Reconstruction of 110 kV PTL in the left-bank area of Rostov-on-Don under the motor road bed aligned with the bridge crossing on Voroshilovskogo Prospect

The line reconstruction allowed the implementation of the urban planning concepts, uninterruptible power supply of the central and left-bank areas of Rostov-on-Don, including infrastructure facilities of the newly erected Rostov Arena Stadium. The Regional Department of the State Construction Supervision Service for the Rostov Region inspected the facility and issued resolution No.01.002.2390-2018 on the compliance of the capital facility being reconstructed with requirements of technical rules, other laws, and regulations, design and estimate documentation. The resolution was approved by Order No.38/GSN/1753 dated April 13, 2018. Rostov-on-Don Architecture and Urban Development Department granted the commissioning permit No.61-310-916509-2018 dated June 29, 2018. The facility was commissioned.

Reconstruction of 110 kV Elista-Zapadnaya — Elista-Vostochnaya OHL and 35 kV Elista-Zapadnaya — Elista Poultry Plant OHL with removal from Elista dwellings zone (approximate length — 15 km)

The project ensured the reliable power supply of Elista residents. The Lower Volga Office of the Federal Service for Ecological, Technological and Nuclear Supervision (Rostekhnadzor) inspected the facility and issued the commissioning permit No.5 dated December 6, 2018. The State Construction Supervision Inspectorate for the Republic of Kalmykia also inspected the facility and issued the resolution on the compliance of the reconstructed capital facility with the requirements of technical rules, other laws, and regulations and design documentation. The resolution was approved by Order No.320-P of the State Construction Supervision Inspectorate dated December 21, 2018. Elista city authorities granted the facility commissioning permit No.08-RU 08301000-60-2018 dated December 29, 2018. The facility was commissioned.

Investment projects for increasing the customer power supply reliability through the use of Smart Grid technologies (reducing average number and average duration of outages):

All-around automation of 10 kV overhead lines by integrating Smart Grids in the Petrovvalsky RPG, PD Kamyshin Power Grids of IDGC of the South's branch — Volgogradenergo (first and second start-up stages).

All-around automation of 10 kV overhead lines by integrating Smart Grids in the Chaltyrsky RPG, PD South-Western Power Grids of IDGC of the South's branch — Rostovenergo. The facility was commissioned.

Investment projects aimed at creation of a safe information technologies sphere for power grid facilities involved in power supply of the FIFA World Cup infrastructure in 2018:

Reconstruction of R-5, R-7, R-8, R-10, R-12, R-17, R-22, R-24, A-1, NG-5, T-24, R-11, and R-13 substations, dispatch control centres of PD Central Power Grids and GCC at Rostovenergo as regards the organisation of the information security system for the automated process control system and automated process management system, the Rostov Region (15 items) (para 256.1 of the FIFA World Cup 2018 Preparation Programme). The facility was commissioned. Reconstruction of Tsentralnaya, Vileiskaya, Aeroport, Sovetskaya, Sportivnaya, Olimpijskaya, Festivalnaya, Razgulyaevskaya, Sibirgora, Krasnoslobodskaya, and Dzerzhinskaya substations and GCC at Volgogradenergo as regards the organisation of the

information security system for the automated process control system and automated process management system, the Volgograd Region (12 items) (para 249.2 of the FIFA World Cup 2018 Preparation Programme). The facility was commissioned. **Capex financing structure, RUB mn (incl. VAT)**



Investment Programme financing by source



2018 Investment Programme Results

The average loading of transformer substations is 43.9%. A measure for estimating the change in the share of net electricity supply, which is formed by electricity meters included in the Data Acquisition and Transmission System:

for Astrakhanenergo branch – 7.001 thous. kWh or 24%;

for Rostovenergo branch – 918 thous. kWh or 1%.

System Average Interruption Duration Index Δ Psaidi is -0.021. System Average Interruption Frequency Index Δ Psaifi is -0.037. The total number of power grid connections with Capex made by the grid organisation under the Investment Programme is 2.022 thous.

The capacity of the electricity consumers connected totalled 220,425.1 kW.

In 2018, independent construction monitoring covered 50% of capital construction projects being in progress within the Company's Investment Programme.

The Long-Term Investment Programme for 2019–2023 envisages the assimilation of capital investments worth of RUB 12,471 mn (excl. VAT), financing of RUB 14,933 mn (incl. VAT), commissioning of fixed assets worth of RUB 12,675 mn. Within the period from 2019 through 2023, the Company plans to construct and reconstruct 1,604 km of PTLs and commission 847 MVA of transformer capacity.

Long-Term Investment Programme