Hydrocarbon production

In 2018, the Company strengthened its leadership as Russia’s Top 3 hydrocarbon producer. Its total output (including shares in joint ventures) increased 3.5% y-o-y to 92.88 mtoe. The average daily production across the Group amounted to 254.45 ktoe (up 3.5%).

Major contributors to the growth of production were Gazprom Neft’s large fields in development (Prirazlomnoye, Novoportovskoye and Vostochno-Messoyakhskoye). Other growth drivers were an increase in the equity share in Arcticgas (from 46.67% to 50%) and the beginning of production at the Tazovskoye field.

The Company continues forming a strong cluster in the Arctic to secure its oil and gas potential for the future. The plan for 2019 is to start development in the northern part of the Novoportovskoye field.

New high-flow wells were put into operation at the Messoyakha group of fields in 2018. Development of deep horizons at the Vostochno-Messoyakhskoye field and preparation of the Zapadny block, where an oil and gas deposit was discovered in 2018, are scheduled for 2019. With 85 mt of geological reserves, the Zapadny block deposit is comparable to a separate field by its size. Production at the Zapadny block will start in 2021.
OIL PRODUCTION
Group-wide oil and condensate production increased 0.9% to 62.99 mt in 2018. The Company is now the third largest oil producer in Russia after Rosneft and Lukoil.

The Company made significant progress in innovative oil recovery enhancement techniques. A two-year pilot project for alkaline-surfactant-polymer (ASP) flooding at the Zapadno-Salymskoye field was finished in 2018. The technology increased the oil recovery factor to 69%, which is two times higher than the Russian industry average. The ASP flooding technique can revive production at mature conventional fields and extent their life for many years. The initial increase in the output might reach 200 mt of oil.
More cost-efficient well drilling and completion is another priority for Gazprom Neft. In 2018, the Company drilled long horizontal wells (up to more than 2 km long) and multilateral wells with cased boreholes, used hydraulic fracturing (high volume, acid and proppant fracturing techniques), and rolled out underbalanced drilling, a technique that had proved efficient.

### Top oil fields by production growth in 2018

<table>
<thead>
<tr>
<th>Field</th>
<th>Oil Production (mt)</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novoportovskoye</td>
<td>7.1</td>
<td>+20%</td>
</tr>
<tr>
<td>Prirazlomnoye</td>
<td>3.2</td>
<td>+21%</td>
</tr>
<tr>
<td>Messoyakhaneftegaz assets 1</td>
<td>2.2</td>
<td>+41%</td>
</tr>
</tbody>
</table>

*Share of the Company in production.*

**Glossary**

- **Underbalanced drilling**: Drilling technique where the reservoir pressure is higher than the pressure in the wellbore. The pressure difference minimizes formation damage and increases the rate of penetration and oil recovery factor.
- **Cased borehole**: Borehole section with casing pipes installed. Casing pipes are screwed on to each other or welded together to form a casing column.
- **Proppant / propping agent**: Granular material designed to keep an induced hydraulic fracture open under ground pressure and thus enhance oil recovery.
- **Alkaline-surfactant-polymer (ASP) flooding**: Chemical technique for oil recovery enhancement at mature fields where a mixture of alkali, surfactant and polymers is injected into the reservoir.
GAS PRODUCTION
Gazprom Neft invests much effort in commercialising associated petroleum gas (APG) and natural gas produced at oil fields, and increasing its value. In 2018, Group-wide gas production increased 9.4% to 37.22 bcm. The growth is primarily associated with high utilisation of gas processing equipment (96%), high APG utilisation (up to 97–99%) at the fields with developed gas infrastructure, expansion of the gas injection infrastructure at the Novoportovskoye field, and gas compression capacity expansion at the Eastern block of the Orenburgskoye oil and gas condensate field.

In 2018, the Company decided to invest in the gas processing capacity expansion to increase utilisation of gas from the Novoportovskoye field and adjacent licence blocks.

A pipeline will be built later to run from the Yamal Peninsula to the Gydan Peninsula and Yamburgskoye field where it will be connected to the Unified Gas Supply System. The pipeline is planned to be commissioned in 2022. Given rich gas resources of the Yamal Peninsula, the new pipeline will be an important component of the Company’s strategic infrastructure in the region.

Gas from Yamal

Including shares in subsidiaries and joint ventures, total

<table>
<thead>
<tr>
<th>Gas production (utilisation) (bcm)</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gazprom Neft²</td>
<td>13.43</td>
<td>14.15</td>
<td>15.18</td>
<td>16.98</td>
<td>19.56</td>
</tr>
<tr>
<td>Slavneft⁴</td>
<td>0.44</td>
<td>0.46</td>
<td>0.47</td>
<td>0.45</td>
<td>0.47</td>
</tr>
<tr>
<td>Arcticgas⁴</td>
<td>3.31</td>
<td>10.85</td>
<td>12.09</td>
<td>12.25</td>
<td>13.31</td>
</tr>
<tr>
<td>Northgas⁴</td>
<td>0.50</td>
<td>4.47</td>
<td>5.07</td>
<td>4.29</td>
<td>3.79</td>
</tr>
<tr>
<td>Messoyakhaneftegaz⁴</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.05</td>
<td>0.09</td>
</tr>
<tr>
<td>Evrotek-Yugra⁴</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>0.00</td>
</tr>
</tbody>
</table>

² Includes sales gas and gas for internal consumption.
⁴ Including consolidated companies.
⁴ Share of the Company in production.
Unparalleled offshore competencies

Offshore development is one of the most difficult segments of the oil and gas industry, whether in terms of production technology or environmental safety. With advanced offshore development technology in use, Gazprom Neft is building its reputation as a leader in Arctic development.

Recently, the Company has made a decision to reorganise its Offshore Development Division by mid-2019. Gazprom Neft Shelf will be transformed into a holding company that will be a decision-making and strategic hub for the Company’s offshore projects. The reorganised holding structure will include a centre for offshore competencies and companies specialising in offshore operation or exploration.

Digital field model

The Production Control Centre operated by Gazpromneft-Khantos is the first in Russia to develop and introduce an integrated digital model of oil reservoirs. It is here where the Priobskoye field is digitalised. Data from wells and pumps flows to a digital platform that processes it, makes forecasts and recommends optimal production modes for each well.

The Production Control Centre has no rival in the industry and is a model of how oil production facilities will be managed in the future. This practice will be rolled out to other production assets of the Company.

Gazprom Neft improves production management efficiency with information technology.
A project management office (PMO) was launched by the Upstream Division in 2018. Its primary task is to create a continuous digital and organisational environment for large projects. Gazprom Neft’s PMO has a three-level structure and comprises multi-functional centres in Saint Petersburg, Tyumen and on site. This arrangement enables experts from different regions to examine project documents in a digital format, improves efficiency and facilitates decision making.

One of the key PMO tools is the Cascade Project Data Management system that is capable of building a digital model of facilities under construction and managing the end-to-end construction process.