

# ENERGY SAVING AND ENERGY EFFICIENCY INCREASE

## DOCUMENTS REGULATING THE ACTIVITIES OF THE COMPANY IN THE FIELD OF ENERGY CONSERVATION AND ENERGY EFFICIENCY

In the reporting year, work on energy saving and energy efficiency was carried out by the Company in accordance with:

- Federal Law dated 11.23.2009 No. 261-ФЗ "On energy saving and on increasing energy efficiency and on introducing amendments to certain legislative acts of the Russian Federation";
- Decree of the Government of the Russian Federation of 15/05/2010 No. 340 "On the Procedure for Establishing Requirements for Programs in the Field of Energy Saving and Improving the Energy Efficiency of Organizations Engaged in Regulated Activities";
- by Decree of the Government of the Russian Federation dated 01.12.2009, No. 977 "Concerning the investment programs of the electric power engineering entities" (in the current edition);
- By the Order of REC-DPR KR, dated March 31, 2011, No. 5/2011 "Concerning the approval of requirements for programs in the preservation and energy efficiency of the companies, engaged in the controlled activities in the Krasnodar Territory";
- The Law of the Krasnodar Territory of 03.03.2010 No. 1912-K3 "On Energy Saving and Improving Energy Efficiency in the Krasnodar Territory";
- The Energy Saving and Energy Efficiency Improvement Program of Kubanenergo PJSC for 2017–2022, approved by the Company's Board of Directors on November 30, 2017 (minutes No. 290/2017) (further in the text referred to as the Program).

To ensure the implementation of the Program, Kubanenergo PJSC appointed persons responsible for organizing, implementing, and monitoring the implementation of energy-saving measures and energy efficiency.

The target indicators of the Program are:

- electric power losses during transmission and distribution over electric networks;
- consumption of energy resources for economic needs;
- parts of buildings, structures, facilities of Kubanenergo PJSC:
  - / for which there is a report on the energy survey,
  - / equipped with water metering devices,
  - / equipped with natural gas meters,
  - / equipped with heat metering devices,
  - / equipped with electricity metering devices,
- equipped with energy-saving lamps for lighting;
- the total amount of used lighting devices with LEDs for illumination.

THE NUMERICAL VALUES OF THE PROGRAM TARGET INDICATORS WERE SET FOR THE PERIOD 2017–2022.

## THE RESULTS OF THE COMPANY'S ACTIVITIES IN THE FIELD OF ENERGY-SAVING AND ENERGY EFFICIENCY IN 2018

Planned and actual values of the Program target indicators for 2018

SEQ NO.	NAME OF AN INDICATOR	UNITS OF MEASURE	2018	
			PLANNED	ACTUAL
1	Power loss	million kW • h	2,934.25	2,590.15
		million rubles without VAT	9,177.11	7,704.48
		% of network output	12.79	11.25
2	Consumption of own needs substations	million kW • h	18.93	17.12
		% of electricity losses	0.65	0.66
3	The consumption of energy resources for the economic needs of administrative and industrial buildings in total, including:	million rubles without VAT	130.04	110.50
		thousand tons of fuel equivalent	4.70	4.49
3.1.	electricity	million kW • h	32.05	30.97
		thousand tons of fuel equivalent	3.85	3.72
		million rubles without VAT	117.96	101.57
		million kW • h/ sq. m	0.00015	0.00015

SEQ NO.	NAME OF AN INDICATOR	UNITS OF MEASURE	2018	
			PLANNED	ACTUAL
3.2.	thermal energy (building heating systems)	Gcal	4,788.14	4,369.92
		thousand tons of fuel equivalent	0.68	0.62
		million rubles without VAT	10.44	8.06
		Gcal/cubic m	0.00696	0.00635
3.3.	natural gas (including liquefied)	thousand cubic meters	148.52	127.33
		thousand tons of fuel equivalent	0.17	0.15
		million rubles without VAT	1.64	0.87
3.4.	other types of fuel and energy resources (coal, fuel oil, diesel fuel, kerosene, etc.)	thousand cubic meters	-	-
		thousand liters	-	-
		thousand tons	-	-
		thousand tons of fuel equivalent	-	-
		million rubles without VAT	-	-
4.	Consumption of natural resources for the economic needs of administrative and industrial buildings in total, including:	million rubles without VAT	5.08	2.62
		thousand cubic meters	123.85	82.32
4.1	hot water supply	thousand cubic meters	-	-
		million rubles without VAT	-	-
4.2	cold water supply	thousand cubic meters	123.85	82.32
		million rubles without VAT	5.08	2.62
4.3	other types of natural resources	thousand cubic meters	-	-
		thousand liters	-	-
		thousand tons	-	-
		million rubles without VAT	-	-
5	Consumption of motor fuel by motor transport and special equipment of everything, including:	thousand liters	8,522.21	7,704.51
		thousand tons of fuel equivalent	9.96	9.04
		million rubles without VAT	314.21	282.80
5.1.	gasoline, including:	thousand liters	5,416.97	4,548.31
		thousand tons of fuel equivalent	6.13	5.15
		million rubles without VAT	206.40	166.63
5.1.1.	by road	thousand l/100 km		
		thousand liters	5,416.97	4,548.31
		thousand tons of fuel equivalent	6.13	5.15
5.1.2.	by special equipment	million rubles without VAT	206.40	166.63
		thousand l/100 km		
		thousand liters	-	-
5.2.	diesel fuel, including:	thousand tons of fuel equivalent	-	-
		million rubles without VAT	-	-
		thousand l/100 km		
5.2.1.	by road	thousand liters/engine hours		
		thousand liters	3,105.25	3,156.20
		thousand tons of fuel equivalent	3.83	3.89
5.2.2.	by special equipment	million rubles without VAT	107.81	116.17
		thousand l/100 km		
		thousand liters	-	-
5.3.	Other fuels for motor vehicles and special equipment of all, including:	thousand tons of fuel equivalent	-	-
		million rubles without VAT	0.01	-
		thousand l/100 km		

SEQ NO.	NAME OF AN INDICATOR	UNITS OF MEASURE	2018	
			PLANNED	ACTUAL
5.3.1	natural gas (including liquefied)	thousand liters	5.34	-
		thousand tons of fuel equivalent	0.01	-
		million rubles without VAT	0.09	-
5.3.2	electricity	million kW • h	-	-
		thousand tons of fuel equivalent	-	-
		million rubles without VAT	-	-
6.	Percentage of buildings, structures, facilities of the regulated organization which have a report made after the energy survey	%	100.00	100.00
7.	Percentage of buildings, structures, facilities of the regulated organization, equipped with water metering devices	%	100.00	100.00
8.	Percentage of buildings, structures, facilities of a regulated organization equipped with natural gas metering devices	%	100.00	100.00
9.	Percentage of buildings, structures, facilities of a regulated organization equipped with heat metering devices	%	100.00	100.00
10.	Percentage of buildings, structures, facilities of the regulated organization, equipped with electricity metering devices	%	100.00	100.00
11.	Percentage of buildings, structures, facilities of the regulated organization, equipped with energy-saving lamps for lighting	%	70.00	68.00
12.	The total amount of used lighting devices using LEDs for lighting	%	30.00	32.00

KUBANENERGO PJSC OBTAINED CERTIFICATES OF COMPLIANCE WITH THE REQUIREMENTS OF ISO 50001: 2011 (GOST R ISO 50001-2012 "ENERGY MANAGEMENT SYSTEMS. REQUIREMENTS AND APPLICATION GUIDE") DATED 07.11.2018, NO. 18.2026.026.

During 2018, a personnel training was conducted on the following topics:



SUBJECT OF TRAINING	NUMBER OF TRAINED PEOPLE
Management of energy saving and energy efficiency of energy companies based on the international standard ISO: 50001	27
Energy-saving and increase of energy efficiency (in the framework of the advanced training program for engineering and technical workers of power enterprises in the course "School of training specialists in the development and implementation of services")	18

In accordance with the requirements of the Decree of the Government of the Russian Federation dated September 27, 2016 No. 971, the program target set the requirement to increase the volume of used lighting devices using LEDs for lighting in 2018 to 30% of the total number of lighting devices. The target indicator was met by the end of 2018; the volume of used lighting devices with LEDs was 32%.

During 2018 Kubanenergo PJSC took part in the following measures to promote energy saving:

- in the All-Russian festival of energy-saving "Vmeste-Yarche" in Krasnodar, held by the Ministry of Fuel and Energy Complex and Housing and Public Utilities of the Krasnodar Territory [an exhibition stand demonstrating energy-saving technologies and an electrical safety lesson were presented]
- in the branches of electrical networks open days were held to familiarize schoolchildren with the profession of energy;

- for the youngest (children from kindergartens) the "Alphabet of Electrical Safety and Energy Saving" event was arranged with the involvement of the student team;
- in the creative competition for the best project "Energy of the Future": energy saving quiz "Energy charge": tesla-show, quiz "Energy charge";
- electrical safety lessons, energy-saving culture and safe behavior on the street and in everyday life, competitions of children's drawings are regularly held in the branches of the Company.

In the reporting year, JSC "Energoservice Kuban" completed the R&D "Compensation of the consumption of fuel and energy resources through the use of renewable energy sources at the facilities of Kubanenergo PJSC."