

# RELIABLE AND EFFICIENT OPERATION OF THE ENERGY SYSTEM

**Key message** Our top priorities remain the same: integrating cutting-edge technologies into critical production procedures and guaranteeing the stable and uninterrupted functioning of the power grid in the Republic of Adygeya, the Sirius federal territory, and the Krasnodar Krai.

In the reporting year, the Company managed to achieve solid results thanks to the delivery of all production plans and programmes. Steps were taken to make the power grid more reliable, improve maintenance and repairs, introduce new technology, automate and mechanise production processes, and improve health and safety for the Company's employees. Getting the power grid ready for the extreme heat and the holiday season was given extra attention.

In September 2024, the Company was granted TGO status. As decided by the regional headquarters, effective from 2025, the Company is required to assist in remedying disturbances on ownerless power grids and facilities of third-party energy companies that require aid in dealing with the consequences of natural disasters.

**Vladimir Mikhailov**  
Deputy General Director  
for Technical Affairs — Chief Engineer

In 2024, Rosseti Kuban PJSC was able to meet its core production goal of keeping the power grid equipment running reliably. The Company successfully completed the repair programme in full and on schedule,

and went through the steps to make sure power supply is more reliable for consumers in the Krasnodar Krai and the Republic of Adygeya, and got cleared to start the 2024/2025 heating season.

In the reporting year, the Company's reliability indices ( $I_{\text{saidi}}$ ,  $I_{\text{saif}}$ ) did not exceed the target values set by the Krasnodar Krai State Tariff Regulation Department (KKSTRD) for the reporting year, taking into account the allowable deviation.

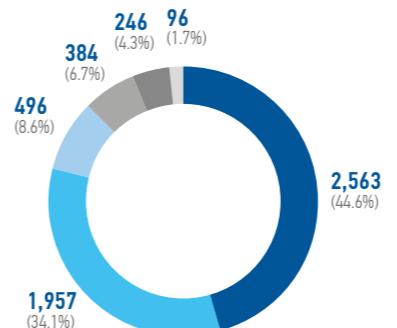
## Reliability indices of the Company

Indicator	Values set by the KKSTRD		Indicator value (actual)	Deviation from target (within tolerance), %
	target	target within tolerance		
System average interruption duration index per point of delivery ( $I_{\text{saidi}}$ ), h	2.7886	3.6252	3.2982	-9.0
System average interruption frequency index per point of delivery ( $I_{\text{saif}}$ ), interruptions	1.0809	1.4052	1.2401	-11.7

In the reporting year, there was a

**4.9 %**  
year-on-year decrease in the number of service disruptions in 110 kV and higher grids

## Main causes of accidents in Rosseti Kuban's power grids in 2024



- Impact of recurring natural phenomena
- Unatisfactory technical condition of the equipment (ageing of insulation, loss of mechanical strength of wires, change of material properties, etc.)
- Impact of organisations involved in the technological process
- Exposure to unauthorised persons and organisations not involved in the technological process
- Defects in design, construction, workmanship
- Impact of animals and birds

During the reporting year, Rosseti Kuban did not record any cases of emergency shutdowns of power grid equipment due to fire.

The focus in 2024 was on:

- Maintaining the specified condition of production assets, including PTLs, substation equipment, relay protection and automation devices
- Identifying and eliminating defects in a timely manner based on the power equipment monitoring results
- Ensuring readiness for prevention of and response to service disturbances:
  - Agreements/contracts with contractors and related power grid organisations were updated, as well as with the EMERCOM of Russia and the Federal Service for Hydrometeorology and Environmental Monitoring,
  - 415 crews, 1,929 people and 788 units of equipment were made ready, including 22 mobile crews (123 people) armed with the right gear (22 motor vehicles and 27 special vehicles), as well as tools, rigging, spare parts kits, communication equipment, spare sets of special clothing, food rations and financial resources,
  - Company's emergency supplies are fully stocked,
  - Operational readiness of 121 emergency power supply sources (EPSS) with a total capacity of 14,274.5 kW was verified, including 110 mobile EPSSs with a total capacity of 13,810.5 kW,
  - Four joint exercises were conducted to drill emergency response procedures in the event

of power supply disruptions, with the participation of the EMERCOM of Russia in the Krasnodar Krai and the Republic of Adygeya, as well as the executive authorities of the Krasnodar Krai and the Republic of Adygeya and local government bodies.

Successful preparations were made for the heating season. Every year, Rosseti Kuban confirms its readiness for the heating season by obtaining a readiness certificate. The results of the assessment of the readiness of energy companies for the 2024/2025 heating season were approved by Order No. 2147 of the Ministry of Energy of the Russian Federation dated 5 November 2024.

The Company's preparations for the flood period were supervised by the Central Flood Commission<sup>1</sup> as part of the efforts of the Kuban Headquarters and similar commissions of Rosseti Kuban<sup>2</sup> branches. During the preparation stage and during the flood period, 78 activities were taken, including:

- Power grid facilities in potential flood zones were monitored, and the list of such facilities was updated. According to the monitoring results, up to 359 facilities (2.2% of the total number of power grid facilities) fall into the potential flooding zone, including 111 main grid facilities (23 35–220 kV substations, 88 segments of 35–110 kV overhead transmission lines (OTL)) and 248 distribution grid facilities (164 segments with 10–0.4 kV OTL poles and 84 segments of 10/0.4 kV transformer substations).

<sup>1</sup> Approved by Order No. 40-od dated 23 January 2024 'On preparations and tasks for the successful weathering of the spring flood and high water period in 2024'.

<sup>2</sup> The Kuban Headquarters is a permanent coordinating body that includes the heads of the Company and its branches, representatives of contractor organisations, government bodies at various levels (as agreed), who have experience in planning and making decisions under conditions of actual or threatened power supply disruptions to consumers, in emergency response, etc., as well as sufficient authority to mobilise the necessary resources.

- Between 10 and 11 April 2024, drill exercises were held involving the management bodies, forces and resources of the territorial units of the functional subsystems of the Russian Unified Emergency Rescue Service (RUERS) of the Krasnodar Krai and the Republic of Adygeya to rehearse the response of management bodies, forces and resources of the Company in the event of emergencies and natural and man-made disasters caused by the impact of hazardous meteorological phenomena during the flood period.
- A total of 54 anti-accident exercises were conducted in the Company's power grid branches to mitigate potential consequences of flooding of power grid infrastructure.
- Flood commissions held 11 meetings to address issues of preventing and responding to potential service disturbances and/or emergencies at the Company's power grid facilities during the spring-summer flood period.
  - Rosseti Kuban took part in meetings of emergency response and fire safety commissions under the administrations of the Krasnodar Krai and the Republic of Adygeya. The commission meetings focused on the readiness of the Company's power grid facilities for the flood season; no claims or comments were raised by the executive authorities or the emergency response and fire safety commissions

under the administrations of the aforementioned constituent entities of the Russian Federation.

- In accordance with the approved inspection schedule for power grid facilities located in high-risk areas, river crossings of OTLs, as well as 1,795 poles, and 107 site grid facilities were inspected. Inspections revealed no damage.
- Specialised equipment, machinery and mechanisms were made available and kept in good working order.
- A check was carried out to ensure that emergency supplies were available and stored appropriately, revealing:
  - that the equipment, materials and spare parts in the emergency supply kit comply with established standards,
  - that the storage conditions for equipment, materials, spare parts, and access routes can ensure the prompt loading of materials and equipment for delivery to the site of possible emergency damage,
- A check was carried out to ensure that crews were equipped with the necessary tools and gear, as well as protective equipment, and that specialised vehicles, machinery and engines were ready for operation, and that communication devices and warning systems were in working order. The check revealed no violations in the storage of protective equipment, tools, and devices.

The watercraft and water pumping equipment were checked to ensure they were ready for use. In the event

of flooding, the available watercraft (four small vessels) and 22 motor pumps are all ready to go.

During the flood period, the Company's grids control centre also maintained daily communication with regional centres for hydrometeorology and environmental monitoring in the Krasnodar Krai and the Republic of Adygeya, the Hydrometeorological Centre in Sochi, and the crisis management centres of the Main Directorates of the EMERCOM of Russia for the Krasnodar Krai and the Republic of Adygeya. Real-time info on weather conditions and flood situations at water bodies in the Krasnodar Krai and the Republic of Adygeya was coming in.

During the flood period from 1 May to 30 September 2024, 153 daily hydrometeorological bulletins and 36 storm warnings on adverse meteorological phenomena were received, including information on threats of water level rise in the rivers of the Krasnodar Krai and the Republic of Adygeya (down 28.5% year-on-year).

All measures mandated by Rostekhnadzor to be completed by 2024 were done and no longer being monitored.

The Kuban Headquarters runs 24/7 to guarantee the dependable functioning of the power grid system in the event of power outages and other emergency scenarios involving disturbances in the power supply. Representatives of the Kuban Headquarters are regularly involved in ensuring the security of power supply in the Krasnodar Krai and the Republic of Adygeya.

## SALE OF ADDITIONAL (NON-TARIFF) SERVICES

**“** The Company successfully continues to organise and develop additional (non-tariff) services in 2024 as part of its business diversification efforts.

The Company achieved its planned revenue targets for non-tariff services: revenue amounted to RUB 1,283.3 million (43% higher than the target).

Particular attention was paid to the provision of access to fibre optic communication lines (FOCL). Work was carried out to identify and eliminate uncontracted suspension of FOCLs at the Company's power grid facilities. Thus, the number of contracted poles increased by 83% by the end of 2024, reaching 485,677. The share of FOCL connection to OTLs was 27.6%, against a target of 18.2%. Year-on-year revenue growth in this area stood at 106% (RUB 163.1 million).

**Anatoly Abusalimov**

Head of the Department  
for the Development of Non-Tariff Services

In 2024, the Company's revenue from the sale of additional services amounted to

**1,283.3**  
RUB MILLION  
(43% above the target)

Rosseti Kuban provides consumers with a full range of additional (non-tariff) services:

- Lease and equipment placement services (lease of buildings, power grid facilities and vehicles; placement of communications equipment, outdoor advertising and other property)
- Maintenance and repair of power grid facilities and outdoor lighting networks
- Construction and installation works, design and survey works
- Consulting, organisational and technical services
- Other services

### Structure of revenue from additional services in 2022–2024

Indicator	2022	2023	2024	Δ 2024/2023 (%)
Revenue from sale of additional (non-tariff) services related to other activities, total (RUB million)	1,003.9	912.5	1,283.3	+41
Including:				
Leasing and placement of equipment	148.9	199.5	630.7	+216
Repair and maintenance services	344.2	200.1	90.3	-55
Construction and installation	399.0	375.5	439.1	+17
Consulting, organisational and technical services	108.3	116.0	117.5	+1
Agency services	0	0	0	0
Communication and information technology services	0.001	0	0	0
Other activity services	3.5	21.3	3.2	-85
Other services	0	0.098	2.5	+2,457
Volume (share) of non-tariff revenue in total revenue of Rosseti Kuban PJSC (%)	3.4	2.6	3.4	+0.8 p.p.