

MODERNIZATION OF OIL REFINERIES

INCREASED PRODUCTION EFFICIENCY

AT THE MOSCOW AND OMSK OIL REFINERIES BY 2025

99%

REFINING DEPTH

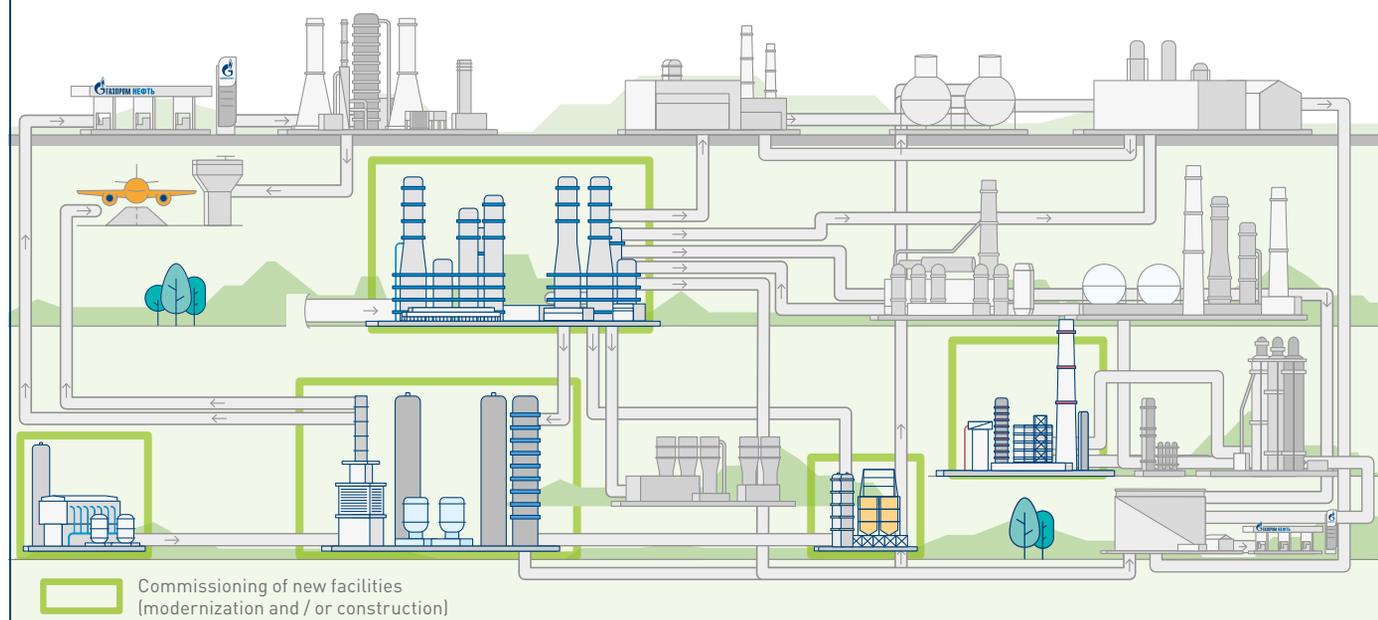
UP TO 81%

YIELD OF LIGHT PRODUCTS

In 2011, Gazprom Neft launched the large-scale modernization of the Moscow Oil Refinery for a total cost of more than RUB 250 billion in an effort to achieve the best production and environmental safety standards. The first stage of modernization resulted in the Moscow Oil Refinery transitioning to the production of high-class Euro-5 fuel in 2013 ahead of schedule. The second stage, which will last from 2016 to 2023, is designed to increase the operational and environmental efficiency of production while further increasing refining volumes and improving product quality. A key project of the second stage is the construction of a new combined Euro + oil refinery that will replace several existing previous generation installations and will reduce pollutant emissions by 11% per 1 tonne of refined oil. As part of the second stage of modernization, a deep oil refining complex will be built within the hydrocracking unit and delayed coking unit. Projects are also being implemented to modernize the primary refining unit of crude vacuum unit 6 and to rebuild the catalytic cracking complex G-43-107.

For more on the Biosphera project, see the chapter "Safe development", p. 84

DIAGRAM OF THE MOSCOW OIL REFINERY AFTER STAGE II OF MODERNIZATION



The successful implementation of the projects making up the first stage of the Omsk Oil Refinery's modernization enabled the refinery to fully switch to the production of Euro-5 motor fuels and significantly increase energy efficiency and eco-friendliness. The second stage, which will run from 2015 to 2025, aims to increase the depth of oil refining to 99% and involves the construction of new facilities, the renovation of production facilities, and the improved eco-friendliness, reliability, and safety of production processes.

Projects to increase refining depth at the Omsk Oil Refinery shifted to the stage of practical implementation in 2016. A deep oil refining complex is being built at the refinery within hydrocracking units that have capacity of 2 million tonnes of vacuum gas oil per year. A delayed coking plant with capacity of 2 million tonnes per year is also under construction. These projects will increase the production of high-margin products and provide the market with raw materials for group 2 and 3 base oils as well as petroleum coke, a valuable raw material for the aluminium industry.

The most important project resulting from the ecological modernization of the Omsk and Moscow Oil Refineries was the construction of the Biosphera modern treatment facilities, which will ensure 99.9% efficiency for wastewater treatment. In 2017, Gazprom Neft completed the construction of treatment facilities at the Moscow Oil Refinery and began implementing a similar project at the Omsk Oil Refinery.

Gazprom Neft intends to invest over RUB 400 billion in the development of the Omsk and Moscow Oil Refineries over the next five years.