Engaging in import substitution

34

IMPORT SUBSTITUTION STRATEGIES AND ROADMAPS LAUNCHED IN 2018

50

UNIQUE PRODUCTS DEVELOPED IN THE PAST FIVE YEARS

170

PRODUCTS BEING DEVELOPED

A larger procurement share of Russia-made products is on the list of Gazprom Neft's priorities. To deliver on this goal, the Company is making use of existing solutions while also supporting the drive to innovate.

Gazprom Neft's Department of Technological Partnerships and Import Substitution is specifically tasked to monitor the Russian market of goods and materials for import substitution on a regular basis. In the past five years, the Company has conducted more than 120 tests on the newest Russia-made equipment and created some 50 unique products to replace imported ones, along with another 170 products being developed. In addition, Gazprom Neft supported Russian development companies' applications for external financing amounting to more than ₽ 6 bn, including subsidies from the Industrial Development Fund (the Russian Technological Development Fund).

The Company's import substitution programme translates into industrial strategies and roadmaps for alternative substitution, the bulk of which is being implemented by partner companies. The Group already relies on Russian power plants, onshore drilling rigs, tanks and vessels for offshore projects, pipes, proppant, additives, oil refining catalysts, and much more.

In 2018, Gazprom Neft expanded its procurements with more than 15 new products unprecedented in Russia. At each and every stage, the Company strives to assist its counterparties in raising external financing and government support.

We also promote import substitution when it comes to our regional development programmes. In 2018, the lubricant import substitution programme covered three more areas – Primorye Territory, Moscow and Amur regions. This drove the number of agreements defining the share of local high-tech products (including import-substitution manufacturing) in the Company's production processes, to 17.

Import substitution milestones:

- task setting;
- search for potential vendors;
- verification of specifications;
- development of pilot prototypes;
- confirmation testing;
- industrial roll-out.

2018 highlights:

- four import substitution projects funded by the Fund for the Promotion of R&D Start-ups (the Innovation Promotion Fund);
- four strategic partnership agreements signed (Roscosmos, Severstal, Geoenergomash and Becema, Neftegazavtomatika);
- an agreement signed with Lukoil and Tatneft for the cooperation in developing oilfield services based on import-substituting equipment and technologies with a focus on high-tech drilling services;
- joint working groups with Gazprombank and HMS Group up and running.

CASE STUDY: IMPORT SUBSTITUTION

Gazprom Neft partners with leading R&D institutions to develop and productionise import-substituting products on an ongoing basis.

In particular, the Company already uses its own technology to manufacture low-viscosity base oils for drilling muds (branded as Gazpromneft Drilline). Yet another example, Gazprom Neft Scientific and Research Centre is developing new ultrahard materials for drill bit blades in collaboration with the Skolkovo Institute of Science and Technology.

The Gazpromneft Catalytic Systems subsidiary is set up as part of Gazprom Neft Group to develop an import-substituting catalyst business. Its key objective is to construct a plant in Omsk to produce cutting-edge oil refining catalysts and develop the catalytic business.

In 2018, the Omsk-based Institute for Hydrocarbon Processing Technologies of the RAS Siberian branch joined efforts with Omsk Refinery to develop a new cracking catalyst modification[1]. What makes it unique is its matrix[2]. The new catalyst based on an active matrix excels Western catalysts based on an inert matrix.

During 2018, Omsk Refinery was migrating its catalytic crackers from the prior catalyst to the new one, which proved to be highly effective. It will be a first choice catalyst to produce high-quality motor fuels. It also won Gazprom's award in research and development.

This cracking catalyst modification is supposed to be competing with imported catalysts being on a par with them but much cheaper in production due to lower pressure and temperature.

In 2018, the Skolkovo Institute of Science and Technology digitally modelled the existence of new ultrahard materials, following which the RAS Institute for High-Pressure Physics confirmed their feasibility. Physical and mechanical tests proved the predicted specifications. The Scientific and Research Centre filed patent applications for Russian certification with the Federal Institute for Industrial Property and for international PCT certification. In 2019, the Company started developing a technology to manufacture drill bit blades based on new materials and looking for industrial partners to produce the same. These materials are likely to have other industrial applications, too.

Going forward, the import substitution programme will help the Company and its partners create in Russia more than 100 new high-tech products. These will include drilling units, equipment and reagents for hydraulic fracturing, power generation, compression and downhole equipment, marine engineering solutions, equipment for offshore projects, personal protective equipment, and much more.

Import substitution in the oil industry

The catalyst plant project received government support

Made in Russia: Gazprom Neft's catalyst production project (coverage by RBC TV)

[1] Catalytic cracking is a technique to process petroleum fractions with a catalytic converter (a compound that accelerates chemical reactions) into high-octane gasoline and other products.

[2] Matrix is a porous carrier with an active agent which helps maintain catalyst performance in a high-temperature environment. The matrix can be either inert, which allows entry for feedstock molecules and removal of cracking products, or active. The latter is used to precrack larger feedstock molecules.