty rates for oil products are calculated based on the export duty rate for crude oil adjusted by a coefficient (discount) set for each category of oil products. The export duty rates for our exported stable gas condensate refined products as a percentage of the crude oil export duty rate are presented below:

	% from the crude oil export duty rate
Naphtha	55%
Jet fuel	30%
Gasoil	30%
Fuel oil	100%

The export duty rate for LPG for the next calendar month is calculated based on the average LPG price at the Polish border (DAF, Brest) for the current monitoring period and is calculated using the formula presented in the table below:

Average LPG price, USD per ton (P)	**Formula for export duty rate calculation**
less 490 (inclusive)	Zero rate
between 490 and 640 (inclusive)	0.5 × (P – 490)
between 640 and 740 (inclusive)	75 + 0.6 × (P – 640)
above 740	135 + 0.7 × (P – 740)

We record export duties as a deduction to our revenues in the consolidated statement of income.

UPT – natural gas

We pay UPT for natural gas on a monthly basis. The UPT rate for natural gas is set in Russian roubles per one mcm of extracted natural gas.

The UPT rate for natural gas is calculated as a product of the base UPT rate (RR 35 per mcm), the base value of a standard fuel equivalent and a coefficient characterizing the difficulty of extracting natural gas and gas condensate from each particular field. The result is then increased by a parameter characterizing natural gas transportation costs (was set at zero in both reporting periods).

The base value of a standard fuel equivalent is calculated by a taxpayer based on a combination of factors including natural gas prices, Urals crude oil prices and crude oil export duty rate.

UPT – crude oil

We pay UPT for crude oil on a monthly basis. The UPT rate for crude oil is set in Russian roubles per ton of extracted crude oil.

The UPT rate is calculated as a product of a coefficient characterizing the dynamics of world crude oil prices and the base UPT rate (RR 919 per ton) adjusted for parameters characterizing crude oil production peculiarities (the reserves' depletion, complexity of extraction, the region, crude oil properties). The result is then increased by a fixed amount of RR 357 per ton in 2018, and by RR 428 per ton since 2019.

Starting from January 2019, and during the next six years, the UPT rate for crude oil will be gradually increased on an annual basis by the amount of a decrease in the crude oil export duty rate, and will be finally increased by the full amount of export duty rate by 2024.

In both reporting periods, we applied a reduced UPT rate for crude oil produced at our Yurkharovskoye, East-Tarkosalinskoye, Khancheyskoye and Yarudeyskoye fields since these fields are located fully or partially to the north of the 65th degree of the northern latitude fully or partially in the YNAO. Therefore, the adjusted base UPT rate for crude oil produced at these fields for the Group amounted to RR 360 per ton.

Starting from January 2019, where the average export alternative prices for petrol and diesel fuel exceed the regulated wholesale prices for these products on the Russian domestic market, the UPT rate for crude oil is also increased by the so called "petrol and diesel fuel premiums" (set at RR 125 and RR 110 per ton, respectively, from 1 January to 30 September 2019, at RR 200 and RR 185 per ton, respectively, from 1 October to 31 December 2019, and at RR 105 and RR 92 per ton, respectively, starting from 1 January 2020). The petrol and diesel fuel premiums are payable by all crude oil producers regardless of whether the extracted crude oil volumes will be further sold or refined.

UPT – gas condensate

We pay UPT for gas condensate on a monthly basis. The UPT rate for gas condensate is set in Russian roubles per ton of extracted gas condensate.

The UPT rate for gas condensate is calculated as a product of the base UPT rate (RR 42 per ton), the base value of a standard fuel equivalent, a coefficient characterizing the difficulty of extracting natural gas and gas condensate from each particular field and an adjusting coefficient of 6.5. The base value of a standard fuel equivalent is calculated by a taxpayer based on the combination of factors including natural gas prices, Urals crude oil prices and crude oil export duty rate.

The Group reduces its overall UPT expense accrued for gas condensate production volumes by applying a UPT tax deduction on gas condensate volumes produced for processing into NGL. The amount of the tax deduction is calculated monthly by multiplying a coefficient of NGL recovery from gas condensate processing, the quantity of gas condensate produced and processed, and the tax deduction rate in Russian roubles per ton of NGL derived. The tax deduction rate was set at RR 147 per ton for January 2018 and since then is increasing monthly by the same amount until the end of 2020. Starting from January 2021, the tax deduction rate will be fixed at RR 5,280 per ton of produced NGL.

During the six years starting from January 2019, the UPT rate for gas condensate will be increased on an annual basis by 75% of a decrease in the crude oil export duty rate. The share of 75% is deemed to represent volumes of produced gas condensate excluding the share of NGL received from gas condensate processing.

Excise and fuel taxes

Starting from January 2019, a new excisable type of product was introduced – "raw oil", which represents a mixture of hydrocarbons composed of one or more components of crude oil, stable gas condensate, vacuum gasoil, tar, and fuel oil. The tax base for raw oil excise tax is the volume of raw oil sent by the owner for processing.

The amount of excise tax accrued on raw oil volumes may be claimed for deduction at a double rate. This deduction is introduced to compensate economic losses of oil and gas refining companies arising as a result of the tax maneuver and the transfer of tax burden from export duties to the UPT in the amount of full export duty rate for crude oil while export duties for oil products are paid at a discount to crude oil export duty rate.

The excise tax rate for raw oil is calculated based on the average Urals crude oil prices, the mix of processed products, region of processing, and the adjusting coefficient, which will be gradually increased on an annual basis from 0.167 in 2019 to 1.0 in 2024 as part of the completion stage of the tax maneuver in the oil and gas industry. During 2020, the adjusting coefficient will be equal to 0.333.

Starting from January 2019, we accrue excise tax on volumes of stable gas condensate sent for processing to our Ust-Luga Complex on a monthly basis and simultaneously claim the double excise tax deduction. The net result, or so called "reverse excise", is reported as a deduction to our "Purchases of natural gas and liquid hydrocarbons" in our consolidated statement of income as most of our unstable gas condensate volumes used to produce stable gas condensate we purchase from our joint ventures.

In both reporting periods, most of our LPG sales in Poland were subject to excise and fuel taxes in accordance with the local legislation. The amount of excise and fuel tax payments depends on the volume of excisable goods sold and the respective tax rates (the excise tax rate in both reporting periods amounted to 670 Polish zloty per ton, and the fuel tax rate was increased from 162.27 Polish zloty per ton in 2018 to 164.61 Polish zloty per ton in 2019). We disclose LPG revenues net of excise and fuel taxes expense accrued on LPG volumes sold in Poland in our consolidated statement of income.

Social contributions

The Group makes contributions to the Pension Fund, the Federal Compulsory Medical Insurance Fund and the Social Insurance Fund on behalf of employees in Russia. The base for social contributions accrual is the amount of salaries and similar employee compensation stipulated by the employment contracts.

The rates for social contributions depend on the fund and the employee's annual income:

	2018		**2019**		**2020**	
	Base, RR thousand	**Rate, %**	**Base, RR thousand**	**Rate, %**	**Base, RR thousand**	**Rate, %**
Pension Fund	less 1,021	22.0%	less 1,150	22.0%	less 1,292	22.0%
of the Russian Federation	above 1,021	10.0%	above 1,150	10.0%	above 1,292	10.0%
Federal Compulsory						
Medical Insurance Fund	No limit	5.1%	No limit	5.1%	No limit	5.1%
Social Insurance Fund	less 815	2.9%	less 865	2.9%	less 912	2.9%
of the Russian Federation	above 815	0.0%	above 865	0.0%	above 912	0.0%

OIL AND GAS RESERVES

We do not file with the Securities and Exchange Commission ("SEC") nor we are obliged to report our reserves in compliance with these standards. However, we have consistently disclosed proved oil and gas reserves as unaudited supplemental information in the Group's IFRS audited consolidated financial statements. The Group's total proved reserves, comprised of proved developed and proved undeveloped reserves, as of 31 December 2019 and 2018, are provided using the SEC reserves reporting classification. We also provide additional information about our hydrocarbon reserves based on the widely-industry accepted PRMS reserves reporting classification, which in addition to total proved reserves discloses information on our probable and possible reserves.

The Group's reserves are located in the Russian Federation, primarily in the Yamal-Nenets Autonomous Region (Western Siberia), thereby representing one geographical area.

The Group's oil and gas estimation and reporting process involves an annual independent external appraisal, as well as internal technical appraisals of reserves. The internal technical appraisals of reserves are performed by the Group's qualified technical staff working directly with the oil and gas reserves and are periodically updated during the year based on evaluations of new wells, performance reviews, new technical information and other studies.

The annual independent external appraisal of our reserves is performed by independent petroleum engineers, DeGolyer and MacNaughton ("D&M"). The Group provides D&M annually with engineering, geological and geophysical data, actual production histories and other information necessary for reserves appraisal. The method or combination of methods used in the analysis of each reservoir is tempered by experience with similar reservoirs, stages of development, quality and completeness of basic data, and production history. Our reserves estimates were prepared using standard geological and engineering methods generally accepted in the oil and gas industry. The Group and D&M's technical staffs meet to review and discuss the information provided, and upon completion of the process, senior management reviews and approves the final reserves estimates issued by D&M.

The Reserves Management and Assessment Group ("RMAG") is comprised of qualified technical staff from various departments responsible for geology and geophysics, gas and liquids commercial operations, engineering and capital construction, production, and long-term financial planning, and also includes representatives from the Group's subsidiaries, which are the principal holders of the mineral licenses for geological research works, exploration and production of hydrocarbons. The person responsible for overseeing the work of the RMAG is a member of the Management Board.

The approval of the final reserve estimates is the sole responsibility of the Group's senior management.

The information below about the Group's oil and gas production and reserves under SEC and PRMS reserve classifications is presented based on 100% of production and reserves attributable to all consolidated subsidiaries (whether or not wholly owned) and our proportionate share in the production and reserves in companies accounted for by the equity method based on our equity ownership interest, including volumes of natural gas consumed in oil and gas production and development activities (primarily, as fuel gas). Production and reserves of the South-Tambeyskoye field of Yamal LNG are reported at 60% including an additional 9.9% interest not owned by the Group, since the Group assumes certain economic and operational risks related to this interest (see "Basis of presentation" above).

The table below provides proved oil and gas reserves under SEC reserve classification and the change in reserves in metric units and on a total barrel of oil equivalent basis:

	As of and for the year ended 31 December:		Change
	2019	2018	%
Natural gas, billions of cubic meters	**2,234**	**2,177**	**2.6%**
Subsidiaries	1,149	1,351	(15.0%)
Share in joint ventures	1,085	826	31.4%
Liquids, millions of metric tons	**193**	**181**	**6.6%**
Subsidiaries	98	93	5.4%
Share in joint ventures	95	88	8.0%
Combined reserves, millions of boe	**16,265**	**15,789**	**3.0%**
Change in total reserves, millions of boe	**476**	**669**	
Production	(590)	(549)	
Acquisitions (1)	724	712	
Disposals (2)	(1,145)	(160)	
Organic growth (3)	1,487	666	
Reserves replacement ratio (4), %	**181%**	**222%**	
Normalized reserves replacement ratio (4), (5), %	**252%**	**121%**	

(1) In 2019, represent reserves of the acquired Soletskoye-Khanaveyskoye field and the net effect from the changes in the Groups' reserves due to the reorganization of Acticgas (see "Recent developments" above). In 2018, represent reserves attributable to the acquired Beregovoy and the Ust-Yamsoveyskiy license areas.

(2) Represent reserves attributable to the sale of a 40% participation interest in Arctic LNG 2 project in 2019, and to the disposal of the 3.3% participation interest in Arcticgas in 2018.

(3) Represent change due to extensions and discoveries, revisions of previous estimates.

(4) The reserves replacement ratio is calculated as the change in reserves increased for the production for the year divided by production for the year.

(5) Excluding reserves acquisitions and disposals.

The Groups' total proved reserves under the SEC reserve classification methodology as at the end of 2019 increased by 476 million boe, or 3.0%, to 16,265 million boe, representing a reserve replacement ratio of 181%.

The increase in total proved hydrocarbons reserves under the SEC reserve classification was primarily due to successful exploration works and production drilling at our subsidiaries and joint ventures, as well as the discovery of new deposits and a new field in our subsidiaries.

Our subsidiaries obtained positive exploration results at the Geofizicheskoye and Kharbeyskoye fields, successfully performed production drilling at the East-Tazovskoye and North-Russkoye fields, as well as discovered the Nyakhartinskoye field and new Achimov deposits in the Gydanskiy license area. Additions to the reserves of our joint ventures were due to successful exploration at the Salmanovskoye (Utrenneye) field of OOO Arctic LNG 2, production drilling at the Urengoyskoye and East-Urengoyskoye+North-Esetinskoye fields (Samburgskiy license area) of Arcticgas and production drilling at the South-Tambeyskoye field of Yamal LNG.

In addition, our total proved reserves as at the end of 2019 were impacted by the following factors: the sale of a 40% participation interest in Arctic LNG 2 project, the acquisition of the Soletskoye-Khanaveyskoye field and the reorganization of Acticgas (see "Recent developments" above). Excluding the effect of reserves acquisitions and disposals, the reserves replacement ratio amounted to 252%.

The following table provides for the Group's PRMS proved, proved and probable, and proved, probable and possible reserves in metric units and on a total barrel of oil equivalent basis:

	Natural gas, billions of cubic meters		Liquid hydrocarbons, millions of metric tons		Combined reserves, millions of boe	
	31 December 2019	31 December 2018	31 December 2019	31 December 2018	31 December 2019	31 December 2018
Proved reserves (1P reserves)	2,390	2,362	213	210	17,456	17,241
Proved and probable reserves (2P reserves)	3,901	4,021	373	387	28,725	29,619
Proved, probable and possible reserves (3P reserves)	5,065	5,029	514	520	37,581	37,348

As we continue to invest capital into the development of our fields, we anticipate that we will increase our resource base, as well as migrate reserves among the reserve categories.

The below table contains information about reserve to production ratios as of 31 December 2019 and 2018 under both reserves reporting methodologies:

	SEC At 31 December:		PRMS At 31 December:	
Number of years	2019	2018	2019	2018
Total proved reserves to production	28	29	30	31
Total proved and probable reserves to production	-	-	49	54
Total proved, probable and possible reserves to production	-	-	64	68

OPERATIONAL HIGHLIGHTS

Oil and gas production costs per unit of production

Oil and gas production costs on a barrel of oil equivalent (boe) basis are calculated by dividing oil and gas production costs by the barrel of oil equivalent of hydrocarbons produced during the year.

Oil and gas production costs include only the amounts directly related to the extraction of natural gas, gas condensate and crude oil and exclude processing costs incurred after saleable hydrocarbons are received, such as stable gas condensate processing costs and natural gas liquefaction costs, as well as transportation and other marketing expenses. Oil and gas production costs comprise of lifting costs (materials, services and other expenses, as well as administrative expenses being by nature operating expenses of oil and gas producing activities), taxes other than income tax and depreciation, depletion and amortization which are disclosed in the "Unaudited Supplemental Oil and Gas Disclosures" in the consolidated financial statements.

Natural gas, gas condensate and crude oil volumes produced are converted to a barrel of oil equivalent based on the relative energy content of each fields' hydrocarbons. Natural gas production volumes used for calculation of production costs per boe differ from the volumes presented in the section "Natural gas production volumes" as the former excludes volumes of natural gas consumed in oil and gas production and development activities (see "Basis of presentation" above).

The following tables set forth information with respect to oil and gas production costs on a barrel of oil equivalent basis of our subsidiaries and joint ventures, as well as combined weighted average oil and gas production costs for the Group's subsidiaries and joint ventures for the reporting periods in Russian roubles and US dollars.

RR per boe	Year ended 31 December: 2019	2018	Change %
Subsidiaries			
Production costs per boe:			
Lifting costs	53.6	47.1	13.8%
Taxes other than income tax	204.5	181.7	12.5%
Total production costs before DDA per boe	**258.1**	**228.8**	**12.8%**
Depreciation, depletion and amortization	83.9	84.6	(0.8%)
Total production costs of subsidiaries per boe	**342.0**	**313.4**	**9.1%**
Joint ventures			
Production costs per boe:			
Lifting costs	22.1	26.3	(16.0%)
Taxes other than income tax	141.4	169.6	(16.6%)
Total production costs before DDA per boe	**163.5**	**195.9**	**(16.5%)**
Depreciation, depletion and amortization	90.2	93.3	(3.3%)
Total weighted average production costs of joint ventures per boe [(1)]	**253.7**	**289.2**	**(12.3%)**
Subsidiaries and joint ventures			
Production costs per boe:			
Lifting costs	38.5	38.5	0.0%
Taxes other than income tax	174.1	176.8	(1.5%)
Total production costs before DDA per boe	**212.6**	**215.3**	**(1.3%)**
Depreciation, depletion and amortization	86.9	88.2	(1.5%)
Total weighted average production costs of subsidiaries and joint ventures per boe [(2)]	**299.5**	**303.5**	**(1.3%)**

(1) Calculated based on the Group's share in the production of each joint venture.

(2) Calculated based on 100% of the Group's subsidiaries production and our share in the production of each joint venture.

USD per boe [1]	Year ended 31 December: 2019	2018	Change %
Subsidiaries			
Production costs per boe:			
Lifting costs	0.83	0.75	10.7%
Taxes other than income tax	3.16	2.90	9.0%
Total production costs before DDA per boe	**3.99**	**3.65**	**9.3%**
Depreciation, depletion and amortization	1.29	1.35	(4.4%)
Total production costs of subsidiaries per boe	**5.28**	**5.00**	**5.6%**
Joint ventures			
Production costs per boe:			
Lifting costs	0.34	0.42	(19.0%)
Taxes other than income tax	2.18	2.70	(19.3%)
Total production costs before DDA per boe	**2.52**	**3.12**	**(19.2%)**
Depreciation, depletion and amortization	1.40	1.49	(6.0%)
Total weighted average production costs of joint ventures per boe [2]	**3.92**	**4.61**	**(15.0%)**
Subsidiaries and joint ventures			
Production costs per boe:			
Lifting costs	0.59	0.61	(3.3%)
Taxes other than income tax	2.69	2.82	(4.6%)
Total production costs before DDA per boe	**3.28**	**3.43**	**(4.4%)**
Depreciation, depletion and amortization	1.35	1.41	(4.3%)
Total weighted average production costs of subsidiaries and joint ventures per boe [3]	**4.63**	**4.84**	**(4.3%)**

(1) Production costs in US dollars per boe were translated from Russian roubles amounts using the average exchange rate for the period (see "Selected macro-economic data" above).

(2) Calculated based on the Group's share in the production of each joint venture.

(3) Calculated based on 100% of the Group's subsidiaries production and our share in the production of each joint venture.

Hydrocarbon production and sales volumes

Our total natural gas and liquids production including the proportionate share in the production of our joint ventures increased by 8.6% and by 2.9%, respectively. The main factors positively impacting our production growth were the commencement of LNG production at the second and third LNG trains at Yamal LNG in July and November 2018, respectively, and the launch of crude oil production at the Yaro-Yakhinskoye field of our joint venture AO Arcticgas in December 2018.

In 2019, our total natural gas sales volumes increased by 6,318 mmcm, or 8.8%, due to increased sales of LNG on international markets purchased primarily from our joint ventures OAO Yamal LNG and OOO Cryogas-Vysotsk.

In 2019, our liquids sales volumes increased by 533 thousand tons, or 3.4%, mainly due to crude oil purchases from our joint venture Arcticgas.

Natural gas production volumes

The following table presents natural gas production of the Group's subsidiaries by major production fields and our proportionate share in natural gas production of joint ventures by entities:

millions of cubic meters if not stated otherwise	**Year ended 31 December: 2019**	**2018**	**Change %**
Production by subsidiaries from:			
Yurkharovskoye field	25,590	27,745	(7.8%)
East-Tarkosalinskoye field	5,956	6,627	(10.1%)
Beregovoye field	1,927	1,204	60.0%
Yarudeyskoye field	1,731	1,500	15.4%
Khancheyskoye field	1,581	1,942	(18.6%)
East-Urengoyskoye + North-Esetinskoye field (West-Yaroyakhinskiy license area)	613	705	(13.0%)
Other fields	1,991	2,137	(6.8%)
Total natural gas production by subsidiaries (1)	**39,389**	**41,860**	**(5.9%)**
Group's proportionate share in the production of joint ventures:			
Yamal LNG (2)	16,727	8,213	103.7%
Arcticgas	13,787	13,698	0.6%
Nortgas	3,529	3,789	(6.9%)
Terneftegas	1,249	1,246	0.2%
Arctic LNG 2	19	-	n/a
Total Group's proportionate share in the natural gas production of joint ventures (1)	**35,311**	**26,946**	**31.0%**
Total natural gas production including proportionate share in the production of joint ventures	**74,700**	**68,806**	**8.6%**
Average daily natural gas production including proportionate share in the production of joint ventures	*204.7*	*188.5*	*8.6%*
The Group's proportionate share in LNG production of joint ventures (thousands of tons) (2)	*11,228*	*5,152*	*117.9%*

(1) Natural gas production includes natural gas volumes consumed in oil and gas production and development activities (primarily, as fuel gas):

in subsidiaries	1,635	1,413	15.7%
in joint ventures (Group's proportionate share)	378	333	13.5%

(2) Natural gas and LNG production at Yamal LNG are reported at 60% (see "Basis of presentation" above).

In 2019, our total natural gas production (including our proportionate share in the production of joint ventures) increased by 5,894 mmcm, or 8.6%, to 74,700 mmcm from 68,806 mmcm in 2018. The main factor positively impacting our production growth was the increase of natural gas production at Yamal LNG resulting from the start of LNG production at the second and third LNG trains in July and November 2018, respectively. In addition, our production increased at the Beregovoye field due to the commissioning of new wells. These allowed us to fully compensate for the decrease in production at mature fields of our subsidiaries (the Yurkharovskoye, the East-Tarkosalinskoye and the Khancheyskoye fields) and at our joint venture Nortgas, which resulted mainly from natural declines in the reservoir pressure at the current gas producing horizons.

Natural gas sales volumes

In 2019, our total natural gas sales volumes increased by 6,318 mmcm, or 8.8%, to 78,452 mmcm from 72,134 mmcm in 2018.

	Year ended 31 December:		Change
millions of cubic meters	**2019**	**2018**	**%**
Production by subsidiaries	39,389	41,860	(5.9%)
Purchases from the Group's joint ventures	31,296	24,892	25.7%
Other purchases	8,544	8,119	5.2%
Total production and purchases	**79,229**	**74,871**	**5.8%**
Own usage [(1)]	(1,763)	(1,561)	12.9%
Decrease (increase) in natural gas inventory balance	986	(1,176)	n/a
Total natural gas sales volumes	**78,452**	**72,134**	**8.8%**
Sold to end-customers	*62,653*	*61,901*	*1.2%*
Sold ex-field	*3,000*	*4,172*	*(28.1%)*
Subtotal sold in the Russian Federation	***65,653***	***66,073***	***(0.6%)***
Sold on international markets	***12,799***	***6,061***	***111.2%***

[(1)] Own usage represents volumes of natural gas consumed in oil and gas producing and development activities (primarily, as fuel gas), as well as used to maintain the refining process at the Purovsky Plant and methanol production.

In 2019, natural gas purchases from our joint ventures increased by 6,404 mmcm, or 25.7%, to 31,296 mmcm from 24,892 mmcm in 2018 primarily due to an increase in purchases of LNG produced by Yamal LNG for subsequent sale on international markets.

Other natural gas purchases are included in our natural gas volumes for sale, which allows us to coordinate sales across geographic regions as well as to optimize our end-customers portfolios. In the years ended 31 December 2019 and 2018, we purchased from third parties 7,613 mmcm and 7,413 mmcm of natural gas, respectively, on the Russian domestic market, and 931 mmcm and 706 mmcm, respectively, on international markets.

As of 31 December 2019, our cumulative natural gas inventory balance, mainly representing our inventory balances of natural gas in the UGSF, aggregated 1,223 mmcm and decreased by 986 mmcm during the year as compared to an increase by 1,176 mmcm in 2018. Natural gas inventory balances tend to fluctuate period-to-period depending on the Group's demand for natural gas withdrawal from the UGSF for the sale in the subsequent periods.

Liquids production volumes

The following table presents liquids production of the Group's subsidiaries by major production fields and our proportionate share in the liquids production of joint ventures by entities:

thousands of tons	**Year ended 31 December: 2019**	**2018**	**Change %**
Production by subsidiaries from:			
Yarudeyskoye field	3,311	3,439	(3.7%)
East-Tarkosalinskoye field	1,438	1,347	6.8%
Yurkharovskoye field	1,178	1,249	(5.7%)
Beregovoye field	223	97	129.9%
Khancheyskoye field	176	223	(21.1%)
Other fields	154	191	(19.4%)
Total liquids production by subsidiaries	**6,480**	**6,546**	**(1.0%)**
including crude oil	*4,696*	*4,704*	*(0.2%)*
including gas condensate	*1,784*	*1,842*	*(3.1%)*
Group's proportionate share in the production of joint ventures:			
Arcticgas	4,166	3,999	4.2%
Yamal LNG [(1)]	826	542	52.4%
Terneftegas	392	403	(2.7%)
Nortgas	284	310	(8.4%)
Total Group's proportionate share in the liquids production of joint ventures	**5,668**	**5,254**	**7.9%**
Total liquids production including proportionate share in the production of joint ventures	**12,148**	**11,800**	**2.9%**
Average daily liquids production including proportionate share in the production of joint ventures	*33.3*	*32.3*	*2.9%*

[(1)] Production at South-Tambeyskoye field of Yamal LNG is reported at 60% (see "Basis of presentation" above).

In 2019, our total liquids production (including our proportionate share in the production of joint ventures) increased by 348 thousand tons, or 2.9%, to 12,148 thousand tons from 11,800 thousand tons in 2018. The increase was due to gas condensate production growth at Yamal LNG resulting from the production commencement at the second and third LNG trains in July and November 2018, respectively, the launch of crude oil deposits at the Yaro-Yakhinskoye field of Arcticgas in December 2018, as well as an increase in crude oil production at the East-Tarkosalinskoye field and gas condensate production at the Beregovoye field due to the commissioning of new wells. These allowed us to fully compensate for a decrease in gas condensate production at mature fields of our subsidiaries and joint ventures mainly due to natural declines in the concentration of gas condensate as a result of decreasing reservoir pressure at the current gas condensate producing horizons.

Liquids sales volumes

In 2019, our total liquids sales volumes increased by 533 thousand tons, or 3.4%, to 16,355 thousand tons from 15,822 thousand tons in 2018.

thousands of tons	**Year ended 31 December: 2019**	**2018**	**Change %**
Production by subsidiaries	6,480	6,546	(1.0%)
Purchases from the Group's joint ventures	9,566	9,368	2.1%
Other purchases	242	226	7.1%
Total production and purchases	**16,288**	**16,140**	**0.9%**
Losses [(1)] and own usage [(2)]	(201)	(211)	(4.7%)
Decreases (increases) in liquids inventory balances	268	(107)	n/a
Total liquids sales volumes	**16,355**	**15,822**	**3.4%**
Naphtha export	*4,511*	*4,185*	*7.8%*
Other stable gas condensate refined products export [(3)]	*2,268*	*2,396*	*(5.3%)*
Other stable gas condensate refined products domestic [(3)]	*202*	*102*	*98.0%*
Subtotal stable gas condensate refined products	***6,981***	***6,683***	***4.5%***
Crude oil export	*1,869*	*1,549*	*20.7%*
Crude oil domestic	*2,965*	*2,993*	*(0.9%)*
Subtotal crude oil	***4,834***	***4,542***	***6.4%***
LPG export	*591*	*593*	*(0.3%)*
LPG domestic	*2,186*	*2,083*	*4.9%*
Subtotal LPG	***2,777***	***2,676***	***3.8%***
Stable gas condensate export	*332*	*274*	*21.2%*
Stable gas condensate domestic	*1,407*	*1,634*	*(13.9%)*
Subtotal stable gas condensate	***1,739***	***1,908***	***(8.9%)***
Other oil products	***24***	***13***	***84.6%***

(1) Losses associated with processing at the Purovsky Plant, the Ust-Luga Complex and the Tobolsk Refining Facilities, as well as during railroad, trunk pipeline and tanker transportation.

(2) Own usage associated primarily with the maintaining of refining process at the Ust-Luga Complex, as well as bunkering of chartered tankers.

(3) Other stable gas condensate refined products include jet fuel, gasoil and fuel oil received from the processing of stable gas condensate at the Ust-Luga Complex.

Our sales volumes of naphtha and other stable gas condensate refined products fluctuate from period-to-period depending on changes in inventory balances, with volumes of the products received from processing at the Ust-Luga Complex staying relatively flat. Our sales volumes of stable gas condensate represent the volumes remaining after we deliver most of our stable gas condensate for further processing to our Ust-Luga Complex, as well as volumes purchased by the Group for subsequent sale on international markets, including purchases from our joint venture Yamal LNG.

Our crude oil sales volumes increased by 6.4% primarily due to crude oil purchases from our joint venture Arcticgas resulting from the commencement of crude oil commercial production at the Yaro-Yakhinskoye field in December 2018.

In 2019, our liquids inventory balances decreased by 268 thousand tons to 801 thousand tons as of 31 December 2019 as compared to an increase in inventory balances by 107 thousand tons to 1,069 thousand tons in 2018. Our liquids inventory balances may vary period-to-period depending on shipping schedules and final destinations (see "Changes in natural gas, liquid hydrocarbons and work-in-progress" below).

RESULTS OF OPERATIONS FOR THE YEAR ENDED 31 DECEMBER 2019 COMPARED TO THE YEAR ENDED 31 DECEMBER 2018

The following table and discussion is a summary of our consolidated results of operations for the years ended 31 December 2019 and 2018. Each line item is also shown as a percentage of our total revenues.

	Year ended 31 December:			
millions of Russian roubles	**2019**	**% of total revenues**	**2018**	**% of total revenues**
Total revenues [1]	**862,803**	***100.0%***	**831,758**	***100.0%***
including:				
natural gas sales	414,844	*48.1%*	375,198	*45.1%*
liquids sales	437,388	*50.7%*	450,563	*54.2%*
Operating expenses	(640,463)	*(74.2%)*	(603,912)	*(72.6%)*
Other operating income (loss)	(35,484)	*(4.1%)*	(2,307)	*(0.3%)*
Gain on disposal of interests in subsidiaries and joint ventures, net	682,733	*79.1%*	1,645	*n/a*
Profit from operations	**869,589**	***100.8%***	**227,184**	***27.3%***
Normalized profit from operations [2]	**221,398**	***25.7%***	**225,539**	***27.1%***
Finance income (expense)	(15,712)	*(1.8%)*	38,608	*4.6%*
Share of profit (loss) of joint ventures, net of income tax	149,238	*17.3%*	(37,258)	*(4.4%)*
Profit before income tax	**1,003,115**	***116.3%***	**228,534**	***27.5%***
Total income tax expense	(119,654)	*(13.9%)*	(45,587)	*(5.5%)*
Profit	**883,461**	***102.4%***	**182,947**	***22.0%***
Less: profit (loss) attributable to non-controlling interest	(17,984)	*(2.1%)*	(19,205)	*(2.3%)*
Profit attributable to shareholders of PAO NOVATEK	**865,477**	***100.3%***	**163,742**	***19.7%***
Normalized profit attributable to shareholders of PAO NOVATEK [2], excluding the effect of foreign exchange gains (losses)	**245,002**	***28.4%***	**232,930**	***28.0%***

(1) Net of VAT and export duties, as well as excise and fuel taxes incurred on LPG sales in Poland.

(2) Excluding the effects from the disposal of interests in subsidiaries and joint ventures (recognition of a net gain on disposal and subsequent non-cash revaluation of contingent consideration).

Total revenues

The following table sets forth our sales (excluding VAT and export duties, as well as excise and fuel taxes incurred on LPG sales in Poland) for the years ended 31 December 2019 and 2018:

millions of Russian roubles	Year ended 31 December: 2019	Year ended 31 December: 2018	Change %	Change (1) Total	Change (1) Due to volume (2)	Change (1) Due to price (3)
Natural gas sales	414,844	375,198	10.6%	39,646	32,861	6,785
Stable gas condensate refined products sales	231,536	238,886	(3.1%)	(7,350)	10,705	(18,055)
Naphtha	*144,541*	*149,770*	*(3.5%)*	*(5,229)*	*11,668*	*(16,897)*
Other refined products	*86,995*	*89,116*	*(2.4%)*	*(2,121)*	*(963)*	*(1,158)*
Crude oil sales	114,641	106,257	7.9%	8,384	6,824	1,560
Liquefied petroleum gas sales	47,668	56,243	(15.2%)	(8,575)	2,112	(10,687)
Stable gas condensate sales	42,528	48,607	(12.5%)	(6,079)	(4,302)	(1,777)
Other products sales	1,015	570	78.1%	445	n/a	n/a
Total oil and gas sales	**852,232**	**825,761**	**3.2%**	**26,471**	**n/a**	**n/a**
Other revenues	10,571	5,997	76.3%	4,574	n/a	n/a
Total revenues	**862,803**	**831,758**	**3.7%**	**31,045**	**n/a**	**n/a**

(1) The figures reflect the impact of sales volumes and average realized net prices factors on the change in total revenues from hydrocarbons sales in millions of Russian roubles for the respective periods.

(2) The amount of the change in total revenues due to sales volumes is calculated for each product category as a product of the average realized net price for the previous reporting period and the change in sales volumes.

(3) The amount of the change in total revenues due to average realized net prices is calculated for each product category as a product of the volume sold in the current reporting period and the change in average realized net prices.

Natural gas sales

Revenues from natural gas sales represent our revenues from natural gas sales in the Russian Federation (to end-customers and wholesale traders), revenues from LNG sales to international markets, as well as revenues from sales of regasified LNG to customers in Europe.

The increase in LNG sales volumes purchased primarily from our joint ventures, OAO Yamal LNG and OOO Cryogas-Vysotsk, combined with a simultaneous decline in LNG prices on international markets in 2019, as well as an increase in sales prices in the Russian domestic market resulted in an increase in our aggregate average price by 1.7% and sales volumes by 8.8% (see "Natural gas prices" and "Natural gas sales volumes" above). As a result, in 2019, our total revenues from natural gas sales increased by RR 39,646 million, or 10.6%, compared to 2018.

Stable gas condensate refined products sales

Stable gas condensate refined products sales represent revenues from sales of naphtha, jet fuel, gasoil and fuel oil produced from our stable gas condensate at the Ust-Luga Complex.

In 2019, our revenues from sales of stable gas condensate refined products decreased by RR 7,350 million, or 3.1%, to RR 231,536 million from RR 238,886 million in 2018 due to a decrease in average realized prices.

In 2019, our revenues from sales of naphtha decreased by RR 5,229 million, or 3.5%, as compared to 2018. In the years ended 31 December 2019 and 2018, we exported 4,511 thousand and 4,185 thousand tons of naphtha, respectively, mainly to the APR, and the European and North America markets. Our average realized net price, excluding export duties, where applicable, decreased by RR 3,746 per ton, or 10.5%, to RR 32,043 per ton from RR 35,789 per ton in 2018 (see "Stable gas condensate and refined products, liquefied petroleum gas and crude oil prices" above).

In 2019, our total revenues from sales of jet fuel, gasoil and fuel oil on the domestic and export markets decreased by RR 2,121 million, or 2.4%, as compared to 2018. In the years ended 31 December 2019 and 2018, we exported in aggregate 2,268 thousand and 2,396 thousand tons of these products mainly to the European markets, or 91.8% and 95.9% of total sales volumes (on both the domestic and export markets), respectively. Our average realized net price, excluding export duties, where applicable, decreased by RR 469 per ton, or 1.3%, to RR 35,213 per ton from RR 35,682 per ton in 2018 (see "Stable gas condensate and refined products, liquefied petroleum gas and crude oil prices" above).

Crude oil sales

In 2019, our revenues from crude oil sales increased by RR 8,384 million, or 7.9%, compared to 2018 mainly due to an increase in sales volumes (see "Liquids sales volumes" above).

In 2019, we sold 2,965 thousand tons, or 61.3% of our total crude oil sales volumes, domestically as compared to sales of 2,993 thousand tons, or 65.9%, in 2018. The remaining 1,869 thousand tons of crude oil, or 38.7% of our total crude oil sales volumes, in 2019 and 1,549 thousand tons, or 34.1%, in 2018 were sold to customers with destination points in the APR, the European and the North America (only in 2019) markets.

Our average realized net price, excluding export duties, where applicable, increased by RR 322 per ton, or 1.4%, to RR 23,716 per ton from RR 23,394 per ton in 2018 (see "Stable gas condensate and refined products, liquefied petroleum gas and crude oil prices" above).

Liquefied petroleum gas sales

In 2019, our revenues from sales of LPG decreased by RR 8,575 million, or 15.2%, compared to 2018 due to a decrease in average realized prices.

In 2019, we sold 2,186 thousand tons of LPG, or 78.7% of our total LPG sales volumes, on the domestic market compared to sales of 2,083 thousand tons, or 77.8%, in 2018. The remaining 591 thousand tons of LPG, or 21.3% of our total LPG sales volumes, in 2019 and 593 thousand tons, or 22.2%, in 2018 were sold to the Polish market.

Our average realized LPG net price, excluding export and import duties, excise and fuel taxes expense, where applicable, in 2019 decreased by RR 3,849 per ton, or 18.3%, to RR 17,166 per ton from RR 21,015 per ton in 2018 (see "Stable gas condensate and refined products, liquefied petroleum gas and crude oil prices" above).

Stable gas condensate sales

In 2019, our revenues from sales of stable gas condensate decreased by RR 6,079 million, or 12.5%, compared to 2018 mainly due to a decrease in sales volumes (see "Liquids sales volumes" above) and, to a lesser extent, a decrease in our average realized net prices.

In 2019, we sold 1,407 thousand tons of stable gas condensate, or 80.9% of our total stable gas condensate sales volumes, on the domestic market compared to sales of 1,634 thousand tons, or 85.6%, in 2018. The remaining 332 thousand tons of stable gas condensate, or 19.1% of our total stable gas condensate sales volumes, in 2019 were sold to the APR and European markets compared to sales of 274 thousand tons, or 14.4%, to the APR, the Middle East and European markets in 2018.

Our average realized net price, excluding export duties, where applicable, decreased by RR 1,021 per ton, or 4.0%, to RR 24,452 per ton from RR 25,473 per ton in 2018 (see "Stable gas condensate and refined products, liquefied petroleum gas and crude oil prices" above).

Other products sales

Other products sales represent our revenues from sales of purchased oil products (diesel fuel and petrol) through our retail stations, as well as sales of other liquid hydrocarbons, including methanol from our own production. In 2019, our revenues from other products sales increased by RR 445 million, or 78.1%, to RR 1,015 million from RR 570 million in 2018.

Other revenues

Other revenues include revenue from transportation, geological and geophysical research services, repair and maintenance of energy equipment services, and other services.

In 2019, other revenues increased by RR 4,574 million, or 76.3%, to RR 10,571 million from RR 5,997 million in 2018. The increase was primarily due to an increase in revenues from tanker transportation rendered to our joint ventures and third parties by RR 2,377 million, as well as from power generation, repair and maintenance of energy equipment services by RR 625 million.

Operating expenses

In 2019, our total operating expenses increased by RR 36,551 million, or 6.1%, to RR 640,463 million compared to RR 603,912 million in 2018. The increase was mainly due to an increase in volumes of LNG purchased from our joint venture OAO Yamal LNG with the launch of LNG production at the second and third LNG trains in the second half of 2018 (see "Purchases of natural gas and liquid hydrocarbons" below) and due to changes in our hydrocarbons inventory balances. The increase in hydrocarbons purchase volumes and the decrease in inventory balances in turn allowed us to earn higher revenues.

	Year ended 31 December:			
millions of Russian roubles	**2019**	**% of total revenues**	**2018**	**% of total revenues**
Purchases of natural gas and liquid hydrocarbons	330,818	*38.3%*	319,990	*38.5%*
Transportation expenses	151,651	*17.6%*	145,664	*17.5%*
Taxes other than income tax	61,981	*7.2%*	58,768	*7.1%*
Depreciation, depletion and amortization	32,230	*3.7%*	33,094	*4.0%*
Materials, services and other	25,183	*2.9%*	22,675	*2.7%*
General and administrative expenses	24,568	*2.8%*	22,282	*2.7%*
Exploration expenses	8,386	*1.0%*	7,012	*0.8%*
Impairment expenses (reversals), net	162	*n/a*	287	*n/a*
Changes in natural gas, liquid hydrocarbons and work-in-progress	5,484	*0.6%*	(5,860)	*n/a*
Total operating expenses	**640,463**	***74.2%***	**603,912**	***72.6%***

Purchases of natural gas and liquid hydrocarbons

In 2019, our purchases of natural gas and liquid hydrocarbons increased by RR 10,828 million, or 3.4%, to RR 330,818 million from RR 319,990 million in 2018.

	Year ended 31 December:		**Change**
millions of Russian roubles	**2019**	**2018**	**%**
Natural gas	175,023	150,811	16.1%
Unstable gas condensate	138,092	155,360	(11.1%)
Other hydrocarbons	21,775	13,819	57.6%
Reverse excise	(4,072)	-	n/a
Total purchases of natural gas and liquid hydrocarbons	**330,818**	**319,990**	**3.4%**

In 2019, our purchases of natural gas increased by RR 24,212 million, or 16.1%, as compared to 2018 mainly due to an increase in LNG purchases from our joint ventures, OAO Yamal LNG and OOO Cryogas-Vysotsk, for subsequent sale on international markets, as well as an increase in purchase prices on the domestic market that are influenced by the regulated natural gas prices (see "Natural gas prices" above). The impact of these factors was partially offset by a decrease in our LNG purchase prices that are based on prices for natural gas at major natural gas hubs and on benchmark crude oil prices (see "Selected macro-economic data" above).

In 2019, our purchases of unstable gas condensate from our joint ventures decreased by RR 17,268 million, or 11.1%, as compared to 2018 mainly due to a decrease in purchase prices, which are primarily impacted by international crude oil and LPG prices excluding export duties (see "Selected macro-economic data" above).

Other hydrocarbons purchases represent our purchases of crude oil, LPG, stable gas condensate, oil products and methanol for subsequent resale depending on the demand for these types of products. In 2019, our purchases of other hydrocarbons increased by RR 7,956 million, or 57.6%, as compared to 2018 mainly due to purchases of crude oil produced at the Yaro-Yakhinskoye field of Arcticgas for subsequent sale.

Starting from January 2019, we accrue excise tax on volumes of stable gas condensate sent for processing to our Ust-Luga Complex on a monthly basis and simultaneously claim the double excise tax deduction (see "Our tax burden and obligatory payments" above). The net result from these operations is reported as a deduction to our purchases of natural gas and liquid hydrocarbons expenses in the line "Reverse excise" above as most of our unstable gas condensate volumes used to produce stable gas condensate we purchase from our joint ventures.

Transportation expenses

In 2019, our total transportation expenses increased by RR 5,987 million, or 4.1%, to RR 151,651 million as compared to RR 145,664 million in 2018.

millions of Russian roubles	Year ended 31 December: 2019	2018	Change %
Natural gas transportation by trunk and low-pressure pipelines	97,371	96,146	1.3%
Stable gas condensate and liquefied petroleum gas transportation by rail	32,674	30,643	6.6%
Crude oil transportation by trunk pipelines	9,639	8,557	12.6%
Stable gas condensate and refined products, crude oil and liquefied natural gas transportation by tankers	8,589	8,307	3.4%
Other	3,378	2,011	68.0%
Total transportation expenses	**151,651**	**145,664**	**4.1%**

In 2019, our expenses for natural gas transportation by trunk and low-pressure pipelines increased by RR 1,225 million, or 1.3%, to RR 97,371 million from RR 96,146 million in 2018 mainly due to a 1.2% increase in our natural gas sales volumes to our end-customers, for which we incurred transportation expenses.

In 2019, our total expenses for stable gas condensate and LPG transportation by rail increased by RR 2,031 million, or 6.6%, to RR 32,674 million from RR 30,643 million in 2018. The increase was primarily due to a 5.3% increase in weighted average transportation cost per unit resulted from a 3.56% increase in the regulated railroad transportation tariffs effective 1 January 2019 (see "Transportation tariffs" above), as well as a 1.3% increase in volumes of liquids sold and transported via rail.

In 2019, our expenses for crude oil transportation to customers by trunk pipeline increased by RR 1,082 million, or 12.6%, to RR 9,639 million from RR 8,557 million in 2018 mainly due to a 6.4% increase in sales volumes, as well as an increase in the regulated transportation tariffs for crude oil by 3.87% effective 1 January 2019 (see "Transportation tariffs" above).

In 2019, our total transportation expenses for our hydrocarbons delivered by tankers to international markets increased by RR 282 million, or 3.4%, to RR 8,589 million from RR 8,307 million in 2018 due to increases in freight rates and stable gas condensate and refined products volumes delivered, which was partially offset by changes in the LNG delivery terms and points of destination.

Other transportation expenses mainly include our short-term vessels time charter expenses related to our revenues from hydrocarbons transportation by tankers rendered to our joint ventures and third parties (see "Other revenues" above), as well as expenses for hydrocarbons transportation by trucks. In 2019, our short-term vessels time charter expenses increased by RR 1,240 million to RR 3,078 million compared to RR 1,838 million in 2018 in line with an increase in our revenues from tanker transportation.

Taxes other than income tax

In 2019, taxes other than income tax increased by RR 3,213 million, or 5.5%, to RR 61,981 million from RR 58,768 million in 2018 primarily due to an increase in unified natural resources production tax expense.

millions of Russian roubles	Year ended 31 December: 2019	2018	Change %
Unified natural resources production tax (UPT)	57,935	54,644	6.0%
Property tax	3,658	3,595	1.8%
Other taxes	388	529	(26.7%)
Total taxes other than income tax	**61,981**	**58,768**	**5.5%**

In 2019, our unified natural resources production tax expense increased by RR 3,291 million, or 6.0%, to RR 57,935 million from RR 54,644 million in 2018 as a result of the offsetting effects of the following factors: an increase in UPT rates for crude oil and gas condensate resulting from changes in the UPT rates formulas effective 1 January 2019 and a decrease in natural gas production at mature fields of our subsidiaries (see "Natural gas production volumes" above).

The increase in UPT rates is caused by the completion of the tax maneuver in the oil and gas industry and is offset by increases in liquids net prices and revenues due to a gradual decrease in export duties (see "Our tax burden and obligatory payments" above).

Depreciation, depletion and amortization

In 2019, our depreciation, depletion and amortization ("DDA") expense decreased by RR 864 million, or 2.6%, to RR 32,230 million from RR 33,094 million in 2018 primarily due to an increase in total proved reserves in our subsidiaries as at the end of 2018 compared to the previous period.

We accrue depreciation and depletion on oil and gas assets using the "units-of-production" method and straight-line method for other facilities. Our reserve base is only appraised on an annual basis as of 31 December and does not fluctuate during the year until the subsequent appraisal, whereas our depletable cost base does change each quarter due to the ongoing capitalization of our costs throughout the year.

Materials, services and other

In 2019, our materials, services and other expenses increased by RR 2,508 million, or 11.1%, to RR 25,183 million compared to RR 22,675 million in 2018.

	Year ended 31 December:		**Change**
millions of Russian roubles	**2019**	**2018**	**%**
Employee compensation	11,273	9,815	14.9%
Repair and maintenance	2,778	2,948	(5.8%)
Preparation and processing of hydrocarbons	2,431	2,009	21.0%
Materials and supplies	1,945	1,963	(0.9%)
Electricity and fuel	1,551	1,311	18.3%
Liquefied petroleum gas volumes reservation expenses	1,157	1,155	0.2%
Fire safety and security expenses	1,051	976	7.7%
Transportation services	924	822	12.4%
Rent expenses	591	416	42.1%
Insurance expense	366	340	7.6%
Other	1,116	920	21.3%
Total materials, services and other	**25,183**	**22,675**	**11.1%**

Employee compensation relating to operating personnel increased by RR 1,458 million, or 14.9%, to RR 11,273 million compared to RR 9,815 million in 2018 due to an increase in average number of employees, particularly, in our service subsidiary NOVATEK-Energo due to the expansion of its operations and servicing new assets, an indexation of base salaries effective from 1 July 2019, and the related increase in social contributions for medical and social insurance and to the Pension Fund of the Russian Federation.

Preparation and processing of hydrocarbons expenses mainly relate to transportation and further processing at the Tobolsk Refining Facilities of our NGL produced at the Purovsky Plant, as well as to preparation of our hydrocarbons by third parties. These expenses increased by RR 422 million, or 21.0%, to RR 2,431 million compared to RR 2,009 million in 2018 primarily due to a price increase for these services.

Electricity and fuel expenses increased by RR 240 million, or 18.3%, to RR 1,551 million compared to RR 1,311 million in 2018 due to higher electricity prices in 2019, as well as an increase in the consumption at our core production subsidiaries.

Rent expenses increased by RR 175 million, or 42.1%, to RR 591 million as compared to RR 416 million in 2018 primarily due to the rent of energy equipment by our service subsidiary NOVATEK-Energo used for rendering energy services to our joint ventures.

Other items of our materials, services and other expenses changed marginally.

General and administrative expenses

In 2019, our general and administrative expenses increased by RR 2,286 million, or 10.3%, to RR 24,568 million compared to RR 22,282 million in 2018.

millions of Russian roubles	**Year ended 31 December:** 2019	2018	**Change** %
Employee compensation	17,905	15,807	13.3%
Social expenses and compensatory payments	2,503	2,484	0.8%
Legal, audit and consulting services	975	1,122	(13.1%)
Business travel expense	720	621	15.9%
Advertising expenses	531	465	14.2%
Fire safety and security expenses	509	471	8.1%
Repair and maintenance expenses	228	229	(0.4%)
Rent expense	189	176	7.4%
Other	1,008	907	11.1%
Total general and administrative expenses	**24,568**	**22,282**	**10.3%**

Employee compensation relating to administrative personnel increased by RR 2,098 million, or 13.3%, to RR 17,905 million in 2019 from RR 15,807 million in 2018 due to an increase in accrued provision for bonuses to key management, an increase in average number of employees resulting from the expansion of the Group's operations, an indexation of base salaries effective 1 July 2019 and the related increase in social contributions for medical and social insurance and to the Pension Fund of the Russian Federation.

In 2019, our social expenses and compensatory payments amounted to RR 2,503 million compared to RR 2,484 million in 2018. In both reporting periods, the major part of expenses represented our social expenses related to continued support of charities and social programs in the regions where we operate. In addition, in 2019 and 2018, besides social expenses, we made compensatory payments of RR 237 million and RR 673 million, respectively, which mainly related to the development of the Geofizicheskoye and North-Obskoye fields in 2019, and the development of the Salmanovskoye (Utrenneye) and Yarudeyskoye fields in 2018. Social expenses and compensatory payments fluctuate period-to-period depending on the implementation schedules of specific programs we support.

Other items of our general and administrative expenses changed marginally.

Exploration expenses

In 2019, our exploration expenses increased by RR 1,374 million, or 19.6%, to RR 8,386 million from RR 7,012 million in 2018 primarily due to an increase in the volume of exploration works. A significant part of expenses related to exploration works performed at the Gydanskiy, the Verhnetiuteyskiy and the West-Seyakhinskiy, the Nyakhartinskiy (only in 2019) and the Shtormovoy (only in 2018) license areas.

Exploration works ensure timely preparation of reserves at our promising fields for development and further progress of the Group's hydrocarbons production projects in line with our long-term strategy. Exploration expenses fluctuate period-to-period in accordance with the approved exploration work schedule at our production subsidiaries.

In accordance with our accounting policies exploration expenses include geological and geophysical research services expenditures, expenditures associated with the maintenance of license areas with non-proven reserves, expenses of our science and technology center associated with the exploration activities at our fields, costs related to exploratory wells drilling when reserves are not found, and other expenditures relating to exploration activity.

Impairment expenses

In 2019 and 2018, we recognized net impairment expenses of RR 162 million and RR 287 million, respectively, which in both periods related to impairments of trade accounts receivables.

Changes in natural gas, liquid hydrocarbons and work-in-progress

In 2019, we recorded a charge of RR 5,484 million to changes in inventory expense due to a decrease in our hydrocarbons inventory balances as of 31 December compared to 1 January. In 2018, as a result of increases in our natural gas and stable gas condensate refined products inventory balances, we recorded a reversal of RR 5,860 million to changes in inventory expense.

In 2019, our cumulative natural gas inventory balance representing mainly our inventory balances of natural gas in the Underground Gas Storage Facilities ("UGSF") decreased by 986 mmcm compared to an increase in natural gas inventory balance by 1,176 mmcm in 2018. Natural gas inventory balances tend to fluctuate period-to-period depending on the Group's demand for natural gas withdrawals for the sale in the subsequent periods.

In 2019, our cumulative liquid hydrocarbons inventory balances, recognized as inventory in transit or in storage, decreased by 268 thousand tons and, in 2018, increased by 107 thousand tons mainly due to a change in inventory balance of stable gas condensate refined products in storage at our Ust-Luga Complex and in tankers in transit not realized at the reporting date. Inventory balances of stable gas condensate and refined products tend to fluctuate period-to-period depending on shipment schedules and final destination of our shipments.

The following table highlights movements in our hydrocarbons inventory balances:

	2019			**2018**		
Inventory balances in transit or in storage	**At 31 December**	**At 1 January**	**Increase / (decrease)**	**At 31 December**	**At 1 January**	**Increase / (decrease)**
Natural gas (millions of cubic meters)	**1,223**	**2,209**	**(986)**	**2,209**	**1,033**	**1,176**
incl. Gazprom's UGSF	*982*	*2,106*	*(1,124)*	*2,106*	*870*	*1,236*
Liquid hydrocarbons (thousand tons)	**801**	**1,069**	**(268)**	**1,069**	**962**	**107**
incl. stable gas condensate						
refined products	*331*	*578*	*(247)*	*578*	*464*	*114*
stable gas condensate	*272*	*276*	*(4)*	*276*	*290*	*(14)*
crude oil	*94*	*109*	*(15)*	*109*	*103*	*6*

Other operating income (loss)

Other operating income (loss) includes realized income (loss) from hydrocarbons trading on the international markets, income (loss) from the change in the fair value of the aforementioned contracts, as well as other income (loss) relating to penalty charges, disposal of materials, fixed assets and other transactions. In 2019, we recognized other operating loss of RR 35,484 million compared to other operating loss of RR 2,307 million in 2018.

In 2019, other operating loss was primarily due to the recognition of non-cash revaluation of fair value of contingent consideration in the amount of RR 34,542 million related to the transactions on the sale of a 40% participation interest in OOO Arctic LNG 2 resulting from a decrease in long-term crude oil benchmark prices forecast, which may be revised subject to world market conditions and may or may not reflect actual future cash inflows.

In 2019, we purchased and sold approximately 10.3 bcm of natural gas, as well as various derivative commodity instruments within our trading activities, and recognized the aggregate realized loss from trading activities of RR 1,072 million as compared to a loss of RR 2,278 million in 2018. At the same time, we recognized non-cash income of RR 238 million in 2019 as a result of an increase in the fair value of the aforementioned contracts as compared to a non-cash loss of RR 450 million in 2018. The effect of the change in fair value of the commodity contracts fluctuate from period to period depending on the forecast prices for hydrocarbons on international markets and other macroeconomic parameters and may or may not reflect actual future cash flows from trading activities.

Net gain on disposal of interests in subsidiaries and joint ventures

In 2019, we recognized a gain on the disposal of a 40% participation interest in OOO Arctic LNG 2 in the amount of RR 674,968 million before income tax. As a result, our participation interest in Arctic LNG 2 decreased to 60% (see "Recent developments" above).

In addition, in 2019, the Group recognized a gain from the reorganization of our joint venture AO Arcticgas in the amount of RR 7,765 million (see "Recent developments" above).

In 2018, the Group recognized a gain on the disposal of a 3.3% participation interest in AO Arcticgas to PAO Gazprom Neft in the amount of RR 1,645 million.

Profit from operations and EBITDA

Profit from operations and EBITDA of our subsidiaries, excluding the effects from the disposal of interests in subsidiaries and joint ventures (recognition of a net gain on disposal and subsequent non-cash revaluation of contingent consideration) decreased to RR 221,398 million and RR 253,552 million, respectively, compared to RR 225,539 million and RR 259,370 million in 2018. The decrease in the above performance measures was caused by a decline in hydrocarbons prices on international markets in 2019 compared to the prior year.

The effect of decline in hydrocarbons prices on international markets in 2019 was largely offset by an increase in our natural gas sales volumes due to the commencement of LNG production at the second and third LNG trains at Yamal LNG in July and November 2018, respectively. As a result, our profit from operations and EBITDA including our proportionate share of joint ventures, but excluding the effects from the disposal of participation interests, increased in 2019 to RR 360,463 million and RR 461,157 million, respectively, compared to RR 349,750 million and RR 415,296 million in 2018.

Finance income (expense)

In 2019, we recorded net finance expense of RR 15,712 million compared to net finance income of RR 38,608 million in 2018.

	Year ended 31 December:		**Change**
millions of Russian roubles	**2019**	**2018**	**%**
Accrued interest expense on loans received	(9,112)	(8,702)	4.7%
Less: capitalized interest	5,903	5,032	17.3%
Provisions for asset retirement obligations:			
effect of the present value discount unwinding	(738)	(602)	22.6%
Interest expense on lease liabilities	(544)	(474)	14.8%
Interest expense	**(4,491)**	**(4,746)**	**(5.4%)**
Interest income	20,699	14,003	47.8%
Change in fair value of non-commodity financial instruments	12,827	3,492	267.3%
Foreign exchange gain (loss), net	(44,747)	25,859	n/a
Total finance income (expense)	**(15,712)**	**38,608**	**n/a**

In 2019, our interest expense decreased by RR 255 million, or 5.4%, to RR 4,491 million primarily due to an increase in the amount of capitalised interest costs on borrowings as a result of the increased volume of capital expenditures and assets under construction.

Interest income increased by RR 6,696 million, or 47.8%, to RR 20,699 million in 2019 from RR 14,003 million in 2018 primarily due to new loans provided to our joint venture OOO Arctic LNG 2, recognition of interest income on contingent consideration related to the transactions on the sale of participation interests in OOO Arctic LNG 2, as well as an increase in cash balances on bank deposits.

In 2019, we recognized a non-cash gain of RR 12,827 million compared to RR 3,492 million in 2018 due to the remeasurement of the shareholders' loans issued by the Group to our joint ventures in accordance with IFRS 9 *"Financial instruments"*. The effect of the fair value remeasurement of shareholders' loans may change period-to-period due to the change in market interest rates and other macroeconomic parameters and does not affect real future cash flows of loans repayments.

The Group continues to record non-cash foreign exchange gains and losses each reporting period due to movements between currency exchange rates. In 2019, we recorded a net foreign exchange loss of RR 44,747 million compared to a net foreign exchange gain of RR 25,859 million in 2018 due to the revaluation of our foreign currency denominated borrowings and loans received and provided, trade receivables and contingent consideration related to the transactions on the sale of participation interests in Arctic LNG 2, as well as cash balances in foreign currency.

Share of profit (loss) of joint ventures, net of income tax

In 2019, the Group's proportionate share of profit of joint ventures amounted to RR 149,238 million as compared to the share of loss in the amount of RR 37,258 million in 2018.

millions of Russian roubles (Group's share)	**Year ended 31 December:** **2019**	**2018**	**Change %**
Profit from operations	**139,065**	**124,211**	**12.0%**
Finance income (expense)			
Interest income (expense), net	(67,770)	(35,900)	88.8%
Foreign exchange gain (loss), net	111,733	(109,663)	n/a
Change in fair value of non-commodity financial instruments	(3,531)	(15,273)	(76.9%)
Total finance income (expense)	**40,432**	**(160,836)**	**n/a**
Total income tax benefit (expense)	(30,259)	(633)	n/a
Total share of profit (loss) of joint ventures, net of income tax	**149,238**	**(37,258)**	**n/a**

The following table presents the Group's proportionate share of profit (loss) of our joint ventures by entities:

millions of Russian roubles (Group's share)	**Yamal LNG**		**Arcticgas**		**Others**	
	2019	**2018**	**2019**	**2018**	**2019**	**2018**
Profit from operations	**82,190**	**64,928**	**52,994**	**53,263**	**3,881**	**6,020**
Finance income (expense)						
Interest income (expense), net	(63,214)	(31,568)	(2,087)	(3,047)	(2,469)	(1,285)
Foreign exchange gain (loss), net	106,910	(108,285)	1	(3)	4,822	(1,375)
Change in fair value of non-commodity financial instruments	(4,622)	(12,330)	-	-	1,091	(2,943)
Total finance income (expense)	**39,074**	**(152,183)**	**(2,086)**	**(3,050)**	**3,444**	**(5,603)**
Total income tax benefit (expense)	(20,685)	8,250	(8,169)	(8,635)	(1,405)	(248)
Total share of profit (loss) of joint ventures, net of income tax	**100,579**	**(79,005)**	**42,739**	**41,578**	**5,920**	**169**

Our proportionate share in the profit from operations of our joint ventures increased by RR 14,854 million, or 12.0%, mainly due to the commencement of LNG production at the second and third LNG trains at Yamal LNG in July and November 2018, respectively.

In 2019, our proportionate share in the finance income of our joint ventures amounted to RR 40,432 million as compared to the share in the finance expense in the amount of RR 160,836 million in 2018.

The main factor impacting the change in our share in finance income (expense) was the recognition of a significant non-cash foreign exchange gain in the current year (our share amounted to RR 111.7 billion) as compared to a significant non-cash foreign exchange loss (our share of RR 109.7 billion) in 2018, which in both reporting periods primarily related to the revaluation of foreign currency denominated loans in our joint venture Yamal LNG. We assess that the impact of foreign currency risk relating to the debt portfolio of Yamal LNG is to a large extent mitigated by the fact that all of its products are delivered to international markets and its revenues are denominated in foreign currencies.

In addition, our share in interest expense increased by RR 31.9 billion, or 88.8%, mainly due to the commencement of LNG production at the second and third LNG trains at Yamal LNG in July and November 2018 and ceasing capitalizing the respective interest expense.

The remaining change in our share in finance income (expense) related to the decrease by RR 11.7 billion, or 76.9%, in our share of a non-cash loss from the remeasurement of the fair value of shareholders' loans mainly in Yamal LNG.

Income tax expense

The Russian statutory income tax rate for both reporting periods was 20%.

The Group recognizes in profit before income tax its share of net profit (loss) from joint ventures, which influences the consolidated profit of the Group but does not result in additional income tax expense (benefit) at the Group's level. Net profit (loss) of joint ventures was recorded in their financial statements on an after-tax basis. The Group's dividend income from the joint ventures in which it holds at least a 50% interest is subject to a zero withholding tax rate according to the Russian tax legislation, and also does not result in a tax charge.

Without the effect of net profit (loss) from joint ventures and excluding the effects from the disposal of interests in subsidiaries and joint ventures (recognition of a net gain on disposal and subsequent non-cash revaluation of contingent consideration), the effective income tax rate (total income tax expense calculated as a percentage of profit before income tax) for the years ended 31 December 2019 and 2018 was 16.7% and 17.3%, respectively.

Profit attributable to shareholders and earnings per share

As a result of the factors discussed in the respective sections above, profit attributable to shareholders of PAO NOVATEK significantly increased by RR 701,735 million, or 5.3 times, to RR 865,477 million in 2019 compared to RR 163,742 million in 2018.

The Group's financial results in 2019 were significantly impacted by a gain from the disposal of a 40% participation interest in OOO Arctic LNG 2 and the reorganization of our joint venture AO Arcticgas (see "Recent developments" above). In addition, in both reporting periods, the Group's subsidiaries and joint ventures recognized significant non-cash foreign exchange effects on foreign currency denominated loans and cash balances. Excluding the effects from the disposal of interests in subsidiaries and joint ventures and foreign exchange gains (losses), our profit attributable to shareholders of PAO NOVATEK increased by RR 12,072 million, or 5.2%, and amounted to RR 245,002 million in 2019 compared to RR 232,930 million in 2018 (see the table below):

millions of Russian roubles	**Year ended 31 December:** 2019	2018	**Change** %
Profit attributable to shareholders of PAO NOVATEK	865,477	163,742	n/a
Gain on disposal of interests in subsidiaries and joint ventures, net	(682,733)	(1,645)	n/a
Income tax expense related to the disposal of interests in subsidiaries and joint ventures	92,040	-	n/a
Changes in fair value of contingent consideration reported within the "Other operating income (loss)"	34,542	-	n/a
Income tax expense (benefit) related to changes in fair value of contingent consideration	(6,908)	-	n/a
Normalized profit attributable to shareholders of PAO NOVATEK	**302,418**	**162,097**	**86.6%**
Foreign exchange (gains) losses	44,747	(25,859)	n/a
Income tax expense (benefit) relating to foreign exchange (gains) losses	(8,949)	5,172	n/a
Share of foreign exchange (gains) losses of joint ventures	(111,733)	109,663	n/a
Share of income tax expense (benefit) relating to foreign exchange (gains) losses of joint ventures	18,519	(18,143)	n/a
Normalized profit attributable to shareholders of PAO NOVATEK, excluding the effect of foreign exchange gains (losses)	**245,002**	**232,930**	**5.2%**

Our weighted average basic and diluted earnings per share, calculated from the profit attributable to shareholders of PAO NOVATEK increased by RR 233.06 per share, or 5.3 times, to RR 287.39 per share in 2019 from RR 54.33 per share in 2018. Excluding the effects from the disposal of interests in subsidiaries and joint ventures and foreign exchange gains (losses), our weighted average basic and diluted earnings per share increased by RR 4.06, or 5.3%, to RR 81.35 per share in 2019 from RR 77.29 per share in 2018.

LIQUIDITY AND CAPITAL RESOURCES

Cash flows

The following table shows our net cash flows from operating, investing and financing activities for the years ended 31 December 2019 and 2018:

millions of Russian roubles	Year ended 31 December: 2019	2018	Change %
Net cash provided by **operating** activities	307,433	216,349	42.1%
Net cash used for **investing** activities	(169,044)	(153,046)	10.5%
Net cash used for **financing** activities	(119,448)	(93,658)	27.5%

Net cash provided by operating activities

Our net cash provided by operating activities increased by RR 91,084 million, or 42.1%, to RR 307,433 million compared to RR 216,349 million in 2018 primarily due to an increase in interest on loans and dividends received from our joint ventures.

millions of Russian roubles	Year ended 31 December: 2019	2018	Change %
Profit from operations, excluding the effects from the disposal of interests in subsidiaries and joint ventures	221,398	225,539	(1.8%)
Non-cash adjustments [(1)]	31,860	34,580	(7.9%)
Changes in working capital and long-term advances given	(4,227)	(6,454)	(34.5%)
Dividends received from joint ventures	46,050	8,500	n/a
Interest received	47,413	1,311	n/a
Income taxes paid excluding payments relating to disposal of interests in subsidiaries and joint ventures	(35,061)	(47,127)	(25.6%)
Total net cash provided by operating activities	**307,433**	**216,349**	**42.1%**

[(1)] Include adjustments for depreciation, depletion and amortization, net impairment expenses (reversals), change in fair value of non-commodity financial instruments and some other adjustments.

In 2019, profit from operations, excluding the effects from the disposal of interests in subsidiaries and joint ventures (recognition of a net gain on disposal and subsequent non-cash revaluation of contingent consideration), adjusted for non-cash items decreased due to a decline in hydrocarbons prices on international markets compared to 2018. This effect was largely offset by an increase in natural gas volumes sold due to the commencement of LNG production at the second and third LNG trains at Yamal LNG in July and November 2018, respectively (see "Profit from operations and EBITDA" above).

In 2019, we received RR 45,500 million and RR 550 million of dividends from our joint ventures Arcticgas and Nortgas, respectively. In 2018, we received RR 8,500 million of dividends from our joint venture Nortgas.

In 2019, we received RR 47 billion of interest, which mainly related to interest on loans provided to our joint ventures Yamal LNG and Terneftegas.

Net cash used for investing activities

In 2019, our net cash used for investing activities increased by RR 15,998 million, or 10.5%, to RR 169,044 million compared to RR 153,046 million in 2018.

millions of Russian roubles	**Year ended 31 December: 2019**	**2018**	**Change %**
Cash used for capital expenditures	(162,502)	(94,038)	72.8%
Proceeds from disposal of interests in subsidiaries and joint ventures, net of cash disposed	136,541	-	n/a
Income tax payments relating to disposal of interests in subsidiaries and joint ventures	(64,540)	-	n/a
Payments for acquisition of subsidiaries, net of cash acquired	-	(30,492)	n/a
Payments for mineral licenses	(7,827)	(327)	n/a
Loans provided to joint ventures	(29,664)	(3,429)	n/a
Repayments of loans provided to joint ventures	20,764	1,573	n/a
Capital contributions to joint ventures	(298)	-	n/a
Net decrease (increase) in bank deposits with original maturity more than three months	(58,945)	(26,161)	125.3%
Proceeds from disposals of property, plant and equipment and materials for construction	-	2,133	n/a
Other	(2,573)	(2,305)	11.6%
Net cash used for investing activities	**(169,044)**	**(153,046)**	**10.5%**

Cash used for capital expenditures increased by RR 68,464 million, or 72.8%, as compared to 2018 primarily due to investments in our LNG projects (the LNG construction center located in the Murmansk region, the Obskiy LNG and the Arctic LNG 2 projects). In addition, we increased our investments in the ongoing development of our producing fields, preparation for the commencement of commercial production at our new fields, as well as exploratory drilling (see "Capital expenditures" below).

In March and July 2019, the Group sold a 10% and a 30% participation interests in OOO Arctic LNG 2, respectively, to four participants and received from them first cash payments in the aggregate amount of RR 152,531 million (the equivalent of USD 2.4 billion) for the participation interests disposed (see "Recent developments" above). Excluding the cash balance in OOO Arctic LNG 2 as at the first transaction closing date, the net cash inflow from the transactions amounted to RR 136,541 million. In 2019, we paid RR 64,540 million of income tax accrued for these sale transactions.

In 2019, we made a final payment in the amount of RR 2,006 million for the acquisition of a license to use the South-Leskinskiy license area (an advance payment in the amount of RR 35 million was made in the fourth quarter of 2018), paid RR 2,586 million for the acquisition of a license to use a license area, which includes the Soletskoye-Khanaveyskoye field, as well as paid RR 3,176 million for participation in the auctions for the right to use the East-Ladertoyskiy, the South-Yamburgskiy and the Bukharinskiy license areas (see "Recent developments" above). In addition, in both reporting periods, we paid a part of a one-time payment fee for the exploration and production license for our discovered Kharbeyskoye field in the amount of RR 59 million. In 2018, we also made a one-time payment fee to expand the borders of our Salmanovskiy (Utrenniy) license area in the amount of RR 167 million and paid RR 66 million for the acquisition of a license to use the Payutskiy license area.

In 2019, we provided loans in the aggregate amount of RR 29,664 million compared to RR 3,429 million in 2018. In both reporting periods, we provided loans to our joint ventures for developing its activities, mainly to OOO Arctic LNG 2 in 2019 and to Yamal LNG in 2018. At the same time, in both reporting periods, we received partial repayments of the loans provided to our joint ventures Yamal LNG (only in 2019) and Terneftegas in the aggregate amount of RR 20,764 million in 2019 and RR 1,573 million in 2018.

In 2019, we made capital contributions to our joint venture Rostock LNG GmbH in the amount of RR 248 million and to our joint venture OOO SMART LNG in the amount of RR 50 million.

The Group's cash management involves periodic cash placement on bank deposits with different maturities. Deposits are reported in "Cash and cash equivalents" if opened for three months or less, or otherwise in "Short-term bank deposits with original maturity more than three months". Transactions with bank deposits with original maturity more than three months are classified as investing activities in the Consolidated Statement of Cash Flows. In 2019, the net increase in bank deposits with original maturity more than three months amounted to approximately RR 59 billion compared to RR 26 billion in 2018.

In 2018, the Group acquired 100% participation interests in AO Geotransgas, OOO Urengoyskaya gasovaya companiya and OOO Chernichnoye for RR 30,492 million net of cash acquired.

In 2018, we received RR 2,133 million from disposals of property, plant and equipment and materials for construction, which primarily related to the assignment of rights to our joint venture Yamal LNG under concluded contracts for design and equipment production for the fourth LNG train, as well as materials purchased for this purpose.

Net cash used for financing activities

In 2019, our net cash used for financing activities increased by RR 25,790 million, or 27.5%, to RR 119,448 million as compared to RR 93,658 million in 2018.

millions of Russian roubles	**Year ended 31 December: 2019**	**2018**	**Change %**
Dividends paid to shareholders of PAO NOVATEK	(93,468)	(51,980)	79.8%
Dividends paid to non-controlling interest	(16,758)	(20,068)	(16.5%)
Proceeds from (repayments of) long-term debt, net	(2,176)	(14,107)	(84.6%)
Proceeds from (repayments of) short-term debt, net	-	(150)	n/a
Interest on debt paid	(2,237)	(3,024)	(26.0%)
Purchase of treasury shares	(1,865)	(2,137)	(12.7%)
Payments of lease liabilities	(2,944)	(2,192)	34.3%
Net cash used for financing activities	**(119,448)**	**(93,658)**	**27.5%**

In both reporting periods, our major financing cash flows related to payment of dividends.

In addition, in 2019, the Group partially repaid a loan obtained from China's investment fund Silk Road Fund in the amount of RR 2,176 million (USD 35 million). In 2018, the Group fully repaid a loan obtained under our syndicated credit line facility in the amount of RR 12,966 million (USD 231 million), as well as a loan obtained by a Group subsidiary from its non-controlling shareholder.

The remaining change related primarily to the repayment of interest on borrowings and loans and shares buy-back.

Liquidity and working capital

The following table shows the Group's liquidity and credit measures as of 31 December 2019 and 2018:

	31 December 2019	31 December 2018	Change, %
Absolute amounts, RR million			
Net debt (1)	15,106	102,903	(85.3%)
Net working capital position (2)	379,383	186,297	103.6%
Liquidity and credit ratios			
Current ratio (3)	4.24	2.74	54.7%
Total debt to total equity	0.09	0.19	(52.6%)
Long-term debt to long-term debt and total equity	0.08	0.16	(50.0%)
Net debt to total capitalization (4)	0.01	0.09	(88.9%)
Net debt to normalized EBITDA from subsidiaries (5)	0.06	0.40	(85.0%)
Interest coverage ratio (6)	28	30	(6.7%)

(1) Net debt represents total debt less cash, cash equivalents and bank deposits with original maturity more than three months.

(2) Net working capital position represents current assets less current liabilities.

(3) Current ratio is calculated as current assets divided by current liabilities.

(4) Total capitalization represents total debt, total equity and deferred income tax liability.

(5) Net debt to normalized EBITDA from subsidiaries ratio is calculated as Net debt divided by EBITDA from subsidiaries excluding the effects from the disposal of interests in subsidiaries and joint ventures (recognition of a net gain on disposal and subsequent non-cash revaluation of contingent consideration) for the last twelve months.

(6) Interest coverage ratio is calculated as normalized EBITDA from subsidiaries divided by accrued interest on debt, including capitalized interest.

In each quarter of 2018 and 2019, the Group demonstrated high operating results and achieved positive free cash flow. The Group's management believes that it presently has and will continue to have the ability to generate sufficient cash flows (from operating and financing activities) to repay all its current liabilities as they become due and to finance the Group's capital construction programs.

Capital expenditures

In both reporting periods, our capital expenditures represent our investments primarily relating to developing our oil and gas assets. The following table shows capital expenditures at our main fields, processing facilities and other assets:

millions of Russian roubles	Year ended 31 December: 2019	2018
Infrastructure for future LNG projects (1)	43,013	16,421
North-Russkoye and East-Tazovskoye fields	34,436	17,602
Arctic LNG 2 project (2)	19,147	22,729
Obskiy LNG project	7,766	662
Yarudeyskoye field	7,013	4,693
East-Tarkosalinskoye field	6,333	6,820
Beregovoye field	5,923	1,400
West-Yurkharovskoye field	5,213	2,961
Geofizicheskoye field	3,506	914
Yurkharovskoye field	3,484	4,215
Ust-Luga Complex	3,288	1,477
Dorogovskoye field	3,167	770
Gydanskiy license area	2,618	2,303
South-Khadyryakhinskiy license area	1,806	203
NOVATEK-Chelyabinsk	1,236	387
Shtormovoy license area	1,221	16
NOVATEK-AZK	1,034	478
Nyakhartinskiy license area	960	642
Novatek Polska	875	74
West-Yaroyakhinskiy license area	716	578
North-Obskiy license area	192	3,330
Office buildings	7,070	3,093
Other	4,909	3,968
Capital expenditures	**164,926**	**95,736**

(1) Mainly includes expenditures related to the project for the LNG construction center located in the Murmansk region.

(2) Capital expenditures are reported before the sale of a 10% participation interest in OOO Arctic LNG 2 to TOTAL S.A. group in March 2019 (see "Recent developments" above).

Total capital expenditures on property, plant and equipment in 2019 significantly increased by RR 69,190 million, or 72.3%, to RR 164,926 million from RR 95,736 million.

In both reporting periods, a significant part of our capital expenditures related to the development of our LNG projects, in particular the LNG construction center located in the Murmansk region, the Obskiy LNG and the Arctic LNG 2 projects (before the sale of a 10% participation interest in March 2019) (see "Recent developments" above).

In addition, we invested in the ongoing development of our producing fields (development activities at the East-Tarkosalinskoye and the Yarudeyskoye field's crude oil deposits, further development of the Yurkharovskoye and the Beregovoye fields) and to the preparation for production commencement at our new fields (the North-Russkoye and the Dorogovskoye fields, and the South-Khadyryakhinskiy license area). We also increased capital expenditures in exploratory drilling which in 2019 was mainly conducted at the Geofizicheskoye and the West-Yurkharovskoye fields, the Gydanskiy, the Shtormovoy and the Nyakhartinskiy license areas.

In both reporting periods, we also continued to invest in the project for construction of a hydrocracker unit at our Ust-Luga Complex, which will allow us to increase the depth of processing of stable gas condensate and output of light oil products.

Our capital expenditures in NOVATEK-Chelyabinsk in 2019 mainly related to the construction of a small-scale LNG plant in the Chelyabinsk region.

We also continued to expand the filling stations network at our subsidiary NOVATEK-AZK and to develop our LPG and LNG wholesale and retail network through our subsidiary Novatek Polska Sp. z o.o. (renamed to Novatek Green Energy Sp. z o.o. in February 2020).

The "Office buildings" line in the table above represents our capital expenditures related to construction of our new office buildings in Moscow and Novy Urengoy.

The "Other" line represents our capital expenditures related to other fields and processing facilities of the Group, as well as unallocated capital expenditures as of the reporting date. The allocation of capital expenditures by fields or processing facilities takes place upon the completion of the fixed assets construction stages and depends on the approved fixed assets launch schedule.

The following table presents the reconciliation of our capital expenditures and additions to property, plant and equipment per Note "Property, plant and equipment" in the Group's IFRS Consolidated Financial Statements, and cash used for capital expenditures:

millions of Russian roubles	Year ended 31 December: 2019	Year ended 31 December: 2018	Change %
Total additions to property, plant and equipment per Note "Property, plant and equipment" in the Group's IFRS Consolidated Financial Statements	**176,985**	**98,484**	**79.7%**
Less: acquisition of mineral licenses	(7,768)	(268)	n/a
Less: right-of-use assets [1] additions	(4,291)	(2,480)	73.0%
Capital expenditures	**164,926**	**95,736**	**72.3%**
Add (less): change in accounts payable, capitalized foreign exchange losses and other non-cash adjustments	(2,424)	(1,698)	42.8%
Cash used for capital expenditures [2]	**162,502**	**94,038**	**72.8%**

(1) Related mainly to long-term agreements on time chartering of marine tankers.

(2) Represents purchases of property, plant and equipment, materials for construction and capitalized interest paid per Consolidated Statement of Cash Flows net of payments for mineral licenses and acquisition of subsidiaries and joint ventures.

In 2019, the Group won auctions for geological research works, exploration and production of hydrocarbons at the Soletskoye-Khanaveyskoye, the South-Yamburgskiy, the East-Ladertoyskiy and the Bukharinskiy license areas and paid in the aggregate RR 5,762 million (see "Recent developments" above). In addition, in 2019, we made a final payment of RR 2,006 million for the auction won in December 2018 for the usage of the South-Leskinskiy license area.

In 2018, the Group won auctions for geological research works, exploration and hydrocarbons production at the Payutskiy and the South-Leskinskiy license areas and paid in the aggregate RR 101 million. In addition, we paid a one-time fee in the amount of RR 167 million to expand the borders of the Salmanovskiy (Utrenniy) license area.

QUANTITATIVE AND QUALITATIVE DISCLOSURES AND MARKET RISKS

We are exposed to market risk from changes in commodity prices, foreign currency exchange rates and interest rates. We are exposed to commodity price risk as our prices for crude oil, stable gas condensate and refined products destined for export sales are linked to international crude oil prices and other benchmark price references. We are exposed to foreign exchange risk to the extent that a portion of our sales, costs, receivables, loans and debt are denominated in currencies other than Russian roubles. We are subject to market risk from changes in interest rates that may affect the cost of our financing. From time to time we may use derivative instruments, such as commodity forward contracts, commodity price swaps, commodity options, foreign exchange forward contracts, foreign currency options, interest rate swaps and forward rate agreements, to manage these market risks, and we may hold or issue derivative or other financial instruments for trading purposes.

Foreign currency risk

Our principal exchange rate risk involves changes in the value of the Russian rouble relative to the US dollar and the Euro. As of 31 December 2019, the total amount of our debt denominated in foreign currency was RR 151,091 million, or 99.3% of our total borrowings at that date. Changes in the value of the Russian rouble relative to foreign currencies will impact the value in Russian rouble terms of our foreign currency-denominated costs, debt, receivables at our foreign subsidiaries and loans provided to our joint ventures. We believe that the risks associated with our foreign currency exposure are partially mitigated by the fact that a portion of our total revenues, 52.6% in 2019, was denominated in foreign currencies.

In addition, our share of profit (loss) of joint ventures is also exposed to foreign currency exchange rate movements due to the significant amount of foreign currency-denominated borrowings in our joint ventures, mostly in Yamal LNG. We assess that the impact of foreign currency risk relating to the debt portfolio of Yamal LNG is to a large extent mitigated by the fact that all of its products are delivered to international markets and its revenues are denominated in foreign currencies.

As of 31 December 2019, the Russian rouble appreciated by 10.9% and 12.7% against the US dollar and the Euro, respectively, compared to 31 December 2018.

Commodity risk

Our export prices for natural gas, stable gas condensate and refined products, LPG and crude oil are primarily linked to international natural gas, crude oil and oil products prices and/or a combination thereof. External factors such as geopolitical developments, natural disasters and the actions of the Organization of Petroleum Exporting Countries affect crude oil prices and thus our export prices.

The weather is another factor affecting demand for natural gas. Changes in weather conditions from year to year can influence demand for natural gas and to some extent stable gas condensate and refined products.

From time to time we may employ derivative instruments to mitigate the price risk of our sales activities. In our consolidated financial statements all derivative instruments are recognized at their fair values. Unrealized gains or losses on derivative instruments are recognized within other operating income (loss), unless the underlying arrangement qualifies as a hedge.

Within our trading activities, the Group purchases and sells natural gas on the European market under long-term contracts based on formulas with reference to benchmark natural gas prices quoted for the North-Western European natural gas hubs, crude oil and oil products prices and/or a combination thereof. Therefore, the Group's financial results from natural gas foreign trading activities are subject to commodity price volatility based on fluctuations or changes in the respective benchmark reference prices.

Pipeline access

We transport substantially all of our natural gas within the Russian Federation territory through the Gas Transmission System ("GTS") owned and operated by PAO Gazprom, which is responsible for gathering, transporting, dispatching and delivering substantially all natural gas supplies in the domestic market. Under existing legislation, Gazprom must provide access to the GTS to all independent suppliers on a non-discriminatory basis provided there is capacity available that is not being used by Gazprom. In practice, Gazprom exercises considerable discretion over access to the GTS because it is the sole owner of information relating to capacity. There can be no assurance that Gazprom will continue to provide us with access to the GTS; however, we have not been denied access in prior periods.

Ability to reinvest

Our business requires significant ongoing capital expenditures in order to grow our production and meet our strategic plans. An extended period of reduced demand for our hydrocarbons available for sale and the corresponding revenues generated from these sales would limit our ability to maintain an adequate level of capital expenditures, which in turn could limit our ability to increase or maintain current levels of production and deliveries of natural gas, gas condensate, crude oil and other associated products; thereby, adversely affecting our financial and operating results.

Forward-looking statements

This report includes forward-looking statements concerning future possible events that can impact operational and financial results of the Group. Forward-looking statements can be identified by words such as "believes", "anticipates", "expects", "estimates", "intends", "plans" and similar expressions. Forward-looking statements are made based on the current situation with definite and indefinite risks and uncertainties. Actual future results could differ materially from those discussed in the forward-looking statements as they are dependent on various factors beyond and under the control of management.

Off balance sheet activities

As of 31 December 2019, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which are typically established for the purpose of facilitating off-balance sheet arrangements.

TERMS AND ABBREVIATIONS

APR	Asian-Pacific Region
bbl	barrel
bcm	billion cubic meters
boe	barrels of oil equivalent
btu	British thermal unit
CBR	Central Bank of Russian Federation
CFR	"Cost and freight"
CIF	"Cost, insurance and freight"
DAP	"Delivery at point of destination"
DDA	depreciation, depletion and amortization
DES	"Delivery to the port of destination ex-ship"
FCA	"Free carrier"
FEED	Front-End Engineering Design
FID	Final Investment Decision
FOB	"Free on board"
Forecast of the Ministry of Economic Development	The document *"Forecast of Socio-economic Development of the Russian Federation for the period till 2024"* prepared by the Ministry of Economic Development of the Russian Federation or the similar document prepared for another period
GTS	Gas Transmission System part of the UGSS
IFRS	International Financial Reporting Standards
List	the OFAC's Sectoral Sanctions Identification List
LNG	liquefied natural gas
LPG	liquefied petroleum gas
mcm	thousand cubic meters
MET	mineral extraction tax
Murmansk yard	LNG construction center located in the Murmansk region
NBP	National Balancing Point
NGL	natural gas liquids
OFAC	U.S. Treasury Department's Office of Foreign Assets Control
PRMS	Petroleum Resources Management System
Purovsky Plant	Purovsky Gas Condensate Plant
Regulator	A federal executive agency of the Russian Federation that carries out governmental regulation of prices and tariffs for products and services of natural monopolies in energy, utilities and transportation. Effective July 2015, Federal Anti-Monopoly Service fulfills the Regulator's role.
RR	Russian rouble(s)
RZD	OAO Russian Railways, Russia's state-owned monopoly railway operator
SEC	Securities and Exchange Commission
Tobolsk Refining Facilities	Refining facilities of OOO SIBUR Tobolsk
TTF	Title Transfer Facility
UGSF	Underground Gas Storage Facilities
UGSS	Unified Gas Supply System owned and operated by PAO Gazprom
UPT	unified natural resources production tax
USD, US dollar	United States Dollar
Ust-Luga Complex	Gas Condensate Fractionation and Transshipment Complex located at the port of Ust-Luga on the Baltic Sea
VAT	value added tax
YNAO	Yamal-Nenets Autonomous Region