

ENGINEERING

Description of business

The Engineering segment is primarily responsible for implementing projects to build, modernize, and reconstruct electric power facilities.

LLC Inter RAO – Engineering is the key company in the segment and specializes in the management of energy construction projects in Russia and abroad. It provides a wide range of services for the implementation of energy construction projects, including project management on EPC/EPCM terms, the design of electric power facilities, and the supply of basic and auxiliary equipment.

LLC Inter RAO – Engineering is involved in implementing a program for the construction of new generating capacities in order to ensure the energy security of the Kaliningrad Region. In 2019, the Pregolskaya TPP was commissioned with capacity of 455.2 MW, while the construction of the coal-fired Primorsky TPP with capacity of 196 MW is ongoing.

The company manages projects as part of the of the Inter RAO thermal power plant capacity modernization program.

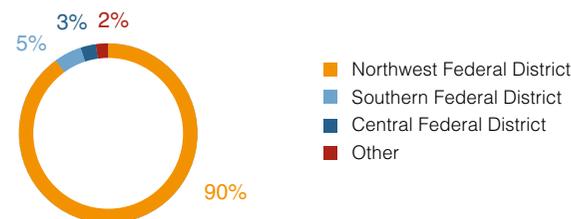
A wind farm with capacity of 98.8 MW is under construction in the Rostov Region. The customer is LLC Third Vetropark FRV, a portfolio company of the Wind Energy Development Fund (a joint investment fund created on a parity basis by PJSC Fortum and JSC RUSNANO).

LLC Inter RAO – Engineering represents the Group's interests in a joint venture with General Electric (GE) called LLC Russian Gas Turbines for the production and maintenance of 6F.03 gas turbine units in Russia.

Results of operating activities

In 2019, LLC Inter RAO – Engineering completed construction on the Pregolskaya TPP and wrapped up a number of foreign projects (in Afghanistan and Bangladesh). The contract for the construction of the Primorskaya TPP in the Kaliningrad Region was the main project in the Group's project portfolio in 2019 (78% of revenue). The company is also implementing a number of projects for third-party customers and is studying the parameters of acting as an agent in projects to modernize the Group's generating assets in 2020–2024.

Location of projects being implemented in Russia in terms of revenue in 2019



LLC Inter RAO – Export did not start work on a large-scale international project to build four 200 MW power units in Cuba in 2019. The company conducted design and survey work and a technical audit of the project cost, and is carrying out procurement procedures to establish the final cost without signing legally binding documents for a number of the main lots. In 2019, projects to supply turbines to Venezuela and the first stage of the Floating TPP project were completed. No final decisions were made on projects in Ecuador during the reporting year.

LLC QUARTZ Group's performance indicators are based on the completion of construction of the Pregolskaya TPP as well as production programs for customers under contracts within the Group and for the Group's external contractors.

All the key projects carried out by Inter RAO's Engineering companies primarily use Russian-made equipment. In particular, the generation facilities in Kaliningrad were built using steam coal-fired boilers manufactured by OJSC Machine-Building Factory of Podolsk, steam turbines manufactured by CJSC Ural Turbine Plant (Yekaterinburg), generators produced by OJSC NPO ELSIB (Novosibirsk), a huge fleet of pumping equipment manufactured by JSC Gidromashservis (Moscow), shut-off and control valves made by LLC SaratovEnergomash (Saratov) and JSC PenTyazhprom (Penza), and lifting equipment by LLC Optim-Kran (Kaliningrad). Russian-made equipment was employed for at least 80% of the construction project in Cuba for four new units with capacity of 200 MW each.

Financial results by segment

Revenue in the segment decreased by 26.3% compared with 2018 and amounted to RUB 22.613 bln. This change relative to 2018 can be attributed to:

- A decrease in revenue at LLC Inter RAO – Engineering from external customers by RUB 5.117 bln for projects involving the construction of generating facilities in Kaliningrad (mainly due to the commissioning of the Pregolskaya TPP)
- A decrease in revenue at PJSC Inter RAO by RUB 3.144 bln due to the sale of equipment for export during the previous year
- A decrease in revenue at LLC Inter RAO – Export by RUB 774 mln due to the various effects of decreased revenue from equipment sales by RUB 1.293 bln and increased revenue from contracts in the Republic of Cuba by RUB 587 mln
- An increase in LLC QUARTZ Group's revenue by RUB 172 mln resulting from work under external contracts

EDITDA in the segment decreased by RUB 776 mln and reached a negative value of RUB -513 mln. This is primarily due to losses incurred by LLC Inter RAO – Engineering for some construction projects and was partially offset by positive trends in the margin profits of LLC Inter RAO – Export associated with the performance of work stages under a contract to implement a project to increase thermal power plant capacity in the Republic of Cuba.

Indicator	'Engineering' segment			
	2017	2018	2019	2018/2019
Revenue, RUB mln	15,100	30,674	22,613	-26.3%
Share in Revenue of Inter RAO Group, %	2%	3%	2%	-1 p.p.
Share in the (loss)/profit of joint ventures, %	(28)	(55)	30	154.5%
EBITDA, RUB mln	(143)	263	(513)	-295.1%
EBITDA margin, % ¹	-1%	1%	-3%	-4 p.p.
Share in EBITDA of Inter RAO Group, %	0	0	0	-

¹ EBITDA margin was calculated excluding inter-segment revenue in the 'Engineering in the Russian Federation' segment in the amount of RUB 4,645 bln for 2019, RUB 3,793 bln for 2018, and RUB 3,356 bln for 2017.

Development prospects

The strategic priorities for the development of the Engineering segment are as follows:

- Improving the quality of services taking into account best international practices in quality management, environmental safety, and occupational safety
- Increasing the supply of products (equipment, work, and services) for the construction of energy facilities, including innovative/energy-efficient products for the Group's enterprises

The main objective of LLC Inter RAO – Engineering in 2020–2021 is to ensure the implementation of all the Group's new construction and modernization projects as well as projects being implemented with the Group's involvement (the construction of generating facilities in the Kaliningrad Region).

The Company has the potential opportunity to enhance the competitiveness of the engineering business and expand its presence on the Russian and foreign markets in the medium term due to several key EPC players leaving the Russian market, the availability of sustainable financial resources, the prospects of the generating capacity modernization program in Russia, its own offerings on the gas turbine market, and its extensive experience in the design and construction of turnkey power facilities.