Results of Operating Activities

Electricity Transmission

Edgar Garriyevich Armaganyan
Deputy Director General
for Service Sales

"Transmission and distribution of electric power to customers through electric grids of 110 kV and less is the main activity of Kubanenergo PJSC. The share of power transmission services in the total revenue of the Company for the reporting year amounted to 94.1%.

In 2016 the Company achieved the planned key indicators for electric power transmission and distribution: the revenue growth for electric power transmission services was 2.02% of the planned amount, electric power supply to the grids increased by 3.18%, electric power losses in the process of transmission amounted to 12.96% which is lower than the planned level by 0.09 pp.

Following the results of the execution of energy service agreements, the benefit of 2016 amounted to 119.2 mln kWh, including reduction of losses equal to 66.9 mln kWh."

Key Indicators

In 2016, there was an increase in power supply to the grid of Kubanenergo PJSC, as compared with the previous year, for 699.7 mln KWh (3.18%), which is due to an increase in customer demand for electricity in view of the active development of the region.

Results of the Company' production activity for 2014–2016:

Indicators	2014	2015	2016	Change of indicators in 2016 as compared to 2015
Supply to the grid, mln KWh	21,572.653	22,032.578	22,732.291	+699.713
Supply from the grid to customers and related territorial network organizations within the limits of the balance and operational responsibility, mln KWh	18,719.929	19,196.901	19,786.650	+589.749
Electric power losses in the process of transmission,				
mln kWh	2,852.724	2,835.676	2,945.641	+109.965
%	13.22	12.87	12.96	+ 0.09 pp
Volume of power transmission services rendered,				
mln kWh	17,082	17,457	18,059	+602
RUB mln	28,464	34,403	39,262	+4,859

Actual power losses in the electric grids of Kubanenergo PJSC for the reporting pyear amounted to 2,946 mln kWh or 12.96% of the total supply to the grid, which was for 109.97 mln kWh more than the indicator of 2015. The relative level of electricity losses in 2016 also increased by 0.09 pp compared to 2015. The target for "Electric Power Losses" rate was achieved.

Overall in 2016, the Company rendered power transmission services in the amount of 18,059 mln kWh, which was for 602 mln kWh or 3.45% more than in 2015.

Measures to Reduce Power Losses

Work to reduce power losses is one of the Company priority areas.

Following the results of 2016, the total benefit gained due to implementation of the measures aimed at the decrease in electricity losses in the process of transmission was equal to 120.2 mln kWh (RUB 495.0 mln), including due to:

- ✓ organizational measures: 47.3 mln kWh (RUB 208.3 mln);
- ✓ technical measures: 4.2 mln kWh (RUB 10.8 mln);
- ✓ improvement of electric power accounting: 68.7 mln kWh (RUB 276.1 mln).

This work is supposed to be continued.

Loss reduction measures of the program were fulfilled; the program target level of power losses was achieved.

Electric Power Fiscal Accounting

The following number of subscribers was registered in Kubanenergo PJSC as of 12/31/2016:

- 56,601 legal entities with a total of 100,035 electricity metering points;
- 1,031,665 domestic customers with a total of 1,031,665 metering points.

Whereas the plan was to upgrade 55.3 thou metering points in 2016 at planned costs of RUB 241.6 mln, over 27 thou metering points were actually upgraded, and the costs amounted to RUB 280.4 mln. Failure to fulfill the plan was due to the termination of 3 out of 18 energy service agreements, 2 out of 3 terminated agreements were renewed with other energy service companies at the end of 2016, works of the renewed agreements shall be performed in 2017.

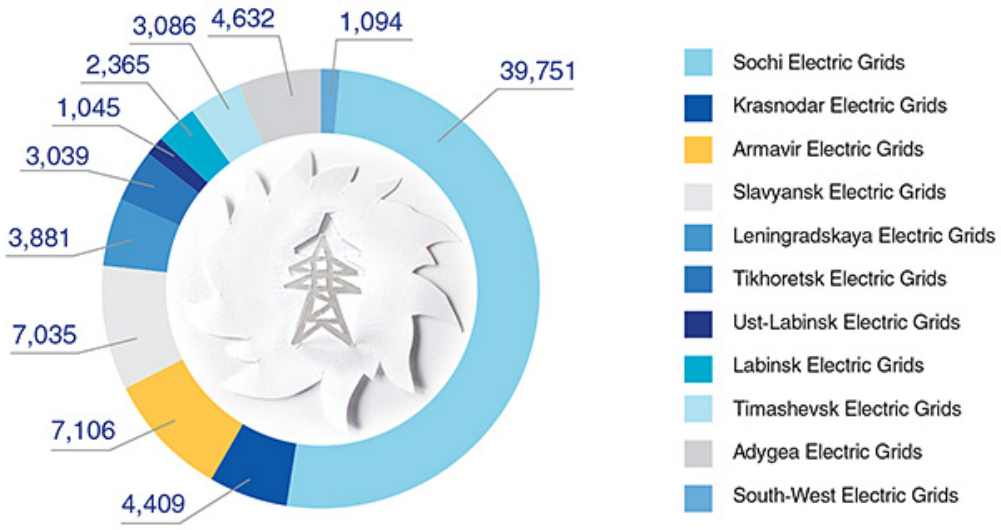
Implementing automated electric power control and accounting systems (AEPCAS)

In 2016, within the implementation of energy service agreements, the Company organized the remote data collection from 16,439 electric power metering points, whereas the automation plan was for 45,723 metering points. Failure to fulfill the plan was due to the termination of 3 energy service agreements.

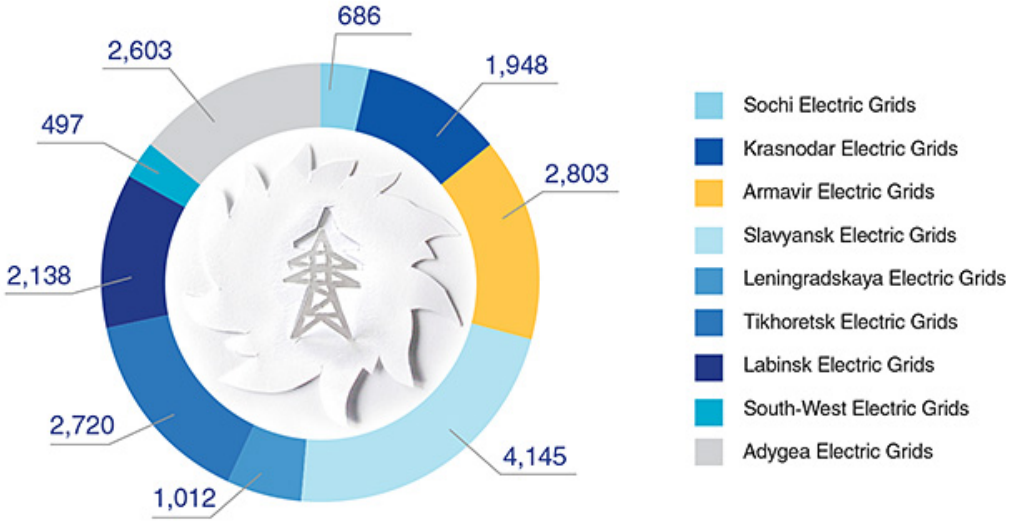
Besides, the Company investment program stipulated installation and automation of 2,148 metering devices in 2016; in fact 2,113 metering devices were installed and automated (failure to fulfill the plan was due to the termination of the power supply agreement between customers and the energy sales company).

The number of Company AEPCAS as of 12/31/2016 was 77,443 pcs (including within the framework of implementation of energy service agreements).

Total Number of AEPCAS, including those under Energy Service Agreements among Kubanenergo PJSC Branches as of 12/31/2016, pcs

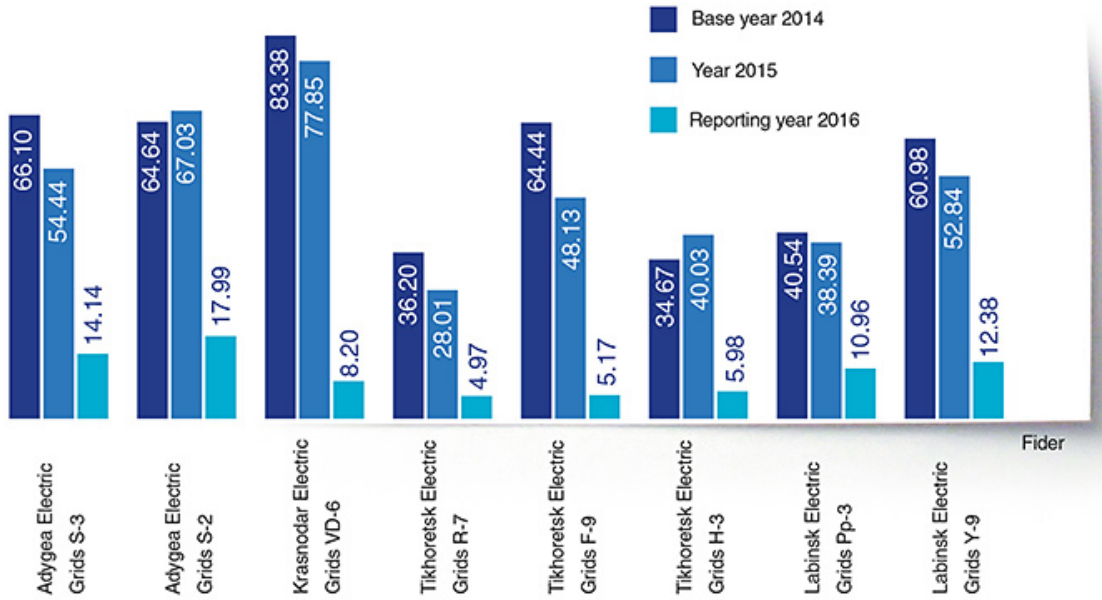


Accounting Systems Automated in 2016 under Energy Service Agreements among Kubanenergo PJSC Branches, pcs



AEPCAS implementation proved its efficiency in reducing electricity losses. In 2016, actual losses on feeders included in energy service agreements were reduced at the average to 11%.

Impact of AEPCAS Implementation in PJSC Kubanenergo Branches. Reduce of Losses on Feeders in Included PSC, %



In 2017, the Company plans to continue AEPCAS implementation under the energy service agreements. It is being planned to automate more than 28 thou Company metering points in general and to increase the number of AEPCAS to 110 thou pcs by the end of 2017 that shall amount to 9.71% of all electricity meters in the Company. Implementation of the energy service agreements allowed to reduce electric power losses by 66.9 mln KWh in the reporting year.

Technological Connection to Electric Grids of Kubanenergo PJSC

Vyacheslav Yuryevich Kostetskiy
Deputy Director General for Development and Technological Connection

"In 2016, the Company fulfilled a good few of valid agreements for technological connection, which enabled to reduce the amount thereof by 40%, and to reduce the amount of expired agreements by 91%.

Actual revenues from the services for technological connection in the reporting period amounted to 105% of the target value."

Upcoming technological connection activities of Kubanenergo PJSC are aimed at supplying the demands of the growing economy of the Krasnodar Krai for energy facilities, transition to a unified scheme of formation and application of rates for technological connection and achieving of interests balance in determining the cost of technological connection of customers to electric grids.

In accordance with the current legislation, Kubanenergo PJSC does not refuse the connection to any applicants submitting appropriate applications.

Basic regulations governing the Company's activities for technological connection of power receivers (power plants) of legal entities and individuals to the electric grids of Kubanenergo PJSC[4]:

- Federal Law "On Electricity Production" No. 35-FZ of 3/26/2003;
- Rules for technological connection of power receivers of electricity customers, electricity production facilities, as well as electric grid facilities that belong to electric grid companies and other parties to electric grids (approved by Decree of the Government of the Russian Federation No. 861 of 12/27/2004);
- Decree of the Government of the Russian Federation "On Pricing in the Area of Controlled Prices (Tariffs) in Electric Power Industry" No. 1178 of 12/29/2011;
- Order of the Federal Tariff Service "On Approval of Guidelines for Determining the Amount of Payment for Technological Connection to Electric Grids" No. 209-e/1 of 9/11/2012.

Execution of Agreements on Technological Connection of Customers

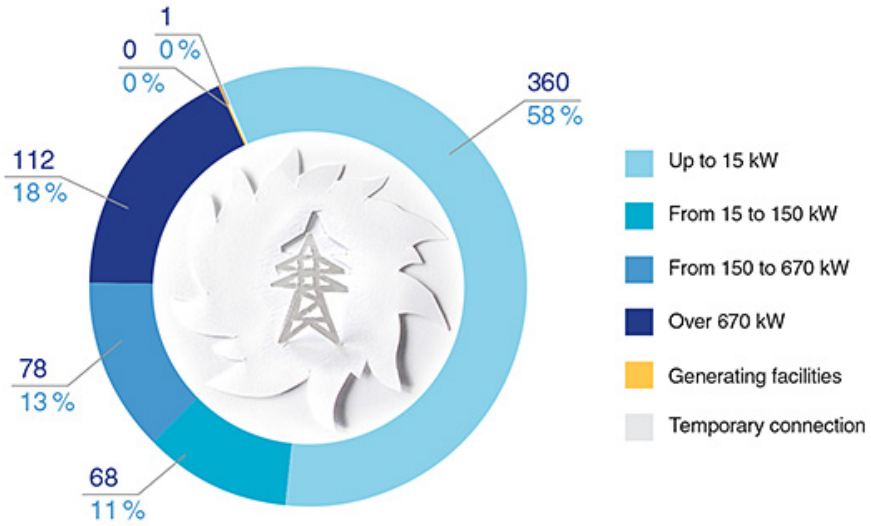
In the reporting year, the Company fulfilled 36,258 agreements for technological connection to electric grids of Kubanenergo PJSC. The total capacity under the fulfilled agreements for technological connection amounted to 618 MW which is less than the target (in MW) by 3.84%.

Connections in 2016 by customer categories, MW:

Connection Category	Number of Executed Agreements for Technological Connection	
	pcs	total capacity, MW
Up to 15 kW inclusive, total	34,890	359.58
including individuals, up to 15 kW inclusive	*29,417*	*301.98*
Over 15 and up to 150 kW inclusive	1,039	67.66
including the applicants having 50% rebate	*7*	*0.51*
including the applicants having used the installment plan	*2*	*0.17*
Over 150 kW and less than 670 kW	242	78.33
At least 670 kW	59	111.64
Electric power production facilities	0	0
Total amount, excluding temporary technological connections	36,230	617.21
Temporary connection	28	0.68
Total amount, including temporary technological connections	**36,258**	**617.89**

Structure of Kubanenergo PJSC Fulfilled Agreements for Connected Capacity, MW and %

[4] For the complete list of legal documents governing the technological connection process see the Company's website www.kubanenergo.ru, section "For Customers".



The largest and most important power facilities of the following applicants were connected to the electric grids of the Company in 2016:

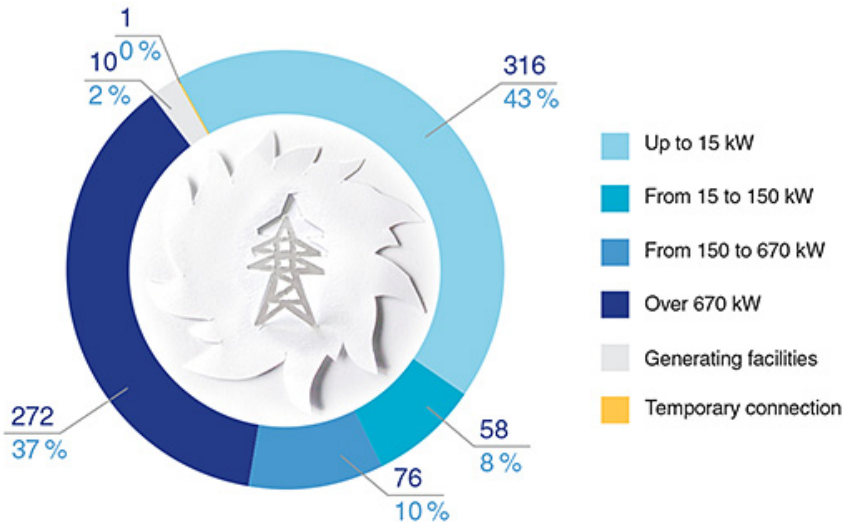
Applicant	Connected Capacity, MW
LLC IKEA MOS (Retail and Property)	10.0
LLC Gazprom Invest	8.7
CJSC Nemetskaya Derevnya	5.0

Volume of Customer Demand for Technological Connection in 2016

In 2016, the Company entered into 30,059 agreements (with generation facilities) for technological connection to electric grids of Kubanenergo PJSC for the total capacity of 734 MW with the total value of RUB 5.301 billion, excluding VAT.

Connection Category	Number of Concluded Agreements for Technological Connection	
	pcs	total capacity, MW
Up to 15 kW inclusive, total	28,827	316.06
including individuals, up to 15 kW inclusive	24,147	264.39
Over 15 and up to 150 kW inclusive	886	57.99
including the applicants having 50% rebate	86	5.78
including the applicants having used the installment plan	3	0.34
Over 150 kW and less than 670 kW	231	76.26
At least 670 kW	76	272.41
Electric power production facilities	2	10.40
Total amount, excluding temporary technological connections	**30,022**	**733.12**
Temporary connection	37	0.70
Total amount, including temporary technological connections	**30,059**	**733.82**

Structure of Kubanenergo PJSC Agreements for Connected Capacity Signed in 2016, MW and %



Volume of Resulting Revenue and Collected Funds

The revenue from services for technological connection in 2016 amounted to RUB 2,381 mln (excluding VAT), which is 5% more than the target. This over-fulfillment of the revenue plan for technological connection services was due to the early fulfillment of obligations under the agreements for technological connections.

In the reporting year, the Company earned RUB 2,746 million from technological connection services, which is 31.8% less than planned. The main reasons for shortage of funds are termination and extension of technological connection agreements.

In 2017, the Company plans to earn revenues from technological connection services in the amount of RUB 764 million (excluding VAT). CJSC Tamanneftegas requiring grid connection in 2017 represents a big revenue source (RUB 118 mln (excluding VAT)).

Technological Connection of Generating Facilities

Item No.	Applicant	Connected Generation Facility	Requested capacity for technological connection of generating plants to supply power to the grid, voltage class	Effective date, price (excl. VAT) of the agreement for technological connection	Technological Connection Status as of the End of 2016
	LLC RN-Tuapse Oil Refinery (rights and obligations under the agreement transferred to Rosneft Oil Company on 9/5/2014)	Tuapse Oil Refinery	24 MW, 110 kV	4/1/2010, RUB 56,371.8 thou	In September 2013, a certificate was signed confirming the fulfillment of Stages I and II under specifications by the applicant and on examination of metering devices. Stage III under specifications is not fulfilled by the applicant.
	Kurganinsk Group Water Pipeline, North-East Water Managing Company	Power generators for sewage treatment facilities	1.0 MW, 10 kV	7/25/2013, RUB 32.0 thou	On 11/24/2015, Kubanenergo PJSC notified the applicant of the fulfillment of contractual obligations. On 1/13/2016, the Company and the Applicant signed an additional agreement on extension of the deadline for activities implementation up to 11/9/2017.

	OJSC Fanagoria Agro-Industrial Company	Mini-TPP with two gas-piston plants	2 MW, 10 kV	5/6/2015, RUB 1,076 thou	The agreement is under implementation. At 35 kV Fanagoria SS, it is necessary to provide for the reconstruction of high-voltage equipment and relay protection and automatic equipment (substation control center construction, external short-circuit protection, directional current protection, lockout devices preventing out-of-step generator operation, automatic reclosing, operative direct current cabinet installation at Fanagoria SS, Vyshestebliyevskaya SS, etc.).
	OJSC Gazprom Teploenergo	Block-modular gas-piston plant for the boiler station	5.844 MW, 6 kV.	4/17/2015, RUB 18,877 thou	The agreement is under implementation. The amount of RUB 6,663 thou (excluding VAT) was received. The scope of works includes: • design and construction of two 6 kV cable power lines (each 0.6 km); • installation of two 6 kV cells on busbar sections I and II of 6 kV gas turbine of 110 kV Tuapse SS, laying of four pipes 225 mm in diameter (0.8 km) by method of horizontal directional drilling.
	OJSC Verhnebakansky Cement Plant	Power plant of Verkhnebakansky Cement Plant	56.41 MW, 6 kV.	9/3/2015, RUB 93.25 thou	Full payment was received on 9/4/2015. The acceptance certificate for the fulfillment of Stage I under the specification was signed on 11/3/2016.
	JSC Tander	Power station for the storage of food and non-food products	2.4 MW, 10 kV	11/3/2016, RUB 1,377 thou	Full payment was received on 11/10/2016. Works for the construction of electric grid facilities to be made by the Company are not subject to the specifications. The agreement for technological connection will be implemented upon completion of the facility construction by the Applicant
	JSC Tander	Power station for the administrative and office building	8.0 MW, 6 kV	11/3/2016, RUB 4,590 thou	Full payment was received on 11/10/2016. Works for the construction of electric grid facilities to be made by the Company are not subject to the specifications. The agreement for technological connection will be implemented upon completion of the facility construction by the Applicant

Reliable and Effective Operation of Electrical Power Systems

Igor Nikolayevich Shishigin
Deputy Director General for Technical Issues — Chief Engineer

"2016 was associated with adverse natural and climatic phenomena, such as:
- heavy precipitation in form of heavy rain, due to which flooding of territories and electric grid facilities occurred;
- high thunderstorm activity (average duration of thunder storms was 71.1 h, i. e. 22% more compared to 2015);
- two earthquakes with magnitude from 2.9 to 4.7 points were registered;
- excessive wind loads on ETL and substation equipment due to storms and hurricanes.

Despite the impact of adverse natural and climatic phenomena, Kubanenergo PJSC provided electricity to consumers in the Krasnodar Krai and the Republic of Adygea without long breaks.

At the year-end 2016, specific accident rate in electric grids of 6 kV and more decreased by 1.6% compared with the previous year (from 3.68 to 3.62 accidents / 1000 c.u.e.), while the under-supply of electricity decreased by 40.2% (from 6502.5 to 3889.6 thou kWh).

Accident rate decreased, in particular, due to:
- implementation of maintenance plans and target programs;
- implementation of equipment renovation programs;
- compliance with industrial safety requirements for the operation of hazardous production facilities;
- effective cooperation with Rostekhnadzor;
- technical verification of equipment for substations, power transmission lines, buildings and structures;
- implementation of a set of measures to ensure maximum readiness in the event of emergency situations;
- staff development;
- improvement of quality of accident investigation.

For successful passage of 2016/2017 autumn and winter period, 730 events were scheduled, all events were completed. In the period from September 15 to September 23, 2016, commission inspections of the readiness of branches of Kubanenergo PJSC to work in the autumn and winter period were held. All branches of Kubanenergo PJSC received certificates of readiness for work in the 2016/2017 autumn and winter period. The Commission of the Ministry of Energy of the Russian Federation issued on 9/27/2016 certificate of readiness to Kubanenergo PJSC for work in the 2016–2017 heating season No. 08-2016."

Ensuring Quality, Reliable and Uninterrupted Electric Power Supply to Customers

In order to ensure the reliability, quality and uninterrupted power supply to customers, the Company annually generates and fulfills a program of technical re-equipment, reconstruction, repair and maintenance of power facilities. Also, the Company takes measures aimed at ensuring reliable and accident-free work of its electric grids during flood seasons, periods of extreme high and low outside temperatures, lightning storm seasons, fire hazardous and fall-winter periods.

In 2016, Kubanenergo PJSC generally fulfilled the primary goal of its production activity, i. e. maintenance of sufficient functioning reliability level for the electric grid equipment.

In order to prevent fires and ignitions at the Company facilities, Order No. 169 of 3/1/2016 "On Preparation for Successful Passage of 2016 Fire Hazardous Period at Kubanenergo PJSC Facilities" was issued, all measures scheduled by the order were completed:

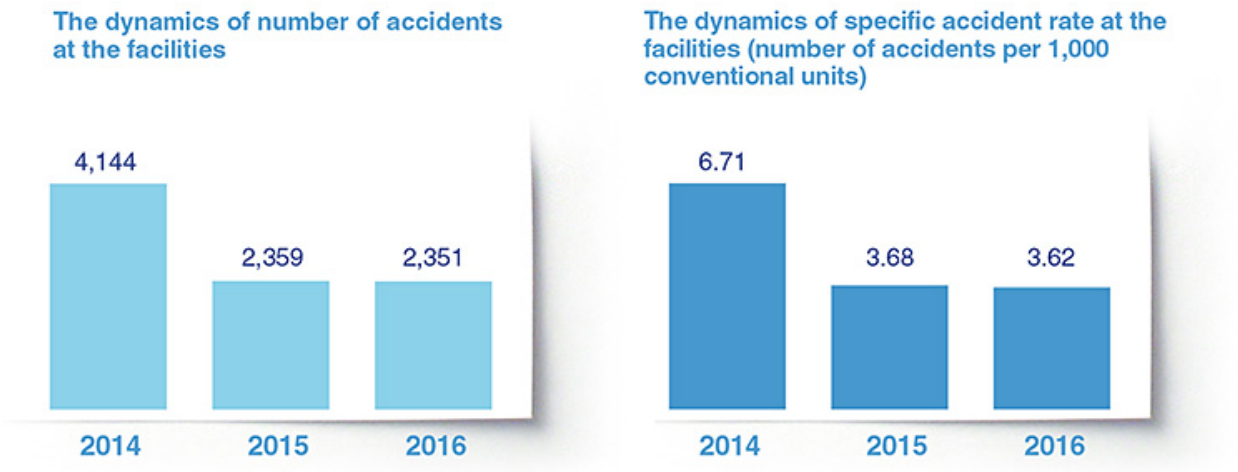
- 610 fire fighting training sessions were conducted;
- 36 joint fire fighting training sessions with participation of territorial fire unit of EMERCOM of Russia were conducted;
- 52 regulations (agreements) for operational interaction with territorial units of EMERCOM of Russia, traffic inspectorates, forestry authorities, local administrations, etc.) were executed;

No fires or ignitions at the Company's facilities or emergency outages of power grid equipment as a result of fire effect in the reporting year were recorded.

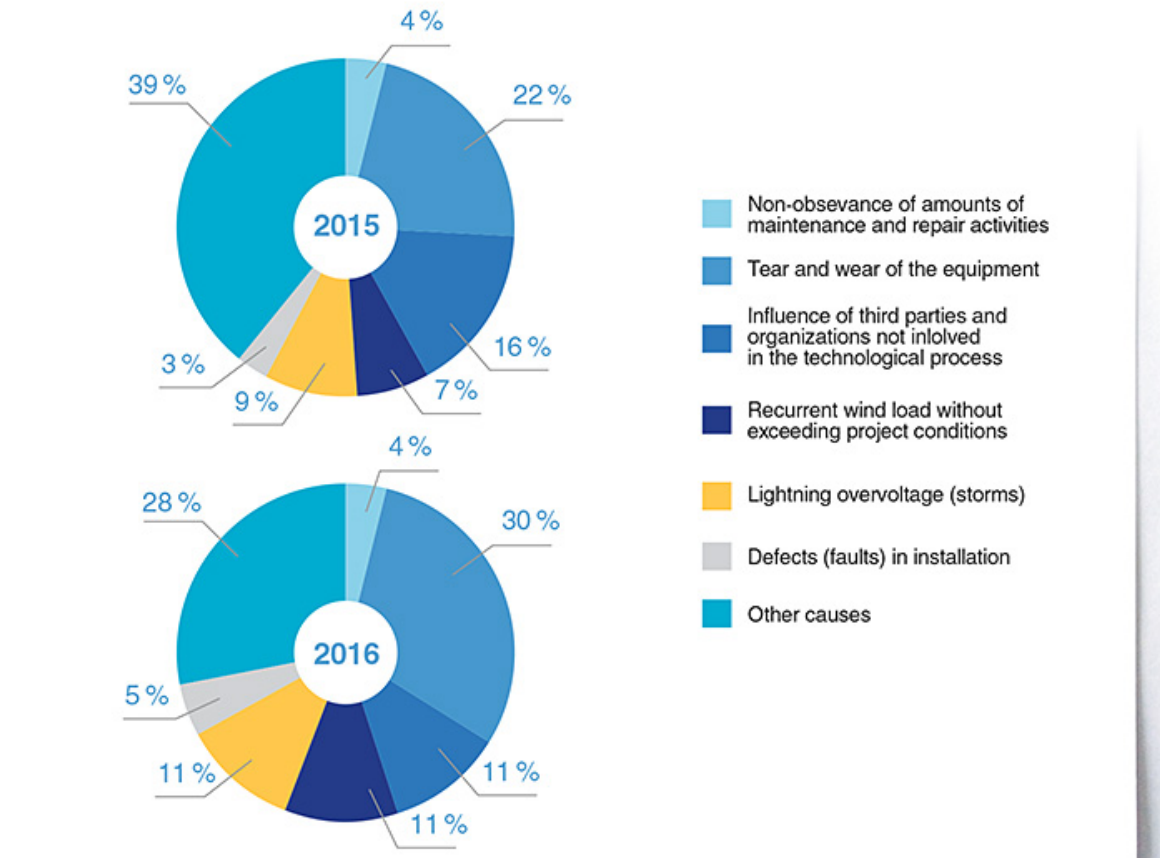
In order to ensure reliable operation of power grid facilities in the thunderstorm period, Kubanenergo PJSC issued Order No. 133 of 2/19/2016 "On Preparation for Successful Passage of 2016 Thunderstorm Period", the measures specified therein were fulfilled in time:

- engineering inspections of all substations, fuel and lubricant storages, oil facilities, and antenna-mast constructions were carried out, in particular for:
  - ✓ compliance of lightning protection with design solutions and regulatory requirements;
  - ✓ condition of stand-alone and portal lightning rods and their earthing in accordance with the design;
  - ✓ condition of earthing devices for electrical equipment of substations;
  - ✓ condition of insulation;
- reconciliation of trip recorder readings for valve-type lightning arresters and surge arresters with the last entries in the operating log or in the response log was verified;
- conductivity of surge arresters was measured without disconnection from the grid and thermal imaging control of equipment was carried out;
- preparedness of emergency recorders, fixing devices, oscilloscopes and other devices for localization of faults on overhead lines installed at the substation was ensured;
- selective engineering inspections of sections of overhead lines were carried out, in particular:
  - ✓ for earthing of ground wires in design points;
  - ✓ condition of contacts of ground wire connections with the support body;
  - ✓ condition of earthing devices for supports and anchor stays, with selective breakup of the ground;
  - ✓ condition of insulation;
- sufficiency of emergency reserve for lightning arresters and surge arresters was verified both in terms of quantity and range;
- recording of readings of lightning arrester and surge arrester trip recorders was arranged with entering into the operating log or the response log after each thunderstorm;
- recording of all ETL and substation equipment outages and faults under lightning overvoltages was arranged to assess reliability of the surge protection for switchgears and transmission lines.

In addition to the main measures to ensure reliable operation of the Company's power grid facilities, a number of additional measures was carried out.



The main causes of accidents for 2015–2016:



The main measures carried out in 2016 were aimed at:

- maintenance of the regulatory state of production assets, i. e. power transmission lines, substation equipment, relay protection and automation devices;
- timely detection and remedy of defects based on electrical equipment diagnostic results;
- improvement of lightning resistance of electrical equipment;
- development of an automated information system to monitor ice formation on the overhead line;
- ensuring preparedness for the prevention and elimination of process upsets:

✓ agreements with contractors and associated power grid operators as well as EMERCOM of Russia and Roshydromet, have been extended;
✓ 22 mobile brigades (129 people, 50 vehicles) have been established;
✓ emergency reserve of the Company has been completed by 100%;
✓ operating capacity of the existing 105 diesel generator units has been tested.

The implementation of these measures made it possible to reduce the number of process upsets occurring due to emergency shutdowns by 17.5%. There was also a decrease in the electrical energy under-supply and economic damage.

All measures instructed by the Federal Environmental, Industrial and Nuclear Supervision Service to be implemented in 2016 have been fulfilled and control thereof was discontinued.

In order to ensure reliable operation of the power grid complex in the event of loss of supply to consumers and other abnormal situations associated with the loss of supply to consumers, the Company's Command Unit is permanently operating. Representatives of the Company's Command Unit participate on a regular basis in the operations to ensure security of power supply in the Krasnodar Krai and the Republic of Adygea.

For the successful passage of the 2016/2017 autumn and winter period, all scheduled activities were fulfilled, branches of Kubanenergo PJSC obtained in advance certificates of

readiness for work in this period. The Commission of the Ministry of Energy of the Russian Federation issued on 9/27/2016 the certificate of readiness to Kubanenergo PJSC for work in the 2016–2017 heating season.

Repair-Operating Activities

The Company draws up and carries out on an annual basis a repair program that takes into account the following parameters:

- standard frequency of complete overhauls, medium repairs and running repairs of power equipment;
- technical condition of facilities;
- results of routine checks;
- need to comply with the instructions of supervisory agencies;
- mitigation of failures;
- economic feasibility and effectiveness of power grid operation.

The 2016 repairs program included:

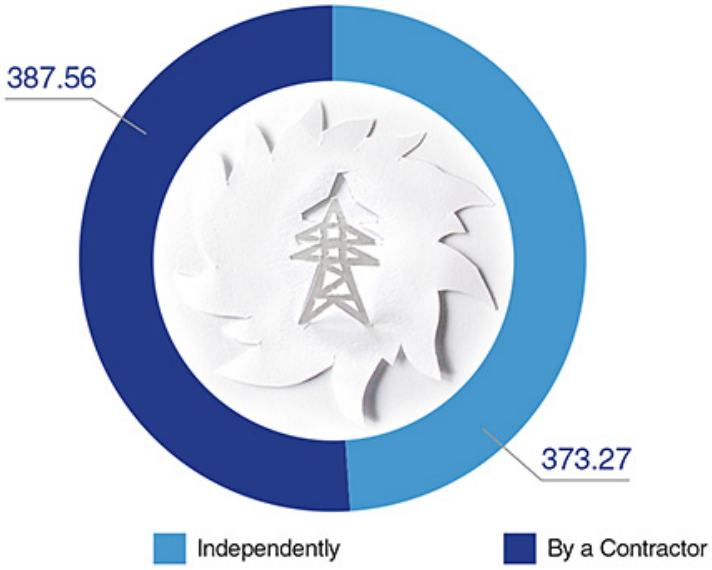
- repairs of the electricity transmission lines, substations, power equipment, devices of relay protection and emergency automation, metering instruments and systems, measuring instruments, dispatcher and production equipment, mechanization means and vehicles, as well as buildings and fittings, computers and office equipment;
- compliance with the instructions of supervisory agencies;
- implementation of target programs, including work on energy conservation, improving operational reliability of power equipment and overhead lines, preparing for the storm season, ensuring reliable operations during flooding, preparing the Company for operations during the autumn and winter period.

The repair program for the reporting year was implemented in respect of all disciplines for the total amount of RUB 715.21 million, i. e. 2% more than the target.

Basic program implementation parameters runtime over 2014 to 2017:

Description of works	2014	2015	2016	2017
Overhead line overhaul, km	2,614.7	2,706.4	2,742.5	2,702.3
Overhead line route clearance, ha	730.2	852.8	826.7	935.6
Overhaul of transformers and autotransformers, pcs	549	589	584	459
Overhaul of switching devices, pcs	2,221	2,457	2,197	2,268
Repair campaign, RUB mln	818.9	713.5	715.21	760.83

The scope of repairs planned for 2017 amounts to RUB 760.83 mln, in particular by the implementation methods, RUB mln:



A set of measures scheduled for 2017 is sufficient to ensure reliable power supply to electric power consumers of Kubanenergo PJSC.

Energy Conservation and Improvement of Energy Efficiency

In the reporting year, all work related to energy conservation and increasing energy efficiency was carried out by the Company in accordance with:

- Federal Law of the Russian Federation No. 261-FZ of 11/23/2009 "On Energy Conservation and Increasing Energy Efficiency and Amending Certain Legislative Acts of the Russian Federation";
- Decree of the Government of the Russian Federation "On Procedure for Establishing Requirements for Programs in the Field of Energy Conservation and Improvement of Energy Efficiency of Organizations Engaged in Regulated Activities" No. 340 of May 15, 2010;
- Decree of the Government of the Russian Federation "On Investment Programs of Electric Power Industry Subjects" No. 977 of 12/1/2009 (as amended);
- Order of REC-PTD KT "On Approval of Requirements for Programs in the Field of Energy Conservation and Energy Efficiency of Organizations Engaged in Regulated Activities in the Krasnodar Krai" No. 5/2011 of 3/31/2011;
- Law of the Krasnodar Krai "On Energy Saving and Energy Efficiency Improvements in the Krasnodar Krai" No. 1912-KZ of 3/3/2010;
- Order of the Ministry of Energy of the Russian Federation "On Approval of Requirements to Program for Energy Conservation and Improvement of Energy Efficiency of Organizations with the Participation of the State and Municipality, Organizations Engaged in Regulated Activities" No. 398 of 6/30/2014;
- Regulation on Development of Programs for Energy Conservation and Improvement of Energy Efficiency of Subsidiaries and Affiliates of PJSC ROSSETI (approved by the Board of Directors of PJSC Rosseti, Minutes No. 156 of 4/29/2014),
- Program for Energy Conservation and Improvement of Energy Efficiency of Kubanenergo PJSC for 2016 to 2020 approved by the Board of Directors on 4/22/2016 (Minutes No. 235/2016) (the "Program").

In order to ensure the implementation of the Program, Kubanenergo PJSC appointed persons in charge of the organization and supervision of its execution and established special working groups.

Kubanenergo PJSC obtained certificates of conformity to ISO 50001:2011

(GOST R ISO 50001-2012 “Energy management systems. Requirements with guidance for use”) No. 15.1552.026 of 12/28/2015.

In 2016, the Company conducted training on the following topics:

Subject of training	Number of trained persons
Energy efficiency and energy conservation when designing power grid complex	2
Energy conservation and energy efficiency (within the scope of development program for power operators’ engineers as part of the course “School for Specialists in Development and Sales of Services”)	27

The Program target indicators include power losses during power transmission and distribution, energy consumption for industrial and economic needs of the Company.

Estimated and actual target values of the Program for 2016:

Item No.	Indicator	Units of Measurement	2016	
			Estimated	Actual
1	Electric power losses	mln kWh	2,889.14	2,945.64
		RUB mln, excluding VAT	7,296.91	7,445.89
		% of supply to grid	13.26[5]	12.96
2	Consumption for own needs of substations	mln kWh	17.12	16.60
3	Consumption of power resources for economic needs of administrative and industrial buildings, including:	RUB mln, excluding VAT	89.09	109.16
		kilotons of fuel equivalent	4.59	4.91
3.1.	electric energy	mln kWh	31.54	33.54
		kilotons of fuel equivalent	3.78	4.02
		RUB mln, excluding VAT	78.38	99.43
3.2.	thermal energy (heating systems in buildings)	Gcal	4,522.43	5,088.89
		kilotons of fuel equivalent	0.65	0.73
		RUB mln, excluding VAT	9.58	8.93
3.3.	natural gas (including liquefied gas)	thou m^3	139.46	141.39
		kilotons of fuel equivalent	0.16	0.16
		RUB mln, excluding VAT	1.12	0.80
3.4.	other energy resources (coal, fuel oil, diesel fuel, kerosene, etc.)	thou m^3	-	-
		thou l	-	-
		thou t	-	-
		kilotons of fuel equivalent	-	-
		RUB mln, excluding VAT	-	-
4.	Consumption of natural resources for economic needs of administrative and industrial buildings, including:	RUB mln, excluding VAT	2.96	4.60

[5] The indicator is specified only for the purpose of the Program for Energy Conservation and Improvement of Energy Efficiency of the Company.

		thou m^3	79.74	131.63
4.1	*hot water supply*	thou m^3	0.24	-
		RUB mln, excluding VAT	0.24	-
4.2	*cold water supply*	thou m^3	79.50	131.63
		RUB mln, excluding VAT	2.72	4.60
4.3	*other types of natural resources*	thou m^3	-	-
		thou l	-	-
		thou t	-	-
		RUB mln, excluding VAT	-	-
5	Motor fuel consumption of vehicles and special machinery, including:	thou l	6,509.29	9,057.51
		kilotons of fuel equivalent	7.56	10.61
		RUB mln, excluding VAT	218.34	287.84
5.1.	*petrol, incl:*	thou l	4,643.80	5,525.66
		kilotons of fuel equivalent	5.26	6.26
		RUB mln, excluding VAT	161.38	182.03
5.1.1.	*vehicles*	thou l	4,643.80	5,525.66
		kilotons of fuel equivalent	5.26	6.26
		RUB mln, excluding VAT	161.38	182.03
5.1.2.	*special machinery*	thou l	-	-
		kilotons of fuel equivalent	-	-
		RUB mln, excluding VAT	-	-
		thou l/100 km	-	-
		thou l/in-service hour	-	-
5.2.	*diesel fuel, incl.:*	thou l	1,865.49	3,531.85
		kilotons of fuel equivalent	2.30	4.35
		RUB mln, excluding VAT	56.96	105.81
5.1.2.	*vehicles*	thou l	1,865.49	3,531.85
		kilotons of fuel equivalent	2.30	4.35
		RUB mln, excluding VAT	56.96	105.81
		thou l/100 km	-	-
5.2.2.	*special machinery*	thou l	-	-
		kilotons of fuel equivalent	-	-
		RUB mln, excluding VAT	-	-
5.3.	*Other types of fuel for vehicles and special machinery, total, including:*	kilotons of fuel equivalent	0.01	0.00
		RUB mln, excluding VAT	0.12	0.04
5.3.1	*natural gas (including liquefied gas)*	thou l	7.03	2.33
		kilotons of fuel equivalent	0.01	0.00
		RUB mln, excluding VAT	0.12	0.04
5.3.2	*electric energy*	mln kWh	-	-

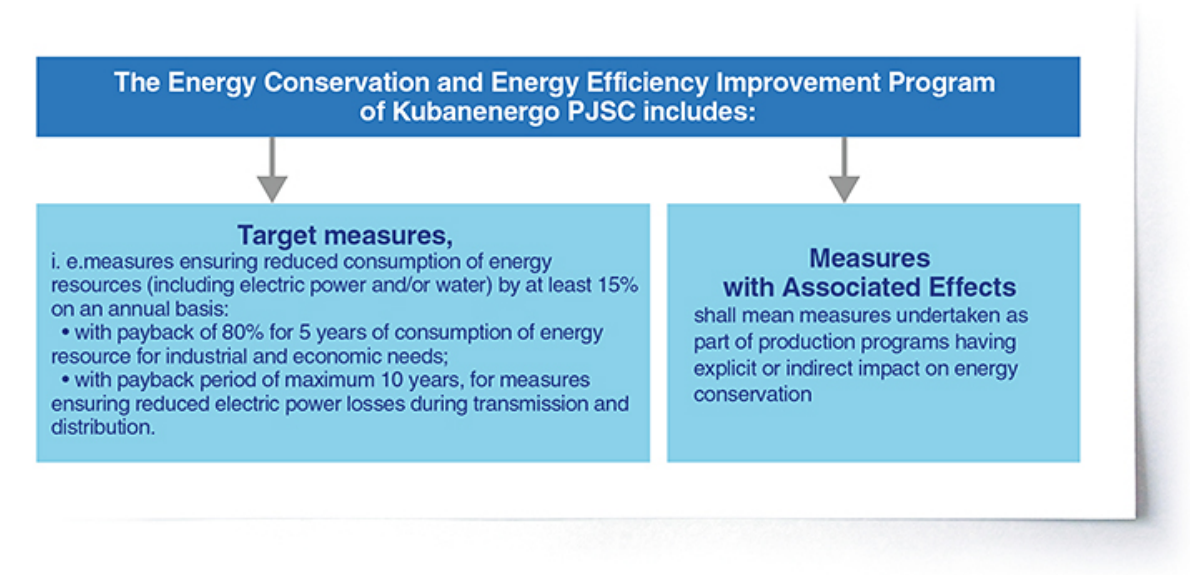
		kilotons of fuel equivalent	-	-
		RUB mln, excluding VAT	-	-

Increased consumption of energy resources for industrial and economic needs was associated with the following objective reasons:

- As part of the measures to improve reliability of power supply in the Kuban, the area of administrative and industrial buildings has been increased by 12,000 m^2;

- 25 vehicles and special machines were purchased for the purpose of the work in remote territories, including associated S&As, to increase share of repair work at distribution grid facilities carried out on an in-house basis, and to increase the number of raids to detect unaccounted electricity consumption.

The aforesaid facts resulted in an increase in energy consumption, while reducing consumption in specific values: electric energy per 1 m^2 of area — by 4.68%, thermal energy — by 5.32%, natural gas — by 5%, motor fuel per 1 km run — by 4.46%.



Implementation of the plan with respect to target and associated measures to reduce electric power losses in the reporting year

Description	Effects in kind, (mln kWh),		Economic effect, RUB mln		Costs for measures, RUB mln	
	Estimated	Actual	Estimated	Actual	Estimated	Actual
Target measures	31.01	47.89	118.64	209.57	93.56	98.00
Associated measures	59.79	72.34	333.68	285.47	0	0
TOTAL	90.80	120.23	452.32	495.04	93.56	98.00

Basic target measures to reduce electric power losses implemented in 2016

Description	Effects in kind, (mln kWh),	Economic effect, RUB mln	Costs for measures, RUB mln
	Actual	Actual	Actual
Raids to detect unaccounted consumption	30.69	151.24	66.33
Raids to detect non-contractual consumption	12.09	45.09	24.92
Phase load equalization in distribution grids for 0.38 kV	2.01	5.31	5.48
Bringing grid area voltage to the rated value	0.55	1.38	0.49
Shutdown of transformers in light-load conditions at	1.56	3.96	0.52

substations with 2 or more transformers			
Shutdown of transformers at substations with season-based load	0.99	2.59	0.26

At the year end 2016, total effect from implementation of the target measures amounted to 47.89 mln kWh, or RUB 209.57 mln in monetary terms. Effect from the implementation of the "associated" measures amounted to 72.34 mln kWh for the amount of RUB 285.47 mln. *Total effect amounted to 120.2 mln kWh for the amount of RUB 495.04 mln.*

The costs for implementation of the measure amounted to RUB 98.0 mln.

Implementation of planned target and associated measures ensuring reduced consumption of resources for economic needs in the reporting period:

Description	Effects in kind				Economic effect, RUB mln		Costs for measures, RUB mln	
	Estimated		Actual		Estimated	Actual	Estimated	Actual
	kilotons of fuel equivalent	thou l	kilotons of fuel equivalent	thou l				
Target measures	-		-		-	-	-	-
Associated measures	0.058	300	0.051	634	1.47	1.29	-	-
TOTAL	-	300	-	634	1.47	1.29	-	-

Tariff Policy and Tariffs for Company Services

Company Tariff Policy

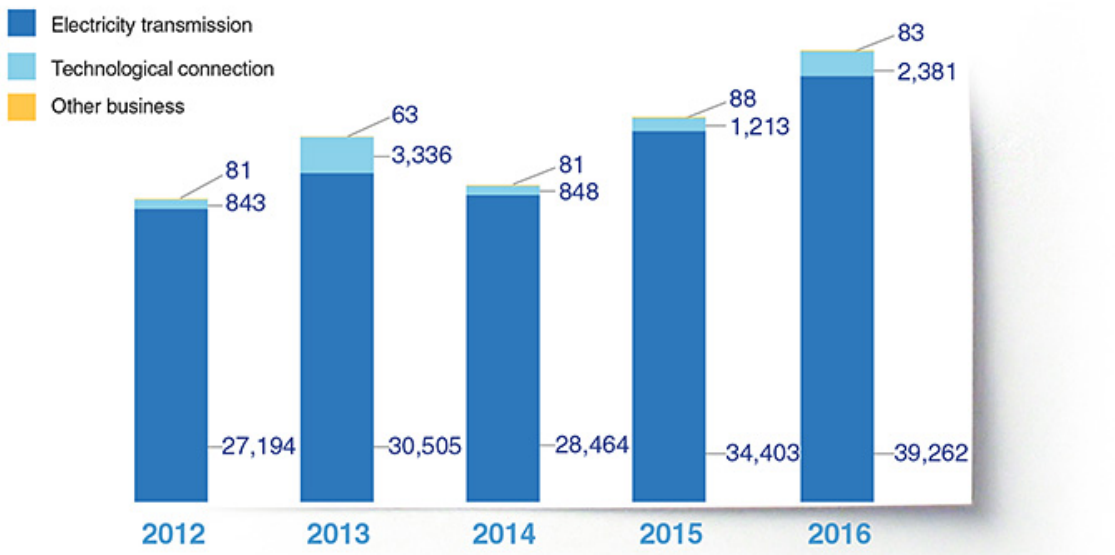
The prices (tariffs) of the Company's services for electric power transmission and technological connections are regulated by the state and fixed by REC PTD KT orders. For the Krasnodar Krai and the Republic of Adygea where the Company operates, the uniform tariffs are set for each group of electric power customers.

Fundamental regulatory legal acts governing relations in the fields of establishing regulated tariffs and their application are:

- Federal Law No. 35-FZ of 3/26/2003 "On Electricity Production" (as amended);
- Decree of the Government of the Russian Federation No. 1178 of 12/29/2011 "On Pricing in the Area of Controlled Prices (Tariffs) in Electric Power Industry" (as amended);
- Orders of the Federal Tariff Service of Russia:
  - ✓ "On Approval of Methodological Guidelines for Regulation of Tariffs Using the Method of Return on Invested Capital" No. 228-e of 3/30/2012;
  - ✓ "On Approval of the Methodological Guidelines for the Calculation of Regulated Tariffs and Prices for Electricity (Thermal) Energy in the Retail (Consumer) Market" No. 20-e/2 of 8/6/2004;
  - ✓ "On Approval of Guidelines for Determining the Amount of Payment for Technological Connection to Electric Grids" No. 209-e/1 of 9/11/2012.

Tariffs for Electric Power Transmission Services

Dynamics of the Revenues of Kubanenergo PJSC in 2012–2016 (RUB mln):



Based on results of 2016, the actual revenue for electric power transmission services (minus the cost of loading losses) amounted to RUB 39,262 mln (excluding VAT), which is 14% more than in 2015.

Changes in actual revenues from the electricity supply services in 2016 compared with 2015 were associated with increase in the net electricity supply by 602 mln kWh, or 3%, and increase in straight-line tariffs for transmission services to "other customers" approved by REC-PTD KT by 14.5% in the second half of 2016 compared with the first half of 2016 based on decision of the FAS of Russia No. SP/9795/16 of 2/18/2016 with respect to the pretrial resolution of the dispute related to unpaid expenses for the purchase of electric power for the purpose of compensating for the losses in the grids of Kubanenergo PJSC in 2015.

In relation to Kubanenergo PJSC, starting from 1/1/2011 (taking into account the "reset" of long-term control parameters in 2012), a method of long-term tariff regulation is applied, the RAB (Regulatory Asset Base) method.

Starting from 2007, the region has been applying a "boiler" method of payment for electric power transmission: a single boiler rate applies to all customers of electric power transmission services in Kuban and Adygea belonging to the same tariff group, regardless of the grid and the grid company the customers are connected to.

The basic tariff negotiated model used for payments is the "boiler above" model:

Kubanenergo PJSC has the status of the "boiler holder" that means the higher grid company. This model stipulates that customer payments for electric power transmission services received (regardless of the grid and the grid company the customers are connected to) are transferred to Kubanenergo PJSC, after which the Company pays the subordinate organizations, to the grids of which the power devices of customers are connected, under individual tariffs.

In addition, starting from 9/22/2011, the individual scheme of "boiler below" has been applied for LLC Maykopskaya CHP:

Under this system, power transmission payments received from customers connected to LLC Maykopskaya CHP are made in accordance with the single boiler tariff to this organization, which pays for the use of the grids of Kubanenergo PJSC for rendering power transmission services under a separate tariff.

The following tariffs were established for 2016 for LLC Maykopskaya CHP pursuant to Order of REC-PTD KT No. 92/2015-e of 12/31/2015:

LLC Maykopskaya CHP — Kubanenergo PJSC	**Two-part tariff**		**Straight-line tariff**
	Electric grid maintenance rate	**Rate for the payment of technological consumption (losses)**	

	from 1/1/2016 to 6/30/2016		
	177,692.99 RUB/MW*month	599.04 RUB/MW*month	1.37376 RUB/kWh
	from 7/1/2016 to 12/31/2016		
	195,593.56 RUB/MW*month	565.40 RUB/MW*month	1.41817 RUB/kWh

Common boiler tariffs for the Company's electricity transmission services were established for 2016 pursuant to Order of REC-PTD KT No. 94/2015-e[6] of 12/31/2015:

1. *For Other customers:*

Item No.	Tariff Groups of Electric Power (Capacity) Customers	Units of Measurement	Range of Voltage			
			High Voltage (110 kV and Higher)	Medium Voltage I (35 kV)	Medium Voltage II (1–20 kV)	Low Voltage
1	Other customers (tariffs are specified excluding VAT)		first half of 2016			
1.1	Two-part tariff					
1.1.1	– rate for maintenance of electric grids	RUB/MW*month	962,516.33	651,614.01	762,111.09	1,167,198.14
1.1.2	– rate for the payment of technological consumption (losses) in the electric grids	RUB/MWh	88.46	154.47	372.24	1,082.60
1.2	Straight-line tariff	RUB/kWh	1.52882	1.78056	2.75914	3.66388
2	Other customers (tariffs are specified excluding VAT)		second half of 2016			
2.1	Two-part tariff					
2.1.2	– rate for maintenance of electric grids	RUB/MW*month	1,122,452.19	756,781.47	882,134.68	1,405,091.80
2.1.2	– rate for the payment of technological consumption (losses) in the electric grids	RUB/MWh	88.46	154.47	372.24	1,082.60
2.2	Straight-line tariff	RUB/kWh	1.75095	2.03931	3.16018	4.19357

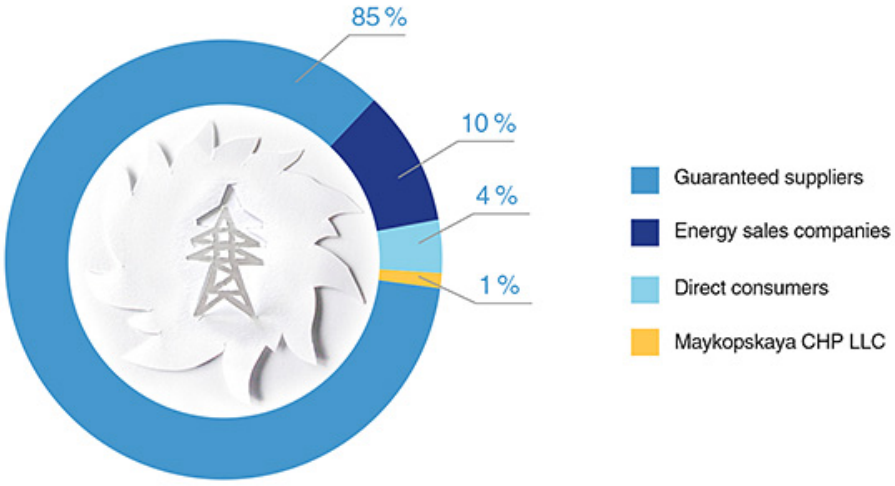
2. *Population and customers equivalent for the population:*

Item No.	Tariff Groups of Electric Power (Capacity) Customers	Units of Measurement	first half of 2016	second half of 2016
1.	Population and customers equivalent to the population (tariffs are specified excluding VAT)			
1.1	Population and customers equivalent to the population, except for those in paragraphs 1.2 and 1.3: providers of public services (homeowners association, homebuilding, housing or other specialized customer cooperatives or managing authority) acquiring electric power (capacity) for the provision of public services to owners and users of accommodation facilities and for the maintenance of common property in apartment buildings; renter (or their authorized persons) providing citizens with accommodation facilities of specialized housing funds, including accommodation facilities in dormitories, accommodation facilities of temporary public housing, accommodation facilities in social service buildings, accommodation facilities for temporary settlement of forced migrants, accommodation facilities for temporary settlement of citizens recognized as a refugees, as well as accommodation facilities for social protection of certain categories of citizens, acquiring electric power (capacity) for the provision of public services to users of such accommodation facilities in the amount of the electric power supplied to the citizens and for the maintenance of common property in apartment buildings which have accommodation facilities of specialized housing funds; legal entities and individuals acquiring electric power (capacity) for public living needs in settlements and residential areas with military units and paying under the power supply agreement upon readings of a common power metering device. Default providers, power supply companies, energy-supplying organizations, acquiring electric power (capacity) for			

[6] With due account for changes made by Orders No. 1/2006-e of 1/13/2016, No. 3/2016-e of 1/20/2016, No. 4/2016-e of 1/27/2016, No. 8/2016-e of 2/3/2016, No. 10/2016-e of 2/24/2016, and No. 24/2016-e of 6/29/2016.

	further sales to citizens and customers equivalent to the categories specified in this paragraph.			
	Straight-line tariff (including the tariff differentiated by two and three day zones)	RUB/kWh	2.52180	2.40405
1.2	Population living in urban areas in homes duly equipped with stationary electric stove and/or electric heaters and customers equivalent to the population: providers of public services (homeowners association, homebuilding, housing or other specialized customer cooperatives or managing authority) acquiring electric power (capacity) for the provision of public services to owners and users of accommodation facilities and for the maintenance of common property in apartment buildings; renter (or their authorized persons) providing citizens with accommodation facilities of specialized housing funds, including accommodation facilities in dormitories, accommodation facilities of temporary public housing, accommodation facilities in social service buildings, accommodation facilities for temporary settlement of forced migrants, accommodation facilities for temporary settlement of citizens recognized as a refugees, as well as accommodation facilities for social protection of certain categories of citizens, acquiring electric power (capacity) for the provision of public services to users of such accommodation facilities in the amount of the electric power supplied to the citizens and for the maintenance of common property in apartment buildings which have accommodation facilities of specialized housing funds; legal entities and individuals acquiring electric power (capacity) for public living needs in settlements and residential areas with military units and paying under the power supply agreement upon readings of a common power metering device. Default providers, power supply companies, energy-supplying organizations, acquiring electric power (capacity) for further sales to citizens and customers equivalent to the categories specified in this paragraph.			
	Straight-line tariff (including the tariff differentiated by two and three day zones)	RUB/kWh	1.47095	1.31931
1.3	Population living in rural areas and customers equivalent to the population: providers of public services (homeowners association, homebuilding, housing or other specialized customer cooperatives or managing authority) acquiring electric power (capacity) for the provision of public services to owners and users of accommodation facilities and for the maintenance of common property in apartment buildings; renter (or their authorized persons) providing citizens with accommodation facilities of specialized housing funds, including accommodation facilities in dormitories, accommodation facilities of temporary public housing, accommodation facilities in social service buildings, accommodation facilities for temporary settlement of forced migrants, accommodation facilities for temporary settlement of citizens recognized as a refugees, as well as accommodation facilities for social protection of certain categories of citizens, acquiring electric power (capacity) for the provision of public services to users of such accommodation facilities in the amount of the electric power supplied to the citizens and for the maintenance of common property in apartment buildings which have accommodation facilities of specialized housing funds; legal entities and individuals acquiring electric power (capacity) for public living needs in settlements and residential areas with military units and paying under the power supply agreement upon readings of a common power metering device. Default providers, power supply companies, energy-supplying organizations, acquiring electric power (capacity) for further sales to citizens and customers equivalent to the categories specified in this paragraph.			
	Straight-line tariff (including the tariff differentiated by two and three day zones)	RUB/kWh	1.47095	1.31931
1.4	Customers equivalent to the population, except for those in Paragraph 71(1) Pricing Basics:			
1.4.1	Horticultural, market-gardening or dacha non-commercial associations of citizens, i. e. non-commercial organizations established by citizens on a voluntary basis in order to assist its members in achieving common social-economic targets of horticultural, market-gardening or dacha activities. Default providers, power supply companies, energy-supplying organizations, acquiring electric power (capacity) for further sales to customers' categories equivalent to the population specified in this paragraph.			
	Straight-line tariff (including the tariff differentiated by two and three day zones)	RUB/kWh	2.52180	2.40405
1.4.2	Legal entities acquiring electric power (capacity) for convicted persons consumption in detention facilities subject to the availability of separate electricity metering for these facilities. Default providers, power supply companies, energy-supplying organizations, acquiring electric power (capacity) for further sales to customers' categories equivalent to the population specified in this paragraph.			
	Straight-line tariff (including the tariff differentiated by two and three day zones)	RUB/kWh	2.52180	2.40405
1.4.3	Congregates-sponsored religious organizations. Default providers, power supply companies, energy-supplying organizations, acquiring electric power (capacity) for further sales to customers' categories equivalent to the population specified in this paragraph.			
	Straight-line tariff (including the tariff differentiated by two and three day zones)	RUB/kWh	2.52180	2.40405
1.4.4	Associations of citizens acquiring electric power (capacity) for use in household building (cold cellars sheds): non-commercial associations of citizens (garage-building and garage co-operatives) and citizens owning detached garages acquiring electric power (capacity) for public living needs not related with commercial activities. Default providers, power supply companies, energy-supplying organizations, acquiring electric power (capacity) for further sales to customers' categories equivalent to the population specified in this paragraph.			
	Straight-line tariff (including the tariff differentiated by two and three day zones)	RUB/kWh	2.52180	2.40405

Structure of revenues of Kubanenergo PJSC for electric power transmission services rendered by groups of counterparties in 2016 (%):



Analysis of changes in the average tariff for electric power transmission services rendered by Kubanenergo PJSC approved by REC-PTD KT

Indicator	2011	2012	2013	2014	2015	2016
Average Tariff, kop/kWh	185.07	183.68	193.56	174.97	201.34	235.60
Growth Rate, %		-0.8	5.38	-9,60	15.07	17.02

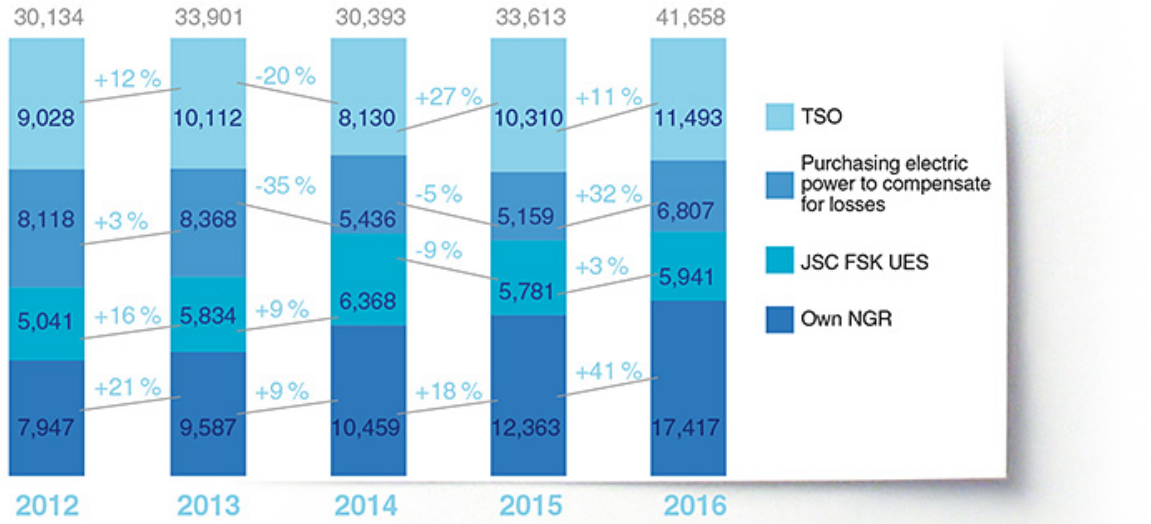
As compared with 2015, the average tariff for electric power transmission services rendered by Kubanenergo PJSC increased by **17.02%** in 2016.

Changes in the necessary gross proceeds (NGP) of Kubanenergo PJSC, (RUB mln)

2012		**2013**		**2014**		**2015**		**2016**	
Boiler NGP	Boiler NGP of Kubanenergo PJSC	Boiler NGP	Boiler NGP of Kubanenergo PJSC	Boiler NGP	Boiler NGP of Kubanenergo PJSC	Boiler NGP	Boiler NGP of Kubanenergo PJSC	Boiler NGP	Boiler NGP of Kubanenergo PJSC
30,134	7,947	33,901	9,587	30,393	10,459	33,613	12,363	41,658	17,417

According to the tariff decision of REC PTD KT, the amount of the required “boiler”gross proceeds for the transmission services of Kubanenergo PJSC in 2016 amounted to RUB 41,658 mln, including for own maintenance of RUB 17,417 mln.

Dynamics of the structure of NGP for electric power transmission of Kubanenergo PJSC (RUB mln)



For the information about tariffs for electric power transmission services in 2016 see the official website of the Company in the section For Customers / Electric Power Transmission / Tariffs for Electric Power Transmission.

Tariffs for Technological Connection Services.

Order of REC-PTD KT No. 96/2015-e of 12/31/2015 (as amended and supplemented) established standardized tariff rates and the rates per unit of maximum capacity for technological connection to the electric grids of Kubanenergo PJSC for 2016. For detailed information about standardized tariff rates and the rates per unit of maximum capacity for technological connection to the electric grids of Kubanenergo PJSC for 2016 see the official website of the Company in the section For Customers / Technological Connection / Tariffs for Technological Connection.

Analysis of the change in the average rate per unit of capacity for Kubanenergo PJSC, RUB/kW:

	2012	2013	2014	2015	2016
Total for Kubanenergo PJSC	517.98	517.98	512.24	538.47	573.80
Growth / Decrease, %		0.00	-1,1	5.1	6.6

In order to analyze the change of the rate per unit of capacity in Kubanenergo PJSC, the rate of payment for technological connection of power receivers of electricity customers and transmission facilities owned by grid organizations and other entities to the distribution grids of Kubanenergo PJSC, not including the construction and reconstruction of transmission facilities at voltages below 35 kV and connected capacity of less than 8,900 kW, was used.

Change in the average rate per unit of capacity, RUB/kW

	2012	**2013**	**2014**	**2015**	**2016**
Total:	1,507	6,508	258	1,756	3,853
Growth+ / decrease-, %		+331[7]	-96[8]	+581[9]	+119[10]

[7] Fourfold increase in the average rate per unit of capacity in 2013 as compared to 2012 is due to the connection of a major generation facility based on individual project (in the Sochi Energy District - Inter RAO Electric Power Plants (Dgubginskaya TPS) with the capacity of 180 MW and revenue of more than RUB 3 bln).

[8] Reduction of actual average rate per unit of capacity in 2014 is due to the connection of the following major applicants in prior periods:

- in 2012 – OJSC Novoroscement,
- in 2013 – Dzhubginskaya TPS.

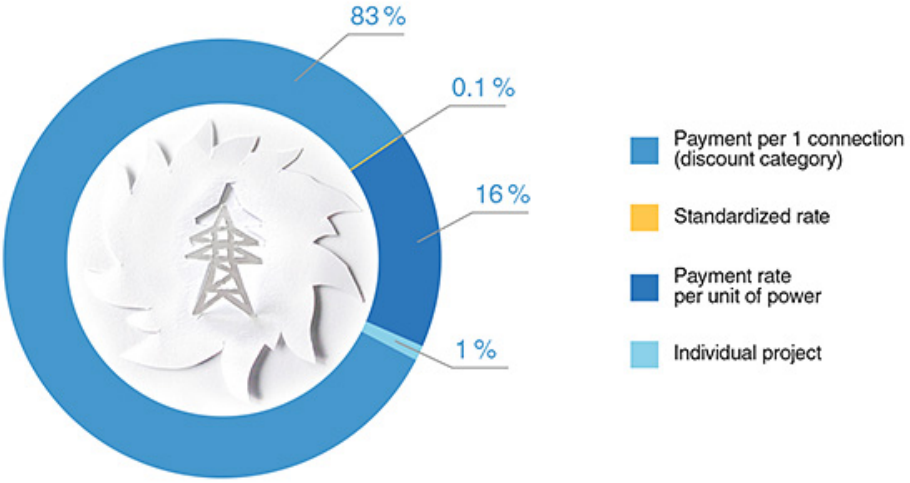
[9] Increase in the average rate per unit of capacity in 2015 is due to the collecting of revenue under the agreements with connections based on individual project:

OJSC Oboronenergo, agreement in the amount of RUB 524,873,649.39 (excluding VAT), with the capacity of 21,000 kW,

The shortfall in income related to the implementation by Kubanenergo PJSC of technological connection of power receivers of categories of applicants, the cost for the grid connection of which is determined by taking into account the features of price-setting established by Decree of the Government of the Russian Federation "On Pricing in the Area of Controlled Prices (Tariffs) in Electric Power Industry" No. 1178 of 12/29/2011, considered in the tariff for electric power transmission services in 2012–2016, RUB thou:

2012	2013	2014[11]	2015[12]	2016
0.00	68,339	125,092.37	103,012.62	82,944.85

Selection of a connection fee (percent ratio of the number of agreements, in which calculations are made using one of the methods vs. the total number of agreements):



LLC Gazprom Invest, agreement in the amount of RUB 181,340,745.03 (excluding VAT), with the capacity of 7,600 kW.

[10] Increase in the average rate per unit of capacity in 2016 is due to the collecting of revenue under the agreements with connections based on individual project: LLC Gazprom Invest, two agreements in the amount of RUB 2,092,621,568.45 (excluding VAT), with the capacity of 8,700 kW.

[11] Including the undercompensated shortfall in income from the provision of incentives for technological connection of power receivers of the applicants with the maximum connected load of up to 15 kW in 2012 in the amount of RUB 56,413.52 thou considered by REC PTD KT when setting tariffs for electric power transmission via the grids of PJSC Kubanenergo for 2014.

[12] Including the undercompensated shortfall in income from the provision of incentives for technological connection of power receivers of the applicants with the maximum connected load of up to 15 kW in 2013 in the amount of RUB 7,795.10 thou as well as the shortfall in income for 2015 in the amount of RUB 95,217.52 thou considered by REC PTD KT when setting tariffs for electric power transmission via the grids of Kubanenergo PJSC for 2015.

Oleg Nikolayevich Golovakha
Head of Corporate and Process ACS Department

"In 2016, integration of the Production Assets Management System with the Emergency Software Package was completed, the automated maintenance and repair control system was implemented, and digital certification of substations and transmission lines was automated for application in the distributed resource management system within the scope of emergency response operations.

As concerns the development of basic infrastructural IT services in 2016, the incident management system was deployed in the executive office of Kubanenergo PJSC to record user requests for technical support in the IT environment, and a catalog of IT services was developed.

110/35/10 kV Adygeyskaya Substation was teleautomated with the arrangement of digital communication channels and channels for transmission of teleinformation via FOCL and high-frequency communication channels to dispatch centers of Kubanenergo PJSC and Kuban Regional Dispatch Office. The Data Collection and Transmission System Upgrade and Expansion Program was fully completed at substations of Kubanenergo PJSC in 2016."

The Company introduces new projects, develops existing ones and maintains already completed projects in terms of information technologies in accordance with the Strategy in the field of information technology and telecommunications of the Company approved by Decision of the Board of Directors of Kubanenergo PJSC on 6/20/2012 (Minutes No. 138/2012 of 6/22/2012).

The following systems are implemented and used to control Kubanenergo PJSC activities:

1. *Automated systems of technological management (ASTM) enabling centralized control of power transmission and distribution processes.*

The ASTM development is based on an integrated approach to the automation of technological management processes and to the enforcement of common technical policy principles. For organizing dispatcher, technological communications, and telecommunications, the Company uses the departmental communications and telecommunications network, which is reconstructed with a simultaneous transition to digital channels.

2. *Automated systems of business management intended to plan and control different types of the Company's activities.*

The automation of the Company's operations is based on a uniform configuration of software system 1C: Enterprise 8.2. Manufacturing Enterprise Management.

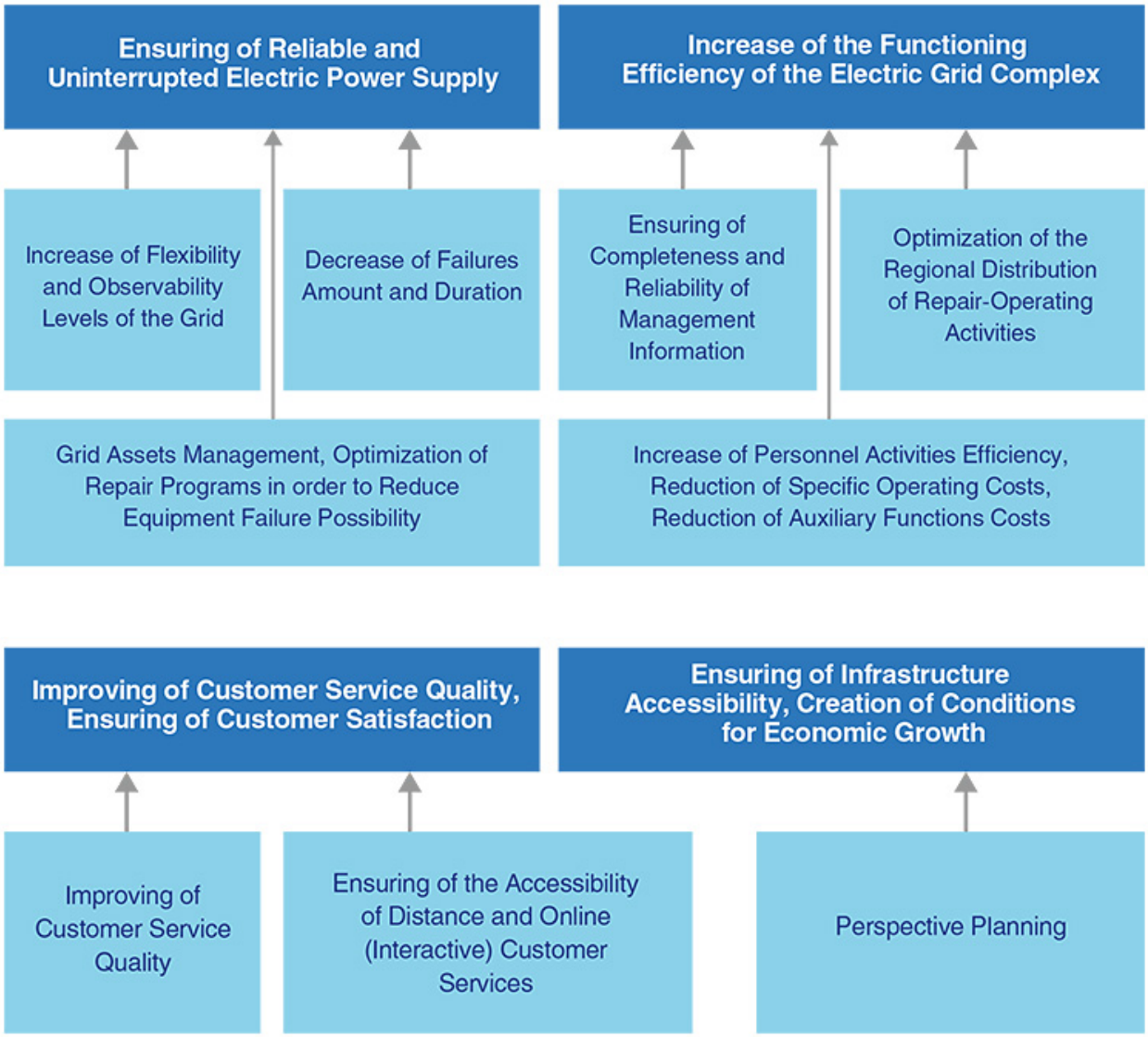
To automate management processes and work progress monitoring, the Company continues to develop the corporate software system Technological Connection.

In order to implement the Development Strategy of the Electric Grid Complex of the Russian Federation, Kubanenergo PJSC is extending the functionality of automated Production Assets Management System.

3. *Communication systems and IT infrastructure ensuring the efficiency of all mentioned automation tools, as well as continuous communication for all employees of the Company.*

The main role of information technologies is to implement the key business objectives of the Company, such as ensuring reliable and uninterrupted electric power supply, improving customer service quality, ensuring customer satisfaction. Processes automation development also ensures more efficient functioning of the power grid complex.

Efficient operation of the Company in the field of IT-technologies leads to the achievement of strategic goals:



As part of the development of major infrastructural IT-services in 2016, the following works were performed:

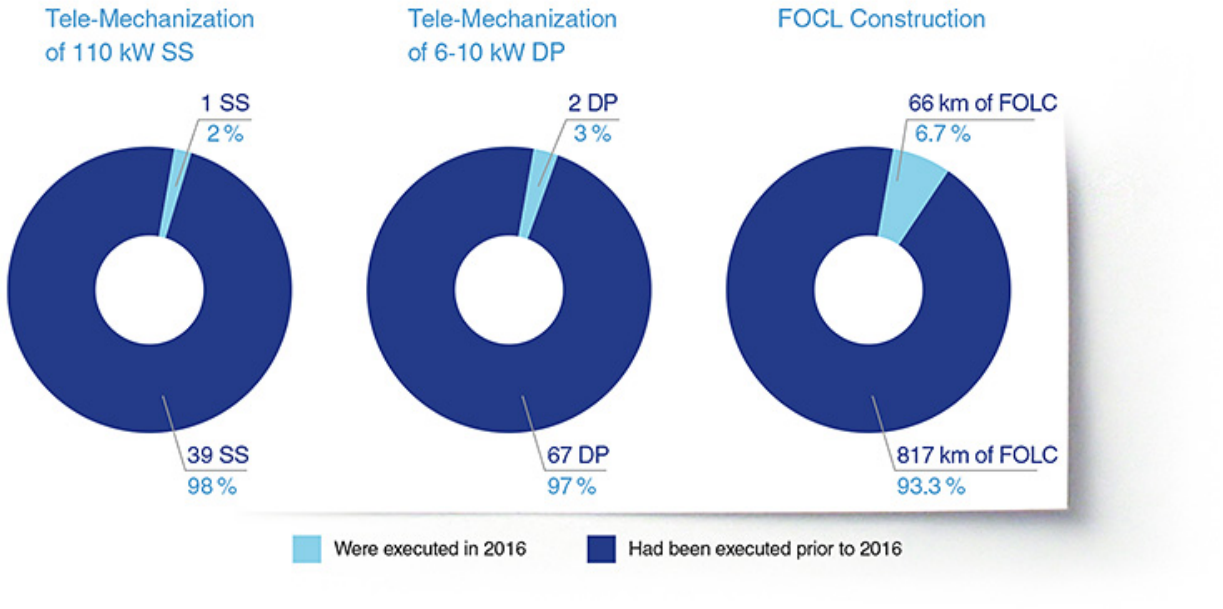
- the incident management system was deployed to record user requests for technical support in the IT environment;
- a catalog of IT services was developed.

In the reporting year under the investment program of the Company on the development of communication systems and ASTM Kubanenergo PJSC performed the following works:

- 110/35/10 kV Adygeyskaya Substation was teleautomated with the arrangement of digital communication channels and channels for transmission of teleinformation via FOCL and high-frequency communication channels to dispatch centers of Kubanenergo PJSC and Kuban RDO. The number of 110 kV SS teleautomated in accordance with the current requirements increased by 2% of its total quantity;
- teleautomatics for 35 kV Chernomorskaya Substation was upgraded and a high frequency communication channel and channel for transmission of teleinformation to the dispatcher center of Temryuk PGA;
- teleautomation of 2 distribution points with voltage of 6–10 kV with the organization of telecommunication data transmission channels in the branch Sochi Electric Grids which makes up 3% of all teleautomated distribution points of the Company;

- 66.4 km of FOCL were built, which makes up 6.7% of the total length of the Company's FOCL.
- dispatcher office of Teuchezhskiy PGA was equipped with a dispatcher panel, central receiving and transmitting station, operating information package, and dispatch switch board.

Development of ACPS, data collection and transmission network in 2016:



Within the scope of the Data Collection and Transmission System Upgrade and Expansion Program for substations of Kubanenergo PJSC in 2016, a package of measures was implemented to arrange for the transmission to the Kuban RDO of an additional volume of telemetric data for connections that can be tripped by emergency automation equipment installed at 110 kV Apsheronsk Substation, 110 kV Varenikovskaya Substation, 110 kV Nikitinskaya Substation.

Company Procurement Activities

When procuring goods, works, and services, Kubanenergo PJSC follows the norms of the laws of the Russian Federation, the Company's Articles of Association and Unified Procurement Standard of PJSC Rosseti, approved as an internal document by Desicion of the Company's Board of Directors of 12/25/2015, Minutes No. 227/2015.

Principles of procurement activity:

- timely (long-term and short-term) planning of procurement, rapid decision-making on adjusting the parameters of procurement;
- equality, justice, non-discrimination and unjustified restrictions of competition to the procurement participants;
- targeted and cost-effective funds use for the procurement of goods, works and services;
- absence of restrictions for admission to the procurement;
- determination of procurement parameters with regard to the specific features of purchased products, markets and circumstances under which the purchase is performed;
- competition-based selection of suppliers, contractors, executors, wherever possible and expedient, and, if possible collective decision-making in the situations where competition-based selection is not possible or expedient;
- recognition of the necessary combination of price and non-price factors ensuring efficient selection of the best offers for the Company;
- procurement transparency;
- application of advanced information technology, electronic document management tools and procurement activities automation, including the use of functional electronic trading platforms;
- collective decision making on the critical issues of the whole procurement activity and of the individual purchases arrangement;
- professionalism and competence of the Company's employees in preparing and making decisions on purchases, impeccable in terms of ethical behavior of such employees.

The methods of procurement and their application conditions are specified in the above mentioned internal documents of the Company.

Procurement methods used by the Company, in order of priority:

tender, auction;
request for offers, competitive negotiations, request for prices;
simple purchase, small purchase;
purchase from a single supplier (service provider, contractor).

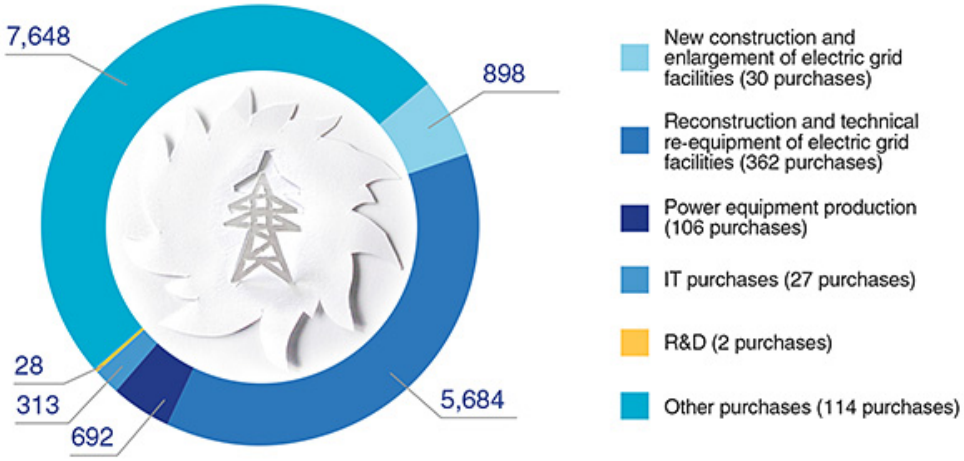
Main results of the Company's procurement activities in 2016.

In 2016, the Company conducted 641 procurement procedures for a total amount of RUB 15,263 mln (excluding VAT). 599 purchases for the amount of RUB 14,780 mln were conducted using e-commerce (excluding VAT), making 100% of the total cost of procurement (excluding purchases from a single supplier).

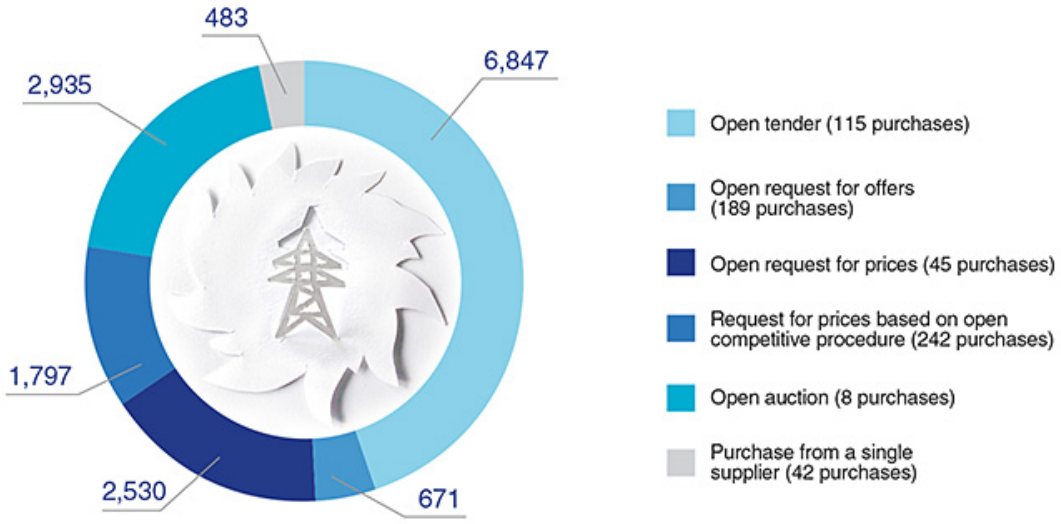
In the reporting year, following the results of scheduled procurements the Company obtained an economic effect in the amount of RUB 861 mln (excluding VAT), making 5.5% of the planned yearly costs of procurement of goods, works, services.

As of the end of 2016, the results of 22 procurements with the mark of innovative and high-technology products for the amount of RUB 1,838 mln (excluding VAT) were summarized.

Structure of the Company's procurements made in 2016, RUB mln. (in relation to the scope of procurement, excluding VAT):



Structure of the Company's procurements made in 2016, RUB mln. (in relation to the procurement procedure, excluding VAT):



Participation of small and medium businesses in the procurements conducted by Kubanenergo PJSC

Within the implementation of the Road Map on the collaboration with small and medium businesses, the Partnership Program between Kubanenergo PJSC and small and medium businesses has been effective since 2014. 29 participants have joined the program since its start.

In 2016, the winners of 77.3% of conducted procurement procedures were small and medium businesses, totaling to RUB 6,319 mln.

During 2016, the Company conducted 261 procurement procedures with small and medium businesses, totaling to RUB 2,461 mln (excluding VAT), amounting to 26.1% of the total purchases.

In order to ensure efficient procurements conducted by Kubanenergo PJSC, including procurement from small and medium business, starting from 2014, the Company has the Advisory Body involving not only the Company employees, but also the representatives of JSC MSP Corporation, the Fund for Infrastructure and Educational Programs, regional offices of the Russian Union of Industrialists and Entrepreneurs, All-Russian Public Organization of Small

and Medium Business OPORA RUSSIA, and All-Russian Public Organization Delovaya Rossiya.

Improvement of procurement activity.

The Company purchases goods and services predominantly on an open, competitive basis from suppliers offering the best price and quality ratio optimizing procurement activities through the following measures:

- using techniques to reduce the limit purchase price;
- increasing the share of open competitive procedures;
- introducing mandatory actions to reduce prices by the procurement parties (re-bidding);
- adherence to the Procurement Policy of the Company and the Partnership Program between Kubanenergo PJSC and small and medium businesses;
- operation of the Advisory Body to ensure efficiency procurement conducted by Kubanenergo PJSC, including procurement from small and medium businesses.

Ensuring Safety of Company Operations

Kubanenergo PJSC is guided by regulatory legal acts of the Russian Federation and Krasnodar Krai as well as by decisions of the Company corporate bodies when implementing measures aimed at the increase of anti-terrorist and anti-sabotage protection of facilities.

In order to ensure the Company's facilities protection, the following measures were implemented in 2016:

- Company's local regulations on increase of anti-terrorist protection of facilities and actions of the personnel when detecting suspicious objects or signs of terrorist nature are published and executed in due time;
- condition of the Company's technical security equipment is regularly examined, including Grids Control Center;
- facilities security is checked in cooperation with representatives of law enforcement agencies;
- unscheduled inspections of duties fulfillment by employees of the private security organizations protecting Company facilities are carried out;
- briefings of duty operators and personnel of field services teams on actions to be taken when detecting signs of terrorist nature at the Company's facilities are carried out weekly;
- trainings on the employees' actions to be taken when detecting foreign objects and unauthorized persons at facilities are carried out in all branches of the Company;
- joint action plans of the Company and law enforcement agencies of the Krasnodar Krai and the Republic of Adygea in case of emergency are developed, the corresponding schemes of interaction are developed and approved;
- measures aimed at the improvement of facilities anti-terrorist protection level are included into the Company's long-term investment program for the period of 2017–2021;
- arrangements are made to prepare the integrated safety and security system of the Company facilities for 2017 FIFA Confederations Cup and 2018 FIFA World Cup.

With regard to ensuring economic security of the Company's operations in the reporting year:

- 656 petitions were filed to the law enforcement agencies for causing economic damage to the Company;
- 62 criminal proceedings were initiated for causing economic damage to the Company.

Protection of Kubanenergo PJSC information resources, information and communications as well as technological infrastructure, confidential information is ensured through implementation of package of managerial and engineering procedures aimed at the

development of regulatory and administrative documents in the area of information security, and implementation of state-of-the-art certified software and hardware information security tools.

The Company's information security design concept is developed in accordance with the Company's Information Technology and Telecommunication Strategy:

- malware identification and removal is conducted using antivirus protection subsystems. Centralized monitoring of the antivirus protection tools status with the timely distribution of group security policies is carried out to ensure high performance of antivirus protection tools and dynamic response to the information security threats;
- identification of impacts on the controlled information system, which may be qualified as hacks, is performed using the hacks identification and prevention subsystem;
- information and communications as well as technological networks segmentation, traffic supervision and filtering is performed through firewalling of the information and communications network and end nodes;
- electronic signatures based on GOST compliant encryption algorithms are used to arrange the protected mail traffic;
- comprehensive measures are implemented to set the security policies on server hardware and end nodes of Kubanenergo PJSC information and communications as well as technological infrastructures.