

RELIABLE AND EFFICIENT OPERATION OF THE ENERGY SYSTEM



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HIGH-QUALITY, RELIABLE AND UNINTERRUPTED POWER SUPPLY TO CONSUMERS

In 2022, Rosseti Kuban generally succeeded in achieving the primary goal of its production activity, i.e., keeping the reliability of the power equipment at an appropriate level.



Within the specified period of time and to the fullest extent possible, Rosseti Kuban completed the repair programme and took a series of steps to increase the reliability of the power supply to consumers. In addition, the Company obtained a certificate of readiness to work during the 2022/2023 heating season.

“ The assurance of the specific level of power supply reliability and quality is a strategic focus of our Company. Measures were put in place to reduce the number of disturbances, accident rate, power losses in grids, and improve customer service quality in order to meet the objectives established for 2022.

The Company’s reliability indicators (I_{SAID} , I_{SAIF}) in the reporting year did not exceed the target values set by the Regional Energy Commission – Price and Tariff Department of the Krasnodar Territory (RPC-PTD KT).

21%
reduction in the number of disturbances in 110 kV and above power grids in the reporting year

Indicator	Values established by the RPC-PTD KT		Value achieved by Rosseti Kuban
	Plan	Plan, taking into account the permissible deviation	Actual
System average interruption duration index, per point of delivery (I_{SAID}), hour	4.3143	5.609	2.8424
System average interruption frequency index, per point of delivery (I_{SAIF}), interruptions	0.9950	1.2935	1.2195

The core initiatives in 2022 were focused on:



Maintaining the rated parameters of production assets — power transmission lines, substation equipment, and relay protection and automation (RPA) devices



Identifying and eliminating defects in a timely manner based on the power equipment diagnostics results



Ensuring readiness for prevention of and response to disturbances

- Prolonged agreements with contracting and related power grid organisations, as well as with the Russian Ministry of Emergency Situations and the Federal Service for Hydrometeorology and Environmental Monitoring (Rosgidromet)
- Ensured readiness of 404 teams, 1,879 employees, 776 units of equipment, including 22 mobile teams (124 employees) equipped with appropriate technical means (49 units, including 22 motor vehicles and 27 units of special equipment), tools, rigging gear, sets of spare parts, communication aids, emergency sets of special clothing, food rations and financial means
- Stocked the Company’s emergency supplies
- Checked operational readiness of 121 emergency power supply sources (EPSS) with a total capacity of 14,262.5 kW, of which 110 mobile EPSSs with a total capacity of 13,810.5 kW
- Conducted four combined exercise on cooperation during response operations with the threat of power supply interruption, involving representatives of the Ministry of Emergency Situations of Russia in the Krasnodar Territory and the Republic of Adygeya, executive bodies of the Krasnodar Territory and the Republic of Adygeya and local self-government authorities



Preparations for the heating season have been completed successfully.

Successful preparations were made for the heating season Every year, the Company confirms its readiness for operation during the heating season and obtains a respective readiness certificate. The preparations for the heating season 2022/2023 covered production programmes, scheduled emergency training exercises and drills and Rostekhnadzor-prescribed measures. Order of the Ministry of Energy of Russia No. 1185 dated 3 November

2022 was given to approve the assessment of the readiness of power industry facilities to work in the 2022/2023 heating season. Kuban Headquarters operates continuously, and its representatives regularly take part in works to ensure the security of power supply in the Krasnodar Territory and the Republic of Adygeya. This is done to provide the reliable operation of the power grid complex under

conditions of power supply interruptions and other abnormal situations involving power supply interruptions.

The Central Flood Commission of the Company, which is a part of the Kuban Headquarters, and similar commissions of the Company’s branches handled the preparation for the flood period. During the preparations, 82 activities were implemented:

- Power grid facilities in potential flood zones were monitored, and the list of such families was updated. According to the monitoring results, up to 387 facilities (0.5% of the total number of power facilities) fall into the potential flooding zone, including 110 main grid facilities (24 35–220 kV substations, 86 sections of 35–110 kV overhead lines) and 277 distribution grid facilities (212 10–0.4 kV distribution grid sections and 65 10/0.4 kV transformer substations)
- Exercises were held with territorial bodies of the Russian Unified Emergency Rescue Service (RUERS) to practise the actions of the Company’s management bodies, forces and equipment in the event of natural and man-made emergencies/emergencies caused by dangerous weather phenomena during the flooding period
- A total of 54 anti-accident exercises were conducted in the Company’s electric grid branches to mitigate potential consequences of flooding of power facilities
- Flood commissions held 11 meetings to review issues on preventing and responding to potential disturbances and/or emergencies at the Company’s power facilities during the spring-summer flood period
- Representatives of the Company took part in meetings of the Commissions for Emergency Prevention and Response and Fire Safety of the administrations of Krasnodar Territory and the Republic of Adygeya on the readiness of power grid equipment in the area of operational responsibility of the Company to go through the flooding period of 2022. No claims or complaints were made against the Company by the executive authorities or the above-mentioned commissions
- Overhead power line crossings (1,994 towers) and 89 overhead power grid facilities were inspected; no damage was detected
- Availability and good technical condition of special equipment, vehicles and mechanisms were ensured
- The availability and storage locations of the emergency supplies were checked; the inspection established that the equipment, materials and spare parts of the emergency

supplies are complete as required by the List; the storage conditions of equipment, materials, spare parts, as well as access routes are adequate to ensure prompt loading of materials and equipment for their delivery to accident-caused damage elimination locations

- Checks were carried out to ensure that the teams have all the equipment, gear and protective means, that the accessories, special vehicles, machinery and mechanisms are ready for the work, that communication equipment and notification flow charts are in place and in good working order. The checks did not reveal any violations of the storage rules for protective means, tools and appliances

Readiness checks of the following items were carried out:

- Company’s material and human resources for the mitigation of the disturbance consequences due to the flooding impact on power grid facilities. The inspection results showed that 391 teams, 1,819 people, 754 vehicles, including 22 mobile teams (123 people) equipped with

appropriate technical means (49 units, including 22 motor vehicles, 27 units of special vehicles), tools, rigging gear, sets of spare parts, communication means, emergency sets of special clothing, food rations and financial means are ready to roll

- Watercraft and water pumping equipment. Available watercraft (four small boats including two motorboats with Yamaha-40 engine) and 27 motor pumps are ready for service in case of flooding
- Emergency power supply sources (EPSS). A total of 121 EPSSs with a total capacity of 14,262.5 kW were made available, of which 110 mobile EPSSs with a total capacity of 13,810.5 kW

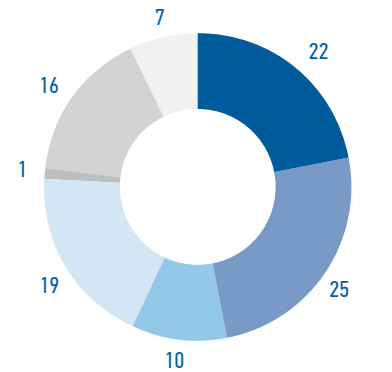
The Company’s Grid Control Centre every day communicated with the regional centres for hydrometeorology and environmental monitoring of the Krasnodar Territory and the Republic of Adygeya and the Sochi Hydrometeorological Centre, as well as crisis management centres of the Chief Directorates of the Ministry of Emergency Situations of Russia in the Krasnodar Territory and the

Republic of Adygeya to obtain operative information on weather conditions and flood situation at the water bodies of the Krasnodar Territory and the Republic of Adygeya.

A total of 32 storm warnings and 103 daily hydrometeorological bulletins on adverse weather phenomena were issued during the flooding period, a 31% increase from 2021. These bulletins included information on the water level rise threat in the rivers of the Krasnodar Territory and the Republic of Adygeya.

In 2020–2022, there were no reported fires, ignitions, or emergency power grid equipment shutdowns because of fire impacts.

MAIN CAUSES OF ACCIDENTS IN ROSSETI KUBAN POWER GRIDS IN 2022 (%)



- Exposure to repetitive natural phenomena
- Poor technical condition (ageing) of equipment
- Other operational deficiencies
- Interference of the third parties
- Interference of organisations involved in production process
- Animals and birds
- Design, structural, manufacturing or installation faults (shortcomings)

✓ All activities dictated by the Federal Service for Ecological, Technological, and Nuclear Supervision with a deadline in 2022 were fulfilled and decontrolled.

DEVELOPMENT OF ADDITIONAL (NON-TARIFF) SERVICES

“ Development of additional (non-tariff) services is one of Rosseti Kuban’s priorities.

In this regard, Rosseti Kuban’s key goals are to expand the market share of additional (non-tariff) services and non-tariff revenues, improve service accessibility and commercialise consumer engagement procedures.

Rosseti Kuban provides a full range of services in accordance with the Unified Consolidated List of Additional (Non-Tariff) Services for Consumers approved by Rosseti, PJSC.

Rosseti Kuban carried out a variety of steps in 2022 as part of the development of additional services:

- Company’s branches established non-tariff services divisions and groups within their customer relations units. The staffing schedules of the Company’s branches were changed. These units are responsible for organising and coordinating the provision of additional (non-tariff) services
- Training seminars were organised and conducted in the area of additional services

- The regulations on the process of implementing additional (non-tariff) services were updated
- Advertising and information activities were implemented to raise consumer awareness of the additional services provided by the Company
- Centralised supply of material and technical resources was organised according to the needs defined on the basis of requests from the Company’s branches. Framework agreements were concluded for the supply of materials for additional services
- New types of additional services were introduced

Revenue from additional services increased significantly over the prior year as a result of the methodical development of new services.



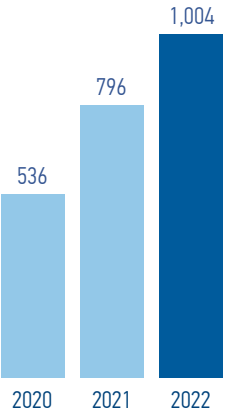
DMITRY GORYACHEV

Head of Non-Tariff Service Development Department

In addition to electricity transmission and grid connection services subject to mandatory state regulation, Rosseti Kuban provides additional (non-tariff) services to consumers:

- equipment leasing and placement services
- repair and maintenance
- construction and installation
- consulting, organisational and technical services
- other services

DYNAMIC PROFILE OF REVENUE FROM ADDITIONAL SERVICES IN 2020–2022 (RUB MN)



1,003.9 RUB mn
additional service revenue in the reporting year, (6% more than planned)

208.1 RUB mn
(26%)
year-on-year increase in revenue from additional services for 2022