

Energy efficiency

Gazprom Neft actively works on improving energy efficiency, optimising the use of natural resources and introducing a systematic approach to meeting these objectives at its enterprises.

The Company has an Energy Policy that serves as the foundation of the energy management system (EMS), which meets the requirements of international standard ISO 50001:2011. The Company's enterprises have been gradually introducing the EMS since 2012.

Main goals of Gazprom Neft in energy conservation and efficiency:

- to improve the energy efficiency of the Company's enterprises while maintaining or improving the level of reliability, safety and productivity;
- to mitigate any negative environmental impact;
- to reduce the consumption of non-renewable energy resources.

EXPLORATION AND PRODUCTION UNIT

Electricity expenses make up a large portion of the operating expenses for oil production. A key energy efficiency indicator at the enterprises of the Exploration and Production Unit is the specific consumption of electricity for liquid hydrocarbon production. In 2015, this indicator declined by 1% compared with 2014. The energy efficiency programme exceeded its target by 92%. The Unit had energy savings of 205 million kWh (RUB 640 million).

Highlights of 2015:

- use of high efficiency electrical submersible pump units;
- introduction of permanent magnet motors;
- operation of downhole equipment in periodic operating modes;
- reduction in water produced and its pumping into the formation (shutdown of unprofitable wells and performance of geological and technical measures);
- selection of the optimal size and replacement of pumping units at water-injection and booster pumping stations and initial water separation units;
- installation of variable frequency drives on pumping equipment;
- reduction in power grid losses.

CONSTRUCTION OF GAS TURBINE POWER PLANTS

Gazprom Neft has launched construction on a gas turbine power plant (GTPP) at the Novoportovskoye field with projected capacity of 96 MW and the ability to expand to 144 MW. The plant will be one of the largest on the Yamal Peninsula. Both natural gas and associated petroleum gas may be used as raw materials for the future power plant. The GTPP will supply electricity to infrastructure facilities that extract, transport and store hydrocarbons as well as a year-round crude oil trans-shipment terminal that is being built near Mys Kameny. The new GTPP will make it possible to avoid a shortage of generating capacity by providing stable power supplies to the project's facilities and enhancing its industrial safety.

SPECIFIC ELECTRICITY CONSUMPTION FOR THE PRODUCTION OF LIQUID HYDROCARBONS BY THE EXPLORATION AND PRODUCTION UNIT // kWh/t

	2011	2012	2013	2014	2015
Specific electricity consumption for the production of liquid hydrocarbons by the Exploration and Production Unit, kWh/t of liquid	29.06	29.07	29.00	28.94	28.66
Specific electricity consumption for the production of liquid hydrocarbons by the Exploration and Production Unit, RUB/t of liquid	66.4	67.9	73.1	77.6	76.8