

Energy consumption and efficiency

Energy efficiency in production is an important efficiency driver for the entire business of Gazprom Neft, as energy costs make up a significant part of refineries' total operating expenses. Hence, energy efficiency must be viewed as a vital success factor in terms of both economics and environmental safety.

The Company's Energy Policy approved in 2013 lies at the heart of Gazprom Neft's ISO 50001:2011 compliant energy management system. The consistent and comprehensive Group-wide approach to energy efficiency is formalised in the Company's Energy Saving and Energy Efficiency Improvement Programme.

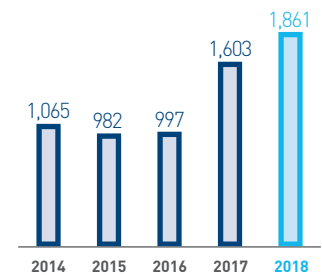
UPSTREAM DIVISION

The Company's Upstream Division exceeded 2018 targets under its energy efficiency programme by 72%, with energy savings across the Division amounting to 462 m kWh (₽ 1,504 m). Power consumption per tonne of produced liquid, the key energy efficiency metric, continued to fall, hitting 28.39 kWh/t.

2018 saw the overhaul of high-pressure multistage centrifugal ring-section pumps with a performance improvement of 3%. Slavneft-Megionneftegaz successfully tested electric submersible pump units with high-performance EC motors, with energy consumption at pilot wells falling by 25–30%. In 2019, the Company plans to install 25 similar units across the Division.

Heat consumption in Upstream Division (self-generated and purchased from third-party suppliers) (TJ)

Source: Company data

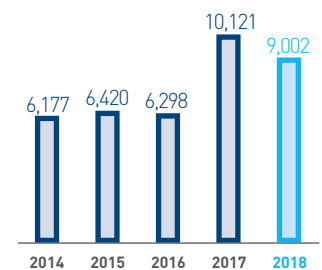


Power consumption in Upstream Division (purchase + generation)²

| Metric | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|-----------|-----------|-----------|------------|-----------|
| Power consumption (purchase + generation) (MWh) | 6,177,164 | 6,419,919 | 6,298,276 | 10,121,321 | 9,002,159 |
| Y-o-y change | 2.4% | 4% | -2% | 61% | -11% |
| Heat consumption (self-generated and purchased from third-party suppliers) (GJ) | 1,064,758 | 982,015 | 996,644 | 1,603,132 | 1,860,670 |
| Y-o-y change | 13.0% | -8% | 1% | 51% | 16% |

Power consumption in Upstream Division (purchase + generation) (GWh)

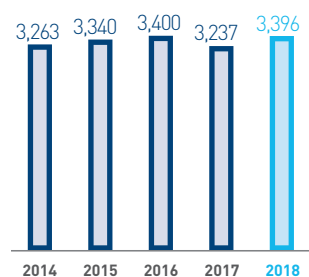
Source: Company data



² Starting from 2018, the perimeter of consolidated data includes Gazpromneft-Yamal, Messoyakhaneftegaz, Upstream Division of Gazprom Neft, Gazpromneft-Noyabrskneftegaz, Gazpromneft-Khantos, Gazpromneft-Vostok, Gazprom Neft Orenburg and Slavneft-Megionneftegaz. The 2017 and 2018 data include power consumption indicators of these companies. At Upstream Division of Gazprom Neft, power consumption in 2017 (excluding Gazpromneft-Yamal, Messoyakhaneftegaz and Slavneft-Megionneftegaz) stood at 6,064,268 MWh, while heat consumption amounted to 1,124,180 GJ.

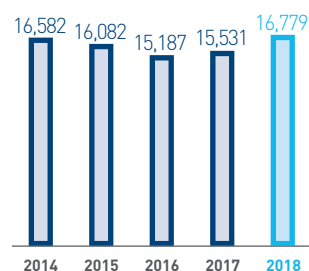
Power purchases¹ in Downstream Division (GWh)

Source: Company data



Heat purchases¹ in Downstream Division (TJ)

Source: Company data

¹ Excluding volumes transferred to third parties.

DOWNSTREAM DIVISION

The Downstream Division's energy savings under its energy saving and energy efficiency programme amounted to 3.3 PJ (petajoules) or 3,347 TJ (terajoules), including 170,400 Gcal of heat, 50,900 tonnes of natural fuel, and 9.3 m kWh of electric power saved by the Division's companies. Total economic effect was ₺ 790 m.

Implemented as part of a large-scale refinery upgrade exercise launched back in 2008, the Energy Saving and Energy Efficiency Improvement Programme run at Gazprom Neft's refineries made a significant contribution to the Group's strong

performance. At Omsk Refinery, impressive results came on the back of a new automated system for cleaning the heating surfaces of furnaces at the facility for deep conversion of fuel oil, optimisation of process furnaces, and installation of higher-performance insulation in the main steam pipelines. At the same time, Moscow Refinery saw systemic optimisation of furnace operation modes at the facilities for hydrotreatment of cat cracking gasoline, bitumen and hydrogen production, and oil distillation. On top of that, compressed air supply schemes at production facilities were optimised and the upgrade of heat and steam condensate equipment was completed.

Consumption of purchased energy in Downstream Division

| Metric | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|------------|------------|------------|------------|------------|
| Purchased power (excluding volumes transferred to third parties) (MWh) | 3,262,669 | 3,340,550 | 3,400,210 | 3,236,805 | 3,395,831 |
| Y-o-y change | -1.8% | 2.4% | 1.8% | -4.81% | 4.91% |
| Purchased heat (excluding volumes transferred to third parties) (GJ) | 16,581,709 | 16,081,895 | 15,186,997 | 15,531,129 | 16,779,175 |
| Y-o-y change | -4.6% | -3.0% | -5.6% | 2.27% | 8.0% |