





CORPORATE STRATEGY AND PRIORITIES

36

Corporate Strategy and Priorities

37

Report of the Board of Directors on the development of the Company in priority areas of activity

42

Development of the electric grid complex of the Company and the region

43

Integrated Management System of the Company

45

Engineering Policy

47

Innovative development of the Company

51

Consolidation of power grid assets

CORPORATE STRATEGY AND PRIORITIES

SHMAKOV

IGOR VLADIMIROVICH

DEPUTY GENERAL DIRECTOR FOR MONITORING

[coordinates the development of the Company's management and control systems, including in the areas of quality management, internal control, risk management, and internal audit]



TO ENSURE THE STRATEGIC GROWTH AND DEVELOPMENT OF THE ELECTRIC GRID COMPLEX OF THE KRASNODAR TERRITORY AND THE REPUBLIC OF ADYGEA, IN THE NEXT FEW YEARS, IT IS NECESSARY TO QUICKLY AND EFFECTIVELY ADAPT TO MODERN TECHNOLOGICAL TRENDS, MEET THE DEMANDS OF CONSUMERS, ACTIVELY DEVELOP AND IMPLEMENT SOLUTIONS FOR DIGITAL TRANSFORMATION OF PROCESSES, DEVELOPMENT OF NEW SERVICES, WHILE MAINTAINING INVESTMENT ATTRACTIVENESS AND WITHOUT INCREASING THE TARIFF LOAD. SUCH ACTIVITY HAS BEEN STARTED IN 2018.

THE ROSSETI GROUP OF COMPANIES HAS ALREADY SWITCHED TO A RISK-BASED MANAGEMENT MODEL, WITH THE SUBSEQUENT POSSIBILITY TO RESPOND IN ADVANCE TO POSSIBLE THREATS.

THE READINESS FOR CURRENT CHALLENGES AND IMMUNITY TO EMERGING THREATS ARE STRENGTHENED BY THE CONTINUALLY IMPROVING MODERN MANAGEMENT AND CONTROL MODEL OF THE COMPANY – IN 2018, THE COMPANY'S MANAGEMENT SYSTEM CONTINUED THE PROGRESSIVE DEVELOPMENT, BUILT ON THE PRINCIPLES OF QUALITY MANAGEMENT SYSTEMS, INTERNAL CONTROL, AND RISK MANAGEMENT.

The Company, being a part of the unified distribution electric grid complex of Russia, strives to achieve the goals defined at the state level, – targets for the electric grid complex established by the Strategy for development of the Electric Grid Complex of the Russian Federation¹.

To fulfill the above targets, as well as to ensure efficient operation and development, the Company sets the following strategic goals:

- Improving the reliability of the power supply of the Krasnodar Territory and the Republic of Adygea.
- Improving the quality of customer service and increasing the availability of power grid infrastructure.
- The advanced development of the network and the introduction of new technologies.
- The growth of investment attractiveness and capitalization.
- Decent working conditions, increase of professionalism and loyalty of the Company's staff.
- Non-exceedance of the established standard for losses of electricity during its transmission.

1. It was approved by the order of the Government of the Russian Federation dated 03.04.2013, No. 511-p.

REPORT OF THE BOARD OF DIRECTORS ON DEVELOPMENT OF THE COMPANY IN PRIORITY AREAS OF OPERATION

A number of activities of the Company the Board of Directors has identified as preferable. In order to achieve strategic goals, the Company sets itself specific targets and implements measures aimed at developing the Company in the following priority areas:

SEQ NO.	ORDER OF PRIORITY	FOUNDATION	BASIC BASES FOR SETTING TARGET VALUES FOR 2018	INFORMATION TO DEVELOP IN THE DIRECTION IN 2018
1.	Ensuring the newly established level of reliability and quality of services provided in accordance with the regulatory legal acts	The decision of the Board of Directors on the issue "Concerning the priority areas of the Company's activities: about the promotion of the established level of reliability and quality of the services provided by the Company" (Minutes No. 121/2011, dated November 21, 2011)	Order of the Regional Energy Commission – Department of Prices and Rates of Krasnodar Region (REC-DPR KR) dated October 12, 2012, No. 59/2012-e	<p>In accordance with the Guidelines for calculating the level of reliability and quality of goods supplied and services rendered to the organization managing the unified national (All-Russian) electric power grid and local grid companies, approved by Order of the Russian Ministry dated 29.11.2016, No.1256, one of the essential components of the evaluation of the Company is a comprehensive indicator of the quality of services, provided by the grid operator, which value is used in making price (rates) adjustments, planned for a long-term regulatory period. The quality indicator of the services provided by the grid operator is determined by the quality level of technological connection to the network. Also, this order sets up the procedure for calculating the indicator of the reliability level of the services provided.</p> <p>By the Order of REC-DPR KR dated December 27, 2017, No. 62/2017-e "Concerning setting the rates for the companies, providing services for the transmission of electric energy", the long-term regulation characteristics were set for 2018–2022. The following values were set for 2018:</p> <ul style="list-style-type: none"> • indicator of the quality level of the technological connection to the network (an indicator of technological connection – ITC), which is equal to 1.009; • indicator of average duration of stopping the electricity transmission to the point of delivery, which is equal to 4.5832 hours; - indicator of the average frequency of electricity transmission to the point of delivery, which is equal to 1.0570 pcs. <p>According to the Kubanenergo PJSC performance in 2018, the average value of indicator was as follows:</p> <ul style="list-style-type: none"> • by the indicator of the quality level of technological connection to the network (ITC) – 1.0369, the planned value of the indicator is considered to be reached by Kubanenergo PJSC with account for allowable variation factor of 35%; • by the of average duration of stopping the electricity transmission at the point of delivery – 1.1138 h; • by the indicator of the average frequency of electricity transmission to the point of delivery – 0.5012 pcs.

SEQ NO.	ORDER OF PRIORITY	FOUNDATION	BASIC BASES FOR SETTING TARGET VALUES FOR 2018	INFORMATION TO DEVELOP IN THE DIRECTION IN 2018
2.	Ensuring the availability of energy infrastructure and the quality of technological connection to the Company's power grids	The decision of the Board of Directors on the issue "Concerning the priority direction of the Company's activities: concerning the availability of energy infrastructure and the quality of technological connection to the Company's power grids" (Minutes No. 196/2014 dated September 12, 2014)	Decision of the Board of Directors (Minutes No. 196/2014 of September 12, 2014) and Order of the Company No. 131 of February 18, 2014 "On Improving Technological Connection"	<p>Currently, the technological connection procedure takes three steps:</p> <ul style="list-style-type: none"> • filing an application, • the conclusion of the contract • execution of the contract. <p>To increase the availability and reduce the cost of technological connection for small and medium-sized businesses, from 01.10.2017, the cost of technological connection of power receiving devices with a maximum power of up to 150 kW does not include the costs associated with the construction of transmission facilities – from the existing transmission facilities to the connected power receiving devices and (or) electricity generation facilities (in accordance with the Federal Law of March 26, 2003, No. 35-ФЗ "On Electric Power Industry").</p> <p>Determining the technical solutions for interconnection, an approach is used which consists in the optimality from the point of view of reducing the volume of reconstruction (construction) of electric grid infrastructure facilities on the part of the Company.</p> <p>The possibility of a preliminary calculation of the cost of technological connection according to the specified parameters is already available on the website of the Company.</p> <p>The possibility of a preliminary calculation of the cost of technological connection according to specified parameters also functions on the Company's website.</p> <p>Information about the total capacity is published for each section of the electrical network, the current power reserve for connecting consumers.</p> <p>In accordance with the order of PJSC Rosseti dated December 02, 2016 No. 148 "Concerning the creation of favorable conditions for conducting small and medium business", the average time for execution of technological connection contracts for this category of applicants was 100 days, while the average time for consideration of the application and the direction of the contract offer decreased from 8 to 6 days compared with 2017.</p> <p>Further reduction in the technological connection terms for privileged categories of applicants was scheduled for 2019.</p>
3.	Planning the development of the distribution grid complex of Kubanenergo PJSC	The decision of the Board of Directors on the issue "Concerning the priority direction of the Company's activities: about planning the development of the distribution power grid of OJSC Kubanenergo (Minutes No. 116/2011 dated 07.09.2011)	The Operating Procedure for the ПП00104604–ИCM-003-2016 process "Management of the distribution power grid development"	<p>The Company took a hands-on approach to the development of the Scheme and Program for the future development of the electric power industry in the Krasnodar Territory for the period 2019–2023 and the Schemes and Programs for the Development of the Power Industry of the Republic of Adygea for 2018–2022.</p> <p>In the reporting year, the Integrated Program for the Development of Electric Networks 35 kV and higher in the Krasnodar Territory and the Republic of Adygea for 2019–2023 was developed by request of JSC "Institute ENERGOSETPROEKT" of Kubanenergo PJSC. This program is the basis for the annual formation of proposals for the inclusion of activities in the Schemes and Programs for the future development of the power industry of Krasnodar Territory and the Republic of Adygea for a five-year period.</p>

SEQ NO.	ORDER OF PRIORITY	FOUNDATION	BASIC BASES FOR SETTING TARGET VALUES FOR 2018	INFORMATION TO DEVELOP IN THE DIRECTION IN 2018
4.	Certification of equipment, materials, and systems at the Company's facilities	The decision of the Board of Directors regarding "The definition of priority activities: on certification of equipment, materials and systems at the Company's facilities (Minutes No. 190/2014 dated 06.06.2014)	The absence of facts regarding the equipment, materials, and acquisition of systems, not certified in PJSC Rosseti or not approved for use at the Company's facilities by the decision of the Company's commission for the approval of equipment, materials, and systems	<p>As a part of the implementation of the priority direction, as well as pursuant to the order of PJSC Rosseti of 02.09.2013, No. 546 (as amended), pursuant to the decision of the Board of PJSC Rosseti (Minutes No. 225np dated 31.03.2014), in order to prevent deliveries of products that do not meet the requirements of industry regulatory and technical documentation (hereinafter referred to as NTD) to the Company's facilities, as well as internal standards and NTD of the Company, Order of Kubanenergo PJSC dated 30.05.2014, No. 476 "Concerning certification of equipment, materials and systems" entered into force as the Company's internal documents:</p> <ul style="list-style-type: none"> • Methods of certification of equipment, materials and systems in the integrated power grid; • The procedure for certification of equipment, materials, and systems in the integrated power grid; • there was appointed the Company's Commission for approval of equipment, materials and systems (hereinafter – Company CAE) and was approved the operating procedure for the Company CAE (R 054-2014) (hereinafter – the Operating Procedure). <p>Kubanenergo PJSC strictly complies with the requirements of the Regulations of PJSC Rosseti "On Unified Technical Policy in the Integrated Power Grid" approved by the Board of Directors of Kubanenergo PJSC (minutes No. 267/2017 of 31.03.2017) and enforced by order of the Company dated 31.03.2017, No. 859.</p> <p>At the same time, Kubanenergo PJSC in its production activities uses a list of equipment, materials and systems that have passed the certification procedure and have a valid conclusion of the attestation commission and recommended for use at the grid facilities of the subsidiaries and dependent companies of PJSC Rosseti, posted on the official website of PJSC Rosseti www.rosseti.ru in the section "Investments and Innovations".</p> <p>The requirement for the availability of certification by PJSC Rosseti for the equipment, materials, and systems proposed for procurement is specified in the procurement documentation.</p> <p>The technical expert appointed by the order for regulated procedures, within the framework of the selection stage of the procurement procedure, checks the availability of equipment, materials, and systems proposed by the participants in the above list and at the identification of machinery, materials, and systems not certified by PJSC Rosseti, brings this issue for the consideration of the Head of Department for the arrangement of bidding procedures and to the meeting the Company CAE.</p> <p>Thus, all activities of Kubanenergo PJSC in this direction are carried out based on the relevant decisions and documents of PJSC Rosseti, which excludes the possibility of using the equipment, materials, and systems not certified in the prescribed manner at Kubanenergo PJSC facilities.</p>

SEQ NO.	ORDER OF PRIORITY	FOUNDATION	BASIC BASES FOR SETTING TARGET VALUES FOR 2018	INFORMATION TO DEVELOP IN THE DIRECTION IN 2018
5.	Increasing the level of anti-terrorism and anti-sabotage security of the Company's electric grid facilities	<p>Decisions of the Board of Directors on the following matters:</p> <ul style="list-style-type: none"> • "Concerning the definition of priority activities: on measures to increase the level of anti-terrorism and anti-sabotage security of the Company's facilities" (Minutes No. 94/2010, dated 06.08.2010) • "Concerning the approval of the internal document – Policy for ensuring the integrated security of Kubanenergo OJSC (minutes No. 202/2015 dated 30.01.2015) 	<p>The policy of ensuring the integrated security of Kubanenergo PJSC, approved by a decision of the Board of Directors (minutes No. 202/2015 dated 30.01.2015)</p>	<p>In its efforts to improve the level of anti-terrorism protection of the facilities of Kubanenergo PJSC, it is guided by the regulatory legal acts of the Russian Federation and the Krasnodar Territory, as well as decisions of the Company's management bodies.</p> <p>In order to ensure the safety of the Company's facilities, in 2018 the following measures were implemented:</p> <ul style="list-style-type: none"> • local Regulations of the Company to enhance anti-terrorist protection of facilities and personnel actions upon detection of suspicious objects or signs of a terrorist nature were published and executed in a timely manner; • the state of engineering security equipment at the Company's facilities was regularly examined; • inspections of the state of protection of objects were carried out together with representatives of law enforcement agencies; • there were performed the unscheduled inspections of the service performed by employees of private security organizations engaged in the protection of the Company's facilities; • instruction of the duty operators and operational staff in outreach activities in cases of detection of signs of a terrorist nature at the Company's facilities were carried out on a weekly basis; • in all branches of the Company, training was conducted on personnel actions when foreign objects and persons were found at energy facilities; • the plans for joint actions of the Company with the law enforcement bodies of the Krasnodar Territory and the Republic of Adygea were developed in the event of an emergency, same there were developed and agreed upon the relevant interaction schemes; • measures to improve the level of anti-terrorism protection of facilities were included in the Company's long-term investment program for the period 2019–2023; • measures to prepare the integrated security system of the Company's facilities for the 2018 World Cup. <p>In close cooperation with the territorial bodies of the Federal Security Service of Russia, the Ministry of Internal Affairs of Russia, the Russian Guard, the security of the Company's power facilities involved in the energy supply of the infrastructure facilities of the FIFA World Cup 2018;</p> <ul style="list-style-type: none"> • measures were taken to ensure the safety of the Company's energy facilities involved in holding social and political events (Russian Investment Forum in Sochi, Congress of the Syrian National Dialogue in Sochi, the election of the President of Russia, etc.)
6.	Improving the system of in-process monitoring and risk management, the development of the internal audit function	<p>The decision of the Board of Directors on the issue "Concerning the priority direction of the Company's activities: improving the system of internal control and risk management, the development of the internal audit function" (minutes No. 196/2014 dated 12.09.2014)</p>	<p>Strategy for the development and improvement of the internal control system of PJSC Rosseti and subsidiaries and affiliates PJSC Rosseti (minutes of the meeting of the Board of Directors of Rosseti OJSC dated 13.02.2014, No. 143), Company's order dated 12.01.2016, No. 6 "On implementation of the Efficiency Assessment Method in the internal control and risk management systems of the Rosseti Group of Companies, decision of the Audit Committee of the Company's Board of Directors (minutes No. 36/2016, dated 17.03.2016)</p>	<p>Measures implemented in the reporting year aimed at improving the internal control system, see the section "Internal Control System"</p>

SEQ NO.	ORDER OF PRIORITY	FOUNDATION	BASIC BASES FOR SETTING TARGET VALUES FOR 2018	INFORMATION TO DEVELOP IN THE DIRECTION IN 2018
7.	Comprehensive programs of Kubanenergo PJSC to reduce the risk of injuries to the personnel of Kubanenergo PJSC and third parties at the facilities of the electric grid complex of Kubanenergo PJSC for the period 2018-2022.	<ul style="list-style-type: none"> Order of PJSC Rosseti dated 29.03.2018, No. 55 "On approval of programs to reduce injury risks at the facilities of the integrated electric grid"; the decision of the operational meeting under the leadership of the General Director of PJSC Rosseti (Minutes No. 108, dated 24.10.2017); Order of PJSC Rosseti dated 14.12.2017, No. 156 "On approval of the Program for improving the quality of production control of PJSC Rosseti" 	Order of PJSC Rosseti dated 29.03.2018, No. 55	The Company progress report in 2018 for implementation of integrated programs to reduce the risks of injuries to the personnel of Kubanenergo PJSC and third parties at the facilities of the Company's integrated electric grid for the period 2018-2022 was noted at a meeting of the Reliability Committee of the Board of Directors of Kubanenergo PJSC (extract from the minutes, dated 20.02.2019, No. 57/2019)
8.	Reduction of specific investment expenses by 30% compared to 2012	The Order of the Company dated 08.10.2013 No. 1226 "Concerning the Approval of the planning Procedure for Reducing Investment Costs by 30% Relative to the Level of 2012 when Forming the Investment Program of Kubanenergo OJSC" (as amended by the Order dated 20.03.2016, No. 209)	Order of the Company dated 20.03.2016, No. 209 "Concerning the Amendments to the Order of OJSC Kubanenergo, No. 1026 dated 08.10.2013"	In connection with the end of the first stage of performing the Strategy for the Development of the Electric Grid Complex of the Russian Federation, approved by Decree of the RF Government dated 03.04.2013, No. 511-p, adopted to achieve in 2017 a target for reducing specific investment costs by 30% compared to 2012, as well as the cancellation of the order of PJSC Rosseti dated 10.03.2016, No. 99p, which approved the method of planning to reduce investment costs by 30% relative to the 2012 level at elaboration of investment programs of subsidiaries and affiliates of PJSC Rosseti (order of PJSC Rosseti No. 474p dated 26.10.2018), the event has been replaced with "Not exceeding the actual unit costs over the planned unit costs (for facilities that were fully put into work in the reporting period)." By the end of 2018, this measure was totally completed
9.	Reduction of operating expenses (costs) by at least 2-3% annually	<p>Decisions of the Board of Directors on the following matters:</p> <ul style="list-style-type: none"> "Reducing the operating expenses (costs) by minimum 2-3% annually" (minutes dated 11.06.2015, No. 214/2015); "Approval of the Company internal document – the Operating Procedure for Increase in Operating Efficiency and Reduce of Costs of Kubanenergo PJSC (minutes No. 228/2015, dated 30.12.2015); "Approval of the business plan of Kubanenergo PJSC for 2018 and the forecast indicators for 2019-2022, including, among other things, the Program for improving operating efficiency and reducing the Company's expenses for the period 2018-2022" (minutes dated 28.12.2017, No. 294/2017) 	The decision of the Board of Directors of the Company (minutes dated 28.12.2017, No. 294/2017), minutes of the meeting with deputy general directors for economics and finance of the subsidiaries and dependent companies of PJSC Rosseti dated 29.03.2018, No. 3	According to the results of 2018, the target percentage of reduction in specific operating expenses (expenses) of at least 2% was taken into account (minutes with Deputy General Directors for economics and finance of subsidiaries and dependent companies of PJSC Rosseti dated 29.03.2018, No. 3). Obtained in 2018, the effect of reducing operating costs is at least 2%, which corresponds to the target value
10.	Measures to centralize and automate the treasury function	<p>Decisions of the Board of Directors on the following matters:</p> <ul style="list-style-type: none"> "Determining the priority directions of the Company's activities: implementation of measures to centralize and automate the treasury function by the Company" (Minutes of the Board of Directors dated 16.03.2015, No. 205/2015); "implementation of the scheduled plan of the Company for integration into the unified IT system of the Single Treasury of PJSC Rosseti (minutes No. 212/2015 dated 25.05.2015) 	Integration and transfer of treasury and financial functions into an automated system of centralization and automation of treasury and business services of PJSC Rosseti on the 1C: Enterprise platform	The Company carried out in full within the established period the measures for integration into the unified IT system of the Single Treasury of PJSC Rosseti in accordance with the regulatory documents of Kubanenergo PJSC and PJSC Rosseti, planned for 2018

DEVELOPMENT OF THE ELECTRIC GRID COMPLEX OF THE COMPANY AND THE REGION

KOSTETSKY

VYACHESLAV YUREVICH

BY THE DEPUTY GENERAL DIRECTOR FOR DEVELOPMENT
AND TECHNOLOGICAL CONNECTION



THE MAIN OBJECTIVE OF THE COMPANY'S LONG-TERM DEVELOPMENT OF THE ELECTRIC GRID COMPLEX IS THE SEARCH FOR OPTIMAL WAYS TO MODERNIZE AND EXPAND ITS ELECTRIC GRID COMPLEX IN ORDER TO ELIMINATE THE EXISTING SHORTAGE OF ENERGY CAPACITIES AND MEET THE PROSPECTIVE DEMAND FOR ELECTRIC POWER IN THE LONG TERM.

Acting under Decree of the Government of the Russian Federation dated 17.10.2009, No. 823 "On schemes and programs for the future development of the power industry", in 2018 Kubanenergo PJSC took a direct part in the development of schemes and programs for the future development of the electric power industry of the Krasnodar Territory and the Republic of Adygea for a five-year period.

The Representatives of Kubanenergo PJSC – Deputy General Director for Technical Issues – Chief Engineer and Deputy General Director for the Development and Technological Connection of the Company – are included in the coordination bodies in the Krasnodar Territory and the Republic of Adygea, coordinating the development of schemes and programs for the development of the electric power industry of the subjects of the Russian Federation:

- of the interdepartmental working group for elaboration of scheme and program for development of the power industry of the Krasnodar Territory (created according to the order of the head of administration (governor) dated 11.02.2011, No. 181-p "On the creation of an interdepartmental working group to develop the scheme and program for the development of the power industry in the Krasnodar Territory");
- the working group for elaboration of a scheme and program for the development of electric power industry of the Republic of Adygea (established according to the order of the Ministry of Economic Development and Trade of the Republic of Adygea dated 01.02.2011, No. 26-p "On the establishment of a working group").

Scheme and Program for the future development of the power industry of Krasnodar Territory for the period 2019–2023, approved by order of the head of the administration (governor) of Krasnodar Territory No. 104-r dated 26.04.2018.

Scheme and Program for the Development of the Power Industry of the Republic of Adygea for 2018–2022 approved by the order of the head of the Republic of Adygea dated 12.03.2018 No. 49-pr.

According to the schemes and programs, the Company should focus its attention on the development of the most problematic South-Western and Central Energy Districts of the Kuban Energy System, which need to be improved in the electric power infrastructure.

As a part of the execution of PJSC Rosseti order No. 155 dated 25.08.2015 "On Improving the Quality of Network Development Planning", Kubanenergo PJSC in the reporting year entered into an agreement with Energosetproekt Institute for the development of a comprehensive program for the development of electrical networks of 35 kV and above on the territory of the Krasnodar Territory and the Republic of Adygea for 2019–2023.

December 26, 2018 the draft of this program (basic version) was sent to the executive authorities of the Krasnodar Territory and the Republic of Adygea as source data for the development of schemes and programs for the future development of the electric power industry of the regions in 2019

INTEGRATED MANAGEMENT SYSTEM OF THE COMPANY

The Company has an Integrated Management System, which includes:

- The quality management system, which is the basis for the general management system of the Company, which provides:
 - / the introduction of systemic approaches to the management of the Company through goal-setting, identification of processes and resources necessary to achieve the desired results,
 - / high quality management of the Company's processes in accordance with the requirements of regulatory documents, the needs and expectations of consumers, the interests of all stakeholders, including employees, shareholders, investors and partners of the Company;
- The environmental management system – is part of the Company's overall management system, which is used to manage the environmental aspects of the Company's operations, implement the commitments made and take into account the risks and possibilities of the Company's environmental impact;
- The occupational health and safety management system – is a part of the Company's general management system that allows you to manage risks and improve performance indicators in the field of occupational safety and health protection;
- The energy management system, – which is part of the Company's overall management system, the tools of which provide ongoing research that allows them to have knowledge of the distribution and levels of energy consumption at the enterprise, as well as the optimal use of energy resources for both production and non-production needs.

The integrated management system of the Company was developed and documented in accordance with the requirements of international and Russian standards ISO 9001: 2015, ISO 14001: 2015, ISO 50001: 2011, OHSAS 18001: 2007, GOST R 54934-2012.

Certificates of the Company's management system valid in 2018

SEQ NO.	MANAGEMENT SYSTEMS	CERTIFICATE VALIDITY	CERTIFICATION BODY
1	ISO 9001 "Quality Management System"	05.03.2021	CJSC SGS Vostok Limited
2	ISO 14001 "Environmental Management System"	05.03.2021	CJSC SGS Vostok Limited
3	OHSAS 18001 "Operational Health and Safety management system."	05.03.2021	CJSC SGS Vostok Limited
4	ISO 50001 Energy Management System	21.08.2021	Certification Association "Russian Register"

The scope of application of the Integrated Management System of the Company and distribution of conformity certificates is the activity for transmission and distribution of electricity over 110 kV electrical networks and below; design, construction, reconstruction, an overhaul of power facilities in the Krasnodar Territory and the Republic of Adygea.

The Company implements a set of measures to improve the management system of Kubanenergo PJSC, approved by order dated 16.12.2016, No. 1114 and updated by the decision of the Company's Board dated August 29, 2017, minutes No. 18/2017, including organizational and methodological measures in the field of strategic management as well as measures for the integration, unification and automation of the Company's activities in the management of regulatory reference information and organizational and technical documentation.

The interested parties of the Company are the following:

- The last resort providers and energy service companies with which Kubanenergo PJSC has concluded electricity

- transmission contracts in favor of electric power consumers;
- applicants for technological connection to the Company's power grids;
- final consumers of electricity whose electrical installations are directly or indirectly connected to the Company's electrical networks;
- other subjects of electric power industry (generating companies, JSC "SO UES", territorial and related grid organizations, etc.);
- Company staff;
- shareholders of the Company;
- PJSC Rosseti as a Parent Company in relation to the Company;
- regional, municipal and local authorities of the regions of the Company's presence;
- Krasnodar regional organization of the trade union of the public association – All-Russian Electro-Trade Union;
- product and service providers.

THE MAIN RESULTS OF THE MANAGEMENT SYSTEMS OPERATION

- improving the reliability and quality of power supply (information is provided in the section " Providing the Reliable and Efficient Operation of the Power System");
- increase of power supply security (information is presented in the section " Providing the Reliable and Efficient Operation of the Power System");
- ensuring the labor safety and health protection in the implementation of production activities, including reducing the total number of accidents while observing the requirements of the legislation of the Russian Federation in the field of labor protection and environmental protection (The information is presented in the sections " Labor Protection and Industrial Safety", " Environmental Protection and Key Environmental Aspects of the Company");
- energy efficiency increase (information is presented in the section " Energy saving and energy efficiency increase");
- ensuring environmental safety (information is presented in the section " Environmental Protection and Key Environmental Aspects of the Company");
- improving the quality of services for the technological connection of consumers (information is given in the section " Technological Connection to the Electric Networks of Kubanenergo PJSC").

In general, the functioning of the Integrated Management System has had positive results over the past year, which is confirmed by the findings of certification bodies.

From 12 to 16 of February 2018, as a part of the recertification audit, CJSC "SGS Vostok Limited" (included in the SGS group) confirmed the compliance of the Company's management system with the requirements of international standards in the field of quality management ISO 9001: 2015, occupational health and safety OHSAS 18001:2007, environmental management ISO 14001:2015 in the branches of Sochinskiye, Labinskiye electric networks and in the executive office. According to the results of the audit by the certifying authority, it was concluded that the management system of Kubanenergo PJSC is effectively functioning, planned and able to achieve the goals set forth in the Kubanenergo PJSC Policy in the aspect of quality, ecology, and occupational health and safety.

From September 17 to 21, 2018, within the framework of the recertification audit, the Russian Register Certification Association confirmed that the Company's management system complies with the requirements of the international standard ISO 50001:2011 in the field of energy management in the South-Western, Slavyanskiye and Krasnodarskiye electric networks and the executive office. By the results of the audit, the certification body considered the management system of Kubanenergo PJSC as functioning efficiently, well-planned and capable of achieving the goals set forth in the Energy Policy of Kubanenergo PJSC.



ENGINEERING POLICY

By decision of the Board of Directors of Kubanenergo PJSC dated 28.03.2017 (minutes No. 267/2017), the Regulation of PJSC Rosseti "On the Unified Technical Policy in the Electric Grid Complex" was approved as a Company internal document, and put into action by the order of Company No. 859 on August 10, 2017.

The objectives of the engineering policy are: identifying critical areas of engineering and technology, development, the unification of technical solutions to enhance the reliability and efficiency of power industry facilities in the long term, with ensuring adequate industrial and environmental safety on the basis of innovative improvement principles, assuring the non-discriminatory access to electricity networks for all market participants.

In the preparation and implementation of the Company's programs the Company is guided by the following requirements of engineering policy:

- investment;
- maintenance and repair;
- innovative development;
- energy saving and energy efficiency improvement;
- target programs related to the implementation of technical concepts and technical development strategies;
- research-and-development activity;
- import substitution.

Key projects, which implementation was based on innovative, advanced, high tech technical solutions, technologies and equipment in compliance with the engineering policy, completed by the Company in 2018

SEQ NO.	COMPANY BRANCH	ENERGY FACILITY NAME	KEY TECHNICAL PARAMETERS
1	Sochinskiye electric networks	Construction of Substation "Lazurnaya" 110 kV with overhangs of overhead lines 110 kV	<p>110 and 10 kV microprocessor Relay Protection and Automation Devices (RPAD) manufactured by AST LLC (NR) and EKRA NPP (the main protections are differential-phase protection of 110 kV overhead lines).</p> <p>Protection devices for local back-up power transformers T-1 and T-2 (PUMA).</p> <p>110 kV SF6 circuit breakers EKLW24-145.</p> <p>110 kV capacitive explosion-proof voltage transformers ETH-110UHL1.</p> <p>Communication capacitors in explosion-proof version SMAPV-110/V3-6.4 UHL1.</p> <p>Reactors in arc extinguishing oil performance RDMK-400/11-U1.</p> <p>Auxiliary power transformer, energy-saving TMGE</p>
2	Krasnodarskiye electric networks	Reconstruction of the "Yugo-Zapadnaya" Substation 110/10 kV. Installation T-3 with a capacity of 40 MVA	<p>Microprocessor RPAD 110 and 10 kV produced by LLC AST (NR) and NPP EKRA (the main protection of RPAD overhead line 110 kV).</p> <p>Protection devices for local back-up power transformers T-1, T-2, and T-3 (PUMA).</p> <p>Gas-insulated circuit breaker 110 kVEKLW24-145</p>
3	Krasnodarskiye electric networks	Reconstruction of the substation "Severo-Vostochnaya" 110/6-10 kV. Installation T-3 with a capacity of 40 MVA	<p>110 and 10 kV microprocessor-based relay protection devices produced by LLC AST (NR).</p> <p>Protection devices for local back-up power transformers T-1, T-2, and T-3 (PUMA).</p> <p>Gas-insulated circuit breaker 110 kVEKLW24-145</p>
4	Krasnodarskiye electric networks	Reconstruction of the substation "Turgenevskaya" 110/10 kV. Installation T-3 with a capacity of 40 MVA	<p>110 and 10 kV microprocessor-based relay protection devices produced by LLC AST (NR).</p> <p>Protection devices for local back-up power transformers T-1, T-2, and T-3 (PUMA).</p> <p>Gas insulated switch 110 kV EKLW24-145.</p> <p>110 kV capacitive explosion-proof voltage transformers ETH-110UHL1.</p> <p>Reactors in arc extinguishing oil performance RDMK-400/11-U1.</p> <p>Auxiliary power transformer, energy-saving TMGE</p>

SEQ NO.	COMPANY BRANCH	ENERGY FACILITY NAME	KEY TECHNICAL PARAMETERS
5	Krasnodarskiye electric networks	Reconstruction of the substation 35/10 kV "Kalinino". Replacement of 2 × 10 MVA transformers with 2 × 16 MVA	35 and 10 kV microprocessor-based relay protection devices produced by LLC AST (NR). Protection devices for local back-up power transformers T-1 and T-2 (PUMA). 35 kV cells of type KM-35. Energy saving auxiliary power transformer
6	Krasnodarskiye electric networks	Reconstruction of the 35/10 kV Shapsug substation with conversion to 110/35/10 kV voltage with two 40 MVA transformers	110, 35 and 10 kV microprocessor-based relay protection devices produced by EKRA. Protection devices for local back-up power transformers T-1 and T-2 (PUMA). 35 kV cells of KRU-SESC-65UHL1 type. 110 kV SF6 circuit breakers EKLW24-145. 110 kV capacitive explosion-proof voltage transformers ETH-110UHL1

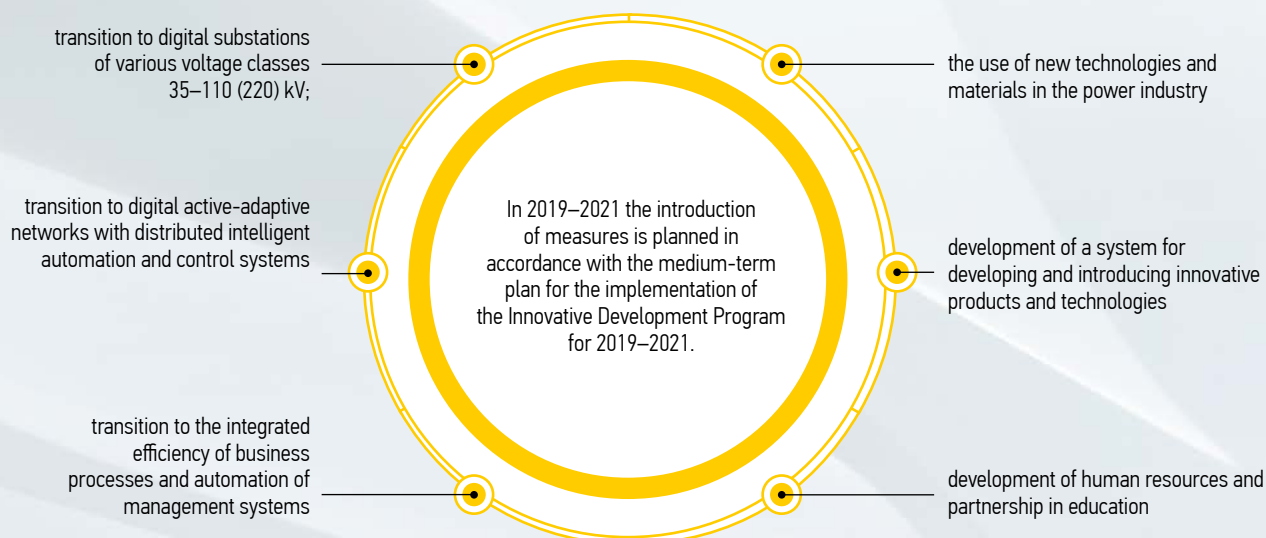
The list of regulatory and technical documents (RTD) of the electric grid subject in Kubanenergo PJSC was approved by Order No. 115 dated February 16, 2016, and placed on the server in public access for the Company's employees and updated annually, as well as at the revising existing or developing new RTD.

In the reporting year, the Company developed 33 regulatory and technical documents in the field of technical regulation, four of them – with the involvement of contracting organizations:

SEQ NO.	TECHNICAL REGULATION AREA	NUMBER OF DOCUMENTS
1	Prompt technological and situational management	6
2	Fire safety	6
3	Metrology and power quality	6
4	Rationing in the integrated power grid	5
5	Test methods and diagnostics	3
6	Grounding and lightning protection	2
7	Electricity accounting and service development	2
8	Occupational Safety and Health	1
9	Power lines, substations and main equipment	1
10	Means of communication	1

INNOVATIVE DEVELOPMENT OF THE COMPANY

THE MAIN DIRECTIONS OF THE CURRENT INNOVATION DEVELOPMENT PROGRAM



2018 results

4

SECURITY DOCUMENTS

ON R & D WERE RECEIVED

1

LICENSE CONTRACT WAS CONCLUDED

2

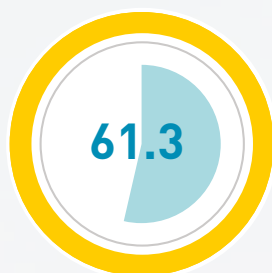
R & D RESULTS

WERE IMPLEMENTED ON POWER GRID FACILITIES

COMPANY'S EXPENSES FOR INNOVATIVE DEVELOPMENT

Costs in the main areas of innovation development in 2018, mln rub. without VAT

114.0



The transition to digital substations of different voltage classes

0



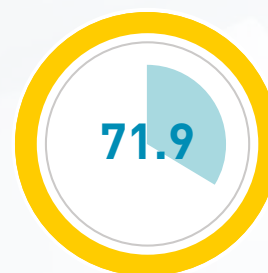
Transition to digital active-adaptive networks with distributed intelligent automation and control systems

50.3



Transition to the integrated efficiency of business processes and automation of management systems

141.8



The use of new technologies and materials in the power industry

Planned
Actual

THE MAIN COMPLEX INNOVATIVE PROJECTS CARRIED OUT BY THE COMPANY IN THE REPORTING YEAR

Automation of sections of the 6–10 kV distribution network based on reclosers with the installation of a SCADA system of Dagomysky¹ RES

The project implementation period is 2018–2020.

It is planned to implement a set of technical measures, including:

- application in Sochinskiye electric networks of SCADA with the addition of OMS functions (shutdown control system, including emergency situations) and DMS (distribution network control systems) with the display of telemechanical data on 110 kV substation and 6–10 kV distribution center of Dagomyskay RES;
- setup of automatic sectioning points (reclosers, motor-driven disconnectors, etc.) with integration into SCADA;
- the remote control of one 110 kV substation, nine distribution points with a voltage of 10 kV with integration into SCADA;
- the introduction of digital systems for determining the location of damage by equipping sensors for the flow of short-circuit currents with the integration of SCADA;

- creation of a communication system that meets the demand for digital RES (modems, communication channels, routers);
- creation of a smart metering system (with the automatic collection and the function of analyzing consumption and balances) based on Automatic system for commercial accounting of power consumption "Piramida";
- creation of an automated workplace of the operational (operational-repair) personnel of Dagomyskaya power distribution zone.

The coordination of the digitalizing passport of Dagomysky Distribution Zone by the Commission for the Management of Innovative Development of PJSC Rosseti began in 2018.

In 2019–2020 It is planned to coordinate the passport of the pilot project with PJSC Rosseti and its implementation

Development of the computer integrated manufacturing system (CAMS) of Kubanenergo PJSC

In the reporting year:

- changes were made to information systems based on the results of the revision of the methodology for assessing the consequences of a failure and taking into account the risks of failure in monetary terms;
- automated forecasting model of the probability of the manufacturing system failure;
- standard forms of test/measurement protocols were automated by test objects, groups, and types of equipment;
- automated functionality of mobile solutions;
- ACS MRO integration was carried out with reference books of raw materials and materials for accounting and logistics;
- automated methodology for assessing the readiness of electric power engineering entities to work during the heating season.

The introduced APSA controls contribute to the reduction of labor costs for performing individual operations, increase the transparency of the Company's activities at all levels of the hierarchy, make information available at all levels of management of power grid facilities. They also let to evaluate the effectiveness of

operational and investment costs in terms of various types of impact, to compare the efficacy of production asset management processes in the Company.

Controls for calculating the likelihood and estimating the consequences allow us to determine the optimal type, composition, and cost of technical impact when planning for maintenance and repair, technical re-equipment and reconstruction, as well as to determine the predicted level of reliability of power grid facilities.

Further development of the Company's asset management system is planned for 2019, including:

- creation of automated control systems by means of technical re-equipment and reconstruction;
- automation of methods for predicting changes in the reliability of power supply to consumers and the technical condition of assets, depending on available resources;
- the exchange of regulatory information between the asset management system and the automated metering system of transport of electricity

Implementation of automated process control systems based on digital devices using the IEC 61850² standard for the construction of the Substation 220 kV "Port"

The following digital technologies were used in the construction of the "Port" 220 kV substation:

- automated process control system (APCS) built on equipment, equipment produced by a Russian Company LLC "DEP Company" based on the protocol IEC 61850;
- integration of 10–35 kV bay controllers and relay protection and automation terminals into the process control system through digital data exchange using the IEC 61850 protocol;

- digital communication and transmission channels are organized via the optical fiber transmission systems (OFTS) to the dispatch centers of Kubanenergo PJSC and branch of JSC SO UES Kuban Regional Dispatch Administration (RDA);
- implementation of software online blocking switching devices of substations.

In 2019 it is planned to put the following facilities into operation.

¹ SCADA – (Supervisory Control and Data Acquisition) is a software package designed to develop or provide real-time systems for collecting, processing, displaying and archiving information about a monitoring or management facility.

² The standard of the International Electrotechnical Commission "Communication Networks and Systems at Substations", describing data flow formats, types of information, rules for describing elements of a power facility and a set of rules for organizing an event-based data transfer protocol.

COMPANY'S EXPENSES FOR INNOVATIVE DEVELOPMENT

Costs in the main areas of innovation development in 2018, mln rub. without VAT

SEQ NO.	DIRECTIONS OF INNOVATIVE DEVELOPMENT	PLANNED	ACTUAL
1	The transition to digital substations of different voltage classes	61.3	114.0
2	Transition to digital active-adaptive networks with distributed intelligent automation and control systems	133.8	0.0
3	Transition to the integrated efficiency of business processes and automation of management systems	30.1	50.3
4	The use of new technologies and materials in the power industry	71.9	141.8

PERFORMANCE OF R & D

The general direction of the Innovation Development Program for 2016–2020 with a perspective up to 2025, is the performance of R & D activities (development of breakthrough technologies for creating fundamentally new methods and methods, as well as applied topics towards improving the existing technologies and products).

R & D results obtained in 2018

SEQ NO.	R & D	TECHNICAL RESULT
The transition to digital substations of different voltage classes		
1.	Development of IEC 61850 standard profiles ² for devices and cabinets of relay protection devices and automatic process control systems ensuring their interchangeability.	<p>There were worked out the following:</p> <ul style="list-style-type: none"> • requirements for the implementation of the relay protection devices and automatic process control systems controls, based on the objects of the information model of IEC 61850 standard and distribution of the objects of this model according to physical devices; • requirements for the composition of logical devices and distribution of logical nodes according to logical devices; • requirements for the name of logical devices, logical nodes and other elements of the model standard IEC 61850; • requirements for the interaction model (structural interaction diagrams) of logical devices, nodes among themselves with the definition of a unique set of data, necessary and sufficient for interaction
2.	Development of technical requirements for the computer-aided design system according to IEC 61850, algorithms and methods for verifying computer-aided design systems for compliance with technical requirements	<p>There were worked out the following:</p> <ul style="list-style-type: none"> • design workflow of digital substations in accordance with IEC 61850; • technical requirements for the computer-aided design system, ensuring the formation of SSD/SCD/SED³ files in accordance with the IEC 61850 standard; • technical requirements for the developed software and user workplaces; • procedures for testing the computer-aided design system according to IEC 61850 for compliance with technical requirements, as well as checking configuration files for compliance with SCL⁴ diagram of the corresponding version of the IEC 61850 standard and files syntax
Transition to the integrated efficiency of business processes and automation of management systems		
3.	Compensation of the consumption of fuel and energy resources through the use of renewable energy sources at the facilities of Kubanenergo PJSC	<p>There were worked out the following:</p> <ul style="list-style-type: none"> • feasibility study of energy-saving measures using solar photovoltaic panels and solar collectors; • recommendations on the application of power plants of solar photovoltaic panels and solar collectors at the facilities of Kubanenergo PJSC using a feasibility study methodology; • design documentation; • experimental-industrial sample of the design documentation for the combined solar collector installation (hereinafter - KGKU); • industrial collector installation (hereinafter - KGKU); • operational documentation

1. The standard of the International Electrotechnical Commission 'Communication Networks and Systems at Substations', describing data flow formats, types of information, rules for describing elements of a power facility and a set of rules for organizing an event-based data transfer protocol.

2. IEC-61850 – is the standard of the International Electrotechnical Commission 'Communication Networks and Systems at Substations,' describing data flow formats, types of information, rules for describing power facility elements and a set of rules for organizing an event-based data transfer protocol.

3. In accordance with the standards IEC 61850-4 and IEC 61850-6, the design of secondary subsystems of digital substations should be accompanied by the development of electronic project documentation in SCL (see note below) in the form of SSD (System Specification Description) and SCD (System Configuration Description – is a system configuration description. In addition, the standard defines a file format SED (System Exchange Description – data exchange system configuration), intended for the exchange of configurations of various design objects.

4. SCL - System Configuration Language – is a configuration description language.

SEQ NO.	R & D	TECHNICAL RESULT
Program to improve systems and devices for lightning protection, increase the thunderstorm resistance and reliability of external insulation of OTLs and substations with a voltage of 6-750 kV		
4.	Creation of a computer-aided design for lightning protection of substations and high-voltage lines	There were worked out the following: <ul style="list-style-type: none"> • database of economically justified standard technical solutions for lightning protection of electric grid facilities; • method of verification of computer programs for use as a part of computer-aided design; • a computer program for calculating the protection of substation from OTL waves of thunderstorm origin
5.	Development of methods and multifunctional software complex for calculating damage to power transmission lines by lightning based on a probabilistic approach	Calculation module of the computer program created by calculating the damage to the power lines by lightning based on a probabilistic approach
The use of new technologies and materials in the power industry		
6.	The device of differential-phase protection of power lines with two-way power supply with the function of long-distance backup relay protection and switching devices of substations connected to the branches	There were worked out the following: <ul style="list-style-type: none"> • operational documentation; • design documentation
7.	Development of a reflectometric complex for monitoring overhead transmission lines of 35-220 kV to determine the locations of their damage and ice deposits on them	There were worked out the following: <ul style="list-style-type: none"> • one prototype (the device prototype of installation works at the customer's site and commissioning work were completed); • technical conditions • operational documentation
8.	Development of a hardware and software system for determining the location of damage for 35-750 kV lines with optical communication channels	There were worked out the following: <ul style="list-style-type: none"> • two sets of prototypes of damage location terminals; • operational documentation.



CONSOLIDATION OF POWER GRID ASSETS

To implement the Strategy for the Development of the Electric Grid Complex of Russia¹, providing for a reduction in the number of LGCs by 50% by 2017 relative to the level of 2012 and by 50% by 2030 relative to the level of 2017, the Company takes measures to consolidate the electric grid property in the Krasnodar Region and the Republic of Adygea.

For the year of 2018 Regional Energy Commission – the Department of Prices and Rates of the Krasnodar Territory approved individual rates for electricity transmission for 49 LGCs (Order No. 63/2017, dated December 28, 2017). Proposals of the Company to consolidate the property of LGCs on the basis of Kubanenergo PJSC, sent to all LGCs, have not yet been accepted.

In the framework of the implementation of the processes of consolidation of power grid assets in the reporting year, Kubanenergo PJSC took part in the meetings:

- in May and November – in the administration of the Krasnodar Territory on the conclusion of agreements between Kubanenergo PJSC and municipalities on the consolidation of electric grid property located in the territories under their jurisdiction and connected to the Company's networks. Projects of such agreements are developed by Kubanenergo PJSC and sent for consideration to local authorities. Currently, the Company has entered into three agreements on the consolidation of power grid assets with municipalities, the rest are in the process of approval;
- in April – in the administration of the Krasnodar Territory, in June – in the Legislative Assembly of the Krasnodar Territory on the organization of transmission of electrical networks located within the boundaries of horticultural and dacha

partnerships; Work is underway to “pick up” these power grid assets.

During 2018 The Company consolidated 1,776.9 c.u. with a length of 654.8 km, capacity of 210.4 MVA, 54 transactions were made, including:

- electric grid facility was purchased from rural settlement Giaginskoe;
- 17 transactions were made on the donation of power facilities from non-profit organizations and individuals;
- 35 lease agreements were concluded with five LGCs, 20 contracts with municipal entities, ten with other owners;
- The abandoned power facilities in Timashevsky and Bryukhovetsky districts were accepted for use.

The effect achieved from the implementation of measures for the consolidation of power grid assets for 2018 – an increase in revenue by 382.9 million rubles. In addition, the admission of additional power facilities to the balance of Kubanenergo PJSC will make it possible to exclude the Company's costs for the transit of electricity for consumers connected to these facilities.

Monitoring the volume of consolidation of power grid assets

METHODS OF CONSOLIDATION OF POWER GRID ASSETS	THE VOLUME OF CONSOLIDATION OF POWER GRID ASSETS FOR THE PERIOD								
	2016			2017			2018		
	MEGAVOLT-AMPER (MVA)	KM	C.U.	MEGAVOLT-AMPER (MVA)	KM	C.U.	MEGAVOLT-AMPER (MVA)	KM	C.U.
Total for Kubanenergo PJSC	104	628	1,770	204.5	532.9	1,566.2	210.4	654.8	1,776.9
including:									
The acquisition of power grid facilities	5	16	86	0.2	2.3	5.9	0	0	0
Rent of power grid facilities	96	587	1,587	196	511.5	1,467.7	203.8	620.8	1,656.7
Other(permanent right of ownership)	0	0	0	8.2	19.1	90.3	6.4	32	112.3
Other (temporary right of ownership and rights to use)	3	24	97	0.2	0	2.3	0.2	2	8

1. It was approved by the order of the Government of the Russian Federation dated 03.04.2013, No. 511-p.