

ENERGY SAVING AND ENERGY EFFICIENCY IMPROVEMENT

The Company's Regulatory Documents on Energy Saving and Energy Efficiency Improvement:

- Federal Law "On Energy Saving and Improving Energy Efficiency and Amending Certain Legislative Acts of the Russian Federation" No. 261-FZ dated November 23, 2009;
- Decree of the Government of the Russian Federation "On the Procedure for Establishing Requirements for Programs in the Field of Saving Energy and Improving the Energy Efficiency of Organizations Engaged in Regulated Activities" No. 340 dated May 15, 2010;
- Decree of the Government of the Russian Federation "On Investment Programs of Electric Power Industry Entities" No. 977 dated December 1, 2009;
- Order of REC-PTD KT "On Approval of Requirements for Programs in the field of Saving Energy and Improving the Energy Efficiency of Organizations Engaged in Regulated Activities in the Krasnodar Territory" No. 5/2011 dated March 31, 2011;
- Law of the Krasnodar Territory "On Energy Saving and Improving Energy Efficiency in the Krasnodar Territory" No. 1912-KZ dated March 3, 2010;
- Kubanenergo's Program for Saving Energy and Improving the Energy Efficiency for 2017–2022 approved by the Company's Board on November 30, 2017 (Minutes No. 290/2017) (hereinafter referred to as the Program).

To make sure that the Program is implemented as is right and proper, Rosseti Kuban appointed officials responsible for arranging and monitoring its fulfillment and established working groups.

The Program targets are:

- reduction of electric losses in transmission and distribution grids;
- consumption of energy resources for business needs;
- number of LED-based lighting devices.
- the numerical values of the Program targets were set for 2017–2022.

The Company's Results in Energy Saving and Energy Efficiency Improvement in 2020

Planned and Actual Target Values of the 2020 Program

No.	Indicator	Unit of measurement	Target	Actual
1	Electricity losses	mIn kWh	3,048.86	2,310.76
		RUB mln, excl. VAT	10,770.87	8,284.103
		% of total electricity delivery to the grid	12.77	10.04
2	Consumption for substation utilities	mIn kWh	18.64	17.28
		% of electric losses	0.61	0.75
3	Total consumption of energy resources for business needs of administrative and industrial buildings Including:	RUB mln, excl. VAT	140.65	120.74
		thsd toe	4.42	4.14
3.1	electric energy	mIn kWh	30.16	30.29
		thsd toe	3.62	3.63
		RUB mln, excl. VAT	127.59	114.05
		mIn kWh/sq.m	0.00014	0.00014

No.	Indicator	Unit of measurement	Target	Actual
3.2	heat energy (building heating systems)	Gcal	4,505.16	2,737.99
		thsd toe	0.64	0.39
		RUB mln, excl. VAT	11.29	5.65
		Gcal/cu.m	0.00655	0.00398
3.3	natural gas (including liquified)	thsd cu.m	139.74	100.38
		thsd toe	0.16	0.12
		RUB mln, excl. VAT	1.77	1.05
3.4	other types of fuel and energy resources (coal, fuel oil, diesel fuel, kerosene, etc.)	thsd cu.m	–	–
		thsd l	–	–
		thsd t	–	–
		thsd toe	–	–
		RUB mln, excl. VAT	–	–
4	Total consumption of natural resources for business needs of administrative and industrial buildings Including:	RUB mln, excl. VAT	5.49	2.51
		thsd cu.m	116.53	68.70
4.1	hot water supply	thsd cu.m	–	–
		RUB mln, excl. VAT	–	–
4.2	cold water supply	thsd cu.m	116.53	68.70
		RUB mln, excl. VAT	5.49	2.51
4.3	other types of natural resources	thsd cu.m	–	–
		thsd l	–	–
		thsd t	–	–
		RUB mln, excl. VAT	–	–
5	Total motor fuel consumption by motor vehicles and special-purpose vehicles Including:	thsd l	8,018.55	7,414.36
		thsd toe	9.37	8.72
		RUB mln, excl. VAT	332.96	284.92
5.1	gasoline	thsd l	5,096.82	4,223.05
		thsd toe	5.77	4.78
		RUB mln, excl. VAT	223.24	162.27
5.1.1	by motor vehicles	thsd l/100 km		
		thsd l	5,096.82	4,223.05
		thsd toe	5.77	4.78
		RUB mln, excl. VAT	223.24	162.27
5.1.2	by special vehicles	thsd l/100 km		0.020
		thsd l	–	–
		thsd toe	–	–
		RUB mln, excl. VAT	–	–
		thsd l/100 km	–	–
5.2	diesel fuel	thsd l / moto hours	–	–
		thsd l	2,921.73	3,191.31
		thsd toe	3.60	3.93
		RUB mln, excl. VAT	109.72	122.65
		thsd l/100 km		
5.2.1	by motor vehicles	thsd l	2,921.73	3,191.31
		thsd toe	3.60	3.93
		RUB mln, excl. VAT	109.72	122.65
		ths. l/100 km		0.053
5.2.2	by special vehicles	thsd l	–	–
		thsd toe	–	–
		RUB mln, excl. VAT	–	–
		thsd l/100 km	–	–
5.3	other types of fuel for motor vehicles and special equipment	thsd l / moto hours	–	–
		thsd toe	–	–
		RUB mln, excl. VAT	–	–
5.3.1	natural gas (including liquified)	thsd l	–	–
		thsd toe	–	–
		RUB mln, excl. VAT	–	–

No.	Indicator	Unit of measurement	Target	Actual
5.3.2	electric energy	mIn kWh	–	–
		thsd toe	–	–
		RUB mln, excl. VAT	–	–
6	Share of buildings and structures of regulated organizations, for which there is a report on the energy audit	%	100	100
7	The share of buildings and structures of regulated organizations equipped with water meters	%	100	100
8	The share of buildings and structures of regulated organizations equipped with natural gas meters	%	100	100
9	The share of buildings and structures of regulated organizations equipped with thermal energy meters	%	100	100
10	The share of buildings and structures of regulated organizations equipped with electric power meters	%	100	100
11	Share of buildings and structures of regulated organizations equipped with low-energy light bulbs	%	25	22
12	Use of energy-efficient LED-based lighting facilities Including:	%	75	78
12.1	with energy-saving lamps (without LED)	pcs.	6,213	5,598
12.2	with LEDs	pcs.	18,639	19,385

After the recertification audit conducted by the Russian Register Certification Association, on December 21, 2020, Rosseti Kuban collected certificates of compliance of the energy management system with the requirements of ISO 50001:2018 standard for energy saving activities for processes related to the transmission and distribution of electricity through 110 kV and below power grids, as well as to design, construction, reconstruction, and major repairs of energy facilities in the Krasnodar Territory and the Republic of Adygea.

In the reporting year, the energy management system was subject to the internal audit resulted in the identification of corrective measures and setting of deadlines for their implementation.

Improvements yielded by the energy management system:

- implementing energy service contracts;
- involving each employee of the organization in achieving goals in the field of energy efficiency and energy saving;
- continuous analysis of energy losses (feeder-based analysis);
- reducing the electric losses through organizational and technical measures, including energy service contracts: replacement/installation of standard metering devices at the battery limits with consumers, replacement/installation of data computing systems of electrical installations on 10(6)/0.4 kV transformer substations, raids to identify off-the-meter and non-contracted electricity consumption, analysis of the causes of unbalances, replacement of underloaded/overloaded transformers;
- meeting the Company's goals pertaining to energy efficiency and energy conservation in terms of electric losses.

Staff training in 2020

Training topic	Number of employees trained
Energy saving and energy efficiency improvement (within the framework of the program of professional retraining of engineering staff of energy enterprises in the course "School of Training of Specialists in the promotion and sale of services")	22
Conduct of energy audits to improve energy efficiency and energy saving	22
Management of saving energy and energy efficiency improvement at energy enterprises in compliance with the international standard ISO:50001	29