### Financial results of Naftogaz Group in 2019, UAH bn

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<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>Change</th>
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<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated gas</td>
<td>137.8</td>
<td>114.5</td>
<td>-18%</td>
</tr>
<tr>
<td>Oil midstream and downstream</td>
<td>13.0</td>
<td>12.0</td>
<td>-8%</td>
</tr>
<tr>
<td>Gas transit*</td>
<td>72.3</td>
<td>70.2</td>
<td>-3%</td>
</tr>
<tr>
<td>Gas domestic</td>
<td>18.3</td>
<td>27.2</td>
<td>446%</td>
</tr>
<tr>
<td>transmission*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas storage</td>
<td>1.8</td>
<td>1.8</td>
<td>0%</td>
</tr>
<tr>
<td>Ukrnafta</td>
<td>38.1</td>
<td>29.2</td>
<td>-22%</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>0.7</td>
<td>-93%</td>
</tr>
<tr>
<td><strong>Net cash generated</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by operating activities</td>
<td>110.0</td>
<td>110.0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2018</td>
<td>578.3</td>
<td>484.5</td>
<td>-16%</td>
</tr>
<tr>
<td>2019</td>
<td>484.5</td>
<td>224.9</td>
<td>-56%</td>
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<tr>
<td>Adjusted EBITDA</td>
<td></td>
<td></td>
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<tr>
<td>2018</td>
<td>90.9</td>
<td>65.0</td>
<td>-28%</td>
</tr>
<tr>
<td>2019</td>
<td>65.0</td>
<td>43.3</td>
<td>-33%</td>
</tr>
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* discontinued operations

### Financial results of Naftogaz Group in 2019, UAH bn (Continued)

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<th></th>
<th>2018</th>
<th>2019</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td><strong>Net profit</strong></td>
<td>11.6</td>
<td>63.3</td>
<td>446%</td>
</tr>
<tr>
<td><strong>Dividend payments</strong></td>
<td>29.5</td>
<td>20.8</td>
<td>-30%</td>
</tr>
<tr>
<td><strong>Tax payments</strong></td>
<td>108.1</td>
<td>100.6</td>
<td>-7%</td>
</tr>
<tr>
<td><strong>Capital investments</strong></td>
<td>24.9</td>
<td>27.7</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Net cash generated by operating activities</strong></td>
<td>71.6</td>
<td>110.0</td>
<td>54%</td>
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It is my great pleasure, on behalf of my colleagues on the supervisory board and all employees of Naftogaz of Ukraine, to invite you to read this 2019 Annual Report.

The past year has been an extraordinary time for the company and achievements have been commensurate. Our challenges have been numerous and extremely difficult. I am very proud that our company, under the leadership of Andriy Kobolyev and the executive board, has managed to meet all of our challenges successfully, to the benefit of the people of Ukraine.

In these thanks, I naturally wish to associate the government of Ukraine. Without their support, our achievements would not have been possible either.

Allow me some brief words on each of these challenges.

The first challenge has been the successful unbundling and delivery of our UTG business to form an independent transmission business. On January 1, 2020 the unbundling project was completed. OGTU LLC was transferred from Ukrtransgaz LLC (Naftogaz Group) to the ownership and management of the state company MUG JSC, 100% of which is owned by the Ministry of Finance of Ukraine. Many doubted that this unbundling would be achieved, in time and in quality. This was for me never in doubt. I wish to thank the Naftogaz Unbundling team for ensuring this outcome, as well as the supervisory board of MUG, who have become partners in this major development.

In creating the successful unbundled business, we greatly benefited from the support of major European international transmission partners who formed a consortium to advise us on the operation, and also the Energy Community Secretariat who actively participated and certified the new unbundled entity as complying with the European Energy Directives. Other international partners, such as the World Bank, the EBRD, and also some major countries committed to Ukraine’s transformation, watched and supported us. Let them receive our thanks here and we remain indebted to them. This means that a major step has been achieved, in time and in quality. This was for me never in doubt. I wish to thank the Naftogaz Unbundling team for ensuring this outcome, as well as the supervisory board of MUG, who have become partners in this major development.

The second challenge facing Naftogaz was our litigation with Gazprom at the Stockholm Court of Arbitration. All have witnessed the successful conclusion of these negotiations with an agreement by Gazprom to not only pay USD 2.9 billion to Naftogaz as part of the settlement of the arbitration case, but also to agree a 5-year transmission contract which allows Naftogaz to absorb the loss of its transmission business (and its associated revenues) in a more gradual way. Of course, this agreement was made possible by the excellent negotiating efforts of Naftogaz team, which very early on believed in the possibility of this outcome and then spared no effort to make it happen. The outcome vitally benefited from the full support and engagement of the President of Ukraine, who spared no effort either in ensuring this most favorable outcome in private discussions with the President of Russia. We are also grateful to Ukraine’s international partners in EU and USA whose support helped us achieve the result.

Finally, the third challenge was to steer the Naftogaz Group through turbulent global times, including a rapidly melting energy market and falling oil and gas prices. This context has made our third challenge equally vital: the transformation of Naftogaz into a modern energy company that Ukraine can be proud of and that is a major actor on the energy front contributing in a substantial way to the transformation of the country towards a vibrant, healthy and sustainable future that serves the people of Ukraine well.

Now that the unbundling has been completed, the Stockholm arbitration is behind us – fortunately with substantial revenues in our bank accounts – the third challenge, the Naftogaz transformation into a vibrant and exemplary energy player in the midst of a collapse of the energy markets will become the main focus of the group for the coming years. This challenge has also seen progress during the last year, particularly with the planned strengthening of our executive board and the further progress on the internal organization of the “new” Naftogaz.

We already know that 2020 does not offer in its early months much to rejoice about: gas prices have continued to fall, but in addition the entire globe has been attacked by the COVID-19 virus, which in the short run has halted most of the world’s economies, further depressing energy markets, but foremost putting the government and the people of Ukraine in front of tremendous challenges, of a type not experienced so far.

Times were already expected, towards the end of 2019, to become even more difficult in 2020. The current health and economic crisis are making the year 2020 even more critical. Fortunately, the government of Ukraine has agreed with our recommendation to reappoint our CEO for another 4 years, allowing continuity and competence in leadership at a time when stress and disruption appear all around us. Andriy Kobolyev, together with the new executive board and the entire Naftogaz community, has our greatest thanks and admiration for accepting the challenge in what are most difficult times, and agreeing to put their best efforts that the group can continue its journey towards showing that Ukraine has one more great company to be proud of.

Ukraine is a resilient country, not unfamiliar with suffering in major ways. Naftogaz has inherited this resilience in its blood, and it will serve the group well in the months and years to come, and Naftogaz will come out of the current global crisis stronger. This we all are committed to in Naftogaz Group, and we will spare no efforts to also navigate 2020 in the best way possible notwithstanding a very adverse environment.

In this environment, we look forward to the support of our shareholder, the government of Ukraine, and all the stakeholders of Naftogaz Group who share its ambition and purpose.
2019 was a year of great challenges for Naftogaz, but also a year of significant achievements. The hard work of the previous periods has begun to yield results – the company has demonstrated its ability to resolve the most difficult problems rapidly and efficiently.

2019 saw an effective reset in relations between Ukraine’s biggest company and the country’s authorities. For perhaps the first time, we saw clear synergy in the teamwork of the government, parliament and Naftogaz. This synergy resulted in the flawless unbundling of the gas transmission system operator (GTS) and successful negotiations with Russia on continued gas transit through Ukraine. We would like to thank the president, the governmental team, and members of parliament for their commitment to coordinated and fruitful cooperation with Naftogaz to the benefit of the Ukrainian people. I hope this effective cooperation will continue in 2020.

We performed a very complicated unbundling of the GTS operator in as little as six months. I would like to emphasize that the unbundling process was implemented according to the comprehensive plan proposed by the Naftogaz team several years ago. This plan enabled Ukraine to achieve two goals: create the independent GTS operator in line with European rules and protect the country’s interests in the arbitration proceedings against Gazprom. I am grateful to all involved decision makers for trusting our judgement.

The successful unbundling of the GTS operator made it possible to sign a new transit deal with Gazprom that was implemented in 2019. This new contract guarantees at least USD 2 billion in guaranteed revenue for Ukraine in 2020 and 2021.

In 2019, Naftogaz generated a net profit of UAH 50.6 billion, of which 95% was paid to the state as dividends. This is a new record for our company or any other state-owned company in Ukraine.

Gaseous transformations processes within the group now allow Naftogaz to rapidly resolve complex problems in related areas. In particular, a serious challenge for us was the prompt take over of operational management of Novovanovska and Novooroliska combined heat and power plants (CHP) in the Lviv region. The ability of the Naftogaz team to quickly adapt to risks and learn new skills we gained during past years of reforms prevented a man-made catastrophe. We launched both CHPs and promptly provided 60,000 residents with heat and hot water. I greatly appreciate this local achievement, as it supports our course to build a sustainable and highly efficient business capable of responding quickly to changing circumstances while creating value in new industries.

Last year, in view of the size of the company and its impact on the economy of Ukraine, one of our key focuses was the development of the national gas market.

An oversupplied market and full storage facilities induced price decoupling in the Ukrainian market: competitive offers have been priced below import parity over the past several months. Naftogaz shifted from regulated pricing cap set out in a resolution of the Cabinet of Ministers to market pricing.

The new opportunities, competencies and safety buffer gained in 2019 make us confident that the group will address new challenges effectively and set even more ambitious goals. It is already clear that further challenges await in what is an extremely unfavorable business environment.

ON THE THRESHOLD OF GREAT TRANSFORMATIONS

The world, including Ukraine, has entered a period of economic transformations due to the COVID-19 pandemic. Last year, we projected certain indications of crisis in the global economy, including a reduction in consumption of fossil fuels and a drop in their cost. In particular, we anticipated that gas would cost much less due to the LNG market glut and the emergence of new suppliers. However, the economic crisis turned out to be much stronger than we expected. Sharp fluctuations in the price of oil and gas, together with the obvious dependence of this volatility on political decisions, the development of pandemic conditions in different regions of the world, and the growing global trend of abandoning hydrocarbons as an energy source, all serve to create a fundamentally new environment in which we have to work.

The dramatic change in the economic landscape definitely impacts our development strategy, budgets and investment priorities. The plunge in prices for fossil fuels and uncertainty about the timing of the global economic recovery are forcing us to revisit previously approved development programs. Naftogaz must always respond to external changes and adapt in order to achieve its own strategic objectives.

We realize that Naftogaz remains one of the major contributors to the state budget and an important stability factor for Ukraine’s financial system. We also understand that raising funds in international financial markets under current market conditions will be more difficult than before and will require a clearer business model, rigorous selection of investment projects, and reliable repayment sources.

Cooperation with international financial organizations remains a priority to both Ukraine and Naftogaz. The company successfully secured loan facilities from the ERBD and the World Bank on several occasions in order to ensure the continued supply of gas to Ukrainian consumers.

This fruitful cooperation was possible thanks to reforms implemented by the Ukrainian government in the gas market and SOE corporate governance.

While continuing reforms aimed at improving the efficiency of the group, we will focus on specific tasks set by the Cabinet of Ministers: to ensure revenues to the state budget, strengthen energy independence, increase proven oil and gas reserves, and prepare the company for an IPO. These strategic tasks require us to work even harder in the current environment.

In the process of their implementation, new growth points will inevitably be created, both for Naftogaz Group and for the whole country. It is especially important for me that the tasks set by the owner are organically combined with our vision of the group’s overall development strategy.

LEADERS OF FUTURE CHANGE

In addition to cooperation with international financial organizations, the task of generating increased economic value requires the completion of the Ukrainian gas market reform, an increase in its resilience to external influences, and the elimination of opportunities for abuse by individual players. This is possible under conditions of full market liberalization, transition from mass to personal subscriptions, and the creation of a favorable environment for the development of competition. The state and society are just as interested in these transformations as Naftogaz, because the billions invested by individual market participants are the direct budget losses. These funds would greatly strengthen the government’s ability to provide social support for all Ukrainians. Therefore, steps aimed at creating a transparent, competitive gas market in Ukraine will develop the country as a whole and strengthen opportunities for greater social justice.

As a result of reforms in recent years, today’s Ukraine is no longer dependent on gas supplies from Russia, and no one can use the gas lever for political purposes. To further strengthen the country’s energy independence, we will work in two key areas: expanding natural gas production and reducing consumption by implementing energy efficiency measures. Given the unprecedented reduction in gas prices in the world this year, and the fact that prices in some periods were lower than the cost of production, we are introducing internal competition between upstream and energy efficiency businesses for capital investment. The company’s money will work exactly where it currently generates the greatest return.

Economic feasibility is the main criterion when determining the directions of internal investments.

Despite the fluctuations in oil and gas price, expansion of proven hydrocarbon reserves remains a strategic priority. We see this work as an investment in the future energy independence of our country and aim to increase the intensity and efficiency of our exploration activities.

The preparation of the company for a future IPO – placement of part of its shares on a stock exchange – is closely linked to the transformation processes taking place within the group. These processes are implemented in order to increase the efficiency of business processes, eliminate duplication of functions, simplify decision-making procedures, and strengthen the personal responsibility of managers. To perform these tasks, we have significantly updated the composition of the board and management of the company, attracting experienced professionals. The company will further strengthen its management capabilities.

It is during the current crisis that we have to prove that we are an effective company capable of transforming and changing the business landscape around us.

Naftogaz is pursuing a digitization strategy, which helps remove administrative burdens and provide more transparent and, improve accuracy and speed of data with controlled access to information. We began this process with the company’s core activities.

Implemented projects include a consolidated reporting and financial planning system based on SAP BPC, Energy Trading Risk Management, Business Process Management and Talent Management System. Our IT strategy road map until 2023 contains nearly 70 IT projects.

In addition to improving business processes, we plan to continue opening up new areas of activity, including entry to the gas retail market and development of renewables. We believe that only an effective and diversified business will be able to ensure sustainable value creation for shareholders, amid the economic storm.

To ensure sustainable development, the group will continue to increase investment in occupational safety, environmental protection, and interaction with the local communities where we operate.

I am grateful to the Naftogaz team. I remain convinced that by constantly improving, we will be able to respond to the many challenges facing our state and society, and by continuously demonstrating our readiness to shoulder the responsibility for Ukraine, we care for our country, and we drive its development through our work.
WORLD GAS PRODUCTION

+6.1%  
Increase in world gas production

GAS PRICES AT EUROPEAN HUBS

-40%  
Change in gas prices at European hubs

THE ERA OF LOW PRICES

While natural gas has often been described as the “fuel of the future,” recent trends indicate that the future is already here. In 2019 the global natural gas market showed the second fastest annual growth rate in global gas production, gradually growing over the last decade. Due to low gas prices and high prices for carbon emission permits, gas consumption has increased in the electricity sector, displacing coal in many European countries.
STRENGTHENING THE POSITION

2019 was the year of restoring relative financial stability in Ukraine, which was achieved against the backdrop of significant political changes. Major factors include decrease in inflation pace, successful efforts of the Ministry of Finance of Ukraine on the capital markets, which resulted in reduction of the costs of borrowings as well as in reduction of refinancing rate. Other factors included strengthening of the national currency, decrease in the unemployment rate, increase in average wages and salaries.

At the same time, in 2019 Ukraine faced slight reduction in real GDP growth rate relative to 2018, which amounted to 3.2%. This slowdown could be explained, primarily by the unfavorable external markets environment which affected industrial production and outlook, including falling prices on the metal market resulting from trade wars between the largest producers and consumers, as well as weakening of price competitiveness of the industry due to strengthening of the national currency. In turn, high crop yields and rising domestic consumption supported by trade war between the largest producers and consumers, as well as weakening of price competitiveness of the industry due to strengthening of the national currency. In turn, high crop yields and rising domestic consumption supported by trade war between the largest producers and consumers, as well as weakening of price competitiveness of the industry due to strengthening of the national currency.

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In 2019, real GDP growth began to decline at the end of Q1 2020. Despite the recovery of domestic demand, the National Bank of Ukraine managed to keep consumer inflation to the level of 4.1%. Lower inflationary pressure on the national currency, primarily due to lower energy prices and stabilization of hryvnia after weakening in March 2020, provides grounds for 2020 inflation expectation in the target range of 5% ± 1% according to the Inflation Report released by National Bank of Ukraine on January, 2020.

Increase in goods and services export revenues, growing agricultural productivity coupled with a decrease in energy prices had a positive impact on the balance of payments. In addition, a significant factor in decrease of the current-account deficit (from USD 4.2 billion to USD 1.3 billion) was receipt of compensation by Naftogaz of Ukraine from Gazprom pursuant to the Stockholm arbitration award. Stabilization of macroeconomic indicators led to decrease of the capital costs to the lowest, over the years, borrowing rates on public offering in foreign markets. Naftogaz managed to get the attractive interest rate during Eurobonds placement in 2019. The interest rate at the date of issuance was only 1.27 basis points higher than the quotation of the Ukraine’s sovereign debt with a similar maturity. Peak demand for Naftogaz Eurobonds exceeded supply by 2.9 times, which indicates a high level of confidence in the company’s creditworthiness.

The economic growth in 2019 contributed to an increase in demand for labor, which led to a reduction in unemployment rate. Other factors included strengthening of the national currency, decrease in the unemployment rate, increase in average wages and salaries.
EXPECTING THE CRISES

In 2019, new external challenges appear, in particular, worsening conditions through the transition of the global economy into a recession phase as well as increased world commodity prices volatility. A real shock to the global economy was the COVID-19 pandemic, which broke out in China in December 2019. This event forced major review of the expectations of the global economy growth.

At the time of the release of this Annual Report, a high level of uncertainty concerning the virus influence on the economy and the time needed for restoring the world economy growth remained both in Ukraine and globally.

According to the World Economic Outlook Report (hereinafter WEO Report) released by the International Monetary Fund (hereinafter IMF) as of April 2020, and based on the assumption that the pandemic will fade in the second half of 2020, the world economy is expected to decline by 3%, which is 6.3 percentage points below January 2020 expectations. The major impact is assumed in Q2 2020 for almost all countries except China (where it was in Q1 2020). In turn, it is estimated that countries experiencing the large-scale virus outbreak will lose up to 8% of working days in 2020 during the quarantine regime and gradual abolition of the quarantine measures. The current Great Lockdown is considered to be the worst recession since the Great Depression, nevertheless, the IMF anticipates recovery to begin in 2021, the global economy is projected to grow by 5.8%. In turn, the IMF forecasts a 7.7% drop in Ukraine’s GDP in 2020 and an increase of 3.6% in 2021.

Along with global challenges, a number of internal problems remain relevant: Ukraine continues to lag behind the European countries in growth rates and is more vulnerable to the effects of the financial crisis without international support. The stability of the Ukrainian economy continues to be significantly influenced by the program of Cooperation with IMF, the main condition of which is the continuation of reforms in Ukraine. The adoption of a law prohibiting the return of bankrupt banks to ex-owners and opening the land market are among the key steps to the new program.

As of the date of this report, Ukraine has fulfilled all the conditions for continuing cooperation with the IMF, agreed on a stand-by program in the amount of USD 5 billion for a period of 18 months instead of an extended financing program (EFF) for a period of 3 years and received the first tranche from IMF. The cooperation with IMF is expected to enhance financial stability by maintaining a balance of payments and supporting the budget. In recent years the international analytical agencies have perceived Ukraine’s cooperation with the IMF as an indicator of stability. Continuation and protection of initiated reforms from political influence such as anti-corruption, corporate governance reforms, etc. directly affect the macroeconomic situation in the country.

2020 is expected to be the year of high levels of required public debt repayment. Macroeconomic dangers may be compounded by other risks, such as global economic recession due to the coronavirus, war escalation in the eastern Ukraine, reduction in agricultural yields due to worsening of weather conditions, increased volatility in world prices, and decline in foreign investments. One of Ukraine’s tangible risks, namely the loss of the contract for the gas transit through the territory of Ukraine to the European clients starting from 2020, which has created significant tensions in Europe as well, has been resolved satisfactorily for Ukraine, reduced uncertainty and will have a positive impact on the country’s economy in the coming periods.

Labor market in Ukraine

- Unemployment rate %
- Employed population aged 15-70, million

Revised global growth forecast

- World
- Eurozone
- USA
- China
- Japan
- Brazil

Scheduled sovereign debt repayments as of 01.06.2020

Foreign debt
- Domestic debt
NATURAL GAS MARKET

GLOBAL NATURAL GAS MARKET

2019 can safely be called the year of beginning “low prices” trend in both the natural gas and overall commodity markets:

— Over the year, natural gas prices have significantly fallen or even halved at 3 key world gas hubs, i.e., the prices in Europe (TTF hub) decreased by more than 40%, in the USA (Henry Hub) – by 19%, in Asia (NE Asia spot hub) – by 40% compared to the 2018 average.
— At the beginning of 2020, the prices kept dropping and over Q1 2020 the TTF prices fell by another 21% compared to Q4 2019.
— According to forecasts by leading think tanks, gas prices will remain depressed in the short term due to slowdown in global economic growth and foreign trade volumes, weak demand for liquefied natural gas (hereinafter referred to as “LNG”) in China, large volumes of natural gas in European storage facilities, and commissioning of new LNG capacities.

However, such a price drop is not surprising, given the number of factors that were affecting the natural gas market during the year such as:

— Natural gas production and trade growth rates, amounting to 6.1% and 1.8% respectively, exceeded the consumption growth rate of 2.5%, which resulted in an imbalance between supply and demand building energy resource reserves.
— Development of trade infrastructure, namely increase in LNG production capacity by 40 million tons/year (up to 442 million tons/year) in North America, Asia, Africa and the Middle East; regional pipelines capacity expansion and commissioning of the Turkish Stream, the Trans-Anatolian Natural Gas Pipeline (TANAP) and the EUGAL pipeline.
— The world average temperature in 2019 kept being 0.6°C above the 1981-2010 average and only 0.04°C below the average temperature in 2016, which is the warmest year in the history of meteorological observations.
— At the same time, along with the factors favorable for the gas prices downward dynamics, 2019 saw a noticeable intensification of the implementation of sustainable development policy and government support for environmental protection measures. These practices, in turn, are becoming increasingly important drivers inflating demand for natural gas. In particular, in 2019, global biomethane capacity increased by 11.1% (or 0.5 bcm), low-carbon hydrogen capacity – by 17.8% (or 1.7 bcm), and CCUS (carbon capture, utilization and storage) capacity – by 16.2% (or 6 Mt CO₂) compared to the previous year.

The level of reserves in storage facilities in Europe at the end of the heating season. The lockdown measures taken to curb the spread of the COVID-19 pandemic as well as anticipation of a financial crisis are not favorable conditions to boost gas demand. The prices keep falling in 2020 (by 21% in Q1 2020 compared to Q4 2019), and it is difficult to predict the potential floor the gas prices could touch owing to such bearish sentiments.

Overall, 2019 proved to be a year of “surplus” for the global natural gas market due to both endogenous factors (i.e., supply), and exogenous factors including weather and infrastructure developments. Whether the natural gas price curve can change its trend upward will depend on possible changes in the natural gas supply and demand balance. Factors that can have a significant impact on this balance and determine price dynamics are discussed below.

Growth of LNG production in the world****

+12.5%

Increase in capacity for gas export-import***

+6.1%

Increase in biogas capacity **

+2.8%

Increase in world gas production*

+2.5%

Increase in world gas consumption*

+0.6°C

The average annual temperature in the world (compared to the period 1981-2010)****

Source: Eurostat

Note: unless otherwise stated, the 2018 and 2019 indicators are compared.

Sustainability-focused policies in selected markets

1. China
   - Mandatory coal-to-gas switch to improve local air quality
2. South Korea
   - Reduction of coal and nuclear power generation
3. Saudi Arabia
   - Phase-out of oil products used in power generation
4. Great Britain
   - Carbon price floor driving coal out of power generation
5. India
   - Expansion of city gas distribution to improve air quality

Change in gas prices at European hubs**

-41%

Increase in LNG imports to Europe***

-6.3%

Increase in LNG capacity

+41.6%

Increase in LNG production volumes**

+3.6%

Increase in natural gas consumption

+10.2%

Increase in natural gas imports to Europe

+1.2°C

Average annual temperature in Europe (compared to 1961-2010)****

Source: EuroStat

**Average change in prices at TTF and NCG hubs, data taken from Bloomberg
***According to ICIS
****According to BP
*****Average change in temperatures at the TANAP and the EUGAL hubs, data taken from Bloomberg
******Average change in temperatures at the Henry Hub, NBP, and NE Asia spot hub
THE ERA OF LOW PRICES

While natural gas has often been described as the "fuel of the future," recent trends indicate that the future is already here. In 2019 the global natural gas market showed the second fastest annual growth rate in global gas production, gradually growing over the last decade. Due to low gas prices and high prices for carbon emission permits, gas consumption has increased in the electricity sector, displacing coal in many European countries. In Q3 2019, coal imports to Europe have fallen to a minimum since 2000, according to KPMG. As a result, coal-fired electricity generation in Europe is down 24% in 2019 compared to the previous year.

Supply indicators show the main increase in gas production in the U.S. (+87 bcm, or +10%) and Australia (+21.4 bcm, or +16.4%), which is related to the global LNG infrastructure development and the shale gas production technology price reduction. According to EIA (U.S. Energy Information Administration), natural gas consumption in the United States increased by only 3% in 2019, though it reached a record 2.4 bcm / day. At the same time, gas production increased by as much as 10.3%. The difference between gas consumption and production growth rates, as well as the trend towards redirection of LNG flows from Asia to Europe, led to a surplus of natural gas in world markets.

In 2019, the U.S. natural gas market has also seen a downward trend in prices due to rapidly growing production rate and completion of construction of Permian Basin infrastructure pipelines.

Spot prices at most European gas hubs have also gone down, and as early as September 2019, the price at the TTF gas hub had fallen to a ten-year low. Gas prices in Europe fell in parallel with prices in other commodity markets, amid rising CO2 emission permits.

— Average annual spot prices at TTF Hub fell by 41% (from EUR 23.59 / MWh in 2018 to EUR 13.83 / MWh in 2019). In December 2019, the price decreased by 43.7% compared to the beginning of the year.
— Average annual spot prices at NCG Hub fell by 39% (from EUR 23.16 / MWh in 2018 to EUR 14.17 / MWh in 2019). In December 2019, the price decreased by 38.9% compared to the beginning of the year.
— Brent crude oil prices fell 10% year-on-year (from USD 71.06 / barrel in 2018 to USD 64.24 / barrel in 2019). In December 2019, the price increased by 10.8% compared to the beginning of the year.
— Coal API2 average annual prices fell by 33% (from USD 93.87 / t in 2018 to USD 61.67 / t in 2019). In December 2019, the price decreased by 5.8% compared to the beginning of the year.
— CO2 emission permits, gas consumption has increased in the electricity sector, displacing coal in many European countries. In Q3 2019, coal imports to Europe have fallen to a minimum since 2000, according to KPMG. As a result, coal-fired electricity generation in Europe is down 24% in 2019 compared to the previous year.

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**GLOBAL LNG MARKET**

In 2019, global LNG demand increased to 359 million tons. LNG imports to Europe increased to almost 76 million tons in 2019, the highest ever recorded. Europe absorbed most of the additional production, namely more than 21% of LNG produced worldwide in 2019, compared to 13.5% in 2018. Thus, the growth of Europe's share in total LNG imports globally was the most significant compared to other regions (+7.9% year over year).

Increase in the diversification of LNG contract terms among producers and buyers has led to increase in the number of liquefaction and regasification plants by almost 10%, as well as increase in LNG market liquidity. Reduced LNG prices have fueled its use and, as a consequence, accelerated the shift from other energy sources to natural gas in remote regions with no developed gas transportation infrastructure. The European market ended the 2019-20 heating season with high levels of UGS reserves, which in turn does not allow the European market to absorb oversupply, as it did in 2019.

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**NATURAL GAS IN STORAGES AT RECORD LEVELS**

The EU countries with the largest gas storages are Germany, Italy, the Netherlands, and France covering 62.6% of the total European active storage capacity. According to AGSI data, the EU gas storage operating capacity at the end of 2019 was 104 bcm, excluding 16 bcm of capacity to be constructed or already under construction. Ukraine’s gas storage is the largest in Europe with 30 bcm total capacity, which is 28.8% of all EU gas storages volume.

In 2019, European gas storages were filled with gas at their highest levels. The average gas reserves were above the 2014-2018 average by 33.9% against the backdrop of rising LNG imports, declining spot prices, and abnormally warm weather.

On average, net storage balances accumulated during Q3 2019 accounted for 23.9% of the total gas storage capacity, compared to 33% for the same period in 2018: the average filling rate increased from 73% as of 30 June 2019 to 97% as of 1 October 2019. As a result, at the end of September 2019, Filling levels of major European gas storages as of 1 October 2019

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**Gas stocks in Ukraine's UGS facilities as of the 1st day of each month**

Source: AGSI, in-house estimates

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**The level of gas reserves in EU gas storages in 2019 compared to the 5-year range of 2014-2018 gas years**

Source: AGSI, in-house estimates

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**Structure of global LNG imports in 2019**

Source: Independent Commodity Intelligence Services (ICIS)

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**Dynamics of spot prices for oil, coal, CO2 emission permits, and natural gas at European hubs**

Source: Bloomberg

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**Global LNG Market**

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1 January 2020. Historically, this is the main gas supply route to the EU countries. Because of this uncertainty, there was a trend to inject more in gas storage facilities before the heating season in order to mitigate the risks to gas supply in winter.

Ukraine, being the direct participant in these processes, has also accumulated gas in storage facilities as a backup source in case of any transit halts. In the course of this preparation, Ukraine has managed to accumulate the largest gas stocks in its UGS facilities for the heating season for the past seven years: on 22 October 2019, UGS reserves reached 21.5 bcm, which is 4.8 bcm more than in 2018 (16.7 bcm). 

NEW TEMPERATURE RECORDS

According to the National Oceanic and Atmospheric Administration, 2019 was the second warmest year since records began. The average global surface temperature of the Earth in 2019 was 1.4 °C higher than the average temperature in the 20th century (anomalies are calculated compared to the average for each period of the 20th century). In addition, 9 of the 10 warmest years have been recorded since 2006. 

In Europe, in December, according to the Copernicus Climate Change Service, the average air temperature in December was 3.2 °C higher than the standard benchmark for December in 1981-2010. In Ukraine, 2019 was a record year. According to the Boris Sreznevsky Central Geophysical Observatory, 2019 was the warmest in the entire observation period since 1881. The highest deviation from the average occurred in the heating season, which had a significant impact on gas consumption. It is worth noting that the air temperature in December 2019 in Kyiv exceeded 15 °C for the first time in the history of observations.

NATURAL GAS MARKET IN UKRAINE

In 2019, the Ukrainian natural gas market, as a part of the European and global gas markets, was influenced by the same fundamental factors that were exacerbated by a number of local factors and expectations, namely: 

- Reduction in gas consumption that took place due to high temperatures and regulatory changes in gas prices for PSD consumers: natural gas consumption decreased by 7.7% (or 2.5 bcm) compared to 2018.
- Natural gas surplus in the market that occurred owing to a 34.5% (or 3.7 bcm) y-o-y increase in natural gas imports amid reduced consumption.
- Decrease in gas production by 1.3% (or 0.3 bcm) compared to the previous year.
- Uncertainty by the end of 2019 regarding the prospects for an extension of the transit contract with Russia.
- A record high volume of natural gas in Ukrainian UGS at the end of 2019, that was 43% (or 5.7 bcm) higher than the 2014-2018 heating season average, amid preparations for a "zero transit" scenario and a possible shortage of gas in the heating period.

Note: Unless otherwise stated, the 2018 and 2019 indicators are compared.

- Change in natural gas consumption**

+3.2% Changes in volumes of transit of natural gas through Ukraine**

+43.3% Stocks in storage in Ukraine at the end of the year compared to the average for 2014-2018*

-1.3% Change in natural gas production volumes*

+34.5% Increase in natural gas imports to Ukraine*

+2.6°C Average annual temperature in Ukraine (compared to the climatic norm)***

Note: Unless otherwise stated, the 2018 and 2019 indicators are compared.

Source: Ukrtransgaz
*According to the company's data.

Source: NOAA

Source: NOAA

Source: NOAA

Source: Bloomberg
GAS TRANSIT THROUGH UKRAINE

In 2019, the transit volume was 89.6 bcm, which is 2.8 bcm (or 3.2%) more than in 2018. Russia supplies about 40% of its gas to the European markets through Ukraine. However, there is a risk of significant decrease in transit through Ukraine after the Nord Stream 2 pipeline is put into operation. Under the terms of the contract, Gazprom will reduce the amount of gas transmitted through Ukraine in 2020 from 90 bcm to 65 bcm. Reductions in gas transit volumes will continue in the coming years, with an average annual gas transit volume in accordance with the contract of about 40 bcm in 2021-2024.

GAS PRODUCTION IN UKRAINE

Along with the increase in liquefied natural gas imports in 2019, Europe also demonstrates a tendency to reduce its natural gas production. For example, in 2019, the Dutch government approved an updated plan to halt production in Groningen – Europe’s largest gas field – by 2022. Overall, in 2019, the European countries produced 250.1 bcm of natural gas, which is 6.3% less than in 2018 (266.9 bcm).

In 2019, the European countries produced 250.1 bcm of natural gas, which is 6.3% less than in 2018 (266.9 bcm). In 2019, gross gas production in Ukraine amounted to 20.7 bcm, which is 1.3% less than 20.9 bcm produced in 2018. Gross gas production by Ukrgasvydobuvannya, the key production company in the Naftogaz group, fell by 3.8% year-on-year to 14.9 bcm. At the same time, the reduction in the volume of commercial gas produced by Ukrgasvydobuvannya in 2019 was not so significant comparing to the previous year, i.e., the company produced 13.6 bcm of natural gas in 2019, which is 7.0% (or 0.08 bcm) higher than the 2018 volumes.

Private companies operating in Ukraine increased their natural gas production in 2019 by about 230 bcm (or 5.3%) – up to 4.6 bcm.
Gas balance in Ukraine in 2019, bcm

**Gas Balance**

- Gas sources: 29.9 bcm
- Gas consumption: 29.9 bcm

**Gas Sources:**
- Private importers: 7.0 bcm
- Naftogaz: 7.2 bcm
- Ukrgasvydobuvannya: 14.9 bcm
- Other: 4.6 bcm
- Ukrafta: 1.2 bcm

**Gas Consumption:**
- Households: 14.1 bcm (direct use)
- Industrial consumers: 8.1 bcm
- Public sector and religious organizations: 0.4 bcm
- Heat producers for public sector, religious organizations, industrial sector: 2.8 bcm
- Ukrtransgaz: 1.9 bcm
- Gas distribution operators: 0.9 bcm
- Ukrgasvydobuvannya: 1.3 bcm
- Other: 0.0 bcm

**Gas Balance Calculation:**

- Imports: 14.2 bcm
- Production: 20.7 bcm
- Gas consumed by users: 25.4 bcm
- Operating needs and technical loss: 4.5 bcm

**Notes:**
- Including the estimated volume of gas used as unauthorized offtakes (~0.7 bcm)
- Including the estimated volume of gas used as unauthorized offtakes (~0.5 bcm)
- According to Operational Activity Department, Naftogaz

**Source:** Naftogaz
GAS IMPORTS

Amid the global growth in export and import capacity in 2019, the European countries increased their natural gas imports by 10.2% – from 376.0 bcm in 2018 to 414.4 bcm in 2019. In 2019, Ukraine ranked 8th among the largest natural gas importers in Europe ranking. 

In 2019, Ukraine imported gas exclusively from the European market. Compared to 2018, total gas imports increased by 34.5% – from 10.6 bcm to 14.2 bcm. Naftogaz imported 7.2 bcm, which is 2.4% or 0.2 bcm more than in 2018. Naftogaz’s share of total gas imports to Ukraine in 2019 constituted 50.2%. 

In 2019, about 50 private Ukrainian companies imported gas from Europe, totaling 7.0 bcm (49.8% of the total volume). In 2019, the Slovak route remained the main gas supply route to Ukraine. Deliveries through Slovakia increased from 61% in 2018 to 64% in 2019, while flows from Hungary decreased from 32% in 2018 to 26% in 2019.

GAS CONSUMPTION

In 2019, Europe consumed about 529 bcm of natural gas, which is 3.6% more than in 2018. Ukraine ranked 7th among European countries in terms of gas consumption. 

Natural gas consumption in Ukraine fell by 7.7% in 2019 (i.e., from 32.3 bcm to 29.9 bcm) compared to 2018. 

In 2019, households used 9.5 bcm of gas, which is 1.1 bcm or 10.4% less than in 2018. Such a decline can be explained by a decrease in temperature-sensitive natural gas demand. Gas consumption by district heating companies in 2019 amounted to 4.6 bcm, which is 0.2 bcm or 4.3% less than in 2018 due to milder weather in 2019 compared to 2018.

Basically, households are unable to regulate the use of heat in their homes (or such regulation in individual apartments has little effect on the apartment block due to the redistribution of heat among other apartments). Therefore, gas saving factors for household heating are insignificant. Heat production for public institutions and the industrial sector reached 2.8 bcm, which is 0.5 bcm more than in 2018. In 2019, gas consumption by the industrial sector has dropped significantly – from 9.4 bcm to 8.1 bcm (or 13.8%).

**Source: Ukrtransgaz**

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**Natural gas imports to the European countries and Ukraine in 2018-2019, bcm**

**Natural gas imports to Ukraine in 2016-2019**

**Natural gas imports to Ukraine by entry points in 2016-2019**

**Ukraine’s gas consumption 2018-2019, bcm**

- **Households (direct use)**
- Heat producers for households
- Heat producers for public sector, religious organizations and industrial sector**
- Public sector and religious organizations
- Industry
- Operating needs (gas production, transmission and distribution, LPG production)**

*Including the estimated volume of gas used as unauthorized offtakes (~ 0.5 bcm)
**Including the estimated volume of gas used as unauthorized offtakes (~ 0.7 bcm)
***According to the company’s data

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**MARKET AND REFORMS**

**CORPORATE GOVERNANCE**

**ENVIRONMENTAL AND SOCIAL RESPONSIBILITY**

**FINANCIAL OVERVIEW AND STATEMENTS**

Annual Report 2019

Naftogaz Group
In 2019, changes were made to the PSO regime governing Naftogaz’s activities. Naftogaz purchased natural gas produced by Ukrgasvydobuvannia and Chornomornaftogaz in 2017-2019 at a regulated price: by 31 October 2018 at the price of UAH 4,849 / tcm (w/o VAT); from 1 November 2018 to 30 April 2019 — at the price of UAH 6,116 / tcm (w/o VAT).

As a result of the decrease in the price in the European market, the gas price for industrial consumers in Ukraine has become lower than the one for households and heat producers. To eliminate such an imbalance, on 5 June 2019, the CMU adopted Resolution No. 485, which amends Resolution No. 293 and, consequently, the mechanism for calculating the price of natural gas sold for the needs of households and heat producers. In accordance with Resolution No. 485, Naftogaz sets the price of gas at a level equal to the lowest of the following:

- average customs value of imported gas for the previous month, published by the Ministry of Economy;
- average natural gas price for commercial customers of Naftogaz for the last month, which is delivered on a prepaid basis;
- average price on the Ukrainian Energy Exchange; or
- the price of gas under the PSO regime set in the PSO Regulation No. 867 as of 19.10.2018.

The foundations for the liberalization of gas prices for PSO consumers were laid gradually in 2019, including coupling with market indicators. Unlike January-April 2019, when the price was set according to the CMU Resolution No 867 of 19 October 2018 (paragraph 13 of the PSO Regulation), in May 2019, the price was calculated as Naftogaz’s average selling price to industrial users. According to the CMU Resolution No293 of 3 April 2019. Later, to minimize the influence of one source on pricing, the government adopted Resolution No485 of 5 June 2019 according to which prices for June-December 2019 were set as the lowest of the four options: import parity price, average UEEX price, selling price for industrial users paying in advance, PSO price (according to Resolution No867 of 19 October 2018).

At the beginning of 2020, realizing that gas transit through Ukraine will continue and the risk of interrupted supply was avoided, the government adopted a new pricing methodology linked to import parity. In January, the Cabinet of Ministers issued Resolution No17 of 24 January 2020 according to which the price should not exceed the level based on the TTF average actual gas price for the period from 1 to 22 day of the delivery month, difference (spread) between the TTF price and the price at the Ukrainian border, gas transmission tariff for the entry point to Ukraine at the cross border interconnection.

However, the pricing based on the new resolution applied only in January and February. The objective conditions in the Ukrainian market drove a decrease in domestic gas prices lower than the import parity level (record high stocks in UGS facilities, warm winter, lower gas demand). The oversupplied market and filled UGS facilities conditioned a decoupling in the Ukrainian market, which means that price fluctuations in the Ukrainian market were not reflecting European trends. Supporting the market-based gas pricing mechanism, the company shifted from the pricing methodology recommended by the CMU resolution to market-based pricing. Upon Naftogaz’s initiative, starting from March, the PSO price is calculated as weighted average price offered by winners of Prozorro biddings for balancing and fuel gas purchased by the GTS Operator and adjusted according to gas sale and purchase agreements. Thanks to this initiative, households saved on their gas bills and real market price was offered.
GLOBAL OIL MARKET

OIL MARKET: KEY EVENTS

- The oil market in 2019 was more stable than in 2018. Brent prices ranged within USD 53.2-74.7 per barrel, compared with USD 50.6-86.1 per barrel in 2018. Commodity prices were declining impacted by a slowdown in global trade and limited demand. This was due to reduced consumption because of macroeconomic factors, on the one hand, and geopolitical conflicts, on the other hand. 3
- Shale oil has enabled the United States to become the world’s largest oil producer. According to EIA, annual crude oil production in the United States in 2019 reached a record high of 12.23 million barrels per day (b/d), which is 11% more than in 2018.
- Global demand for oil increased by 0.78% in 2019, while GDP increased by 2.9%. 5

THE GLOBAL OIL MARKET

Compared to 2018, which was a year of contrasts for the oil market, oil prices in 2019 were much more stable and were determined by a trade corridor of USD 53.2-74.7 per barrel. This was mainly the case in the second half of the year, when as a result of OPEC+ efforts to reduce the supply, on the one hand, and increased production in the US, on the other hand, the market almost reached equilibrium (USD 55-69 per barrel).

At the beginning of the year, oil prices showed a significant rise amid an improving global situation. The US government shutdown in Q1 2019 was resolved, the US Federal Reserve eased its rhetoric on monetary policy, and the US and China settled into a trade war ceasefire regime and sought compromise in negotiations. After nearly four months of “optimism”, Brent prices came close to USD 74.7 per barrel. In early May, negotiations between the US and China failed and markets faced another wave of protectionism. Signs of global economic slowdown began to emerge, which contributed to the deterioration of forecasts for oil demand and reflected in a drop in quotes. A partial rise in quotes in June-August was due to tension in the Middle East. Amid the US-Iran confrontation, there were several attacks on oil tankers in Gulf waters, which have increased the risk of supply disruption. Significant pressure on oil prices in 2019 was caused by trade wars. A decline in global trade tension was felt since October and had a positive impact on global commodity and stock markets.

However, as the coronavirus epidemic that began in late 2019 in China continues to spread and more and more countries suffer significant losses, a slowdown in oil and gas demand in the next period will have a negative impact on world oil prices. 3

US OIL PRODUCTION GROWTH

The world oil market is undergoing significant changes. The shale revolution in the United States, which has made the country the leading oil-producing nation in the world, is ongoing. Total annual crude oil production, according to EIA, in 2019 was a record 12.23 million bpd (11% more than in 2018), of which 7.4 million bpd is shale oil. Since 2010, shale oil production has increased by almost 40%. The rapid growth of the industry is due to the fact that it takes only 3 to 18 months for a new field to start producing oil. By comparison, it takes five to seven years to get oil from a new offshore field. Consequently, there is strong growth in exports, which strengthens the US position in international markets. In December 2018, for the first time in 50 years, the US acted as a net exporter of liquid fuels. In 2020, the IEA forecasts an average net export of 740 000 bpd. Over the past ten years, the USA has more than doubled its oil production thanks to the rapid development of the shale oil industry, which has enabled the United States to become one of the world’s largest oil producers. 3 4

Growth against the resolution of the US government shutdown in Q1 2019
Attacks on oil tankers in Gulf waters
IEA and International Energy Agency (IEA) oil demand forecasts for decline in oil demand and slowdown of global economy

Source: IEA
According to EIA, global oil demand grew by a mere 0.78% in 2019. In OECD countries, which account for almost half of world consumption, demand decreased by 0.52%. In other countries, consumption of "black gold" rose by 1.99%, which is the lowest rate since the 2008-2009 crisis. At the same time, the IMF estimates that global GDP grew by 2.9%, including in developing countries by 3.7%. Global oil demand growth is projected to decline as soon as in 2020 and 2021, since global trends including for transport fuel demand, demonstrate negative dynamics.

GLOBAL GDP GROWTH  OIL DEMAND
+2.9%  +0.78%

6 Oil demand and supply in 2018-2019

7 Forecasted global supply and demand

EUROPEAN OIL REFINING MARKET

Despite the fall in oil prices, the European oil refining market has remained relatively stable over the last two years. For example, 2019 was at the level of 2018 in terms of profitability and demand for petroleum products in Europe. The average refinery utilization rate in Europe in 2019 was at the same level as in the previous year – about 84%. Throughout the year, refining margins showed volatility, ranging from about USD 2.50 to 7.50 per barrel. The highest average margin – almost USD 7 per barrel – dropped during the summer season, when demand for petroleum products is traditionally higher due to seasonal factors.

In September, the seasonal drop in demand for gasoline and the decline in petroleum product exports marked the beginning of a margin decline that continued until the end of 2019. In October, the refining margin increased slightly amid the planned closure of individual refineries. However, by December last year, the margin reached its minimum at least for the past two years – USD 2.54 per barrel – under pressure from the accumulated petroleum products in the region due to reduced consumption amid a slowdown in industrial production in Europe.

Overall, production of petroleum products decreased by only 1% over the previous year to 655.5 million tons in comparison with 2018. Within the petroleum products range, mazut production decreased the most – by 12% to 68.5 million tons due to reduced demand for the product during warm winter and as a result of improved efficiency of mazut refining, which has led to increase in light petroleum production at some refineries. Last year, in 2018, the total share of gasoline and diesel in the production structure of the European refineries accounted for 58% of total refining.

Trends for the coming year

The profitability of oil refining on the continent will decline this year due to the drop in demand in Europe and other
The policies of Western European countries to reduce harmful emissions will gradually promote the replacement of petroleum products with renewable energy, which will have a negative impact on refinery utilization and profitability. In addition, most of the European refining industry will remain vulnerable to imported oil supplies. All these factors are already driving the European refineries to close or optimize their capacity. Total refinery capacities in the European Union decreased from 15.8 million bpd in 2008 to 14 million bpd in 2018. Under the current circumstances, the trend will continue.

UKRAINIAN OIL AND GAS CONDENSATE MARKET

The needs of the Ukrainian market for oil are satisfied by domestic production and imported supplies. The most important oil and gas condensate companies in Ukraine are Ukrnafta and UkrGasvydobuvannya, which are included to Naftogaz Group. Overall, these companies increased oil and condensate production by 5.7% in 2019—from 1.89 million tons to 1.99 million tons. Ukrnafta, in particular, increased its oil and condensate production by 4.8%—from 1.45 million tons to 1.52 million tons. The company managed to achieve positive production results under the conditions of limited investment resources thanks to a number of operations on the active wells, transition to new productive horizons, optimization of major and current repairs of potentially productive wells, and replacement of critically worn-out equipment. However, the overall trend in oil production in Ukraine in recent years remains negative. 17

In accordance with Article 4 of the Law of Ukraine “On Oil and Gas”, Ukrnafta shall sell its produced oil and gas condensate at exchange auctions. Change in selling prices at auctions and profitability. In addition, most of the European refining industry will remain vulnerable to imported oil supplies. All these factors are already driving the European refineries to close or optimize their capacity. Total refinery capacities in the European Union decreased from 15.8 million bpd in 2008 to 14 million bpd in 2018. Under the current circumstances, the trend will continue.

In 2019, the average oil production of Naftogaz Group’s refineries was 1.46 million tons, which was 12% more than in 2018. The production of motor fuels increased accordingly: gasoline up to 149 thousand tons (by 18.5 thousand tons or 12.4%), diesel up to 88.3 thousand tons (by 3.2 thousand tons or 3.8%).

The overall production of liquefied hydrocarbon gas at the production capacities of UkrGasvydobuvannya decreased to 352.7 thousand tons (by 12.2 thousand tons or 3.4% compared to 2018) due to the reduction of the raw material production (reduction in gas condensate factor).

In 2019, at the Shebelynka Refinery:
- A new hydro-purification reactor was put into operation and diesel dewaxing was launched, which enabled the plant to start a new product — winter diesel.
- The technological losses during processing and production fell by more than half — down to 1%. Accounting for petroleum products shipped by rail was optimized: 5 new weighing complexes have been installed with an automated analytical and control system.
- The geography of retail sales was expanded — fuel under the Shebelynka brand became available in Kyiv, Zhytomyr, Chernihiv, Kharkiv, Dnipropetrovsk, Zaporizhzhia, Poltava regions and the territories of Donetsk and Luhansk regions controlled by the Ukrainian government. 17

In 2019, the estimated balance (total consumption) of the Ukrainian motor fuel market, according to the sector publications, has increased by 7%. The highest growth rates were demonstrated by diesel and LPG. In 2019, the diesel market increased by 7% (by 471 thousand tons), while the LPG market (excluding raw materials for petrochemical processes) grew by 11% (by 395 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). Industrial consumption was the driver for increase of diesel supply. The gasoline market ended 11% (by 195 thousand tons). The geographic expansion of retail sales expanded — fuel under the Shebelynka brand became available in Kyiv, Zhytomyr, Chernihiv, Kharkiv, Dnipropetrovsk, Zaporizhzhia, Poltava regions and the territories of Donetsk and Luhansk regions controlled by the Ukrainian government. 17

Kremenchuk Oil Refinery and the Shebelynka Oil Refinery produce Euro 5 fuel. In 2019, the Shebelynka Oil Refinery (Shebelynka VPGBK, UkrGasvydobuvannya ISC) increased its raw material processing to 473 thousand tons (by 18.7 thousand tons or 4.1% more than in 2018). The production of motor fuels increased accordingly: gasoline up to 149 thousand tons (by 18.5 thousand tons or 12.4%), diesel up to 88.3 thousand tons (by 3.2 thousand tons or 3.8%).

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imports accounted for almost 75% of domestic demand. According to the State Statistics Service of Ukraine, in 2019, Ukraine imported 8.4 million tons of petroleum products worth USD 5.36 billion, which is 2.75% less than in 2018 in monetary terms. Since the Ukrainian petroleum products market is import-dependent, the price of petroleum products in the domestic market is determined in line with the exchange rate and quotations for oil products on international exchanges. This formula-based pricing practice is based on quotations from international independent price agencies, which is common in many commodity markets around the world.

Eastern European petroleum product importing countries play an important role in the fuel supply to the Ukrainian market, including Belarus and Lithuania, Ukraine's major gasoline suppliers. In 2019, according to Enkorr, the production of petroleum products, including gasoline, by the Ukrainian refineries increased by 10% to 908 thousand tons. The production of gasoline by the Kremenchuk Refinery (Ukrtatnafta PJSC) for the first time exceeded the volume of imports from Belarus, which until 2019 was the main source of supply for this type of motor fuel. In 2019, the Belarusian refineries reduced their gasoline deliveries to Ukraine by 17%, reducing their share in this segment of the Ukrainian market from 43.5% to 35.5%.

Analysis of the geographical structure of diesel fuel imports shows that the Russian Federation is still the largest source of supply, although the volume of deliveries decreased by 7.8% (by 311 thousand tons), which is explained by the introduction of an additional special duty in accordance with the CMU Resolution No. 624 dated 17 July 2019, for heavy distillates (gas oils) of 3.75% from 1 August 2019 and 4% from 1 October 2019. At the same time, imports of diesel fuel from Belarus increased by 34.8% to 2.47 million tons.

In 2019, the total volume of transmitted oil amounted to approximately 15.51 million tons, which is 0.5% more than in 2018, of which: to the Ukrainian refineries – 2.38 million tons (13.4% more than in 2018); transit through the territory of Ukraine – 13.13 million tons (1.6% less than in 2018), which was caused, among other reasons, by force oil transit interruptions from 25 April to 11 May 2019 and from 17 May to 21 May 2019 because of a sharp deterioration in the quality of raw materials coming from Russia through the Druzhba pipeline. The content of organochlorine compounds exceeded the norm tenfold. Because of the organochlorine compounds identified in the Druzhba pipeline, the company decided to reduce the share of gasoline deliveries to Ukraine by 17%, reducing their share in this segment of the Ukrainian market from 43.5% to 35.5%.

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In 2019, among other things, Ukrtransnafta signed an additional agreement with Transneft PJSC on the provision of services for the transmission of Russian oil through the territory of Ukraine, which continues the terms of the main agreement until 2030. The extension and rearrangement guarantees the safe and sustainable operation of the Ukrainian oil transmission system on a long-term basis, serves as a basis for loading the trunk oil pipelines system with transit volumes of oil towards European countries, and ensures a stable source of revenue for the company.

Following the results of a number of consultations, at both the interstate level with the participation of the presidents of Ukraine and Belarus and the level of state companies, a contractual, technical, technological and commercial framework was developed for arrangement of oil transportation from the Black Sea basin to the refineries of the Republic of Belarus using Ukrainian trunk oil pipelines that would enable the conclusion of the relevant contracts and the start of oil transportation in the shortest possible time.

Also during 2019, Ukrtransnafta actively worked on other promising projects aimed at diversifying the sources and routes of oil supply to Ukraine and its transit through the territory of Ukraine, including a project designed to enable the transmission of various oil grades through the southern branch of the Druzhba oil pipeline to refineries in Slovakia, the Czech Republic, and Hungary, and a project for the construction of the Brody-Adamos oil pipeline in order to connect Ukrainian and Polish oil transmission systems, etc.
On January 1, 2020, the unbundling process, i.e. the restructuring that resulted in the full separation of natural gas transportation activities from Naftogaz, was completed. Before 2020, gas storage and transportation through trunk gas pipelines was provided by Ukrtransgaz (a company 100% owned by Naftogaz). From January 1, 2020 the company was divided into two separate legal entities: the gas storage facilities operator (Ukrtransgaz), which remained a part of Naftogaz Group, and the gas transportation system operator (Gas Transmission System Operator of Ukraine LLC (GTS Operator LLC), which operates independently and is only engaged in natural gas transmission. The unbundling process has taken almost five years. The separation has gained considerable resonance in Ukraine and abroad. It was the first large-scale restructuring case for Naftogaz.

18 SEPTEMBER 2019 The Cabinet of Ministers of Ukraine adopted Resolution No. 840 “On Separation of Natural Gas Transportation and Ensuring Operations of the Gas Transportation System Operator” (hereinafter Resolution No. 840), which provided for the following unbundling arrangement:

1. Transfer the function of managing the corporate rights of JSC “Mahistralni Gазопровод України” from the Ministry of Energy and Environmental Protection of Ukraine to the Ministry of Finance of Ukraine.
2. Authorization of the Ministry of Finance of Ukraine to manage state property used in Ukrainian natural gas transportation operations.
3. Transfer, by right of economic management, the authority to use state-owned assets engaged in the process of natural gas transmission through trunk pipelines, from the Ministry of Finance of Ukraine to GTS Operator LLC.
4. Transfer, by concluding a share purchase agreement, 100% of the share in the authorized capital of GTS Operator LLC, from Ukrtransgaz JSC to JSC “Mahistralni Gазопровод України”.

22 NOVEMBER 2019 GTS Operator LLC received the preliminary decision of the Regulator regarding its certification as a gas transmission system operator. On DECEMBER 20, 2019, taking into account the positive conclusion of the Energy Community Secretariat, the NEURC adopted its final decision on the certification of the gas transmission system operator of Ukraine. January 1, 2020 the parties signed:

— The Act of transfer of property (assets) of the state-owned gas transportation system of Ukraine to GTS Operator LLC, by the right of economic management.
— The Act of transfer of a 100% stake in GTS Operator LLC, which completed the acquisition by JSC “Mahistralni Gазопровод України” of full control over GTS Operator LLC.

By signing these documents, Naftogaz Group completed the separation of the gas transportation system operator.

### MAIN OBJECTIVES ACHIEVED THROUGH UNBUNDLING:

**Ukraine has made the most progress in implementing European gas legislation among the countries that have acceded to the Energy Community Treaty.**

This conclusion can be drawn from the latest report of the Energy Community Secretariat1 and the progress made in the last months of 2019. The report, published in November 2019, stated that the key steps not yet implemented by Ukraine as of then on its path towards further integration into the European gas market were the separation of natural gas transportation operations and the termination of special obligations assigned to natural gas market entities. Therefore, the unbundling process has brought the country even closer to its declared goal.

**The timing and the manner in which the separation was implemented helped Ukraine strengthen its position in gas transit negotiations, and Naftogaz in its arbitration against Gazprom.**

In February 2018, Naftogaz received a tribunal decision on its transit agreement with Gazprom, according to which the company, as a party to the transit agreement, had no right without Gazprom’s consent to transfer this agreement to the new GTS Operator. In fact, Naftogaz remained the operator in the gas transit relationship, which made unbundling impossible until the agreement expires, i.e. until January 1, 2020.

**Separation of the GTS operator gave impetus to the continuation of Ukrainian gas market reform.**

The achievement of GTS Operator LLC as an independent operator, in its relations with the adjacent GTS operators, is the implementation of European operating rules at almost all western points. This allowed not only for the launch of virtual reverse natural gas, but also created, in the long run, the opportunity for European gas companies to reserve GTS capacities on the eastern border of Ukraine. So far, this possibility was blocked by Gazprom. Moreover, the next transit agreement may be concluded directly with the GTS operator, but for this end, Ukraine has to fully implement European legislation including EU network codes and demonstrate their successful operations.

**The unbundling was carried out and completed without any threat to the operations of both strategically important operators.**

The GTS operator started its independent operations in the middle of the heating season, so any mistake that would lead to its failure was a threat to the energy security of the country. Since the decision to separate the two operators, there were risks of operating the gas transmission system.
separately from gas storage facilities, since they are closely linked technologically. At the same time, European practice shows that the vast majority of GTS operators are, with some exceptions, disconnected from UGS. The problem was solved using a standard European operator interaction arrangement. Commercial and technical agreements were concluded at the GTS and UGS connection points. These agreements, when needed, allow the GTS operator to meet the needs of the day-to-day balancing process and provide for an effective and transparent mechanism for monitoring the flow of natural gas between the GTS and the UGS.

**HOW UKRTRANSGAZ WAS RESTRUCTURED**

By the time of adoption of the updated unbundling plan, Naftogaz Group was already preparing for restructuring. The teams of Naftogaz and Ukrtransgaz started their work in 2018. In a little more than one year, all the necessary steps were taken to complete the separation under the new unbundling plan. The separation of gas transportation operations was, in fact, a complex and sophisticated project and it was for the first time Naftogaz Group dealt with such a complicated project. The company involved consultants from PwC Polska and EY Ukraine to develop the internal restructuring model and implementation plan. The teams were assigned responsible for different areas, deadlines for implementation were set up, regular reporting and monitoring mechanisms were put in place. The key team included over thirty Naftogaz and Ukrtransgaz employees, with dozens of professionals working in each area. The project implementation schedule consisted of more than 400 tasks in many areas, such as the separation of assets, business processes, personnel, IT infrastructure, contracts, analysis and compliance with certification requirements and support for the specified process.

During the preparation period, about 900 contracts, more than 300,000 asset positions, more than 150 internal regulations and normative documents were analyzed and separated. Plans for the gradual transfer of more than 11,000 employees to the new GTS operator were developed and implemented. However, it is important to understand that the work was carried out in a rather difficult environment, when Ukrtransgaz’s financial resources were limited due to tariff reductions and an impressive amount of losses related to the unauthorized withdrawal of gas.

At each stage of implementation, the process included consultations and checks to verify whether the resulting decisions would meet the requirements of EU legislation, whether the smooth operations of the operator would be ensured at the time and after separation, to analyze and advise on the technical aspects of unbundling, to consider the progress of the developed plan.

Naftogaz, Ukrtransgaz, and the GTS Operator LLC continue their operations after the unbundling. In particular, GTS and UGS operators are working to strengthen their competencies and further optimize their business processes and organizational structures.

**Key unbundling stages**

1. **10 NOVEMBER 2018**
   - The Unbundling Project Statute is approved

2. **1 JANUARY 2019**
   - The branch UGS Operator is functionally separated, including the related processes, assets, personnel. Preparation for independent operations from July 1, 2019 arranged

3. **5 FEBRUARY 2019**
   - GTS Operator LLC is established, the transfer of assets, business processes, and personnel launched

4. **1 JUNE 2019**
   - Functional separation of the branch GTS Operator of Ukraine completed, the branch performs natural gas transportation independently

5. **1 JULY 2019**
   - Full separation of business processes related to gas transportation and gas storage. Transfer to GTS Operator of Ukraine LLC

6. **24 DECEMBER 2019**
   - Certification of GTS Operator of Ukraine LLC for compliance with the requirements for independence issued by NEURC

7. **1 JANUARY 2020**
   - Ukrainian GTS is transferred to the new GTS Operator. 100% share in the Operator transferred to Trunk Gas Pipelines of Ukraine JSC
KEY BUSINESS RESULTS FOR 2019:

— Net revenues from the gas transit business in 2019 was UAH 70.2 billion.

— Transit volumes amounted to 89.6 bcm (+3% compared to 2018). This is more than 45% of the total gas supplied by Gazprom to European countries in 2019.

— In line with the final award of the Arbitration Institute of the Stockholm Chamber of Commerce in the transit case, Gazprom paid UAH 68.5 billion (USD 2.92 billion) to Naftogaz.

— Primarily in exchange for Naftogaz’s waiver of new claims in 2018 arbitration against Gazprom, a transit contract for 2020-2024 (with guaranteed income based on ship-or-pay principle and European rules) has been signed. Estimated revenues under the contract will amount to more than USD 7 billion over the next five years.

In 2019, Russian gas transit through the territory of Ukraine amounted to 89.6 bcm, which is 2.8 bcm more than the transit volume in 2018. In addition, in December 2019, Naftogaz received compensation from Gazprom following the arbitration award in the transit case of 2018 of USD 2.92 billion.

The aforementioned change in transit volumes in 2019 was due to a number of factors including:

Preparation of other European countries and Gazprom for the zero gas transit scenario from 2020. Considering uncertainty in gas transit negotiations in 2019 and the last-minute agreement on the new transit deal, European market players assessed the threat of transit interruption in 2020 as high. Both European customers and Gazprom were preparing to this scenario, accumulating gas stocks in European UGS facilities:

(a) as of April 2019, the remaining volumes of gas inventories in European UGS facilities was above the average for the last three years due to the warm heating season of 2018/2019;

(b) 2019 saw an increase in imports of liquefied natural gas (LNG) to Europe by almost 70%;

(c) the onset of the 2019/2020 heating season was significantly warmer than normal, leading to a decrease in natural gas consumption by households.

The increase in reverse supplies of imported gas from Europe to Ukraine by 3.7 bcm more compared to 2018 in preparation for the transit termination scenario from 2020. Imports of gas from the EU, not Russia, increase the overall level of demand in Europe. Like European countries, Ukraine was preparing for possible Russian gas transit termination from 2020, and the relevant action plan was developed in time through accumulation of sufficient gas volume in UGS facilities. As evidenced by the actual transit volumes in January-February 2020, Russia was indeed preparing to terminate its transit through the territory of Ukraine after the expiry of the 2009 transit contract.

The highest revenue in the history of Ukraine

Compensation under the transit arbitration award of 2018

Revenue from transit services rendered in 2019

Source: Naftogaz
The second half of 2019 was marked by negotiations between Ukraine and Russia in various formats regarding the conclusion of a new gas transit agreement. Until December 2019, the negotiations were held in a bilateral format (involving representatives of the European Commission), and in December, mainly in a bilateral format at the company level. Since Gazprom has long been reluctant to sign a new contract for the period after 2019, the zero-train scenario after 2019 was a baseline. Under this scenario, Naftogaz had to continue a new arbitration, which provided for the possibility of receiving multi-billion dollar compensation for Gazprom’s termination of gas transit through the territory of Ukraine.

In the result of negotiations process, completed at the end of December 2019, on the conclusion of the Agreement for the settlement of existing gas disputes and the basic terms of the future relationship in respect of transportation of natural gas (hereinafter Settlement Agreement) and the Contract for rendering services of organisation of natural gas transmission through the territory of Ukraine (hereinafter Transit Agreement), an arrangement between Naftogaz and Gazprom was reached on booking capacities for transit in 2020-2024. Under the Transit Agreement, the minimum guaranteed amount of revenues from it comprises almost USD 1.2 billion.

The Settlement Agreement provided that Gazprom should pay USD 2.92 billion as compensation under the 2018 arbitration proceeding against Gazprom for a total of USD 11.8 billion. The claim was based, among other things, on compensation by Gazprom for the loss in value of the Ukrainian GTS due to the expectation of termination of transit by Russia from 2020. This requirement was in fact a consequence of the work on the revision of the transit tariff under the 2009 contract, which has been actively pursued by Naftogaz since 2014. Naftogaz successful efforts in the arbitration proceedings was one of key factors in achieving successful transit arrangements by the Ukrainian side.

On 27 November 2019, the Swedish Court of Appeal rejected Gazprom’s appeal against the separate award of the Stockholm Arbitration Tribunal in the gas sale case between Naftogaz and Gazprom. The judgment could have not been appealed on the merits and minimized Gazprom’s chances to win an appeal against the final award of the Stockholm Arbitration Tribunal in the gas sale case.

On 22 October 2019, the District Court of Amsterdam satisfied Naftogaz’s request for the attachment of 100% of the shares of Gazprom’s South Stream Transport B.V. subsidiary. This was done in connection with the legal proceedings against Gazprom for the fraudulent transfer of these shares to Transgas Krasnodar LLC a day before the bailiffs started to freeze Gazprom’s assets in the Netherlands upon Naftogaz’s claim. In addition, on 4 December 2019, a court hearing on the recognition and enforcement of the Stockholm Arbitration Award in the case initiated by Naftogaz against Gazprom as been successfully completed in Amsterdam. We had been expecting a favorable judgment in this case to be rendered in February 2020. This would have enabled us to enforce Gazprom’s debt under the arbitration award of 2018 through selling the attached assets, making Gazprom far less optimistic about its chances to win other cases against Naftogaz.

The Ukrainian side was prepared to defend its position when the formation of the negotiations changed from trilateral to bilateral negotiations with the involvement of representatives of the Ukrainian government.

9) On 9 December 2019, the gas issue was discussed between Ukraine and Russia during the Normandy summit in Paris.

10) According to our estimates, such a development amid increasing competition from LNG in the European market could have made Gazprom reassess the importance of maintaining its reputation as a reliable counterpart that is committed to the rule of law (in particular by fulfillment of the decisions of international courts).

EXCHANGE OF NEW CLAIMS BY NAFTOGAZ FOR A NEW TRANSIT CONTRACT

The signing of the new Transit Agreement and the Settlement Agreement should be considered in the context of the circumstances and events that preceded the agreements on 30 December 2019:

1) The Ukrainian side was well prepared to defend its position to prevent accusations of disruption of the negotiation process during Ukraine-Russia EU trilateral negotiations.
2) During 2019, a stakeholder awareness campaign was successfully launched to counteract the possibility that in return for extension of the old transit contract, Naftogaz would have to agree to Gazprom’s “zero option” (that is, without fulfilling the 2018 arbitration award), and the terms and conditions of such a prolongation of the contract would be disadvantageous for Naftogaz (much smaller volumes, no ship-or-pay principle and no responsibility for the failure to deliver the transit volumes, non-compliance with European rules, etc.).
3) Ukraine and the European Commission took a common stand regarding the benefits and future use of the Ukrainian GTS during the negotiation process.
4) The Ukrainian side started to prepare for the scenario of interruption of gas transit by Russia from 2020 in advance, including accumulation of sufficient gas volumes in UGS facilities for flawless heating season.
5) The company was actively supporting its claims in a new arbitration against Gazprom concerning violations of the 2009 contract, which has been actively pursued by Naftogaz against Gazprom as been successfully completed in Amsterdam. We had been expecting a favorable judgment in this case to be rendered in February 2020. This would have enabled us to enforce Gazprom’s debt under the arbitration award of 2018 through selling the attached assets, making Gazprom far less optimistic about its chances to win other cases against Naftogaz.
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New Transit Contract

Pay USD 2.92 billion as compensation under the 2018 arbitration proceeding against Gazprom for a total of USD 11.8 billion. The claim was based, among other things, on compensation by Gazprom for the loss in value of the Ukrainian GTS due to the expectation of termination of transit by Russia from 2020.

US sanctions against Nord Stream 2:

More than three years of Naftogaz’s targeted efforts facilitated the adoption of US sanctions against companies providing vessels and technology for the construction of Russian export-oriented offshore energy projects. The sanctions were adopted in December 2019 and led to immediate withdrawal of two companies providing pipelaying vessels from the Nord Stream 2 project and suspended its construction. This urged Gazprom to agree and sign a new transit contract with Naftogaz as soon as possible. It should be noted that until the final adoption of the sanction bill in the US Congress, Gazprom had been refusing to constructively negotiate a new transit deal, hoping to complete Nord Stream 2 within a short period of time and be able to refuse from the Ukrainian transit route in 2020.

High-level political arrangements

The signing of the new transit contract took place based on the political arrangements reached, which were formalized in the minutes of the meeting of the representatives of the European Union, Ukraine and the Russian Federation of 19-20 December 2019.

WHAT IS NEXT

The most pressing issues in relations with Gazprom include unlocking the following possibilities:

– gas delivery to European companies on the Russia-Ukraine border;
– gas exports from the Russian Federation by gas producers independent from Gazprom;
– gas transit from Central Asia through the Russian Federation by gas producers independent from Gazprom.

Solving these issues is related to Ukraine’s integration in the European gas market, including harmonization of legislation regulating market relations; advocacy and strengthening Ukraine’s position in the European energy and political landscape; and building trust among European institutions and businesses.

In a long-term perspective, this will help Ukraine become a rightful participant of the European gas market and retain its position in gas transit and relevant revenue.

1) According to our estimates, such a development amid increasing competition from LNG in the European market could have made Gazprom reassess the importance of maintaining its reputation as a reliable counterpart that is committed to the rule of law (in particular by fulfillment of the decisions of international courts).

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The natural gas market has switched to a daily balancing regime, which brings the Ukrainian gas market closer to integration with the EU gas market. The independent GTS operator has been separated and certificated. In terms of EU legislation transposition, it is worth noting the amendments to the GTS Code aimed at harmonization with the relevant EU network codes, in particular, regarding allocation agreements, clustering customers of transportation services into balancing groups, and the provision of capacity with restrictions. In addition, the methodology for determining and calculating tariffs for natural gas transportation services for entry and exit points based on multi-year incentive regulation was amended to ensure compliance with Regulation (EC) No 2017/460 of 16 March 2017 establishing a network code of harmonized gas transportation tariff structures.

Daily balancing mechanisms and conditions have been standardized.

The NEURC Resolution of 12.04.2019 No 558 “On Approval of Amendments to Certain NEURC Resolutions” amended the provisions of the Gas Transmission System Code, the Standard Natural Gas Transportation Agreement and the Natural Gas Supply Rules, which determine the procedure for entering into an allocation agreement (allowing non-household consumers to simultaneously receive natural gas from several suppliers in one commercial accounting point) and introduced the procedure for balancing group establishment and operation in the natural gas market (the rights and responsibilities of the party that can be accountable to the GTS operator for paying for daily imbalance of a group of customers it services). Also, the date when the fees for neutral balance will start to accrue (1 January 2020) was established.

The NEURC Resolution of 07.10.2019 No 2081 “On Amendments to the Rules of Natural Gas Supply” has regulated the issue of non-application of penalties to heat-producing enterprises, as well as condominiums with their own boilers (which receive gas under the PSO Regulation) for actual consumption of gas that does not match the ordered amount. After the introduction of daily balancing in the natural gas market, the company was required by law to impose fines on these consumers in case of deviation of their actual gas withdrawal by more than 5% from pre-ordered volumes, and spent significant resources on administration of fines. The purpose of this decision was to protect the rights of these consumers and reduce any financial burden.

A positive development for both the natural gas market of Ukraine and Naftogaz Group as it strengthens competition in the market for gas supplied for non-domestic consumers and improves the work of the GTS Operator.

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The legal acts of the Regulator have been improved to ensure fulfillment by the NEURC of its responsibilities in the oil and gas sector and interaction with licensees.

Positive effect for market players.

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The NEURC Resolution of 12.04.2019 No 580 “On Approval of Amendments to Certain NEURC Resolutions” amended the Gas Transmission System Code, the Standard Natural Gas Transportation Agreement, the Gas Storage Facility Code, the Standard Natural Gas Storage (Injection, Withdrawal), and the methodology for determining and calculating tariffs for natural gas transportation services for entry and exit points based on long-term incentive regulation. Amendments were also made to the reporting form No ANITRFRP natural gas transportation (quarterly), in particular in terms of capacity allocation and introduction of procedures for providing access to capacity with certain restrictions. The amendments provide that entry / exit point capacity will be ordered and paid for by the customers of transportation services rather than consumers. In turn, this allows the operator to achieve greater predictability of long-term loading of the GTS and optimizes its operation. In addition, these amendments make it possible for the customers of transportation services to have more flexible mechanisms for accessing the capacity of domestic entry / exit points for various periods (a year, quarter, month and day ahead), which allows them to effectively plan their orders and capacity use.

The procedure for providing access to capacity with certain restrictions is introduced. The positive effects of the implementation of this procedure include the following:

— ensuring regional transit flows through the gas transmission system of Ukraine and efficient use of the existing infrastructure;
— loading of Ukrainian gas storage facilities at the expense of European suppliers;
— diversification of GTS operator’s sources of income;
— increased cross-border trade and improvement of liquidity in gas markets.

The NEURC Resolution of 12.04.2019 No 1573 “On Amendments to the NEURC Resolutions” amended the GTS Code, which determines the procedure for balancing group establishment and operation in the natural gas market (the rights and responsibilities of the party that can be accountable to the GTS Operator).

The NEURC Resolution of 07.10.2019 No 2081 “On Amendments to the Rules of Natural Gas Supply” has regulated the issue of non-application of penalties to heat-producing enterprises, as well as condominiums with their own boilers (which receive gas under the PSO Regulation) for actual consumption of gas that does not match the ordered amount. After the introduction of daily balancing in the natural gas market, the company was required by law to impose fines on these consumers in case of deviation of their actual gas withdrawal by more than 5% from pre-ordered volumes, and spent significant resources on administration of fines. The purpose of this decision was to protect the rights of these consumers and reduce any financial burden.

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The NEURC Resolution of 17.05.2019 No 750 “On Amendments to the NEURC Resolution dated 30 September, 2015 No 2494” amended the GDN Code, which exempted the owners of commercial natural gas metering units with meters of sizes G-3, G-6, G-10, G-16, G-32, G-50, G-100 and G-200 from the obligation to install remote data transmission devices on their own commercial metering units. The idea of this decision is to avoid burdensome technical requirements and additional financial burden for this category of consumers.

The NEURC Resolution of 02.07.2019 No 1333 “On Approval of the Rules for Consideration of Consumer Appeals on Actions of Business Entities Operating in Energy and Utilities and Settlement of Disputes” determined the procedure for consideration by NEURC of the appeals of consumers or persons intending to be represented by NEURC.

The introduction of daily balancing on the natural gas market of Ukraine on March 1, 2019, has significantly brought the operations of the natural gas market as a whole, which has also made to the reporting form No 4-NKREKP-natural gas transportation (quarterly).

The NEURC Resolution of 30.11.2018 No 1573 once and for all rescheduled the date of introduction of daily balancing on the natural gas market of Ukraine on March 1, 2019. Accordingly, on March 1, 2019, the system switched to daily balancing, which imposes on the customers of natural gas transportation services the obligation to settle their imbalances within one gas day.

A positive development for both the natural gas market of Ukraine and Naftogaz Group. The introduction of daily balancing contributes to the development of the liquidity of the short-term wholesale market (purchase and sale of natural gas within one day) and liberalization of the natural gas market as a whole, which significantly brought the operations of the Ukrainian natural gas market closer to European standards, including in terms of determining the fee for imbalances.

The NEURC Resolution of 12.04.2019 No 558 “On Approval of Amendments to Certain NEURC Resolutions” amended the provisions of the Gas Transmission System Code, the Standard Natural Gas Transportation Agreement and the Natural Gas Supply Rules, which determine the procedure for entering into an allocation agreement (allowing non-household consumers to simultaneously receive natural gas from several suppliers in one commercial accounting point) and introduced the procedure for balancing group establishment and operation in the natural gas market (the rights and responsibilities of the party that can be accountable to the GTS operator for paying for daily imbalance of a group of customers it services). Also, the date when the fees for neutral balance will start to accrue (1 January 2020) was established.

The NEURC Resolution of 07.10.2019 No 2081 “On Amendments to the Rules of Natural Gas Supply” has regulated the issue of non-application of penalties to heat-producing enterprises, as well as condominiums with their own boilers (which receive gas under the PSO Regulation) for actual consumption of gas that does not match the ordered amount. After the introduction of daily balancing in the natural gas market, the company was required by law to impose fines on these consumers in case of deviation of their actual gas withdrawal by more than 5% from pre-ordered volumes, and spent significant resources on administration of fines. The purpose of this decision was to protect the rights of these consumers and reduce any financial burden.

A positive development for both the natural gas market of Ukraine and Naftogaz Group as it strengthens competition in the market for gas supplied for non-domestic consumers and improves the work of the GTS Operator.

Please note: The above text has been provided in a summary format and may not cover all details or specific aspects of the document it represents.
come consumers, as regards the violation of their rights and interests by economic entities operating in the energy and utilities sectors, the state regulation of which is performed by NEURC, and the settlement of disputes.

The NEURC Resolution of 01.08.2019 No 1623 “On Approval of Amendments to the Resolution of the National Energy and Utilities Regulatory Commission dated 07 July 2016 No 1234” approved the changes to the reporting forms and instructions for their completion, which relate to monitoring the natural gas market. The decision to modify these forms is due, on one hand, to the need to bring them into line with current legislation (in particular, the PSC Regulation), and the need to automate information collecting and processing for the purposes of monitoring.

The NEURC Resolution of 13.09.2019 521952 “On Approval of Amendments to the Procedure for Monitoring Compliance by Licensees Operating in Energy and Utilities, Legislation in the Relevant Areas and Licensing Conditions” supplemented the procedure for control with new chapters on the organization of two types of unscheduled inspections: off-site inspections (i.e. those held on the premises of the regulator) and inspections carried out before the decision on the merits of the dispute. The approved amendments regulate the terms, grounds, and list of issues subject to such inspections.

With its Resolution of 29.11.2019 No 2586 “On Transposition of the Provisions of the European Union and the Energy Community Acts on the Natural Gas Market of Ukraine”, the regulator approved the decision to transpose the provisions of the European Union and the Energy Community Acts on network codes in the gas sector, namely:

Transposition is done by translating the provisions of EU Regulations and transposing them into national law without making changes to the structure or text.

**Tariff methodologies for natural gas transportation and natural gas distribution services have been improved**

The NEURC Resolutions of 11.10.2019 No 2107 and of 20.12.2019 No 2899 approved the amendments to the methodology for determining and calculating tariffs for natural gas transportation services for entry and exit points based on long-term incentive regulation. The amendments are aimed at ensuring compliance with the regulations of the European Commission (EU) No 2017/460 of March 16, 2017 on the establishment of a network code of harmonized transmission tariff structures for gas. In addition, the approach to the distribution of the required revenue between entry / exit points, the calculation of the adjustment of required revenue from natural gas transportation activities on the basis of capacity charges was modified, and a mechanism for determining the auction price using the newly introduced concepts of “regulatory account”, “homogeneous group of points”, and “cluster of points”. Among other things, for the GTS entry / exit points on a cross-border pipe joint, a tariff may be set below the GTS operator’s economic costs, however only in order to bring tariffs to a competitive level, taking into account the level of alternative gas transportation routes, alternative costs, and economic feasibility for customers of gas transportation services and other factors.

A positive development for natural gas market players

The approved amendments enabled calculating and setting tariffs for the certified operator of the GTS of Ukraine according to European standards.

**The NEURC Resolution of 07.10.2019 No2080 “On Approval of Amendments to Certain NEURC Resolutions” amended the Gas Distribution Systems Code and the Standard Natural Gas Distribution Agreement, as well as the methodology for Determining and Calculating Tariffs for Natural Gas Distribution Services.**

The amendments also changed the principles of determining the amount of capacity for natural gas consumers through transition from the connected capacity to ordered capacity which will best meet the needs of consumers. In addition, capacity ordering procedures have been simplified based on statistics on natural gas consumed by each consumer in previous periods, and provided additional protection for household consumers.

Tariffs for natural gas, oil and oil product transportation services, as well as for natural gas storage (injection, withdrawal) services in underground gas storage facilities have been set

The NEURC Resolution of 18.07.2019 No 1480 “On Amendments to the NEURC Resolution of June 19, 2018 No 480” from August 1, 2019 established tariffs for natural gas storage (injection, withdrawal) in the underground gas storage facilities of Ukrtransgaz JSC.

The NEURC Resolution of 11.10.2019 No 2108 “On the Establishment of Tariffs for Transportation of Oil by Trunk Pipelines of Ukrtransnafta JSC for Consumers of Ukraine for a Transitional Period” from November 1, 2019, established tariffs for the transportation of oil by trunk pipelines with their gradual increase over three years.

The NEURC Resolution of 24.12.2019 No 3013 “On Setting Tariffs for GTS Operator of Ukraine JSC for Natural Gas Transportation Services for Entry Points and Exit Points for the Regulatory Period 2020-2024” from January 1, 2020, established tariffs for natural gas transportation services for entry and exit points to / from the gas transmission system on cross-border connections, tariffs for natural gas transportation services for domestic entry and exit points to / from the gas transmission system, and also approved both the coefficients that take into account the period and the season for which the capacity is ordered, as well as reducing factors for capacity with restrictions.

Certification of the gas transmission system operator and issuance of a license have been provided

The approved amendments enabled calculating and setting tariffs for GDN Operators to satisfy the requirements of the provisions of the Law of Ukraine “On the Natural Gas Market” regarding providing access to gas infrastructure on the principle of granting the right to use capacity.

A positive development for both the oil and gas market and Naftogaz Group companies, as it allows market players to plan their business activities, as well as to receive income from licensed activities.

**Certification of the gas transmission system operator and issuance of a license have been provided.**

With NEURC Resolution of 24.12.2019 No 3010, the regulator made a final decision on the certification of the gas transmission system operator. The NEURC Resolution of 24.12.2019 No 3011 approved the decision to issue a license for the transportation of natural gas to GTS Operator of Ukraine JSC.
Key challenges for Naftogaz Group in its objective to grow its resource base and production for several years have been field depletion, limited portfolio of special permits for development of new fields, and significant time and other costs required for their development.

Naftogaz Group focuses on optimizing production from existing fields with simultaneous capability enhancement, attracting partners, and investing in new opportunities.

Sustaining baseline production, enhancing capabilities, and pursuing partnerships and investments into new opportunities in combination will create a solid foundation for a steady increase in production and resource base and strengthen the nation’s energy security.
A completely new position has appeared in the company’s top management. What is your role as the Chief Transformation Officer? What are your priorities? What is the difference between CTO and COO? How will you combine these two positions?

I think what is important is that the executive board has chosen an operating model where executive board members are closer to the operational side of the business. We don’t only want to be a shareholder, we want to be very active to guide our business leaders. For that reason we created the role of the CDO. This is a fundamental change for the company and therefore we also created the CTO position. It’s very important for the success of the Group to achieve its transformation in a short timeframe. When we think about transformation, we are not just thinking about organizational change. We are thinking about changing the way we work and about results we hope to achieve with that. What does that mean in practice? It means we need to improve processes to reduce red tape and speed up decision making. It means we need to allow decision making in the organization where people know best. We then need to make sure we have the best talent for the tasks ahead of us. This is true for operational matters such as how to bring together our best people to drill new wells. But also to make a decision about investments in a new LPG plant where we need the best people evaluating the LPG market, about investment technologies and about project and risk management. My role as a chief transformation officer is to make sure that I bring all of the elements together. As we evolve the Group, it makes a lot of sense to combine the CTO and COO roles for now. To be closer to the business, working with the businesses, to change how we work, to help create better results.

CTO is a temporary position. What will follow the completion of the transformation?

I think we can consider the transformation complete when we have achieved the planned shift to business divisions and implemented the right accountabilities for decisions. Today we have a mix. Some are legal entities, some are business divisions. We want to move all the decision rights from legal entities to businesses. That’s one way to recognize that the transformation is complete. The second sign is increased efficiency. With the amount of people we have, we can do more and we must become more efficient. There are some activities we could do with less people and less capital. That’s also true. We can grow faster. We want to develop to the level that we say, “yes, we can achieve more ambitious plans”, and we need to move towards creating more value. Especially today. The efficiency theme is everywhere from oil to storage to gas to trading. We need to make all the parts of our business profitable and attack the elements that are not profitable. We need to make our work efficient, make sure that we have the right people in the right places. When we see all those things happen and we see growth in value, then I’ll consider the transformation complete.

What key challenges for Naftogaz do you see in the current environment? How will the group respond to them?

Most of us have never seen anything like the current crisis before. We must be clear about that. The entire oil and gas sector is responding to it quite aggressively and our response is in line with the industry response. We are reducing our operating costs and we are reducing our investments. Basically, we now need to accelerate the transformation we are already undertaking. On top of that, we are reducing or delaying some of our investments to make sure we protect the financial base of the company. The challenge is phenomenal. On the one hand, we need investments to target new businesses and new resources. On the other hand, we have to have a very reduced investment level because we need to protect the financial base of the company. This requires a very fine balance. We need our team to deliver production growth, to deliver resource growth, to be ready to enter the retail business, to deliver financial improvements in the storage business, in the oil business, and also in the gas business. At the same time, we need to reduce the number of people that we involve in each of our activities and we need to become more efficient. These are the challenges that we need to continuously balance.

What is the essence of the transformation you oversee in Naftogaz? Which are the key workflows of the transformation?

The essence is set up a new organizational structure where people will find it easier to work together where we establish clear and transparent individual accountability to achieve results. Our teams then can focus on identifying opportunities for creating value and growth that we could not see before. An important element is to create better capabilities and competences, at par with international standards. How do we achieve that? We have one big work stream that is focused on organization and work culture. Another is focused on achieving breakthrough performance. For example, our supply chain management project is a new concept in how we want to reduce the cost of the supply chain and manage things like our warehousing and logistics in the company to make sure that all the things we buy are brought at the lowest cost. This will improve how we execute our work. You will recognize that have become a different company when you see that our performance metrics are comparable to those that are common in the international oil and gas industry. That’s how you will know that we have transformed the company.

How will Naftogaz change for the outside world?

The outside world will recognize a different Naftogaz. It will be easier to work with Naftogaz. There will be less bureaucracy. We will be open and transparent to the external world, comparing ourselves to international industry standards. You will look at Naftogaz and you will see that this is a normal oil and gas company improving the way it is operating and pushing its way into becoming an energy company.

What are the key risks for the transformation?

I think that financial instability is the first and the most important risk today. If we don’t transform, particularly in view of the current crisis, we have a very significant risk that we lose financial strength and stability of the group. We have to change, we have to transform. In meetings with the top leaders of the company, I compared this with the coronavirus crisis: it came suddenly, but almost overnight we found that we can work very differently. The way we communicate together today, I think in early 2020 we thought was impossible. Within six weeks, we all changed how we work. We all created a new method of interacting together. It’s the same with the rest of the transformation. If we do not transform, we will no longer be able to deliver on our objectives because we will lose the financial health of the company. And we will lose the credibility of the public because if we are not able to grow the reserve base, than our right to exist as a national oil and gas company will be questioned. So, what we need to do is to lead
development of new reserves, reduce the risks of developing oil and gas activities in Ukraine. Naftogaz needs to lead and be a platform to bring international companies to Ukraine to help us grow. This is another issue we need to look at. Without international partners we achieve less. We will reach our goals much faster if we are able to attract international partners who will invest alongside us.

The shareholder decided to extract 95% of profits from Naftogaz as dividend. How critical is this decision to the group’s ability to produce gas and remain profitable? The key is not what the company is not expected to happen. The near-term ability to produce gas; we will continue to be able to produce gas and will probably be able to grow our volume base to some degree. In the longer term, if business norms, it means that Naftogaz will no longer be able to invest to grow the reserve base and we will not be able to increase gas production. The only way for Naftogaz to grow the long-term production volume is by investing in finding new reserves. We cannot grow sustainably from existing reserves. In short, we must invest and find new reserves. This is the only way we can increase the volume and create energy independence for the country. We must invest significant money into finding and developing new reserves. One year of taking out 95% will not inhibit our long-term opportunities. If this becomes a norm, it will slow down the pace at which we can develop and delay the achievement of energy independence for the country.

One of the tasks that the shareholder set for Naftogaz is to prepare for an IPO. The current market conditions are far from favorable. What are Naftogaz’s plans in terms of investments in the development of domestic gas production?

The oil and gas market always experiences periods of higher prices and lower prices. Today’s market in that context is not very attractive to us because many more factors are involved, and it may take longer to recover. What we need to do in response is two things. First, Naftogaz has to be more efficient. Improving and demonstrating greater efficiency, allows us to improve the affordability of our investments. We need to make sure that all the decisions we make are economic under tougher market conditions. We must ensure that investments remain economic when prices are USD 100/tcm to extract, so we are still economic also in the long term. Second, we must ensure that we also prioritize enough investments that give us good opportunities to be economical for the country in the longer term. Investments in new reserves is not done tomorrow but will bring production volumes in five years from now. We think there are enough opportunities for us to invest.

You oversee the work of different divisions. Which ones do you believe have the biggest potential?

First of all, you know that this year we have split integrated gas into two divisions. We created a Exploration & Production Division and a Commercial Division. In 2020, all the other divisions have requested a reorganization because they all need to demonstrate their economic viability in new market conditions. The Midstream Oil and Gas Division wants to grow but needs to demonstrate the viability of the refining activities under reduced demand for petroleum products. For shebelinka the task is to demonstrate how to maintain the refinery. We are also continuing to look at extracting a high value product like LPG form our gas production. The opportunity to sell LPG in Ukraine is strong and we want to continue playing in this segment. We must also look at the storage business. Our storage business is a new one since we separated the TSO. This business works very hard to increase its efficiency. Unfortunately, this means that we will reduce our indirect staff activities. We need to have fewer people working in our storage. And we want to further improve our storage capacity in the European market. We will work commercially to attract foreign partners who want to store in Ukraine. Turning around and creating that commercial opportunities at more affordable cost levels is important for the storage business. We then will need to look at the technical business. We must become more efficient, lower cost and clarify where and how the technical business can add more value. As I said, this is crucial to afford our investments. For the Commerce business, today we have opportunities to trade in the market that we never had before. We can grow this business and create more value for the company. We also want to go into the retail market and build a new business. Our ambition is to grow to serve two and half million customers after the abolition of the PSO. And finally, the upstream part of the business which is generating most of the cash today for its own development. Upstream needs to move from generating cash from production to investing cash into the growth of the company. We can train or retrain people and we do recognize that we are not efficient today and we need to transform. But because we need to. We cannot sacrifice lives for the sake of efficiency. But we must make sure that we are more affordable in everything we do. That’s the only way we have sufficient cash to invest in new reserves in the long-term production potential of the company. Without us to do so, we will lose money and will not be able to support this. We must demonstrate to the government that the government has set for us.

We need to focus on doing it well. We need to demonstrate affordability and more efficiency in investments and make sure that every business, even small businesses, generates cash. They cannot lose cash.

How will the major problems be solved, such as outstanding receivables and increases in production?

There are many challenging topics. We are actively discussing our OPEX debtors. This is crucial for the company to transform from the old regime to the new regime. This is the new regime because they all need to demonstrate their economic viability in new market conditions. The Midstream Oil and Gas Division wants to
Transformation

**BETTER NAFTOGAZ - RESULTS**
- Improvement performance of Naftogaz Group with respect to safety, reducing injuries, implementation of HSE industry standards
- Ensure stable transfers to the state budget and reducing negative impact of low prices to Naftogaz Group performance
- Successful transformation of Naftogaz Group and build highly efficient operational model
- Ensure sustainability of development and value creation of Naftogaz Group
- Rotor organizational efficiency - quick decision making and execution
- Naftogaz Group positioning as attractive employer of "choice" in Ukraine or national center of competencies and best practices based on professional growth and development
- Culture of personal responsibility, results-oriented and collaboration

**KEY PRINCIPLES OF NAFTOGAZ GROUP OPERATING MODEL**

**Core values**
- Compliance with Naftogaz Group values, Code of Corporate Ethics, anticorruption policy, Compliance & Risk Management policies, Delegation of Authority

**Promoting internal control framework**
- Awareness of responsibility for Naftogaz Group common results
- Ensuring proper functioning of the internal control system
- Regular monitoring (self-assessment) of internal controls

**Accountability and responsibility**
- Business divisions are responsible for financial results and implementation of key initiatives aimed at creation of added value for Naftogaz Group
- Corporate functions ensure operational excellence of corporate functions, increased service quality and trust by the stakeholders
- Accountability, assistance of multiple reporting

**Speed of decision making**
- Segregation and delegation of powers with regard to decision-making
- Reduction in number of decision-making levels across Naftogaz Group
- Level of complexity and priority of issues corresponds to the decision-making level

**Efficiency and scale of activity**
- Activities, goals and priorities of corporate functions are based on needs of the business divisions
- Horizontal and vertical synergies across Naftogaz Group
- Result orientation and value creation for Naftogaz Group
- Operating shared service centers & corporate function at the lowest cost at required service level
- Implementation of process-based approach to Naftogaz Group management, standardization and continuous improvement of business processes by it's owners

**ROADMAP OF TRANSFORMATION 2020**

**Transformation components**
- Implement effective operational model
  - Develop cooperation principles and rules according to the matrix operating model
  - Decrease decision-making levels and distribute powers in a clear way
  - Develop and implement mechanism for escalation controversial issues
  - Develop and implement corporate functions
- Implement unified group standards and methodologies
  - Ensure standardization taxonomy and centralised methodology
  - Regulate and standardize business processes
  - Develop and implement project management standards / procedures
- Transform processes and corporate functions
  - Supply Chain Management (SCM) Transformation
  - Optima investment process
  - Evaluate and prioritize risks on an annual basis
  - Automate business processes
- Building "new Naftogaz" leadership and culture
  - Ensure effective communication and cooperation based on corporate values
  - Mobilize and develop the team of leaders (TOP-100)
  - Hold regular communication and feedback session
  - Build HSE oriented corporate culture
  - Create unified open internal data bases: regulatory, methodical, technical
  - Launch unified internal portal of Naftogaz Group
  - Create center of knowledge and experience exchange

**Fit for 25 by 2023**
- Ensure financial stability and profitability of business in an environment of low stable prices and crisis
- The Company’s readiness to IPO
- Sustained gas supply independence, reducing import gas dependency optimizing gas production and consumption, invest to built new gas reserves and gas production as well as in gas demand reduction through renewables and energy efficiency
- Gain recognition as key player and market maker in the energy market of Ukraine (highly efficient operating model and philosophy)

**2019/2020 Monetizing Results**

**Big achievements**
- Eliminate corruption
- Executing of market reforms
- Gas independence
- Independent and modern governance model
- Win in Stockholm arbitration
- TSO unbundling
- Gazprom payment
- Transit contract 2020-2024
In its pursuit to optimize and ensure long-term growth of its resource base and production, Naftogaz Group faces serious challenges – those of the current low market price environment as well as historically accumulated production challenges due to neglected or deliberate investments for both production activities of Naftogaz Group and domestic hydrocarbons and gas industry:

1. High depletion level, where most of UkrGasvydobuvannya’s fields are over 75% depleted and have depressed remaining pressure levels, which makes increasing or even sustaining production at these fields challenging.

2. Limited portfolio of new fields due to obstacles obtaining new special permits. Since 2001, UkrGasvydobuvannya has received only 160 special permits for new field development compared to 544 special permits obtained by other companies. In the period from 2007 to 2013, UkrGasvydobuvannya obtained 433 thousand tons. Since 2014 the situation has somewhat improved and UkrGasvydobuvannya has obtained 45 new special permits, the timeline required for new field development does not allow them to be immediately converted into production, even if development is accelerated.

3. The overall depletion of the Dnieper-Donetsk Basin with a decrease in the probability of opening new large traditional fields forces Naftogaz Group to consider other possibilities for large-scale expansion of the resource base and production.

4. Sharp fall in natural gas prices during 2019 and its respective impact on the commercial attractiveness of development of greenfields, in particular sub-scale or incremental ones.

**Key Challenges for Naftogaz Group in its Objective to Grow its Resource Base and Production for Several Years Have Been Field Depletion, Limited Portfolio of Special Permits for Development of New Fields, and Significant Time and Other Costs Required for their Development.**
NAFTOGAZ GROUP FOCUSES ON OPTIMIZING PRODUCTION FROM EXISTING FIELDS WITH SIMULTANEOUS CAPABILITY ENHANCEMENT, ATTRACTING PARTNERS, AND INVESTING IN NEW OPPORTUNITIES

Naftogaz Group’s new hydrocarbons exploration and production strategy is based on the following pillars:

1. Focus on managing base production, surface infrastructure modernization, and working to improve existing well bank operation
2. Rigorous selection of new well candidates for drilling from current field portfolio, taking into account geological and technical risks and potential for production growth
3. Development and implementation of exploration and production digitalization program
4. Assessment of potential and development and implementation of liquid hydrocarbons production increase program
5. Investments into new opportunities to build resource base and partnership with industry leaders.

In 2019, gross natural gas production was 14,892 mcm and trade gas production volume was 13,621 mcm, which was lower than 2018 levels. To ensure this level of production, the business unit team had to overcome over 2 bcm of natural decline and losses from well flooding, well downtime, surface infrastructure and other issues. To compensate for natural decline and losses, teams from Integrated Gas and Technical Service units completed 161 well workovers, 736 coiled tubing operations, 76 reperforations, and 117 hydraulic fracturing operations. A sidetrack drilling project in partnership with Halliburton was launched in 2019.

MARKET AND REFORMS

4 Time-to-gas and field life cycle

Field life cycle

- Time to first gas production on greenfields is 3–5 years
- 3 years
- 5–7 years

Industrial development

- 10–15 years
- Initial development
- 20–25 years
- Partial depletion + intensification
- 35 years
- Full depletion

History of field discovery in Ukraine

3 Dynamics of new special permit issuance to Ukrgasvydobuvannya and other companies*

<table>
<thead>
<tr>
<th>Year</th>
<th>Ukrgasvydobuvannya</th>
<th>Other companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>2018</td>
<td>29</td>
<td>25</td>
</tr>
<tr>
<td>2017</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>2016</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>2015</td>
<td>19</td>
<td>23</td>
</tr>
</tbody>
</table>

3. Dynamics of new special permit issuance to Ukrgasvydobuvannya and other companies*

History of field discovery in Ukraine

Dynamics of gross and trade natural gas production volume by Ukrgasvydobuvannya in 2015-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross production</th>
<th>Trade production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>14 987</td>
<td>14 621</td>
</tr>
<tr>
<td>2018</td>
<td>15 785</td>
<td>15 621</td>
</tr>
<tr>
<td>2017</td>
<td>15 251</td>
<td>15 002</td>
</tr>
<tr>
<td>2016</td>
<td>15 002</td>
<td>14 605</td>
</tr>
<tr>
<td>2015</td>
<td>14 528</td>
<td>14 019</td>
</tr>
</tbody>
</table>
In parallel with efforts to sustain production, preventative workover program was developed in 2019, with its implementation already started in 2020.

To develop depleted field management and cost optimization capabilities and to increase production, in 2019 Naftogaz Group kicked off the process of attracting a partner for managing a selection of fields in Western Ukraine on terms of production enhancement contract (hereinafter PEC). The process of partner attraction, selection, and contracting finished in April 2020 with signing of a respective contract with international company Expert Petroleum. This contract became the first ever full-scale Production Enhancement Contract (PEC) in the history of Ukraine’s oil and gas industry, under which Expert Petroleum committed to invest about UAH 1 bn (USD 30 m at the forecast exchange rate) into intensification measures, drilling, and infrastructure development in the first 5 years of cooperation and, potentially, make additional investments in further periods. The contract between Expert Petroleum and Ukrgasvydobuvannya was concluded for 15 years with the possibility to extend for additional 10 years. To fulfill this contract and provide respective services, Expert Petroleum had registered a specialized Ukrainian company that was the party to the contract. Naftogaz Group will approve the development plans, annual work program and budget proposed by the operator (Expert Petroleum) for these fields. The operator will receive a fee for supporting baseline production (at the level of current operating costs of Ukrgasvydobuvannya, adjusted for inflation) and for achieving incremental production increases. Full ownership of the produced hydrocarbons, special permits and respective assets will remain with Ukrgasvydobuvannya.

Expert Petroleum is a French-owned company that is part of the GMS holding group, a large investment group with expertise in the oil and gas industry, under which Expert Petroleum committed to invest about UAH 1 bn (USD 30 m at the forecast exchange rate) into intensification measures, drilling, and infrastructure development in the first 5 years of cooperation. The contract between Expert Petroleum and Ukrgasvydobuvannya was concluded for 15 years with the possibility to extend for additional 10 years. To fulfill this contract and provide respective services, Expert Petroleum had registered a specialized Ukrainian company that was the party to the contract. Naftogaz Group will approve the development plans, annual work program and budget proposed by the operator (Expert Petroleum) for these fields. The operator will receive a fee for supporting baseline production (at the level of current operating costs of Ukrgasvydobuvannya, adjusted for inflation) and for achieving incremental production increases. Full ownership of the produced hydrocarbons, special permits and respective assets will remain with Ukrgasvydobuvannya.

Expert Petroleum’s technical capabilities and expertise are focused on fitness-for-purpose, new technologies and enhanced processes to rehabilitate old wells and reservoirs in decline. At present, the company effectively manages production at 25 depleted fields, operates 1,200 wells, and produces 8.5 thousand barrels of oil equivalent per day. It has about 1,000 employees.

In 2019, 60 new wells were commissioned into production and contributed 504 mcm of production. Among them, eight wells received an initial industrial production rate of gas above 100 tcm per day.

As a result, Integrated Gas team was able to keep the production-to-reserve ratio of Ukrgasvydobuvannya at a level above the comparable benchmarks.

During 2019, detailed analysis of geological and technical drilling risks was performed to develop the methodology to consider these risks when selecting and evaluating new well candidates and allow Naftogaz Group to better select well candidates and increase investment returns. With delivery and commissioning of new drill rigs, the generation of a sufficient number of economically attractive well candidates to be included into the drilling schedule and thus ensure full utilization of the new drill rig fleet became one of the strategic tasks of the business unit.

Seismic and 3D model development is one of the key areas in the capability development and upstream digitization effort:

- Performed 3D seismic works cover overall territory of 801 sq.km, including Khidnovitske, Zakhidno-Medvedivske, Kolontaivske, Zakhidno-Volokhivske, Rosspavlivske, Bezpalivske, and Pidvenno-Bezpalivske areas;
- 13 3D models built through the joint efforts of the Ukrgasvydobuvannya and Schlumberger teams, with subsequent reserve revaluation and well parameter update.

In 2019, the business unit team managed to substantially increase production of liquid hydrocarbons. This was the result of efforts to reclaim old fields and develop new ones, Bakken play in Poland, Uralian and Volga play as well as new fields in the Donbass play. In 2019, 60 new wells were commissioned into production and contributed 504 mcm of production.
Ukrgasvydobuvannya fields, that produce more than 2/3 of total volume

- Production in 2019, bcm
- Remaining reserves as of 31.12.2019, bcm
- % produced to date out of original reserves
- Ukrgasvydobuvannya’s largest fields
- New exploration permits in 2014-2019
- Borders of Donbas-Donets basin

WESTERN OIL AND GAS REGION

Scale 1:500 000

Note: For calculation of field depletion levels for 31 December 2019, remaining 2P reserves as of end of 2019 calculated as 2P reserves based on PRMS methodology from the report of DeGolyer and MacNaughton from 1 January 2019 less 2019 gross production volume; initial reserves in place estimated as estimated remaining 2P reserves as of end of 2019 and cumulative production level since the start of production from the field and until end of 2019. Picture includes fields that had 2P reserves as of 31.01.2019 according to report by “DeGolyer and MacNaughton”
Sviatohirske field development project

In 2019, the team completed interpretation of 3D seismic for Sviatohirske tight gas field. These works were performed by Schlumberger and resulted in identified sweet spots with highest probability to obtain positive result from drilling and, consequently, open the field and its reserve base. Based on this data, Ukrgasvydobuvannya plans to spud two wells in 2020, one of them spudded in the end of May 2020.

Production sharing agreements and partnership with Canada’s Vermilion Energy

In 2019, Naftogaz Group participated in and won the right to enter into four production sharing agreements, two of them in partnership with Vermilion Energy. Additionally, Naftogaz Group plans to participate in a competition for the development of offshore fields in the Black Sea.

SUSTAINING BASELINE PRODUCTION, ENHANCING CAPABILITIES, AND PURSUING PARTNERSHIPS AND INVESTMENTS INTO NEW OPPORTUNITIES IN COMBINATION WILL CREATE A SOLID FOUNDATION FOR A STEADY INCREASE IN PRODUCTION AND RESOURCE BASE AND STRENGTHEN THE NATION’S ENERGY SECURITY.

Preparation for development of tight gas fields

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In the beginning of 2019, Naftogaz Group assessed the scenario of discontinuation of gas transit through Ukraine starting from January 1, 2020 and the country’s gas demand for passing the heating season in case of inability to import gas in the first quarter of 2020 at the level of previous periods. The most conservative scenario assuming a temperature drop to the minimum level of the previous five years was also evaluated. To mitigate potential crisis, nearly 22 bcm of natural gas were accumulated in Ukrainian underground storage facilities as of November 1, 2019, of which 16.8 bcm was natural gas of Naftogaz Group – the highest level of gas stocks in the last 5 years. The volume of natural gas imported by Naftogaz Group reached a record 7.2 bcm, including 0.5 bcm purchased in underground storage, which allowed for a delay in payment for supplied gas. As a result, the accumulated natural gas in underground storage exceeded the 2018 level by 4.7 bcm.

In addition, in 2019, a guaranteed supply of about 8.9 bcm of natural gas through Q1 2020 was contracted to cover potential peaks in consumption and avoid exceeding technical limits for gas withdrawal from underground storage.

The key challenges to efficient supply, sale and distribution of natural gas to regulated consumer segments are continuation of PSD regime, limited competition in the natural gas supply segment, formal separation of supply and distribution activities in most regions of the country, and structural problems in heat supply segment.

In its commercial activities, Integrated Gas Business Delivery Unit focused on systemic work to overcome challenges associated with the fulfillment of PSD obligations of Naftogaz Group to supply natural gas to households (through regional supply companies) and other categories. While in pre-2019 periods, the PSD price had always been substantially below the market price of natural gas, in 2019 due to the steep decline in price levels, this gap disappeared. Due to mild climatic conditions, the total volume of natural gas supply to households and DHCs for household needs, by Naftogaz Group decreased from 10.6 bcm to 8.0 bcm and from 4.8 bcm to 4.5 bcm respectively. The use of natural gas by DHCs for other consumer categories increased, in particular due to increase in gas usage as a resource for electricity generation. Meanwhile, market inefficiencies and structural problems of the sector lead to lack of progress in resolving the issue of indebtedness of RSCs and DHCs to Naftogaz Group. As of the end of 2019, the total debt to Naftogaz of Ukraine of RSCs for gas supplied for household needs amounted to UAH 28.3 bn, while debt of DHCs was UAH 30.4 bn. The issue of household indebtedness remains relevant.

**Production sharing agreements and partnership with Vermilion Energy**

- **Vermilion Energy** is an international oil & gas company headquartered in Calgary, Canada, with its shares listed on New York and Toronto Stock Exchanges. The company has significant experience in developing unconventional reservoirs.
- **Ukrgazvydobuvannya** and Vermilion Energy signed an agreement to jointly apply for PSA competition on the following terms:
  - Investment and profit split - 50/50%
  - Vermilion Energy will be the operator at work program preparation and exploration stage
  - Ukrgazvydobuvannya has preferential right to offer its products and services for the tender conducted by Vermilion Energy
- **Objectives of Naftogaz Group in partnership with Vermilion Energy:**
  - Sharing investments and risks
  - Leveraging experience of Vermilion Energy in development and management of unconventional reservoir fields (transfer of know-how)
  - Obtaining capacity and resources (financial, technical etc.) for developing of several plots simultaneously

**Source:** Ukrgazvydobuvannya

**Partnership of Naftogaz Group and Vermilion Energy:**

- **Number of field plots with obtained right to go into PSA:** 4 (Balakhlyska, Ivanivska, Berestyanska, Buzivska) jointly with Canadian company Vermilion Energy
- **Total area of plots:** 2,917 sq. km
- **Regions:** Poltava, Kharkiv, Lviv, Ivano-Frankivsk
- **Total guaranteed investment amount:** UAH 3,6 bn
- **Minimum number of wells:** 12 wells
- **Start of production:** in 2-3 years after signing of PSA agreement
- **Potential production:** up to 2 bcm/year in 2025
- **Expected signing of PSA agreement:** summer 2020

---

**A supply crisis was avoided but Naftogaz Group was ready for it**

10 bcm of natural gas was injected in UGS that allowed to accumulate the highest storages stocks for the last 5 years.
Meanwhile, Naftogaz Group will work on eliminating legislative and regulatory barriers preventing from entering and operating in the retail gas supply segment. This includes simplification of the household supplier switching procedure through reduction of the administrative burden, allowing new suppliers to act on behalf of the consumer in the process of supplier switching, removing any obstacles regarding unresolved issues between the consumer and the previous supplier to allow the new supplier to successfully start service provision. For effective operation in the segment, it is also important to ensure that regional gas distribution companies provide information on historical gas consumption by the consumer on a free basis with the creation of a database of such information for consumers.

### RESOLVING SYSTEMIC CHALLENGES IN THE HEATING SUPPLY SEGMENT

In 2019, heating producers remained the most problematic group of consumers of Naftogaz Group. A substantial part of the negative imbalances indebtedness of gas distribution system operators (DSOs) was caused by low payment discipline of this category of consumers, and the problem of accumulation of such debts has remained unresolved since 2015.

At the same time, Naftogaz Group continues to work on mechanisms to ensure the reliable supply of gas to Ukrainian DHCs. In October 2019, Naftogaz Group came out with a proposal to the government, distributors, and the local authorities, which will have all the necessary instruments and levers to exercise the appropriate control.

Natural gas trade and supply in the unregulated segment of the Ukrainian market are characterized by low liquidity and transparency. The dominant part of gas sales to industrial consumers is done under bilateral agreements, and 2018 trade volume on the most active trading platform, the Ukrainian Energy Exchange (hereinafter UEEX), was mere 155 mcm, or 2% of consumption by industrial enterprises of Ukraine. Because of the insignificant trade volumes at UEEX, participants of the trading platform could influence the daily price index, which made using the UEEX price as a proper fully fledged market indicator not possible.

In order to create the required level of liquidity at UEEX, enhance competition, increase transparency in the setting of natural gas market prices, and mitigate possible price manipulations in the gas market of Ukraine, in 2019, Naftogaz Group started trading activities at UEEX.

Having started operations of buying and selling gas through the UEEX on July 5, 2019, Gas Supply Company Naftogaz Trading LLC (hereinafter Naftogaz Trading) grew its share in the total trading volume from 0% to 38% over the period of July-December 2019. In annual terms, the share constituted 32%, which is a record increase for UEEX.

From the beginning of participation in trade auctions (October 23, 2019) to the end of 2019, GSC Naftogaz of Ukraine increased its share in UEEX trade volumes from 0.2% to 20% (8% in annual terms). In the context of trading activities at UEEX, the overall 2019 share of Naftogaz Group companies reached 40%.

In the future, Naftogaz Group aims to create a stable market position by continuing long-term contracts with local producers and optimizing the volume of imports, and the supply (sell) side, using flexible payment terms and market competence to attract customers.

### CASE STUDY: NAFTOGAZ GROUP IMPACT ON UEEX ACTIVITY TRADING VOLUMES

Trading volumes. Start of operation by Naftogaz Trading and GSC Naftogaz of Ukraine on UEEX resulted in increase in natural gas trade volume in 2019 by 2.5 times from 135 mcm to 386 mcm.

Competition. Participation of Naftogaz Trading and GSC Naftogaz of Ukraine was of great importance for the increase of participant activity and reviving competition on UEEX. Naftogaz Trading came out 229 times with starting positions. 48% of 252 mcm of natural gas put up for auction was sold. This is the highest rate of effectiveness of starting positions among participating companies. In UEEX’s buying segment, GSC Naftogaz of Ukraine took a leading position in competition with other sales and supply companies.

### BUILDING HIGH PERFORMANCE COMMERCIAL ORGANIZATION AND CAPABILITIES IN NATURAL GAS TRADING AND SUPPLY

In 2019, Naftogaz Group Business commercial team developed and started using new instruments to model market dynamics and build price forecast. Strategic initiatives to develop commercial competency for 2020 are the following:

**Pricing.** Traditionally, natural gas prices were set at UEEX by private gas producers, domestic and international traders, and the key factor influencing Ukrainian market gas price was European market quotations. In a situation when domestic market prices fell below import parity level, supply for UEEX auctions was limited and its volume decreased. However, the start of daily auctions by Naftogaz Trading became another important price factor. Daily auctioned supply by Naftogaz Trading offering products with different delivery periods created additional liquidity in the market and became an indicator for private participants. At the same time, the entry of GSC Naftogaz of Ukraine as a buyer in auctions enabled UEEX to increase transparency to the process of setting market prices.

Currently, Naftogaz Trading is performing the role of market maker in the natural gas segment, i.e. natural gas selling price of the company is a significant reference point for other participants.

In 2019, Ukraine’s position in the European gas hubs maturity assessment chart increased by 3 positions, with Ukraine ranked higher than Bulgaria, Portugal and Slovenia.

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**16. UEEX liquidity increase and role of Naftogaz Group**

| UEEX trade volume in 2018-2019 | Monthly UEEX trade volume | |
|---|---|
| mcm | mcm |
| 235 | 386 | 14 | 16 | 47 | 54 |
| 386 | 155 | 32% | 155 | 54% | 51% |
| 155 | 29 | 18% | 29 | 29 | 29 |
| 32% | 32% | 18% |
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |

**17. Maturity assessment for selected European hubs in 2019**

<table>
<thead>
<tr>
<th>Hub</th>
<th>Liquidity index*</th>
<th>Market party index</th>
<th>TSO index</th>
<th>National regulatory authority index</th>
<th>Total score</th>
<th>Change comparing to 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK-MEP</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
<td>-</td>
</tr>
<tr>
<td>NL-TTF</td>
<td>10.0</td>
<td>10.0</td>
<td>9.1</td>
<td>9.2</td>
<td>9.6</td>
<td>-</td>
</tr>
<tr>
<td>DE-NCG</td>
<td>7.5</td>
<td>10.0</td>
<td>8.2</td>
<td>8.5</td>
<td>8.5</td>
<td>-</td>
</tr>
<tr>
<td>HI-MEP</td>
<td>0.0</td>
<td>0.0</td>
<td>9.1</td>
<td>9.0</td>
<td>5.5</td>
<td>+0.5</td>
</tr>
<tr>
<td>SK-VTP</td>
<td>0.0</td>
<td>0.0</td>
<td>8.2</td>
<td>2.5</td>
<td>4.2</td>
<td>+0.2</td>
</tr>
<tr>
<td>PL-VTP</td>
<td>0.0</td>
<td>0.0</td>
<td>4.9</td>
<td>4.2</td>
<td>4.0</td>
<td>-</td>
</tr>
<tr>
<td>Украина</td>
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<td>0.0</td>
<td>4.5</td>
<td>5.0</td>
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<td>RO-VTP</td>
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<td>4.5</td>
<td>3.3</td>
<td>2.0</td>
<td>+0.7</td>
</tr>
</tbody>
</table>


---

*In annual spot trade volumes (OTM) and forward trade volumes (OTF) in mcm. 1. If the index is in question for a significant portion of the contract volume or if the TSO or the national regulatory authority are not fully independent. 2. If the index is in question for a significant portion of the contract volume or if the TSO or the national regulatory authority are not fully independent. 3. If the index is in question for a significant portion of the contract volume or if the TSO or the national regulatory authority are not fully independent. 4. If the index is in question for a significant portion of the contract volume or if the TSO or the national regulatory authority are not fully independent. 5. These indices are calculated on an annual basis.

**5.** Firms were evaluated in the 0-10 range: very poor development (0-1) – an advanced development, the total score is calculated as the arithmetic average of the indices. The score is: 1 – 3 points - green; 4-6 points - yellow; 7-9 points - orange; 10 points - red.
By 2019, Integrated Gas Business Unit team completed the tasks assigned to it in building an integrated approach to managing the efficiency and profitability of Naftogaz Group’s gas business. However, the range of strategic priorities in front of the business unit and level of complexity continued to increase. On the one hand, Naftogaz Group has to focus on further building a strong commercial organization, rolling out of the retail supply business, and solving the structural and regulatory issues of the natural gas market. On the other hand, Naftogaz Group should also actively build geo-technological capabilities, improve field management efficiency, and expand the reserve base.

Taking into account the above-mentioned factors, in April 2020, the executive board of Naftogaz decided to divide the Integrated Gas Business Delivery Unit into two – the Exploration and Production business unit and the Commerce business unit.

19
Hydrocarbon reserves and resources of Naftogaz Group

<table>
<thead>
<tr>
<th>Natural gas</th>
<th>Hydrocarbon liquids</th>
<th>Natural gas</th>
<th>Hydrocarbon liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td>bcm</td>
<td>mln mt</td>
<td>MMboe</td>
<td>mmboe</td>
</tr>
<tr>
<td>Naftogaz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>proven developed</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>proven undeveloped</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>proved</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>reserves increase</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Reserves as of 31.12.2019</td>
<td>34.95</td>
<td>1.31</td>
<td>201.75</td>
</tr>
<tr>
<td>Prospective resources as of 31.12.2019</td>
<td>34.95</td>
<td>1.31</td>
<td>201.75</td>
</tr>
<tr>
<td>including prospective resources in United Forces Operation zone and temporarily occupied areas of Donetsk and Luhansk regions</td>
<td>34.95</td>
<td>1.31</td>
<td>201.75</td>
</tr>
</tbody>
</table>

Ukrgasvydobuvannya

proven developed | 183.95 | 5.44 | 1,595.55 | 50.32 |
proven undeveloped | 26.57 | 0.61 | 155.25 | 5.13 |
proved | 47.06 | 0.85 | 276.98 | 7.35 |
reserves increase | - | - | - | - |
Reserves as of 31.12.2019 | 254.59 | 9.41 | 1,407.28 | 42.81 |
Prospective resources as of 31.12.2019 | 96.12 | 3.11 | 1,056.78 | 22.69 |

Ukraine

proven developed | 3.10 | 0.10 | 57.68 | 0.20 |
proven undeveloped | 5.04 | - | 15.20 | 0.57 |
proved | 11.37 | 0.10 | 83.02 | 2.77 |
reserves increase | - | - | - | - |
Prospective resources as of 31.12.2019 | 48.10 | 67.42 | 351.10 | 102.19 |

Naftogaz Group assets in Arab Republic of Egypt

<table>
<thead>
<tr>
<th>Natural gas</th>
<th>Hydrocarbon liquids</th>
<th>Natural gas</th>
<th>Hydrocarbon liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td>bcm</td>
<td>mln mt</td>
<td>MMboe</td>
<td>mmboe</td>
</tr>
<tr>
<td>proven developed</td>
<td>0.15</td>
<td>0.25</td>
<td>0.81</td>
</tr>
<tr>
<td>proven undeveloped</td>
<td>0.00</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>proved</td>
<td>0.16</td>
<td>0.16</td>
<td>0.16</td>
</tr>
<tr>
<td>reserves increase</td>
<td>0.11</td>
<td>0.16</td>
<td>0.65</td>
</tr>
<tr>
<td>Reserves as of 31.12.2019</td>
<td>0.25</td>
<td>0.36</td>
<td>1.44</td>
</tr>
<tr>
<td>Prospective resources as of 31.12.2019</td>
<td>0.38</td>
<td>1.18</td>
<td>2.22</td>
</tr>
</tbody>
</table>

Naftogaz Group

proven developed | 193.40 | 16.29 | 113.91 | 22.26 |
proven undeveloped | 31.41 | 5.53 | 182.04 | 41.06 |
proved | 58.50 | 11.01 | 260.10 | 56.96 |
produced | 0.98 | 1.29 | 7.01 | 1.45 |
reserves increase | 0.19 | 0.87 | 2.22 | 0.42 |
Reserves as of 31.12.2019 | 279.52 | 32.26 | 1,461.43 | 242.47 |
Prospective resources as of 31.12.2019 | 144.60 | 71.71 | 919.08 | 253.52 |
The OMD Business Delivery Unit was created in January 2005, following the following activities: (1) on maintaining existing positions and targeting new opportunities in the Oil Midstream segment, and (2) on development and expansion of the asset perimeter, diagnostics of processing and refining assets, asset valorization, integration of Ukrainian assets of Naftogaz Group. In 2019, the OMD Business Delivery Unit focused (1) on maintaining existing positions, in particular in oil and gas transportation system of JSC Ukrtransnafta, and (2) on development and expansion of the asset perimeter, diagnostics of processing and refining assets, and strategic initiatives for the development of refining and commercial capabilities in Oil Downstream segment.

The key objective of the business delivery unit is to achieve synergies through optimization and development of oil-related assets of Naftogaz Group. In 2019, the OMD Business Delivery Unit focused (1) on maintaining existing positions, in particular in oil and gas transportation system of JSC Ukrtransnafta, and (2) on development and expansion of the asset perimeter, diagnostics of processing and refining assets, and strategic initiatives for the development of refining and commercial capabilities in Oil Downstream segment.

Transit and Transportation of Oil and LPG

In 2019, the last year of the previous 15-year contract between JSC Ukrtransnafta and Russian JSC Transneft, oil transit through Ukraine amounted to 13.1 million tons, which was 1.6% less than in 2018. The decrease of transit volumes occurred due to problems caused by the entry of low-quality oil into the oil pipeline system of JSC Ukrtransnafta, which triggered interruptions of transit in April-May 2019. The volume of domestic oil transportation increased by 9.5% from 2.2 million tons in 2018 to 2.4 million tons in 2019.

Solving the problem of low-quality oil entering the oil pipeline system of JSC “Ukrtransnafta”

In spring 2019, there were several interruptions of oil transit through the oil transportation system of Ukraine. On April 19, 2019, OSIC Gomeltransneft Druzhba (Belarus) informed JSC Ukrtransnafta of the entry of oil with degraded quality indicators from the technological section of the trunk oil pipeline of JSC Transneft-Druzhba (Russian Federation).

A similar situation occurred in May 2019. To fix this issue, transit of oil from the Russian Federation through the territory of Ukraine was suspended during April 25 to May 11, 2019 and May 17 to May 21, 2019. At the same time, operation of certain storage reservoirs of JSC Ukrtransnafta and one of the sections of Druzhba oil pipeline was blocked due to low-quality oil. On January 18, 2020, JSC Ukrtransnafta completed the process of forcing out Russia’s high organochlorine content oil from the Ukrainian section of the Druzhba pipeline. Moreover, JSC Ukrtransnafta and PSC Transneft reached agreement on compensation for the entry of high organochlorine content oil into the Ukrainian section of the Druzhba pipeline. This covered the shortfall in income caused by the temporary suspension of transit in April–May 2019. JSC Ukrtransnafta received more than UAH 103 million worth of compensation over the timeframe from May 2019 to January 2020.

Conclusion of new transit agreement with PSC Transneft

In addition to the contract on natural gas transit through Ukraine between Naftogaz of Ukraine and PJSC Gazprom, another contract covering crude oil transit which had been in place between JSC Ukrtransnafta and Russia’s PSC Transneft since 2005, was due to expire at the end of 2019. Performing operations under this contract ensured the financial stability in the Oil Midstream segment due to the significant stable volumes for utilization of the oil pipeline system and the euro-denominated tariff for transit services. In 2019, revenue from oil transit services accounted for 90% of the total revenue of the Oil Midstream segment.

During autumn 2019, JSC Ukrtransnafta and PSC Transneft conducted negotiations, including within the framework of events organized by the International Association of Oil Transporters, during which the current state of cooperation between JSC Ukrtransnafta and PSC Transneft and further plans were discussed. As a result, an additional agreement was concluded, which ensured the extension of oil transit for the following 10 years.

Diversification of sources and routes of oil transit and transportation

Ukraine’s oil transportation infrastructure (in particular, the Odessa-Brody pipeline) was recognized as the most economically feasible, fastest, and reliable delivery route for Caspian oil to customers in Belarus. In 2019, Belarus began to implement initiatives aimed at diversification of sources and routes of importing raw materials for processing at its facilities. In October 2019, the Ukrainian and Belarusian par- ties, at the highest official level, started a dialogue regarding transporation of Azeri Light oil to the Mozry refinery in Belar- us via Ukraine. On March 2, 2020, JSC Ukrtransnafta signed a framework agreement with BNK (UK) Limited, a subsidiary of CJSC Belarusian Oil Company. At the same time, the parties agreed that the actual volumes of oil for transportation and the cost of services will be further agreed by signing relevant additional agreements to the framework agreement. In March 2020, JSC Ukrtransnafta received three oil tankers at Pivdenny sea oil terminal for transportation of oil with a total volume of more than 280 thousand tons.
In 2019, the annual production volume amounted to 498 thousand tons, which is 14.1% higher compared to 2018. The key factor behind this increase was the growth in volume of transportation of light hydrocarbons from Belarus and the Baltic States, in particular, delivery of isopentane fraction from Belarus for the needs of ISC Ukraylnobuvannya was performed via agreements concluded in 2018. LLC Karpatnotrohim, the key customer of ISC Ukraylnobuvannya in the domestic market, maintained stable production volumes, engaging the tank railcar fleet of ISC Ukraylnobuvannya to meet domestic needs.

**HYDROCARBON REFINING AND SALE OF FUEL PRODUCTS, LPG AND COMPRESSED NATURAL GAS**

2019 was a year of operational integration of fuel products and LPG production activities. Throughout the year, the perimeter of the OMD Business Delivery Unit, which at the time of creation of the business unit included three key assets – Shebelynske Gas Processing Plant (hereinafter Shebelynske plant), Technological Condensate Stabilization Shop Bazylivschyna, and Yabluniv Gas Treatment Unit – was extended through the transfer of four additional Gas Treatment Units – Tyumyshnyske, Yukyvskyske, Solokhivskyske and Khristchitscheske. In addition, a network of condensate pipelines with a total length of more than 700 km was also transferred to the perimeter of the business unit. This separation was performed to better delineate hydrocarbon production activities from processing, with accountability assigned to two business units.

In 2019, the volume of liquid hydrocarbon processing at Shebelynske plant (Shebelynske Unit for Gas Condensate and Oil Preparation of ISC Ukraylnobuvannya) increased to 473 thousand tons, compared to 454 thousand tons in 2018. The total volume of processing, including additives and components, amounted to 498 thousand tons, which is 16.7 thousand tons or 3.5% higher than in 2018. The extraction rate of light petroleum products was 89% compared to 86% achieved in 2018. The production of motor fuels increased: gasoline volume increased to 149 thousand tons (38.5 thousand tons or 14.1% higher than in 2018); diesel fuel volume increased to 83.3 thousand tons (3.2 thousand tons or 3.8% higher than in 2018). A decrease by 12 thousand tons or 7.4% was observed in LPG production at the production facilities of ISC Ukraylnobuvannya to equal 153 thousand tons, is explained by the reduction of the gas condensate factor.

In 2019, the OMD Business Delivery Unit sold 528 thousand tons of fuel products and LPG to external customers (518 thousand tons in 2018). At the same time, a total volume of 57 thousand tons of oil products (mainly diesel fuel) was shipped to internal consumers, primarily to the Technical Business Enabling Unit to supply the operations of its drill and workover rig fleet.

The vast majority of diesel, gasoline and LPG was sold at the Ukrainian Energy Exchange, while in 2019 the total volume of just 13,000 tons of fuel products and LPG was sold through the own gas station network. The reformate, benzene-containing fraction and fuel oil were mainly exported.

**Improving operational and commercial efficiency of refining and marketing fuel products and LPG**

Key initiatives to improve operational efficiency of refining activities were the following:

- Commissioning of a new hydro cleaning reactor and launch of diesel fuel deswelling process that allowed for the start of production of a new type of product at Shebelynske plant - Arctic diesel fuel;
- Optimization of accounting for fuel products transported by rail through the installation of 5 new weighing systems with automated analytics and control;
- Geographic expansion of retail sales of fuel products under the Shebel brand, with current coverage including Kyiv, Zhytomyr, Chernihiv, Kharkiv, Dnipropetrovsk, Zaporizha, and Poltava regions together with the government-controlled districts of Donetsk and Luhans regions.

**Development of trading business**

In October 2019, a specialized company, Naftogaz Oil Trading LLC, was established within OMD Business Delivery Unit. Its key activities are purchasing and selling liquid hydrocarbons and fuel products for the needs of the companies of Naftogaz Group as well as performing independent trading activities. In early 2020, Naftogaz Oil Trading LLC entered into an agreement with BMK-Ukraine to supply diesel fuel from Belarussian refineries totaling 120,000 tons during the period February-November 2020 to supply the private Ukrainian market and take part in public procurement tenders.

**Transformation of compressed natural gas sales activity through the network of SE Ukravtogaz compressed natural gas filling stations**

In 2019, for the first time in many years, the team of OMD Business Delivery Unit managed to overcome the historical trend of declining sales of compressed natural gas (hereinafter CNG) and achieved a 4% increase in sales, as well as implementing a number of measures to improve operational and commercial efficiency.

**Transformation of Ukravtogaz and prospects for the use of methane transport in Ukraine**

SE Ukravtogaz performs the production and sale of CNG through a network of its own automobile gas-filling compressor stations (hereinafter CNG stations). The CNG network has 90 CNG stations (including 9 CNG stations located in temporarily uncontrolled territory).

For many years, sales of CNG in the country and SE Ukravtogaz have been declining. This trend was caused by a lack of external funding, primarily aging and decommissioning of the vehicle fleet with methane gas cylinder equipment, replacement of methane transport with diesel and LPG vehicles, lack of state support for use of methane transport, etc. This was also caused by lack of operational efficiency, service quality, and focus on business development and customer engagement.

In 2019, when SE Ukravtogaz became a part of OMD Business Delivery Unit, the new team of the enterprise implemented a number of transformation measures that led to improved performance of the company and, as the result, increase in CNG sales for the first time since 2007.

The company implemented a number of measures aiming to improve operational efficiency, including the introduction of an accounting system, upgrade of software for gas supply, and implementation of a control system through installation of modern hardware and software systems at CNG stations. In 2019, SE Ukravtogaz implemented a new strategy of natural gas purchasing via the Ukrainian Energy Exchange and other trading platforms, which enabled the establishment of an attractive price level whilst lowering the input material cost. Due to increasing efficiency of the procurement system, enterprise costs decreased by 26%. Electricity costs for the production of CNG decreased by 11% vs. 2017-2018 levels. The company resumed operation of four mothballed CNG stations. In 2019, for the first time in the history of the company, SE Ukravtogaz introduced a loyalty system for its customers, started systematic work with them, and created a sales department.
Key areas of work for 2020 primarily include the following initiatives:

- Attracting new customers and further increasing sale;
- Construction of automated gas stations on the premises of customer enterprises for their own needs;
- Introduction of gas delivery service to customer enterprises for refueling vehicles with the help of mobile car refuellers;
- Re-equipment of CNG stations and optimization of the number of units of equipment in operation.

In addition, OMD Business Delivery Unit is planning to raise a number of legislative initiatives aiming to create mechanisms to increase demand for the use of CNG as motor fuel, as well as to conduct an active marketing campaign to promote the use of natural gas as a motor fuel.

Strategic initiatives to increase the value of Oil Midstream and Downstream Business Delivery Unit in the segment of hydrocarbon refining and sale of fuel products, LPG and CNG

The key strategic initiatives of the division in the segment of hydrocarbon processing and sale of fuel products, LPG and CNG are the following:

- In-depth diagnostics of the current level of profitability of Shebelynske Gas Processing Plant and assessment of options to optimize its operational and commercial efficiency;
- Implementation of measures to digitize oil and condensate refining activities to increase operational efficiency;
- Optimization of raw material flow control systems to reduce losses of condensate and oil;
- Construction of Khrestysche LPG plant with capacity of 100 thousand tons of LPG per year;
- Development of the trading business of the Oil Midstream and Downstream Business Delivery Unit.

Dynamics of CNG sales through the network of Ukravtogaz

![Graph showing monthly CNG sales from 2010 to 2019](image)
01.01.2020
Natural Gas Transmission segment separated from Naftogaz Group

22.7
UAH BILLION
Revenue of the Natural Gas Transmission segment in 2019

26.4
BCM
Domestic transmission

89.6
BCM
Transit to European customers

THE KEY RESULTS OF THE GAS TRANSMISSION SEGMENT IN 2019

— The revenue of the Natural Gas Transmission segment in 2019 amounted to UAH 22.7 billion, of which UAH 18 billion was received from the provision of transmission services to external consumers.
— The EBITDA of the segment for 2019 was negative and amounted to UAH 9.8 billion.
— The total volume of gas transmission to domestic consumers amounted to 26.4 bcm, which is 7% less than the previous year (28.5 bcm).
— Natural gas transmission to European consumers was 89.6 bcm of natural gas, which is 3% more than in 2018 (86.7 bcm).
— 14.2 bcm of natural gas was imported to Ukraine, which is 35% more than in the previous year (10.6 bcm).
— Negative imbalances in 2019 amounted to more than 2 bcm, which is 36% more than in the previous year, the debt for imbalances at the end of 2019 reached a record of UAH 44.1 billion.

With the completion of unbundling and the establishment of an independent gas transmission system operator, Naftogaz Group lost control over natural gas transmission activities. As part of this organizational transformation, in December 2019, the operational division "Natural Gas Storage" was created, where the Naftogaz Group assets involved in the natural gas storage are currently concentrated.

During 2019, the objective of Ukrtransgaz as the operator of the gas transmission system of Ukraine was to ensure efficient and uninterrupted operation of gas transmission infrastructure and, accordingly, the security of natural gas supply to Ukrainian and European consumers amid unprecedented internal and external challenges.

ESTABLISHMENT OF A NEW GAS TRANSMISSION SYSTEM Operator

The large-scale restructuring of operations and the separation of the new operator from Naftogaz Group was definitely the main internal challenge for the natural gas transmission segment. This process was accompanied by a dramatic change in the organizational structure of Ukrtransgaz, the final separation of the two activities, changing the levels and algorithms of decision-making, increasing the powers of regional units, and a reorganization of business processes. Starting from the second half of 2019, the service of the gas transmission system was transferred to the Operator of the Gas Transmission System of Ukraine LLC (OGTSU LLC).
Performance of Ukraine’s gas transmission infrastructure in 2015-2019, bcm

Gas transit to Europe in 2019

- SLOVAKIA
- HUNGARY
- ROMANIA
- MOLDOVA
- BELARUS
- RUSSIA

**2019**

**Poland**

- **Gas imports to Ukraine in 2019**: 14.3 bcm

**Slovakia**

- **Gas transit to Europe in 2019**: 89.6 bcm

**Hungary**

- **Gas transit to Europe in 2019**: 14.3 bcm

**Performance of Ukraine’s gas transmission infrastructure in 2015-2019, bcm**

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**Entry and exit volumes at GTS stations**

- **Temporary occupation areas**: Gas transmission volumes as of 01/01/2020

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**Source**: Ukrtransgaz, 2019
Gas transmission through Ukraine to European countries and gas imports to Ukraine in 2010-2019

### The New Rules of the Gas Market – Daily Balancing

From March 1, 2019, daily balancing is introduced in Ukraine, which implies the calculation of positive or negative imbalances for customers of natural gas transportation services by the GTS Operator on a daily basis. It is expected that the changes will enable Ukraine to take a significant step towards completing the reform of the gas market and the introduction of the standard rules of operation of European operators. The Government of Ukraine set this goal back in 2014 within the framework of the EU – Ukraine Association Agreement.

To prepare for the transition to daily balancing, Ukrtransgaz has developed and implemented an information platform. During 2019, the platform was supported by Ukrtransgaz in accordance with the GTS of Ukraine Code. After unbundling was completed, the Platform was transferred to Ukrtransgaz LLC. The Platform automates electronic interaction and document flow between the key natural gas market players – the GTS Operator, gas distribution network operators (GDNOs), and gas transmission service customers.

### New Rules vs. Old Problems – Accumulation of Debts for Balancing Services

The Resolution of the National Energy and Utilities Regulatory Commission of 30.09.2015 No 2493 approved the Gas Transmission System Code (hereinafter the GTS Code). The GTS Code established the mechanism for monthly balancing of the gas transmission system and obliged Ukrtransgaz to provide balancing services to gas distribution system operators on a monthly basis. During the period from 2015 until the end of 2019, the total amount of negative natural gas imbalances in the Ukrtransgaz system, based on the results of market participant nomination and renomination, reached 2019 Hryvnia.

During the period from 2015 until the end of 2019, the total amount of negative natural gas imbalances in the Ukrtransgaz system, based on the results of market participant nomination and renomination, reached 2019 Hryvnia.
operations, amounted to 6.3 bcm. In 2019, the level of negative imbalances amounted to more than 2 bcm, which is UAH 13.6 billion – the highest since approval of the GTS Code. As of the end of the year, the debt of transmission service customers to Ukrtransgaz for balancing was about UAH 44.1 billion, including the debt of gas distribution system operators of more than UAH 35.2 billion. Despite the introduction of a daily balancing system in March 2019, debt for transmission services increased by UAH 7.2 billion by the end of 2019. This means that replacing monthly balancing with daily balancing is insufficient without eliminating the main cause of debt accumulation for negative imbalances, which is unauthorized gas withdrawals of gas by gas distribution system operators. The continuous increase in debt results in the outflow of GTS operator working capital. In turn, the situation makes settlements with suppliers and the implementation of modernization and development of the gas transmission system more complicated and difficult.

Due to the increase in natural gas costs as a result of negative imbalances in 2019, the growth of debts of gas distribution system operators and the accumulated effects of temporary tariffs set by the NEURC, Ukrtransgaz was not able to pay for gas purchased for its own needs in 2019. Several suppliers refused to supply contracted volumes of gas. The lack of natural gas for in-house needs created significant threats to the continued uninterrupted operation of Ukrtransgaz.

In the process of separation of natural gas transmission activities, the accumulated debt for balancing services was not transferred to the new gas transmission system operator. At the same time, available public data on unauthorized withdrawals in 2020 shows that this problem remains the main threat to the financial condition of the new independent gas transmission system operator.

**TRANSIT INTERRUPTION RISK**

During 2019, Ukraine was preparing for an end to transit of Russian gas after the expiration of the contract between Naftogaz of Ukraine and Gazprom on January 1, 2020. Naftogaz Group therefore successfully implemented plans to import sufficient natural gas from Europe, its transmission, and pumping into underground gas storage facilities.

Meanwhile, Ukrtransgaz ensured its readiness to take the necessary technical steps to redistribute gas routes to meet the needs of Ukrainian consumers. The GTS of Ukraine operator has developed different GTS operation modes in different gas resource distribution scenarios, depending on the changes in ambient temperatures in different regions of Ukraine, as well as other factors. These include availability of imports, no imports, different withdrawal volumes from different underground storage facilities, criteria for optimal use of capacity of the trunk gas pipelines and compressor stations, etc.

The gas transmission system had operated in similar conditions in January 2009, during the gas crisis due to the cessation of gas transit through Ukraine by Russia. At that time, all consumers were supplied with gas and the availability of natural gas reserves in underground storage facilities and capacity for its extraction ensured a balanced system (there was no crisis situation with gas supply to consumers in Ukraine). In addition, since the end of the gas crisis in 2009, a large number of gas transmission infrastructure facilities have been reconstructed and rehabilitated, which has greatly facilitated the organization of reverse operation modes and expanded the capabilities of the gas transmission system.

**Negative imbalances in 2015-2019**

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt, UAH billion*</td>
<td>0.7</td>
<td>20.1</td>
<td>34.4</td>
<td>44.1</td>
<td></td>
</tr>
</tbody>
</table>

*including accrued % and fines according to court decisions.
GAS STORAGE BUSINESS DELIVERY UNIT

KEY RESULTS IN 2019

- Net revenue of Gas Storage Business Delivery Unit in 2019 amounted to 3.3 bln UAH which is 82% more as compared to the previous period, mostly due to higher volumes of injection and storage, as well as tariffs revision in August 2019.
- EBITDA of Gas Storage Business Delivery Unit in 2019 amounted to almost 2 bln UAH as compared to almost null EBITDA in 2018.
- Injection to storages by all parties comprised 13.1 bcm (34% more than previous year). Withdrawal volumes by all parties totaled 8.0 bcm (25% less compared to previous year). In 2018 withdrawal volumes comprised 10.6 bcm. 21.8 bcm of gas was accumulated in Ukraine’s gas storage facilities at the end of 2019 injection season, which is 27% more than a year ago.

In 2019, the objective of Naftogaz Group developed in 2014 has been finally reached by timely implementation of unbundling of natural gas transmission and storage activities. As part of the organisational transformation of Naftogaz Group in December 2019, the Supervisory Board of Naftogaz Group adopted a decision to create Gas Storage Business Delivery Unit. The Unit is responsible for providing reliable and economically justified natural gas storage services for both Ukrainian and European customers, as well as for integrating Ukrainian gas storage infrastructure and services into the European system. The Gas Storage Business Delivery Unit includes Ukrtransgaz’s structural divisions, and, in particular, the “Storage System Operator of Ukraine” (hereinafter also SSO) branch in November 2018 was the first and one of the key stages in the unbundling process. Upon its creation, the restructuring of business processes and reporting lines began both at SSO and TSO. This process covered complete segregation of assets, teams and referent responsibilities.

By June 2019, SSO had developed its own IT environment, a single database of technological parameters, and set up its own dispatching system. Operational dispatching of underground gas storage (hereinafter also UGS) facilities is currently carried out from Lviv. In August 2019, Ukrtransgaz specialists launched the SSO IT Information Platform which significantly increased the effectiveness of SSO interfaces with customers. Work continues on expanding its functionality.

Metering equipment installed at connection points is used to account for transmitted gas between the two operators. However, to increase the accuracy of calculations, it is planned to equip new measuring units in the next 3-4 years.

On December 27, 2019, JSC Ukrtransgaz and “Gas Transmission system operator” LLC (TSO LLC) signed an interconnection agreement (“Technical Agreement” between operators). The agreement introduced common storage facilities in Ukraine. One storage facility, Verhunske, is located in the temporarily occupied territory of Luhansk region.

UNBUNDLING OF THE TWO SYSTEMS – ONE OF MAJOR CHALLENGES IN 2019

Creation of the “Storage System Operator of Ukraine” branch in November 2018 was the first and one of the key stages in the unbundling process. Upon its creation, the restructuring of business processes and reporting lines began both at SSO and TSO. This process covered complete segregation of assets, teams and referent responsibilities.

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VOLUMES OF GAS INJECTED TO THE UGS IN 2019

<table>
<thead>
<tr>
<th>Facility</th>
<th>Injection 2019</th>
<th>Injection 2018</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verhunske (310 mcm)</td>
<td>1900 mcm</td>
<td>1200 mcm</td>
<td>+58%</td>
</tr>
<tr>
<td>Oparne (150 mcm)</td>
<td>1920 mcm</td>
<td>1440 mcm</td>
<td>+33%</td>
</tr>
<tr>
<td>Kehychivske (210 mcm)</td>
<td>2000 mcm</td>
<td>1500 mcm</td>
<td>+33%</td>
</tr>
<tr>
<td>Solotyivske (50 mcm)</td>
<td>2000 mcm</td>
<td>1500 mcm</td>
<td>+33%</td>
</tr>
<tr>
<td>Chervonopartyzanske (30 bcm)</td>
<td>2150 mcm</td>
<td>1500 mcm</td>
<td>+43%</td>
</tr>
</tbody>
</table>

Key results:

- More than 34% more compared to 2018.
- 13.1 BCM.
- 25% more compared to 2018.
- 8.0 BCM.

Source: Naftogaz
Key features of gas transmission and storage business in Ukraine

**30 950 mcm**

Maximum volume of active gas in storage

**597 MW**

Capacity of compressor stations

**1 232 Production wells**

**260 mcm**

Maximum daily withdrawal at the beginning of the withdrawal season (source: designed parameters. UTG’s specifications)

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**3**

Key features of gas transmission and storage business in Ukraine

In anticipation of a new gas war

By December 28, 2019, it was difficult to predict whether transit through Ukraine would be continued, and if so, what the conditions and volumes would be. In such circumstances, the critical task of SSIO was to ensure technical capability to inject and store sufficient stock of natural gas in UGS, and to develop technological regimes of UGS operation together with part of the main gas pipelines. It was also necessary to implement technical measures aimed at improving the reliability of the main UGS technological equipment and proper preparation of natural gas for transportation during the heating season in the absence of transit.

By the end of October, 2019, the injection season was completed and the volume of natural gas in UGS facilities amounted to more than 21.8 bcm of natural gas, which was the highest indicator since 2011.

**13.6**

As of 1 November 2019

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**Value creation for customers – customs warehouse service**

During 2019, SSIO provided Customs Warehouse services to a record number of customers. The service itself was the result of the joint efforts of Uktransgaz, Naftogaz and the Ukrainian authorities, and was introduced in 2017.

Based on UGS facilities, the Customs Warehouse Service allows customers to store natural gas in Ukrainian UGS facilities for up to 1095 days without paying taxes and customs duties, subject to further transportation of these volumes from the territory of Ukraine or their placement in different customs regime.

In 2019, customers placed over 8.1 bcm of natural gas (more than 30% of the total volume of gas storage), of which residents (10 customers) accounted for 6.1 bcm, and non-residents (19 customers) accounted for 2.0 bcm, representing 85% and 35% respectively.

**Unbalanced tariff regulation of monopolies – a challenge for SSO in 2019**

Starting from 2014 and until the final separation of TSO, one of the key problems that the faced by Uktransgaz was cross-subsidisation between the two operating segments – transmission and storage of natural gas. This problem became critical in 2019 after the introduction of temporary tariffs for natural gas transmission services, which were nearly half lower than the justified tariffs initially calculated by Uktransgaz. At the same time, Uktransgaz faced sharp increase in network users’ debts for balancing services. As a result, in mid-2019, the company was on the verge of default on its obligations: financing of capital investment and repair plans was threatened, including the modernisation of natural gas storage assets. The crisis was prevented thanks to the support provided by the parent company – NJSC Naftogaz of Ukraine – to Uktransgaz.

During 2019 a number of important maintenance activities were carried out by Uktransgaz, which significantly improved the condition of the main technological equipment and increased the reliability of UGS facilities.

The company carried out 67 well work-overs and ongoing repairs of 120 wells at UGS facilities, together with 89 repairs and maintenance of UGS gas pumping units.

In addition, during neutral periods (after the withdrawal season 2018-2019 and after the injection season 2019), planned repair and maintenance work of technological equipment was fully implemented.

**Key strategic directions of the gas storage business delivery unit**

Realize synergies with the Naftogaz Group Gas Business

Naftogaz Group anticipates further realising synergy of the Gas Storage Business Delivery Unit with the gas commercial units, leveraging the potential of underground natural gas storages to:

- ensure security of natural gas supply to inside Ukraine;
- implement attractive commercial projects of Naftogaz group gas business.

Increase the level of gas storage utilization by external customers

SSIO is taking steps to increase revenues and utilization of infrastructure. Uktransgaz anticipates to increase the share of revenue from services in accordance with trends in the European gas market, given benefits of the location of Ukrainian gas storages and infrastructure in the western part of the Ukraine. Effective cooperation with the gas transmission system operator of Ukraine will contribute to this process. Starting from January 2020, a significant step in this direction was made by the introduction of the new TSO “Short-haul” service, which provides special reduced tariffs for transit transmission services, ensuring capacities with limited access to the Ukrainian VTP and domestic market.

**Dynamics for customs warehouse**

**2019**

**Volume of natural gas, bcm**

**Number of customers**

---

**Key strategies for operational performance**

During the implementation of unbundling, Naftogaz Group pursued the goal of creating an effective GTS operator, taking into account the existing technical and administrative restrictions. This, in turn, means that certain services, assets and business processes were not transferred to TSO LLC.

Therefore, in the short term, the activities of Uktransgaz and the Gas Storage Business Delivery Unit will encompass the optimisation of organisational structure, business processes, and personnel.

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Realize synergies with the Naftogaz Group Gas Business

Naftogaz Group anticipates further realising synergy of the Gas Storage Business Delivery Unit with the gas commercial units, leveraging the potential of underground natural gas storages to:

- ensure security of natural gas supply to inside Ukraine;
- implement attractive commercial projects of Naftogaz group gas business.

Increase the level of gas storage utilization by external customers

SSIO is taking steps to increase revenues and utilization of infrastructure. Uktransgaz anticipates to increase the share of revenue from services in accordance with trends in the European gas market, given benefits of the location of Ukrainian gas storages and infrastructure in the western part of the Ukraine. Effective cooperation with the gas transmission system operator of Ukraine will contribute to this process. Starting from January 2020, a significant step in this direction was made by the introduction of the new TSO “Short-haul” service, which provides special reduced tariffs for transit transmission services, ensuring capacities with limited access to the Ukrainian VTP and domestic market.

**Unbalanced tariff regulation of monopolies – a challenge for SSO in 2019**

Starting from 2014 and until the final separation of TSO, one of the key problems that the faced by Uktransgaz was cross-subsidisation between the two operating segments – transmission and storage of natural gas. This problem became critical in 2019 after the introduction of temporary tariffs for natural gas transmission services, which were nearly half lower than the justified tariffs initially calculated by Uktransgaz. At the same time, Uktransgaz faced sharp increase in network users’ debts for balancing services. As a result, in mid-2019, the company was on the verge of default on its obligations: financing of capital investment and repair plans was threatened, including the modernisation of natural gas storage assets. The crisis was prevented thanks to the support provided by the parent company – NJSC Naftogaz of Ukraine – to Uktransgaz.

During 2019 a number of important maintenance activities were carried out by Uktransgaz, which significantly improved the condition of the main technological equipment and increased the reliability of UGS facilities.

The company carried out 67 well work-overs and ongoing repairs of 120 wells at UGS facilities, together with 89 repairs and maintenance of UGS gas pumping units.

In addition, during neutral periods (after the withdrawal season 2018-2019 and after the injection season 2019), planned repair and maintenance work of technological equipment was fully implemented.

**Key strategic directions of the gas storage business delivery unit**

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**Dynamics for customs warehouse**

**2019**

**Volume of natural gas, bcm**

**Number of customers**

---

**Key strategies for operational performance**

During the implementation of unbundling, Naftogaz Group pursued the goal of creating an effective GTS operator, taking into account the existing technical and administrative restrictions. This, in turn, means that certain services, assets and business processes were not transferred to TSO LLC.

Therefore, in the short term, the activities of Uktransgaz and the Gas Storage Business Delivery Unit will encompass the optimisation of organisational structure, business processes, and personnel.

**Key strategic directions of the gas storage business delivery unit**

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The Technical Business Enabling Unit is quality and timely performance of tasks or execution of capital projects that are delegated to it by other business units. The split of accountability in this case is done based on the rule that while business delivery units answer the questions “What” and “When”, Technical Business Enabling Unit answers the question “How.”

Technical Business Delivery Unit responded to this reduction in drilling volume with optimization of drilling capacity, taking into account new drill rig delivery and launch schedule, most of which had been planned for 2019. Both business units’ teams worked intensely to update the drilling schedule focused on maximization of new and modernized drill rig utilization.

In parallel, the Technical Business Enabling Unit had to substantially reduce the number of third-party drill rigs (from 13 rigs in 2018 to 4 rigs by the end of 2019) as well as implement a conservation program for older rigs. As a result, by the end of 2019, the drill rig fleet of the business unit centered around 20 new, 15 fully or partially modernized own drill rigs, and 4 third-party drill rigs.

As a result, the average commercial drilling speed of own drill rig fleet increased by 14% in 2019 – from 428 to 488 meters per month. At the same time, new drill rigs have demonstrated performance which allow to expect closure of the gap to third-party rig speed level of 1,000-1,100 meters per month in 2020-2021. In 2019, several wells were drilled at the level of third-party contractor commercial drilling speed. The Zakhidne-Sosnivske 150 well (depth of 5.7 thousand meters) was drilled at 1,120 meters per month commercial drilling speed.

The Zakhidne-Sosnivske 150 well (depth of 5.7 thousand meters) was drilled with 1,049 meters per month commercial drilling speed. The gap to third-party contractor commercial drilling speed narrowed to 20 meters per month, which allowed to expect closure of the gap to third-party rig speed level of 1,000-1,100 meters per month in 2020-2021. In 2019, several wells were drilled at the level of third-party contractor commercial drilling speed. The Zakhidne-Sosnivske 150 well (depth of 5.7 thousand meters) was drilled at 1,120 meters per month commercial drilling speed.

The Technical Business Enabling Unit answers the question “How.”

**Transformation and Capability Development in Oil and Gas Field Service Activities**

2019 was the year of rollout of new drilling fleet of JSC Ukrzakvydobuvannya, together with a reduction of reliance on external drilling capacity and the transformation of drilling competence within Naftogaz Group.

Following a decline in natural gas prices, Integrated Gas Business Delivery Unit had to review its investment plans related to drilling and greenfield development, which resulted in a reduction of 2019 drilling program volumes.
Technical Business Enabling Unit drill rig capacity renewal - Before and After

Technical team also pursues other activities to increase drilling efficiency, including the following:

- Development of regulations and operating standards for well drilling and construction activities;
- Transition to API (American Petroleum Institute or API) standards;
- Usage of oil-based mud that will allow reductions in accident and complication time when drilling through intervals which are prone to mud absorption;
- Reduction of rig-up / rig-down time (pilot projects have confirmed a time reduction potential of up to 50%);
- Drilling branch personnel optimization reflecting optimization of drill rig fleet;
- Conducting qualification improvement and training programs, including training abroad in partnership with global leading drilling companies.

Workover program

In 2019, Technical Business Enabling Unit completed 161 workover operations, of which 41 were performed by third-party contractors. 63 workovers involved fishing operations, which are often very complex and carry significant risks. These works were performed in partnership with Weatherford.

To deliver this program, business units deployed on average 35 own workover rigs and 15 workover rigs of third-party contractors. To increase workover capacity, a contract for delivery of 5 new workover rigs ZJ-20 was signed with Zhongman Petroleum in 2019. These rigs were delivered in December 2019 and have already been commissioned in May-June 2020. In parallel, negotiations with the European Bank for Reconstruction and Development are being conducted to finance purchasing of 10 additional workover rigs.

Coiled tubing operations program

In 2019, Technical Business Enabling Unit performed 736 coiled tubing operations, of which 257 were done as support operations and were part of new well construction, workover, or hydraulic fracking projects. All these operations were performed by 7 own coiled tubing units and 12 third-party coiled tubing units, of which 4 units were deployed through the contract with Schlumberger.

Owing to partnerships and experience exchange, the business unit managed to improve its capabilities and started performing complex coiled tubing operations, including abrasive jetting and cementing operations. Additionally, oil and gas field service branch of JSC Ukrugasvydobuvannya UGV Service was equipped with the newest coiled tubing operations tools produced by NOV with respective employee training done in advance, which made it possible to further strengthen the capabilities of the coiled tubing operations team in performing operations of different levels of complexity.

Partnership with Schlumberger

Partnership with Schlumberger allowed the business unit to apply the latest technologies:

- Organoezo technology, which makes it possible to temporarily block producing zones in order to minimize fluid absorption by formation and allows to perform other operations in the well without causing damage to formation, was used for the first time in Eastern Europe. Based on this application, engineer teams of Naftogaz Group and Schlumberger are currently working on a joint paper for the Society of Petroleum Engineers (SPE).
- CaliSlate technology, which makes it possible to run an inflatable packer through a pump compressor pipe, precisely isolating the required zone for further treatment with a coiled tubing unit. Naftogaz Group was the first company in Eastern Europe to apply this technology.
- Production Logging Tool, which is a technology allowing for logging with the help of a coiled tubing unit in wells where standard methods of well studies cannot be applied. Rapid interpretation of data allows for quick and correct decisions regarding further works on the well.
- Deep acid stimulation with coiled tubing unit technologies, that encompasses unique acid recipes, which are developed individually for each type of formation and allow increases in gas produced from depleted reservoirs.

Hydro fracking operations program

In 2019, Technical Business Enabling Unit performed 117 hydro fracking operations, of which 92 operations were performed by third-party contractors Tacroem Services S.R.L. and Belorusneft. 60 hydro fracking operations were performed on existing wells, with others performed on new wells. During the year, the business unit team successfully completed modernization and launch into operation of its own hydro fracking fleet, which managed to perform 25 operations, including 4- and 8-stage hydro fracking series with application of special multi-stage layouts. To enable operation of its own hydro fracking fleet, a special mobile laboratory was purchased and put into operation in the UGV-Service branch as part of the existing hydro fracking auxiliary equipment set.

Sidertrack drilling

In May 2019, the two-year cooperation between Naftogaz Group and US company Halliburton moved to a new level as a result of signing of a Memorandum of Understanding regarding deepening of cooperation in the sphere of provision of oil and gas field services for development of hydrocarbon reservoirs in Ukraine. Within this cooperation framework, Halliburton was contracted to provide integrated sidertrack drilling services on 26 wells. Naftogaz Group forecasts that successful delivery of this sidertrack drilling program will make it possible to obtain 2 billion cubic meters of natural gas over 10 years.
Coiled tubing operations (21%) and investments in equipment (8%).

Ukrtransgaz, which are part of Technical Business Enabling Unit, perform supply of services to the Operator of GTS of Ukraine LLC from 1 January 2019 onward. German engineering company Ferrostaal Industrieanlagen GmbH is the general contractor for the reconstruction of Beregovo gas measurement station, which is an important component of Ukraine’s gas transportation system, since it is at this station that natural gas transmitted from Ukraine to Hungary is measured. Approximately 12-13% of natural gas that Ukraine transports to Western and Balkan nations comes through the station. In 2019, the pumped volume of natural gas exceeded 15 billion cubic meters. Main and back-up gas measurement systems using high-precision ultrasonic gas meters manufactured by Sick AG and RMG Messtechnik, as well as new automatic flow chromatographs to measure natural gas composition and hygrometers to measure moisture level, were installed at the station as part of reconstruction efforts. Upon completion of unbundling of gas transmission activities, service branches of Ukrtransgaz, which are part of Technical Business Enabling Unit, perform supply of services for repair, maintenance, technical diagnostics of gas transportation system objects and big capital project execution support to the Operator of GTS of Ukraine LLC. In January 2020, in parallel, JSC Ukrtransgaz service branches are to be transformed through 2020 as part of the effort to build a single integrated technical competence within Naftogaz Group, taking into account internal needs, the needs of the Operator of GTS of Ukraine LLC, and other sources of market demand for such services.

In 2019, 9 artificial lift systems were installed on wells of the Shebelynka and Poltava gas production units (1 plunger lift and 8 capillary injection systems) in partnership with Weatherford (Weatherford Ukraine LLC). The pilot project resulted in an increase of average well production by 26 thousand cubic meters per day with all 9 wells continuing to operate without the need for blowdowns, positively impacting the volume of gas measurement and other service equipment. Achievements of 2019 show that reduction of NPT is an important factor in optimization of operational processes. Redesign and implementation of new standardized processes, improvement of logistics and stock management and wide-scale application of IT are key work streams to achieve implementation of this initiative.

Key streams for supply chain management transformation

- Optimization of not efficient warehouse and structure
- Optimization of costs and improved control
- Optimization of stock level

Overhead optimization and development of high performance organizational structure. Leveraging of best practices and implementation of optimized organizational structure and processes comprise the core of Technical Business Enabling Unit optimization. This work will reflect the need to ensure cost efficiency for services provided to other business units, centralize technical capability and transform service branches of JSC Ukrtransgaz.

Special vehicle fleet management optimization. It will allow substantial savings on fixed costs linked to car and other vehicle maintenance.

One of the key strategic initiatives to increase the efficiency of the Technical Business Enabling Unit is transformation of the supply chain management system. Key streams in this direction include development of professional capability in purchasing, stock, transport and logistics management based on the data management system. The implementation of strategic initiatives will allow the Technical Business Enabling Unit to achieve the required level of competence in technical and operational activities to effectively support the implementation of Naftogaz Group’s strategic objectives.

Dynamic in quantity of performed wellwork operations and commissioned wells

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers</th>
<th>Coiled tubing operations</th>
<th>Hydro fracking operations</th>
<th>Wells commissioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>66</td>
<td>0</td>
<td>63</td>
<td>122</td>
</tr>
<tr>
<td>2016</td>
<td>110</td>
<td>16</td>
<td>42</td>
<td>578</td>
</tr>
<tr>
<td>2017</td>
<td>101</td>
<td>51</td>
<td>729</td>
<td>573</td>
</tr>
<tr>
<td>2018</td>
<td>157</td>
<td>64</td>
<td>736</td>
<td>161</td>
</tr>
<tr>
<td>2019</td>
<td>161</td>
<td>117</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: Ukrgasvydobuvannya

Optimization of not efficient warehouse and structure
UKRNAFTA PJSC

RESULTS

For the second year in a row, the company increased production despite limited financial resources and restricted ability to invest resulting from a tax debt.

With its increased production, the company faced the impossibility of selling oil and condensate, caused by imperfect mechanism of regulated sales through auctions and a lack of vertical integration with the refining segment. In 2019, the company failed to sell oil equivalent to two months of production volume.

Due to the collapse of government oil and condensate auctions and a forced shift to tolling refining, as well as a significant fall in gas and oil prices, the company was unable to convert its production growth into a positive financial result for 2019.

Despite the debt repayment mechanism agreed in 2019 for a total of nearly UAH 30 billion, its implementation was blocked by the government. Plans to appoint a new CEO and define a new strategy for company development were also postponed.

Along with agreeing the mechanism for repaying the tax debt in 2019, the shareholders reached a decision on changes in corporate governance, taking into account OECD recommendations and Ukrainian legal and regulatory provisions. In particular, the company’s charter, the composition of the supervisory board, and regulations covering supervisory board operations were amended.

PRODUCTION

In 2019, oil and condensate production increased by 4.7% and gas rose by 7.4% compared to 2018. The company managed to achieve positive production results with limited investment resources due to a number of operations at active wells including a shift to new productive horizons, carrying out capital and ongoing repairs of prospective wells, conducting hydrofracturing and enhancement, well production optimization, and replacement of critically worn out equipment.

In particular, last year, the company completed well workovers (hereinafter WOs) at 160 wells and conducted 42 production enhancement operations (including 7 hydrofracturing operations). WOs helped increase production of oil and condensate by 60.1 thousand tons and of gas by 98.2 mcm as of 31 December 2019. Enhancement operations added 8.8 thousand tons of oil and 4.4 mcm of gas while production optimization operations – 75 thousand tons of oil and condensate and 15 mcm of gas.

The average daily production of oil and condensate increased by 5%, up to 4.15 thousand tons / day compared to last year’s indicator of 3.97 thousand tons / day.

Average daily gas production increased from 2.96 mcm / day to 3.18 mcm / day.

LIMITATIONS ON OIL SALES

In 2019, Ukrnafta sold 1275.75 thousand tons of oil and condensate (84% of its production volume) in accordance with the Law of Ukraine "On Oil and Gas" and the CMU Resolution No. 570 "On the Organization and Conduct of Exchange Auctions for the Sale of Crude Oil, Gas Condensate Produced by the Company and Liquefied Gas."

Starting from March 2019, potential buyers refused to buy oil and condensate at state auctions because of high (as the buyer believes) starting prices. In 2019, out of 20 oil and condensate auctions, 11 auctions were declared as failed. As a result, in 2019, 242.8 thousand tons of oil remained unsold, which is equal to two-month production volumes.
The problem of tax debt remains a major obstacle for the continued effective operations of the company. Last year (and as of the date of this report), Ukrnafta was not able to implement the tax settlement mechanism approved by the shareholder meeting in March 2019. The mechanism envisaged the write-off of the natural gas totaling 2.062 bcm already injected by Ukrnafta to UGS in 2006, and prepayment for 2 bcm of future production. This would enable Ukrnafta to completely repay tax debt, along with fines and penalties. At the time of arranging the agreement, the independent appraiser concluded that the terms of the agreement were in line with normal market conditions. At the same time, this mechanism would allow Naftogaz to make some payments to Ukrnafta while the state would be able to compensate Naftogaz for fulfilling public service obligations imposed on the company. The implementation of this agreement was to be the first step in resolving both the issue of settlements with Naftogaz for gas produced in 2006-2011 and the problem of receivables from 2012-2015.

CORPORATE GOVERNANCE REFORM

Along with agreeing the mechanism for the settlement of the tax debt in 2019, Ukrnafta’s shareholders decided to amend the company’s charter based on the requirements of the Law of Ukraine “On Joint Stock Companies”, and approved regulations on the supervisory board, taking into account OECD corporate governance guidelines. As a result, the supervisory board is currently composed of 6 independent members (3 of which are Naftogaz nominees, however they meet criteria of independence, like all other independent members) and 5 members representing shareholders (3 of which are Naftogaz nominees), with the supervisory board being delegated the power to appoint and dismiss the chairman of the board.

In March 2019, the shareholders elected a new supervisory board of Ukrnafta and decided to terminate Mark Rollins’ term of office as chairman of the board. By decision of the shareholders, from 1 May 2019, Oleg Gie became acting chairman of the board until the election of a new chairman in accordance with the procedure set up by the new Charter. The appointment of a new chairman of the board and his tasks depend on the tax debt settlement, which is necessary to unlock the company’s operations. Status of the tax debt issue determines the range of tasks to be dealt by the chairman of the board, as well as the possibility of implementing an active company development strategy. Currently, the price crisis in the oil market exacerbates the process, which requires shareholders to review plans in these areas.

UKRNAFTA’S KEY FINANCIAL INDICATORS

On the one hand, Ukrnafta managed to increase oil and gas production; on the other hand, the company failed to convert this increase into a positive financial result due to the collapse of the state auction system for oil and condensate, forced switcher to tolling operations, as well as a significant fall in natural gas and petroleum product prices.

The restrictions on oil sales imposed by the government have led to a reduction in oil sales and an increase in operating costs. In 2019, the company’s sales of oil and petroleum products in the wholesale segment decreased by 33% thousand tons against the previous year. As a result, according to Ukrnafta’s estimates, the company under-received UAH 4.7 billion in net sales revenue. In addition, Ukrnafta has under-received about UAH 9.0 billion, mainly due to a 29% decline in sales in the retail segment, as well as a decrease in the average selling prices for petroleum products; by 2% for gasoline and by 13% for liquefied gas. At the same time, the adverse impact of falling natural gas prices was balanced by an increase in sales volume of 226 mcm. Due to all these factors, net sales revenue decreased by UAH 7.9 billion (-22%) to UAH 28.2 billion compared to 2018. Due to the collapse of the state auction system, Ukrnafta was forced to change its monetization model. Since April 2019, the company started buying its own oil at oil auctions with subsequent refining on the facilities of the Kremenchuk Oil Refinery. Given the refusal of the Ukrainian oil refineries and regulatory limitations to buy oil and condensate, the switch to tolling operations allowed to avoid a complete shutdown of production in Q2 2019 due to overloaded reservoir parks. As a result of tolling operations, the company received a full basket of petroleum products with different profitability. According to Ukrnafta’s data, the profitability of tolling operations is positive, however its level was lower than profitability in oil sales. As a result, the cost has increased by UAH 1.2 billion compared to 2018. In addition, other operating expenses increased by UAH 4.2 billion compared to the previous year. The main factors behind the increase in expenses are the accrual of provisions for trade and other receivables of UAH 3.3 billion, as well as the effect from the revaluation of fixed assets and reserves of UAH 0.8 billion.

All together, these factors – a decrease in sales revenue, an increase in costs, and an increase in other operating expenses – led to a net loss of UAH 4.1 billion.

Despite these adverse factors, Ukrnafta paid UAH 13.45 billion to budgets of all levels in 2019. The company fully paid its current tax obligations and repaid over UAH 60 million in overdue tax debt. At the same time, Ukrnafta became the eighth largest taxpayer in Ukraine.

ARBITRATION AGAINST THE RUSSIAN FEDERATION

On 12 April 2019, the international arbitration tribunal ordered the recovery of over USD 4.4 million from the Russian Federation in favor of Ukrnafta PSC as compensation for expropriation of investments in the Autonomous Republic of Crimea. In May 2019, the Russian Federation appealed to the Supreme Court of Switzerland, requesting that the decision of the international arbitration court be overturned. On 12 December 2019, the Supreme Court of Switzerland dismissed the request of the Russian Federation. This decision is final and is not subject to appeal. In addition, the Supreme Court of Switzerland ordered the Russian Federation to pay 150,000 Swiss francs to Ukrnafta PSC as costs for the proceedings.

5 Ukranita's key financial indicators

<table>
<thead>
<tr>
<th>Financial indicators</th>
<th>Unit</th>
<th>2019</th>
<th>2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales revenue</td>
<td>UAH mn</td>
<td>29,293</td>
<td>38,113</td>
<td>-22%</td>
</tr>
<tr>
<td>Gross profit</td>
<td>UAH mn</td>
<td>12,257</td>
<td>21,330</td>
<td>-43%</td>
</tr>
<tr>
<td>Operating profit (loss)</td>
<td>UAH mn</td>
<td>14,445</td>
<td>7,370</td>
<td>-50%</td>
</tr>
<tr>
<td>Net profit (loss)</td>
<td>UAH mn</td>
<td>(4,998)</td>
<td>6,408</td>
<td>-163%</td>
</tr>
<tr>
<td>Capital investments</td>
<td>UAH mn</td>
<td>1,193</td>
<td>1,210</td>
<td>-2%</td>
</tr>
<tr>
<td>Taxes and duties paid</td>
<td>UAH mn</td>
<td>15,450</td>
<td>16,286</td>
<td>-5%</td>
</tr>
</tbody>
</table>
The Key Results of the New Energy Business Unit

1. Consolidated expert opinion on and construction of a competence center for development, implementation and management of renewable energy projects within Naftogaz Group.

2. Elaboration of a development concept and organizational structure, and establishment, in December 2019, of the New Energy Business Unit for the implementation of renewable energy sources (RES) generation projects.

3. Launch of construction works pursuing implementation of the project "Chudniv SPP Construction" with a capacity of 33 MW.

4. Completion of construction of a meteorological mast 120 m high, installation of wind measuring equipment for the implementation of the pilot project "Mariivka WPP Construction" with a capacity of 20 MW.

5. Establishment of relations with regard to the construction of highly shunting capacities with one of the world’s leading manufacturers of products for dynamic stabilization of network load, peak load management with unstable energy generation.

A growing international consensus on the decarbonization of the global economy has encouraged more than 150 countries to develop plans and set goals to generate an increasing share of energy from renewable sources. The Energy Strategy of Ukraine also includes the goal of increasing the share of renewable energy generation from 3% to 25% in the primary energy supply structure by 2035.

3.5 EUR billion
Invested in the renewable energy segment in Ukraine in 2019

+25%
Ukraine’s energy strategy includes the goal of increasing the share of renewable energy generation in the primary energy supply structure by 2035.

By introducing stimulating tariffs, so-called “green tariffs”, for the generation of electricity from renewable sources in Ukraine, the RES segment is now integrated into the energy market and the installed capacity of plants generating electricity from sunlight and wind energy has significantly increased.

At present, local and foreign companies have implemented a number of RES projects in the Ukrainian energy market, including with the support of international financial organizations. In 2019, more than 3.5 billion euros was invested in the renewable energy segment in Ukraine. Despite the loss of a large share of assets in Crimea, Ukraine remains a leader in the energy segment in the post-Soviet zone, but still lags far behind developed European countries and is currently failing to achieve the goals set out in the Energy Strategy of Ukraine.

Over the past 10 years, the cost of electricity production from RES has decreased significantly and reached the level of the cost of electricity from conventional sources, which has allowed many countries to change the principles of stimulating the use of RES. From 2020, Ukraine will move to a system of auctions designed to introduce a competitive market for renewable energy and ensure sustainable development without creating additional burdens on the energy system of Ukraine.

Naftogaz Group, aiming to reduce the environmental burden of Ukraine by cutting greenhouse gas emissions, also implements “green technologies” on the group’s assets throughout Ukraine. The implementation of projects using its own resources and with the involvement of experts with experience in implementing large-scale RES projects in Ukraine allowed for the creation of its own competence center with a team that has significant expertise in implementing RES projects in Ukraine, information on wind and sun potential of areas and regions of the country, network infrastructure, and access to international investors and partners.

The next step was developing a vision and strategy for the transition of Naftogaz Group from an oil and gas company into an energy company with a portfolio of businesses in renewable energy and energy efficiency. This trend is observed with almost all international (Shell, BP, Total, Eni and others) and many national oil and gas companies in response to the changes in global energy trends and capital market conditions.

In order to develop a new profitable segment of “clean” energy, increase the revenues and capitalization of Naftogaz Group through “green investments”, and strengthen the country’s energy independence, the Supervisory Board decided to create the New Energy Business Unit within the structure of Naftogaz Group. One of the key objectives of this new Business Unit is fulfillment of Ukraine’s international obligations and the provisions of the Energy Strategy of Ukraine till 2035 by additional production of alternative energy, both for internal needs and for other consumers in an economically feasible way.
The New Energy Business Unit was established on the basis of the Vuhlesyntezgaz of Ukraine SE and the Chudniv SPP Construction Project Implementation Office of the Naftogaz-Energoservice SE. The main activities of the Business Unit are:

— creation and operation of renewable energy facilities;
— creation and operation of highly shunting power plants;
— creation and operation of electricity facilities for electricity storage.

At the same time, because of uncertainty about the changes in current Ukrainian legislation on renewable energy and the future of “green tariffs”, projects for implementation are selected using a conservative approach.

The Projects currently implemented by the New Energy Business Unit:

1. Construction of Mariivka WPP with a capacity of 20 MW, namely the component that includes wind potential research and design and estimate works (Vuhlesyntezgaz of Ukraine SE);

2. Construction of Chudniv SPP with a capacity of 33 MW (Naftogaz-Energoservice SE);

3. Construction of Andriivka SPP with a capacity of 995 kW (Naftogaz-Energoservice SE).

The New Energy Business Unit continues implementing a solar generation pilot project, explores promising areas, develops potential partnerships with international energy and service companies, and looks forward to the future development of the segment.

Strategic initiatives considered by the New Energy Business Unit:

— acquisition of corporate rights for promising SPP and WPP projects in Ukraine with international partners;
— development of marine wind farms in the Black Sea aquatorium;
— entering the shunting generation segment by building high-shunting capacity, including near compressor stations of the Ukrainian gas transmission system.
NOVOYAVORIVSK AND NOVYI ROZDIL CHPs

The heating season of 2019-2020 in Novoyavorivsk and Novyi Rozdil, with a total population of almost 60,000 people, did not start on time due to reasons related to the activities of Garant Energo M, a private property manager of Novoyavorivsk and Novyi Rozdil CHPs.

Based on the results of a tender arranged by the National Agency of Ukraine for Detection, Investigation and Management of Assets Obtained from Corruption and Other Crimes (hereinafter ARMA), in 2018 (and again in 2019) Garant Energo M was selected as the property manager of both CHPs. During just one heating season of 2018-2019, both CHPs increased their debts to Naftogaz of Ukraine NISC and Ukrtransgaz JSC for gas consumed and transportation services worth UAH 0.4 billion. The total debt of the CHPs to Naftogaz Group enterprises at the beginning of the heating period 2019-2020 amounted to UAH 0.8 billion. This management approach led to an increase in debt by an additional UAH 0.7-1.0 billion. The total debt at the end of the heating season of 2019-2020 is set to amount to about UAH 1.4-1.7 billion.

In addition, from a technical point of view, the stations and the heating networks were not prepared for the heating season. Due to a failure to perform scheduled maintenance and repair works in order to prepare for the heating season during the previous three years, equipment at the stations and the heating networks were in poor condition. The station and power plant workers went on strike because of six-month wage arrears. The residents of Novoyavorivsk and Novyi Rozdil blocked roads to draw attention to their cold homes.

The risk of disruption to the heating season in these towns was recognized as a potential manmade emergency. In order to prevent emergencies in the towns of Novoyavorivsk and Novyi Rozdil, Liv region and ensure smooth heating season of 2019-2020 in the towns in accordance with Article 16 of the Civil Protection Code of Ukraine and Article 10 of the Law of Ukraine “On Heat Supply”, ARMA was instructed to take urgent steps to change the manager of the property complex of Novoyavorivsk and Novyi Rozdil combined thermal power plants, to ensure their proper operations. Accordingly, in pursuance of the Resolution of the Cabinet of Ministers of Ukraine of November 6, 2019 No 1040 r “The issues of ensuring smooth heating season of 2019/20 in the towns of Novoyavorivsk and Novyi Rozdil, Liv region, Naftogaz Group (represented by Naftogaz Teplo LLC) was appointed the manager of the two combined heat and power plants in Novoyavorivsk and Novyi Rozdil, that ensured the restoration and stable operation of Novyi Rozdil CHP and Novoyavorivsk CHPs.

As of the moment of transfer to the property complexes of Novoyavorivsk and Novyi Rozdil CHPs, the technical condition of the combined thermal power plants required urgent repairs of core and auxiliary production equipment, heating networks, purchase of chemical reagents for complex chemical water treatment, etc.

Problems were also identified in the field of sales: the subscriber base of Novoyavorivsk CHP was not transferred to Naftogaz Teplo LLC. In Novyi Rozdil, the previous manager (Garant Energo M) did not maintain a subscriber base, and town residents were not invoiced for heating and hot water during the heating season of 2018-2019. As a result, Naftogaz Group had to incur costs for the start-up of the CHPs and the launch of the heating season in both towns, realizing the need to eliminate emergencies and provide the necessary maintenance of equipment not carried out for years.

Managed by Naftogaz Group, both CHPs successfully passed the heating season, and emergencies were resolved quickly and with no social tensions. A thermal energy consumer base was established in Novyi Rozdil. In both towns, the subscriber bases were audited in cooperation with local authorities, housing and communal services (ZHUK), the Bureau of Technical Inventory (BTI), and regional gas companies. Work is currently underway to improve the quality of customer service. Payment discipline was gradually established in both towns. 70% of thermal energy bills are paid in Novyi Rozdil, and 86% – in Novoyavorivsk. During the heating season, Naftogaz Teplo LLC complied with the minimum level of 90% of settlements under PSO terms.

At the same time, the transfer of single property complexes of Novoyavorivsk and Novyi Rozdil CHPs under the management of Naftogaz Group enterprise made it possible to avoid the illegal withdrawal of natural gas and prevent the increase in debt for natural gas and transportation services by at least UAH 0.7-1.0 billion. Novoyavorivsk and Novyi Rozdil CHPs are unique objects as they have high-shunting generating capacities. The gas turbines, if prepared properly, due to their speed, can help balance the unified energy system of Ukraine, and in the future become a potential additional source of income.

Intensive integration of RES in Ukraine requires much more flexibility from the power system. This is possible through high-shunting generation. There is already a shortage of such capacity in the country. International experience of participation in the regulation of electricity producers proves that the use of gas turbines is one of the most efficient ways to do this, which meets the requirements for equipment in terms of load acceptance speed. It is this type of energy generation that Naftogaz Teplo LLC manages and develops.
MODERNIZATION OF INDIVIDUAL AND DISTRICT HEATING

Households consume about a third of the total final energy consumption in Ukraine, with the largest share of this energy used to heat homes.

Improving the efficiency of energy use by households is the key to overcoming energy poverty, strengthening energy security, and mitigating negative impact on the environment.

Naftogaz-Energoservice SE of Naftogaz Group implements measures to improve the energy efficiency of households, including the Affordable Heat program and the Affordable Heat for Employees project.

Since 2018, the Affordable Heat program has provided energy services to the residents of Kropyvnytskyi and Kirovohrad regions. It has also installed individual heating systems for residents of Kropyvnytskyi in order to optimize the district heating system. Optimization measures are implemented under a city program initiated and developed by Naftogaz-Energoservice SE jointly with the city council. Low-income families benefited from the city program and received guaranteed compensation from the local authorities equal to 50% of their modernization expenses. In addition, city residents had the chance to benefit from the EBRD IQ Energy program and receive an additional 35% grant compensation for special turnkey consumer products developed by Naftogaz-Energoservice SE, which include not only equipment and components, but also a range of design and engineering services and registration of permits. For the convenience of consumers, a Center for Energy Services was opened in Kropyvnytskyi, where people can get both professional advice and order all the above-mentioned services of the EBRD IQ Energy program.

The objective of the Affordable Heat for Employees project is to increase the efficiency of gas use for heating the homes of employees of Naftogaz Group, as well as in the cities and towns where the group is present.

Since 2018, in the village of Mryn, Chernihiv region, apartments of employees of Chervonopartyzanske VUPZG, Ukrgazvydobuvannya JSC in 2-3-storey apartment buildings have been transferred to individual heating. The need to transfer arose due to an imbalance in the district heating system of the village. This led not only to an increase in heat tariffs for consumers, but also losses for the heat producer, because costs were not covered even with by high tariffs. With the introduction of individual heating, heating costs of the villagers are reduced and Naftogaz Group managed to avoid losses of at least UAH 500,000 annually.

The residents of the village of Mryn with the help of Naftogaz-Energoservice SE replaced heating equipment and installed individual heating systems with savings of up to 40% due to direct Naftogaz cooperation with the equipment manufacturers. In addition, consumers who chose the most highly efficient equipment, with support of Naftogaz-Energoservice SE, enjoyed additional compensation of 35% of costs from the EBRD IQ Energy program.

Since 2019, Naftogaz-Energoservice SE has expanded the project to include the village of Donets, Kharkiv region, which is mostly inhabited by the employees of Shebelinkagazydobuvannya GPU, Ukrgazvydobuvannya JSC.

As a part of the project, individual gas heating systems are installed at 527 sites in the village of Donets and design documentation is developed for another 290 sub-projects to be implemented in 2020. The project implementation helped consumers save 40-60% on heating. A total saving for a standard two-room apartment during the heating season makes up nearly UAH 10 thousand.

Naftogaz-Energoservice SE plans to expand its energy service and energy efficiency program to include the household segment.
In 2019, the company’s supervisory board held 25 meetings (including 13 extraordinary meetings) during which it passed resolutions on more than 140 items of agenda and considered numerous matters submitted for discussion. During the reporting period, the supervisory board continued supervising and regulating the operations of the executive board, all within the supervisory board’s powers as determined in applicable laws, the company’s Charter and the Rules of Procedure of the supervisory board. At each regular meeting, the supervisory board was presented with business update by the chief executive officer, internal audit and risk management reports.
Allow me to state at the outset that I feel privileged to be associated with Naftogaz, the company, my colleagues on the supervisory board, the management, and all Naftogaz employees. All of us share a deep commitment to contribute, in our respective roles and to the best of our abilities, to Ukraine’s development and to the country’s journey, where Naftogaz figures prominently.

THE CRITICAL ROLE OF AN EFFECTIVE BOARD OF DIRECTORS

Corporate governance is a tricky topic. It is therefore always good, at the beginning of any discussion of the topic, to remind all stakeholders that the primary role of the supervisory board is to be responsible for the organization’s performance. In this reform process, Ukraine uses the experience of OECD countries which have achieved high quality of life for their citizens. OECD Guidelines on Corporate Governance of State-Owned Enterprises provide that supervisory boards should carry out their functions of strategic guidance and monitoring of management based on the goals set by the government. The boards of SOEs should have the necessary authority, competencies and objectivity, they should act with integrity and be held accountable for their actions.

Usually, people are willing to assume responsibility if they have autonomy in decision-making: it would be too easy for some to call the shots, while others are held responsible for outcomes. The autonomy of boards can create tensions with shareholders and executives (the latter like autonomy, too). Governance amounts to the proper exercise of autonomy within a given (legal, owners, regulatory) framework. To facilitate and clarify those expectations, shareholders typically write an ownership policy, which specifies what owners expect from the board and the company they own.

A qualified supervisory board is a team of experienced people with a wide range of professional knowledge to meet shareholder expectations of the company’s performance. Supervisory board members have sufficient hands-on experience and time to find the best way to achieve the company’s performance sought by shareholders.

To meet those expectations, the supervisory board is empowered to make important decisions on strategy, people (CEO and senior executives), financing of the business and its future through investment, and rewarding those that contribute to the enterprise.

When making decisions, the supervisory board must consider the company’s responsibilities for environment, health and safety, and relations with local communities. It monitors the system of internal controls and prevents corruption. The decisions of the supervisory board are made after consultation with stakeholders: government, employees, clients, suppliers. Consultation implies listening, but does not mean agreement with what has been said. The supervisory board is professional and independent in its judgment and is driven by what is good for the organization and facilitates the implementation of the ownership policy.

One of the most complicated issues causing the strongest tension is the need to balance between long-term sustainable development of the company aimed at creating value for stakeholders and short-term interests such as dividends for shareholders (limiting investments and development) or remuneration for managers and employees.

Governing means a proper balance of various interests: seeking the right balance between various interests or choosing among various options, supervisory board members should always pursue the company’s interests.

Introducing these principles, a properly governed company creates value for its shareholders. SOEs also perform additional functions such as facilitating market reforms, R&D, energy security, etc. This approach was chosen by developed OECD countries, which arrived at this point via trial and error many years ago.

ON THE IMPORTANCE FOR UKRAINE AND NAFTOGAZ REMAINING CONNECTED WITH THE WORLD

I hear that there are discussions in the Ukrainian parliament to become more “nationalistic” or “isolationist.” I would strongly advise against this path, which is not in Ukraine’s interests. Countries that isolate are not doing well in today’s global world. Countries that are doing well are countries that interact with the world (think of China, whose development was only made possible by a global economy, of Portugal and Poland that both did so well thanks to investments made after they joined the EU).

In today’s world, one has to both local and global. The most competitive countries are smaller countries like Singapore, Switzerland and Denmark. These are all very open countries. The level of scientific and industrial collaboration has never been so intense. Exchanges of people, knowledge, and finance have never been greater. I am a strong believer in mixing local specifics and strengths with global opportunities and contributions. It is this mix that will allow Ukraine and Naftogaz to flourish.

The mix of international and Ukrainian board members has molded into an effective group, with rich and diverse viewpoints. The energy market is international, with many players. The fact that Naftogaz has international board members brings outside views and a level of expertise that is not that easily available in the country. With a world that is globalizing, boards have become more international. The company’s supervisory board is no exception. To support and guide the company’s transition to the global level, new internationally recognized managers joined us in this tough period for both the company and the country. The CEO, his team, and the company all deserve great credit for this. If Ukraine’s economic development is to continue, it is very important that this internationalization of the board remains.

Naftogaz is intimately related to global and regional factors. Transit revenues are one such feature. The remarkable result of the Stockholm arbitration is another example (unimaginable in an isolated Ukraine). Finally, the ability to raise monies globally to further development is a third feature. I will also mention the active role played by international institutions (EBRD, IMF, European Commission) whose investments in Ukraine have contributed to the country’s stability and development.

There can be no doubt that Naftogaz should serve Ukraine. The best way to do that is to trade with international customers and gain access to international technology and experts. Naftogaz aims to become a global player in global energy markets. This will be an outstanding achievement that will help Ukraine strengthen its international profile significantly. But this goal requires much effort.
In March 2015, the Gas Sector Reforming Implementation Plan was agreed with the World Bank and the Secretariat of the Energy Community and then approved by the Cabinet of Ministers of Ukraine. This Plan, among other things, provided for the reform of the corporate governance system of the Naftogaz Group in accordance with the principles of the Organization for Economic Cooperation and Development (OECD).

The Gas Sector Reforming Implementation Plan, including the corporate governance reform of Naftogaz Group, is part of Ukraine’s obligations under the terms of loan agreements with the European Bank for Reconstruction and Development (EBRD). It is a necessary step for Ukraine’s integration into the European Union. The success of the reform is important for the security of gas supply to Ukraine and Europe.

The reform aims to implement rules and procedures that are in line with global best practices, primarily the OECD Guidelines on Corporate Governance of State-Owned Enterprises and G20/OECD Principles of Corporate Governance.

Naftogaz of Ukraine became the first state-owned company to launch best corporate governance practices in accordance with OECD principles. In particular, in 2016, a supervisory board with a majority of independent directors was established, supervisory board committees were formed, a corporate secretary was appointed, and regulations on supervisory board committees and the corporate secretary service were approved. In addition, during 2016-2018, the company developed and implemented internal controls based on three lines of defense. Launch of internal controls in 2018 was confirmed by an independent consultant. The internal controls of the company and Naftogaz Group are constantly subject to improvement. Uniform standards are being introduced, and explanatory seminars are being held.

At the same time, it should be noted that as of the end of 2019, the company’s corporate governance reform has not been completed, although a significant amount of work has been done.

In particular, the following important issues remain unresolved which are critical for the implementation of effective corporate governance at Naftogaz Group:

- empowering the supervisory board with the necessary powers including approval of strategy, financial, business and investment plans; elimination of inconsistency between the Charter of the company and current legislation, in particular the Law of Ukraine “On Joint Stock Companies” regarding the exclusive powers of the Supervisory Board to elect and terminate the powers of the Chairman and members of the executive board, etc.;
- establishment of a clear and transparent procedure for payment of dividends based on the results of the company and its subsidiaries;
- approval of a new version of the Charter of the company in order to bring it into line with the requirements of current legislation and OECD principles and governance;
- elimination of political interference in the management of the company and creation of market conditions that are equal to those for commercial companies;
- replacement of existing ineffective controls by the state with appropriate mechanisms of internal controls;
- determining the status of the company’s property, including the stocks of companies in which the company is a shareholder.

Partial resolution of these issues in the part that requires amendments to the laws of Ukraine was expected in 2019 with the adoption by the Verkhovna Rada (parliament) of Ukraine of the Draft Law “On Amendments to Certain Legislative Acts of Ukraine to Improve Corporate Governance of Legal Entities in which the State is a Shareholder (Founder, Participant)” (Draft law No 6428-d). However, this draft was withdrawn. The company’s specialists were actively engaged in discussions with the Ministry of Economic Development, Trade and Agriculture over a new draft law aimed at regulating the issue of improving the corporate governance of legal entities in which the state is a shareholder (founder, participant). This draft law aims to amend current legislation in a way that it will allow effective implementation of corporate governance reform.

Other steps on further implementation of the company’s corporate governance reform are expected from the Cabinet of Ministers of Ukraine. To this end, the company maintains an ongoing dialogue with the Cabinet of Ministers of Ukraine, the Ministry of Economic Development, Trade and Agriculture, as well as with other ministries, including with the participation of OECD representatives. In particular, in October 2019, corporate governance reform of the company was discussed during an OECD working session in a special panel on corporate governance reform of state-owned companies in Ukraine. The event was attended by representatives of the government delegation of Ukraine, as well as heads and members of the Supervisory Board of the company.

In 2019, Naftogaz Group continued to implement the selected operating model, namely the introduction of divisions and corporate functions. These processes directly impacted the corporate governance of Naftogaz Group legal entities. In particular, in order to increase the personal responsibility of managers and improve decision-making processes, the collegial executive bodies of companies in which the company is the sole shareholder (participant), were replaced by sole executive bodies. Meanwhile, a requirement to agree transactions with the heads of the relevant divisions along with the binding nature of the decisions of the heads of divisions/heads of corporate functions were introduced. The procedure for managing divisions/corporate functions has been approved.
Levels of decision-making within Naftogaz Group

**SHAREHOLDER (THE STATE REPRESENTED BY THE CABINET OF MINISTERS)**
Identifies key operation areas and goals via ownership policy

**SUPERVISORY BOARD (MAJORITY – INDEPENDENT DIRECTORS)**
Approves strategy, appoints, controls and regulates the executive board

**EXECUTIVE BOARD HEADED BY CEO**
All operations of the company (including performance as a shareholder (participant, founder) of legal entities), except for issues of exclusive competence of the shareholder and the supervisory board

Governance through decisions of authorized body

Decisions of executive board are the decisions of the highest governing body

Decisions of executive board are the basis for the decision of the shareholder

Governance in accordance with the constituent documents and depending on the size of corporate rights of the company

Subsidiaries established by the company

Business entities fully owned by the company

Legal entities not fully owned by the company, other legal entities of Naftogaz Group

**BUSINESS UNITS AND CORPORATE FUNCTIONS**
- Exploration and Production Business Unit
- Commerce Business Unit
- Oil Midstream and Downstream Business Delivery Unit
- Gas Storage Business Delivery Unit
- New Energy Business Unit
- Technical Business Enabling Unit

Appointment and specification of powers of business unit directors and authorized heads of corporate functions* – within the powers of the board

Decisions of business unit director/authorized head of the corporate function* are mandatory for relevant legal entity or its department within the powers specified in the charter of the relevant legal entity

* Corporate function is being developed
During 2019, the composition of the supervisory board was subject to a number of changes related to termination of authorities of individual supervisory board members and election of new ones based on a series of ordinances of the Cabinet of Ministers of Ukraine. In particular, the Cabinet of Ministers of Ukraine dated 20 March 2019 No. 160-p provided for early termination of authorities of independent director Steven Haysom who did not participate in meetings of the supervisory board and its committees and did not make a statement of his independence in line with the Rules of Procedure of the Supervisory Board. This was followed by early termination of authorities of government appointee Volodymyr Kudrytskyi by Ordinance of the Cabinet of Ministers of Ukraine dated 22 May 2019 No. 324-p, as well as by election of Nataliya Boyko (independent director) and Kostiantyn Marievych (government appointee) as supervisory board members by Ordinances of the Cabinet of Ministers of Ukraine dated 22 May 2019 No. 325-p (effective from 27 May 2019) and dated 26 June 2019 No. 448-p.

The current composition of the supervisory board was formed by Ordinance of the Cabinet of Ministers of Ukraine dated 11 September 2019 No. 793-p which provided for early termination of authorities of government appointees in the supervisory board Volodymyr Demychyn, Sergii Popyk, Kostiantyn Mariievych, and election of Yuliia Kovaliv and Nataliya Boyko to the supervisory board as government appointees starting from 12 September 2019.

In addition to the above changes in the composition of committees, given that the authorities of deputy chair of the supervisory board Volodymyr Demychyn had been terminated on 11 September 2019, at the meeting held on 22 October 2019, members of the supervisory board elected Yuliia Kovaliv as deputy chair of the supervisory board.

The most frequent matters submitted by the executive board of the company and chief executives of business entities in which the company is the sole shareholder (founder, participant), approval of investment projects, business plans of individual business delivery units and business segments, submission of financial plans of the company for approval, (approval) of financial plans of the company and business entities in which the company is the sole shareholder (founder, participant), approval of investment projects, business plans of individual business delivery units and business segments for 2000-2024, approval of entering into interested party transactions and transactions exceeding the thresholds set out in clause 70 (33) of the company’s Charter, including transactions for alienation of own current and non-current tangible assets used in the process of carrying out natural gas transmission activity by main pipelines and other transactions entered into pursuant to the Action Plan for Fulfilment of Unbundling (the Independence Requirements for the Gas Transmission System Operator, as approved by Resolution of the Cabinet of Ministers of Ukraine dated 18 September 2019 No. 840 “On Unbundling of Natural Gas Transmission Activity and Ensuring Operation of the Gas Transmission System Operator”.

During 2019, the supervisory board reviewed and addressed the general meeting of the company with a proposal for granting approval for the company to enter into material transactions for ensuring natural gas transit through the territory of Ukraine going forward.

During 2019, the supervisory board adopted numerous resolutions on organizational changes in the company aimed at ensuring functioning of business delivery/enabling units and implementing the Naftogaz Group Transformation Project. With a view to replacing collegial executive bodies of business entities in which the company is the sole shareholder (founder, participant) with sole executive bodies and implementing the matrix manage- ment structure, the supervisory board granted prior approval to resolution of the competent executive bodies of the company to amend the charters of the relevant entities in late 2019.

As part of ensuring proper functioning of the system of internal control, the supervisory board approved the Risk Assessment Plan of Joint Stock Company “Naftogaz of Ukraine” and the procedure for conducting internal audit department staff with conflict of interest declarations at the meetings held on 21-22 January 2019 and 19-21 February 2019 respectively. In order to align the company’s operations with the requirements of the Law of Ukraine “On Audit of Financial Statements and Auditing Activities”, the Procedure for selection of auditor for conducting statutory audit of financial statements of National Joint Stock Company “Naftogaz of Ukraine” was approved by the supervisory board on 26 March 2019.

In the reporting year, the supervisory board supported audits of the procurement and independent financial investigation (forensic) in individual Naftogaz Group subsidiaries, as well as actions aimed at improving corporate governance in PSC “Ukrnafta”, repayment of its tax arrears and addressing the situation with disputable stock of natural gas.

A substantial number of items considered during meetings in 2019 concerned personnel matters, including: extension of the tenure of the chief executive officer of the company, election and termination of authorities of members of the executive board of the company and chief executives of business entities in which the company is the sole shareholder.
During several supervisory board meetings, Volodymyr Kudyrs’kyi informed of a potential conflict of interest in relation to agenda items on the achievement assessment and resolving other matters reserved to the supervisory board as regards Mykola Havrylenko, member of the executive board of the company and director general of JSC Ukrtransnafta, because he had been direct subordinate of Mykola Havrylenko in one of his previous positions.

Members of the supervisory board raised the issue of the existence and management of the conflict of interest of supervisory board member Kostiantyn Markevych who simultaneously served on supervisory boards of the company and joint Stock Company “Махністраль Газопровід України”. Supervisory BOARD PRIORITIES

The priorities of the supervisory board in 2019 were to prepare Naftogaz Group for unbundling of the natural gas transmission business by 1 January 2020, to ensure the continuity of the management of the company, to ensure proper functioning of the system of internal control of the company and to work with the shareholder on revising the company’s state ownership policy.

Other issues extensively reviewed by the supervisory board included matters of compensation for the discharge of public service obligations in the natural gas market and ensuring sufficient financing to purchase additional stock of natural gas for the 2019/2020 winter season, including external financing in foreign currency through the issue and placement of eurobonds on international capital markets, amending the existing loan documentation with state-owned banks, as well as approval of the Annual Internal Audit Plan for 2019 and follow-up on internal audit objectives.

SHAREHOLDER AND EXTERNAL COMMUNICATION

In 2019, the supervisory board maintained regular liaison with the Cabinet of Ministers of Ukraine and the relevant ministries. Additionally, the supervisory board held working sessions with representatives of the World Bank, European Commission, Energy Community Secretariat and other key stakeholders involved in the unbundling process. Moreover, the supervisory board held quarterly public events on unbundling with the engagement of representatives of governmental authorities, EU institutions, IFIs, 57 embassies, consortium of European gas transmission system operators and other external stakeholders to update on the status of unbundling of the natural gas transmission business, future operation of the unbundled gas transmission system operator and regulation of the natural gas market.

COMPETENCE AND PROCEEDINGS OF SUPERVISORY BOARD COMMITTEES

AUDIT AND RISKS COMMITTEE

Key functions of the committee

In line with the current Regulations on the audit and risks committee of the supervisory board, the key tasks of this committee are as follows:

Assisting the supervisory board in protection of the company’s interests by preparing drafts and providing recommendations and proposals regarding:

1) the completeness, accuracy and timeliness of the preparation of the company’s financial statements;
2) the effectiveness of the internal accounting and financial controls of the company;
3) the effectiveness of the company’s risk management activities;
4) the selection, appointment, performance and ongoing work of the external (independent) auditor;
5) the selection, appointment, reappraisal and dismissal of the chief audit executive, performance and ongoing work of the internal audit department;
6) the treasury arrangements in place for the company.

In accordance with the above tasks, the committee shall perform the following functions:

2.1. To organize and perform preliminary review of the matters included into the agendas of the committee and the supervisory board meetings, and related to finance, audit and risk management.
2.2. To organize and elaborate on drafting of conclusions, proposals, recommendations, other documents, draft policies, strategies, rules of procedure, procedures, decisions related to finance, audit and risk management, and submit them for supervisory board’s review.
2.3. To organize and perform the following functions related to financial statements:
1) to monitor and review the integrity, completeness, accuracy and timeliness of the preparation of financial information of the company;
2) to review with the management of the company and the external auditor the summary financial statements, as well as justification and acceptability of applied principles of financial statements, and any material correction of the statements;
3) to review the compliance and consistency of any changes to accounting methods and the accounting policy along with how these changes affect the content of the statements, across the company and its subsidiaries;
4) to consider any significant differences between the external auditor and management regarding the company’s financial statements.
2.4. To organize and perform the following functions related to internal controls and risk management:
1) to review at least annually the overall state and efficiency of the company’s internal control and risk management systems, including review of reports of the external and internal auditors;
2) to review the effectiveness of corrective actions taken by the management with respect to improvement of the system of internal control and risk management;
3) to meet regularly with the executive board of the company to review significant risks and issues of control and planning.
2.5. To organize and perform the following functions related to external audit of the company:
1) to make recommendations to the supervisory board and where appropriate to the general meeting on the appointment, reappraisal or removal of the external auditor, the audit fee and the terms of engagement of the external auditor, to study issues that may be deemed as the reason for dismissal of the external auditor and to answer any questions of resignation or dismissal relating to the external auditor;
2) to control compliance with the Law of Ukraine “On Public Procurement” as of 25 December 2015 No. 1922-VII and applicable legislation in the selection of the external auditor;
3) to control independence and objectivity of the external auditor in performing international Quality Control, Auditing, Review, Other Assurance, and Related Services;
2.6. To organize and perform the following functions related to internal audit of the company:
1) to submit for approval by the supervisory board the Regulations on the internal audit department;
2) to make recommendations to the supervisory board on the appointment, reappointment or removal of the chief audit executive;
3) to make recommendations to the supervisory board on the approval or rejection of labour agreements which are being concluded with the internal audit department staff (including with the chief audit executive);
4) to prepare the budget of the internal audit department, including the budget of the internal audit department staff, and submit it for approval by the supervisory board;
5) to submit risk-oriented internal audits for approval by the supervisory board;
6) to review reports on the activities of the internal audit department;
7) to review at least annually the performance and effectiveness of the internal audit department;
8) to report at least annually to the internal audit department from effective performance of set tasks, and help eliminate such restrictions;
9) to ensure the pursuit and adequate resources for the effective performance of the internal audit department.

2.7. To organize and perform the following functions related to treasury arrangements of the company to review and report to the supervisory board on the overall management of treasury activities in the company, including:
— banking arrangements and relationships;
— liquidity management and forecasting;
— debt management;
— interest rate risk management;
— treasury internal control.

2.8. To organize and perform other responsibilities in the company, including:
1) to initiate and conduct special investigations as needed, including involving independent consultants (experts);
2) to consider cases of fraud and assess the adequacy of management's response to prevent fraud;
3) to consider the need for amendments to the Regulations on the committee;
4) to provide recommendations on the selection, appointment, reappointment and dismissal of the head of the budgeting unit;
5) to provide the supervisory board with the report on the committee's activity for the six months, as also, upon supervisory board's demand, regular reports or information on certain matters of the committee's activity;
6) to submit for review by the supervisory board draft new versions of the Regulations on the committee or necessary amendments and additions thereto with the respective substantiation;
7) to perform other duties related to the committee's competence when requested by the supervisory board.

The Regulations governing the committee's activity provide for reporting to the supervisory board no less than once per six months.

Key results in 2019

In 2019, the audit and risks committee held 17 meetings at which it passed more than 60 resolutions. During 2019, the committee reviewed financial and investment plans of the company and key business entities of Naftogaz Group. The committee made recommendations to the supervisory board concerning significant investment projects of business entities of Naftogaz Group and transactions that require prior approval of the supervisory board. Furthermore, the committee made recommendations to the supervisory board with regard to matters of managing treasury arrangements of the company and Naftogaz Group, in particular, transactions for amendment of financial obligations of the company, banks and raising financial resources on international capital markets through placement of corporate eurobonds.

To ensure the efficiency of the internal control and risk management systems, the committee considered the results of internal audits and reviews of the company and business entities of Naftogaz Group, as well as gave initiated reviews on issues that require special attention, in particular, forensic investigations. The committee also held meetings with the management of the company and key business entities of Naftogaz Group to consider matters of improving the effectiveness of corrective actions based on the results of audits performed.

The committee reviewed and made recommendations concerning risk management matters, approval of the Risk Assessment Plan and quarterly risk dashboards of the company. In addition, the committee held regular meetings with the chief risk officer and management of the company to discuss risk management reports and matters of improving the risk management system.

Regarding the organization of internal audit, the committee reviewed and made recommendations concerning the approval of the Annual Internal Audit Plan for 2019 and amendments thereto, heard regular reports of the director of the internal audit department — chief audit executive on the execution of the plan and other internal audit matters.

In 2019, the committee cooperated with the external auditor on the company — LLC “Deloitte & Touche US” on the results of audit of the consolidated financial statements of the company as at and for the year ended 31 December 2018 and planning of audit work for 2019. Through an open bid for the procurement of audit services, conducted in line with the Law of Ukraine “On Public Procurement”, and on the basis of a submission of the supervisory board, the Cabinet of Ministers of Ukraine appointed LLC “Deloitte and Touche USC” as auditor for rendering the services of the external audit of the financial statements of the company for 2019-2020. The company performed internal compliance procedures and verified independence of the auditors, namely the external auditor in view of the specific requirements of the Law of Ukraine “On Audit of Financial Statements and Auditing Activities” in the wording effective as of the date of such verification. In its letter dated 30 March 2020, LLC “Deloitte and Touche USC” informed the company and the audit and risks committee that the key audit partner, officers and employees who participated in rendering the services of statutory audit of the consolidated and separate financial statements of National Joint Stock Company “Naftogaz of Ukraine” were independent of the company.

ETHICS AND UNBUNDLING COMMITTEE

Key functions of the committee

In line with the current Regulations on the ethics and unbundling committee of the supervisory board, the key task of this committee is to assist the supervisory board in protecting the company's interests by evaluating and providing recommendations and proposals regarding:
1) assessment of the Code of corporate ethics;
2) conflict of interest at the level of the officers and employees of the company;
3) implementation of the Code of corporate ethics as mandated by the company’s mission and strategy in the changing operating environment;
4) effective implementation of the Code of corporate ethics in the company, monitoring and elimination of one-off and recurring violations of the Code of corporate ethics by the company’s officers and employees;
5) specific rules and procedures for handling of third-party complaints related to ethics breaches committed by the company’s officers and employees;
6) appropriate measures to mitigate negative consequences caused by ethics breaches committed by the company’s officers and employees;
7) processes pertaining to or associated with unbundling of the gas transmission system operator, which are taking place both inside and outside Naftogaz Group as to the matters included in the agendas of the committee and the supervisory board meetings, and related to corporate ethics, including conflict of interest and unbundling.

2) review of allegations of ethics-related breaches by officers and employees of the company, and submission of relevant recommendations to the supervisory board;
3) permanent review and monitoring of the conflict of interest among officers, executives and employees of the company;
4) upon requests of officers, executives and employees of the company conducting, on a confidentiality basis, preliminary evaluation of certain instances of conduct with ethics rules of the company;
5) analysis and review of the company’s rules, procedures and practices on ethics-related issues from the view to identify possible breaches and assess their effectiveness to meet the company’s interests and needs;
6) monitoring of the operating environment of the company and best international practices (general and sector-specific) in terms of corporate ethics and unbundling of engagement with various stakeholders to assess the adequacy of current company’s policies in these areas;
7) ensuring the appropriate level of accountability and transparency of the company where this can eliminate or mitigate ethical risks for the company with due account of the data protection requirements;
8) ensuring awareness of ethics-related issues with the company’s officers and employees, and the efficiency of available means to raise awareness of the company’s ethics rules and encourage their implementation, as well as to deal with unacceptable practices;
9) advising the supervisory board on corporate ethics issues upon request of the latter;
10) reporting to the supervisory board on the tasks and functions of the committee, performed within the framework of preparing the annual report;
11) issuing recommendations to the supervisory board regarding the matters of the gas transmission system operator unbundling.

The Regulations governing the committee’s activity provide for reporting to the supervisory board no less than once per year.

Key results in 2019

In 2019, the ethics and unbundling committee held 12 meetings at which it passed three resolutions and discussed more than 15 matters submitted for consideration of this committee. During 2019, the committee devoted considerable attention to the matters of control and cooperation with key external and internal stakeholders in the process of unbundling of natural gas transmission activity. In particular, members of the committee took an active role in meetings with representatives of the European Commission: Directorate-General for Energy, National Supervisory Board and members of the consortium of European gas transmission system operators to discuss the management in control and operation of the independent gas transmission system operator of Ukraine. Furthermore, members of the committee...
participated in regular public events to raise awareness among the public and a wide range of stakeholders about the status of projects on regasification and ensuring independence of the gas transmission system operator.

The committee considered matters related to resolving conflicts of ethical standards by the company’s management in covering information on Naftogaz Group activity, as well as the whistleblowing process and response to compliance violations.

NOMINATION AND REMUNERATION COMMITTEE

Key functions of the committee

In line with the current Regulations on the nomination and remuneration committee of the supervisory board, the key task of the committee includes:

1. Assist the supervisory board in preparing draft:
   - 1) selection strategy of the company’s supervisory board, executive board and other officials (if applicable pursuant to the Charter or internal regulations of the company) that includes, in particular, search of potential nominees for the position of the chief executive officer in case of termination of authorities of the current chief executive officer, in order to ensure continuous work of the executive board;
   - 2) policies and standards of the company on selection of nominees for the positions of the chief executive officer and members of the executive board, other officers of the company nominated and dismissed by the supervisory board, based on the company’s interests and development strategy, defining the eligibility criteria for nomination of candidates;
   - 3) determination and ensuring selection procedures, nomination of candidates and recommendations for approval by the general meeting or the supervisory board (as defined by the Charter) of candidates for vacancies in the supervisory board, the executive board or other officers of the company nominated and dismissed by the supervisory board;
   - 4) preparation and submission for approval by the general meeting or the supervisory board (as established by the Charter) of proposals regarding election or termination of authorities of the chief executive officer and members of the executive board, other officers of the company nominated and dismissed by the supervisory board;
   - 5) making comparative analysis and informing the supervisory board of the policies, programs, international practice, situation in the labour market regarding levels and systems of remuneration for members of executive bodies of business entities, proposals for remuneration of the chief executive officer and members of the executive board;
   - 6) submitting proposals to the supervisory board concerning individual remuneration for members of the executive board, ensuring their compatibility with the remuneration policy adopted by the company and compliance with the assessment of the performance of the member of the executive board who is individually remunerated;
   - 7) organization of development, processing, making recommendations regarding forms and essential terms of performance contracts to be concluded with the chief executive officer and members of the executive board;
   - 8) forming non-financial key performance indicators and organization of procedures of periodic assessment for the chief executive officer and members of the executive board, corporate secretary, chief risk officer, chief audit executive, chief compliance officer, anticorruption officer;

2. Submission to the general meeting or the supervisory board (as established by the Charter) of recommendations and proposals on:
   - 1) candidates for the positions of the chief executive officer and members of the executive board, other officers of the company nominated and dismissed by the supervisory board;
   - 2) termination of authorities of the chief executive officer and members of the executive board;
   - 3) engagement of independent external advisor for assessment of the supervisory board members’ work;
   - 4) candidates for the positions of supervisory board members.

In accordance with the tasks, the committee shall perform the following functions:

1) development and periodic review of the company’s policies (internal regulations) on nomination and remuneration;
2) preliminary review of the matters related to the nomination and remuneration of the chief executive officer and members of the executive board, as well as other officials (if applicable pursuant to the Charter or internal regulations of the company);
3) organization of drafting and processing of draft policies, strategies, rules of procedure, resolutions and other documents that regulate the activity in the area of nominations and remunerations of the chief executive officer and members of the executive board, preparing conclusions, recommendations, proposals for the supervisory board;
4) analysis of current and expected needs of the company in professional qualification of the chief executive officer and members of the executive board, other officers of the company nominated and dismissed by the supervisory board, based on the company’s interests and development strategy, defining the eligibility criteria for nomination of candidates;
5) determination and ensuring selection procedures, nomination of candidates and recommendations for approval by the general meeting or the supervisory board (as defined by the Charter) of candidates for vacancies in the supervisory board, the executive board or other officers of the company nominated and dismissed by the supervisory board;
6) preparation and submission for approval by the general meeting or the supervisory board (as established by the Charter) of proposals regarding election or termination of authorities of the chief executive officer and members of the executive board, other officers of the company nominated and dismissed by the supervisory board;
7) making comparative analysis and informing the supervisory board of the policies, programs, international practice, situation in the labour market regarding levels and systems of remuneration for members of executive bodies of business entities, proposals for remuneration of the chief executive officer and members of the executive board;
8) submitting proposals to the supervisory board concerning individual remuneration for members of the executive board, ensuring their compatibility with the remuneration policy adopted by the company and compliance with the assessment of the performance of the member of the executive board who is individually remunerated;
9) organization of development, processing, making recommendations regarding forms and essential terms of performance contracts to be concluded with the chief executive officer and members of the executive board;
10) forming non-financial key performance indicators and organization of procedures of periodic assessment for the chief executive officer and members of the executive board, corporate secretary, chief risk officer, chief audit executive, chief compliance officer, anticorruption officer;
11) periodic assessment of the structure, size, composition and performance of the executive board and provision of recommendations for any changes;
12) periodic assessment of the chief executive officer and members of the executive board for conformity with qualification requirements and relevant reporting to the supervisory board;
13) development of the succession plans for the chair and members of the supervisory board;
14) development of the succession plans for the executive board, ensuring that the executive board has an appropriate succession plan for the company’s executives;
15) advising the supervisory board on the composition of its committees and periodic rotation of committees’ members;
16) ensuring training programs for members of the supervisory board and the executive board required for their efficient performance in the corporate governance framework implemented in the company;
17) preliminary analysis of performance results of the chief executive officer and members of the executive board, including in view of possible remuneration increase, application of other incentives;
18) monitoring of the supervisory board resolutions’ implementation within the committee’s authority;
19) approving nomination of the company’s executives at their appointment;
20) controlling the level and structure of remuneration of the company’s executives, provision of general recommendations to the executive board on these matters;
21) making an annual report to the supervisory board on the activity of the committee including information on its composition, number of meetings and main activities of the committee, and also, upon supervisory board’s demand, regular reports or information on committee’s activities.

The Regulations governing the committee’s activity provide for reporting to the supervisory board no less than once a year.

Key results in 2019

In 2019, the nomination and remuneration committee held 17 meetings at which it passed more than 45 resolutions. During 2019, the committee focused on succession planning for senior management of Naftogaz Group. The committee played a central role in the process of renegotiating terms and conditions of the contract with the chief executive officer and extending his tenure by reviewing and making recommendations to the supervisory board concerning rationale for extending the tenure of the chief executive officer, determining terms and conditions of the contract to be entered into with the chief executive officer, and setting the amount of his remuneration.

With a view to exercising supervisory board’s powers specified by law, the committee conducted a preliminary review for making recommendations concerning matters of election and termination of authorities of executive board members, as well as granting prior approval to resolutions of the executive board on election and termination of authorities of chief executives of business entities in which National Joint Stock Company “Naftogaz of Ukraine” is the sole shareholder (founder, participant), and review terms and conditions of contracts with the aforementioned executives. At the same time, the committee placed considerable emphasis on performance-based incentives for executives of Naftogaz Group, in particular, by reviewing for setting objectives and key results for 2019 and goals in mid-term projects (until 2021) of heads of businesses of Naftogaz Group in key business areas of National Joint Stock Company “Naftogaz of Ukraine”, key management personnel of Naftogaz Group companies. Pursuant to the terms and conditions of contracts and provisions of the company’s internal regulations, the committee conducted periodic assessment of achievements of executive board members and performance of executives who are directly subordinate to the supervisory board.

In addition, the committee made recommendations for the election of supervisory board members to its committees and assessment of supervisory board members’ work for 2018.

How remuneration for supervisory board members is calculated

Remuneration for members of supervisory boards is set according to Resolution No. 668 of the Cabinet of Ministers of Ukraine dated 4 July 2017 (amended "On the approval of the Procedure for setting remuneration conditions for members of supervisory boards at SOEs and business entities that are more than 50% owned by the state", except for the executive board members who are public officials or are empowered to execute central or local government functions specified in article 3 (1) clause 1 of the Law of Ukraine "On State Property of Ukraine").

In 2017, remuneration for members of supervisory boards at SOEs and business entities that are more than 50% owned by the state was calculated and analyzed on the basis of average remuneration for supervisory board members at leading European companies of various industries. In addition, Resolution No. 668 of the Cabinet of Ministers of Ukraine dated 4 July 2017 was amended with Resolution No. 141 adopted by the Cabinet of Ministers of Ukraine on 5 February 2020 in fulfilment of the tasks set by the President of Ukraine for the Government with regard to the revision of remuneration for SOE top managers. Pursuant to the amendments, basic monthly remuneration for supervisory board members at enterprises whose net annual income from sales of products, works or services is UAH 20,000,001 thousand or higher according the latest annual financial statements was limited to 22 average monthly wages in relevant industries across the economy in the quarter preceding the quarter when remuneration for supervisory board members was calcu lated based on the statistics published by the State Statistics Service of Ukraine.

According to Resolution No. 334 of the Cabinet of Min isters of Ukraine dated 29 April 2020 "On remuneration for managers, members of executive bodies and supervisory
boards of business entities operating in the public sector”, monthly salaries of managers, members of executive bodies and remuneration of members of supervisory boards at business entities operating in the public sector, except for state-owned banks, should not exceed UAH 47,230 (excluding sick pay and annual leave allowance) for the period from April and to the end of the month when the quarantine introduced by Resolution No. 211 of the Cabinet of Ministers of Ukraine dated 11 March 2020 “On prevention of COVID-19 acute respiratory disease caused by SARS-CoV-2 coronavirus in Ukraine” is canceled.

COMMITTEE ON HEALTH, SAFETY, ENVIRONMENT AND RESERVES

Key functions of the committee

In line with the current Regulations on the committee on health, safety, environment and reserves of the supervisory board, the key tasks and functions of this committee are as follows:

1) strategy for health, safety and environment (the “HSE”), and evaluation and management of hydrocarbon resources and reserves (the “Reserves”), HSE plans and related risk assessment in the context of the overall business strategy of the company;
2) scope and focus of policies and action plans prepared to support delivery of HSE and Reserves strategy, including mitigation of related risks;
3) implementation of plans and controls in relation to HSE and Reserves strategy, implementation of plans and measures, including emergency and accident (accident situation) response plan;
4) scope and outcomes of social investment programs and social development partnerships;
5) evaluation of major and recurring failures within the company in terms of HSE and Reserves governance and performance and its influence on general economic activities, including those that lead to significant legal consequences;
6) integration of HSE and Reserves into major business processes, including capital programs, exploration programs, mergers and acquisitions, and expanding into new markets;
7) external disclosures of information relating to HSE and Reserves;
8) the quality of HSE and Reserves management, and appropriateness of methods and measures for achieving the main goal and making the appropriate management decisions;
9) creating favourable conditions for attracting investments to increase the production of hydrocarbons.

Review the rating and position of the company with respect to international best practice for HSE and Reserves, and legal requirements on these issues, including relevant corporate governance developments.

The Regulations governing the committee’s activity provide for reporting to the supervisory board no less than once a year.

Key results in 2019

In 2019, the committee on health, safety, environment and reserves held four meetings at which it passed one resolution and discussed more than five matters submitted for consideration of this committee. During 2019, the committee focused on the results of Naftogaz Group in the area of occupational health, industrial safety and environmental protection, taking into account a significant increase in the scope of upstream operations, and on the key challenges faced by Naftogaz Group, in particular, ensuring compliance with the policy of zero tolerance to non-reporting of accidents. Members of the committee also discussed with the company’s management the goals, objectives and actions pursued across Naftogaz Group with the aim to ensure fulfillment of requirements for and improvement of occupational health and safety, environmental protection, road traffic safety, industrial safety and prevention of man-made emergencies.

The key matters considered and supported by the committee in 2019 included the health, safety and environment vision for Naftogaz Group providing for a comprehensive set of actions to ensure sustainability and safe working environment, and the new structure of a centralized health, safety and environment function in Naftogaz Group, as proposed by the company’s management within the implementation of the said vision. Furthermore, the committee discussed the operation of the unified monitoring system for occupational health, environmental and industrial safety across Naftogaz Group.

During meetings, the committee highlighted the feasibility of applying the best practices in the oil and gas industry, inter alia, in addressing the safety-oriented mindset and culture issues among employees of Naftogaz Group, measuring the severity of incidents in production and organizing work of contractors at Naftogaz group facilities.
In 2019, the management team included five executive board members and eleven directors (2018: six executive board members and nine directors). The compensation for the management team, which is part of other operating costs, included salaries and additional current bonuses, making up UAH 343 million (UAH 717 million in 2018).

Andriy Kobolyev  
Chief executive officer

Sergiy Pereloma  
First deputy chief executive officer

Sergiy Konovets  
Deputy chief executive officer (stepped down as Naftogaz Deputy CEO as of 7 November 2019)

Yuriy Kolbushkin  
Executive board member (until 21 January 2020)

Mykola Havrylenko  
Executive board member, Head of Oil Midstream and Downstream Division

* Includes UAH 4.6 million in taxes, duties and other levies. Since mid February till the end of 2019, Andriy Kobolyev donated all his remuneration from Naftogaz to charity. During this period, he transferred UAH 11.4 million to Come Back Alive, Tabletochki, Narodnyi Tyl Reabilitaciya and Blagomay. The charity funds used the donations to organise management training programs for the Ukrainian Armed Forces, support rehabilitation of families of the fallen soldiers, finance medications for children fighting cancer as well as hold career orientation events for kids raised without parents.

** Including UAH 2.5 million reward as executive board member.
During 2019, the group continued enhancing its risk culture and risk management efficiency. It should be noted that Naftogaz Group’s material risk structure has been significantly affected by events that took place at the end of 2019, such as the completion of the unbundling of the Gas Transmission System Operator of Ukraine LLC and the signing of a new gas transit contract and settlement agreement with Gazprom PJSC. As of 1 January 2020, the group’s risk structure was as follows:

1. Naftogaz group risk structure by level rating
2. Naftogaz group material risk structure by classes

In addition to the risks identified in 2019, particular attention should be paid to risks associated with the spread of the Covid-19 pandemic. In January 2020, the Covid-19 pandemic was declared a global emergency by the World Health Organization (WHO), forcing countries and organizations, including Naftogaz Group, to take measures to mitigate risks to workers and businesses. As of today, it is difficult to assess the full impact of the pandemic on Naftogaz Group’s operational and financial performance. However, it is quite clear that the restrictive measures applied by enterprises and countries have a significant impact on demand and supply of oil and gas, which in turn contributes to the fall in prices for these resources and can have a significant impact on the achievement of the operational and strategic goals of Naftogaz Group.

The key risks identified in 2019 by Naftogaz Group include the following:

**STRATEGIC RISKS**

The extension of the terms of validity of the regulation on imposing public service obligations (PSO) on terms unfavorable for the company, and continued gas sales through the regional gas suppliers ("oblgazzbut") and municipal heat generating entities (MHE). The regulation on imposing public service obligations (PSO) with regard to Naftogaz NISU continued to be effective till August 2020 (as amended), which has led to an increase in bad debts for supplied natural gas.

As of 31 December 2019, the MHE’s debt to Naftogaz was about UAH 42.3 billion, and the debt of the regional gas supply companies (RSC) was about UAH 23.2 billion. The significant level of this debt significantly affects the company’s liquidity.

**FINANCIAL RISKS**

Liquidity risk

The company is exposed to liquidity risk as a result of the following factors:

- seasonal nature of income and expenses;
- payment of dividends as scheduled by the resolutions of the Cabinet of Ministers of Ukraine;
- fixed due dates of bank loans;
- accumulation of bad debts by MHEs and RSCs for natural gas supplied.

To mitigate this risk, during 2019 Naftogaz issued Eurobonds worth USD 835 million and EUR 600 million, which ensured the purchase of sufficient volumes of natural gas for a flawless heating season and the timely repayment of obligations to the shareholder and banks.

**REGULATORY RISK**

Risk of failure to obtain new licenses for exploration and industrial development of fields

Despite the fact that Ukrgazyvydobuvannya JSC accounts for three-quarters of natural gas production in Ukraine, every year the company faces the challenge of getting new hydrocarbon production licenses and extending existing licenses. At the same time, three-quarters of all licenses for the past 18 years have been issued to private companies.

The approval of the CMU Resolution “On the Implementation of a Pilot Project on the Launch of Auctions for the Sale of Special Permits for the Use of Subsoil Through Electronic Auctions” enabled Ukrgazyvydobuvannya JSC to obtain 14 licenses in 2019, a record number in recent years. However, it takes 3 to 5 years from the moment of obtaining the license to extracting gas at new sites, which does not allow for an instant increase in natural gas production.

**HSE RISKS**

The risks of violating occupational safety and harming the health and life of employees are inherent in oil and gas industry. Accidents at enterprises may not only lead to a loss of production capacity and suspended operations, but also adversely affect the environment and cause injuries to employees or fatal accidents. One of the factors that cause these situations is human factor. To mitigate this risk, Naftogaz Group employees are regularly trained to comply with national and international labor safety standards. In addition to contingent emergencies, outdated equipment is a significant threat to occupational safety. This is why Naftogaz Group invests in diagnostics and the modernization of existing production facilities.

**OPERATIONAL RISKS**

Risk of losses due to accidents, unauthorized withdrawal of resources, and forced break in production facilities

Naftogaz Group companies have an extensive system of offshore production facilities and oil and gas transmission facilities. These facilities may be vulnerable to natural disasters including fires, floods, droughts, storms, hail, and earthquakes. At the same time, Naftogaz faces the problem of unauthorized withdrawal of Naftogaz Group oil and condensate by third parties, resulting in damaged equipment and extra costs for repair.

Naftogaz Group companies take all measures necessary to mitigate the likelihood and consequences of these risks.
Reducing the adverse impact of Naftogaz Group on the environment and environmental protection are extremely important components of the company’s development strategy. In its operations, Naftogaz adheres to sustainable development principles in order to preserve a clean and safe environment for future generations. Every year, the company increases its investment in environmental protection and focuses its efforts on responsible water management and soil protection, reduction of air emissions, responsible waste management and implementation of energy efficiency programs. The companies of Naftogaz Group strive to ensure that their activities comply with European rules and at the same time implement best practices and best available technologies to minimize their adverse impact on the environment.

**ENVIRONMENTAL PROTECTION**

Total expenditure of Naftogaz Group enterprises on environmental protection in 2019 was 178.9 million UAH. 96% or 171.7 million was Naftogaz Group current expenses on environmental protection.
Naftogaz Group continued energetic efforts in the area of corporate, social and environmental responsibility in 2019. In 2019, Naftogaz identified its occupational safety and environmental objectives as one of its key priorities. These are included in top manager individual performances, and their achievement is monitored by the group’s supervisory board.

**Naftogaz’s Response to the New Challenge – COVID 2019**

In early 2020, the country and the company faced a new, hitherto unknown challenge – the rapid spread of COVID-19. The coronavirus epidemic has forced significant adjustments to the company’s current activities and plans. The situation is complicated by the lack of a clear forecast regarding the end of the epidemic. There is no doubt that the spread of the infection will adversely affect the company’s performance, although the extent of the impact at the time of the Annual Report is still hard to predict.

In this difficult situation, the priority for the company is to save the lives and safeguard the health of employees. From the first days of disease detection in Ukraine, Naftogaz launched preventive measures. A single coordination headquarters, the Coronary Staff, was established, which analyzes the current situation on a daily basis and issues orders and directives centrally to safeguard employees. We have developed the relevant policies and regulations aimed at maximizing the security of the workplace, undergo body temperature screening. The process of providing all workers working at production facilities with personal protective equipment – masks and rubber gloves – has now been completed. All employees who were outside Ukraine for any purpose before the borders closed were subjected to two-week mandatory self-isolation. Similar measures are taken in relation to people with any signs of possible infection. Much attention is paid to the communication of WHO preventive recommendations and the guidelines of the Ministry of Health of Ukraine on coronavirus infection prevention. A series of printed materials with a consolidated list of preventive rules has been distributed at all enterprises of the group.

However, we did not limit ourselves to protecting our employees. Naftogaz, being a socially responsible company, purchased modern medical equipment and personal protective equipment worth almost UAH 500 million from China and transferred it free of charge to hospitals across Ukraine in record time. This humanitarian consignment included 500,000 protective suits, 700 patient monitors, 50 mobile digital X-ray machines, and 50 portable ultrasound devices. The cargo was transported by 4 planes – three An-22 “Antey” and the An-225 “Mriya”, which is the largest cargo aircraft in the world.

Additional initiatives by the company aimed at supporting the fight against the COVID-19 pandemic are estimated at over UAH 20 million. The lives and health of people remain the greatest value for Naftogaz Group, so virus preventive steps are a priority and will continue to be so until the epidemic is completely over.

**HSE is a Priority for the Company**

The issues of ecology and occupational safety at the enterprises of the group remain a priority for Naftogaz despite unfavorable market conditions. The corporate sustainable development strategy of the group covers all business processes and is aimed at implementing and improving the environmental management system in accordance with the requirements of the international standard ISO 14001:2015. Naftogaz focuses on responsible management of natural resources, in particular on control over water use and soil reclamation, overall reduction of harmful emissions into the atmosphere, and support for energy efficiency programs. Naftogaz Group also implements joint projects with local communities and improves the occupational safety standards for employees.

Significant efforts are focused on the organization of continuous HSE training for staff members with a focus on raising employee awareness. There is continuous communication on occupational safety at the enterprises of the group.

**Ecology and Energy Efficiency**

In 2019, total environmental costs of Naftogaz Group amounted to UAH 179 million. The company also paid profile taxes and fees totaling UAH 94 million. In 2020, the group plans to spend about UAH 420 million on environmental protection, doubling last year’s figure.

One of the priority areas is increasing the environmental safety level when drilling oil and gas wells, particularly in the field of waste management. Ukrgasvydobuvannya JSC systematically implements measures aimed at reducing damage to the environment. Currently the company is negotiating cooperation with the world leader in this field – the Finnish company Lamor.

In August 2019, the sludge processing plant in the village of Sencha, Poltava region, resumed operations. Its capacity is 10 m3/h, which allows to process drilling waste from three simultaneously operating wells. The project is also being implemented jointly with a large international partner – Schlumberger.

Naftogaz continues increasing its renewable energy production capacity. This year, additional generating capacity of a solar power plant in Zhytomyr region will be put into operation, producing about 30 MW. In 2019, Ukrtransgas’s solar power plant generated 152 MWh.

On April 36, 2020, the first Naftogaz charging station entered operation. If the pilot project is successful, the company intends to invest significant resources in charging infrastructure to build an extensive network of charging stations across the country.

Last year, the company successfully implemented a pilot project aimed at the production of electricity from the heat of combustion products generated during the operation of gas turbine engines. Due to the new high-tech equipment installed at the Ukrgasvydobuvannya facility, the company was able to generate electricity on an industrial scale without burning additional volumes of fuel. Naftogaz is ready to become a flagship for the inevitable transition of the Ukrainian economy to environmentally friendly energy sources.

**Partnerships with Local Communities**

Naftogaz Group companies are key partners of the local authorities and communities where hydrocarbons are mined. In addition to statutory rent payments, we implement a number of our own initiatives to solve social problems and improve the quality of life in communities. These are mostly capital infrastructure projects including road repairs, construction and renovation of educational institutions, houses of culture, sports grounds, construction of heating, gas and water supply systems, landscaping, street lighting in settlements, projects to provide access to the Internet and installation of video surveillance systems. The group’s total investment in community development in 2019 amounted to UAH 5.3 million while local communities where the group performs its production operations received UAH 1.1 billion in direct royalty payments.
The employees of Naftogaz Group companies are their most precious assets. The success of the group’s activities depends on the level of professionalism and skills of the staff. Therefore, the group’s companies are focused on the continuous development of staff competencies, the improvement of approaches to attracting and retaining talents, their remuneration and social security, and improving productivity.

In 2019, Naftogaz Group Human Resources Policy was finalized and approved, and a functional personnel management structure was set up. The key objectives of this HR Policy are:

- developing partnerships between management and employees based on respect for human rights;
- formation of a corporate environment favorable to continuous development of Naftogaz Group;
- ensuring respect for the principle of decent work, fair and non-discriminatory treatment of employees, creation of equal opportunities;
- protecting and promoting the health and safety of the staff;
- preventing all forms of discrimination and all forms of forced and child labor.

Naftogaz Group’s approach to personnel management is based on compliance with all requirements of labor, social security, health and safety legislation, as well as the principles and norms set out in conventions of the International Labor Organization and other international treaties binding on Ukraine.

The main aspects of labor relations at the enterprises of the Naftogaz Group are governed by collective agreements. The shift from obsolete remuneration management systems inherited from the Soviet times to up-to-date and effective grading remuneration system is in place across Naftogaz Group.

The main areas of activities in the field of personnel management in 2019 are:

- continuous improvement of professional and technical and managerial competences of the staff;
- increase productivity in all spheres of activity;
- maintaining high standards of corporate behavior;
- implementation of a comprehensive system of staff training and development;
- introduction of best practices of staff remuneration and motivation;
- implementation of social policies aimed at improving the quality of life and health of employees and their families;
- completion of the preparatory phase of implementation of advanced IT solutions in the HR management sphere at Naftogaz Group companies. The charter of the Talent Management System project was approved. In 2020, a tender will be held to contract one of the best and most powerful suppliers of digitalization solutions for HR processes.

**Quantitative and Qualitative Features of Naftogaz Group**

The total number of the full-time employees of Naftogaz Group as of December 31, 2019 was 55,078 persons. Of these, 12% are management staff (6,631 persons), 20.2% professionals and specialists (11,155 persons), 0.3% technical staff (252 persons), 67.3% qualified and other workers (37,040 persons).

Accordingly, the proportion of women in Naftogaz Group is 23.3% (12,827 persons). This comparison shows that the group has been consistently implementing a forward-looking and up-to-date gender policy and undertakes a systematic effort to involve women.

The largest share in the age structure of Naftogaz Group employees is in the age group from 30 to 50 years – 60.0% (33,052 persons), 10.1% – below 30 years (5,563 persons), persons of retirement age account for 3.5% of employees of group companies (1,940 persons).

**Structure of full-time employees at Naftogaz Group companies in 2019, persons**

- **37,040** qualified and other workers
- **11,155** professionals and specialists
- **6,631** management staff
- **252** technical staff

**Age structure, %**

- below 30 years: 0.7%
- from 30 to 50 years: 60.0%
- over 50 years: 25.6%
- persons of retirement age: 9.7%

**Gender structure, %**

- women: 21.3%
- men: 78.7%

Source: Naftogaz
In 2019, staff turnover was 3.9%. Compared to 2018, the figure has not changed much.

**STAFF REMUNERATION**

Operating the high-tech equipment that Naftogaz Group has been investing in requires highly qualified staff. Replacement of obsolete equipment, technical modernization and automation of production processes leads to optimization of staff. Considering lack of experienced and qualified candidates in the labor market, in part due to the drain of highly qualified staff away from Ukraine, Naftogaz Group companies invest significant funds in professional development of staff and use higher remuneration as a means to retain employees with necessary expertise.

As a result of technical modernization and optimization of staff, average monthly wage across Naftogaz Group increased by 34% in 2019 against 2018, which is much higher than in Ukraine (18%) and in the industrial sector (22%).

**SOCIAL SECURITY**

The social policy of Naftogaz Group as a part of the personnel management system is an important mechanism for attracting, retaining, increasing the motivation and loyalty of qualified specialists, and forming a professional high-performance team capable of achieving the highest results of the group’s enterprises. It aims to make sense not only of work but also of life: the creation of overall emotional, spiritual, and psychological comfort.

In 2019, long-term initiatives were launched:

— A Corporate Donor Day was held in conjunction with the Kyiv City Blood Center. Employees of Naftogaz Group attended the event.

— In April – June 2019, the Theatrical Spring at Naftogaz project was implemented for the employees of the group companies residing in small towns with the group’s presence with no access to a wide range of cultural events. The Kyiv Theater in Podil, supported by trade unions of group companies, has toured around towns with a group presence. 2 190 employees attended a performance of the Kyiv Academic Drama Theater in Podil named “One Hundred Thousand” by Ivan Karpenko-Kary.

This art project is a good example of a positive social partnership between the company and support provided by trade unions.

During 2019, Naftogaz Group companies, within their financial capabilities, ensured the implementation of agreements enshrined in the Sectorial Agreement and the collective agreements on providing social guarantees, benefits, compensation to employees, as well as the exercise of the rights of labor collectives.

Naftogaz Group companies spent UAH 2 358.9 million on social development and social events in 2019, including:

— UAH 45.1 million – medical services for employees;

— UAH 685.5 million – financial assistance stipulated by collective agreements, including:
  - health improvement for employees and their children as well as treatment for children with disabilities
  - treatment for employees with disabilities
  - compensation for medicines and medical treatment to the retired
  - for single parents
  - in the Commemoration Day of the Chernobyl Disaster

**STAFF TRAINING AND DEVELOPMENT**

Continuous introduction of new technology and modernization of production facilities in the oil and gas industry require uninterrupted professional improvement, training and development for staff members working in all domains and at all management levels. Investing in professional training and development helps mitigate risks in activities of Naftogaz Group and ensure proper use of modern equipment.

The corporate training system offers a wide range of opportunities for development:

— professional education and training of staff, including in the training centers of enterprises, specialized educational institutions, and centers of postgraduate education;

— participation in seminars, training, online courses and workshops, corporate training programs;

— participation in conferences, forums for the purpose of professional development, exchange of knowledge and experience with leading foreign companies;

— participation in long-term educational programs, including MBAs.

Of the total number of employees in such categories as managers, professionals and specialists of Naftogaz Group (17 786 persons), 17 652 persons have complete higher, specialized educational institutions, and centers of postgraduate education; 823.3 UAH million was invested in professional training and development.

Of the total number of full-time employees of Naftogaz Group, 17 persons are Doctorate-level (including 3 women), and 205 persons are PhD (including 46 women); in addition, 46 persons hold academic titles (27 persons are associate professors, 9 persons are senior researchers and 10 are professors).

Employees of Naftogaz Group companies regularly participate in training and education programs that include foreign training and educational programs.
in-house training, distance learning courses, adopting global company experience, joint training programs, advanced training, and retraining programs.

Overall, 29 200 employees of Naftogaz Group enterprises were trained and retrained in 2019.

**Ukrtransaz**

In 2019, Ukrtransaz implemented the following training activities:
- internal developmental training based on six training programs developed for different categories of personnel (change management, time management, recruiting, performance management, importance and principles of feedback, and training for trainers). Based on the findings of the audit, recommendations were developed on how to improve the employee training process. All centers remained in the structure of Ukrtransaz. Their activities will be further scaled up to Naftogaz Group.

The plans for 2020 include the following:
- conducting “Effective Job Search” training as a transition period support program and conducting “Management. Module 1” training for the branch Operator of Ukrainian Gas Storage Facilities.

**Ukrgasvydobuvannya**

Within the framework of the personnel training and development program, the following activities were carried out in 2019:
- training in first premedical aid, management accounting, HSE, work at height (during 2019 there was no case of falling from height), training within the “internal trainers” program;
- testing and evaluation of the level of knowledge of employees after training, conducting internal training as needed;
- field-specific training with global companies (Schlumberger, Nabor, Deloitte and others) in order to encourage the use of world best practices;
- training in new specialties for the employees of Shibelnykagasydobuvannya company.

The Advisor program concept was developed at Ukrgasvydobuvannya. The Advisor program is a community of unique industry professionals, most of them retirees, who collaborate with company departments to provide advice on complex and extraordinary production issues and situations. The objective of the program is to transfer professional and management competencies, which will be developed on how to improve the employee training process. In addition, the program aims to support experienced retired professionals to help them adapt to life after their professional career is over.

Plans for 2020 include the following:
- scaling up the internal trainers project that improves professional and management competencies, which will be carried out by specialists who have been specially trained and received verification, i.e. permission to deliver training of this kind. The company-based internal trainers project has been operating successfully since 2017. It is driven by experienced professionals with specific knowledge and expertise who are motivated to share with colleagues;
- training of coil tubing instructors;
- development of HSE (Occupational Health, Industrial Safety and Environment Protection) programs;
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The plans for 2020 include the following:
- conducting “Effective Job Search” training as a transition period support program and conducting “Management. Module 1” training for the branch Operator of Ukrainian Gas Storage Facilities.
During 2019, activities were implemented under the educational project “Ukrainian Modern Engineering Studies” aimed at transforming engineering education in order to provide oil and gas industry enterprises with up-to-date highly qualified technical specialists. The project was initiated by Naftogaz of Ukraine jointly with the Southern Alberta Institute of Technology, Canada, and the Federation of Oil and Gas Industry Employers, the Kyiv City Organization of Oil and Gas Industry Employers, and implemented at Yuri Kondratyuk National University Poltavskaya Politechnika and Kharkiv Beketov National University of Urban Economics.

The “Ukrainian Modern Engineering Studies” project is the most up-to-date and innovative training program for engineering professionals. Implementation of the project will contribute to the sustainable development of the country’s oil and gas sector and other sectors of the economy.

The project approach:

1. The new educational program will enable transition from almost 90% theoretical education to 60% practical and 40% theoretical education, thus ensuring proper preparation of graduates to work with the latest technology.
2. The foreign partner institute will provide the content of the program, audit the material base, select and train students – the Southern Alberta Institute of Technology (SALT, Canada) has a successful track record in implementing such projects.
3. The project partners seek to develop gender equality principles and declare their intention to support them – at least 40% of female students will be admitted to study and form student groups.

Next steps:

- Involvement of new partners and sponsors (the first phase of the project has already been financed by a member of the Federation of Oil and Gas Industry Employers);
- Purchase of modern equipment and its installment in training laboratories;
- Selection of Ukrainian teachers and students to participate in the program;
- Development and launch of SALT bachelor program for third- and fourth-year students based on adapted technical universities programs and training of Ukrainian teachers using SALT methodology;
- Licensing of a curriculum developed by SALT for teaching by Ukrainian teachers and approval of modern Ukrainian educational standards by specialty.

INTERACTION WITH EDUCATIONAL INSTITUTIONS

Naftogaz Group companies actively cooperate with a number of educational institutions. In 2019, implementation continued of a long-term educational project for training high-potential employees of Naftogaz Group companies under the SOE MBA program of the Kyiv School of Economics. The project was launched by the business school for public sector enterprises, initiated by the Ministry of Economic Development and Trade of Ukraine, and supported by the Western NIS Enterprise Fund. The mission of the program is to help public sector companies become competitive through the implementation of modern standards of management and changing corporate culture.

Four training groups consisting of the employees of Naftogaz of Ukraine and the Group’s enterprises, defended their diplomas. A fifth group is still undergoing training. Overall, 115 people have been trained within the framework of the program.

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Ukrgasvydobuvannya

Ukrgasvydobuvannya selected the students of Ivano-Frankivsk National Technical University of Oil and Gas, Poltava National Technical University named after Kondratyuk. According to the results of interviews, candidates were employed in such areas as “Drilling of wells” and “Geology”. During 2019, 54 university graduates were hired by the company as young specialists.

An educational project was launched to cover the activities of the Ukrainian Gas Research Institute (UkrNDIGaz) and the company in secondary and higher educational institutions in Kharkiv and the prospect of pregraduate training at UkrNDIGaz. The company takes part in job fairs at the Kharkiv Employment Center and contributes to the Olympiad of Young Geologists in Kharkiv.

Ukrtransgaz

In order to attract new specialists, Ukrtransgaz works closely with Ukrainian educational institutions. As of December 31, 2019, the company has signed cooperation agreements with:
— Ivano-Frankivsk National Technical University of Oil and Gas
— National Aviation University
— Kharkiv National University of Radio Electronics
— Drohobych College of Oil and Gas
In 2019, 182 students had their undergraduate training at Company facilities. During the year, 12 graduates of higher educational institutions were hired to work at Ukrtransgaz, including 2 persons who had previously had their undergraduate training at the enterprise. Young specialists were accepted mainly for working positions.

Ukrtransnafta

Ukrtransnafta actively cooperates with the following educational institutions: Ivano-Frankivsk National Technical University of Oil and Gas, Drohobych College of Oil and Gas, Ivan Franko National University of Lviv, Lviv Polytechnic National University, National University of Water Management and Natural Resources of Rivne, Lviv College of the State University of Telecommunications, Kiev National University of Technology and Design, Lviv State University of Internal Affairs, Odesa National Maritime University, Odesa National Maritime Academy, Odesa National Academy of Food Technologies.

— Implementation of a Talent Management IT-System.
— Centralization of training at Naftogaz Group.
— Establishment of a Naftogaz Group Training Center.
— Implementation of distance learning system.
— Establishment of an Internal Trainers Unit within Naftogaz Group.
— Implementation of a mentoring system enabling more effective training of new employees (interns) through the involvement of experienced employees as mentors.

Plans for 2020
HEALTH AND SAFETY MANAGEMENT

The activities of the company in the field of health and safety management meet the requirements of the Law of Ukraine “On health and safety”. Since 2017, a dedicated occupational health and safety policy has been in place, which meets the requirements of the OHSAS 18001 standard (ISO 45001). At the level of the supervisory board, health and safety management is within the scope of the health and safety, ecological and industrial safety committee.

The companies of Naftogaz Group have implemented five-stage operational control over the state of health and safety, which includes inspections of production units and workplaces. Issues related to health and safety are considered at meetings of group enterprises and general meetings of labor collective; following these meetings, additional measures are determined to improve working conditions and safety. Training and briefings on health and safety as well as professional development of employees are held regularly.

All employees of Naftogaz Group companies working under employment contracts are insured against accidents at work and occupational diseases. They are provided with sanitary facilities in accordance with regulations. In 2019, the Board of Naftogaz of Ukraine developed and approved a list of documents that determine the company’s general approach in the field of health and safety management, namely:

— Vision of health and safety, industrial safety, and environmental protection of Naftogaz Group and Action Plan for its implementation;
— Regulations for the conduct of internal investigations, analyse and accounting of incidents and events in Naftogaz Group;
— Regulations for reporting on the state of labor and environmental protection, civil protection, fire and industrial safety, road safety of Naftogaz Group. The decision was made to organize the implementation of a Unified Automated Health and Safety, Environmental and Industrial Safety Monitoring System of Naftogaz Group and an Implementation Plan approved;
— Instructions on actions during evacuation of employees from premises and buildings, civil protection training, and exercises;
— The Order “On medical authorization of employees of Naftogaz of Ukraine to physical education and sports.”

In addition, amendments to the Company’s Code of Corporate Ethics were drafted to cover sections dealing with the Health and Safety, Environmental and Industrial Safety Department.

The following measures were approved to improve occupational safety and avoid injury:

— The Action plan to improve occupational safety and health of Naftogaz of Ukraine and the enterprises of Naftogaz Group for 2019-2020;
— The action plan to improve occupational safety and health of Naftogaz of Ukraine and the enterprises of Naftogaz Group. The action plan to improve occupational safety and health includes a number of tasks, in particular: monitoring and measures to minimize the risk of accidents; analysis of occupational safety and health; elimination of the causes of accidents; training of employees on occupational safety; providing employees with means of protection; conducting medical examinations of employees and health and safety days; inspection of the technical condition of equipment and appliances, facilities and buildings, arranging repairs, etc.

The Action plan to improve road safety includes the following tasks: development and annual review of the register of risks of road accidents; monitoring and implementation of road safety world experience and best practices, installation of GPS navigators (trackers with an accelerometer which enables analysis of driving style of drivers) on vehicles; conducting training on road safety and special medical training for drivers; improving the medical examination of employees of the motor transport service; implementation of measures to bring practices into line with the requirements of the international standard ISO 39001: 2012 “Road traffic safety management system. Requirements with guidance for use”; compulsory insurance of civil liability of drivers, vehicles, cargo, development and implementation of a system of material incentives for drivers for accident-free work, etc.

The heads of the company’s branches and enterprises of Naftogaz Group, as well as the Health and Safety, Environmental and Industrial Safety Department of the company are responsible for the implementation of plans.

In 2019, the board of the company approved the Health and Safety, Industrial Safety and Environmental Protection vision of Naftogaz Group (hereinafter the Vision) with the main focus on the development of a mature culture in the areas of health and safety, industrial safety, and environmental protection. One of the key features of the Vision is a clear focus on changing the daily habits of employees, their attitudes and perception of safety, in contrast to the previous practices of formal indicators and monitoring the implementation of policies and procedures.

An integrated approach or the so-called “Naftogaz HSE Pyramid” has been created, which covers all areas of security and combines the goals, tools and areas of implementation of the Vision. It aims to achieve:

— zero mortality rate;
— zero loss of time as a result of accidents;
— zero injuries;
— zero damage to the environment.

The heads of the company’s branches and enterprises of Naftogaz Group, as well as the Health and Safety, Environmental and Industrial Safety Department of the company are responsible for the implementation of plans.
The Vision specifies the following tools designed to prevent injuries and accidents at work: accountability, identification and prevention of problems, communication, implementation, discipline, innovative technology, sustainable activities and safe conditions. The Vision will be implemented in three areas: working environment (security of buildings and equipment); systems (management systems and procedures); people and organization (corporate culture and competencies).

To implement the Vision of Naftogaz Group, a dedicated vertical system is to be created that determines the direction and provides comprehensive support in all HSE and sustainable development areas. The new role of HSE Chairman has been determined, and its key goals are the implementation and provides comprehensive support in all HSE and sustainable development areas. The new role of HSE Chairman has been determined, and its key goals are the implementation of best practices and approaches of leading companies in the field of health and safety, industrial safety and environmental protection, integrity and risk management and sustainable development, maintenance of safe and healthy working conditions. The Vision serve as the basis for developing an appropriate strategy for the divisions of Naftogaz Group. The goals and key results of each manager will include indicators on health and safety, industrial safety, and environmental protection within their responsibilities.

RESULTS OF HEALTH AND SAFETY MEASURES IN 2019

19 inspections of structural and production units were carried out in 2019 to check their readiness for operation in the upcoming autumn-winter period, their organizational approaches to health and safety, and technical surveillance, fire safety and road traffic safety measures. Following the inspections, the company conducted the necessary internal investigations. Mitigation measures were taken and the relevant officials were disciplined.

Training was held for employees when they were evacuated from buildings where their workplaces are located. Training courses “Auditor of the health and safety management system in accordance with the requirements and provisions of the international standard ISO 45001:2018” and “Auditor of the road traffic safety management system in accordance with the requirements and provisions of the international standard ISO 39001:2012” were also organized and conducted.

Following the certification of the working conditions of the enterprises, the company conducted the necessary internal investigations. Mitigation measures were taken and the relevant officials were disciplined.

In 2019, representatives of Naftogaz Group took part in meetings, conferences and forums, including those organized by the International Labor Organization Ukraine and the Ministry of Social Policy of Ukraine.

HSE THROUGH CHILDREN’S ART

In 2019, a competition of children's drawings, posters, photographs, and literary works "Health and safety through the eyes of children" was held among the children of the company's employees; with the winners and the participants joining celebrations.

INVESTMENTS IN LABOR PROTECTION

In 2019, the enterprises of Naftogaz Group spent UAH 338.4 million on the implementation of measures to create safe and healthy working conditions along with the prevention of accidents and occupational diseases at work. This sum was 20% more than in 2018.

As a proportion of the payroll budget, Ukrtransnaz invests the most in health and safety measures – 5.6%, followed by Ukrnafta – 4.4% and Ukrgazydovbuvannya – 2.6%. At the same time, the regulatory share of health and safety expenditures in accordance with the legislation of Ukraine is much lower – 0.5% of the company's payroll budget.

Significant attention is paid to providing employees with personal protective equipment (overalls, footwear, seat belts, safety helmets, goggles, respirators, noise-canceling head-phones, protective gloves, etc.). In 2019, UAH 153.9 million was spent on PPE, which is 48.3% of total investments in health and safety.

FINANCING OF LABOR PROTECTION MEASURES BY NAFTOGAZ GROUP COMPANIES, % OF PAYROLL BUDGET

In 2019, UAH 318.4 million was spent on the implementation of measures to create safe and healthy working conditions along with the prevention of accidents and occupational diseases at work. This sum was 20% more than in 2018.

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EXPENSES TO PROVIDE EMPLOYEES WITH PERSONAL PROTECTIVE EQUIPMENT BY NAFTOGAZ GROUP ENTERPRISES IN 2019, UAH MILLION

In 2019, representatives of Naftogaz Group took part in meetings, conferences and forums, including those organized by the International Labor Organization Ukraine and the Ministry of Social Policy of Ukraine.
Most accidents at Naftogaz Group enterprises are caused by organizational issues. In 2019, 75% of injured workers suffered as a result of accidents due to organizational causes, 14% due to technical causes, and 11% due to psycho-physical causes.

Organizational causes:
- failure to comply with the requirements of health and safety instructions – 16 employees were injured, including 1 death;
- violation of traffic safety rules and violation of safety requirements during the operation of public transport (road) – 6 employees were injured;
- failure to perform official duties – 3 employees were injured;
- violation of safety requirements during operation of equipment, machinery, machinery, etc. – 2 employees were injured.

Technical causes:
- design flaws, imperfections, insufficient reliability of means of production – 2 workers were injured;
- low-quality construction works – 1 employee was injured;
- unsatisfactory technical condition of production facilities, buildings, structures, utilities, territory – 1 employee was injured;
- others (dirty steps of tank truck ladder) – 1 worker was injured.

In 2019, there were 34 accidents at Naftogaz Group enterprises, including 2 group accidents, as a result of which 36 employees were injured, including 1 death in 2018 year – 36 injured persons, including 3 deaths), namely:
- Ukrzhelezobudstroi – 18 accidents, including 1 group accident, 19 employees were injured, including 1 death (in 2018 – 20 accidents, 20 employees were injured);
- Ukrtransnafta – 9 accidents, including 1 group accident, 10 employees were injured (in 2018 – 8 accidents, including 1 group accident, 9 employees were injured, including 1 resulting in death);
- Ukrtransgaz – 5 accidents, 5 employees were injured (in 2018 – 3 accidents, including 1 group accident, 4 employees were injured);
- Ukrtransnafta – 1 accident, 1 employee was injured (in 2018 – 2 accidents, 2 employees were injured, including 1 death);
- Naftogaz of Ukraine – 1 accident, 1 employee was injured (in 2018 – 1 accident, 1 employee was injured and died).

In 2019, the accident frequency rate at the enterprises of Naftogaz Group was 0.615 (in 2018 – 0.532), and the severity of injuries rate was 75.83 (in 2018 – 76.64). The loss of time due to accidents at work amounted to 2,654 man-days (in 2018 – 2,529).

### Number of accidents and injured employees at Naftogaz Group enterprises in 2017-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Ukrainian Gas Transport Company</th>
<th>Ukrtransnafta</th>
<th>Ukrtransgaz</th>
<th>Naftogaz Teplo</th>
<th>Ukravtobus</th>
<th>Kirovogradgaz</th>
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<tr>
<td>2017</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>5</td>
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<td>2018</td>
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<td>4</td>
<td>2</td>
<td>5</td>
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</tr>
<tr>
<td>2019</td>
<td>20</td>
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### Safety of Gas and Oil Transportation

The uninterrupted functioning of the gas transmission system and the trunk oil pipelines system is key to the effective operations of Naftogaz Group enterprises and the realization of the economic interests of the state.

In 2019, a number of organizational and technical measures were designed and implemented to prepare for trouble-free operation during the autumn-winter period of 2019-2020. For example, in order to ensure the trouble-free state of the gas transmission system of Ukraine and reliable transportation of gas to European countries and Ukrainian consumers, the following works were performed by Ukrtransgaz during 2019:
- overhaul and emergency repair of 117.1 km of the linear part of the trunk gas pipelines;
- corrosion due diligence of 2,541.7 km of the linear part of the trunk gas pipelines;
- overhaul of 880 means of electrochemical protection;
- repair of 43 gas pumping units of compressor stations;
- overhaul of 65 wells of underground gas storage facilities;
The fire regime at the enterprises of the Group is regulated by object instructions, orders and instructions in accordance with the requirements of NAPB A.01.001-2015 “Fire safety rules in Ukraine” and SOU 75.2-2017T “Fire safety management system. Key provisions”.

In 2019, the company employed a total of 215 fire safety specialists, including 108 full-time employees and 107 persons who perform some additional functions. The company also had 193 fire technical commissions and 329 fire brigades with a total staff of 2,778 persons. The objects of the company’s enterprises are guarded on a contractual basis by 2,778 persons. The number of staff in these units is 847 people.

The company conducts fire inspections of the group’s facilities on a regular basis. 5,701 such inspections were carried out in 2019, with 23,769 violations identified, of which 21,811 violations were eliminated, and 64 disciplinary sanctions were imposed. During the reporting period, the State Emergency Service of Ukraine (SES) conducted 54 inspections at Group enterprises and identified 441 violations, of which 334 violations were eliminated.

In order to ensure the readiness of the employees of Naftogaz Group to act in case of fire, 2,216 on-site fire workshops were conducted in 2019, including 322 training sessions together with units of the SES of Ukraine. During 2019, the enterprises of the group spent a total of UAH 164.0 million on fire-fighting measures including:

- UAH 132.4 million contracting the fire brigades of the State Emergency Service for the protection of the company’s facilities;
- UAH 13.2 million on maintenance of fire extinguishing equipment of transportation and mining enterprises.

All illegal encroachments were reported to the law enforcement agencies and 172 criminal proceedings were initiated.

During 2019, the company’s security and protection units detected and law enforcement agencies recorded 213 illegal encroachments on the company’s facilities, namely:

- 60 illegal cuts into the trunk and industrial oil, gas and condensate pipelines (in 2018 – 77), of which 28 were equipped with taps with a total length of 27 km 312 m. Illegal cuts into pipelines were detected and documented in 16 regions of Ukraine: Volyn region – 1, Dnipropetrovsk region – 2, Donetsk region – 2, Zhytomyr region – 2, Zakarpattya region – 2, Ivano-Frankivsk region – 1, Kirovohrad region – 1, Luhanshes region – 1, Lviv region – 10, Mykolayiv region – 1, Odessa region – 1, Poltava region – 20, Rivne region – 1, Sumy region – 5, Kharkiv region – 9, Khmelnytskyi region – 1.
- 72 acts of damage (destruction) of technological equipment of transportation and mining enterprises. The most damage (destruction) of technological equipment of mining facilities, trunk and industrial pipelines was recorded in Poltava (13), Kharkiv (10) and Kyiv (8) regions.
- 66 acts of theft of valuable assets (hydrocarbons, fuels and lubricants, etc.);
- 15 other offenses (thefts, equipment damage, etc.).

All illegal encroachments were reported to the law enforcement agencies and 172 criminal proceedings were initiated.

**Finance and Development**

- **435.1 UAH THOUSAND** modernization of fire-fighting technical equipment
- **18.1 UAH MILLION** maintenance for existing fire detection and extinguishing systems in proper condition, purchase of fire extinguishers
- **20.4 UAH THOUSAND** research and development work
- **1.3 UAH MILLION** elimination of identified violations
The companies of Naftogaz Group pay considerable attention to the social development of local communities where hydrocarbon mining takes place. In 2019, Ukrgasvydobuvannya spent more than UAH 5.3 million on social projects and charitable assistance in the areas of its activity. The main areas of funding include healthcare, education development, and infrastructure development of small settlements close to mining activities and where Ukrgasvydobuvannya employees reside.

Key social development projects funded by Ukrgasvydobuvannya in 2019 include the following:

- **Lviv region:**
  - village of Bilche – UAH 250.0 million for the construction of a bridge
  - village of Pasichne – UAH 200.0 million for the repair of a local road

- **Kharkiv region:**
  - village of Donets – UAH 250.0 million to support the activities of the robotics class of the NGO “Brobots” in the secondary school No. 2
  - village of Chikolkev – UAH 3.0 million for road repairs

- **Poltava region:**
  - Novosanitsilskaya Rayon State Administration – UAH 210.0 million for the purchase of medical equipment

In 2019, Ukrnafta spent UAH 11.061 million for the social development of local communities. Key projects were as follows:

- **Sumy region:**
  - village of Okhtyrka – UAH 1.796 million for road repairs

- **Kharkiv region:**
  - village of Dolyna – UAH 5.2 million for the repair of a dormitory and a kindergarten

- **Chernihiv region:**
  - village of Borshna (volcanic village council) – UAH 0.381 million for water well repair

The total amount of rent payments to the consolidated budget in 2019 from Ukrgasvydobuvannya amounted to UAH 23.3 billion, of which UAH 1.16 billion in rent payments was received by local budgets in accordance with oil, natural gas, and gas condensate production rent distribution mechanisms enshrined in the law that came into force in 2018.

The funds received were used by local communities for needs related to infrastructure development, support of healthcare facilities, and other projects providing jobs and settlement development.

Distribution of Ukrgasvydobuvannya rent receipts by region was as follows:

- Kharkiv region – UAH 578.5 million;
- Poltava region – UAH 493.1 million;
- Lviv region – UAH 42.7 million;
- Odniporotovtsk region – UAH 26.9 million;
- Others – UAH 21.9 million.

The bulk of these funds went to the budgets of two gas-producing regions – Kharkiv and Poltava, namely to satisfy the needs of the following communities:

- Starovirivska community, Kharkiv region – UAH 62.5 million;
- Senchanska community, Poltava region – UAH 55.7 million;
- Kolomatska community, Poltava region – UAH 37.5 million.

In 2019, Ukrnafta paid UAH 7.05 billion in rent to the state. UAH 352.5 million, or 5%, went to local budgets. In 2019, the communities of Sumy (UAH 149.8 million), Kharkiv (UAH 78.06 million), and Poltava (UAH 56.2 million) regions received the largest amounts of revenue from Ukrnafta’s rent payments. The portion of the rent paid to local budgets depends on the volume of hydrocarbon production in specific regions. According to information provided by the communities that benefit from the rent, the vast majority went towards financing social and infrastructure projects.

Visiting communities near to Naftogaz Group production, you can once again see that the decentralization of rent payments is the right decision that stimulates the development of small villages and towns.

**CHARITABLE EXPENSES**

Since 2014, Naftogaz employees have been transferring part of their monthly salaries to charitable assistance to the Ukrainian Allied Forces operations (ATO/OOS). During this period, a total of over UAH 50 million was allocated for the purchase of medical equipment for hospitals, protective equipment, and clothing for servicemen. Moreover, medical facilities for the rehabilitation of servicemen receive active assistance from group employees. During 2019, a total of UAH 11.3 million was collected for the purchase of medical equipment and supplies for the military of which 71% (UAH 7.9 million) was spent on medical needs, 26% (UAH 2.9 million) went for the purchase of clothing and military equipment, and 3% (UAH 335 000) for gifts to children of border guards and servicemen.

Naftogaz Group pays considerable attention to social assistance and support for the development of children with disabilities.

During 2019, the company’s employees made charitable transfers to the following children’s institutions in Kyiv:

- UAH 94 000 for the purchase of computer equipment for the Kyiv Boarding School No. 5 where children with visual impairment study;
- UAH 167 700 for the Kyiv City House “Berizka”, where orphans with physical and mental health issues receive treatment.

In addition to direct financial support, Naftogaz annually organizes and participates in charitable events. In 2019, the company’s employees organized a New Year Party for students of the only special boarding school in Kyiv No 18 for children with hearing impairments. They also took part in the most popular sports and charity event in the country, the “Chestnut Run”, with all funds raised transferred to the Center for Pediatric Cardiology and Cardiac Surgery.

**SOCIAL PROJECTS AND CHARITY**

In 2019, Ukrgasvydobuvannya spent more than UAH 5.3 million on social projects and charitable assistance in the areas of its activity.

**ARMY SUPPORT**

During 2019, a total of UAH 11.3 million was collected for the purchase of medical equipment and supplies for the military.

**CHILDREN SUPPORT**

Naftogaz employees made charitable transfers for the development of children with disabilities.

**DEVELOPMENT OF LOCAL COMMUNITIES**

In 2019, Ukrnafta spent UAH 11.1 million for the social development of local communities.
INVESTING IN ENERGY EFFICIENCY

COMPANY ENERGY MANAGEMENT POLICY

The company is taking consistent steps to improve the energy efficiency of its production processes and to save fuel and energy resources. These issues are central to the Naftogaz Group development strategy and important for the realization of national energy independence interests.

The company, in its operations, is guided by the Energy Management Policy of Naftogaz of Ukraine NJSU approved in 2017, the adopted Energy Management Goals and Objectives and the action plan to achieve them by 2020.

Energy management system

In 2019, the executive board of the company approved the Regulation on Operations of the Integrated Management System (IMS), which includes an energy management system in accordance with the requirements of the international ISO 50001 standard. In August 2019, the existing management system was assessed by an external reviewer in terms of its compliance with the requirements of international standards, including ISO 50001. As a result, the conformity of the existing management system of the company with international standards was confirmed and extension of certificates of conformity was recommended; a list of recommended steps for potential improvements was provided.

One of the potential improvements of the energy management system is transition to the new version of the international standard ISO 50001:2018 and implementation of energy management systems in all Naftogaz Group enterprises.

Company management is aware of its responsibility for creating a supportive environment for the implementation and continuous improvement of the company’s energy management policy, as well as the importance of its role as a leader in the operations of an integrated management system.

USE OF ENERGY RESOURCES BY GROUP COMPANIES IN 2019

In 2019, Naftogaz Group companies used fuel and energy resources (FER) for their technological needs amounting to 3.1 million tons of fuel and energy resources (FER) in oil equivalent, including:

- 3.2 bcm of natural gas;
- 1.1 billion kWh of electricity;
- 597.3 thousand Gcal of heat;
- 76.5 thousand tons of oil (gas condensate);
- 203.7 ktoe other types of FER (boiler and furnace fuels)

The decrease in FER consumption in 2019 was due, among other factors, to the implementation of energy-efficient measures under the Energy Efficiency Improvement Program of National Joint Stock Company Naftogaz of Ukraine for 2015-2020.

In 2019, the “per unit” energy intensity indicator for individual activities was as follows:

- Gas transmission – 0.019 mcm/mcm * km;
- Oil transportation – 0.0013 tons o.e./thous t * km;
- Oil production (OKhtyrkanaftogaz NGVU) – 0.042 tons o.e./t;
- Gas processing (Dolinsky Gas Refinery, Kachanivsky Gas Refinery) – 63.18 tons o.e./mcm.

The decrease in FER consumption in 2019 was due, among other factors, to the implementation of energy-efficient measures under the Energy Efficiency Improvement Program of National Joint Stock Company Naftogaz of Ukraine for 2015-2020.
The most effective measures in 2019 to save energy were:

- Purification of the flow part of axial compressors of gas turbine units with effective solutions and cleaning liquids – natural gas saving: 18.163 mcm.
- Consumption of gas by consumers at minimum possible pressure from pipeline section before start of repair works – natural gas saving: 16.059 mcm.
- Decommissioning of unloaded power transformers, replacement with less powerful models – electricity saving: 2.07 million kWh.
- Reconstruction of outdoor lighting systems and lighting networks – electricity saving: 2.151 million kWh.
- Implementation of activities under the Energy Efficiency Program by Group companies and the further FER savings in 2020: natural gas – not less than 64.986 mcm; electricity – not less than 14.416 million kWh; thermal energy – not less than 28.445 thousand Gcal.
- Development of an Energy Efficiency Improvement Program for Naftogaz group Companies for 2021-2025.
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Reducing the adverse impact of Naftogaz Group on the environment and environmental protection are extremely important components of the company’s development strategy. In its operations, Naftogaz adheres to sustainable development principles in order to preserve a clean and safe environment for future generations. Every year, the company increases its investment in environmental protection and focuses its efforts on responsible water management and soil protection, reduction of air emissions, responsible waste management and implementation of energy-efficiency programs. The companies of Naftogaz Group strive to ensure that their activities comply with European rules and at the same time implement best practices and best available technologies to minimize their adverse impact on the environment.

ENVIRONMENTAL POLICY

All decisions and activities in the field of environmental safety and environmental protection at Naftogaz Group are implemented based on the Environmental Policy of Naftogaz of Ukraine approved by the decision of the Board No 348 dated 21.08.2017. The environmental goals and objectives of the company are established by the decision of the Board No 552 of 18 October 2018 (for more details see the Report 2018). Since 2018, all Naftogaz Group companies have implemented environmental management systems in accordance with the requirements of the international standard ISO 14001:2015, that is a component of the integrated Naftogaz Group management system. In 2019, the certifying agency TÜV SÜD Management Service GmbH conducted the first supervisory assessment of the existing management system for compliance with the requirements of the SOU (Standard of Ukrainian Company) “Environmental Protection. Audit of environmental aspects of activity at the national joint-stock company “Naftogaz of Ukraine” (approved by the order of the company of 31.03.18 №39). Based on audit results, plans are formed to eliminate any discrepancies. In 2019, four internal environmental audits were conducted at Naftogaz Group enterprises (the Underground Gas Storage Operator Branch; Gas Transmission System Operator LLC; the Shебелынская Drilling Department of Ukrtransgaz Branch, Ugkrasydobyvannya JSC; Gas and Gas Condensate Processing Department, a Branch of Ugkrasydobyvannya JSC). Following these audits, among other things, an environmental service was established at the Underground Gas Storage Operator Branch.

The decision of the Board No 167 of 21.03.2019 provided for the introduction of integrated HSE monitoring, which would enable automatic urgent incident notification at Naftogaz Group. The company has established an environmental working group, which includes representatives of Naftogaz of Ukraine NJSC and environmental services of Naftogaz Group companies. Meetings of the working group consider environmental safety issues and provide recommendations on how to improve the activities of the enterprises.

Naftogaz Group has a hotline for complaints or suggestions on environmental protection, occupational safety, and social protection. No official complaints about environmental pollution as a result of the company’s activities during 2019 were received.

The company organizes independently and also participates in seminars and trainings on education and promotion of safe management of solid household and hazardous waste, as well as water resources protection and rational management. To achieve these goals, the company’s specialists brief the employees and draft amendments to government regulations to strengthen the field of environmental protection, radiation safety, and rational use of natural resources.

KEY RESULTS IN THE FIELD OF ECOLOGY AND ENVIRONMENTAL PROTECTION IN 2019

1. Compliance of the company’s standards in the field of environmental protection, occupational health, and safety with the requirements of the EBRD’s Environmental and Social Policy was confirmed, which made it possible to attract financial resources of EUR 120 million by issuing Eurobonds and confirm the status of reliable partner.

2. Amendments to the “Procedure for decommissioning of trunk pipelines designed to transmit oil, gas and refined products” approved by the CMU Resolution of 28.03.2018 No 209 were drafted and submitted to the Ministry of Energy and Environmental Protection of Ukraine to initiate the changes.

3. In order to optimize the procedure for issuing air emission permits for stationary sources of drilling companies, the company drafted the laws of Ukraine “On Amendments to Article 11 of the Law of Ukraine “On Air Protection” to simplify the procedure for issuing emission permits” and “On Amendments to the Tax Code of Ukraine to simplify the procedure for issuing emission permits”.

4. Completion of a pilot project designed to introduce a greenhouse gas emission monitoring, reporting and verification (MRV) system at the enterprises of the group, supported by the World Bank.

5. As part of the implementation of the Methane Emission Reduction Program across the gas supply chain, which is currently implemented based on the Memorandum of Understanding between the EBRD, the Ministry of Environment1 and Naftogaz of Ukrainian NJSC, in June and July 2019, natural gas (methane) leaks from the equipment of Ugkrasydobyvannya JSC, Ukrtransaq JSC and Kirovogradgaz DSSC were monitored and their volume identified. For the first time, an unmanned aerial vehicle (drone) with specialized equipment and an infrared camera was used for measurements at oil and gas facilities.

EXPENDITURES ON ENVIRONMENTAL PROTECTION IN 2019

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (UAH MLN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPENDITURES ON ENVIRONMENTAL PROTECTION</td>
<td>178.9</td>
</tr>
<tr>
<td>Capital investments</td>
<td>7.2</td>
</tr>
<tr>
<td>Waste management</td>
<td>0.13</td>
</tr>
<tr>
<td>Current expenses</td>
<td>171.7</td>
</tr>
<tr>
<td>Air protection</td>
<td>96.0%</td>
</tr>
<tr>
<td>Waste management</td>
<td>6.0%</td>
</tr>
<tr>
<td>Total expenditure of Naftogaz Group enterprises</td>
<td>178.9</td>
</tr>
</tbody>
</table>

1. As of the end of 2019, the current name of the ministry is the Ministry of Energy and Environmental Protection of Ukraine (Ministry of Energy and Ecology). According to the DNI Resolution of 02.05.2019 No 529 the Ministry of Ecology and Natural Resources was renamed the Ministry of Energy and Environmental Protection of Ukraine and merged with the Ministry of Energy and Coal Industry.
In 2019, Naftogaz Group companies paid UAH 94.0 million of environmental tax, of which 98.1% accounted for air emissions.

In 2019, Naftogaz Group companies were fined UAH 2.169 million for violating the requirements of environmental legislation. In 2019, UAH 161.9 million was spent on environmental services. Revenues from the provision of environmental services amounted to UAH 6.3 million, from the sale of waste – UAH 74.2 million.

**AIR PROTECTION**

In 2019, air emissions by stationary sources at the enterprises of Naftogaz Group decreased down to 50.8 thousand tons, which is 26.0% less than in 2018 (68.7 thousand tons). 3

**BORYSлав AREA GAS POLLUTION ELIMINATION PROGRAM (UKRNAFTA PJSC)**

Ukrnafta continues the development and implementation of measures to eliminate the consequences of long-term oil and gas production and reduce environmental pollution in the town of Boryslav. As of 1 January 2020, Ukrnafta spent UAH 37.5 million on the implementation of these measures including UAH 1.3 million on control and prevention, UAH 17.7 million on repair and insulation works, UAH 18.4 million on the operation and reconstruction of facilities related to the elimination of gas pollution of the town, and UAH 0.3 million on R&D.

Ukrnafta initiated independent environmental monitoring of the territory of the town of Boryslav. In 2019, within the framework of cooperation between Boryslav Town Council, Ukrnafta PJSC, and Lamor Ukraine LLC for comprehensive environmental monitoring of Boryslav, a commercial offer from Lamor Ukraine LLC was developed. The objective of the project is to conduct a reliable environmental in Boryslav and to develop recommendations to eliminate the adverse effects of long-term oil and gas production on the environment.

**POLLUTION INCIDENTS IN 2019**

During 2019, 68 environmental pollution incidents were recorded at the production facilities of Naftogaz Group enterprises, most of which had a minor impact on the environment. The main causes of such incidents were corrosion of pipelines, mechanical damage to equipment, and illegal taps (criminal intervention). The largest number of incidents occurred at the production facilities of Ukrtransgaz – 53 cases, followed by Ukrgasvydobuvannya with 11 and Ukrtransnafta with 4. Nine of all environmental incidents occurred because of illegal taps.

The most high-profile incident occurred at Uknafta's well 421 in the Anatasiivka field of TsVNG 4. Unauthorized interference to steal petroleum products resulted in a release of gas mixture and ignition of hydrocarbons on the discharge line of the well. As a result, the car of the wrongdoers (with unidentified registration) caught fire. The fire was extinguished and no one was injured.

**WASTE MANAGEMENT**

In 2019, Naftogaz Group generated 259.6 thousand tons of waste, of which 68.8% was drilling waste (drilled rock, waste drilling fluids and drilling wastewater), 18.8% – ferrous scrap, and 6.9% – household mixed waste. The main share of waste was generated by Ukrgasvydobuvannya (73.9%) and Ukrnafta (23.0%).

The bulk of waste generated at Naftogaz Group enterprises was low-hazard (hazard class IV according to DSanPiN 2.2.7.029-99, which expired in 2014) – 94.2%, and moderately hazardous (hazard class III) – 5.5%.

**Air emissions by Naftogaz Group enterprises in 2019**

<table>
<thead>
<tr>
<th>Group enterprises</th>
<th>Carbon monoxide (CO)</th>
<th>Sulphur dioxide (SO2) and other sulfur compounds</th>
<th>Nitrogen compounds (N0, excluding NOx)</th>
<th>Non-methane light organic compounds</th>
<th>Suspended solids (small particles and fibers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukrtransnafta</td>
<td>19.5</td>
<td>7.5</td>
<td>0.02</td>
<td>3.5</td>
<td>0.15</td>
</tr>
<tr>
<td>Ukrafta</td>
<td>15.5</td>
<td>5.4</td>
<td>0.02</td>
<td>2.5</td>
<td>4.7</td>
</tr>
<tr>
<td>Ukrtransgaz</td>
<td>16.5</td>
<td>8.1</td>
<td>0.05</td>
<td>9.8</td>
<td>0.03</td>
</tr>
<tr>
<td>Ukrtransnafta</td>
<td>1.8</td>
<td>0.01</td>
<td>0.01</td>
<td>0.016</td>
<td>0.01</td>
</tr>
<tr>
<td>Others</td>
<td>0.023</td>
<td>0.008</td>
<td>0.0</td>
<td>0.002</td>
<td>0.02</td>
</tr>
<tr>
<td>Total</td>
<td>50.6</td>
<td>23.8</td>
<td>0.2</td>
<td>17.0</td>
<td>14</td>
</tr>
</tbody>
</table>

The structure of current expenditures on environmental protection measures in 2019 by Group enterprises

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The structure of current expenditures on environmental protection measures in 2019 by Group enterprises
CONTRIBUTION TO COMBATING CLIMATE CHANGE

The total amount of direct greenhouse gas emissions in 2019 amounted to 7.4 million tons in CO₂ equivalent. The largest share of greenhouse gas emissions was generated by Ukrtransgaz (60.7%) and Ukrtransnafta (30.1%).

According to the Naftogaz comprehensive Environmental Action Plan for 2015-2020, in order to reduce greenhouse gas emissions, the enterprises of Naftogaz Group implement the following steps:

- inventory of stationary emission sources;
- optimization of technological modes of existing equipment running on hydrocarbon fuel and its modernization;
- detection of leaks from shut-off valves by mobile laboratories and their elimination using modern equipment and highly efficient sealing materials;
- repair and adjustment of technological equipment;
- replacement of tanks with a stationary roof with technically modern tanks with a floating roof;
- systematic maintenance of breathing valves of tanks and devices, sealing of pontoons and tank roofs;
- overhaul of engines and replacement of radiators;
- use of tank pumping and operation modes which minimize emissions;
- construction of control and regulation points and installation of equipment to inspect and reduce the toxicity of exhaust gases of vehicles;
- conversion of vehicles to environmentally friendly fuels.

In 2019, Naftogaz Group companies completed the implementation of a pilot project supported by the World Bank aimed at the implementation of a greenhouse gas emission monitoring, reporting and verification (MRV) system. The project involved Naftogaz, VERICO (Germany), Ukrtransgaz, the World Bank PFM project, Carbon Limits (Norway), and TMS (Ukraine). The project reviewed the technological processes, activities, and sources of greenhouse gas emissions and material flows, then prepared a package of necessary documents including a monitoring plan and Greenhouse Gas Emissions Report verified by independent verifier VERICO (Germany).

At the same time, in December 2018, the Law of Ukraine “On Principles of Monitoring, Reporting and Verification of Greenhouse Gas Emissions” was adopted, which provides for the establishment of a transparent and unified procedure for calculation and monitoring of greenhouse gas emissions from energy and industrial enterprises. The adoption of this law was aimed at fulfilling Ukraine’s obligations under the EU-Ukraine Association Agreement, as well as the requirements of the UN Framework Convention on Climate Change and the Paris Agreement. The law comes into force on 1 January 2021.

Therefore, Naftogaz Group and the Gas Transmission System Operator of Ukraine are ready to work within the MRV system and the greenhouse gas emission allowance trading system after their introduction in Ukraine. Experience in developing a monitoring plan and compiling a report on greenhouse gas emissions is shared with other enterprises.

Currently, the company is engaged in research entitled “Development of a regulatory document on the procedure for energy analysis, determination of energy efficiency, and the carbon footprint of Naftogaz Group.” This research is included in the Comprehensive R&D Plan of Naftogaz Group for 2020. The document will determine the approaches to identifying energy-consuming processes of Naftogaz Group enterprises and their energy consumption, assessing the process efficiency, and calculating greenhouse gas (carbon footprint) emissions.

WATER RESOURCES

The volume of water intake by Naftogaz Group enterprises in 2019 amounted to 4,524.3 thousand cubic meters (in 2018 – 5,139.2 thousand cubic meters), 61.7% of which came from the volumes of surface water. Naftogaz Group companies generate no significant impact on water intake sources. The objective of water resources management is their rational use, large-scale introduction of water reuse, reduction of water consumption, especially drinking water, which should result in annual reduction of water consumption by Naftogaz Group companies by 4% during 2018-2020.
The use of water is accounted for by primary measuring and recording of water supply and waste water based on the indicators of measuring equipment and the results of measurements of water quality indicators. In some cases, in the absence of such means, the accounting is carried out according to the technological data (using ancillary accounting methods). The correctness of such accounting is regularly monitored.

In 2019, 4,388.4 thousand cubic meters of water were actually used, which is 5.9% less than the previous year. Of the total, the largest share (68.7%) was used for production and technological needs.

A 5.9% decrease in water use in 2019 compared to 2018 proves the successful work of Naftogaz Group enterprises in achieving water resource management objectives. In order to protect water resources and rational use of water in 2019, the following activities were implemented:

- repair and replacement of disiliated sections of oil pipelines, gas pipelines and water pipelines;
- inspection of pipeline crossings over water obstacles and highways;
- restoration of embankment of reservoirs, wells and other objects;
- assessment of the technical condition of production columns of oil and injection wells using geophysical method;
- examination and replacement of production and injection wells;
- examination and replacement of valves on water mains, water meters.

The total volume of water use and circulating use by Naftogaz Group enterprises in 2019 amounted to 161.8 million cubic meters in the circulating water supply and 6.4 million cubic meters in water re-use systems. In 2019, the total amount of wastewater discharged (excluding associated waters) amounted to 295.5 thousand cubic meters (in 2018 – 1,547.6 thousand cubic meters). In the total discharged wastewater, 407.7 thousand cubic meters was polluted wastewater, of which: 17.6 thousand cubic meters (in 2018 – 1,547.6 thousand cubic meters).

In 2019, the enterprises of Naftogaz Group extracted 9,186.0 thousand cubic meters of associated waters. Combined formation waters, which are extracted together with hydrocarbons, were returned to underground horizons through absorption wells in accordance with the requirements of current legislation, which reduces the negative impact on surface and groundwater and soil condition.

In 2019, Ukrgasvydobuvannya joined MI Swaco (Schlumberger) took measures to introduce new technologies for the purification of return aqueous solutions when drilling wells in order to increase their reuse and save water resources. Environmental and radiation safety specialists electronically monitor on a regular basis (usually quarterly) the content of pollutants in domestic effluents, associated and sewage water, and quarterly control the quality of water collected from groundwater sources. They perform compliance control of these indicators. The laboratory control of physico-chemical parameters of waste water is carried out by accredited laboratories. In addition, the content of natural radionuclides in the waters of artisanal wells is monitored annually.

**Biodiversity**

During 2019, Ukrgasvydobuvannya audited the territories of its operations in order to identify the areas with potentially high biodiversity in terms of species. Such areas include meadows and wetlands, unplowed steppe areas (grasslands) and forests of various compositions. Materials developed as part of the international research program Copernicus (European Space Agency) were used to audit the territories.

Within the licensed areas of Ukrgasvydobuvannya, areas with potentially high biodiversity of species occupy 38.27% of the total area. Disturbed areas (arable land and built-up area) make up a total of 61.42% of the total area of the territories.

**SOIL PROTECTION**

The basic civil protection action plan of Naftogaz of Ukraine for 2019, approved by the company’s order in January 2019, provides for the introduction of modern technologies for the restoration and purification of technologically damaged ecosystems (including soils). While eliminating the pollution of soils and water bodies with oil and oil products, the enterprises of the group are guided by the provisions of the SOU 74.2-20077720-34: 2018 “Environmental protection. Elimination of pollution of soils and water bodies with oil and oil products. Rules,” approved in December 2018 by the company.

In 2019, as a result of the activities of Naftogaz Group enterprises, a significant negative impact on the environment was caused in 23 cases impacting land plots with a total area of approximately 17,715 sq. m. The consequences of this environmental pollution have been eliminated.

**The volume of water used by Naftogaz Group enterprises in 2019**

<table>
<thead>
<tr>
<th>By purpose of use</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public water supply</td>
<td>4,524.3</td>
<td>3,900.2</td>
</tr>
<tr>
<td>Underground water</td>
<td>25.9</td>
<td>25.9</td>
</tr>
<tr>
<td>Surface water</td>
<td>81.7</td>
<td>81.7</td>
</tr>
</tbody>
</table>

**The volume of waste water by the place of discharge in 2018-2019, thousand cubic meters**

The table shows the volume of wastewater by the place of discharge in 2018-2019, thousand cubic meters.
ENVIRONMENTAL PROBLEMS AND RISKS

1. A number of issues unresolved as of the end of 2019 are still relevant:

   — Development and implementation of a procedure for obtaining permits by entities to carry out waste management operations if their activities lead to the generation of waste for which the total waste generation indicator exceeds 1000.
   — Development of a new by-law to replace DsAnPIN 2.2.7. (029-99) (expired in 2014), to be used as a basis for determination of the hazard class of waste in accordance with international requirements.
   — Solving the issue of the absence of utility companies responsible for the implementation from 01.01.2018 of the requirements of the Law of Ukraine “On Waste” of separate collection and disposal of solid waste.
   — Simplification of complicated and lengthy procedure for obtaining permits for pollutant emissions for drilling rigs, especially for drilling shallow wells using mobile installations with a drilling period of up to one year.
   — Improving the procedure for submitting water user electronic reports or information on the volume of extracted groundwater (order of the Ministry of Environment of 23.03.2016 №110) and the procedure for calculation of water use and waste water (Article 49 of the Water Code and order of the Ministry of Environment of 23.06.2017 №234).

2. Imperfection in the procedure for decommissioning of main pipelines of oil, gas and processing products.

3. The problem of handling compressor pipes and other equipment contaminated with natural radionuclides (NORM).

   Compressor pipes and other equipment where mineral salts containing natural radionuclides are built up during the development of oil fields pose a threat to the health of employees and the environment. All equipment and sludge at the enterprises of Naftogaz Group which are contaminated with natural radionuclides are transferred for storage to specialized enterprises under the established procedure. At the same time, as of the end of 2019, in Ukraine there is no regulatory framework, technologies, or specialized enterprises for decontamination of such equipment.

4. The existence of natural and industrial zones and systems with unauthorized uncontrolled release of oil and gas on the surface and oil pollution of groundwater and rocks.

PLANS FOR 2020

1. Implementation of the Methane Emission Reduction Project Agreement with the EBRD at the facilities of Naftogaz Group. Specifically, the second stage of the Methane Emission Reduction Program involves plans to continue works on locating natural gas (methane) leaks along the entire gas supply chain and develop a systematic approach to reducing emissions.

2. Carrying out of 5 audits of ecological aspects at the enterprises of Naftogaz Group according to the provisions of SOK “Environmental protection. Audit of ecological aspects of the activities of the Group of the National Joint-Stock Company Naftogaz of Ukraine”. Substantive provisions”.

3. Resolving issues related to the continuation of the development of technological standards for existing and new gas turbines and engines with a nominal heat output of 1 to 50 MW. The plan envisages a measurement campaign and tenders for the purchase of standard development services.

4. Further implementation of an environmental management system in accordance with the requirements of ISO 14001, in particular the implementation of measures to achieve the objectives of the environmental management system related to conducting internal audits within the company.

5. Creation of a unified system for monitoring the activities of Naftogaz Group enterprises related to environmental protection on the basis of the MS Consulting software product.

6. In the field of waste management:

   — Further implementation of activities under the Green Office program, in particular the installation of containers for batteries and plastics in the head office premises of Naftogaz, the introduction of separate collection of solid waste at the enterprises of Naftogaz Group;
   — Ensuring the transfer of valuable waste (used batteries, tires, lubricants, etc.) for disposal to specialized enterprises on a paid basis.

7. Monitoring the state of the environment of Andriivka industrial pollution zone and Maksivs ground water pollution halo, Ukrgasvydobuvannya JSC, identified earlier (1980-2000) and implementation of programs to study and eliminate pollution.
Naftogaz group is focused on improving public procurement professionalization as one of the most effective ways to use company resources. Considerable attention is paid to ensuring transparency and openness of information and the prevention of bidder misconduct. In addition, public tenders serve as a catalyst for the development of the Ukrainian economy, as they provide for an independent choice of the most cost-effective trade offer, thereby stimulating competition.

As part of its focus on public procurement development, Naftogaz group has approved internal procurement standards. As a result, the following changes occurred during 2019:

— requirements for the procurement documentation were unified;
— qualification criteria and requirements for the bidders and evaluation of bidder compliance with the established criteria and requirements were unified;
— measures to address identified irregularities during procurement were approved and implemented;
— the powers of divisional directors during the procurement process without ProZorro have been expanded;
— the procedure (the rules) for evaluating vendors to be included in the vendor list was developed;
— technical specifications preparation methodology was developed;
— the method for calculating the expected cost of routine overhaul works and services was developed.

Internal standards (regulations) provide for the possibility to include in procurement terms the environmental criteria that are part of the requirements for bidders (for example, the availability of the necessary certificate or providing additional information in the form of an environmental questionnaire). The specific criteria are set directly by the sponsor of the procurement before the application submission stage. In addition, a working group was set up and operates internally dealing with implementation and supporting the environmental management system at the group level. In addition, in special cases, the company may apply environmental control measures to verify the information provided by the contractor at the stage of the conclusion of the agreement, or meaning that the company may independently or with the involvement of the third parties, check the activities of the contractor on environmental protection, social responsibility and occupational safety. In the event of any counterparty’s non-compliance with the current legislation of Ukraine or if any inaccurate information is identified during the verification, the contractor shall agree with the company on measures to correct these inconsistencies, the timing of their implementation, and provide guarantees of their fulfilment in due time and in full.

Along with these changes and improvements, the Naftogaz group has been actively using the existing electronic purchasing system for 5 years. During this time, a total saving of UAH 22 023 million was achieved. In 2019, the procurement activities of the company resulted in 7 408 purchases totalling UAH 70 662 million.

Of these, 5 611 contracts were announced by Naftogaz group via the ProZorro system, worth UAH 33 billion, 94% of which were concluded with residents.

The priority objectives achieved by Naftogaz group in 2019 include the following:

— Based on the results of the study of best world practices and analysis of the Ukrainian legal framework, Naftogaz group implemented potential counterparty pre-qualification and audit mechanisms and reached the highest possible number of procurements from qualified participants.
— The tender documentation preparation process and tender document forms development process were improved, which made it possible to attract more bidders due to the clear process of preparation of information required for participation in tenders.
— The Naftogaz group adjudication of grievances was changed by liquidation of the Central Conflict Commission and introduction of the Naftogaz Procurement Ethics Office as arbitration between the Bidder – Customer – the Local Conflict Commission of the Customer.

Their implementation allowed us to state the fact that the average number of bidders increased and amounted to 3.1.

1 The ProZorro system calculates savings as the difference between the expected cost of the purchase and the price of the most economically advantageous bid using the following bidder status indicators: qualification of the winner; offers considered/completed. Savings calculated in this way are not final because after the auction the winner’s bid may be rejected by the customer.
Actual saving on procurements in 2019

3

Ukrtransgaz
408 UAH million

Naftogaz of Ukraine
70 UAH million

Ukrtransnafta
34 UAH million

Ukrgasvydobuvannya
848 UAH million

1 379
UAH million

PROCUREMENT SAVINGS

Source: ProZorro database

Average proposals vs average purchases in 2019

4

PLANS FOR 2020

— Establishment of tender committees with dedicated members who would not have their operational responsibilities and establishment of an institute of authorized persons.
— Increasing the effectiveness of procurement of goods, works and services, reducing the operating costs of the customer during the procurement procedures by using the vendor list.
— Development of supply chain management.
— Continued digital transformation of the procurement process to improve its efficiency through targeted implementation of the software systems that increase the speed and accuracy of business processes while minimizing errors and incorrect decisions as a result of human factors.

Source: ProZorro database
Contributions to the State Budget

- In 2019, the group transferred to the state budget UAH 100.6 billion of taxes, including UAH 22.3 billion of corporate income tax.
- Additionally, the group paid dividends of UAH 12.3 billion, or 90% of the 2018 net profit, and UAH 8.5 billion of interim dividends for 2019.
- The group remains the largest net contributors to the state budget of Ukraine.
DEAR READERS,

I am writing to you for the first time as Naftogaz Chief Financial Officer and I am pleased to inform you that the performance of the group was strong in 2019.

In a challenging year with declining oil and gas prices, we delivered some major achievements. Naftogaz built the largest gas inventory in recent years to ensure a flawless heating season and uninterrupted operation of the transmission system operator in case of a zero-transit scenario. Our legal and negotiation efforts resulted in a new gas transit agreement with Gazprom that incorporates European rules and ensures viable transit volumes. Moreover, Gazprom paid USD 2.9 billion worth of compensation under the terms of the transit award rendered by the Stockholm arbitration tribunal in 2018.

Due to effective cooperation with the Ukrainian government, the regulator, and the Energy Community Secretariat, we attained certification of the independent transmission system operator according to European standards, and retained our economic interest in its gas transit operations. In addition, the successful unbundling of the Gas Transmission infrastructure accelerated the implementation of European energy regulations in Ukraine and gave a powerful impetus to reforms in the energy market.

Further liberalization of the household segment offers Naftogaz growth potential in the short- to mid-term future. Integration with the European market provides Ukrainian consumers the same opportunities that consumers in EU countries experienced for the previous 15 years, leading to lower natural gas prices.

Naftogaz generated UAH 63.3 billion in net profits compared to UAH 11.6 billion in 2018. With net transfers of UAH 121.4 billion to the state budget in taxes and dividends, Naftogaz continued to be the biggest contributor to the state budget.

We continue to face economic headwinds with low prices and reduced demand, but the group is well prepared for the downturn and our financial position is strong. In 2019, we increased our operating cash flow to UAH 110 billion from UAH 71.6 billion in 2018. We also paid an attractive dividend of UAH 48.1 billion for our shareholder, the State of Ukraine. UAH 8.5 billion was paid in 2019 as an interim dividend.

NAFTOGAZ

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Naftogaz Group reports consolidated net profit of UAH 63.3 billion for the year ended 31 December 2019. The 2019 was characterised by:
- 16.1 bcm gas production, 78% share of Ukraine’s total, and 89.6 bcm of gas transit.
- Cash flows generated by operating activities amount to UAH 110 billion, of which UAH 55.7 billion post-tax relates to the Gas Transit Award.
- Unbundling of gas transmission infrastructure completed.
- New 5-year gas transit deal signed with guaranteed revenues and foreign currency inflows.
- Naftogaz issued Eurobonds for an amount of USD 835 million and EUR 600 million.
- Total dividends paid to the State Budget in 2019 exceeded UAH 20 billion, including 90% of net profit for 2018 and interim dividends for 2019.

### SUMMARY OF RESULTS

<table>
<thead>
<tr>
<th>Net profit</th>
<th>63.3 UAH billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment result – Adjusted EBITDA</td>
<td>65.0 UAH billion</td>
</tr>
<tr>
<td>Cash flows generated by operating activities</td>
<td>110.0 UAH billion</td>
</tr>
<tr>
<td>Free cash flows</td>
<td>85.0 UAH billion</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>27.7 UAH billion</td>
</tr>
<tr>
<td>Net debt</td>
<td>42.6 UAH billion</td>
</tr>
<tr>
<td>Gearing, %</td>
<td>10.84%</td>
</tr>
</tbody>
</table>

The above excludes income related to the Gas Transit Award received in 2019.

### PERFORMANCE BY SEGMENT

Integrated gas result reflected lower volumes of gas sales to the different groups of customers due to a warmer winter season and lower gas prices as compared to 2018.

Oil midstream and downstream results were negatively impacted by lower average selling prices for petroleum products and hryvnia appreciation affecting oil transit revenues.

Higher transit volumes in the gas transit segment partly offset the hryvnia appreciation affecting gas transit revenues.

Gas transmission segment reflected higher cost of gas purchased for balancing services, and an increase in provisions for doubtful debts for such services due to lower collection rates.

Gas storage benefited from higher storage tariffs effective from 01 August 2018 and switching to booking capacity instead of paying for exact volume of gas stored.

Ukrnafta’s result were negatively impacted by lower volumes of crude oil and petroleum products sold as compared to 2018.

Other activities relate to impairment losses recognised in respect of accounts receivable in the product sharing agreement with the Arab Republic of Egypt and Egyptian General Petroleum Corporation.
In 2019, the group transferred to the state budget UAH 100.6 billion of taxes, including UAH 22.3 billion of corporate income tax. Additionally, the group paid dividends of UAH 12.3 billion, or 90% of the 2018 net profit, and UAH 8.5 billion of interim dividends for 2019. The group remains the largest net contributor to the state budget of Ukraine.
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INDEPENDENT AUDITOR’S REPORT

To the Shareholder of Joint Stock Company “Naftogaz of Ukraine”:

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Joint Stock Company “Naftogaz of Ukraine” and its subsidiaries (“the Group”), which comprise the consolidated financial position as at 31 December 2019, the consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2019, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (“IFRSs”) and the preparation of the consolidated financial statements comply with the requirements of the Laws of Ukraine “On accounting and financial reporting in Ukraine” (“Law on accounting and financial reporting”).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (“ISAs”). Our responsibilities under those standards are further described in the Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants’ Code of Ethics for Professional Accountants (the “IESBA Code”) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in Ukraine, and we have fulfilled our other ethical responsibilities in accordance with those requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasises of Matters

Operating environment

We draw your attention to Note 2 to the consolidated financial statements, which describes that the impact of the ongoing political and economic situation in Ukraine is unpredictable and may have significant effect on the Ukrainian economy and the operations of the Group. Our opinion is not modified in respect of this matter.

Resolution of disputes with JSC “Gazprom”

We also draw your attention to Note 22 to the consolidated financial statements, which describes final resolution of the Arbitration process between the Group and JSC “Gazprom”, including income recognised under the Gas Transit Arbitration in the amount of USD 2.9 billion (equivalent to UAH 67,958 million). Our opinion is not modified in respect of this matter.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Determining the fair values of property, plant, and equipment

The Group applies revaluation model for its property, plant, and equipment. As discussed in Note 5 “Property, Plant, and Equipment” to the consolidated financial statements, the latest revaluation of property, plant and equipment was made as of 1 October 2019 and as of 31 December 2019 for Gas Transportation System group based on the valuation report of independent professional appraiser. As a result of revaluation the Group recognized the revaluation decrease in the amount of UAH 77,486 million, less the effect of deferred taxes in the amount of UAH 13,947 million.

Why the matter was determined to be a key audit matter

With the involvement of our valuation experts we performed the following procedures:

— Assessing the accuracy of inputs used in the valuation model by tracing them on a sample basis to supporting documents;
— Checking the mathematical accuracy of the model and correctness of the amounts recorded and presented in the consolidated financial statements;
— Assessing completeness and accuracy of the information disclosed in the consolidated financial statements.

Why the matter was addressed in the audit

We assessed the Group’s methodology on the expected credit loss calculation on a collective basis in accordance with the requirements of IFRS 9 “Financial Instruments”.

We tested the Group’s historical data on credit losses incurred based on a sample of trade accounts receivable and performed alternative recalculation of the expected credit losses that are determined on a collective basis.

We also assessed the appropriateness of management’s judgment regarding assessment of expected loss rates and the historical period for which statistics can be used for calculating expected credit losses that are assessed on a collective basis.

We also assessed completeness and accuracy of the relevant disclosures in the consolidated financial statements.

Accounting of the unbundling of gas transportation business

As discussed in Note 2 “Operating environment” in 2019 the Cabinet of Ministers of Ukraine issued the Resolution prescribing Ukrainian Gas Transportation System Operator to be singularly separate for the Group into a separate structure (the “unbundling”). This resolution stipulated the plan for the unbundling that was completed on 1 January 2020. Management concluded that the Gas Transportation Business should be reported as a disposal group held for sale and distribution and discontinued operation in accordance with IFRS 5 “Non-Current Assets Held for Sale and discontinued operations” (the “IFRS 5”) in the consolidated financial statements for the year ended 31 December 2019. The application of IFRS 5 is a key audit matter as the assessment of the classification is complex, the transaction and its accounting is non-routine and involves significant management judgements.

These judgements include, amongst others, the date of classification of the non-current assets as held for sale or distribution, the identification of the disposal group and the presentation of its results as discontinued operations. Classification as a disposal group held for sale and distribution also affects valuation of the assets of the disposal group and presentation in the consolidated financial statements. Refer to Note 21 “Discontinued operations” of the accompanying consolidated financial statements for further details.

We evaluated management’s assessment on the classification of the disposal group as held for sale and held for distribution and the results of the Gas Transportation Business as discontinued operations in accordance with the requirements of IFRS 5.

This included evaluating whether the Gas Transportation Business was classified as a disposal group, assessing the valuation of the assets of the disposal group as the lower of the carrying amount and fair value less cost to sell, the presentation of the assets in the consolidated financial statements and the date from which the Gas Transportation Business is classified as held for sale and distribution.

In addition, we evaluated the accuracy of presentation of the results of the Gas Transportation Business as discontinued operations, the allocated income and expenses including assumptions and estimates made with regard to the allocation.

We obtained approved by the government list of assets related to Gas Transportation Business that should be transferred to a new operator on 1 January 2020 and checked that these assets completeness and accuracy of the relevant disclosures included in the consolidated financial statements.

FINANCIAL OVERVIEW AND STATEMENTS
Management is responsible for the fairness of the consolidated financial statements and the information included therein. The consolidated financial statements in accordance with IFRSs and the Law on Accounting and Financial Reporting, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group’s ability to continue as a going concern, and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group’s financial reporting process.

Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error; and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement resulting from fraud. Our audit is not a guarantee that future events or conditions may not cast significant doubt on the Group’s ability to continue as a going concern.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and related matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period, which constitute the key audit matters included herein. We describe these matters in our auditor’s report, except for the cases when a law or regulation prohibits a public disclosure of a specific matter or, in extremely adverse circumstances, we determine that such an matter should not be addressed in our report, as negative consequences from such a disclosure may predictably outweigh its usefulness for interests of the public.

Report on Other Legal Requirements

We have been appointed as auditor of the Group by the Supervisory Board on 17 September 2019. In view of the previous renewals and reappointments, we conducted audit from 12 September 2019 to the date of this report.

We confirm that the audit opinion is consistent with the additional report to the audit committee.

We confirm that the prohibited non-audited services referred to ISAs or requirements of Article 6, paragraph 4 of Law of Ukraine “On Audit of Consolidated Financial Statements and Audit Activities” were not provided and that the audit engagement partner and audit firm remain independent of the Group in conducting the audit.
CONSOLIDATED STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2019

In millions of Ukrainian hryvnias

<table>
<thead>
<tr>
<th>Note</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Continuing operations:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>3</td>
<td>149,781</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>15</td>
<td>412,014</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating income</td>
<td>16</td>
<td>189,854</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>17</td>
<td>184,862</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance costs</td>
<td>18</td>
<td>-6,959</td>
</tr>
<tr>
<td>Finance income</td>
<td>19</td>
<td>8,267</td>
</tr>
<tr>
<td>Share of after-tax results of associates and joint-ventures</td>
<td>6</td>
<td>28,246</td>
</tr>
<tr>
<td>Net foreign exchange income/(loss)</td>
<td></td>
<td>20,196</td>
</tr>
<tr>
<td><strong>Profit before income tax</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income tax expense</td>
<td></td>
<td>10,734</td>
</tr>
<tr>
<td><strong>Net profit for the year from continuing operations</strong></td>
<td></td>
<td>320,295</td>
</tr>
<tr>
<td>Discontinued operations:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit/(loss) for the year from discontinued operations</td>
<td>21</td>
<td>60,713</td>
</tr>
<tr>
<td><strong>Net profit for the year</strong></td>
<td></td>
<td>2,081</td>
</tr>
<tr>
<td><strong>Net profit/(loss) is attributable to:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners of the Company</td>
<td>65,043</td>
<td>8,696</td>
</tr>
<tr>
<td>Non-controlling interest</td>
<td></td>
<td>2,871</td>
</tr>
<tr>
<td><strong>Net profit for the year attributable to owners of the Company</strong></td>
<td></td>
<td>63,294</td>
</tr>
</tbody>
</table>

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2019

In millions of Ukrainian hryvnias

<table>
<thead>
<tr>
<th>Note</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net profit for the year</strong></td>
<td></td>
<td>63,294</td>
</tr>
<tr>
<td><strong>Other comprehensive (loss)/income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items that will not be reclassified subsequently to profit or loss, net of income tax:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss on revaluation of property, plant and equipment (net of income tax effect of UAH 12,772 million)</td>
<td>11</td>
<td>(UAH 12,772 million)</td>
</tr>
<tr>
<td>Share of other comprehensive income of associates (net of income tax effect of UAH nil)</td>
<td>6</td>
<td>(UAH nil)</td>
</tr>
<tr>
<td>Remeasurement of decommissioning liability (net of income tax effect of UAH 375 million)</td>
<td>13</td>
<td>(UAH 375 million)</td>
</tr>
<tr>
<td><strong>Total comprehensive income/(loss)</strong> for the year</td>
<td></td>
<td>2,081</td>
</tr>
<tr>
<td><strong>Total comprehensive income/(loss) is attributable to:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners of the Company</td>
<td>2,326</td>
<td>2,194</td>
</tr>
<tr>
<td>Non-controlling interests</td>
<td></td>
<td>2,081</td>
</tr>
<tr>
<td><strong>Total comprehensive income/(loss) attributable to owners of the Company</strong></td>
<td></td>
<td>2,081</td>
</tr>
</tbody>
</table>
### CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2019

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit before income tax from continuing operations</td>
<td>4,891</td>
<td>22,831</td>
</tr>
<tr>
<td>Profit/(loss) before income tax from discontinued operations</td>
<td>21.77,360 (2,294)</td>
<td></td>
</tr>
<tr>
<td>Adjustments for:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation of property, plant and equipment and amortisation of intangible assets</td>
<td>34,432</td>
<td>44,560</td>
</tr>
<tr>
<td>Loss on disposal of property, plant and equipment</td>
<td>851</td>
<td>325</td>
</tr>
<tr>
<td>Impairment of property, plant and equipment and intangible assets</td>
<td>17.10,061 (1,466)</td>
<td></td>
</tr>
<tr>
<td>Write down of inventories</td>
<td>2,457</td>
<td>5,781</td>
</tr>
<tr>
<td>Net movement in provision for trade accounts receivable, prepayments made and other assets</td>
<td>21,857</td>
<td>19,361</td>
</tr>
<tr>
<td>Change in provisions</td>
<td>4,751</td>
<td>18,188</td>
</tr>
<tr>
<td>Write off of accounts payable and other current liabilities</td>
<td>(192)</td>
<td>(46)</td>
</tr>
<tr>
<td>Share of after-tax results of associates and joint-ventures</td>
<td>121</td>
<td>1,316</td>
</tr>
<tr>
<td>Net foreign exchange (loss)/gain</td>
<td>(2,414)</td>
<td>(471)</td>
</tr>
<tr>
<td>Finance costs, net</td>
<td>5,419</td>
<td>4,073</td>
</tr>
<tr>
<td>Operating cash flows before working capital changes</td>
<td>160,594 (115,632)</td>
<td></td>
</tr>
<tr>
<td>Decrease in other non-current assets</td>
<td>51</td>
<td>281</td>
</tr>
<tr>
<td>Increase in inventories</td>
<td>(1,089)</td>
<td>(12,408)</td>
</tr>
<tr>
<td>Increase in trade accounts receivable (Increase)/decrease in prepayments made and other current assets (Decrease) /increase in other long term liabilities</td>
<td>(36,305)</td>
<td>(27,162)</td>
</tr>
<tr>
<td>(Increase)/decrease in trade account receivable</td>
<td>(6,493)</td>
<td>7,217</td>
</tr>
<tr>
<td>Provisions paid or used</td>
<td>(265)</td>
<td>15</td>
</tr>
<tr>
<td>(Decrease)/increase in trade accounts payable</td>
<td>(1,167)</td>
<td>(4,134)</td>
</tr>
<tr>
<td>Decrease in advances received and other current liabilities</td>
<td>(155)</td>
<td>14,993</td>
</tr>
<tr>
<td>Cash generated from operations</td>
<td>130,888 (93,871)</td>
<td></td>
</tr>
<tr>
<td>Income taxes paid</td>
<td>(22,796)</td>
<td>(23,901)</td>
</tr>
<tr>
<td>Interest received</td>
<td>1,409</td>
<td>1,673</td>
</tr>
<tr>
<td>Net cash generated by operating activities</td>
<td>110,001 (71,649)</td>
<td></td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from sale of property, plant and equipment</td>
<td>(137)</td>
<td>(13)</td>
</tr>
<tr>
<td>Withdrawal/(placement) of bank deposits</td>
<td>1,500</td>
<td>(1,448)</td>
</tr>
<tr>
<td>Proceeds from sale of the State treasury bonds and other financial</td>
<td>903</td>
<td>253</td>
</tr>
<tr>
<td>investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends received</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Net cash used in investing activities</td>
<td>(24,976)</td>
<td>(25,941)</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from borrowings</td>
<td>43,865</td>
<td>14,304</td>
</tr>
<tr>
<td>Repayment of borrowings</td>
<td>(34,844)</td>
<td>(35,192)</td>
</tr>
<tr>
<td>Interest paid</td>
<td>(5,419)</td>
<td>(5,163)</td>
</tr>
<tr>
<td>Profit share and dividends paid</td>
<td>11,13</td>
<td>(20,754) (29,536)</td>
</tr>
<tr>
<td>Net cash used in financing activities</td>
<td>(17,152)</td>
<td>(55,587)</td>
</tr>
<tr>
<td><strong>Cash and cash equivalents at the beginning of the year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net increase/(decrease) in cash and cash equivalents</td>
<td>67,873 (9,885)</td>
<td></td>
</tr>
<tr>
<td><strong>Cash and cash equivalents at the end of the year</strong></td>
<td>12,759 (23,093)</td>
<td></td>
</tr>
<tr>
<td><strong>Cash and cash equivalents at the end of the year</strong></td>
<td>77,593 (14,309)</td>
<td></td>
</tr>
<tr>
<td>Significant Non-Cash Transactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment for the natural gas purchase by a lending bank</td>
<td></td>
<td>17,699</td>
</tr>
</tbody>
</table>

**Consolidated Statement of Changes in Equity for the Year Ended 31 December 2019**

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transfer of revaluation reserve</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total comprehensive (loss)/income for the year</strong></td>
<td>3,642</td>
<td>(168,057)</td>
</tr>
<tr>
<td><strong>Other comprehensive (loss)/income for the year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Profit for the year</strong></td>
<td>3,642</td>
<td>(171,723)</td>
</tr>
<tr>
<td><strong>Effect of implementation of new standard</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance at 31 December 2019</strong></td>
<td>194,307 (440,973)</td>
<td></td>
</tr>
<tr>
<td><strong>Transfer of revaluation reserve</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Change in investments in joint operations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Profit or dividends payable to the State</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance at 31 December 2018</strong></td>
<td>194,307 (437,307)</td>
<td></td>
</tr>
<tr>
<td><strong>Profit/(loss) for the year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other comprehensive (loss)/income for the year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balance at 31 December 2019</strong></td>
<td>194,307 (411,261)</td>
<td></td>
</tr>
<tr>
<td><strong>Profit/(loss) before income tax from discontinued operations</strong></td>
<td>21.77,360 (2,294)</td>
<td></td>
</tr>
<tr>
<td><strong>Adjustments for</strong></td>
<td></td>
<td></td>
</tr>
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<td>1,673</td>
</tr>
<tr>
<td><strong>Net cash generated by operating activities</strong></td>
<td>110,001 (71,649)</td>
<td></td>
</tr>
</tbody>
</table>
1. THE ORGANISATION AND ITS OPERATIONS

Joint Stock Company “National Joint Stock Company “Naftogaz of Ukraine” (“Naftogaz”, the “Parent” or the “Company”) was founded in 1998 in accordance with the Resolution of the Cabinet of Ministers of Ukraine #747 dated 25 May 1998. According to the Resolution of the Cabinet of Ministers of Ukraine dated 6 March 2019 the Company was changed from Public to Private Joint Stock Company.

Naftogaz is owned by the State of Ukraine. The Cabinet of Ministers of Ukraine executes the State corporate rights of the Company, and the shareholders’ meetings appoints the Supervisory Board that controls and regulates the Executive Board activities.

Naftogaz and its subsidiaries (hereinafter collectively referred to as the “Group”) is a vertically integrated oil and gas group of companies allowing optimisations across our portfolio. We are engaged in exploring for natural gas, the development of new natural gas supplies, the transportation and storage of oil and gas and the sale of natural gas and liquefied petroleum gas to our customers.

The Company holds stakes in various entities that form the national system of production, refining, distribution, transportation, and storage of natural gas, gas condensate and oil.

The Company is registered at 68 Khmelnytskoho Street, Kyiv, Ukraine. These consolidated financial statements were authorised for issue on 6 April 2020.

The Group conducts its business and holds its production facilities in Ukraine. The principal subsidiaries and joint operations are:

<table>
<thead>
<tr>
<th>Name/Type of activity</th>
<th>% Interest held as at 31 December 2019</th>
<th>Subsidiary/ Country of Joint operations registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production of gas, oil and refinery products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ukrgasvyobuvannia, JSC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Ukrnafta, PJSC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Petrosoyan Company, Joint operations with the Arab Republic of Egypt</td>
<td>50.00</td>
<td>Joint operations Ukraine</td>
</tr>
<tr>
<td>Egyptian General Petroleum Corporation (&quot;EGPC&quot;)</td>
<td>100.00</td>
<td>Joint operations Ukraine</td>
</tr>
<tr>
<td>Zakordonnaftogaz, SE</td>
<td>50.00</td>
<td>Joint operations Egypt</td>
</tr>
<tr>
<td>Karpatgaz, LLC, Joint operations with Misen Enterprises AB (Note 22)</td>
<td>49.99</td>
<td>Joint operations Ukraine</td>
</tr>
</tbody>
</table>

Oil and gas transportation

<table>
<thead>
<tr>
<th>Name/Type of activity</th>
<th>% Interest held as at 31 December 2019</th>
<th>Subsidiary/ Country of Joint operations registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukrtransgaz, JSC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Gas Transmission System Operator of Ukraine, LLC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Ukrtransnafta, JSC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Ukerspectransgaz, JSC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
</tbody>
</table>

Wholesale and retail distribution of oil, gas and refinery products

<table>
<thead>
<tr>
<th>Name/Type of activity</th>
<th>% Interest held as at 31 December 2019</th>
<th>Subsidiary/ Country of Joint operations registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas company Naftogaz of Ukraine, LLC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Gas company Naftogaz Trading, LLC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Naftogaz Trading, LLC</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Naftogaz Trading B soccer AG</td>
<td>100.00</td>
<td>Subsidiary Switzerland</td>
</tr>
<tr>
<td>Kryovrazdav, OSIc</td>
<td>51.00</td>
<td>Subsidiary Ukraine</td>
</tr>
<tr>
<td>Ukrtransgaz, SE</td>
<td>100.00</td>
<td>Subsidiary Ukraine</td>
</tr>
</tbody>
</table>

2. OPERATING ENVIRONMENT

In December 2018, the IMF Board of Directors approved the stand-by assistance (SBA) 14-month programme for Ukraine of USD 3.9 billion. In December 2018, Ukraine has already received USD 2 billion from the IMF and the EU, as well as USD 750 million credit guarantees from the World Bank. IMF programme's approval significantly increases the chance of Ukraine to meet foreign currency obligations in 2020, and thus has supported the financial and macroeconomic stability of the country.

In 2020, Ukraine faces major public debt repayments, which will require mobilising substantial domestic and external financing in an increasingly challenging financing environment for emerging markets.

In 2020, Ukraine faces presidential elections in March-April 2019, and then early parliamentary elections in July 2019. The degree of uncertainty in respect of the future direction of the reforms in 2020 remains very high.

In addition, on 16 January 2020, the Parliament of Ukraine adopted the law #465 IX “On changes to other laws of Ukraine in respect of improving tax administration, eliminating technical and logical inconsistencies in tax legislation” and #466-IX “On changes to the Tax Code of Ukraine in respect of improving tax administration, eliminating technical and logical inconsistencies in tax legislation”. These laws introduce numerous changes to the local tax and financial reporting regulations. The Law #465 IX was signed by the President and came into force on 27 February 2020. The Law #466-IX was submitted for signature of the President. The Group is analysing their impact on its tax and financial reporting process for the future periods.

Despite certain improvements in 2019, the outcome of the political reforms and the ongoing effects of the political and economic situation are difficult to predict but they may have further severe effects on the Ukrainian economy and the Group’s business.

In late 2019, news first emerged from China about the COVID-19 (Coronavirus). At 31 December 2019, there was a limited number of cases of an unknown virus reported to the World Health Organisation. The situation changed dramatically in early 2020, when the virus spread globally and its negative impact gained momentum. Management considers the impact of this outbreak to be non-adjusting post balance sheet event. The Group assesses that the situation might potentially result in inability or unfavourable pricing conditions in respect of raising financing on global markets. While this is still an evolving situation, the impact cannot be predicted. Management will continue to monitor the potential impact and will take all steps possible to mitigate any negative effects.

Gas market in Ukraine

The natural gas market of Ukraine is based on the principles of free and fair competition. The State does not interfere in the operations on the market, except when it is necessary to eliminate market constraints or to insure public interest, taking that actions by the State are carried at a minimum sufficient level. Prices for a natural gas supply should be defined between the supplier and the consumer on an arm’s length, except for the certain cases when the Cabinet of Ministers of Ukraine (“CMU”) imposes special obligations (“public service obligations” or “PSO”) on the company in respect of certain groups of customers, mainly households. The currently effective rules of the PSO are described in the Resolution #867 dated 19 October 2018 “On Approval of the Provisions for Imposing Special Obligations on the Natural Gas Market Participants for Ensuring Public Interests in the Natural Gas Market Functioning”. The resolution took effect from 1 November 2018 to 1 May 2020 (”Resolution #867”).

Further in April-May 2019, with the Resolutions #293 and #350, the Cabinet of Ministers of Ukraine changed a mechanism of the gas price setting within the SBA, switching to the lower of:

— the average price of natural gas for industrial consumers for the previous month supplied on a prepaid basis;
— the average customs value of imported natural gas for the previous month, published by the Ministry of Economic Development and Trade;
— the average month-ahead selling price of natural gas according to the results of electronic stock exchange, or
— the price of natural gas set in the Resolution #867.

On 24 January 2020, the Cabinet of Ministers of Ukraine changed a mechanism of the gas price setting within the SBA from 1 January 2020 by Resolution #17. Under the new formula, the wholesale price of natural gas for the current month will include the weighted average price for natural gas for the last two days of the period 1-22 day of the gas supply month, the difference (spread) between the price on TTF hub and Ukrainian border tariff for natural gas transportation services at interstate connections and trade margin.

For customers outside the PSO, imported natural gas is sold under the prices set by the gas market participants. The prices for natural gas set by the Group are differentiated based on the monthly consumption volumes and payment method by the customer.

In November 2016 the Law of Ukraine “On measures to settle the debts for the natural gas consumed by municipal heat generating entities and distribution and water supplying companies” #1730 was adopted. The settling principles for municipal and other non-current assets was UAH 1,693 million (31 December 2018: UAH 1,655 million). Fulfilment of gas debt restructuring agreements according to this Law included in other non-current assets was UAH 1,693 million (31 December 2018: UAH 1,655 million). Fulfilment of gas debt restructuring agreements is guaranteed by municipal executive government bodies representing particular territorial community as set by the separate guarantee agreement.

According to the terms of gas debt restructuring agreements, the Company has a right to terminate them in case of late payments by counterparty. There were no such agreements terminated up to the date of these consolidated financial statements.

Starting from 1 March 2019, the Ukrainian gas market switched to the balancing mode and the mechanisms undertaken by the Ukrainian Government under the Association Agreement with the European Union.

In December 2019, Ukraine has already received USD 2 billion from the IMF and the EU, as well as USD 750 million credit guarantees from the World Bank. IMF programme’s approval significantly increases the chance of Ukraine to meet foreign currency obligations in 2020, and thus has supported the financial and macroeconomic stability of the country.

In March 2019, the National Bank of Ukraine (“NBU”) launched the cycle of easing its monetary policy and a gradual decreasing its interest rate for the first time in the last two years from 18.0% in April 2019 to 10.0% in March 2020, which is justified by a sustainable trend of inflation deceleration.

During 2019, the Ukrainian economy was showing signs of stabilisation after years of political and economic tensions. Inflation rate in Ukraine has decreased to 4.1% during 2019 as compared to 9.8% in 2018, while GDP continued to grow at estimated 3.5% (after 3.3% growth in 2018). After the recent stabilization, Ukrainian hryvnia has strengthened by 17% against EUR and by 14% against USD (Note 26). Among the key mitigating factors for the Ukrainian economy were successful unlocking of the IMF programme at the end of 2018, strong revenues of agricultural exporters, tight UAH liquidity, and steady inflow of foreign currency through government debt instruments.

The prices for natural gas set by the Group are differentiated— the average customs value of imported natural gas for the previous month, published by the Ministry of Economic Development and Trade.

For customers outside the PSO, imported natural gas is sold under the prices set by the gas market participants. The prices for natural gas set by the Group are differentiated based on the monthly consumption volumes and payment method by the customer.

In November 2016 the Law of Ukraine “On measures to settle the debts for the natural gas consumed by municipal heat generating entities and distribution and water supplying companies” #1730 was adopted. The settling principles for municipal and other non-current assets was UAH 1,693 million (31 December 2018: UAH 1,655 million). Fulfilment of gas debt restructuring agreements according to this Law included in other non-current assets was UAH 1,693 million (31 December 2018: UAH 1,655 million). Fulfilment of gas debt restructuring agreements is guaranteed by municipal executive government bodies representing particular territorial community as set by the separate guarantee agreement.

According to the terms of gas debt restructuring agreements, the Company has a right to terminate them in case of late payments by counterparty. There were no such agreements terminated up to the date of these consolidated financial statements.

Starting from 1 March 2019, the Ukrainian gas market switched to the balancing mode and the mechanisms undertaken by the Ukrainian Government under the Association Agreement with the European Union.
Compensation for performing public service obligations

In accordance with Paragraph 7, Article 11 of the Law of Ukraine “On the National Grid”, a gas market player with public service obligations is eligible for compensation of economically justified expenditures incurred by such player, less any income obtained in the course of fulfilling such obligations plus adequate profit margin. The level of profit margin should be calculated following the relevant resolution approved by the Cabinet of Ministers of Ukraine.

In October 2018 the Company initiated a claim to request compensation for damages incurred when the company performed public service obligation during the fourth quarter of 2015. The claim amounts to UAH 6.6 billion. In March 2019 the Kyiv Commercial Court rejected the claim. The Company appealed to this decision and the case is pending at the date of publication of these consolidated financial statements.

At the date of these consolidated financial statements, the Group did not receive any compensation, and therefore did not recognise any income, for performing its public service obligation during 2018 and 2019.

The Group estimates the amount of compensation for performing public service obligations up to 31 December 2019 at the level of UAH 38.2 billion (unaudited) (31 December 2018: UAH 27.1 billion, unaudited). This amount does not include compensation attributable to other gas market players with public service obligations, inter alia “Ukrtransvydobuvannya” JSC. Total amount of compensation to all gas market players named above is UAH 146 billion (unaudited) (31 December 2018: UAH 114 billion, unaudited) according to the Group’s calculations.

Assets located at temporarily occupied territories

In early 2014, Ukraine suffered from the military aggression of the Russian Federation which resulted in the occupation of the Autonomous Republic of Crimea (“Crimea”) and unlawful military take-over of certain areas located in Ukraine. The Group continues to undertake all possible legal and diplomatic measures to be reimbursed for losses and to recover control of the Group’s assets in Crimea (Note 22).

3. SEGMENT INFORMATION

The Executive Board is the Group’s chief operating decision maker. In 2018 the Group started the organisational transformation into an efficient integrated national oil and gas company. Under the new operating model operations of the Group are organised by Business Delivery Units, Business Enabling Units and Functions. Business Delivery Units undertake the Group’s principal activities to achieve its financial and operational goals. Business Enabling Units and Functions support Business Delivery Units in order to maximize the value of the Group.

The Executive Board makes decisions about allocating resources and assessing performance for the following business units:

- Integrated gas. Integrated gas includes gas production, imports, sales and supply to different groups of customers and other byproducts sales. Management identified four main groups of customers in respect of gas sales and supply:
  - Gas production, imports and sales to the regional gas supply companies (“RSC”) for the needs of households,
  - Gas production, imports and supply to the municipal heat generating entities (“MHE”) for the needs of households,
  - Gas production, imports and supply to the other customers under PGO,
  - Gas imports and supply to the other customers outside PGO and byproducts sales.

- Gas midstream and downstream. This segment includes activities related to transportation, sale and supply of oil, gas condensate, petroleum products, and related services. The Group sells purchased and domestically refined petroleum products through filling stations network throughout Ukraine. Domestic refinery of petroleum products is performed at oil and gas refineries controlled by the Group. Oil transit and transmission operations are presented by oil transmission pipelines and 11 oil reservoirs operated by the Group.

- Gas domestic transmission and gas transit. At 31 December 2019 and 2018, management considered gas transit and gas transmission as separate business segments as gas transit is mainly represented by a contract with a single counterparty and was assessed separately.

- Gas domestic transmission segment also included the result of market-based gas balancing operations introduced by the Code of the Gas Transmission System. Market-based gas balancing operations is an activity to balance gas volumes entered into the gas transmission system at entry point and volumes taken out at exit point. Gas balancing services were provided to consumers of gas transmission services. As described in Note 21, on 1 January 2020 current obligations of Naftogaz and “Uktragaz” IIC to operate state-owned gas transmission infrastructure were terminated. The Ministry of Finance of Ukraine transferred state-owned assets related to the gas transmission system to the new transmission system operator under the long-term economic management agreement.

At the end of 2019 the Company, “Gas Transmission System Operator of Ukraine” LLC, and Gazprom signed agreements to prolong the transport of Russian gas through the territory of Ukraine until 2024. In particular, the Company and Gazprom signed an agreement on servicing gas transit through the territory of Ukraine, where gas transit volumes and general terms are set (Note 22).

As at 31 December 2019, gas domestic transmission and gas transit segments are presented as discontinued operations.

- Gas storage. Ukrainian gas transportation system includes 12 underground gas storage facilities located in mainland Ukraine. The total capacity of the underground gas storage system located in Ukraine is 31 billion cubic meters of gas.

- “Ukrnafta” PSC. “Ukrnafta” PSC is the biggest oil producing company in Ukraine. “Ukrnafta” PSC is composed of several production and maintenance units, which are currently in the process of corporate restructuring, including oil and gas production units, one well drilling division and three gas processing plants.

- “Ukrtransvydobuvannya” JSC also owns one of the largest filling stations network in Ukraine located in different regions of Ukraine.

Other. Revenues of this segment include revenues from sales of materials and services. The segment also includes results of joint operations under the concession agreement for exploration and development with the Arab Republic of Egypt.

Adjusted EBITDA is the earnings measure used by the Executive Board for the purposes of making decisions about allocating resources and assessing performance. The earnings measure adjusted operating profit has been retained, and is no longer used to allocate resources and to assess performance, as the Executive Board believes that adjusted EBITDA better reflects segment results.

Adjusted EBITDA represents net profit/(loss) for the year after excluding the following income statement items:

- income tax expense, finance costs, finance income, share of after-tax results of associates, impairment of property, plant and equipment, depreciation of property, plant and equipment and amortisation of intangible assets and income and expenses recognised per results of Gas Transit Arbitration.

Adjusted EBITDA is a measure of operating segment performance and liquidity that is not required by or presented in accordance with IFRS.

Management uses capital expenditures and segment operating cash flows from before working capital changes as measures of both a segment operational efficiency and its short-term financial health. Capital expenditures are presented on a cash basis for these purposes. Respective reconciliations to the closest IFRS measure are presented in this note.

The accounting policies of the reportable segments are the same as the Group’s accounting policies described in Note 26.
Segment information for the reportable business segments of the Group for the year ended 31 December 2019 is as follows:

<table>
<thead>
<tr>
<th>Segment Information</th>
<th>Integrated gas</th>
<th>Oil midstream and downstream</th>
<th>Gas transit</th>
<th>Gas domestic transmission</th>
<th>Gas storage</th>
<th>Ukrnafta</th>
<th>Other</th>
<th>Elimination</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales – external</td>
<td>90,178</td>
<td>11,905</td>
<td>70,207</td>
<td>18,070</td>
<td>727</td>
<td>28,074</td>
<td>691</td>
<td></td>
<td>219,852</td>
</tr>
<tr>
<td>Sales to other segments</td>
<td>24,306</td>
<td>57</td>
<td>-</td>
<td>4,663</td>
<td>2,535</td>
<td>138</td>
<td>5</td>
<td>(31,704)</td>
<td>-</td>
</tr>
<tr>
<td>Total revenue</td>
<td>114,484</td>
<td>11,962</td>
<td>70,207</td>
<td>22,733</td>
<td>3,262</td>
<td>28,212</td>
<td>696</td>
<td>(31,704)</td>
<td>219,852</td>
</tr>
<tr>
<td>Segment result</td>
<td>36,982</td>
<td>1,149</td>
<td>34,322</td>
<td>(9,767)</td>
<td>1,970</td>
<td>2,308</td>
<td>(1,932)</td>
<td></td>
<td>65,032</td>
</tr>
<tr>
<td>Segment assets</td>
<td>224,862</td>
<td>16,634</td>
<td>111,441</td>
<td>14,184</td>
<td>76,724</td>
<td>32,945</td>
<td>7,705</td>
<td></td>
<td>484,495</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>23,702</td>
<td>1,817</td>
<td>349</td>
<td>48</td>
<td>44</td>
<td>1,449</td>
<td>274</td>
<td></td>
<td>27,683</td>
</tr>
<tr>
<td>Segment operating cash flows before working capital changes</td>
<td>41,877</td>
<td>1,533</td>
<td>104,905</td>
<td>6,017</td>
<td>2,008</td>
<td>6,442</td>
<td>(150)</td>
<td></td>
<td>162,032</td>
</tr>
<tr>
<td>Material non-cash items included in segment results:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write down of inventories</td>
<td>1,039</td>
<td>19</td>
<td>1,091</td>
<td>149</td>
<td>-</td>
<td>181</td>
<td>(22)</td>
<td></td>
<td>2,457</td>
</tr>
<tr>
<td>Net movement in provision for trade and other receivables and prepayments made and other current assets</td>
<td>1,805</td>
<td>1</td>
<td>-</td>
<td>35,358</td>
<td>(8)</td>
<td>3,260</td>
<td>866</td>
<td></td>
<td>21,282</td>
</tr>
<tr>
<td>Net foreign exchange loss/(gain)</td>
<td>4</td>
<td>(4)</td>
<td>(631)</td>
<td>3</td>
<td>-</td>
<td>(629)</td>
<td></td>
<td></td>
<td>(1,257)</td>
</tr>
<tr>
<td>Material non-cash items excluded from segment result: Depreciation, depletion and amortisation</td>
<td>5,717</td>
<td>70</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(6)</td>
<td></td>
<td></td>
<td>5,781</td>
</tr>
<tr>
<td>Impairment of property, plant and equipment</td>
<td>2,421</td>
<td>4</td>
<td>-</td>
<td>13,144</td>
<td>86</td>
<td>219</td>
<td>3,287</td>
<td></td>
<td>19,361</td>
</tr>
<tr>
<td>Net foreign exchange loss/(gain)</td>
<td>128</td>
<td>-</td>
<td>73</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td></td>
<td></td>
<td>209</td>
</tr>
<tr>
<td>Material non-cash items excluded from segment results: Depreciation, depletion and amortisation</td>
<td>8,515</td>
<td>1,359</td>
<td>29,912</td>
<td>1,378</td>
<td>1,234</td>
<td>1,539</td>
<td>223</td>
<td></td>
<td>44,160</td>
</tr>
<tr>
<td>Impairment of property, plant and equipment</td>
<td>332</td>
<td>231</td>
<td>859</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>30</td>
<td></td>
<td>1,466</td>
</tr>
</tbody>
</table>
### Reconciliations

The following tables include reconciliations of segment information to the aggregate numbers of the consolidated financial statements, taking into account items which are not directly attributable to a segment.

<table>
<thead>
<tr>
<th>Segment</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales – external</td>
<td>219,852</td>
<td>256,312</td>
</tr>
<tr>
<td>Gas transit revenue reclassified to discontinued operations</td>
<td>(70,207)</td>
<td>(72,347)</td>
</tr>
<tr>
<td>Gas transmission revenue reclassified to discontinued operations</td>
<td>(22,733)</td>
<td>(27,168)</td>
</tr>
<tr>
<td>Gas transmission intersegment revenue eliminated</td>
<td>4,663</td>
<td>2,353</td>
</tr>
<tr>
<td>Intersegment sales to domestic gas transmission and gas transit segments</td>
<td>18,206</td>
<td>25,712</td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td><strong>149,781</strong></td>
<td><strong>184,862</strong></td>
</tr>
</tbody>
</table>

### Segment results

<table>
<thead>
<tr>
<th>Segment result</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment result</td>
<td>65,032</td>
<td>90,901</td>
</tr>
<tr>
<td>Depreciation, depletion and amortisation</td>
<td>(34,432)</td>
<td>(44,166)</td>
</tr>
<tr>
<td>Impairment of property, plant and equipment and intangible assets</td>
<td>(10,018)</td>
<td>(1,466)</td>
</tr>
<tr>
<td>Income recognised per results of Gas Transit Arbitration</td>
<td>67,932</td>
<td>-</td>
</tr>
<tr>
<td>Change in provisions for litigations and other provisions</td>
<td>(121)</td>
<td>(14,409)</td>
</tr>
<tr>
<td>Non-refundable VAT recognised according to the Gas Transit Arbitration</td>
<td>-</td>
<td>(4,751)</td>
</tr>
<tr>
<td>Finance expense, net</td>
<td>(5,419)</td>
<td>(4,073)</td>
</tr>
<tr>
<td>Share of after-tax results of associates</td>
<td>(121)</td>
<td>(1,316)</td>
</tr>
<tr>
<td>Reclassified to discontinued operations</td>
<td>(77,360)</td>
<td>2,294</td>
</tr>
<tr>
<td>Unallocated income/(expense), net</td>
<td>(628)</td>
<td>(1,189)</td>
</tr>
<tr>
<td><strong>Profit before tax from continuing operations</strong></td>
<td><strong>4,891</strong></td>
<td><strong>22,831</strong></td>
</tr>
</tbody>
</table>

### Total assets

<table>
<thead>
<tr>
<th>Segment</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment assets</td>
<td>484,495</td>
<td>578,344</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>10,439</td>
<td>5,119</td>
</tr>
<tr>
<td>Investments in associates and joint ventures</td>
<td>835</td>
<td>1,255</td>
</tr>
<tr>
<td>Cash and bank balances</td>
<td>77,593</td>
<td>14,224</td>
</tr>
<tr>
<td>Unallocated assets</td>
<td>7,218</td>
<td>4,770</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>580,580</strong></td>
<td><strong>603,712</strong></td>
</tr>
</tbody>
</table>

### Net cash generated by/(used in) operating activities

| Segment operating cash flows before working capital changes | 162,022 | 116,765 |
| Working capital changes | (29,707) | (21,761) |
| Income taxes paid | 1,409 | 1,673 |
| Interest received | (1,437) | (1,133) |
| Unallocated cash flows from operating activities | 110,001 | 71,643 |

### Geographical concentration of sales

<table>
<thead>
<tr>
<th>Region</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ukraine</td>
<td>143,182</td>
<td>178,077</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>3,377</td>
<td>3,701</td>
</tr>
<tr>
<td>Egypt</td>
<td>354</td>
<td>505</td>
</tr>
<tr>
<td>Europe</td>
<td>2,868</td>
<td>2,579</td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td><strong>149,781</strong></td>
<td><strong>184,862</strong></td>
</tr>
</tbody>
</table>

Allocation of sales in the table above is made based on the country of residence of the Group's customers.

**External customers concentration, exceeding 10% of total revenues.**

During the years ended 31 December 2019 and 2018, the only external customer with concentration of revenue exceeding 10% of total revenues was Gazprom.

Amount of revenue from Gazprom related to gas transit in 2019 amounted to UAH 70,204 million (2018: UAH 72,344 million).

### 4. BALANCES AND TRANSACTIONS WITH RELATED PARTIES

Parties are generally considered to be related if one party has the ability to control the other party, is under common control, or can exercise significant influence or joint control over the other party in making financial and operational decisions. In considering each possible related party relationship, attention is directed to the substance of the relationship, not merely the legal form.

As described in the Note 1, the Group is ultimately controlled by the Government of Ukraine, and therefore, all state-controlled entities and institutions are considered as related parties under common control.

Transactions with related parties are performed on terms that would not necessarily be available to unrelated parties.

**Transactions with state-controlled entities and institutions.** The Group performs significant transactions with entities and institutions controlled, jointly controlled or significantly influenced by the Government of Ukraine. These entities and institutions include State Savings Bank of Ukraine, Ukreximbank, Ukrgazbank, tax authorities, municipal heat generating entities, regional gas distribution entities and other entities.

For the year ended 31 December 2019, about 31% of the Group’s revenue (2018: 32%) was earned from transactions with the entities controlled, jointly controlled or influenced by the Government of Ukraine. Outstanding trade accounts receivable related to these transactions as at 31 December 2019 and 2018 were about 44% and 43%, respectively, of the total trade accounts receivable balance.

Outstanding accounts payable, advances and other current liabilities with related parties as at 31 December 2019 and 2018 were about 44% and 58%, respectively, of the total balance of these liabilities.

Provisions in respect of the entities controlled by the Government of Ukraine as at 31 December 2019 and 2018 were about 43% and 38%, respectively, of the total provisions. Additionally, the Group recognised provision in respect of the portion of net profit attributable to the State Budget of Ukraine (Notes 11, 13).

As at 31 December 2019 and 2018, about 99% and 96%, respectively, of cash and bank balances were placed in the banks controlled, jointly controlled or influenced by the Government of Ukraine and about 38% of borrowings were provided by these banks (31 December 2018: 76%). About 66% of finance income for the year ended 31 December 2019 related to balances in these banks (2018: 75%) and about 62% of finance costs for the year ended 31 December 2019 (2018: 97%) related to borrowings from these banks.

**Pledges.** As at 31 December 2019 and 2018, borrowings from related parties (State-owned banks) were secured by property, plant and equipment, inventories and proceeds from future sales (Note 12). As at 31 December 2019, about 71% of pledges were related to the borrowings from State-owned banks (31 December 2018: 76%).

Guarantees. Amount of guarantees, provided by the Government of Ukraine, as at 31 December 2019 and 2018 equalled to UAH 2,694 million and UAH 15,443 million, respectively (Note 12).

Transactions with the State are further disclosed in Note 11.

**Key management remuneration.** During 2019 key management personnel consisted on average of 5 Executive Board members and 11 directors (2018: 6 Executive Board members and 9 directors). Compensation to the key management personnel included into other operating expenses consists of salary and additional current bonuses and comprises UAH 343 million in 2019 (2018: UAH 717 million).

During 2019 the Company also insured UAH 35 million of expenses on operations of the Supervisory Board (2018: UAH 53 million). This amount includes UAH 29 million in service fees accrued (2018: UAH 46 million), and UAH 6 million in compensation of expenses insured by the Board members during performance of their duties (2018: UAH 7 million), as well as directors and officers liability insurance procured and paid by the Company to insure the liability of these officers after their appointment.
5. PROPERTY, PLANT AND EQUIPMENT

Movements in the carrying amount of property, plant and equipment were as follows:

<table>
<thead>
<tr>
<th>Exploration, evaluation and drilling assets</th>
<th>Gas and oil transmission system</th>
<th>Underground gas storages</th>
<th>Cuschion gas</th>
<th>Oil transmission system</th>
<th>Gas and oil refineries</th>
<th>Filling stations</th>
<th>Gas distribution assets</th>
<th>LNG transportation</th>
<th>Other fixed assets</th>
<th>Construction in progress</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net book value at</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 December 2017</td>
<td>3,329</td>
<td>94,487</td>
<td>188,534</td>
<td>12,056</td>
<td>150,040</td>
<td>14,479</td>
<td>2,889</td>
<td>4,593</td>
<td>159</td>
<td>168</td>
<td>3,327</td>
</tr>
<tr>
<td>Cost or valuation</td>
<td>3,329</td>
<td>94,487</td>
<td>188,534</td>
<td>12,056</td>
<td>150,040</td>
<td>14,479</td>
<td>2,889</td>
<td>4,593</td>
<td>159</td>
<td>168</td>
<td>3,327</td>
</tr>
<tr>
<td>Accumulated depreciation and impairment</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(24)</td>
<td>21</td>
<td>-</td>
<td>4,247</td>
</tr>
<tr>
<td>Additions and transfers</td>
<td>1,921</td>
<td>12,249</td>
<td>(391)</td>
<td>1,745</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>36,457</td>
<td>-</td>
<td>-</td>
<td>36,457</td>
</tr>
<tr>
<td>Revaluation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>36,457</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>36,457</td>
</tr>
<tr>
<td>Disposals</td>
<td>(101)</td>
<td>(47)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(101)</td>
</tr>
<tr>
<td>Depreciation charge</td>
<td>(908)</td>
<td>(10,731)</td>
<td>(32,242)</td>
<td>(1,228)</td>
<td>(888)</td>
<td>(5,025)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(908)</td>
</tr>
<tr>
<td>Impairment</td>
<td>-</td>
<td>(937)</td>
<td>(70,988)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>159</td>
<td>-</td>
<td>159</td>
</tr>
<tr>
<td><strong>Net book value at</strong></td>
<td>4,241</td>
<td>95,021</td>
<td>85,913</td>
<td>12,573</td>
<td>186,497</td>
<td>8,658</td>
<td>2,077</td>
<td>4,306</td>
<td>152</td>
<td>147</td>
<td>3,639</td>
</tr>
<tr>
<td>Cost or valuation</td>
<td>5,014</td>
<td>106,649</td>
<td>188,162</td>
<td>13,829</td>
<td>186,497</td>
<td>14,571</td>
<td>3,025</td>
<td>4,659</td>
<td>187</td>
<td>189</td>
<td>8,262</td>
</tr>
<tr>
<td>Accumulated depreciation and impairment</td>
<td>(773)</td>
<td>(11,638)</td>
<td>(102,249)</td>
<td>(1,256)</td>
<td>-</td>
<td>(5,913)</td>
<td>(128)</td>
<td>(353)</td>
<td>(35)</td>
<td>(42)</td>
<td>(4,623)</td>
</tr>
<tr>
<td>Additions and transfers</td>
<td>7,646</td>
<td>14,378</td>
<td>761</td>
<td>(1,078)</td>
<td>-</td>
<td>653</td>
<td>1,193</td>
<td>107</td>
<td>12</td>
<td>9</td>
<td>2,720</td>
</tr>
<tr>
<td>Revaluation</td>
<td>(1,530)</td>
<td>(6,571)</td>
<td>38,062</td>
<td>(3,736)</td>
<td>(217,257)</td>
<td>(553)</td>
<td>861</td>
<td>(270)</td>
<td>-</td>
<td>366</td>
<td>-</td>
</tr>
<tr>
<td>Disposals</td>
<td>(14)</td>
<td>(134)</td>
<td>69</td>
<td>-</td>
<td>(1,251)</td>
<td>-</td>
<td>(4)</td>
<td>(1)</td>
<td>-</td>
<td>-</td>
<td>(14)</td>
</tr>
<tr>
<td>Depreciation charge</td>
<td>(1,212)</td>
<td>(12,293)</td>
<td>(19,747)</td>
<td>(900)</td>
<td>(577)</td>
<td>(577)</td>
<td>(149)</td>
<td>(230)</td>
<td>(9)</td>
<td>(17)</td>
<td>(623)</td>
</tr>
<tr>
<td>Impairment</td>
<td>(85)</td>
<td>(57)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(6)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>28</td>
</tr>
<tr>
<td>Reclassification to assets of discontinued operations classified as held for sale and distribution</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(113)</td>
</tr>
</tbody>
</table>

The Group engaged independent appraisers to determine the fair value of its major groups of property, plant and equipment as at 1 October 2019, and as at 31 December 2019 for “Gas transmission system”. The fair value was determined in accordance with International Valuation Standards. Taking into account the nature of the Group’s property, plant and equipment, fair value was determined using depreciated replacement cost for specialised assets, and using market-based evidence for non-specialised assets. The fair value of main producing properties and equipment was primarily determined using depreciated replacement cost. This method considers the cost to reproduce or replace the property, plant and equipment, adjusted for physical, functional and economic depreciation, and obsolescence. The depreciated replacement cost was estimated based on internal sources and analysis of available market information for similar property, plant and equipment (published information, catalogues, statistical data etc), and information from industry experts and suppliers. Impairment loss of property, plant and equipment in amount to UAH 9,206 million (2018: UAH 582 million) was included in other operating expenses (Note 17), and UAH 812 million (2018: UAH 859 million) charged by discontinued operations. In 2019, the depreciation and depletion expenses of UAH 12,945 million (2018: UAH 12,418 million) were included in cost of sales, UAH 945 million (2018: UAH 503 million) in other operating expenses, UAH 1,843 million (2018: UAH 955 million) were capitalised in the cost of property, plant and equipment, UAH 95 million were capitalised in cost of inventories (2018: UAH 875 million), and UAH 20,231 million charged by discontinued operations (2018: UAH 31,065 million).

As at 31 December 2019 and 2018, the Group has pledged its property, plant and equipment with carrying amount of UAH 84 million and UAH 1,239 million, respectively, to secure its borrowings (Note 12).

6. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

The Group’s investments in associates and joint ventures were as follows:

<table>
<thead>
<tr>
<th>Investments in associates</th>
<th>Investments in joint ventures</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 December 2019</td>
<td>2018</td>
</tr>
<tr>
<td>Investments in associates</td>
<td>Investments in joint ventures</td>
</tr>
<tr>
<td>820</td>
<td>1,236</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>835</td>
<td>1,255</td>
</tr>
</tbody>
</table>
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

Details of each of the Group’s associates and joint ventures as at 31 December 2019 are as follows:

<table>
<thead>
<tr>
<th>Name of associate/ joint ventures</th>
<th>Place of incorporation and principal place of business</th>
<th>Proportion of ownership interest</th>
<th>Additional interest acquired</th>
<th>Share of loss</th>
<th>Share of other comprehensive income/(loss)</th>
<th>Dividends received from the associate</th>
<th>Provision for impairment</th>
<th>Carrying amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Gaztransit” PSC</td>
<td>Construction works</td>
<td>Ukraine</td>
<td>40.2%</td>
<td>(74)</td>
<td>137</td>
<td>(4)</td>
<td>(134)</td>
<td>820</td>
</tr>
<tr>
<td>“Ukrtransnafta” PSC</td>
<td>Oil refinery</td>
<td>Ukraine</td>
<td>43.05%</td>
<td>(42)</td>
<td>415</td>
<td>(4)</td>
<td>(295)</td>
<td>15</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>Ukraine</td>
<td>43.05%</td>
<td>(5)</td>
<td>133</td>
<td>(4)</td>
<td>(135)</td>
<td>(295)</td>
</tr>
</tbody>
</table>

Details of each of the Group’s associates and joint ventures as at 31 December 2018 are as follows:

<table>
<thead>
<tr>
<th>Name of associate/ joint ventures</th>
<th>Place of incorporation and principal place of business</th>
<th>Proportion of ownership interest</th>
<th>Additional interest acquired</th>
<th>Share of loss</th>
<th>Share of other comprehensive income/(loss)</th>
<th>Reclassification to other non-current asset</th>
<th>Carrying amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Gaztransit” PSC</td>
<td>Construction works</td>
<td>Ukraine</td>
<td>40.2%</td>
<td>(10)</td>
<td>(32)</td>
<td>-</td>
<td>895</td>
</tr>
<tr>
<td>“Ukrtransnafta” PSC</td>
<td>Oil refinery</td>
<td>Ukraine</td>
<td>43.05%</td>
<td>(1,090)</td>
<td>1,431</td>
<td>-</td>
<td>341</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>Ukraine</td>
<td>43.05%</td>
<td>(216)</td>
<td>-</td>
<td>(29)</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1,116)</td>
<td>1,399</td>
<td>(29)</td>
<td>1,255</td>
</tr>
</tbody>
</table>

All of the above associates are accounted for using the equity method in these consolidated financial statements.

7. OTHER NON-CURRENT ASSETS

In millions of Ukrainian hryvnias

<table>
<thead>
<tr>
<th>31 December</th>
<th>31 December</th>
<th>31 December</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2018</td>
<td>2019</td>
</tr>
<tr>
<td>Accounts receivable on product sharing agreement</td>
<td>4,504</td>
<td>4,793</td>
</tr>
<tr>
<td>Intangible assets</td>
<td>2,999</td>
<td>2,751</td>
</tr>
<tr>
<td>Restructured accounts receivable of gas consumers</td>
<td>2,979</td>
<td>1,645</td>
</tr>
<tr>
<td>Other</td>
<td>2,730</td>
<td>3,545</td>
</tr>
<tr>
<td>Less: provision for impairment</td>
<td>(4,707)</td>
<td>(3,746)</td>
</tr>
<tr>
<td>Total</td>
<td>8,505</td>
<td>8,988</td>
</tr>
</tbody>
</table>

Management estimates the necessity of write-down of inventories to their net realisable value taking into consideration indicators of economical and physical obsolescence. In 2019 write-down adjustment amounted to UAH 679 million was included in cost of sales, UAH 540 million in other operating expenses (Note 17). Intangible assets for the periods from 1 to 20 years and are stated at amortised cost using effective interest rate which at the restructuring dates varied from 15% to 24% per annum. Restructured assets receivable of gas consumers.

As at 31 December 2019 the Company recognised an impairment loss in respect of accounts receivable on product sharing agreement and other non-current assets in other operating expenses amounting to UAH 916 million (2018: UAH 3,069 million) (Note 17).

Restructured accounts receivable of gas consumers.

As at 31 December 2019 the Company recognised an impairment loss in respect of accounts receivable on product sharing agreement and other non-current assets in other operating expenses amounting to UAH 916 million (2018: UAH 3,069 million) (Note 17).

Restructured accounts receivable of gas consumers.

In May 2011, the Law of Ukraine “On certain matters on indebtedness for natural gas and electricity consumed” #3319-VI was approved. According to this Law, accounts receivable due from entities supplying natural gas under the regulated tariff that were originated in 2010, were restructured for the period from 1 to 20 years and are stated at amortised cost using effective interest rate which at the restructuring dates varied from 15% to 24% per annum. In November 2016 the Law of Ukraine “On measures to improve the financial condition of heat generating entities and distribution and water supplying entities and distribution were restructured for 5 years and are stated at amortised cost using effective interest rate which at the restructuring dates varied from 14% to 16% per annum.

As at 31 December 2019 and 2018, inventories with carrying amount of UAH 30,894 million and UAH 43,287 million, respectively, were pledged as collateral for borrowings (Note 12).

Other movements in provision for impairment of non-current accounts receivable relate to reclassification of provision between current and non-current accounts receivable.

 Movements in provision for impairment of non-current accounts receivable were as follows:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January</td>
<td>3,746</td>
<td>758</td>
</tr>
<tr>
<td>Provision for impairment recognised during the year</td>
<td>1,577</td>
<td>3,069</td>
</tr>
<tr>
<td>Reversal of provision for impairment</td>
<td>(22)</td>
<td>(81)</td>
</tr>
<tr>
<td>Balance at December</td>
<td>4,707</td>
<td>3,746</td>
</tr>
</tbody>
</table>

Other movements in provision for impairment of non-current accounts receivable relate to reclassification of provision between current and non-current accounts receivable.

Movements in provision for impairment of non-current accounts receivable were as follows:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>45,847</td>
<td>52,461</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>3,516</td>
<td>5,475</td>
</tr>
<tr>
<td>Crude oil</td>
<td>3,492</td>
<td>2,393</td>
</tr>
<tr>
<td>Spare parts</td>
<td>2,303</td>
<td>1,976</td>
</tr>
<tr>
<td>Raw materials</td>
<td>1,349</td>
<td>1,627</td>
</tr>
<tr>
<td>Other</td>
<td>1,198</td>
<td>1,639</td>
</tr>
<tr>
<td>Total</td>
<td>57,705</td>
<td>65,571</td>
</tr>
</tbody>
</table>

B. INVENTORIES

The Group’s inventories were as follows:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>45,847</td>
<td>52,461</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>3,516</td>
<td>5,475</td>
</tr>
<tr>
<td>Crude oil</td>
<td>3,492</td>
<td>2,393</td>
</tr>
<tr>
<td>Spare parts</td>
<td>2,303</td>
<td>1,976</td>
</tr>
<tr>
<td>Raw materials</td>
<td>1,349</td>
<td>1,627</td>
</tr>
<tr>
<td>Other</td>
<td>1,198</td>
<td>1,639</td>
</tr>
<tr>
<td>Total</td>
<td>57,705</td>
<td>65,571</td>
</tr>
</tbody>
</table>
9. TRADE ACCOUNTS RECEIVABLE

The Group's trade accounts receivable were as follows:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts receivable for natural gas</td>
<td>73,436</td>
<td>74,683</td>
</tr>
<tr>
<td>Accounts receivable for balancing services</td>
<td>44,059</td>
<td>34,009</td>
</tr>
<tr>
<td>Accounts receivable for petroleum products</td>
<td>10,987</td>
<td>3,616</td>
</tr>
<tr>
<td>Accounts receivable for gas transportation services</td>
<td>8,504</td>
<td>9,036</td>
</tr>
<tr>
<td>Accounts receivable for crude oil</td>
<td>7,740</td>
<td>13,693</td>
</tr>
<tr>
<td>Other accounts receivable</td>
<td>2,638</td>
<td>2,630</td>
</tr>
<tr>
<td>Less: provision for impairment</td>
<td>(88,278)</td>
<td>(69,775)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59,056</strong></td>
<td><strong>65,342</strong></td>
</tr>
</tbody>
</table>

Movements in provision for impairment of trade accounts receivable were as follows:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January</td>
<td>69,775</td>
<td>49,919</td>
</tr>
<tr>
<td>Effect of adoption of new standard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision for impairment recognised during the period</td>
<td>22,965</td>
<td>3,666</td>
</tr>
<tr>
<td>Reversal of provision for impairment</td>
<td>(17,574)</td>
<td>(21,773)</td>
</tr>
<tr>
<td>Amounts written off as uncollectible</td>
<td>(1,735)</td>
<td>(138)</td>
</tr>
<tr>
<td>Provision recovered from discontinued operations</td>
<td>15,199</td>
<td>13,462</td>
</tr>
<tr>
<td>Other movements</td>
<td>(32)</td>
<td>46</td>
</tr>
<tr>
<td><strong>Balance at 31 December</strong></td>
<td><strong>88,278</strong></td>
<td><strong>69,775</strong></td>
</tr>
</tbody>
</table>

Other movements in provision for impairment of trade accounts receivable relate to reclassification of provision between current and non-current accounts receivable and to difference in proportion of assets and profits consolidation related to joint ventures of one of the Group’s subsidiaries, recognised in equity movement.

<table>
<thead>
<tr>
<th>Analysis of credit quality of trade accounts receivable as follows:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>31 DECEMBER 2019</strong></td>
</tr>
<tr>
<td>In millions of Ukrainian hryvnias</td>
</tr>
<tr>
<td>Trade accounts receivable – days past due</td>
</tr>
<tr>
<td>Expected credit loss rate, %</td>
</tr>
</tbody>
</table>

| **31 DECEMBER 2018** |
| In millions of Ukrainian hryvnias                                 | Not-past due | 1 - 90 | 91 - 180 | 181 - 270 | 271 - 365 | >365 | Total |
| Trade accounts receivable – days past due                        | 38,830       | 20,443 | 3,998 | 15,828 | 10,107 | 46,511 | 135,717 |
| Provision for impairment                                          | (3,226)      | (3,377) | (1,226) | (7,834) | (8,800) | (46,312) | (69,775) |
| Expected credit loss rate, %                                      | 8%           | 17% | 31% | 49% | 73% | 100% |

10. PREPAYMENTS MADE AND OTHER CURRENT ASSETS

The Group’s prepayments made and other current assets were as follows:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepayments to suppliers for materials, works and services</td>
<td>7,242</td>
<td>10,549</td>
</tr>
<tr>
<td>VAT recovered</td>
<td>3,419</td>
<td>1,950</td>
</tr>
<tr>
<td>Prepayments to suppliers for natural gas</td>
<td>3,007</td>
<td>109</td>
</tr>
<tr>
<td>Receivables under assignment agreements in respect of natural gas sales</td>
<td>1,497</td>
<td>1,618</td>
</tr>
<tr>
<td>Promissory notes receivable</td>
<td>1,429</td>
<td>1,436</td>
</tr>
<tr>
<td>Prepayments for pipelines construction</td>
<td>1,346</td>
<td>1,346</td>
</tr>
<tr>
<td>Taxes prepaid, other than income tax</td>
<td>858</td>
<td>876</td>
</tr>
<tr>
<td>Other</td>
<td>9,723</td>
<td>7,289</td>
</tr>
<tr>
<td>Less: Provision for impairment</td>
<td>(18,634)</td>
<td>(18,285)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,887</strong></td>
<td><strong>6,888</strong></td>
</tr>
</tbody>
</table>

Movements in the provision for impairment were as follows:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January</td>
<td>18,285</td>
<td>18,309</td>
</tr>
<tr>
<td>Provision for impairment recognised during the period</td>
<td>318</td>
<td>179</td>
</tr>
<tr>
<td>Reversal of provision for impairment</td>
<td>(221)</td>
<td>(176)</td>
</tr>
<tr>
<td>Amounts written off as uncollectible</td>
<td>(127)</td>
<td>(118)</td>
</tr>
<tr>
<td>Other movements</td>
<td>379</td>
<td>91</td>
</tr>
<tr>
<td><strong>Balance at 31 December</strong></td>
<td>18,654</td>
<td>18,295</td>
</tr>
</tbody>
</table>

Other movements in provision for impairment relate to reclassification of provision between current and non-current accounts receivable and to difference in proportion of assets and profits consolidation related to joint ventures of one of the Group’s subsidiaries, recognised in equity movement.

11. SHARE CAPITAL

As at 31 December 2019 and 2018, nominal amount of registered, issued and fully paid share capital of the Company was UAH 190,150 million, comprising 190,150,481 ordinary shares, with a par value of UAH 1,000 per share.

As at 31 December 2019 and 2018, share capital of the Company has been adjusted for the effect of hyperinflation in accordance with IAS 29 “Financial Reporting in Hyperinflationary Economies” by UAH 4,157 million.

Therefore the total amount of share capital of the Company as at 31 December 2019 and 2018 was UAH 194,307 million.

Distribution of profits

Profit available for distribution to the shareholders for each reporting period is determined by reference to the stand alone financial statements of the Company prepared in accordance with International Financial Reporting Standards (IFRS). Under Ukrainian legislation, the amount of dividends is limited to net profit of the reporting period or other distributable reserves but not more than retained earnings as per the stand alone financial statements prepared in accordance with IFRS. The Company has to make a decision in respect of dividend distribution by 30 April and to pay the dividend to the State budget by 30 June of the following reporting year. The Cabinet of Ministers of Ukraine approves a percentage of net profit to be distributed each year with a separate resolution. If there is no such resolution available by 30 June, the Company is obliged to distribute 30% of its net profit to the State budget of Ukraine, as set by provisions of the Law of Ukraine “On Management of State Property Objects” #185-V dated 21 September 2006.

According to the Resolutions of the Cabinet of Ministers of Ukraine #461-r dated 24 April 2019, 90% of the net profit of the Company for 2018 amounting to UAH 12,252 million was distributed as dividends. However, the abovementioned resolution was not published by 30 June 2019, and, following the requirements of the Ukrainian legislation, the Company paid 30% of its net profit amounting to UAH 4,084 million to the State budget. After the Cabinet of Ministers of Ukraine published its Resolution #461-r, the Company has additionally paid UAH 8,368 million to the State budget as dividends. In total, during 2019, the Company paid UAH 12,252 thousand, or 90% of its net profit for 2018.

The Company’s policy is to accure a provision in respect of minimum obligatory dividend distribution level of 30% of its net profit. As at 31 December 2019, the Company accrued a provision of UAH 15,197 million in respect of the portion of net profit attributable to the State Budget of Ukraine in current provisions (Note 13). Then, following the Resolution of the Cabinet of Ministers of Ukraine #439-r dated 26 December 2019, the Company has paid UAH 8,500 million out of this amount in December 2019 as dividends per results of 2018.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

12. BORROWINGS

The Group's borrowings were as follows:

<table>
<thead>
<tr>
<th>Borrowing Description</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eurobonds</td>
<td>35,631</td>
<td>-</td>
</tr>
<tr>
<td>Bank borrowings</td>
<td>11,689</td>
<td>11,425</td>
</tr>
<tr>
<td>Unamortised discount</td>
<td>(172)</td>
<td>(126)</td>
</tr>
<tr>
<td>Total non-current</td>
<td>47,248</td>
<td>12,299</td>
</tr>
<tr>
<td>Current bank borrowings</td>
<td>12,178</td>
<td>44,153</td>
</tr>
<tr>
<td>Interest accrued</td>
<td>1,316</td>
<td>547</td>
</tr>
<tr>
<td>Total current</td>
<td>13,514</td>
<td>44,700</td>
</tr>
<tr>
<td>Total</td>
<td>60,662</td>
<td>55,999</td>
</tr>
</tbody>
</table>

In July 2019, the Company issued Eurobonds via Kondor Finance plc (a public company with limited liability incorporated in England and Wales) using the loan participation notes structure. The issue comprises of two tranches: tranche A of EUR 600 million and tranche B of USD 335 million.

In November 2019 the Company issued Eurobonds for an amount of USD 500 million, again with Kondor Finance plc and the loan participation notes structure.

In 2019 the Company has concluded several additional agreements with state-owned banks in respect of changes to the borrowings repayment schedules prolonging their maturities up to 2022 and 2024. The Company has analysed impact of these changes and concluded that they do not represent significant modification to the financial liabilities. Additionally, the Company has fully repaid the loan under the guarantee of the International Bank for Reconstruction and Development in May 2019.

13. PROVISIONS

Movements in provisions for the years ended 31 December 2019 and 2018 were as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance</td>
<td>5,761</td>
<td>5,668</td>
</tr>
<tr>
<td>Provision for dividends payable to the State Budget</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Charged during the year</td>
<td>11,083</td>
<td>3,636</td>
</tr>
<tr>
<td>Unwinding of discount</td>
<td>597</td>
<td>-</td>
</tr>
<tr>
<td>Used or paid during the year</td>
<td>(1,590)</td>
<td>(2,432)</td>
</tr>
<tr>
<td>Remeasurements</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Balance</td>
<td>15,254</td>
<td>7,478</td>
</tr>
<tr>
<td>Non-current</td>
<td>15,254</td>
<td>7,070</td>
</tr>
<tr>
<td>Provision for dividends payable to the State Budget (Note 11)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>[Reversed]/charged during the year</td>
<td>(1,367)</td>
<td>3,886</td>
</tr>
<tr>
<td>Unwinding of discount</td>
<td>221</td>
<td>635</td>
</tr>
<tr>
<td>Used or paid during the year</td>
<td>(1,283)</td>
<td>(3,866)</td>
</tr>
<tr>
<td>Remeasurements</td>
<td>-</td>
<td>1,133</td>
</tr>
<tr>
<td>Reclassification to liabilities of discontinued operations classified as held for sale and distribution</td>
<td>-</td>
<td>(270)</td>
</tr>
<tr>
<td>Balance</td>
<td>12,604</td>
<td>8,996</td>
</tr>
</tbody>
</table>

In millions of Ukrainian hryvnias

The effective interest rates and currency denomination of borrowings were as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance</td>
<td>% per annum</td>
<td>% per annum</td>
</tr>
<tr>
<td>US dollars</td>
<td>24.605</td>
<td>17.829</td>
</tr>
<tr>
<td>UAH</td>
<td>19.075</td>
<td>24.815</td>
</tr>
<tr>
<td>Euro</td>
<td>16,382</td>
<td>13,355</td>
</tr>
<tr>
<td>Total</td>
<td>60,662</td>
<td>55,999</td>
</tr>
</tbody>
</table>

Garnitures. As at 31 December 2019, the Group's borrowings in the amount of UAH 2,694 million were guaranteed by the State (31 December 2018: UAH 15,443 million).

Reconciliation of financial liabilities from financing activities

<table>
<thead>
<tr>
<th>Description</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank borrowings</td>
<td>55,999</td>
<td>(34,893)</td>
</tr>
<tr>
<td>Eurobonds</td>
<td>58,558</td>
<td>(3,521)</td>
</tr>
<tr>
<td>Total</td>
<td>55,999 (Note 18)</td>
<td>(4,508)</td>
</tr>
</tbody>
</table>

Non-cash transactions relate to payment for the natural gas acquired by a lending bank and foreign exchange differences.
Provisions for litigations
The Group is involved in a number of litigations both as a plaintiff and as a defendant. Provision for litigations represents management assessment of the probable outcome of the Group’s resources arising from an adverse outcome of the court and arbitration procedures.

In 2013, “Ukrtransgaz” JSC filed a claim with the Commercial Court of the Kyiv City against Naftogaz stating that seeking the transfer of 4.75 bcm of natural gas to the gas transmission system was acquired without sufficient legal grounds. The claim was granted in 2015 and further upheld by the court of appeal and court of cassation. Then, in 2015, Naftogaz filed an application for revision of the Commercial Court of the city of Kyiv against Naftogaz on newly discovered circumstances, and the latter suspended the proceedings in this case pending finalisation of the proceedings in a related case that also remain suspended. However, as the judgement of the Commercial Court of Kyiv City has entered into force in 2018 in respect of transfer of 1.09 bcm out of 4.75 bcm, and enforcement proceedings are currently ongoing. Naftogaz created a provision in respect of this case amounting to UAH 10,723 million other operating expense in 2018. Change in this provision attributable to 2019 comprises UAH 1,914 millions.

Employee benefit obligations
The Group companies have certain obligations to its employees according to the collective agreements.
Current provisions for employee benefits include provision for performance bonuses and provision for employees’ unused vacations.
Non-current provisions for employee benefits include lump sum benefits payable upon retirement and post-retirement benefit programs. These benefits plans are not funded, and there are no plan assets.

The principal actuarial assumptions used were as follows:

<table>
<thead>
<tr>
<th>Assumption</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal discount rate, %</td>
<td>9.2-9.5</td>
<td>14.0-14.4</td>
</tr>
<tr>
<td>Long-term inflation, %</td>
<td>5.0-6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Nominal salary increase rate, %</td>
<td>5.0-16.0</td>
<td>10.0-26.0</td>
</tr>
<tr>
<td>Staff turnover ratio, %</td>
<td>1.2-8.6</td>
<td>1.4-6.7</td>
</tr>
</tbody>
</table>

The sensitivity of the non-current employee benefit obligations to changes in the principal assumptions is as follows:

<table>
<thead>
<tr>
<th>Assumption</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal discount rate increase/decrease by 1%, %</td>
<td>(8.37)/9.77</td>
<td>(7.56)/8.15</td>
</tr>
<tr>
<td>Nominal salary increase/decrease by 1%, %</td>
<td>7.24/6.45</td>
<td>5.50/5.52</td>
</tr>
<tr>
<td>Staff turnover increase/decrease by 1%, %</td>
<td>(2.83)/2.90</td>
<td>(3.21)/3.39</td>
</tr>
</tbody>
</table>

The sensitivity analysis presented above may not be representative of the actual change in the non-current employee benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.
Furthermore, in presenting the above sensitivity analysis, the present value of the employee benefit obligations has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the obligation recognised in the consolidated statement of financial position.
There were no changes in the methods and assumptions used in preparing the sensitivity analysis from prior years.

Decommissioning provision
In accordance with the legislation requirements, the Group is obliged to restore the lands that underwent changes in the relief structure, environmental state of soils and parent rocks, as well as hydrological regime due to drilling, geological survey, constructing and other works. The decommissioning provision represents present value of decommissioning costs relating to oil and gas properties.
The principal assumptions used for determining the amount of provision for decommissioning of non-current assets were as follows:

<table>
<thead>
<tr>
<th>Assumption</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount rate before tax, %</td>
<td>9.1-9.3</td>
<td>13.8-14.4</td>
</tr>
<tr>
<td>Long-term inflation rate, %</td>
<td>5.0-5.3</td>
<td>6.5-7.6</td>
</tr>
</tbody>
</table>

As at 31 December 2019, the Group has revised calculation of provisions for decommissioning of non-current assets to reflect its current best estimate. As a result, there was an increase in the amount of provision, which is mainly related to the decrease of discount rate, as well as an increase in the market prices of typical works for liquidation of depleted wells.

Provision for fines and penalties
As a result of non-payment and late payment by "Ukrnafta" PJSC of subsoil royalty, income tax and VAT, the Group accrued provision for fines, penalties and late payment interest in respect of such tax liabilities.

<table>
<thead>
<tr>
<th>31 December</th>
<th>31 December</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2018</td>
</tr>
<tr>
<td>Advances for natural gas</td>
<td>1,559</td>
</tr>
<tr>
<td>Advances for natural gas transportation</td>
<td>291</td>
</tr>
<tr>
<td>Advances for oil transportation</td>
<td>278</td>
</tr>
<tr>
<td>Advances received for geophysical surveys</td>
<td>185</td>
</tr>
<tr>
<td>Advances for petroleum products</td>
<td>130</td>
</tr>
<tr>
<td>Other advances received</td>
<td>162</td>
</tr>
<tr>
<td>Total advances received</td>
<td>2,668</td>
</tr>
<tr>
<td>Taxes payable other than income tax</td>
<td>8,891</td>
</tr>
<tr>
<td>Liabilities for purchase of property, plant and equipment</td>
<td>2,246</td>
</tr>
<tr>
<td>VAT payable</td>
<td>2,115</td>
</tr>
<tr>
<td>Wages, salaries and related social charges payable</td>
<td>429</td>
</tr>
<tr>
<td>Dividends payable to non-controlling shareholders of &quot;Ukrnafta&quot; PJSC</td>
<td>428</td>
</tr>
<tr>
<td>Recognised liabilities for litigations</td>
<td>186</td>
</tr>
<tr>
<td>Other current liabilities</td>
<td>1,566</td>
</tr>
<tr>
<td>Total other current liabilities</td>
<td>15,857</td>
</tr>
<tr>
<td>Total</td>
<td>18,462</td>
</tr>
</tbody>
</table>

As at 31 December 2019, taxes payable other than income tax included UAH 8,596 million of subsoil royalty payable (31 December 2018: UAH 10,629 million).

15. Cost of sales
In millions of Ukrainian hryvnias

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of gas supplied</td>
<td>38,401</td>
<td>58,361</td>
</tr>
<tr>
<td>Subsoil royalty and other taxes other than on income</td>
<td>32,870</td>
<td>32,245</td>
</tr>
<tr>
<td>Depreciation, depletion and amortisation</td>
<td>13,057</td>
<td>11,902</td>
</tr>
<tr>
<td>Staff costs and related social charges</td>
<td>6,342</td>
<td>4,806</td>
</tr>
<tr>
<td>Cost of purchased oil and petroleum products</td>
<td>3,804</td>
<td>8,925</td>
</tr>
<tr>
<td>Repair and maintenance costs</td>
<td>2,285</td>
<td>178</td>
</tr>
<tr>
<td>Electricity</td>
<td>1,113</td>
<td>1,169</td>
</tr>
<tr>
<td>Reagents</td>
<td>1,074</td>
<td>1,022</td>
</tr>
<tr>
<td>Other</td>
<td>3,742</td>
<td>4,860</td>
</tr>
<tr>
<td>Total</td>
<td>106,688</td>
<td>123,408</td>
</tr>
</tbody>
</table>

Subsoil royalty and rent tax are calculated with reference to the volume of crude oil, gas condensate or natural gas produced, and volume of crude oil transportation.

16. Other operating income
In millions of Ukrainian hryvnias

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fines and penalties received</td>
<td>923</td>
<td>1,422</td>
</tr>
<tr>
<td>Income from sale of inventories and other current assets</td>
<td>810</td>
<td>1,278</td>
</tr>
<tr>
<td>Income from lease</td>
<td>287</td>
<td>369</td>
</tr>
<tr>
<td>Income from other</td>
<td>191</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>2,482</td>
<td>3,072</td>
</tr>
</tbody>
</table>
17. OTHER OPERATING EXPENSES

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impairment of property, plant and equipment and intangible assets</td>
<td>9,206</td>
<td>582</td>
</tr>
<tr>
<td>Staff costs and related social charges</td>
<td>7,284</td>
<td>6,965</td>
</tr>
<tr>
<td>Net movement in provision for trade accounts receivable, prepayments made and other assets and direct write-offs</td>
<td>6,083</td>
<td>5,809</td>
</tr>
<tr>
<td>Change in provisions for litigations and other provisions</td>
<td>1,773</td>
<td>14,124</td>
</tr>
<tr>
<td>Loss on settling liabilities associated with litigations</td>
<td>1,399</td>
<td>288</td>
</tr>
<tr>
<td>Professional fees</td>
<td>1,220</td>
<td>1,268</td>
</tr>
<tr>
<td>Depreciation and amortisation</td>
<td>1,145</td>
<td>1,195</td>
</tr>
<tr>
<td>Loss on disposal of property, plant and equipment</td>
<td>861</td>
<td>207</td>
</tr>
<tr>
<td>Research, development and exploration costs</td>
<td>646</td>
<td>948</td>
</tr>
<tr>
<td>Write down of inventories to net realisable value</td>
<td>540</td>
<td>63</td>
</tr>
<tr>
<td>Transportation costs</td>
<td>356</td>
<td>334</td>
</tr>
<tr>
<td>Finances and penalties</td>
<td>69</td>
<td>1,035</td>
</tr>
<tr>
<td>Other</td>
<td>6,726</td>
<td>3,991</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37,308</strong></td>
<td><strong>36,280</strong></td>
</tr>
</tbody>
</table>

Additionally to the audit fees related to the compulsory audit as included to the professional fees, are other audit fees for 2019 amounting to UAH 15 million (2018: UAH 15 million).

18. FINANCE COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest expense</td>
<td>5,464</td>
<td>4,713</td>
</tr>
<tr>
<td>Loss on origination of long-term accounts receivable</td>
<td>662</td>
<td>99</td>
</tr>
<tr>
<td>Unwinding of discount on employee benefit obligations</td>
<td>536</td>
<td>464</td>
</tr>
<tr>
<td>Unwinding of discount of decommissioning provision</td>
<td>221</td>
<td>224</td>
</tr>
<tr>
<td>Other</td>
<td>199</td>
<td>258</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,082</strong></td>
<td><strong>5,758</strong></td>
</tr>
</tbody>
</table>

19. FINANCE INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest income on bank deposits and bank balances</td>
<td>1,421</td>
<td>1,672</td>
</tr>
<tr>
<td>Unwinding of discount on long-term accounts receivable and other non-current assets</td>
<td>290</td>
<td>188</td>
</tr>
<tr>
<td>Other</td>
<td>179</td>
<td>245</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,890</strong></td>
<td><strong>2,105</strong></td>
</tr>
</tbody>
</table>

20. INCOME TAX

The components of income tax expense from continuing operations for the years ended 31 December were as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current tax expense</td>
<td>6,132</td>
<td>11,353</td>
</tr>
<tr>
<td>Deferred tax benefit</td>
<td>(3,822)</td>
<td>(4,394)</td>
</tr>
<tr>
<td><strong>Income tax expenses</strong></td>
<td><strong>2,310</strong></td>
<td><strong>6,959</strong></td>
</tr>
</tbody>
</table>

Reconciliation between the expected and the actual taxation charge is provided below:

<table>
<thead>
<tr>
<th>Description</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit before income tax</td>
<td>4,891</td>
<td>20,537</td>
</tr>
<tr>
<td>Income tax at statutory rate of 18%</td>
<td>-800</td>
<td>3,697</td>
</tr>
<tr>
<td>Effect of changes in tax legislation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tax effect of items not deductible or taxable for taxation purposes:</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Non-deductible expenses</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Non-taxable income</td>
<td>2,378</td>
<td>5,375</td>
</tr>
<tr>
<td>Change in unrecognised deferred tax asset</td>
<td>(1,045)</td>
<td>(188)</td>
</tr>
<tr>
<td><strong>Deferred tax benefit</strong></td>
<td>(132)</td>
<td>86</td>
</tr>
<tr>
<td><strong>Income tax expenses</strong></td>
<td><strong>2,310</strong></td>
<td><strong>6,970</strong></td>
</tr>
</tbody>
</table>

The Group is subject to taxation in Ukraine. In 2019 and 2018, Ukrainian corporate income tax was levied on taxable income less allowable expenses at the rate of 18%.
Accordingly, “Gas Transmission System Operator of Ukraine” LLC became a fully-funded independent TSO in Ukraine starting from 1 January 2020.

The major group of assets and liabilities comprising the operations classified as held for sale and distribution are as follows:

As at 31 December 2019, “Ukrtransgaz” JSC sold its own gas required for the system operation to “Gas Transmission System Operator of Ukraine” LLC in amount of UAH 3,851 million payable by the end of January 2020. According to the SPA, the Group retains economic benefits to the GTS system operation to “Gas Transmission System Operator of Ukraine” LLC in amount of UAH 3,851 million payable by the end of January 2020. According to the SPA, the Group retains economic benefits to the GTS

Net deferred tax liabilities as at 31 December 2018 related to the following:

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognised in profit or loss</td>
<td>4,305</td>
<td>5,170</td>
</tr>
<tr>
<td>from continuing operations</td>
<td>7,110</td>
<td>4,425</td>
</tr>
<tr>
<td>Recognised in profit or loss from discontinuing operations</td>
<td>69,611</td>
<td>70,347</td>
</tr>
</tbody>
</table>

As at 31 December 2019 and 2018, unrecognised deductible temporary differences and unused tax losses are as follows:

21. DISCONTINUED OPERATIONS

In accordance with international commitments of Ukraine, the gas transportation activities should be unbundled from the activities of natural gas production and supply. A new operator should possess all possibilities for smooth continuation of the natural gas transportation operations. On 5 February 2019, a new entity was established, “Gas Transmission System Operator of Ukraine” LLC.

According to the Restructuring Plan, in the fourth quarter of 2019 “ Ukrtransgaz” JSC, made a contribution of its own assets related to gas transmission activities to the participatory rights of “Gas Transmission System Operator of Ukraine” LLC.

According to the Restructuring Plan, in the fourth quarter of 2019 “Ukrtransgaz” JSC, made a contribution of its own assets related to gas transmission activities to the participatory rights of “Gas Transmission System Operator of Ukraine” LLC.

On 1 January 2020, 100% of the participatory rights of “Gas Transmission System Operator of Ukraine” LLC were transferred to “Mahistratal gazoprovody Ukrainy” JSC in accordance with the structure agreed by the parties. The Group can’t make precise estimate of variable consideration at this stage, initial payment has been agreed with reference to the market value of assets contributed to the participatory rights of “Gas Transmission System Operator of Ukraine” LLC. In amount of UAH 3,851 million payable by the end of January 2020. According to the SPA, the Group retains economic benefits to the GTS for 15 years from the date of the transfer. In addition, on 1 January 2020, “Ukrtransgaz” JSC sold its own gas required for the system operation to “Gas Transmission System Operator of Ukraine” LLC.

The Group classified these assets as held for sale as at 31 December 2019. On 1 January 2020, “Ukrtransgaz” JSC, transferred its shareholding in the gas transmission system operator under the long-term economic management agreement. The Group classified these assets as held for distribution as at 31 December 2019.

22. CONTINGENCIES, COMMITMENTS AND OPERATING RISKS

Tax legislation. Ukraine’s tax environment is characterised by complexity in tax administering, arbitrary interpretation by tax authorities of tax laws and regulations that, inter alia, can increase fiscal pressure on tax payers. Inconsistent application, interpretation, and enforcement of tax laws can lead to litigation which, as a consequence, may result in the imposition of additional taxes, penalties, and interest, and, these amounts could be material.

Management believes that the Group has been in compliance with all requirements of the effective tax legislation. In the ordinary course of business the Group is engaged in transactions that may be interpreted differently by the Group and tax authorities. Where the risk of outflow of financial resources associated with this is deemed to be probable and the amount is measured with sufficient reliability, the Group provides for those liabilities. Where management of the Group estimates the risk of financial resources outflow as possible, the Group makes a disclosure of these contingent liabilities.

As at 31 December 2019, management estimated possible tax exposures in total amount of UAH 13,516 million. Management believes that it is not likely that any significant settlement will arise from the above cases and, therefore, the Group’s consolidated financial statements do not include any amount of provisions the risk of this respect.

During 2015 “Ukrkraft” PSC was engaged in transactions for petroleum products and crude oil sales, and made prepayments in respect of future supply of petroleum products. In 2017 National Anti-corruption Bureau of Ukraine initiated a claim in the court to declare such
transactions invalid. The Group’s management believes that there is likelihood that certain transactions performed by “Ukrnafta” PJSC were declared invalid in future, leading to additional tax obligations. The Group’s management cannot estimate impact of such potential obligations, as an audit of tax authorities concerning the matters could be challenged in the future. The impact of any such challenge cannot be estimated, however, management believes that it should not be significant.

The Group exports refinery products and transportation services, performs intercompany transactions and is involved in transactions with related parties, which may potentially be in the scope of the new Ukrainian transfer pricing (“TP”) regulations. The Group’s companies have submitted the controlled transaction reports for the year ended 31 December 2018 within the required deadline. The report on controlled transactions for the year ended 31 December 2019 shall be prepared by the Group’s companies by 1 October 2020.

Management believes that the Group is in compliance with TP requirements. As the practice of implementation of the new transfer pricing rules has not yet developed and wording of some clauses of the rules may be subject to various interpretations, the impact of challenge of the Group’s companies transfer pricing positions by the tax authorities cannot be reliably estimated.

Arbitration with Gazprom. On 28 February 2018, the Tribunal rendered the Final Award in respect of the Gas Transit Arbitration, and supported Naftogaz’s position in respect of Gazprom’s counterclaim on reimbursement of VAT payable on compensation for the assets that were unlawfully expropriated in Crimea by the Russian Federation. The Final Award of 28 February 2018 awarded USD 4,674 million to be paid in favour of “Ukrtransgaz” JSC and “Ukrnafta” PJSC, the parties involved in the Gas Transit Arbitration, with the amounts of any underpayment to be calculated at an annual interest rate of 8% calculated from 31 December 2017.

As stated above, after both Final Awards were rendered, Gazprom represented officially declared a refusal to resume deliveries to Ukrainian territory in respect of payments of compensation made in the Gas Sales Arbitration. Additionally, Gazprom was refusing to confirm its intention to settle outstanding amount as decided by the Tribunal in the Gas Transit Arbitration. On 20 April 2018 Gazprom filed a Request for Arbitration to the Arbitration Institute of the Stockholm Chamber of Commerce requesting revision or, alternatively, setting aside of the specific provisions of the Gas Transit and Gas Sales Contracts for 2009-2019 because of alleged imbalance between the parties’ obligations as a result of the stare-decrepue principle. Naftogaz rejected Gazprom’s claims and presented its counterclaims, reserving the right to specify their monetary value later.

Gazprom had also brought a challenge against the Separate Final Awards in both Gas Transit and Gas Sales Arbitration. Naftogaz rejected Gazprom’s claims and presented its counterclaims, reserving the right to specify their monetary value later.

Based on the Transit Final Award and in view of the Gazprom’s failure to comply with the award, in 2018 Naftogaz has moved to arbitration authorities in the Netherlands in order to enforce the 2018 Final Award. In view of the impossibility to continue the joint operation arrangement, the agreement is governed by the English law.

Dispute with the non-controlling shareholders of “Ukrnafta” PJSC. In violation of the validity and subsistence of shareholders agreement. In January 2010 Naftogaz and the non-controlling shareholders of “Ukrnafta” PJSC (“Ukrnafta”) signed a shareholders agreement that included, among other, setting the procedure of electing the Chairman of the Board, appointment of the Executive Board and the Supervisory board members. Under the shareholders agreement until the agreement was amended in April 2019 the Chairman of the Board was to be elected from among the candidates nominated by the non-controlling shareholders, 6 of 11 Ukrtransgaz Supervisory board members, including Chairman, were to be nominated by Naftogaz, and remaining 5 members by the non-controlling shareholders. Under the shareholders agreement, any dispute arising in connection with it is to be resolved exclusively by the London Court of International Arbitration (the shareholders agreement is governed by the English law.)
which it (ii) acknowledged its jurisdiction over the claims, and
declared that (iii) specific provisions of the shareholders agree-
ment are unenforceable as a matter of English law by reason of
their conflict with mandatory provisions of Ukrainian corporate
law, but (iii) any such non-enforceability does not affect the
enforceability of the shareholders agreement as a whole.

In order to bring the terms of the shareholders agreement in
conformity with the Law of Ukraine “On Joint Stock
Companies” Naftogaz, non-controlling shareholders of
Ukrnafta and Ukrnafta concluded the additional agreement to
the shareholders agreement in April 2019, which amended
Article 9 of the shareholders agreement. In particular, the
parties agreed that the Supervisory Board of “Ukrnafta” PLC
consists of 11 members elected by cumulative voting at the
general meeting of shareholders; and includes at least 6
independent directors as requires by the Law of Ukraine “On
Joint Stock Companies”; the chairman of the Supervisory
Board is elected by the Supervisory Board from amongst its
members; proposals for the Supervisory Board candidates
are formed by the parties independently in accordance with
the Ukrnafta’s charter; the chairman of the executive board
and its members are elected by the Supervisory Board. Other
provisions of the shareholders agreement remain unchanged.

Possible transfer of the Company’s equity interest in
the subsidiaries to the State. In 1998, upon creation of
the Company, the Government of Ukraine contributed
shares of joint stock companies to the share capital of the
Company, including “Long-Distance Pipelines Dnubitza”
JSC and “Prydniprovsky Long-Distance Pipeline” JSC (that
were subsequently contributed to “Ukrtransnafta” JSC share
capital). “UKrpetrotransgaz” SE, “Chornomornaftogaz” SE,
“Ukrnafta” OJSC, and fifty four regional gas distribution
entities. The Government of Ukraine may decide to transfer
“Ukrnafta” OJSC, and fifty four regional gas distribution
capital), “Ukrspetstransgaz” SE, “Chornomornaftogaz” SE,
were subsequently contributed to “Ukrtransnafta” JSC share
capital investments performed by the Company would be
automatically, as neither party initiated its termination. As
the State property not subject to privatisation forms an
essential part of the Group’s business, the future operations
and financial performance of the Group depends on the
prolongation of the Agreement. The Group’s management
believes that the Group will continue to operate with this
property in the foreseeable future.

Pursuant to the Agreement, the Company is required,
inter alia, to handle oil and gas transmission and distribution
pipelines owned by the State of Ukraine, keep the state
property in adequate operational condition, and transfer 50% 
shares of joint stock companies to the State.
The amount of such transfer could be reduced by the amount
of capital investments in those assets. The Agreement does
not provide a mechanism of such calculations, and historically
there were no payments from the Company to the State in
respect of using such assets. The Company believes that had
the mechanism for calculating the state share in profits
from using the assets been determined by the State, the
capital investments performed by the Company would be
greater, and no payment in favour of the State would occur.
Accordingly, no liability for such payment was recognised in
these consolidated financial statements.

As described in Note 21, on 1 January 2020 current
obligations of the Company to operate state-owned gas
transmission infrastructure were terminated. On 1 January
2020, the Ministry of Finance of Ukraine transferred state-
owned assets related to the gas transmission system to the
new transmission system operator under the long-term
economic management agreement.

Capital commitments. Capital commitments for purchase of
property, plant and equipment, and exploration and
development of oil and gas fields comprise UAH 6,670 million
as at 31 December 2019 (31 December 2018: 
UAH 15,915 million).

with the State Property Fund of Ukraine, and received oil and
gas transportation system into the operational control. The
Agreement was signed for one year, and its term is prolonged
automatically for one year, unless terminated by notice
from either party, and is binding on the legal successor of
each party. Historically, the agreement has been prolonged
automatically, as neither party initiated its termination.
As the State property not subject to privatisation forms an essential part of the Group’s business, the future operations and financial performance of the Group depends on the prolongation of the Agreement. The Group’s management believes that the Group will continue to operate with this property in the foreseeable future.

Pursuant to the Agreement, the Company is required, inter alia, to handle oil and gas transmission and distribution pipelines owned by the State of Ukraine, keep the state property in adequate operational condition, and transfer 50% share of profits received from using those assets to the State. The amount of such transfer could be reduced by the amount of capital investments in those assets. The Agreement does not provide a mechanism of such calculations, and historically there were no payments from the Company to the State in respect of using such assets. The Company believes that had the mechanism for calculating the state share in profits from using the assets been determined by the State, the capital investments performed by the Company would be greater, and no payment in favour of the State would occur. Accordingly, no liability for such payment was recognised in these consolidated financial statements.

As described in Note 21, on 1 January 2020 current obligations of the Company to operate state-owned gas transmission infrastructure were terminated. On 1 January 2020, the Ministry of Finance of Ukraine transferred state-owned assets related to the gas transmission system to the new transmission system operator under the long-term economic management agreement.

23. FINANCIAL RISK MANAGEMENT

The Group is exposed to a variety of financial risks: market
risk (including currency risk and interest rate risk), concentra-
tion risk (Note 3), credit risk and liquidity risk. According to its
risk management policy the Group identifies, assessed and develops actions to minimise the potential adverse effects on the Group’s financial performance for those risks.

Major categories of financial instruments:

<table>
<thead>
<tr>
<th>Note</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>4,317</td>
<td>4,584</td>
</tr>
<tr>
<td>10</td>
<td>59,056</td>
<td>65,942</td>
</tr>
<tr>
<td>14</td>
<td>1,344</td>
<td>1,189</td>
</tr>
<tr>
<td></td>
<td>27,593</td>
<td>24,224</td>
</tr>
<tr>
<td></td>
<td>436</td>
<td>1,138</td>
</tr>
<tr>
<td></td>
<td>142,546</td>
<td>87,287</td>
</tr>
<tr>
<td></td>
<td>71,800</td>
<td>67,156</td>
</tr>
</tbody>
</table>

Major categories of financial instruments:

<table>
<thead>
<tr>
<th>Note</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>60,662</td>
<td>55,999</td>
</tr>
<tr>
<td>14</td>
<td>(3,952)</td>
<td>(5,441)</td>
</tr>
<tr>
<td></td>
<td>(2,685)</td>
<td>(216)</td>
</tr>
<tr>
<td></td>
<td>71,800</td>
<td>67,156</td>
</tr>
<tr>
<td></td>
<td>71,800</td>
<td>67,156</td>
</tr>
</tbody>
</table>

Market risk. The Group is exposed to market risks. Market
risks arise from open positions in (a) foreign currencies, (b) interest bearing assets and liabilities, and (c) assets and liabilities that are exposed to other price risk.

Currency risk. The Group operates within Ukraine and its exposure to foreign currency risk is determined mainly by purchases of natural gas from foreign suppliers, which are

denominated in USD and EUR. The Group also receives
borrowings in foreign currencies. The Group does not hedge its foreign currency positions.

The Group’s exposure to foreign currency risk is as follows, based on carrying amounts of respective currency assets and liabilities:

<table>
<thead>
<tr>
<th>Note</th>
<th>31 December 2019</th>
<th>31 December 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>37,664</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>(13,041)</td>
<td>(9,791)</td>
</tr>
<tr>
<td>3</td>
<td>37</td>
<td>38</td>
</tr>
</tbody>
</table>
The following table presents sensitivities of profit or loss and equity to reasonably possible changes in exchange rates applied at the reporting date, with all other variables held constant.

<table>
<thead>
<tr>
<th>Impact on profit or loss before income tax</th>
<th>Impact on equity net income tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>In millions of Ukrainian hryvnias</td>
<td>At 31 December 2019</td>
</tr>
<tr>
<td>USD strengthening by 10%</td>
<td>3,767</td>
</tr>
<tr>
<td>USD weakening by 10%</td>
<td>(3,767)</td>
</tr>
<tr>
<td>EUR strengthening by 10%</td>
<td>1,304</td>
</tr>
<tr>
<td>EUR weakening by 10%</td>
<td>1,304</td>
</tr>
</tbody>
</table>

**Interest rate risk.** The Group normally has no significant interest bearing assets, and its income and operating cash flows are substantially independent of changes in market interest rates. The Group’s interest rate risk exposure arises from borrowings at variable interest rates. Borrowings at fixed rate expose the Group to the risk of fair value change of the interest rate.

The Group attracts borrowings at both fixed and floating interest rates. As at 31 December 2019 around 1% of the Group’s borrowings were provided at floating rates (31 December 2018: 24%). The risk of increase in market interest rates is monitored by the Treasury department of the Company. The key objective of managing interest rate risk is to get financing at minimum costs, and match the liquidity needs with the proceeds from borrowings.

The borrowing activities are reviewed on an annual basis. Long-term investing activities and associated funding are considered separately, and are subject to the Government of Ukraine approval. The maturity dates of financial liabilities are further disclosed in this Note. If floating interest rates on USD and EUR denominated borrowings had been 100 basis points higher as at 31 December 2019 with all other variables remaining constant, net profit for 2019 would have been UAH 18 million lower.

**Other price risk.** The Group determines other price risk as risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Exposure to credit risk arises as a result of the Group’s sales of products and other transactions with counterparties giving rise to financial assets.

The Group’s policy is that the customers that wish to pay on credit terms are subject to the solvency check. Significant outstanding balances are also reviewed on an ongoing basis. At the same time, the Group must follow the state regulations within public service obligations in respect of gas sales to certain gas market participants irrespective of whether they are delinquent or not. The Group makes a provision for impairment that represents its estimate of incurred losses in respect of trade accounts receivable. The main component of this provision relates to specific individually significant exposures.

The maximum exposure to credit risk as at 31 December 2019 is UAH 342,546 million (31 December 2018: UAH 87,287 million).

The following table presents credit quality analysis for cash and cash equivalents and cash collateral for participation in the State procurement procedures as at 31 December based on Fitch ratings:

<table>
<thead>
<tr>
<th>Impact on profit or loss before income tax</th>
<th>Impact on equity net income tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>In millions of Ukrainian hryvnias</td>
<td>31 December 2019</td>
</tr>
<tr>
<td>Cash and bank balances</td>
<td>Restricted cash</td>
</tr>
<tr>
<td>A rating</td>
<td>45</td>
</tr>
<tr>
<td>B+ rating</td>
<td>37</td>
</tr>
<tr>
<td>B rating</td>
<td>77,173</td>
</tr>
<tr>
<td>B- rating</td>
<td>950</td>
</tr>
<tr>
<td>No rating</td>
<td>335</td>
</tr>
<tr>
<td>Total</td>
<td>77,593</td>
</tr>
</tbody>
</table>

The Group does not hold any collateral as a security for its credit risks related to financial assets, except for guarantees received in respect of restructuring accounts receivable of gas consumers within the scope of the Law of Ukraine “On measures to settle the debts for the natural gas consumed by municipal heat generating entities and distribution and water supplying companies” #1730 (Note 2). Amount of such collateral as at 31 December 2019 amounted to UAH 1,659 million (31 December 2018: UAH 1,655 million).

**Liquidity risk.** Prudent liquidity management implies maintaining sufficient cash and the availability of funding to meet existing obligations as they fall due. The Group’s objective is to maintain a balance between the continuity of funding and the use of flexible credit terms provided by suppliers and banks. Prepayments are commonly used to manage both liquidity and credit risks. The Group analyses ageing of its assets and maturity of its liabilities and plans liquidity depending on their expected repayment. The Group has capital construction programs which are funded both through existing business cash flows and borrowed funds. Borrowed funds are also used to finance the Group’s working capital needs.

The following table analyses the Group’s financial liabilities by relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date. The amounts disclosed in the table are undiscounted cash flows of principal and interest payments.

The maturity analysis of financial liabilities as at 31 December 2019 was as follows:

<table>
<thead>
<tr>
<th>Impact on profit or loss before income tax</th>
<th>Impact on equity net income tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>In millions of Ukrainian hryvnias</td>
<td>Up to 6 months</td>
</tr>
<tr>
<td>Borrowings</td>
<td>9,501</td>
</tr>
<tr>
<td>Trade accounts payable</td>
<td>5,061</td>
</tr>
<tr>
<td>Advances received and other current liabilities</td>
<td>3,192</td>
</tr>
<tr>
<td>Other long-term liabilities</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>17,954</td>
</tr>
</tbody>
</table>

The maturity analysis of financial liabilities as at 31 December 2018 was as follows:

<table>
<thead>
<tr>
<th>Impact on profit or loss before income tax</th>
<th>Impact on equity net income tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>In millions of Ukrainian hryvnias</td>
<td>Up to 6 months</td>
</tr>
<tr>
<td>Borrowings</td>
<td>31,432</td>
</tr>
<tr>
<td>Trade accounts payable</td>
<td>5,498</td>
</tr>
<tr>
<td>Advances received and other current liabilities</td>
<td>5,400</td>
</tr>
<tr>
<td>Other long-term liabilities</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>42,352</td>
</tr>
</tbody>
</table>

**Gearing ratio.** Consistent with others in the industry, the Group monitors capital on the basis of gearing ratio. Net debt is calculated as total borrowings (current and non-current as shown in the consolidated statement of financial position) less cash and cash equivalents.

The gearing ratio at the end of the reporting period was as following:

<table>
<thead>
<tr>
<th>Impact on profit or loss before income tax</th>
<th>Impact on equity net income tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>In millions of Ukrainian hryvnias</td>
<td>31 December 2019</td>
</tr>
<tr>
<td>Total</td>
<td>60,662</td>
</tr>
<tr>
<td>Less: cash and cash equivalents</td>
<td>(18,099)</td>
</tr>
<tr>
<td>Total Net Debt</td>
<td>42,563</td>
</tr>
<tr>
<td>Total Equity</td>
<td>392,574</td>
</tr>
<tr>
<td>Gearing ratio</td>
<td>0.11</td>
</tr>
</tbody>
</table>
24. FAIR VALUE

International Financial Reporting Standards defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The estimated fair values have been determined by the Group using available market information, where it exists, and appropriate valuation methodologies. However, judgement is necessarily required to interpret market data to determine the estimated fair value. Management used all available market information in estimating the fair value. The estimates presented herein are not necessarily indicative of the amounts the Group could realise in a market exchange from the sale of its full holdings of a particular instrument or pay in the transfer of liabilities.

**Fair value of property, plant and equipment**

Property, plant and equipment are measured at fair value at the end of each reporting period. The following table provides information about how the fair values of these assets are determined (in particular, the valuation techniques and inputs used):

<table>
<thead>
<tr>
<th>Assets</th>
<th>Fair value hierarchy</th>
<th>Valuation techniques and key inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>3</td>
<td>The Group engages professional independent appraisers to determine the fair value of its property, plant and equipment by using a replacement cost method for the majority of groups. The fair value is determined as the cost of construction of these items at current prices less the economic obsolescence and physical tear and wear to date. The main parameter used in this valuation technique are current prices on construction. For items for which there are market analogues (mainly buildings), the sales comparison method is used, the prices of market-based sales of comparable properties in the immediate proximity are adjusted with reference to differences in main parameters (such as floor space of the property). The main parameter used in this valuation technique is the price per square meter of a property. The fair value of cushion gas in case of no economic obsolescence (tested using the income approach) is equal to the replacement cost defined as market price of gas pumped in the underground gas storages adjusted for cost of transportation from the point of sale to the underground storages and costs of its pumping. If economic obsolescence is identified, the value of cushion gas adjusted for economic obsolescence will not be lower than its liquidation cost, determined based on the assumptions of the period of gas withdrawal, volume of gas that is possible to pull up, market price of gas in the relevant periods, average profitability of gas withdrawal and costs of its transportation to the point of sale.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>For the items for which there are market analogues (mainly buildings), the sales comparison method is used, the prices of market-based sales of comparable properties in the immediate proximity are adjusted with reference to differences in main parameters (such as floor space of the property). The main parameter used in this valuation technique is the price per square meter of a property.</td>
</tr>
</tbody>
</table>

The following table summarises property, plant and equipment recognised at fair value after initial recognition using a fair value hierarchy:

| Details of the Group’s property, plant and equipment and information about the fair value hierarchy as at 31 December 2019 are as follows: |
| Description | Group of assets | Valuation technique | Unobservable inputs | Range of unobservable inputs | Interrelationship between key unobservable inputs and fair value measurement |
| Gas transmission system and gas storages | Gas transmission system | Depreciated replacement cost method using the income approach for economic obsolescence determination | Period when transit revenues are received | 2020-2024 | The longer the period of income generation from transit, the higher the fair value |
| Underground gas storages equipment | Underground gas storages equipment | Applicable transit volumes | 65 bcm p.a in 2020 and 40 bcm p.a in the next years (based on a Transportation Organisation Agreement between Naftogaz and Gazprom) | | The higher the volumes, the higher the fair value |
| Cushion gas | Cushion gas | Date of implementation of incentive tariff regulation system | The RBA-based (Regulatory Asset Base) tariffs for transportation services were used for the period 2020-2024. From 2024 onwards tariffs for transportation services were calculated based on the long-term stimulating tariff regulation methodology. The RBA-based tariff for storage are expected from 2030 | | The later the introduction of incentive tariff / entry point fees, the lower the fair value |

31 December 2019

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>4,283</td>
<td>201,264</td>
<td>205,547</td>
</tr>
<tr>
<td>Total</td>
<td>4,283</td>
<td>201,264</td>
<td>205,547</td>
</tr>
</tbody>
</table>

31 December 2018

<table>
<thead>
<tr>
<th>In millions of Ukrainian hryvnias</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>186,497</td>
<td>217,347</td>
<td>403,844</td>
</tr>
<tr>
<td>Total</td>
<td>186,497</td>
<td>217,347</td>
<td>403,844</td>
</tr>
</tbody>
</table>

The Group has transferred cushion gas from Level 2 to Level 3 of the fair value hierarchy on 1 October 2019 due to a change in valuation methodology.
### 25. SUBSEQUENT EVENTS

#### Loans repayment. During January-March 2020 the Group repaid UAH 1,256 million of bank borrowings.

**Gas transmission system operator unbundling.** In accordance with international commitments of Ukraine, gas transportation activities were unbundled from the Group’s activities of natural gas production and supply on 1 January 2020. For more details please refer to Note 21.

#### Purchase of natural gas from “Ukrnafta” PSC. During January 2020 the Company purchased 2.06 billion cubic metres of natural gas from “Ukrnafta” PSC, which the latter received from “Ukrtransgaz” JSC according to a court decision. Further developments of this transaction including settlements among the parties are dependant on receiving PSO compensation from the Government by the Company. The Group can not estimate the impact of this transaction on the consolidated financial statements in future periods because the decision in respect of PSO compensation have not been taken yet.

### 26. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Statement of compliance.** These consolidated financial statements have been prepared in accordance with IFRS.

**Basis of preparation of consolidated financial statements.** This consolidated financial statements have been prepared on the historical cost basis except for property, plant and equipment that are measured at revalued amounts at the end of each reporting period, as explained in the accounting policies below.

**Historical cost** is generally based on the fair value of the consideration given in exchange for goods and services.

**Fair value** is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique.

**Unobservable inputs** are required. (In particular, the valuation techniques and inputs used):
The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the elements of control listed above.

When the Group has a majority of the voting rights of an investee, it still considers whether the voting rights are sufficient to exercise its power over the investee if facts and circumstances indicate that the activities of the investee unilaterally and, thus, has the power over the investee.

The Group considers all relevant facts and circumstances in assessing whether or not the Group’s voting rights in an investee are sufficient to give it power, including:

— The size of the voting rights relative to the size and dispersion of holdings of the other vote holders;
— Potential voting rights held by the Group, other vote holders or other parties;
— Rights arising from other contractual arrangements; and
— Any additional facts and circumstances that indicate that the Group has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders’ meetings.

Business combinations. Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree, and any new equity instruments issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

— Deemed tax assets or liabilities, and assets or liabilities related to employee benefit arrangements are recognised and measured in accordance with IAS 12 “Income Taxes” and IFRS 19 “Share-based Payment”, respectively.

— Liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 “Share-based Payments” and the acquiree’s equity instruments.

— Assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 “Non-current Assets Held for Sale and Discontinued Operations” are measured in accordance with that Standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquiree’s previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquiree’s previously held equity interest, the excess (if any) is recognised immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the equity of the investee if the acquiree’s identifiable net assets are initially measured either at fair value or at the non-controlling interests’ proportionate share of the recognised amounts of the acquiree’s identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

When the consideration transferred by the Group in a business combination includes assets resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments that arise from additional information obtained during the “measurement period” (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within the acquiree as adjustments in other comprehensive income. Contingent consideration classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IFRS 9 “Financial Instruments”, or IAS 37 “Provisions, Contingent Liabilities and Contingent Assets”, as appropriate, with the corresponding gain or loss being recognised in profit or loss.

When a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Goodwill. Goodwill arising on an acquisition of a business is carried at cost as an asset. A business combination unit is less than its carrying amount, the impairment loss is recognised on the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit.

A goodwill impairment loss is not reversed in subsequent periods.

On disposal of a cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Transactions with non-controlling interests. The Group treats transactions with non-controlling interests as transactions with equity owners of the group. For purchases from non-controlling interests, the difference between the consideration paid and the related share acquired of the carrying amount of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

When the Group ceases to have control or significant influence, the retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequent accounting for the retained interest in an associate, joint venture or financial asset, in accordance with IFRS 3 “Business Combinations”. The Group recognises unrealised gains or losses on the disposal of a non-controlling interest in an associate in other comprehensive income, which is subsequently recognised in profit or loss.

The Group accounts for the assets, liabilities, revenues and expenses relating to a joint operation in accordance with the IFRS applicable to the particular assets, liabilities, revenues and expenses.

Interests in associates. Associates are entities over which the Group has significant influence; however, the Group does not control, jointly.

Investments in associates. Associates are entities over which the Group is able to exercise significant influence but not control. Investments in associates are accounted for using the equity method of accounting. The Group’s investment in an associate is initially measured at cost and classified as an equity investment, net of any accumulated impairment loss.

The Group’s share of its associates’ post-acquisition profits or losses is recognised in the consolidated statement of profit or loss, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group’s share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate. Unrealised gains and losses on transactions between the Group and its associates are eliminated.

Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.
all production areas and not used in petroleum operations ("Cost Recovery"). Petroleum products under the Con-
cessions Agreement include crude oil and gas and liquefied petroleum gas ("LPG").

- Remaining 75% of the petroleum produced is shared by the Company and the Government in the production of the volume of production and the product type (crude oil or gas and LPG). The Company’s share varies from 15% to 19%.
- EGPC shall become the owner of all the Company’s assets acquired and owned within the Concession Agreement, which were charged to Cost Recovery by the Company in the year and be carried out by the Company: land shall become the property of EGPC as soon as it is purchased; title to fixed and movable assets shall be transferred gradually from the EGPC to EGPC depending on the Company’s share existence in respect of the related asset, in other words, all repairs and maintenance are charged to Cost Recovery.

**Segment reporting.** Operating segments are reported in a manner consistent with the internal reporting provided to the Group’s chief operating decision maker. Segments whose revenue, results or assets are ten percent or more of all the segments are reported separately. Segments falling below the threshold can be reported separately at management decision.

**Property, plant and equipment.** The Group uses the revaluation model to measure property, plant and equipment, except for other fixed assets and construction in progress which is carried at cost. Fair values based on valuations made by external independent appraisers. The frequency of revaluation depends on the movements in the fair values of the assets being revalued. The independent valuation is based on the fair value of the Group’s major groups of property, plant, and equipment and was performed as at 1 October 2019 and for the group “Gas transmission system” as at 31 December 2018. Subsequent additions to property, plant and equipment are recorded at cost. Cost includes expenditure directly attributable to acquisition of the asset and indirect costs. The cost of self-constructed assets includes the cost of materials, direct labour and an appropriate proportion of production overheads. Cost of acquired and self-constructed assets is amortised over their useful lives.

Any increase in the carrying amounts resulting from revaluations are credited to revaluation reserve in equity through other comprehensive income. Decreases that offset previously recognised increases of the same asset are charged against revaluation reserve in equity through other comprehensive income; all other decreases are charged against the consolidated statement of profit or loss during the financial period in which they are incurred. Gains and losses on disposal determined by comparing proceeds with carrying amount of property, plant and equipment are recognised in the consolidated statement of profit or loss. When revalued assets are sold or disposed, the amounts included in revaluation reserve are transferred to retained earnings.

Property, plant and equipment includes construction assets which are required to be held in the storage facilities for the operating activities of the Group’s subsidiary in transportation of gas and gas storage segments, respectively. Cushion gas is gas intended for maintaining pressure in underground storage facilities of the Group and protecting them from flooding. Cushion gas is considered to be partially recoverable based on an engineering analysis, and it will take several years and costs to pump it up from the storage. When gas is sold, the Company will have to cover costs to liquidate wells and other infrastructure. Cushion gas is revalued when there is an indication that its carrying amount as of the reporting date is materially different from its fair value.

Construction in progress also includes prepayments for property, plant and equipment.

**Exploration expenses.** Exploration expenses comprise costs associated with unproved reserves. These include geological and geophysical costs for the identification and investigation of areas with possible oil and gas reserves and administrative, legal and consulting costs in connection with exploration. They also include all impairments on exploration wells where no proved reserves could be demonstrated.

**Research and development expenses.** Research and development (“R&D”) expenses include all direct and indirect materials, personnel and external services costs incurred in connection with the focused search for new development techniques and significant improvements in products and services and processes and in connection with research activities. Expenses related to research activities is shown as R&D expenses on the interim in which they are incurred.

Development costs are capitalised if the recognition criteria according to IAS 38 “Intangible Assets” are fulfilled.

**Exploration and evaluation assets.** Oil and gas exploration and evaluation expenditures are accounted for using the successful efforts method of accounting.

Expenditures at the exploration stage of hydrocarbon reserves’ exploration and evaluation, including the economic and technical feasibility studies for exploratory field development and advisory services, are recognised as expenses of the period when incurred.

Expenditures directly related to obtaining special rights to extraction of mineral resources reserves are capitalised in cost of licenses for exploration and recognised intangible assets from the date of special rights. Subsequently, the relevant assets are accounted for using the requirements of IAS 38 “Intangible Assets”.

Expenses arising at the stage of field development, including costs of drilling and trenching, leases and depreciation of property, plant, and equipment, are capitalised in construction in progress as exploration and evaluation assets. The assets created are reviewed for impairment on an annual basis. In case the exploratory drilling does not give a result or it is probable that the expenses incurred will not generate revenue, the asset is partially or fully written off against expenses of the period.

In the event a decision is taken on further development of the field and from the date of putting into operation of the first exploration well, the Group classifies the capitalised exploration and evaluation exploration and evaluation costs related to this well as oil and gas extraction assets within property, plant, and equipment in the statement of financial position.

**Depreciation and depletions.** Depreciation is charged to the consolidated statement of profit or loss on a straight-line basis over the useful life of the asset. The useful lives of the Group’s other property, plant and equipment are as follows:

<table>
<thead>
<tr>
<th>Useful lives in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration, evaluation and drilling assets</td>
</tr>
<tr>
<td>Gas and oil pipeline</td>
</tr>
<tr>
<td>Gas transmission system</td>
</tr>
<tr>
<td>Underground gas storages</td>
</tr>
<tr>
<td>Oil transmission system</td>
</tr>
<tr>
<td>Gas and oil operations</td>
</tr>
<tr>
<td>Filing stations</td>
</tr>
<tr>
<td>Gas and oil upstream assets</td>
</tr>
<tr>
<td>LNG transportation</td>
</tr>
<tr>
<td>Other fixed assets</td>
</tr>
</tbody>
</table>

**Construction in progress and cushion gas are not depreciated.**

**Intangible assets.** Intangible assets have definite useful lives and primarily include licenses for exploration and extraction and capitalised computer software. Acquired computer software is capitalised on the basis of the costs incurred to acquire and bring it to use. Intangible assets are carried at cost less accumulated amortisation and impairment losses, if any. If impaired, the carrying amount of intangible assets is written down to the higher of value in use and fair value less costs to sell. Intangible assets are amortised on a straight-line basis to allocate costs of individual assets over their estimated useful lives.

Leases. The Group has adopted IFRS 16 “Leases” (“IFRS 16”) from 1 January 2019. In accordance with the transitional provisions of IFRS 16, comparative figures were not restated. IFRS 16 introduced significant changes to the lessee accounting by removing the distinction between operating and finance leases and requires recognising a right-of-use asset and a lease liability at commencement for all leases.

According to IFRS 16, the Group records assets in the form of the right-of-use and lease liability in the consolidated statement of financial position and measures at the present value of future lease payments discounted to the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate. The recognition of a lease asset and lease liability requires the recognition of a lessee derecognition of assets in the form of the right-of-use and interest on lease liability in the consolidated interim financial statements and profit or loss. Total amount of cash paid to principal are presented within financial activities in the consolidated statement of cash flows and interest is presented within operating activities.

In respect of short-term leases (12 months or less) and lease of low value assets such as (personal laptops and office furniture), the Group records lease payments as an operating expense on a straight line basis over the term of the lease in accordance with the requirements of IFRS 16.

Leases in lessee accounting in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the consolidated statement of profit or loss on a straight-line basis over the period of the lease.

**Decommissioning liabilities.** The Group’s assessment of the decommissioning liabilities is based on the estimated future costs expected to be incurred in respect of decommissioning and site restoration, adjusted for the effect of the projected inflation for the upcoming periods and discounted to the present value. Estimated costs of dismantling and removing an item of property, plant and equipment are added to the cost of the asset if the Group intends to own it, or to a liability if it is acquired, and corresponding obligation is recognised. Changes in the measurement of an existing decommissioning liability, that result from the revaluation of the liability, that are a result of changes in the discount rate or amount of the outflows, or from changes in the discount rate used for measurement, are recognised in the consolidated statement of profit or loss or, to the extent of any revaluation balance existence in respect of the related asset, in other comprehensive income or loss. Provisions in respect of decommissioning activities are evaluated and re-estimated annually, and are included in the consolidated financial statements at each reporting date at their expected present value, using discount rates which reflect the economic environment in which the Group operates.

Interest expense related to the provision is included in finance costs in profit or loss.

**Impairment of non-financial assets.** Assets are reviewed for impairment when events or circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which...
the assets carrying amount exceeds its recoverable amount. The recoverable amount is the higher of fair value less cost to sell and value in use. A published estimate of an impairment, assets are grouped to the lowest levels for which there are separately identifiable cash flows (cash generating unit). Non-financial assets that are impaired are reviewed for possible reversal of the impairment at each reporting date. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease. When an impairment loss subsequently reverses, the carrying amount of the asset (or a cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

Financial Instruments. The Group has adopted IFRS 9 from 1 January 2018. Financial assets and financial liabilities are initially measured at fair value. The Group’s principal financial instruments comprise borrowings, cash and bank balances, trade accounts receivables and trade accounts payables. All purchases and sales of financial instruments that require delivery within the timeframe established by regulation or market convention (“regular way” purchases and sales or a similar transaction) are recognised on the date of the transaction, which is the date that the Group commits to deliver a financial instrument. All other purchases and sales are recognised on the settlement date.

Classification and subsequent measurement of financial assets. Financial assets are subsequently measured at amortised cost or fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to either collecting contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding, are generally measured at amortised cost at the end of subsequent accounting periods. Debt instruments that are held within a business model whose objective is achieved both by collecting contractual cash flows, and selling financial assets, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding, are measured at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value. Specifically, debt investments that are held within a business model whose objective is to hold debt investments with a view to holding at fair value at fair value at fair value.
due to the passage of time is recognised as a finance cost.
material, provisions are discounted using a current pre-tax
reimbursement. If the effect of time value of money is
when the reimbursement is virtually certain.
for example under an insurance contract, the
obligation and a reliable estimate can be made of the amount
recognised and initially measured under the policy for
Trade accounts payable.
— Identify the contract with the customer;
— Identify the performance obligations in the contract;
— Determine the transaction price;
— Allocate the transaction price to the performance obligations in the contracts;
— Recognise revenue when (or as) the entity satisfies a performance obligation.

Revenue recognition. The Group has adopted IFRS 15
Revenue from contracts with customers from 1 January 2018. In accordance to IFRS 15, revenue is recognised to depict the
transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.
A 5-step approach to revenue recognition is used by the Group:

Trade accounts payable. Trade accounts payable are recognised when the goods or services are delivered and the customer
receives the goods or services. The Group recognises revenue when services are rendered, and is confirmed by gas
transmission system operator.

Revenue gross versus net presentation. When the Group acts as a principal, revenue and cost of sales are reported on a gross
basis. If the Group sells goods or services as an agent, revenue is recorded on a net basis, representing the margin/consideration earned. Whether the Group is considered to be a principal or an agent in a transaction depends on the analysis of both legal form and substance of the agreement the Group enters into.

Recognition of expenses. Expenses are recorded on an accrual basis. Cost of sales comprises the purchase price, transportation costs, commissions relating to supply agreements and other related expenses.

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Revenue recognition.

Revenue from contracts with customers.

Revenue gross versus net presentation.

Trade accounts payable.

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significant judgement is needed in assessing an appropriate discount rate. Key assumptions are presented in Note 13. Decommissioning provision represents the present value of the decommissioning costs relating to oil and gas properties, which are expected to be incurred in the future. These provisions were recognised, based on Group’s internal estimates.

Main estimates include future market prices for the necessary decommissioning costs, and are based on market conditions and factors. Additional uncertainties relate to the timing of the decommissioning costs, which depends on depletion of the gas and oil reserves and as a result – expected point of time, when there are no further economic benefits in the production.

Changes in the estimates may lead to the material changes in the provisions recognised in the consolidated statement of financial position.

Depreciation of the oil and gas assets. Oil and gas assets are depreciated using a unit-of-production method. The cost of the wells is amortised based on the proved volumes of available reserves, estimated in accordance with the standards of the Petroleum Resource Management System (PRMS) prepared by the Oil and Gas Reserves Committee of Society of Petroleum Engineers (SPE). The estimation of hydrocarbons reserves is carried out in general on the field. Respectively, all wells of the field are depreciated based on the total volume of extracted from the field specific type of hydrocarbons for the period and the balances of reserves of such hydrocarbons at the beginning of the period. Changes in estimates regarding the volumes of either downward or upward, can result in the change of depreciation and depletion expenses.

Estimation of oil and gas reserves. Reserves are the quantities of oil and gas which are anticipated to be commercially recovered from known accumulations from a given date forward under defined conditions. Proved and probable reserves used in depletion rate calculation are determined using estimates of known oil and gas reserves, recovery factors, operating conditions, future oil and gas prices and government regulations. Latest assessment of gas reserves was performed as at 1 July 2019, and latest assessment of oil reserves was performed as at 1 April 2019. Reserves estimates involve some degree of uncertainty, and their estimates are revised as additional geologic and engineering data becomes available or economic conditions change. Accordingly, depletion rates and discounted cash flows for revaluation and impairment of property, plant and equipment may also be revised.

Revaluation and impairment of property, plant and equipment. Management performs assessment whether carrying amounts of property, plant and equipment accounted under the revaluation model, differ materially from their fair values. Such assessment is performed on an annual basis, and involves analysis of prices, price indices, changes in technology, foreign exchange rates and other relevant factors. In case such assessment identifies that carrying amounts of items of property, plant and equipment differ materially from their fair values, management engages independent appraisers to perform property, plant and equipment revaluation.

Revaluation of the major groups of property, plant and equipment was made by the independent appraisers at as 1 October 2019, and as at 31 December 2019 for “Gas transmission system”. Major assumptions used in estimating the recoverable amount include judgements regarding discount rates, UAH/EUR exchange rates, and estimated changes in volumes of gas and oil transit and transport that the Group has determined for the discount rate by using the after tax rate that reflects current market investment rates with similar risk levels. To project UAH/EUR exchange rate, the Company has used consensus forecasts of analytical agencies. Movements in the volumes of gas and oil transit and transport are based on the assumptions regarding industry developments and expectations on further market changes. Cash flow forecasts are based on the assumptions outlined in the table below for the next five years and the terminal value determined based on indicators for the last of five years.

Numerical values of key judgments of the Group’s management reflect their estimation of future business trends; they are based on both internal and external sources of the Group.

In making the assessment for general impairment, assets that do not generate independent cash flows are allocated to an appropriate cash-generating unit. Indicators of a potential impairment include analysis of market conditions, asset utilisation and the ability to utilise the asset for alternative purposes. If an indication of impairment exists, the Group estimates the recoverable value (greater of fair value less cost to sell and value in use) and compares it to the carrying value, and records impairment to the extent the carrying value is greater than the recoverable amount.

Useful lives of other property, plant and equipment. The Group’s property, plant and equipment, except oil and gas assets are depreciated using straight line method over their estimated useful lives, which are based on management’s business plans and operational estimates.

The Group revalues the estimated useful lives of property, plant and equipment at the end of each annual reporting period. The review is based on the current condition of the assets and the estimated period during which they will continue to bring economic benefit to the Group. Any change in the estimated useful life is recorded on a prospective basis from the date of change. Impairment of trade accounts receivable. Management estimates the likelihood of the collection of trade accounts receivable based on an analysis of individual accounts. Factors taken into consideration include an ageing analysis of trade accounts receivable in comparison with the payment history, credit terms allowed to customers and available market information regarding the counterparty’s ability to pay. Should actual collections be less than management’s estimates, the Group would be required to record an additional impairment expense.

Inventory valuation. Inventory is stated at lower of cost or net realisable value. In assessing the net realisable value of its inventories, management bases its estimates on various assumptions including current market prices. At each reporting date, the Group evaluates its inventory against the carrying amounts and records an allowance to reduce inventories for obsolete and slow-moving goods.

If the costs of producing and bringing the goods to their current location and condition exceed the net realisable value, the excess amount is charged to the profit and loss account. If the net realisable value is greater than the costs of producing and bringing the goods to their current location and condition, the excess amount is credited to the profit and loss account. Management accepts that adoption of new Standards and Interpretations in future periods will not have a material effect on the consolidated financial statements of the Group in future periods.


demands. In Note 21, on 31 December 2019 the Group reclassified assets related to gas transmission activities as assets of discontinued operations classified as held for sale and distribution. Management considered the assets to meet the criteria to be classified as held for sale and distribution at that date and that sale of distribution and assets was highly probable and assets became available for sale and distribution in their current condition for the following reasons:

– all conditions, prescribed in the CMU Resolution “On Unbundling of Natural Gas Transmission Activity and Enabling Activity of Transmission System Operator” #BAO dated 18 September 2019 to unbundles gas transmission activities on the 1 January 2020 were met;
– gas transit agreement between Naftogas and Gazprom, limiting the ability to unbundle gas transmission activities and transfer the respective assets, was terminated on 1 January 2020;
– on 24 December 2019 “Gas Transmission System Operator of Ukraine” LLC was granted the license for natural gas transportation activities effective from 1 January 2020.

For more details on the discontinued operations, refer to Note 21.

28. ADOPTION OF NEW OR REVISED STANDARDS AND INTERPRETATIONS

Adoption of new and revised International Financial Reporting Standards. The following standards have been adopted by the Group for the first time for the financial year beginning on or after 1 January 2019:

– IFRS 16 “Leases”;
– IFRS 17 “Insurance Contracts”;
– Amendments to IFRS – Annual Improvements to IFRS 2015 – 2017 Cycle;
– Amendments to IFRS 9 “Financial Instruments”: Prepayment Features with Negative Compensation;
– Amendments to IAS 28 “Investments in Associates”; Long-term interests in Associates and Joint Ventures;
– Amendments to IAS 19 “Employee Benefits”: Plan Amendment, Curtailment or Settlement.

Except the changes related to adoption of new standard IFRS 16 “Leases” (“IFRS 16”) described below, the adoption of amendments to standards did not have any effect on the financial position or performance reported in the consolidated financial statements and had not resulted in any changes to the Group’s accounting policies and the amounts reported for the current or prior years.

With the effect from 1 January 2019, the Group has changed its accounting policy for recognition and accounting of lease according to IFRS 16 as described in Note 26.

The Group has made use of the practical expedient available on transition to IFRS 16 not to reassess whether a contract is or contains a lease. The application of IFRS 16 did not have significant impact on the consolidated financial position and/or consolidated financial performance of the Group.

Standards and Interpretations in issue, but not yet effective. At the date of authorisation of these consolidated financial statements, the following Standards and Interpretations, as well as amendments to Standards were in issue but not yet effective:

– Amendments to References to the Conceptual Framework in IFRS Standards;
– Amendments to IFRS 3 “Business Combinations”: Definition of a Business;
– Amendments to IAS 1 “Presentation of Financial Statements” and IAS 8 “Accounting Policies, Changes in Accounting Estimates and Errors”: Definition of Material;
– Amendments to IAS 1 “Presentation of Financial Statements”: Classification of Liabilities as Current or Non-Current;
– Amendments to IFRS 10 “Consolidated Financial Statements” and IAS 28 “Investments in Associates”: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture.

Effective for annual accounting period beginning on or after
The Annual Report covers information on the main aspects of the Naftogaz Group’s activities in 2019. The company regularly prepares and publishes annual reports, as it is important for it to transparently disclose information about the results of the Naftogaz Group, its impact on society and the environment. The Annual Report for 2019 is the fifth report prepared in accordance with GRI Standards.

The report was prepared in accordance with the principles of the GRI Standards for defining the report quality: accuracy, balance, clarity, comparability, reliability, timeliness. In identifying significant topics for disclosure in the report, the company was guided by the principles of the GRI Standards for determining the content of the report, namely:

**SUSTAINABILITY CONTEXT**

In its annual report, Naftogaz Group discloses information about its activities, covering, in addition to economic topics, social issues and environmental impact issues. The Company seeks to disclose the impacts of its activities in the broad context of sustainable development. The report covers information on the direct and indirect impacts of the company on local communities, the country and the world in general. The report describes both positive and negative aspects of sustainable development, including possible ways and progress to address them.

**STAKEHOLDER INCLUSIVENESS**

During the preparation of the annual report, considerable attention is paid to the interests and priorities of stakeholders, interaction with them is based on the current “Stakeholder Interaction Procedure”, which is published on the Naftogaz Group’s website. The procedure regulates the main provisions, forms, principles of interaction with a specific list of stakeholder groups and methods of interaction with them is provided in the Naftogaz Group’s 2017 annual report.

**MATERIALITY**

Significant topics of the Naftogaz Group’s activities are, first of all, those issues that reflect the significant impacts of the company’s activities on economic, social and environmental issues and are important for stakeholders. The list of relevant topics for inclusion in the report takes place in the process of interaction with stakeholders. This is followed by an assessment of the identified significant topics in terms of their impact on sustainable development and importance for the company, using the following tools:

- Analysis of the external information field of the company;
- Analysis of annual reports and reports in the field of sustainable development of similar companies in Ukraine and abroad;
- Questionnaire of internal structural subdivisions and subsidiaries of Naftogaz Group;
- Consultations with the top management representatives of the company;
- Analysis of international standards, agreements, resolutions in the field of sustainable development, for example, the UN Sustainable Development Goals.

In the process of defining the boundaries of coverage of each significant topic, a list of structural and organizational units of the Naftogaz Group (subsidiaries, joint ventures) that have an impact on each of the significant topics is compiled. The results of their activities are noted in the report when describing the significant topics on which they have an impact. This provides a thorough coverage of the impact of the Naftogaz Group on significant topics.

The number and list of relevant topics is reviewed annually and updated as necessary. Significant topics of Naftogaz Group’s activities in 2019 and their boundaries are listed in the table below.

**COMPLETENESS**

Naftogaz Group defines the list of significant topics and the limits of their coverage so that the information presented in the report covers all important aspects of the company’s activities. The content of the report reveals primarily information about the company’s activities in the reporting period (in this case – 2019). However, one of the factors in the completeness of information disclosure is the report’s coverage of short-term, medium-term and long-term results, impacts and goals.

Thus, the company ensures the appropriate level of completeness of disclosures in the report so that all stakeholders can review and analyze all significant impacts of the Naftogaz Group on economic, social and environmental aspects, draw their own conclusions based on structured transparent information.

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**MATERIAL GRI TOPICS AND BOUNDARIES**

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<td>Indirect economic impacts</td>
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# Material Topics Under GRI Standard

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### Material topic Disclosure number Disclosure name Page number Report section and comments

#### Economic Disclosures on management approach 55 Strategy and operations

201-1 Direct economic value generated and 55 Strategy and operations

201-4 Financial assistance received from government - Naftogaz did not receive financial support from the government in the reporting period

#### Environmental Disclosures on management approach 159 Investing in energy efficiency

302-1 Energy consumption within the organization 159 Investing in energy efficiency

Naftogaz uses standards, methodologies and assumptions, which are governed by regulations of Ukraine in energy saving and energy efficiency

302-3 Energy intensity 159 Investing in energy efficiency

302-4 Reduction of energy consumption 159 Investing in energy efficiency

Fuel and energy savings were calculated relative to planned targets

#### Water Disclosures on management approach 163 Environmental protection

303-1 Water withdrawal by source 163 Environmental protection

303-3 Water recycled and reused 163 Environmental protection

Indicator has been partially disclosed

#### Biodiversity Disclosures on management approach 163 Environmental protection

304-2 Significant impacts of activities, products, and services on biodiversity 163 Environmental protection

Indicator has been partially disclosed

#### Emissions Disclosures on management approach 163 Environmental protection

305-1 Direct (Scope 1) GHG emissions 163 Environmental protection

GHG emission in CO2-equivalent was calculated based on Global warming potential coefficients, IPCC Second Assessment Report (100-years period)

305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions 163 Environmental protection

#### Specific disclosures

#### Economic

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<td>102-53</td>
<td>Contact point for questions regarding the report</td>
<td>-</td>
<td>Aliona Osmylovskaya, Naftogaz Group director of GR and stakeholder relations Tel: +380 44 586 3579 Mob: +380 73 335 80 53 <a href="mailto:press@naftogaz.com">press@naftogaz.com</a> 6 B. Rihniytskoho st. Kyiv, 01603, Ukraine <a href="http://www.naftogaz.com">www.naftogaz.com</a> <a href="http://www.naftogaz-europe.com">www.naftogaz-europe.com</a></td>
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<td>Claims of reporting in accordance with the GRI Standards</td>
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<td>Indicator has been partially disclosed</td>
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CONTACTS

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DECLARATIONS

Some statements in this document may be deemed to be “forward looking statements”. Forward looking statements include statements concerning Naftogaz’s plans, objectives, goals, strategies, future operating and performance assumptions, underlying these forward-looking statements Naftogaz used the words “involved”, “intends”, “expects”, “believes”, “estimates”, “projects”, “will”, “should” and any similar expression to identify forward-looking statements. Naftogaz has based these forward-looking statements on the current views of Naftogaz’s management with respect to future events and financial performance. Naftogaz uses the words “anticipates”, “estimates” or “projected” in these forward-looking statements. These forward-looking statements speak only as of the date of this document. As a result of these risks, uncertainties and assumptions, a reader should not place undue reliance on these forward looking statements.

MARKET AND REFORMS

Strategy and Operations

2019

Financial Overview and Statements

Terms and Abbreviations

Naftogaz Group

2019

Annual Report

Financial Statements

Naftogaz Group

2019

Annual Report

Naftogaz Group

2019

Annual Report

Naftogaz Group