Approved
by the decision of the General Shareholders Meeting
of PJSC IDGC of Center and Volga Region

Minutes No.11 as of June 06, 2017

Preliminarily approved
by the decision of the Board of Directors
of PJSC IDGC of Center and Volga Region

Minutes No. 267 as of May 02, 2017

ANNUAL REPORT
Public Joint Stock Company Interregional Distribution Grid Company of Center and Volga Region

for 2016

Acting General Director of PJSC IDGC of Center and Volga Region
O Yu. Isaev

Nizhny Novgorod
2017

PJSC IDGC of Center and Volga Region management is performed in conformity with the requirements of ISO 9001, OHSAS 18001, ISO 14001 and ISO 50001

Contents

Report Limits. Liability Limitation

Report Limits

The present Annual Report of PJSC IDGC of Center and Volga Region for 2016 (hereinafter referred to as the Annual Report) has been prepared on the basis of information available to the Company at the moment of preparation of the Annual Report. The data for the previous periods is given in a number of sections in order to show the dynamics of some important processes. The information on the activities of subsidiaries and affiliates of PJSC IDGC of Center and Volga Region was not included in the Annual Report.

Liability Limitation

The Annual Report contains information on the results of 2016, as well as forward-looking statements and declarations concerning intentions, opinions and current expectations of the Company in regard of the results of the Company activities, its financial condition, liquidity, growth prospects, strategy and the development of the industry the Company is engaged in. Due to their nature, such forward-looking statements are characterized by the presence of risks and uncertainty factors, as far as they pertain to the events and depend on the circumstances which are not necessarily to happen in the future.

The words “intends”, “strives”, “expects”, “assesses”, “plans”, “considers”, “assumes”, “can”, “should”, “would”, “will continue” and the like are generally used to indicate the forward-looking nature of statements and may suggest the risk of non-occurrence of events or actions specified, depending on a variety of factors.

The Company warns that the forward-looking statements do not guarantee future results. Actual operating results of the Company, its financial condition and liquidity, as well as the development of the industry of which the Company is a member, may differ considerably from those presented in the forward-looking statements herein. Besides, even if said values correspond to the pro-forma statements contained in this Annual Report, they are not indicative of similar results and events in the future.

The Company does not give any direct or supposed assurances and guarantees and does not bear any responsibility in case of losses which can be incurred by natural persons or legal entities as a result of using the forward-looking statements of this Annual Report by any reason, directly or indirectly. The specified persons should not rely on the forward-looking statements contained in the Annual report, as they are not the unique possible succession of events.

Except in cases stipulated by the law, the Company shall not be obliged to re-consider or confirm its expectations or assessments, or to publish updates and changes of the forward-looking statements contained in the Annual Report in connection with subsequent events or the receipt of new data.

1.Company Profile

1.1. Company Overview

Public Joint Stock Company Interregional Distribution Grid Company of Center and Volga Region (PJSC IDGC of Center and Volga Region) is a subsidiary of the largest Russian energy company PJSC Rosseti. PJSC IDGC of Center and Volga Region (until 2015 – JSC IDGC of Center and Volga Region), founded in 2007, nowadays is the key supplier of power distribution and technological connection services in the Vladimir, Ivanovo, Kaluga, Kirov, Nizhny Novgorod, Ryazan, Tula Regions, Mari El and Udmurtia Republics.

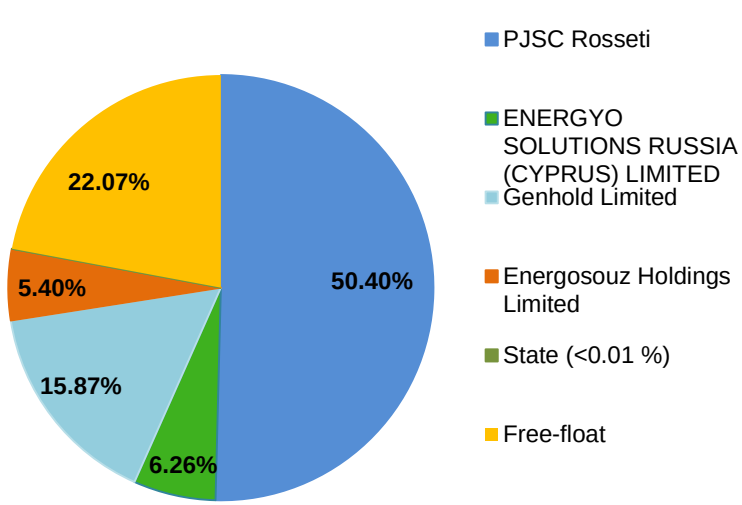
The Company's operations area is 408 ths sq. km with the population of 12.8 m people. PJSC IDGC of Center and Volga Region includes nine branches: Vladimirenergo, Ivenergo, Kalugaenergo, Kirovenergo, Marienergo, Nizhnovenergo, Ryazanenergo, Tulenergo, and Udmurtenergo. The Company headquarters are located in Nizhny Novgorod – the capital of the Volga federal district and Volga-Vyatka economic region.

PJSC IDGC of Center and Volga Region holds a domineering position in the market in the regions of its footprint, both in power transmission and in technological connection of consumers' power receivers to grids. The major share of power supplied to consumers passes along the grids owned by the Company. Consumers of the Company include entities in oil recovery, engineering, metal, woodworking and chemical industries, railway transport, agriculture, construction businesses, housing, utilities and social infrastructure companies.

The Company's key objectives are to ensure reliable and high-quality power supply to the regions of its footprint and seamless connection of consumers to power grids. PJSC IDGC of Center and Volga Region manages more than 270 ths sq. km of overhead and cable power lines, over 1.5 ths substations of 35-220 kV, 62 ths transformer substations with the capacity of 6-10/0.4 kV and distribution points of 6-10 kV. Total capacity of these power facilities is over 41 ths MVA. The company's staff numbers about 23,000 employees.

1.2. Company's Shares

Equity Structure as of December 31, 2016



Dividends per 1 share:

at year-end:

2013 – RUB 0.00563

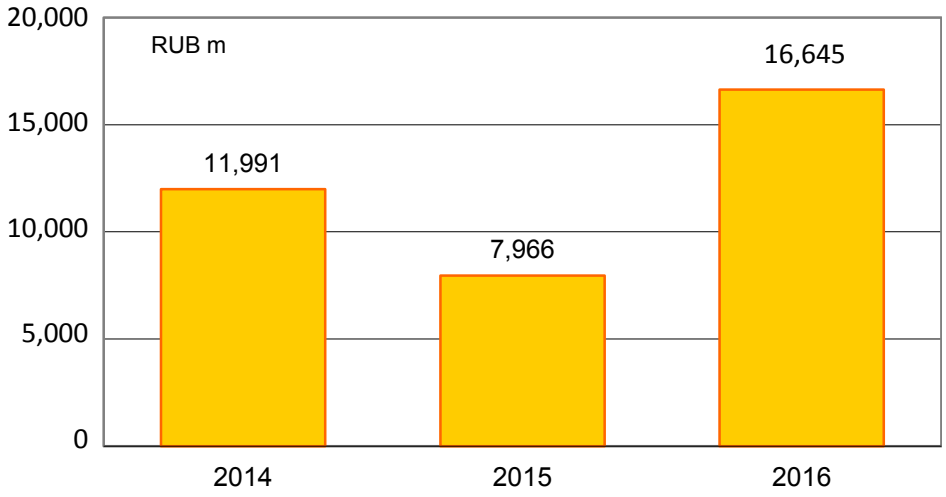
2014 – RUB 0.0031

2015 – RUB 0.008363605

- Number of shares placed: 112,697,817,043.

- Company Charter Capital: RUB 11.3 b.
- Nominal value per share: RUB 0.1.
- Weighted average MICEX price (MRKP ticker):
  - as of December 30, 2016 – RUB 0.1477;
  - maximum in 3 years – RUB 0.1581;
  - minimum in 3 years – RUB 0.0601.
- Market capitalization during the year:
  - maximum in 3 years – RUB 17.93 b;
  - minimum in 3 years – RUB 6.77 b.

Market capitalization at the end of the year



1.3. Key events in 2016

January

The management system of PJSC IDGC of Center and Volga Region was again declared complying with international standards. The Company passed certification audit and confirmed successfully that management processes and provision of services of power transmission and distribution, technological connection of consumers comply with international standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011.

February

PJSC IDGC of Center and Volga Region together with Nizhny Novgorod regional blood transfusion station held another donor event called "Life Energy". This time the donated blood bank of Nizhny Novgorod region had increased by 24 liters. More than 50 employees of the Company's executive body and its Nizhny Novgorod branch became donors.

March

PJSC IDGC of Center and Volga Region launched a new, more user friendly website. In its development the requirements to official websites of electric grid companies and the feedback from users of the old website version, first of all – of the Company's services consumers were taken into account as well as the

elements of PJSC IDGC of Center and Volga Region brand. Several services aimed at facilitating the interaction between the users and the grid company specialists were launched within the framework of the new website.

April

The employees of PJSC IDGC of Center and Volga Region took part in 84-hour training within the all-Russian command-and-staff training initiated by the Security Council of the Russian Federation. Powergrid specialists practiced the procedure of immediate information exchange, made all the necessary decisions to decrease the potential damage to the facilities of the grid complex, in the shortest time prepared the equipment and reserve sources of power supply to transfer them to the supposed spots of recovery works performance. The Company proved again its ability to prevent and respond to emergencies at the facilities of the power grid complex and the ability to react efficiently to the environmental challenges, such as floods or wildfires.

May

As part of the Day of Russian Entrepreneurship PJSC IDGC of Center and Volga Region held a Doors Open Day for vendors and potential participants of procurement procedures. The representatives of small and medium-sized business entities (SME) and social agencies took part in the event. The specialists of PJSC IDGC of Center and Volga Region told the audience about the organization of procurement activities and the support measures for SME enterprises, and answered the questions related to the procurement procedure.

June

- Annual General Shareholders Meeting (AGSM) took place in PJSC IDGC of Center and Volga Region. During the Meeting the shareholders of the electric grid company approved the Annual report of the Company for 2015 and the annual financial statements for the financial year 2015. At AGSM it was also decided to assign the undistributed profit, which totaled RUB 942,560 ths, to the payment of dividends on the ordinary shares of the Company.

- PJSC IDGC of Center and Volga Region put into operation a new substation of 35/10 kV in Kirov, named "Chistiye Prudi". The substation that was built in less than one year and equipped with modern domestically produced equipment provides electric power supply to the residential area "Chistyie Prudy" which is under construction in the southern part of Kirov as part of the implementation of the national project "Affordable and comfortable housing for Russian citizens".

July

Young power engineers of PJSC IDGC of Center and Volga Region took part in the international forum "Forsage-2016". The combined team of PJSC "Rosseti" included seven representatives of PJSC IDGC of Center and Volga Region. Together with other guests of the forum they took part in the work of the field-specific groups and earned full marks of the experts. For example, the representatives of the Company won the second place in the competition held within the "Energopolis" group for the project "Corporate University" which can be implemented with the same successful result both in an electric grid company and in the companies of other industries.

August

The Company helped the participants of an electromobile race continue their journey over three continents. The employees of the company provided a quick connection of electromobile rechargers for the participants of the "80EDAYS 2016" car race to the existing power infrastructure. Thereat special attention was given to the power supply reliability for all the consumers connected to the power unit involved, the safety of the installed circuit for power grid equipment and the electromobiles themselves.

September

The employees of PJSC IDGC of Center and Volga Region joined the all-Russian energy saving festival #ВсемЯрче (Brighter for All), which was held with the support of the Ministry of Energy of the Russian Federation. The power engineers showed to everyone interested the energy efficient technologies applied today in power grid industry and told about the importance of optimization of domestic power consumption.

October

- On October 21 PJSC IDGC of Center and Volga Region confirmed the readiness of the electric grid complex for going through the season of peak load on grids by getting the Passport of operational readiness to work in the autumn and winter season of 2016-2017. The receipt of the Passport took place at the Strelka substation – an important modern infrastructure facility of the Nizhny Novgorod power system built on the threshold of the Football World Cup 2018.
- PJSC "Rosseti" made a decision to unite the management of its subsidiaries PJSC IDGC of Center and PJSC IDGC of Center and Volga Region and entrusted the management of PJSC IDGC of Center and Volga Region to General Director of PJSC IDGC of Center Oleg Isayev. This measure was aimed at the increase of industrial and financial efficiency of the companies, decrease of operating expenses and provision of sustainable electricity supply to all consumer categories.
- At the International electric power forum Rugrids-Electro the intellectual product of PJSC IDGC of Center and Volga Region was recognized as the best corporate project of PJSC "Rosseti" in the competition of breakthrough technologies in the field of smart energy systems "Electric Power Breakthrough 2016". The "Automated system for recording the results of the thermal imaging inspection of electrical equipment" created by the specialists of the Company's Tula branch is a client-server computer application designed to improve the efficiency of thermal imaging monitoring of electrical equipment services.

November

The employees of PJSC IDGC of Center and Volga Region and their colleagues from different parts of Russia who came to perform emergency recovery work met in Kaluga region to fight a natural disaster of unprecedented power, scope and aftermath. Because of excellent mobilization and teamwork the specialists managed to prevent significant breaks in water and power supply to social facilities. Following the results of cyclone fighting, the governor of Kaluga region highly appreciated the efforts of united IDGCs in fighting the aftermath of the ice storm, and the power engineers planned specific measures to improve the reliability of power supply to consumers: strengthening of the physical infrastructure, increasing control over the functioning of power grid infrastructure, provision of new systems for telemechanics and communication to power grids facilities.

December

Substation 35/6 kV "Vilya", built in as short a time as possible (4 months) gave power to the first consumers. Seamless and quality power supply was provided to 4 settlements of Vyksa district in Nizhny Novgorod region. The construction of a new substation started early in September 2016, and already in the end of December 2016 Nizhny Novgorod branch of PJSC IDGC of Center and Volga Region accepted for operation a new power system facility.

- PJSC IDGC of Center and Volga Region took the fifth position in the fundamental efficiency rating of the largest companies in the real sector of Russian economy in 2016 published by Interfax ERA agency. The presence of the Company in the rating proves that it is performing fruitful consistent work aimed at improving industrial efficiency in the fields of energy, technology and ecology, and also proves its transparency.

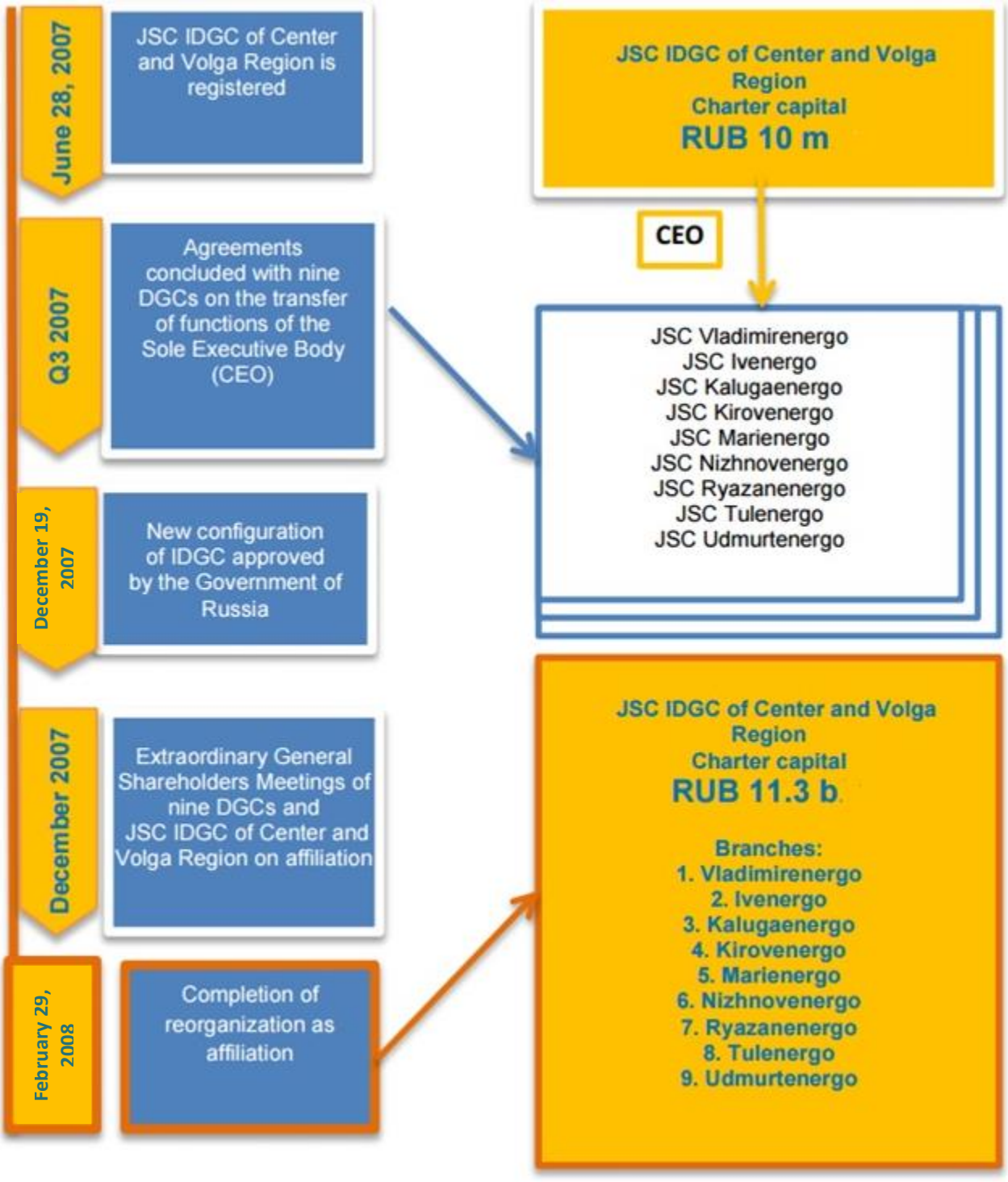
1.4. History of Industry and the Company

Key Stages of Industry Development

20th century	
	Formation of Russian electric power industry
Early 20th century	A country-wide unified energy infrastructure was established.
1920s-1930s	Large-scale electrification of the country under the GOELRO plan adopted by the State Commission on the Electrification of Russia was performed accompanied by the construction of regional heat power and hydro-electric stations.
1930s	Major steps were taken to develop heavy and power industry, including the electricity distribution sector.
1940s	Post-war restoration of the destroyed electric power grid complex of the country was performed.
1960s	The Unified Power System was established, accompanied by implementation of major state-supported power projects, including developments in the field of nuclear power and construction of nuclear power stations.
	Privatization and reform
Late 1980s	The signs of slowdown in the development of the industry began to show in, with the upgrade of production facilities lagging behind the electric power consumption growth.
1990s	The power industry was privatized, followed by the establishment of territorial power companies. JSC RAO UES of Russia was established to control 118 subsidiary and dependent companies, i.e. practically all electric power assets of the country.
Late 1990s	The necessity for urgent large-scale transformations contributing to the upgrade of basic capacities, the increase in industry efficiency and the improvement of reliability and safety of consumer power supply became evident.
21st century	
Early 21st century	A reform of the industry was carried out. Aims and objectives of the reform were defined by Order No. 526 of the Government of the Russian Federation on Reforming the Power Industry of the Russian Federation dated July 11, 2001. The reform involved changes in the structure of the power industry, which included separation of naturally monopolistic (electric power transmission and operative dispatch control) and potentially competitive (production and sale of power, repair and service) functions. The vertically integrated companies which used to perform these functions were replaced by organizations specializing in selected activities. The companies were integrated by their activities and operations areas. The said changes were made within the period from 2001 to 2008. JSC RAO UES of Russia closed down on July 01, 2008. As a result of reorganization of JSC RAO UES of Russia, JSC IDGC Holding was spun off. It owns 50.4% of shares in JSC IDGC of Center and Volga Region and the controlling interest in more than ten interregional distribution grid companies and other subsidiary and dependent companies. In order to ensure a uniform approach to implementation of the technical policy and management principles of the power grid complex of the Russian Federation and to carry out a unified investment, financial, economic and human resources policy, the President of the Russian Federation signed Decree No. 1567 On Joint Stock Company Russian Grids on November 22, 2012. Pursuant to the Decree, JSC IDGC Holding was renamed as JSC Rosseti in March 2013. The government stake in the charter capital of PJSC Rosseti was raised to 87.9%. *Details of power industry reforms are also available on the Company's website (www.mrsk-cp.ru) in the section "About the Company / Power Industry Reform" (http://www.mrsk-cp.ru/about/electric_power/reformirovanie-rsk/).*

History of the Company

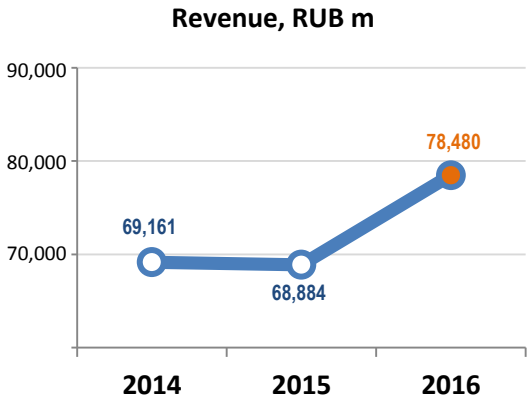
Establishment of PJSC IDGC of Center and Volga Region is an integral part of the reform of the Russian electric power industry.

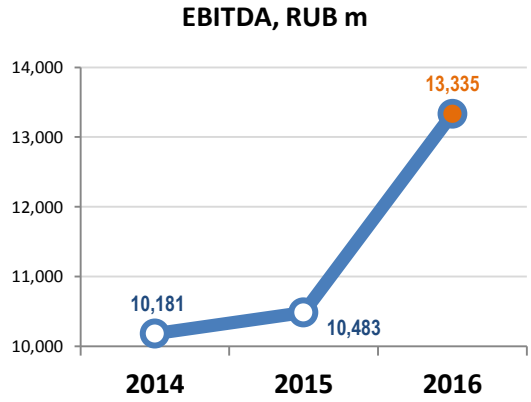


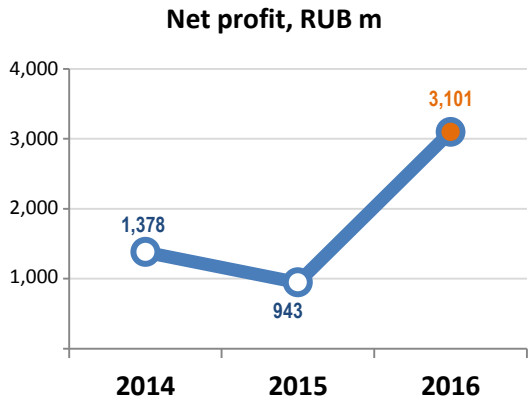
More detailed information about the history of the Company is also available on the Company's website (www.mrsk-cp.ru) in the section "About the Company / History of the Company development" (http://www.mrsk-cp.ru/about/electric_power/reformirovanie-rsk/).

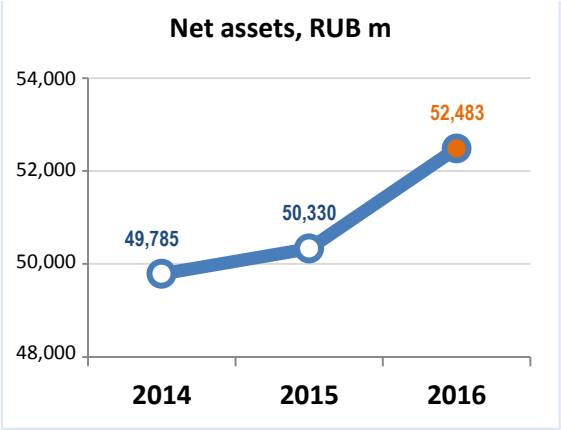
1.5. Operating results

Financial Results









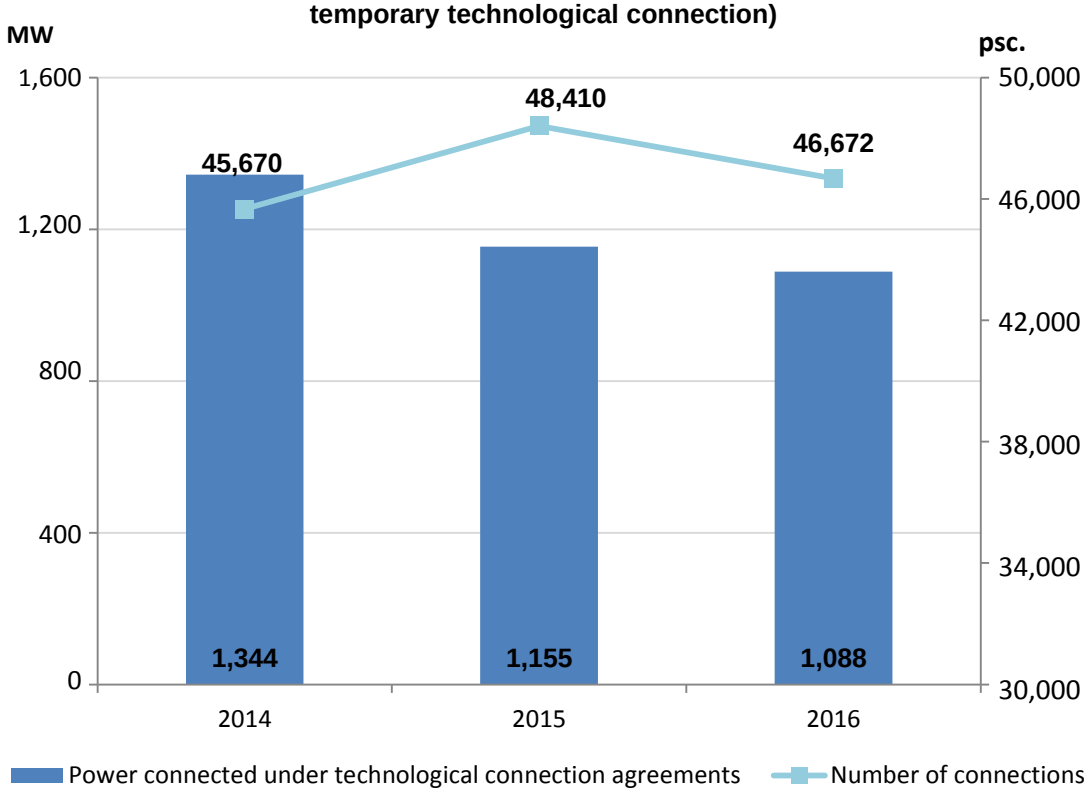
The increase in **revenue** in 2016 resulted from the growth of tariffs for power transmission and the growth in the volume of productive power supply to consumers.

The outstripping growth rate of revenue from the provision of power transmission services as compared to the growth of their net cost allowed increasing **net profit** and improving the **EBITDA.**

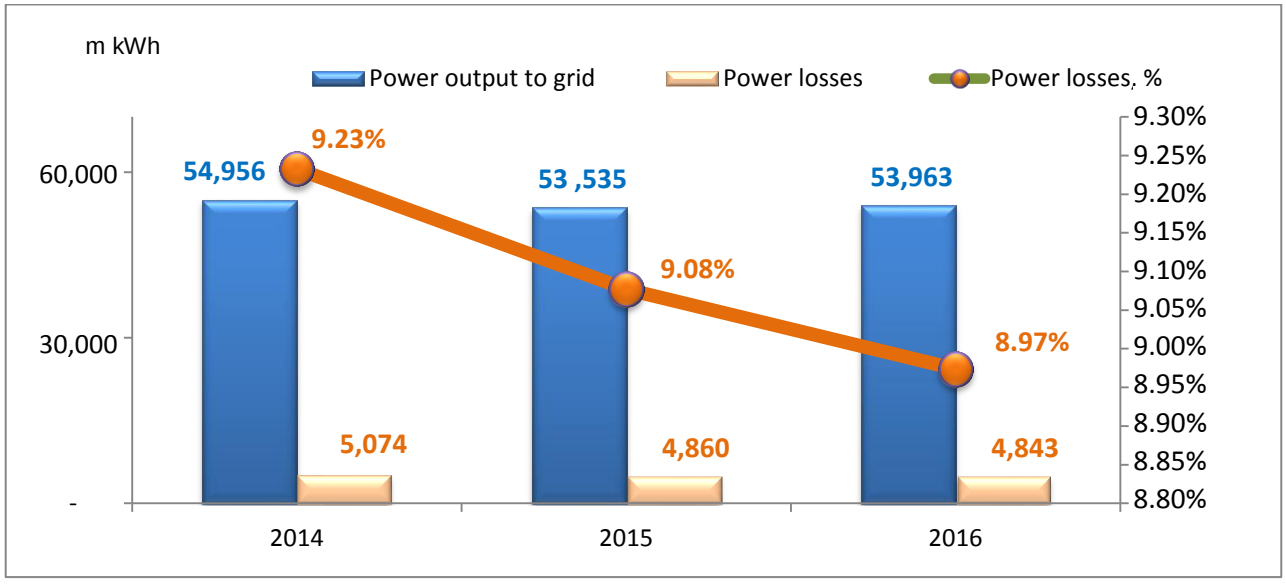
The Company's net assets are continuously growing; since 2014 their value has grown by RUB 2,698 m, or 5%. The positive dynamics of net assets is due to the growth of the Company's undistributed profit.

Operating Performance

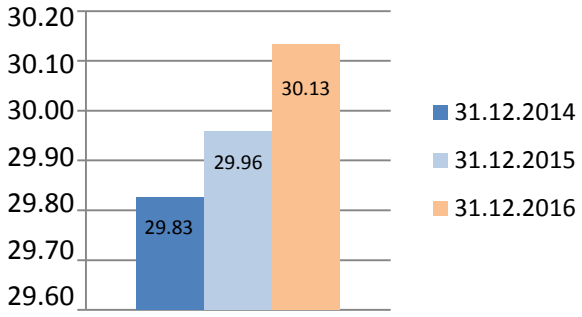
Power connected under technological connection agreements and the number of connections (including power generation facilities and excluding temporary technological connection)



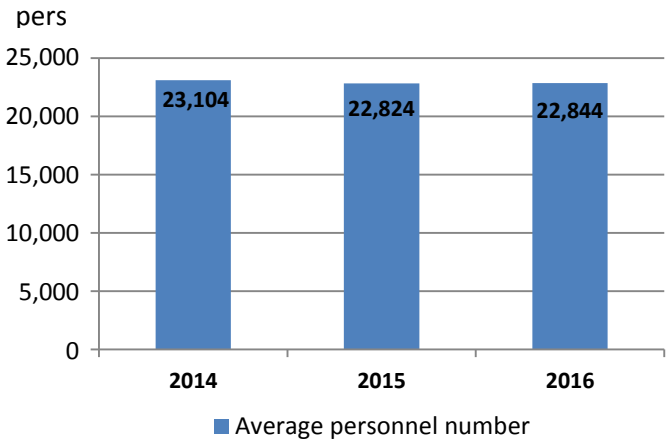
Output to grids and losses in grids



Capacity of SS of 35 kV and higher, ths MVA



Number of personnel



1.6. Investment Attractiveness

Regions of operations with solvent demand	**The Company operates in economically stable regions accommodating approximately 10% of Russian population.** **The regions of operations are characterized by stable volume of the gross regional product, which involves permanent demand for power.**
Favorable climate conditions	Favorable climate in the region of the Company's operations leads to low losses in grids and increases their accessibility for servicing, which decreases the volume of expenses and has a positive influence on the Company's profit. In 2016 the losses in the grids decreased to 8.97% as compared to 2015 (9.08%) and amounted to 4.843 b kWh (average amount in Russia is about 10%).
Favorable regulatory conditions	The regulation is based on the RAB method for a long-term period. Since 2011, all the Company branches have been using the RAB tariff regulation. Long-term performance parameters of the Company branches, including rate of return on invested capital, have been set up to 2017.

	The guaranteed return on new investment was 12% for 2010–2012 and is 11% for 2013–2017.
Stable financial indicators	Net profit has grown more than three times in 2016 and amounted to RUB 3.1 b. As compared to the previous year, EBITDA increased by 27.2% (to RUB 13.3 b), net assets increased by 4.3% (to RUB 52.5 b). Debt/EBITDA ratio as of December 31, 2016 was 1.83. The average dividend income in 2013-2015 was 8.2%*.
High efficiency of the Company's activities	Decrease in operating expenses per unit of serviced electrical equipment in 2016 amounted to 19.4% adjusted for inflation as compared to the level of 2012. The Company complied with the requirements of the guideline of the Government of the Russian Federation No. 4750p-P13 dated July 04, 2016, in accordance with which unit operations costs for the reporting period should have decreased by no less than 10%.
Transparent model of mutual settlements for power transmission – "boiler on top"	This model of settlements provides for income of payments for power transfer services to the largest TGO – boiler holder, which, in its turn, carries out mutual settlements with other TGOs. The scheme increases transparency of cash flows among market players, and creates necessary guarantees both for grid organizations and consumers of the services. In 2016, in 7 out of 9 regions, the Company branches were boiler holders (with the exception of the Ivanovo Region and the Udmurt Republic, where a "mixed boiler" model was adopted).
Company development potential is stipulated by the current investment program	New fixed assets to be invested in 2016-2020 in accordance with the approved investment program (Order of Russian Ministry of Energy No. 1334 dated December 16, 2016) shall amount to RUB 89,618 m. The Company is planning to rebuild and renovate 26,985 km of power transmission lines and to carry out input of transformer capacity of 4,277 MVA.
Stable credit rating	In 2012, the Company first acquired Ba2 **rating** from Moody's Investors Service, **with a "stable" outlook.** Moreover, Moody's Interfax Rating Agency assigned Aa2.ru rating to the Company on the national scale. On March 25, 2015, the agency confirmed the international rating at the Ba2 level. The rating outlook was "negative". On December 7, 2015, the international rating was confirmed at the Ba2 level with the outlook changed to "stable". On April 27, 2016, the international rating was confirmed at the Ba2 level with the "stable" outlook.

**Calculated in accordance with the formula: dividend for the year/share price as of the year end.*

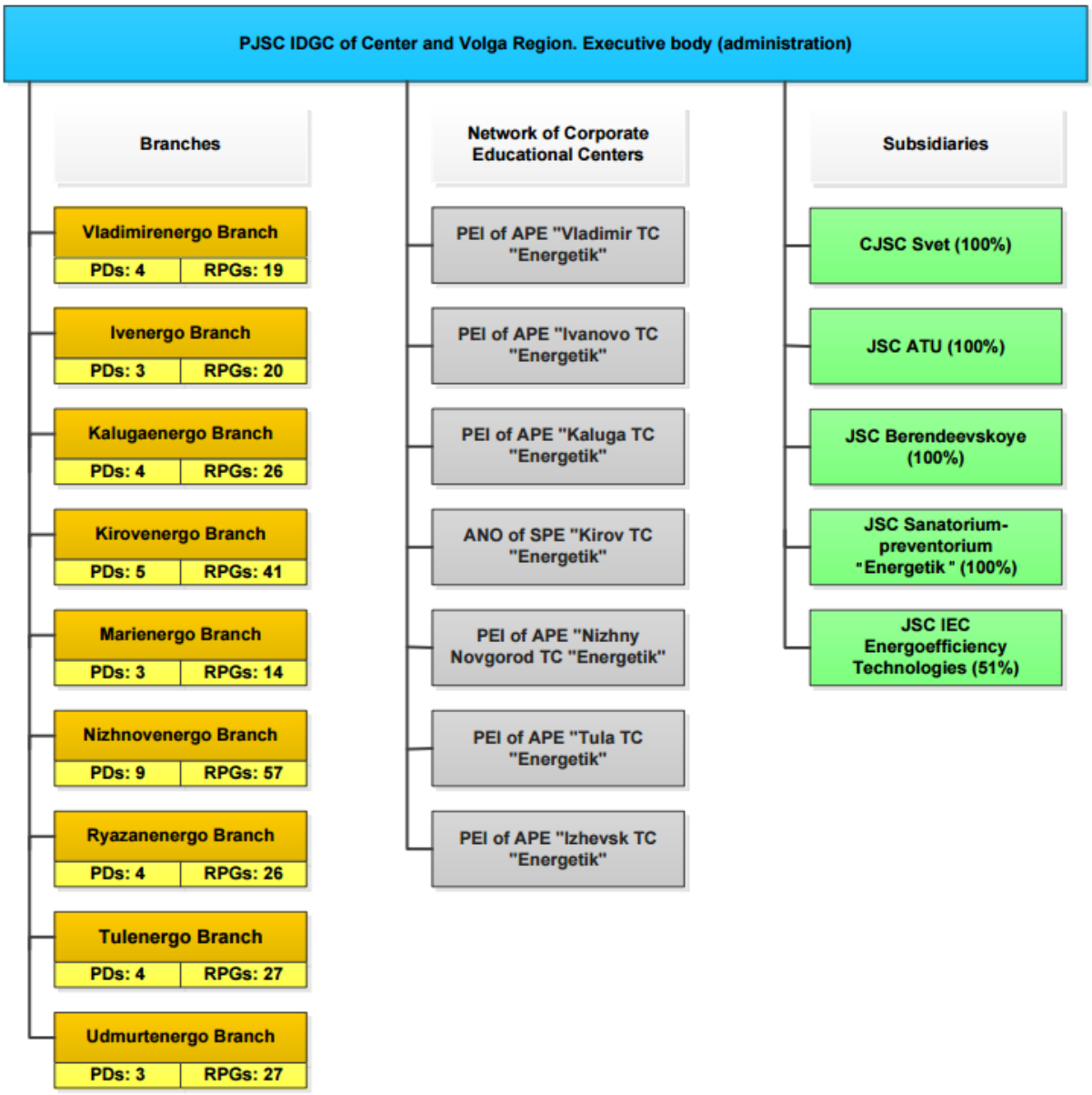
1.7. Commissioning of new capacities of prioritized facilities

Branch	Commissioning date (month)	Facility name	Facility location (residential area)	Installed capacity (km, MVA)
2016				
Kalugaenergo	December	Construction of SS 110 kV Verkhovaya (mobile SS) with renovation of double-circuit OL-110 kV Kaluzhskaya CHPP-1-Orbita with taps at SS-110 kV Kvan and SS-110 kV Mayak, OL-110 kV Orbita-	Kaluga, Pravgorod residential area	25 MVA/ 7.22 km

		Zheleznyaki with formation of an additional tap at SS-110 kV Verkhovaya (stage 1).		
Vladimirenergo	January, August	Construction of SS 110/10/10 kV Vorsha with 110 kV OL.	Vladimir Region, Sobinsky district	126 MVA/1.577 km
Nizhnovenergo	November	Construction of new DTSS 10 kV, OL 10 kV of SS 110 kV Strelka, and OL 10 kV of SS 110 kV Meshcherskaya to the new DTSS 10 kV	Nizhny Novgorod, Kanavinsky district	12.34 km
	November	Renovation of SS 110 kV Meshcherskaya	Nizhny Novgorod, Kanavinsky district	25 MVA
Tulenergo	September	Renovation of SS 110/10/6 kV Tsentralnaya with replacement of the transformer No.1 25,000 kVA for a transformer 40,000 kVA and replacement of OD KZ – 110 kV, EGV – 110 kV.	Tula	40 MVA
Ryazanenergo	September	Renovation of SS 110/6 kV Pechatnaya with replacement of the transformers T1-40 MVA, T2-40 MVA for 2*63 MVA. Reconstruction of the basis, oil-sump and oil-drip devices. Reconstruction of relay protection systems of electric stations and substations, their substitution for microcomputerized systems. Installation of microcomputerized automatic OLTC transformer AVC devices	Ryazan Moscow highway	63 MVA

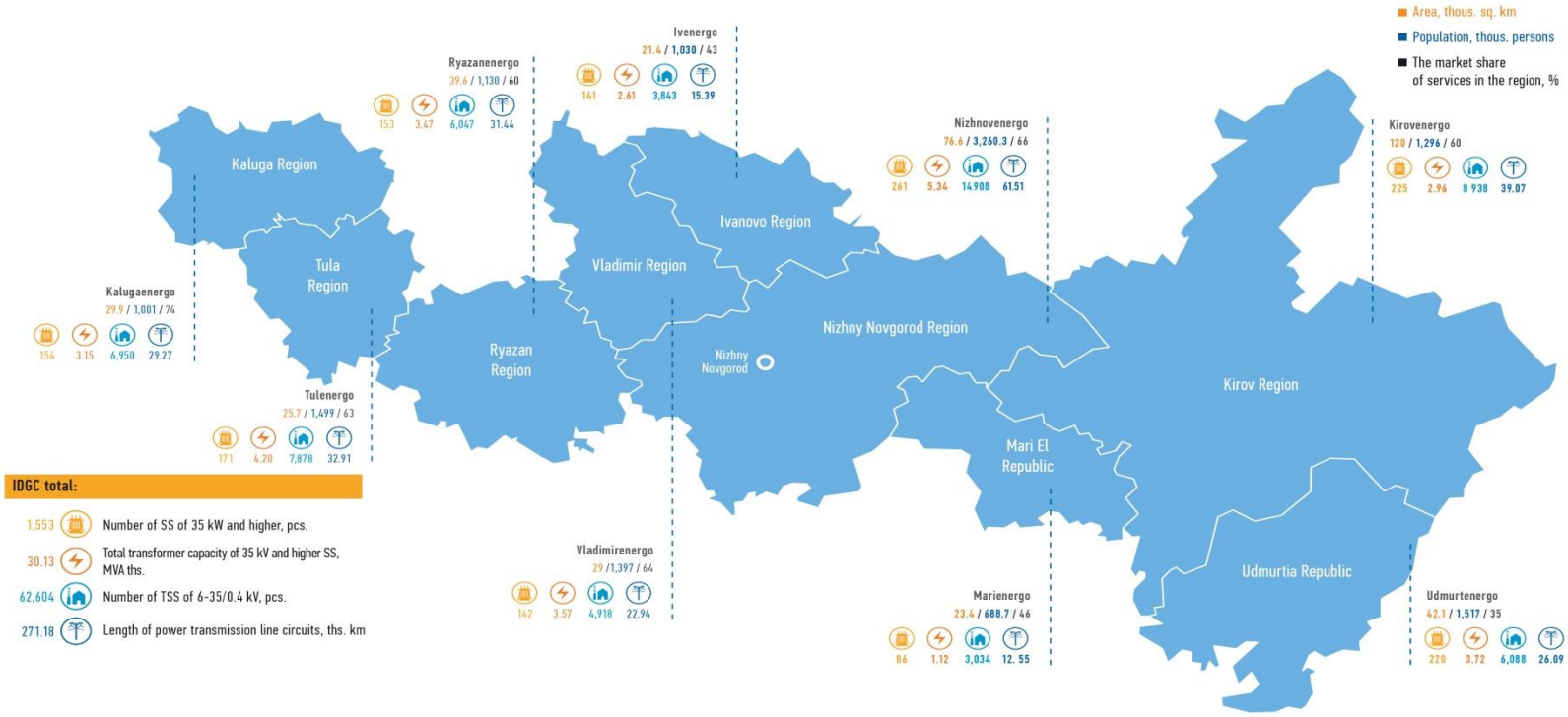
1.8. Structure of the Company

Structure of PJSC IDGC of Center and Volga Region as of December 31, 2016



PD: Production departments
RPG: Regions of power grids

1.9. Footprint Map



1.10. Address of Chief Executives

Dear shareholders, partners and colleagues!

Summarizing the outcome of 2016, we can say that is has brought important positive results for PJSC IDGC of Center and Volga Region both with regard to operational and financial activities and to solving the tasks of increasing the Company's transparency and investment attractiveness, provision of quality and accessibility of consumer services.

The Company has successfully accomplished the main operational tasks and preserved its financial stability, ending the year with the profit of RUB 3.101 b, which exceeds the last year's results by 229%. The revenue of the Company amounted to RUB 78.480 b, which is almost 14% more than that in 2015. The net cost value grew by 5.9% as against 2015.

Market capitalization of the Company showed good dynamics in 2016, and finally grew by 135%. The trading volume of the Company’s shares on MICEX has also grown multiply.

Such results are largely due to the balanced managerial decisions of the Board of directors and the management of PJSC IDGC of Center and Volga Region in key business areas. Mobilization of all inner resources - financial, organizational, intellectual; the tailor-made and accurately implemented development strategy, and intelligent credit risk management provided the achievement of desired goals, the provision of sustainable and efficient development of the Company even in the complicated economic situation.

In 2016 PJSC IDGC of Center and Volga Region managed to cut unit operating expenses. The planned performance goals for the Program for Power Loss Reduction were exceeded.

A lot of work has been done concerning lowering the part of the Company's accounts receivable charged for rendered services in power transmission The improvement of the contractors' repayment discipline was largely encouraged by the Company's constructive attitude, its readiness and openness for dialog concerning the settlement of debt issues. The repayment that the Company gets due to implementing the measures for loss management and collection of accounts receivable is spent on the development of grids infrastructure.

PJSC IDGC of Center and Volga Region each year confirms its status as a reliable partner for the regions by enabling them to implement large investment and social projects.

The year 2016 was not an exception. The Company has performed technological connection to electric grids of dozens of large industrial and social objects which are important for social and economical development of Center and Volga regions.

During the reporting period, work continued on increasing the reliability of functioning of the electric grids infrastructure. The most large-scaled projects aimed at the development of power grid complex in the regions and the satisfaction of their growing needs for new capacity volumes were implemented in Vladimir, Kaluga, Kirov, Nizhny Novgorod, Ryazan and Tula regions. Altogether in 2016 PJSC IDGC of Center and Volga Region put in service over 3,170 km of power transmission lines and about 500 MVA of capacity. The total connected power of the facilities amounted to almost 1,100 MW.

An important factor that increases the efficiency of production activities is creating conditions for the fulfilment of intellectual potential of the Company's employees, giving them opportunities to contribute to the Company's development through the system of rationalization activity.

In 2016 PJSC IDGC of Center and Volga Region registered 35 innovative suggestions of its employees. At present the Company is the owner of 29 patents and licenses for innovative devices, equipment, software complexes, grid diagnostic systems that have been successfully introduced and are used in production activities.

Traditionally a lot of attention was given in 2016 to the questions of environmental hazard reduction, as well as the employees' labor safety, implementation of labor protection in the spheres of medical service and pension provision.

PJSC IDGC of Center and Volga Region is planning to continue making every effort to increase its industrial and financial efficiency, decrease its operating expenses and provide sustainable electricity supply to all consumer categories. The aspiration of the Company to continue the increase of business processes transparency, to strengthen the confidence of the consumers, shareholders and partners in the Company, to ensure the fulfillment of all the obligations to them also stays unaltered.

Yours sincerely,

Alexander Fadeev

Deputy General Security Director of PJSC Rosseti, Chairman of the Board of Directors of PJSC IDGC of Center and Volga Region

Oleg Isayev

Acting General Director of PJSC IDGC of Center and Volga Region

2. Strategy and Development Prospects

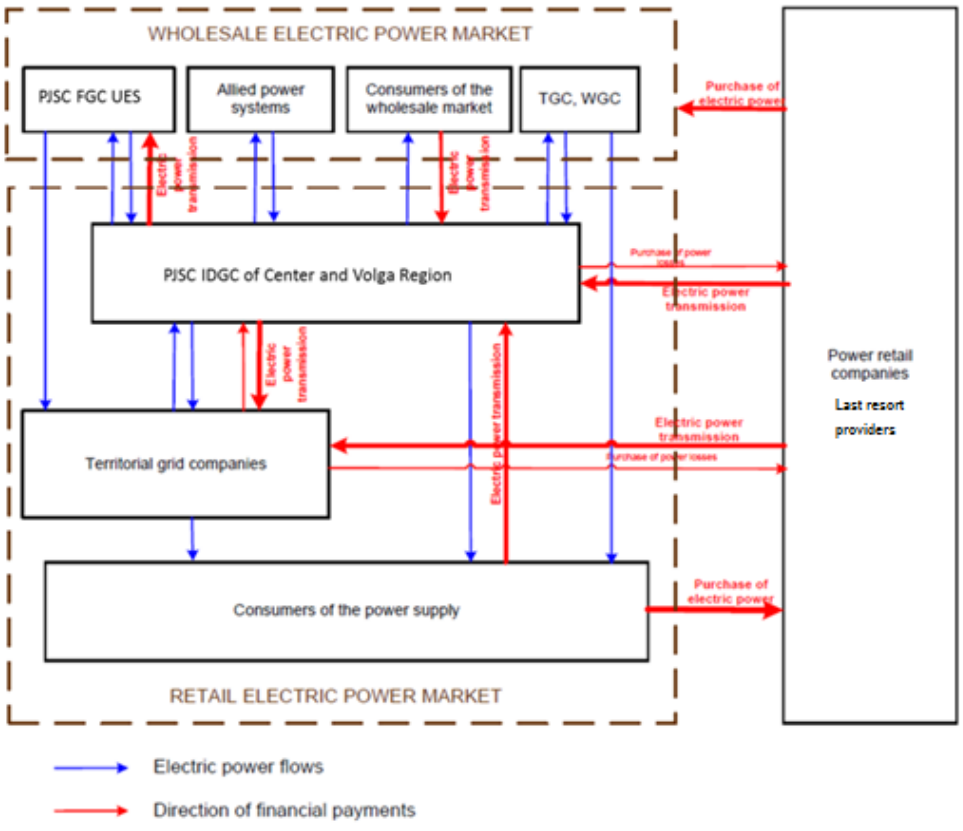
2.1. Position in the Industry and Operations

The company operates in the power industry in 9 constituent entities of the Russian Federation. PJSC IDGC of Center and Volga Region is a natural monopoly subject. According to the Order No. 236-e of the FTS of Russia as of June 27, 2008 the Company is included into the Register of Subjects of Natural Economy Regulated and Controlled by the Government.

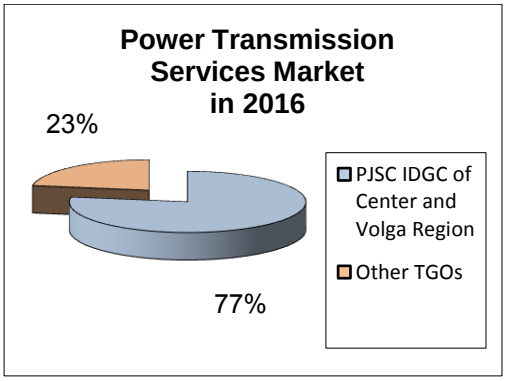
PJSC IDGC of Center and Volga Region is the only network company within its regional footprint with technological connection to the Unified National Power Grid (UNPG) and the generating companies. In the circumstances, the Company holds a domineering position in the service market, both in power transmission and in technological connection of consumers' power receivers to grids. The major share of power supplied to consumers passes along the grids owned by the Company. The only exception are the consumers who are directly connected to the UNPG grids. Notwithstanding the foregoing, in a number of the regions of the Company's electric power transmission services, there are other grid companies which provide similar services for electric power transmission. Nevertheless, these grid companies are connected to the grids of the Company and get their electric power from the grids of the Company. The majority of these companies are owned by the State and municipal authorities.

The existing system of the electric power industry was formed in the 2000s due to the reorganization of JSC RAO UES of Russia. For further details also see the "History of Industry and the Company" section of this Annual Report.

Company's activities in the structure of the industry



Company's Market Share



PJSC IDGC of Center and Volga Region
is the largest grid organization
within its regional footprint. The Company's Share in the Power Transmission Market in 2016 is **77%,**
and in the Technological Connection Market it is
90%

The market share was calculated based on the gross revenue requirement of the Company, its subsidiaries and TGOs (losses excluded) and on the total gross revenue requirement of grid organizations (losses excluded) taken into account at the stage of confirmation of unified boiler tariffs for the branches in 2016. Detailed information on all types of the Company's activities is presented in the section 'Operating Performance' of this Annual Report.

The major companies engaged in similar activities in the Company's regional footprint include the following territorial grid organizations (TGOs):

- LLC Udmurtenergoneft, Izhevsk;
- JSC Izhevsk Power Grids;
- JSC Vladimir Region Electric Power Company, Vladimir;
- LLC Regional Distribution Grid Company, Kirov, Izhevsk;
- Municipal Unitary Enterprise Ryazan Municipal Distribution Power Grids;
- JSC Tula Municipal Power Grids;
- JSC Russian Railways - in seven regions of presence.

Consumers

Services of JSC IDGC of Center and Volga Region are meant for consumers in wholesale and retail markets – both legal entities and individuals, as well as for providers of last resort and retail companies (the main consumers) which deliver electricity to end-users. The Company cooperates with the following major retail companies (POLRs):

- PJSC Nizhny Novgorod TNS Energo;
- JSC Tula TNS Energo;
- JSC Kaluga Retail Company;
- Kirov Branch of JSC Energosbyt Plus;
- Udmurt Branch of JSC Energosbyt Plus;
- PJSC Vladimirenergosbyt;
- PJSC Ryazan Energy Retail Company;
- PJSC Mari El TNS Energo;
- LLC Rusenergosbyt in nine regions of operations;
- LLC Rusenergoresurs in seven regions of operations;
- JSC Mezhregionenergosbyt in four regions of operations.

The share of PJSC IDGC of Center and Volga Region in the technological connection market within its regional footprint is 90%.

93% of consumers of technological connection services are preferential customers (up to 15 kW). The number of applications from preferential customers in 2016 reduced by 2% compared to 2015.

2.2. Business Model

The Company acts as a provider of electric power transmission and technological grid connection services. Electrical grid facilities (electric lines, substations and other property) are the key asset of the Company.

The current activities of the Company provide the maintenance of electrical grid facilities, modernization of the existing ones and construction of the new ones. The efficiency of the Company's work is determined by reaching the level of the key performance indicators established by the Board of Directors of the Company and reflecting the achievements in the key spheres of activity.

For more detail on business processes, KPI, and the management system of the Company, see sections "KPI reflecting the accomplishment of strategic aims", "Quality Policy" and "Information on the KPI fulfillment" of this Annual Report.


CAPITAL AT THE BEGINNING ON 2016
PROCESSES
VALUE CREATION OUTCOMES FOR THE YEAR
KPIs
Financial
Net assets value
RUB 50,330 m.
The total revenue for 2016 totalled RUB 78,480 m,
which exceeds the level for 2015 by RUB 9,596 m.
Net profit for 2016 totalled RUB 3,101 m
as against 2015 the net profit more than tripled.
EBITDA in 2016 totaled RUB 13,335 m, which is RUB 2,852 m higher than in 2015.
Net assets value as of the end of 2016 amounted to RUB 52,483 m.
Increase of net assets for 2016 totalled RUB 2.2 b.
1. Reduction in specific operating costs (expenses).
2. Financial stability and liquidity indicator.
3. Total shareholder return (TSR).
4. Return on invested capital (ROIC).
5. Decrease in specific investment costs.
Production
• Number of substations of 35–220 kV – 1,552.
• Total capacity of SS – 29.96 ths MVA.
• Length of power transmission line circuits – 270.07 ths km.
• Number of TSS/DSS – 62,600.
In 2015 losses in the grids were 9.08% of power supply to the grids.
The volume of power transmission services in 2016 was 48,446.252 m kWh,
which is 2.96% higher than the planned volume.
The number of technological connections in 2016 is 46,672 with a total capacity of 1,888 MW.
Production assets repair costs in 2016 made RUB 3,595.8 m.
81 new facilities were put into operation in 2016.
As of December 31, 2016:
• Number of substations of 35–220 kV – 1,553.
• Total capacity of SS – 30.13 ths MVA.
• Length of power transmission line circuits – 271.18 ths km.
• Number of TSS/DSS – 63,177.
Average length of power supply interruptions in 2016 was 3.6 hours. Remained the same as last year.
As of the end of 2016 losses in the grids were 8.97% (actual).
Level of energy losses decreased.
6. Level of energy losses.
7. Achievement of the reliability level of provided services.
8. Zero increase in the number of major accidents.
9. Compliance with commissioning plan.
10. Compliance with TC due dates.
Intellectual
The Company has been implementing the Innovative Development Program.
Original value of invisible assets of the Company totalled RUB 161 m.
The Company owns 24 patents and certificates for innovative materials, devices and software solutions.
The Company uses the Integrated Management System that meets the requirements of international standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011. Its conformity is confirmed by the international certification authority. Integrated Management System applies to the Company's Executive Body and all its branches.
According to the main objective of the innovative development of the Company's power grid complex in 2016, within the framework of reconstruction and new construction, equipment and devices developed as a result of research and development (R&D), and key innovative technologies supporting the object-oriented standard IEC 61850, focused on the automation of substations, were introduced at a number of substations of the main grid.
The share of allocations for R&D funding remained at a level of the previous reporting period and amounted to 0.073 % (or RUB 23.55 m) of the total own revenues.
In the reporting year, funding for the Program actually totalled RUB 382.62 m or 100.2% of the planned amount of RUB 381.82 m.
As of December 31, 2016 original cost value of invisible assets of the Company totalled RUB 188 m.
In 2016 the Company obtained a total of 5 patents and certificates for innovative materials, devices and software solutions.
11. Efficiency of innovations.
Human
Average personnel number in 2015 reached 22,270.
At the beginning of 2016, the staffing level in the Company was 97.3%.
84% the personnel have vocational education.
The number of accidents in 2015: fatal injuries – 1, minor/major injuries – 0.
In 2016 more than 11 ths of employees received training. Expenditures on personnel training RUB 96.5 m.
In 2016 the level of the talent pool in the Company was 91%, 44 talent pool candidates were promoted to managerial positions.
In 2016, the Company allocated RUB 403.2 m for implementing health and labor protection measures, which included integration into the grid complex of fundamentally new materials and solutions meant to ensure the safety of energy specialists in their daily production activities.
Moreover, in 2016 the Company allocated more than RUB 1.6 b for ensuring safe condition of equipment. RUB 437 m from these funds was allocated for replacement of obsolete (outdated) equipment by more modern and safer one.
Average personnel number in 2016 reached 22,270;
At the end of 2016, the staffing level in the Company was 98.1%,
99% the personnel have vocational education (15% increase for the year);
The number of accidents at the end of 2016. Fatal injuries – 1, minor injuries – 1, major injuries – 0.
Specific costs of employees' individual protective gear in 2016 amounted to RUB 13.9 ths, a 8.5% increase compared to 2015.
12. Labor efficiency index.
13. Prevention of increase in personnel injuries by accident.
Social-reputational
Government regulation of the Company's activities. High level of social responsibility.
The amount of taxes and fees paid by the Company in 2015 in accordance with Russian laws was more than RUB 9.4 b.
High level of transparency of business: website of the Company, media, Internet, social media accounts, media tours, congress and exhibition events.
Public information about the Company's activities and implementation of PR-projects in social sphere (2016):
• 1,496 press releases on the Company's activities were prepared.
• 64 events were arranged with participation of representatives of the regional mass media.
The directors and specialists of the Company in 2016 took part in 15 exhibitions, conferences and industry forums.
The amount of taxes and fees paid by the Company in 2016 in accordance with Russian laws totalled RUB 11.5 b which is RUB 1.9 b more than in 2015. Volume of procurement from small and medium-sized businesses amounted to 79.6% of the total procurement volume in value terms.
Number five in rating of fundamental efficiency among the largest real-sector companies of Russia for 2016 published by the rating agency Interfax ERA.
Accumulation of reputational capital: there were no cases of negative publicity in the mass media or any public resonance which could have an adverse impact on the Company's image, or could damage the reputation of the Company.
14. Share of procurement from small and medium-sized businesses.
Natural
The Company has implemented and successfully operates the environmental management system subject to ISO 14001 requirements.
Environmental protection costs in 2015 made RUB 10.4 m.
Use of Advanced Solutions and Technologies in 2016.
Environmental protection costs in 2016 made RUB 10.5 m.

2.3. Mission, main objectives and priorities

PJSC IDGC of Center and Volga Region is a unified operating company that works in the sphere of electric power transmission and technological connection of the consumers to power grids in its nine regions of presence.

The main shareholder of the Company is PJSC Rosseti (50.4% of share capital), a power network operator in Russia, one of the largest power grid companies in the world that owns and manages its subsidiaries and affiliations including Inter-Regional Distribution Grid Companies (IDGC) and Federal Grid Company (PJSC "FGC EEC"). The controlling shareholder of the PJSC Rosseti is the State represented by the Federal Property Management Agency that owns a share of 87.9% in the charter capital.

The mission of PJSC IDGC of Center and Volga Region is provision of reliable and high-quality power supply for customers, social responsibility and customer focus, meeting the requirements of the Russian economy and the world market requirements, securing the interests of shareholders, protecting the environment, achieving the environmental security of production activity.

Main objectives:

- development of modern economically powerful operational inter-regional distributive grid company with operations area from repairing deficient equipment or transmission towers to global problems of dividend payments, increasing the capitalization, and realizing the tariff policy.
- observance of the rights and legitimate interests of the Company shareholders;
- achieving high financial, economic, industrial-technological, and management indicators;
- improving the transparency of the Company's activities;
- providing the opportunity for every worker to speak out and be heard;
- supporting the workers' wish to study and improve their professional skills constantly;
- constantly proving that we are an open Company by informing our shareholders, clients, business partners, public authorities, and workers about the results of our activity.

The activity of PJSC IDGC of Center and Volga Region is aimed at creating an innovative and effective distributive grid complex that will serve the needs of the social and economic development of the regions of presence of the Company's subsidiaries.

The main strategic priorities of the activity of the Company are determined by the main targets of functioning of the country's power grid complex in accordance with the power grid complex development strategy established by the Government Order (of April 03, 2013, No. 511-p).

The main areas for implementation of the strategy of the Company:

- providing reliable and safe functioning of the power grid complex, improving the quality of the services provided;
- Improving operating and investment performance
- improving investment attractiveness and value of the Company.
- innovative development of assets and realization of events as part of the energy efficiency improvement program;
- Improvement of Availability of Power Grid Infrastructure

- Development of Human Capital

In October 2016, PJSC Rosseti decided to introduce unified management in its two subsidiaries - PJSC IDGC of Center and PJSC IDGC of Center and Volga Region to improve the productive and financial efficiency, decrease the operational costs and provide reliable power grid supply for all categories of customers.

Strategy and Development Prospects

The main areas for the long-term development of the Company:

- broadening the market and, accordingly, the amount of electric power transmission services;
- construction of power grid complex facilities in order to eliminate the zones of power shortage by the power distribution networks for 110 kV regimes and to provide reliable and smooth functioning of power grids, as well as technological connection of new customers;
- modernization and reconstruction of main assets and equipment, implementation of projects on increasing performance;
- ensuring achievement of the established targets for reliability and quality of services rendered by the branches of the Company.

The Company is planning to broaden the market and the amount of electric power transmission services by means of acquiring power grid assets, connecting new customers attracted by the guaranteed terms of smooth and reliable power grid supply, and connecting additional capacities of the generating facilities including the plants of the Avtozavodsk TPP with their power increased by 19 MW. Besides, it is planned to broaden the grid network by renting and buying the power grids charged to the account of a third party.

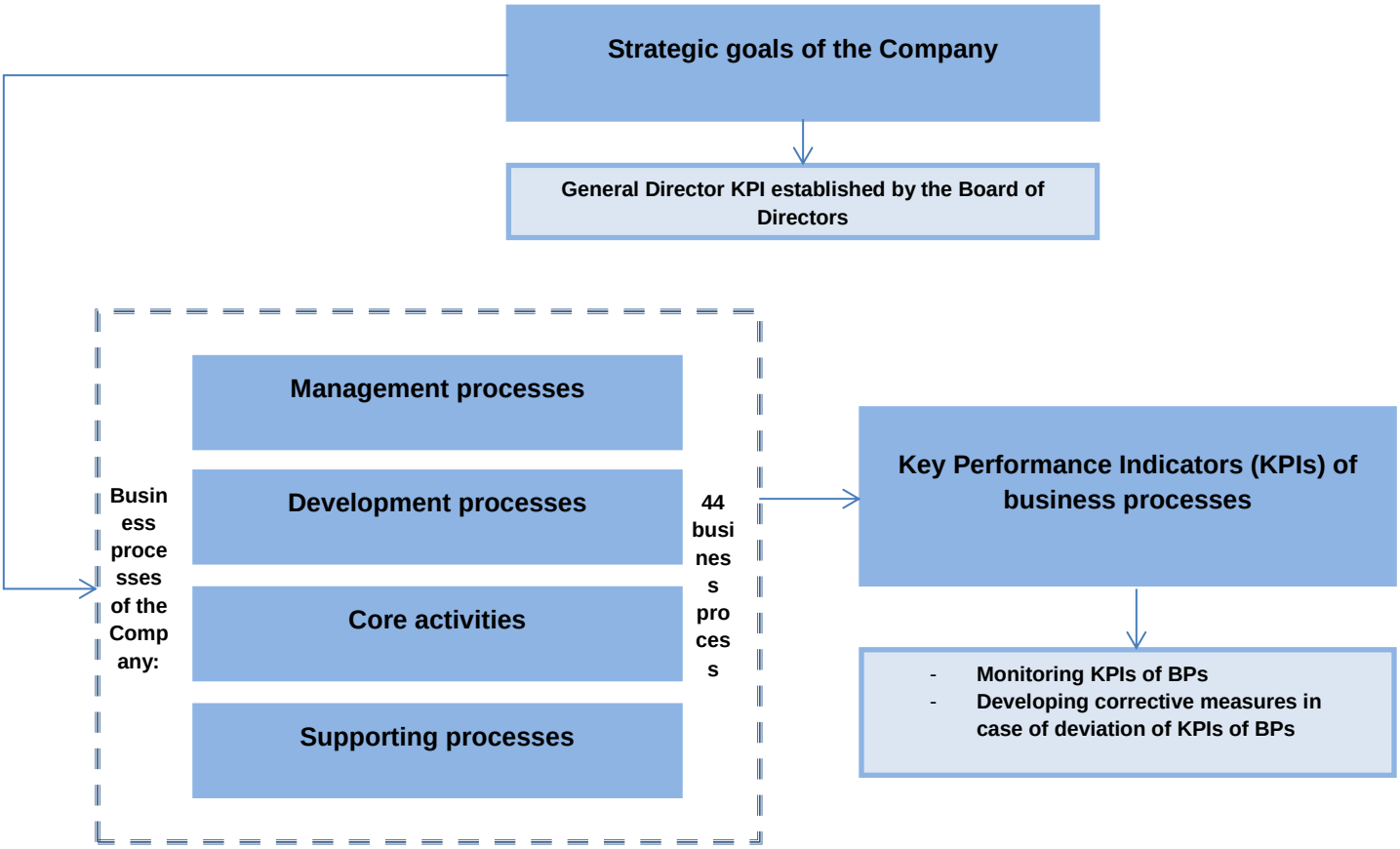
When constructing new power grid facilities, the Company will need to rely on the conditions of optimization of the investment costs, quick and high-quality construction with the maximum capacity of the facility commissioned. In order to achieve this objective, it is planned to continue participating in the preparation and coordination of the drafts of new schemes and programs of the power industry development in the constituent entities of the RF within the Company's regional footprint.

The Company is planning to continue modernization and reconstruction of its main assets and equipment by means of introducing modern and innovative materials and equipment using the robust and reliable schemes.

For more information on the Perspective Company Development System and the peculiarities of technical regulation of the process see the "Long-Term Development" section of this Annual Report.

2.3.1. KPI in the Strategic Planning System

The Integrated Management System of the Company is based on compliance with the international standards of quality, occupational health and safety, environmental management, and energy management. The requirements of these international standards are integrated in all business processes of the Company and allow to fulfil the objectives of the Company decomposed to the level of the key performance indicators of business processes. Monitoring of the key performance indicators of business processes, development of corrective measures in case of deviation of KPIs of BPs, management of key business processes provide the manageability of Company's activity and prompt response to achieve the objectives set.



For more details on the business model of the Company see section 2.2. Business Model.

2.3.2. Strategic Objectives and their Fulfillment

No.	Priorities, objectives and measures for accomplishing them	Results of 2016	Plans for 2017 and further
1. Improving the reliability and quality of services provided			
1.1.	Training employees of Customer Service Centers (CSC).	Training was provided in accordance with the approved training program.	Organizing personnel training at the Customer Service Centers and testing their knowledge of regulatory documents in accordance with the approved training plan.
1.2.	Improving the quality of remote customer service.	SMS-informing of applicants, who submitted applications via 'User Account' on the Internet, about execution of their applications for technological connection.	Creation of the possibility for the applicants to calculate the cost of TC via the "personal cabinet", to obtain and sign the offer with an electronic digital signature.
1.3.	Ensuring efficient work of the 'For Customers' section of the Company's corporate website and the websites of its branches; developing new information sections to meet the customers' needs.	Creation and putting into operation of the 'For Customers' section on the new platform of the common corporate website of the Company. Publication of the following data ensured: - the report on research of customers' opinion on service quality on the Company's website. - information on the customer service quality in compliance with Clauses 4.1, 4.2, 4.9 of Appendix 7 of the Decree of the Ministry of Energy of the Russian Federation No. 217 dated June 4, 2015. Creation of the sections "Electrical grid facilities transmission" and "Unloaded Feeding Centres" with the addresses of substations.	Promotion of the power grid services Portal, interaction with the administrations of the regions of presence for the use of the Portal as a unified electronic platform.
1.4	Standardizing consumer service processes in the Company and improving service quality.	Updating the standard STO 01-025-2016 "PJSC IDGC of Center and Volga Region Management System". Consumer satisfaction. Requirements to assessment and analysis of consumer satisfaction set out in regulations. PR 01-102-2016 "On Interaction of the Corporate Call-Center Operators with Personnel of the Operation and Situation Center and Units of the Operational and Technological Process Control (GCC, ODS, DCC) of the PJSC IDGC of Center and Volga Region Branches" and PR 01-103-2016 "On the Work of a Unified Federal Number of the PJSC IDGC of Center and Volga Region Call-Center 8-800-100-33-00." Introducing the new standard P 01-031-2016 "PJSC IDGC of Center and Volga Region Management System". Receiving and analyzing customers' applications. Regulation on temporary information centers".	Updating the standard "Restoration of the previously issued technical conditions and approval of the Act of coordination of emergency and technological reserved quota of the electrical energy consumers' power supply in PJSC IDGC of Center and Volga Region".
1.5.	Meeting the reliability targets of services rendered approved by local regulatory bodies;	Deviation of service reliability indicators from approved values in 2016 did not exceed the allowable level. Reliability targets were met.	Implementing measures aimed at meeting approved targets for reliability of rendered services.
1.6.	Calculation of service reliability indicators Psaidi, Psaifi as of the end of 2016.	The indicators were calculated as of the end of 2016. The reduction of the values of the indicators was reached as compared to 2015: Psaidi - by 8%, Psaifi - by 4%.	Service reliability indicators based on the results of 2017 to be calculated in 2018.
1.7.	Prompt and high-quality repairs.	In 2016, we allocated over RUB 3.6 b for the repair program. Thorough maintenance of 34.1 ths km of power transmission lines of 0.4-220 kV, 8.300 transformers, 30 power transformers of 35-110 kV and 208 substations of 35-220 kV was completed in a high-quality and timely manner.	Implementing of the repair program for 2017 worth RUB 3,378 m: in physical volumes it is planned to carry out thorough maintenance of 33.6 ths km of power transmission lines of 0.4-220 kV, 8,288 transformers, 44 power transformers of 35-110 kV and 231 substations of 35-220 kV.

1.8.	Implementing the target program for clearing and widening OL routes.	The total area of cleared and widened territory was 15,379 ha.	Clearing and widening 15,771 ha of routes in 2017. Overall, from 2017 through 2021, the Company plans to clear and widen about 78 ths ha of routes.
1.9.	Improving management efficiency; taking measures for optimizing the Company's business processes, standardizing the organization of business processes in all of the Company's branches using Integrated Management System tools.	In 2016, over 120 regulatory documents of the Company were developed and updated.	Updating 49 effective documents regulating the Company's activities.
1.10.	Maintenance of certificates of compliance of the Integrated Management System with international standards ISO 9001, ISO 14001, ISO 50001, OHSAS 18001, including all the branches of PJSC IDGC of Center and Volga Region, with the certification area Process Control and Rendering of Services: Electric Power Transmission and Distribution, Technological Connection of Consumers.	The Integrated Management System of PJSC IDGC of Center and Volga Region successfully passed the second compliance audit in the appropriate certification area and obtained certificates of compliance with international standards ISO 9001, ISO 14001, ISO 50001, OHSAS 18001.	Maintenance of certification by means of compliance audit in 2017.
2. Improving operating and investment performance			
2.1.	Regulating cost estimates in capital construction.	Internal documents were updated. Control procedures were carried out.	Ensuring compliance of processes with the documents issued and updating the documents if necessary.
2.2.	Implementing the project management in capital construction.	PRIMAVERA software is used to manage high-priority investment projects.	Implementing and improving the project management.
2.3.	Construction control in accordance with the requirements of regulatory bodies.	Construction control was exercised in accordance with the requirements of regulations. Regulations were updated.	Ensuring compliance of processes with the documents issued and updating the documents if necessary.
2.4.	Confirming compliance of the Company's management processes with requirements of the international standards.	In 2016, PJSC IDGC of Center and Volga Region, including all the branches, once more confirmed that management processes and provision of services of Power Transmission and Distribution, Technological Connection of Consumers comply with international standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011.	In 2017 maintenance of the certification obtained is planned by the means of passing the re-certification audit for compliance with international standards ISO 9001:2015, ISO 14001:2015, ISO 45001:2017, ISO 50001:2011.
2.5.	Reducing operating expenses within implementation of the Strategy for Development of the Power Grid Industry of the Russian Federation.	The Company ensures exceeding rates of operating costs reduction. In accordance with the Strategy for Development of the Power Grid Industry of the Russian Federation, the target reduction in operating costs adjusted for inflation for 2017 is 15% as against 2012, per unit of serviced electrical equipment. The Company had reached and exceeded this target by the end of 2015,	Further implementation of a set of measures within the Strategy for Development of the Power Grid Industry of the Russian Federation and reduction in operating costs.

		reducing operating costs by 16.4% compared to 2012. In 2016 the specific operational costs were reduced by 19.4%	
2.6.	Reduction in operating costs within the framework of implementation of the directive of the Government of the Russian Federation No. 4750p-P13 dated July 04, 2016 on reducing operating costs.	In accordance with the requirement of the guideline of the Government of the Russian Federation No. 4750p-P13 dated July 04, 2016, the decrease of specific operational costs by at least 10% in the reporting period was provided.	The mid-term plans of the Company involve a reduction in operating costs adjusted for inflation of 3% per unit of serviced electrical equipment.
3. Improvement of Investment Attractiveness			
3.1.	Meeting targets for net profit, EBITDA and profitability.	The Company's net profit reached RUB 3,101 m with the target being RUB 1,969 m; EBITDA totaled RUB 13,335 m with the target being RUB 12,272 m; profitability on EBITDA amounted to 16.99% with the target being 16.01%.	Ensuring that the targets set by the business plan are met.
3.2.	An efficient IR program. Establishing and maintaining long-term relations with shareholders and investors.	The IR program for 2016 was completed. Dividends on the Company's shares were accrued and paid (RUB 942,560 ths and RUB 931,030* ths, respectively). *As of December 31, 2016	Implementing the approved IR program for 2017. Ensuring the Company's information transparency to meet the requirements of the investment community.
3.3.	Maintaining an impeccable credit history.	In 2016, the Company promptly and completely fulfilled its obligations to repay the principal debt, pay interest and other costs related to servicing the borrowed funds.	Unconditional fulfillment by the Company of its obligations under contracts with lenders.
4. Improvement of Energy Efficiency and Promotion of Innovative Development			
4.1.	Developing and implementing the programs for energy saving and energy efficiency improvement at the branches in accordance with requirements of regional regulatory authorities.	The targets of the Program for Power Saving and Power Efficiency Improvement for 2016-2022 were met.	Ensuring that the targets of the Program for Power Saving and Power Efficiency Improvement are met unconditionally. Updating the programs for energy saving and energy efficiency improvement at the Company's branches.
4.2.	Promotion of Innovative Development.	During 2016 the Innovative Development Program for 2015-2020 (hereinafter - the Program), approved by the Decision of the Board of Directors dated November 25, 2015 (Minutes No. 204 p.8), has been implemented. In 2016, funding for the program was provided and totaled RUB 382.62 m, including RUB 23.55 m for R&D and RUB 350.53 m for innovative equipment, materials and technologies. As part of implementation of the Innovative Development Program, in 2016 the Company carried out operations under two R&D contracts. In 2016 the Company obtained 3 patents for invention, a patent for utility model and a certificate of state registration of a computer program.	Maintaining the rates of introduction of innovative equipment, materials and technologies. Implementing R&D designs, obtaining patents and certificates, commercialization of R&D results. Realization of 3 R&D contracts.
5. Improvement of Availability of Power Grid Infrastructure			
5.1.	Providing information to potential consumers in order to assess key characteristics and risks of business projects with allowance for opportunities for technological connection.	The zones of location of the facilities of applicants are coordinated with the regional authorities.	Holding public meetings with the consumers on the question of the procedure of access to the power grid infrastructure in each region.

5.2.	Making the procedure for interaction with applicants in technological connection consistent with the effective legislation.	The new procedure P 01-023-2016 on interaction between the grid organization and the provider of last resort and the applicant focused on conclusion of the power supply agreement prior to technological connection is established.	Changing the regulatory documents in terms of interaction between the grid organization and the provider of last resort and the applicant focused on conclusion of the power supply agreement in part of signing the agreements with the electronic signature.
6. Development of Human Capital			
6.1.	The full implementation of the Company's obligations under the Collective Agreement between the employees and PJSC IDGC of Center and Volga Region for 2016-2018	In 2016, the Company's obligations under the Collective Agreement between PJSC IDGC of Center and Volga Region and its employees for 2016-2018 were completely fulfilled.	The full implementation of the Company's obligations under the Collective Agreement between employees and PJSC IDGC of Center and Volga Region for 2016-2018.
6.2.	Meeting the target for the Company's staffing level (the standard is 90%).	The Company's staffing level was 98.1%.	Maintaining stable staffing levels and preventing them from decreasing below the standard.
6.3.	Meeting the target for the number of employees who underwent various kinds of training, retraining and vocational training.	The number of employees who underwent training reached 51% of the Company's average headcount.	Meeting the approved targets for personnel training.

2.3.3. Report of the Board of Directors on Priority Areas

1. Registration of real estate titles, registration/re-registration of land plot use for 2011-2014, including processing data on the borders of buffer areas of the electrical grid facilities, were approved as a priority by the Resolution of the Board of Directors dated November 1, 2010 (Minutes No. 64).

The implementation of the Program on registration of real estate titles was carried out within the line of the general expenses available to the Company for property rights registration, including the ones not connected to the Program. Redistributing costs and directing investments towards the realization of the Program above the targeted level allowed to provide the registration of the rights of the Company to the larger number of real estate objects the rights to which were not predicted to be acquired.

Within this priority area, the Company's Board of Directors considered the information provided by the General Director of the Company on the progress of the registration of the property rights to objects of real estate, registration/renewal of rights of use of land lots taking into account accomplishments of works on preparation of data on borders of conservation zones of power grid network facilities in 2015 as part of considering the Report on business plan performance of the Company in 2015 (Minutes No. 224 dated April 22, 2016).

2. Creation of the Innovative Development Program of JSC IDGC of Center and Volga Region was approved as a priority under the Resolution of the Board of Directors dated February 28, 2011 (Minutes No. 70).

The innovative activity of the Company as an independent area of production activity was formed in 2011-2012. In this period organizational reformations took place in the Company, and an innovative activity management system was formed.

The main goal of the innovative activity management system of the Company is to create an efficient mechanism for the implementation of innovative cycle which provides favourable conditions for creating, developing and assimilating the key innovative technologies and implementing innovative point solutions of power grid problems, and to manage the results of intellectual activity.

On February 26, 2016 the Board of Directors of the Company approved the Regulation on the Procedure for Preparing and Implementing the Innovative Development Program of the Company (Minutes No. 214 dated February 29, 2016).

In 2016, the Board of Directors of the Company considered the 2015 Report on Implementation of the Innovative Development Program of the Company for 2015-2020 (Minutes No. 216 dated March 14, 2016) and approved the Innovative Development Program of the Company for 2016-2020 (Minutes No. 249 dated December 01, 2016).

3. Maintaining the established level of reliability and quality of services provided by the Company in accordance with regulations was approved as the Company's priority by the Board of Directors of the Company on August 30, 2011 (Minutes No. 84).

Within this priority area, the Company's Board of Directors considered information provided by the General Director of the Company on meeting the targets for quality and reliability of rendered services as established by the regulatory bodies of the constituents of the Russian Federation in the reporting year 2015 (Minutes No. 217 dated March 24, 2016)

4. Approval of the Program for Consolidation of Power Grid Assets of JSC IDGC of Center and Volga Region was established as the Company's priority by the Board of Directors of the Company on October 31, 2011 (Minutes No. 88).

Within implementation of this priority area, the Company's efforts were focused on implementing the Road map for consolidation of the Vladimir region power grid complex and on assuming ownership over municipal power grid assets in the Nizhny Novgorod region. The purpose of these actions is to consolidate power grid assets, municipal and ownerless property, situated in the regions mentioned above, as well as to enhance reliability of power supply to the customers and to create the prerequisites for unified technical policy. At the same time the Company carried out the power grid assets acquisition transactions, both as part of the investment program and as a donation act.

The Program for Consolidation of Power Grid Assets of JSC IDGC of Center and Volga Region for 2011-2015 was approved by the Board of Directors of the Company (Minutes No. 88 dated October 31, 2011).

Within implementation of this priority area, the Company's Board of Directors received the Progress Report of the General Director of the Company on Implementation of the Program for Consolidation of Power Grid Assets of JSC IDGC of Center and Volga Region for 2011-2015 as of 2015 as part of the Report of the General Director of the Company on Implementation of Decisions of the Board of Directors of the Company for Q1 of 2016 (Minutes No. 234 dated July 18, 2016).

5. Improvement of the internal control and risk management system and development of the internal audit function were approved as the Company's priorities by the Board of Directors of the Company (Minutes No. 164 dated August 27, 2014).

In order to address the new trends and challenges of external and internal environment, it is necessary to improve the Internal Control System (hereinafter, ICS), review the organizational principles of the System of Internal Audit (IA), Internal Control (IC) and Risk Management (RM), as well as targets and activities in the sphere of IA, IC and RM.

Given the need to address issues related to the Company's development and reduce the impact of external and internal risks on its performance, the risk management functions are delegated to the Strategy and Development Committee of the Board of Directors.

Within this priority area, the Company's Board of Directors approved the following documents:

- Internal Audit Policy of PJSC IDGC of Center and Volga Region (new version) (Minutes No. 216 dated March 14, 2016);
- Internal Control Policy of PJSC IDGC of Center and Volga Region (new version) (Minutes No. 216 dated March 14, 2016);
- Provision on the Audit Committee of the Board of Directors of PJSC IDGC of Center and Volga Region (new version) (Minutes No. 216 dated March 14, 2016);
- Risk Management Policy of PJSC IDGC of Center and Volga Region (new version) (Minutes No. 217 dated March 24, 2016);
- Changes and amendments to the Provision on the Strategy and Development Committee of the Board of Directors (Minutes No. 217 dated March 24, 2016);
- The report of the Internal Audit and Control Department on implementation of the work schedule and on results of internal audit activities (Minutes dated No. 223 April 18, 2016);

- The Regulation on the Internal Audit Department of the Company (Minutes No. 238 dated August 24, 2016);
- The candidature of the Director of the Internal Audit Department of the Company (Minutes No. 238 dated August 24, 2016);
- The work schedule of the Internal Audit Department of the Company for 2016 (Minutes No. 238 dated August 24, 2016);
- The budget of the Internal Audit Department of the Company for 2016 (Minutes No. 238 dated August 24, 2016);
- The work schedule of the Internal Audit Department of the Company for 2017 (Minutes No. 252 dated December 29, 2016);
- The budget of the Internal Audit Department of the Company for 2017 (Minutes No. 252 dated December 29, 2016);
- The Quality Guarantee and Improvement Program of the Internal Audit Department (Minutes No. 252 dated December 29, 2016);

On April 15, 2016 the Board of Directors of the Company approved the report of the Internal Audit of the Company on the efficiency of the Internal Control and Risk Management System for 2015 and considered the report on the management of the key operational risks of the Company for 2015 (Minutes No. 223 dated April 18, 2016).

6. Implementation by the Company of activities aimed at centralization and automation of the treasury function was approved as the Company's priority by the Board of Directors of the Company (Minutes No. 180 dated March 16, 2015).

In 2016 the work of the Company on fulfilling the requirements of the documents regulating the activity of the Company was analyzed as part of functioning of the unified Treasury of PJSC Rosseti created in accordance with the guideline of the Government of the Russian Federation No. 5110p-P13 of August 08, 2014.

Within this priority area, the Company's Board of Directors approved the schedule of activities of PJSC IDGC of Center and Volga Region on transition to the scheme of functioning of the automated treasury function management system (Minutes No. 218 dated March 30, 2016).

2.4. Quality Policy

In 2016, PJSC IDGC of Center and Volga Region continued to enhance operational efficiency and reliability of energy supply to consumers, including improvement of operations and management of the power grid in the following spheres:

- Quality management system;
- Occupational health and labor safety system;
- Environmental management system;
- Energy management system.

The principal constitutive document of the Company's Integrated management System is the Policy on Quality, Occupational Health, Labor Safety, Environment Protection and Energy Management (hereinafter - the Policy). Under the Policy, the Company's management focuses on increasing energy saving and energy efficiency, improving quality of customer service and maintaining innovative development of the Company.

In 2016, the Company's Integrated Management System underwent the second compliance audit to confirm its conformity to requirements of international standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011. All branches of PJSC IDGC of Center and Volga Region with the area of certification in "Process Management and Provision of Services: Power Transmission and Distribution and Technological Connection of Consumers" underwent the procedure.

In order to enhance reliability and efficiency of power production, develop power transmission and technological connection services, and improve management of business processes, the Company devised and updated 123 internal regulatory documents in 2016. These documents establish the uniform Company standards of management and organization of business processes in all Company's branches through the use of the Integrated Management System.

The Integrated Management System of the Company allows to meet the customers' expectations in terms of the quality of the services provided by the Company, and to achieve the objectives and indicators in the sphere of the quality of services provided for customers.

The fulfillment of objectives connected to the quality of the power transmission and distribution services is characterized by the Level of Reliability of the Provided Services indicator. The dynamics of this indicator for 2013-2016 is presented in the table below.

Level of Reliability of the Provided Services Indicators for 2013-2016, hour.

Branch	Actual value for 2013	Actual value for 2014	Actual value for 2015	Actual value for 2016
Vladimirenergo	0.0405	0.0389	0.0366	0.0316
Ivenergo	0.0572	0.0480	0.0496	0.0474
Kalugaenergo	0.0246	0.0235	0.0227	0.0238
Kirovenergo	0.0459	0.0459	0.0419	0.0410
Marienergo	0.0373	0.0362	0.0343	0.0306
Nizhnovenergo	0.03530373	0.03541961	0.03475135	0.02963774
Ryazanenergo	0.0354	0.0342	0.0339	0.0327
Tulenergo	0.0402	0.0423	0.0421	0.0382
Udmurtenergo	0.051156	0.049439	0.047319	0.045409

The actual values of the Level of Reliability of the Provided Services were calculated in accordance with the Order of the Ministry of Energy of Russia On Calculating the Level of Quality and Reliability of the Goods and Services Provided for the Unified National Electric Grid Management Organizations and Regional Grid Organizations, No. 718 dated October 14, 2013.

The Level of Reliability of the Provided Services indicators for each subsidiary of the Company and the correctness of theirs calculation are monitored monthly during the year. The Level of Reliability of the Provided Services indicators for each subsidiary of the Company correspond to the planned values established by the Regional Tariff Services, with the permissible deviation ratio.

The fulfillment of objectives connected to the quality of the technological connection services is evaluated by the Company by the following indicators:

- Forwarding draft agreements in a timely manner;
- Timely meeting of commitments determined by the terms of contracts;

- Risk of violation of antimonopoly laws by the Company when carrying out technological connection to power grids;

The statistical data on the integral indicator are presented in the table below.

Level of Quality of the Provided TC Indicator for 2013-2016, UN

Branch	2015	2016
Vladimirenergo	1.05	1.0496
Ivenergo	1.0343	1.0379
Kalugaenergo	1.1016	1.0915
Kirovenergo	1.047	1.0298
Marienergo	1.0506	1.0477
Nizhnovenergo	1.1702	1.1338
Ryazanenergo	1.0292	1.0293
Tulenergo	1.104	1.0927
Udmurtenergo	1.0542	1.0545
PJSC IDGC of Center and Volga Region	1.0895	1.0798

In 2017 the Company is planning to develop the Integrated Management System of the Company further by maintaining the certification obtained, passing the re-certification audit for compliance with international standards ISO 9001:2015, ISO 14001:2015, ISO 45001:2017, ISO 50001:2011 and further standardizing the production processes.

2.5. Risk Management System

The Company has a Risk Management System (hereinafter, RMS) which is aimed at ensuring smooth and continuous operation of the Company and its development by timely identification, assessment and effective management of risks which threaten efficient economic activity of the Company, its reputation, employees' health, the environment and proprietary interests of shareholders and investors.

In order to develop the RMS of the Company, the Risk Management Policy of PJSC IDGC of Center and Volga Region (new version) was approved by the resolution of the Board of Directors as of March 21, 2016 (Minutes No. 217 as of March 24, 2016).

RMS participants

Key participants in the risk management process include:

- the Board of Directors;
- authorized committee of the Board of Directors;
- executive bodies (Management Board, General Director);
- risk owners;
- Risk management Division;
- officers who implement control procedures and risk management measures;

Key Risk Factors

Assessment of risk significance

Level of risk significance	
Critical	
Significant	
Moderate	

No.	Risk name	Risk description	Measures for minimization of risk effects	Assessment of risk significance, dynamics
Industry risks				
1.	Tariff risks	• Amendments made to effective regulations, which introduction entails adjustment of earlier assumed obligations of the Company; • Revision of long-term parameters of regulation of the Company's branches established earlier; • Redistribution of required gross revenue by years of the long-term regulation period by a regulatory authority in order to suppress the growth of tariffs in the region; • Risks of shortage of tariff revenue due to decrease in actual power consumption compared to the value considered when approving the tariffs on power transmission services; • Risks of penalties due to failure to carry out the approved investment program or to meet specified targets for reliability and quality of services rendered; • Risks of excess in operating expenses, standard of energy losses and costs of servicing the borrowed funds over the values considered in tariff	• Interaction with the regulatory bodies of the entities of the Russian Federation concerning economic justification of the Company's expenses; • Carrying out the program for reduction in the Company's expenses on a permanent basis; fulfillment of obligations within investment programs and energy efficiency programs; ensuring achievement of the established targets for reliability and quality of services rendered.	

		and balance decisions.		
2.	Technological connection risks	• Risk of violation of antimonopoly laws by the Company when carrying out technological connection to power grids; • Risk of lost profit under a technological connection agreement which was not executed properly (including refusal to carry out technological connection); • Risk of shortage of funding for arrangements under technological connection agreements.	• Explanation of the Applicants' obligations under technological connection (TC) agreements and the Applicants' risks in case of default on obligations under these agreements (penal sanctions, rescheduling of technological connection); • Claim processing in terms of compensation for TC expenses from the Applicant; • Monitoring of applications, development of TC forecasts (including increase geography) in order to forecast the volume of applications and liabilities of the grid company for the next year; • Monitoring of compliance with the schedule for preparing the technological connection agreement and adherence to TS; • Monitoring of fulfillment of obligations under technological connection agreements; • Building of consumers' trust in the Company by more comprehensible explanation of the whole technological connection process (posting information on the Company's official website, developing methods for informing of applicants, monitoring the quality of operation of the Customer Service Centers).	
3.	Risk of shortage of income due to decrease in power consumption by certain large consumers compared to the target level (the risk of shortfalls in income).	The risk consists in the divergence of the actual volume of power transmission services from the value stated in the business plan.	• Monitoring power consumption of the largest consumers in the regions on a monthly basis; • Regularly checking metering systems and metering equipment readings; • Preparing electricity balancing by substation based on technical energy metering, identifying sections of grids where normative losses are exceeded, carrying out raids to identify unmetered and non-contracted consumption; • Conclusion of agreements on power transmission services and obligatory provision of information on planned power consumption in order to correctly include the volumes in the Company's business plan;	
4.	Risks of increase in overdue and uncollectable receivables	Overdue receivables on power transmission services constitute the largest share in the structure of the Company's receivables and have the most considerable impact on its financial results.	• Development of a schedule of measures for reducing receivables on power transmission services for each quarter and monitoring compliance with it, ensuring the coverage of outstanding receivables by measures aimed at settlement of receivables; • Initiating of addressing issues of non-payment at the meetings of the regional collegial bodies chaired by executive body (administration) of the constituent of the RF. Based on the	

			decisions of the commissions, minutes are prepared; they include the scope of issues and the Company's position; • Recovery of undisputed overdue debt and interest in the court of law, imposing sanctions provided by the Federal Act No. 307 on the contractors who have violated the terms of payment. Introducing provisional measures of protection against nonpayers; • Considering the possibility of dealing with contractors which systematically miss payment due dates involving the public prosecution office and the Ministry of Internal Affairs of the Russian Federation; • Limiting power consumption of consumers who did not pay for the provided services in accordance with the law.	
5.	Risks of uncertainty regarding the maximum volume of power transmission services rendered	The risk is caused by the fact that several entities of the Russian Federation and municipalities lack economic development plans specifying changes in power consumption for certain periods. The mentioned circumstances make it more difficult to predict the amount of investments in the development of capacities in the medium and long term. This risk affects mainly the fulfillment of obligations related to providing power transmission services.	• Formulating and submitting proposals for electric energy balance in grids and the amount of losses to the state price (tariff) regulation authorities.	
6.	Risks connected with a possible change in the prices for components and services used by the Company in its operations, their impact on the Company's operations and fulfillment of obligations on securities	As the state carries out electricity tariff regulation, there is a risk related to the increase in prices for raw materials and services used by the Company, which will exceed the inflation rate considered when approving the tariffs.	• Improving the operating efficiency of the Company by implementing programs aimed at reducing production costs; • Centralizing procurement activities, concluding contracts based on the results of tenders on the terms which are most acceptable to the Company.	
Country and regional risks				
7.	Risks connected with political and economic situation in the country and the region	The risks associated with the political situation in the country are nonexistent, for the political situation in the Russian Federation is characterized by stability. The forecast for electric power consumption and the	• The Company is implementing an action program aimed at increasing the overall performance in the conditions of unstable economic conjuncture, namely, reduction of costs of operating activities, optimization of relations with contractors,	

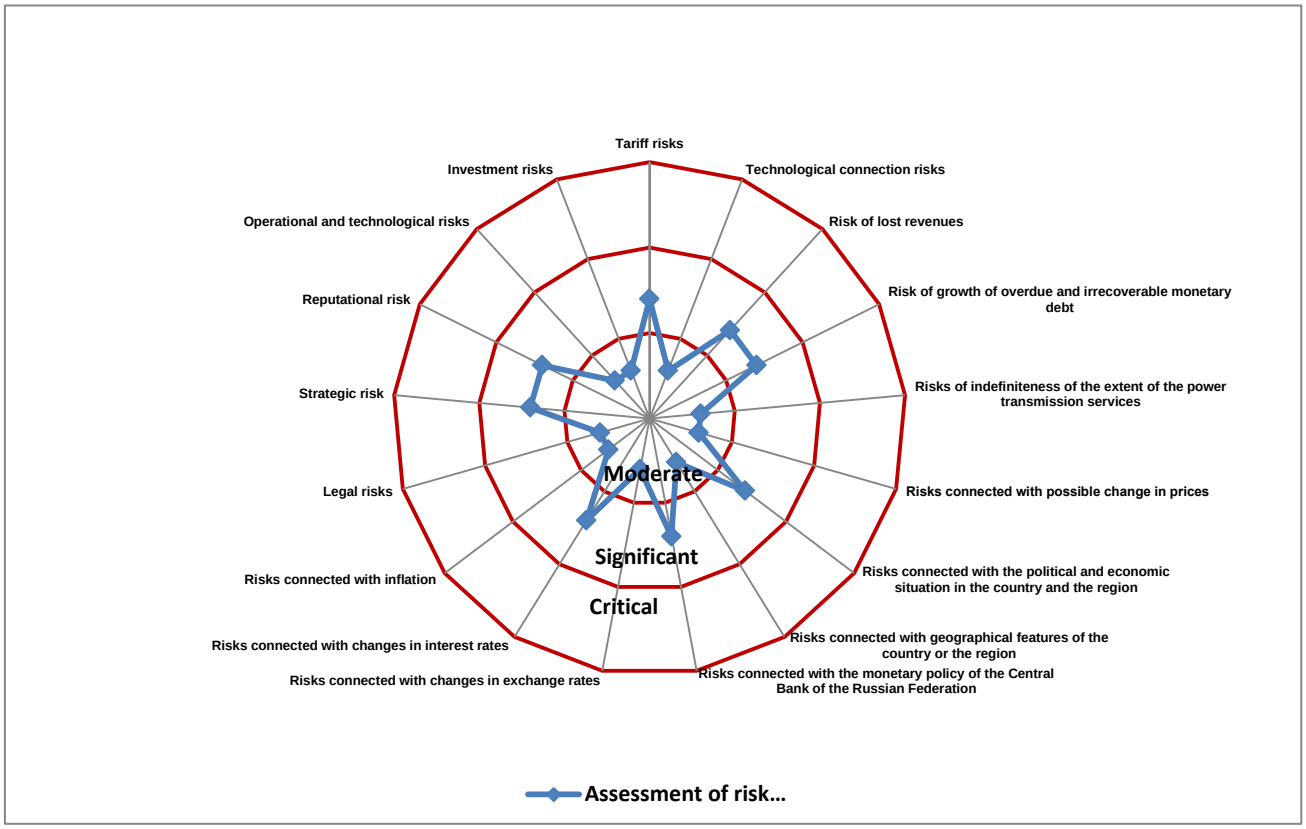
		development of power industry in the regions within the footprint of PJSC IDGC of Center and Volga Region is determined by macroeconomic factors and the economic situation in the country in general.	optimization of contractual relations with consumers, operations on receivables, ensuring optimum tariff and balance decisions in the Company's regional footprint. • With a view to ensuring stability of calculations, monetary transactions of PJSC IDGC of Center and Volga Region are made by highly reliable state-owned banks; to minimize the debt load, there are restrictions on the volume and interest rates of raised loans; • With a view to optimizing the investment activities, investment programs are formed considering implementation of investment projects as a top priority.	
8.	Risks connected with geographical features of the country or the region, including increased danger of natural disasters, possible termination of transport communications	Potential losses related to unfavorable weather conditions.	• The regions, in which territory the Company operates, are characterized by developed transport infrastructure and are not subject to the risks connected with termination of transport communications due to remoteness and/or inaccessibility; • The Company implements a set of measures for preparing the power grid complex for the autumn and winter season; each branch of the Company is certified to be ready for the autumn and winter season; • The branches of PJSC IDGC of Center and Volga Region have a long-term experience of successful prompt elimination of consequences of natural disasters affecting the technical means and infrastructure of power grids.	
Financial risks:				
9.	Risks connected with the monetary policy of the Central Bank of the Russian Federation	The activity of the loan capital market is regulated by the monetary policy of the CB. This influences the possibility of banks' lending to enterprises.	Support of open limits to the credit lines in the necessary amount, as well as, if necessary, creation of monetary provisions for financing future needs.	
10.	Risks connected with changes in exchange rates	Ruble depreciation increases the amount of liabilities in foreign currency and stimulates inflation.	This risk does not have significant influence on the financial state of the Company as the Company makes settlements with contractors in rubles and has neither obligations in foreign currency nor obligations the amount of which is bound to foreign currency.	
11.	Risks connected with	The Company is a major borrower; thus, a change in	To avoid the unjustified increase in interest rates on loan	

	changes in interest rates	interest rates has a significant influence on the Company's expenditures on loan portfolio servicing.	portfolio, a possibility of increasing interest rate by no more than according to the proportion of the key rate of the Central Bank of the Russian Federation is included in the loan agreements. In the event of lowering interest rates on borrowings in the financial markets works with the creditor banks on lowering interest rates on loan agreements are held or the current loans are refinanced by the cheaper ones.	
12.	Risks connected with inflation	Negative impact of inflation on financial and economic activities of the Company can be connected with the following risks: • risk connected with losses in the real value of receivables in case of substantial payment deferral or delay; • risk of increase in the cost of services of contracting organizations entailing increase in Company's expenses; • risk of considerable interest rate increase and, as a result, growth of expenses for servicing the Company's debt.	To minimize the negative influence of inflation on the Company's activity and the improvement of payment discipline: • A factoring scheme of settlements with the Company's debtors was implemented; • Interim measures where the Company provides bank guarantees as securing consensus are used in court proceedings.	
13.	Legal risks	The most significant risks include the following legal risks: • frequent changes in the Russian Federation legislation; • ambiguous interpretations of the legal regulations; • conflicts of laws; • change of the judicial practice; • breach of contractual obligations by counterparties; • incorrect paper work.	• Minimization of legal consequences having a negative impact on the Company's activities; • Constant monitoring of changes in the Russian legislation, including explanations and comments concerning its application; • Constant monitoring of changes in the application of the Russian legislation in court practice. Legal disputes undergo preliminary legal examination; • Legal examination of transactions with counterparties.	
14.	Strategic risk	A risk that the Company will suffer losses as a result of mistakes (drawbacks) made when making decisions determining the issuer's strategy for operation and development (strategic management), which consist in a failure to consider or properly consider possible threats to the issuer's activities, the failure to determine promising areas of activity correctly and reasonably, a lack or insufficiency of necessary resources (financial, material and	In order to manage this type of risk, the Company thoroughly develops management solutions, assesses opportunities and promising areas for development and identifies competitive advantages. In order to minimize the strategic risk, the issuer does the following: • Delimitation of powers of management bodies in terms of decision-making; • Control over implementation of the decisions;	

		technical, and human resources) and organizational measures (management solutions) designed to ensure the achievement of the issuer's strategic goals.	• Development of business plans and control over their implementation; • Monitoring of changes in the Russian legislation and the existing regulatory documents; • Monitoring of resources (including financial, material and technical, and human resources) in order to achieve the issuer's strategic goals; • Continuous advanced training of employees.	
15.	Reputational risk	Negative reports in the media which may tarnish the Company's image and business reputation.	• The Company constantly informs the public of its activities and the activities of its branches; the Company has established communication with the media; • The Company publishes full information subject to obligatory disclosure on its official website in a timely manner; • The Company has established constructive cooperation and business communications with the press representatives of regional and municipal authorities, the departments of the Ministry of Emergency Situations, social organizations, and the leading editorial offices in the regions.	
Risks connected with the Company's activities:				
16.	Operational and technological risks:			
	System breaches connected with providing for safe operation of production facilities and reliable power supply.	Shutdown of power grid equipment with or without its damage that results in interruption of power supply. Infliction of material and reputational damage as a result of interruption of power supply to consumers caused by technological failures of power grid facilities.	• Grid renovation, implementation of target programs to increase reliability and technical condition of the grid; • Repairs of the facilities in accordance with technical condition considering risks and disconnection data; • Identification of causes and preconditions of fires for development of organizational and technical measures aimed at preventing fires at power grid facilities; • Taking measures for elimination of factors causing failure to meet fire safety requirements at the facilities;. • Staff relations: education and advanced training; • Community outreach and development of PR programs; • Constant and periodic control over fire safety and operation of power plants, equipment, buildings and structures; • Drafting and updating provisions on technological interaction with related power-industry entities (RPE).	
Investment risks:				
17.	Risk of failure to meet the key parameters of the investment	Deviation of key parameters of the Development Investment Program from targets may result in possible to meet RAB parameters and will lead to	• Control over observance of procurement deadlines and contract conclusion deadlines; • Weekly control over the progress of construction as part	

	program	changes in net profit and indicators characterizing power supply reliability. The primary risk factors are: incomplete assimilation of capital investments; increase in the volume of construction in progress; failure to meet the deadlines set in the Procurement Plan.	of implementation of the Development Investment Program; • Organization of prompt correction of the Development Investment Program before its official approval during the year.	
18.	The risk that the cost of projects under the investment program will exceed the planned amount	Increase in the cost of works during construction due to a change in the basis of design, requirements of supervisory bodies for technical and architectural solutions and the need to offset the increased cost of materials.	• Greater responsibility for preparing and approving technical specifications, and for conducting internal expert review of project documentation; • Approval of Regulations on In-House Expert Review of Project (Design) Documentation on new construction, renovation and technical re-equipment of power grid facilities; • Monitoring of statutes in order to correct technical specifications in a timely manner; • Control over quality and completion of design and survey work in a timely manner; • Designer's supervision.	

Assessment of risk significance



2.6. Investment Activities

2.6.1. Investment Program Development

Investment Program (IP) of the Company is developed in accordance with regional development plans, technical state of power grids, available financing sources, developed on the basis of tariff and balance decisions.

Starting from 2010, IP planning, its implementation and development of a report on compliance with the Company's IP is carried out in accordance with provisions of Regulation No. 977 of the Government of the Russian Federation "On Investment Programs of Power System Units" dated December 1, 2009.

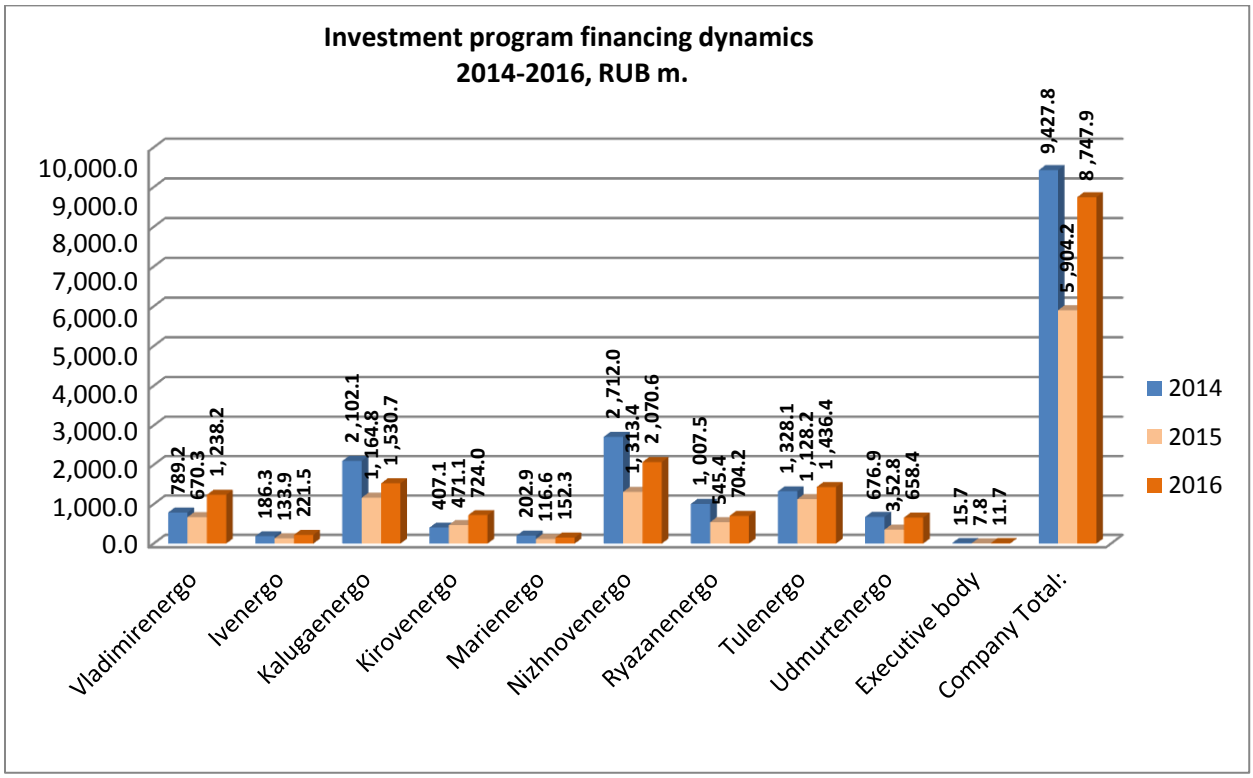
The investment program for 2016 was approved by Order of Minenergo of Russia No. 1334 dated December 14, 2016.

2.6.1.1 Parameters of Investment Activities

Value and Physical Indicators of Investment Activities of PJSC IDGC of Center and Volga Region in 2016

Branch/ unit	2016 actual				
	Assimilation	FA Commissioning	Financing	Capacity commissioning	
	RUB m, excluding VAT	RUB m	RUB m, including VAT	MVA	km
Vladimirenergo	1,112.4	1,247.1	1,238.2	169.9	466.4
Ivenergo	199.1	195.0	221.5	6.4	61.9
Kalugaenergo	1,390.3	1,538.5	1,530.7	56.9	561.3
Kirovenergo	638.4	750.3	724.0	40.3	196.4
Marienergo	131.2	133.0	152.3	5.3	87.2
Nizhnovenergo	1,920.2	1,992.4	2,070.6	78.7	748.1
Ryazanenergo	620.2	576.2	704.2	68.1	213.4
Tulenergo	1,317.6	1,360.7	1,436.4	66.0	546.7
Udmurtenergo	588.4	600.0	658.4	6.2	292.1
Executive body (administration)	10.2	10.4	11.7	0.0	0.0
Company Total:	7,928.0	8,403.6	8,747.9	497.7	3,173.2

In 2016, capital investment amounted to RUB 7,928.0 m. Fixed assets were commissioned in the amount of RUB 8,403.6 m. In physical terms, 3,173.2 km and 497.7 MVA were commissioned.



The volume of financing of the investment program in 2014 was RUB 9,427.8 m, in 2015 - RUB 5,904.2 m, in 2016 - RUB 8,747.9 m. The funding increased in 2016 by RUB 2,843.7 m as compared to 2015.

2.6.1.2. Areas and Structure of Investment Program Financing

Actual volume of financing in 2016 was RUB 8,747.9 m, including:

RUB 6,846 m (inc. VAT) for Technical Re-Equipment and Reconstruction Program;

RUB 1,845.5 m (inc. VAT) for New Construction and Expansion of Functioning Facilities Program;

RUB 38.4 m (inc. VAT) for other Investment Program facilities (including acquisition of new fixed assets, R&D).

In 2016, PJSC IDGC of Center and Volga Region commissioned the following priority investment projects.

<u>New construction:</u>

Vladimirenergo Branch

Construction of SS 110/10/10 kV Vorsha with 110 kV OL.

Implementation of the project enabled the Company to increase reliability of power supply to consumers in Sobinsky district, Vladimir region; it also made possible the technological connection of new consumers;

In 2016, financing amounted to RUB 38.4 m, capital investment – RUB 34.7 m, fixed assets commissioning – RUB 283.1 m. Capacity input was 126 MVA and 1.6 km of power transmission lines. Commencement of construction – January 2015, completion – August 2016.

Kalugaenergo Branch

Construction of SS 110 kV Verkhovaya (mobile SS) with renovation of double-circuit OL-110 kV Kaluzhskaya CHPP-1-Orbita with taps at SS-110 kV Kvan and SS-110 kV Mayak, OL-110 kV Orbita-Zheleznyaki with formation of an additional tap at SS-110 kV Verkhovaya (stage 1). The Company commissioned over 25 MVA of transformer capacities and over 7.2 km of power transmission lines.

The realization of the project allowed implementing the technological connection of new consumers of the housing estate Pravgorod of the City of Kaluga.

In 2016, financing amounted to RUB 70.4 m, capital investment – RUB 62.8 m, fixed assets commissioning – RUB 287.1 m. Capacity input was 25 MVA and 7.2 km of power transmission lines. Commencement of construction – March 2015, completion – December 2016.

Nizhnovenergo Branch

Construction of new DTSS 10 kV, CL 10 kV of SS 110 kV Strelka, and CL 10 kV of SS 110 kV Meshcherskaya to the new DTSS 10 kV.

The implementation of the project made it possible to provide reliable power supply to infrastructure facilities for the Football World Cup in 2018 in Nizhny Novgorod.

In 2016, financing amounted to RUB 83.1 m, capital investment – RUB 71.5 m, fixed assets commissioning – RUB 98.98 m. Capacity input was 12.4 km of power transmission lines. Commencement of construction – December 2015, completion – November 2016.

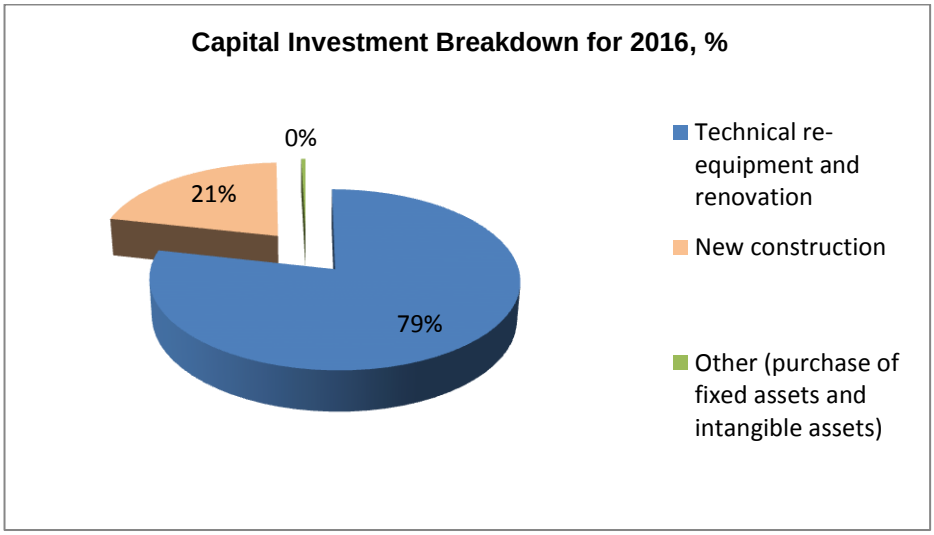
Reconstruction:

Nizhnovenergo Branch

Renovation of SS 110 kV Meshcherskaya. 25 MVA of transformer capacities were commissioned.

The implementation of the project made it possible to provide reliable power supply to infrastructure facilities for the Football World Cup in 2018 in Nizhny Novgorod.

In 2016, financing amounted to RUB 59.6 m, capital investment – RUB 51.1 m, fixed assets commissioning – RUB 59.6 m. Capacity input was 25 MVA. Commencement of construction – March 2016, completion – November 2016.



The Investment Program of PJSC IDGC of Center and Volga Region for 2016 was financed in the amount of RUB 8,747.9 m.

Capital Investment Breakdown, RUB m, including VAT

	2014	**2015**	**2016**
Company Total	**9,427.8**	**5,904.2**	**8,747.9**
Priority projects	822.6	474.0	252.9
Technical re-equipment and renovation	*13.9*	*5.5*	*66.8*
New construction:	*808.8*	*468.5*	*186.1*
Programs of particular importance	0.0	0.0	0.0
Programs	1,147.9	844.1	1,399.7
Technical re-equipment and renovation	*996.4*	*764.7*	*1,202.4*
New construction:	*151.5*	*79.4*	*197.3*
Technological connection (hereinafter TC), incl.:	5,115.8	3,164.6	4,349.8
TC facilities with capacity of over 670 kW (HV, MV1)	352.5	224.6	399.2
TC facilities with capacity of 150-670 kW (MV2)	93.1	132.9	439.5
TC facilities with capacity of 15-150 kW	1,269.2	595.4	457.4
TC facilities with capacity of up to 15 kW	3,392.7	2,211.7	3,053.7
Generation	8.3	0	0
Distribution grids	965.2	770.7	1,275.2
Technical re-equipment and renovation	834.7	660.0	1,271.7
New construction:	130.5	110.7	3.5
Technological control automation (except for automated power supply monitoring and control system (APSMCS))	234.1	175.7	370.7
Electrical power metering and control system	193.4	103.6	246.7
Safety programs	135.1	64.4	125.5
Purchase of power grid assets, land plots, etc.	0.6	15.1	11.8
Other programs and measures	813.1	292.0	715.6
For reference:			
Technical re-equipment and renovation	7,313.1	4,788.9	6,864.0
New construction	2,108.2	1,093.7	1,845.5
Other	6.5	21.6	38.4

2.6.1.3. Investment Program Implementation Results

1. Measures to reduce specific investment costs

The Organization Methodology M 01-006-2016 "Management System of PJSC IDGC of Center and Volga Region" is applied to carry out specific investment cost reduction measures in the course of development (adjustment) of the Company's investment programs. INVESTMENT ACTIVITIES MANAGEMENT. The Methodology for planning investment cost reduction by 30% against 2012 level in the formation of Investment Programs of PJSC IDGC of Center and Volga Region was introduced by Order of PJSC IDGC of Center and Volga Region dated April 07, 2016 No. 169.

Based on the results of implementation of the investment program, the Company annually carries out monitoring of specific costs of investment projects construction in the context of benchmarking and comparative study of specific construction cost indicators according to the Methodology introduced by the Order of JSC IDGC of Center and Volga Region dated August 22, 2013 No. 464.

In addition, PJSC IDGC of Center and Volga Region developed guidance documents aimed at reducing the specific cost of facilities at the stage of preparation and approval of technical specifications (the Order of JSC IDGC of Center and Volga Region No. 48 dated February 2, 2015 "On Amendments to Standard Templates of Agreements at Capital Construction Facilities", in the latest revision – the Order of PJSC IDGC of Center and Volga Region No. 631 dated November 28, 2016 “On approval of Standard Templates of Agreements at Capital Construction Facilities”), internal expert assessment of design documentation and control of quality and timely performance of engineering and design works as well as performance of designer's supervision (the Order of JSC IDGC of Center and Volga Region No.135 as of March 13, 2015 "On Preparation for 2016 IP Realization", corporate standard STO 01-026-2015 determines the procedure for preparation, review and approval of design and estimate documentation).

Furthermore, in 2015, in accordance with the Order No. 311 as of May 29, 2015, the following list of standard design and estimate documentation (secondary use design and estimate documentation) was approved in order to reduce specific cost indicators for renovation and new construction of investment program facilities.

No.	Name of the standard design
2011	
1.	Replacement of MV-35 by a vacuum circuit breaker on SS 110 kV at Kalugaenergo Branch. Installation of a high voltage metering station (PKU) involving replacement of a support
2.	Replacement of an isolating switch and shorting plug (110 kV) by SF6 circuit breakers of VEB, LTB and VGT types
3.	Replacement of an MKP 110 kV circuit breaker by that of VEB type.
2014 (for TC facilities)	
4.	Construction of a linear branch of Insulated Overhead Line (IOL) 0.22 kV with towers SV-95-3 and wire SIP-4(2x25). Code 59.0001-ES
5.	Construction of a linear branch of IOL 0.38 kV with towers SV-95-3 and wire SIP-4(4x25). Code 59.0002-ES
6.	Construction of an IOL 0.38 kV with towers SV-95-3 and wire SIP-2(3x50+1x54.6). Code 59.0003-ES
7.	Construction of an IOL 0.38 kV with towers SV-95-3 and wire SIP-2(3x70+1x54.6). Code 59.0004-ES
8.	Renovation of OL 0.38 kV involving replacement of supports and non-insulated wire with supports with towers SV-95-3 and wire SIP-2(3x50+1x54.6). Code 59.0006-ES
9.	Renovation of OL 0.38 kV involving replacement of supports and non-insulated wire with supports with towers SV-95-3 and wire SIP-2(3x70+1x54.6). Code 59.0007-ES
10.	Installation of a unilateral maintenance switchgear cell KSO-298 in a switchgear 10 (6) kV of a transformer substation
11.	Metering station 380/220 V in switchgear 0.4 kV of TSS
12.	Metering station 380/220 V for 0.4 kV OL tower
13.	Installation of a cell K-59 (56) in switchgear 10(6) kV of SS 110/35/10(6) kV for technological connection of consumer's electrical installations
14.	Installation of a recloser 10 kV. Code 1263-ES
15.	Construction of cable line 0.4 kV. Code 1264-ES
16.	Construction of overhead lines with protected wires 10 kV. Code 1265-ES
2015	
17.	Construction of a SS 35/10 kV “Chistye Prudy" with electric feeders OL35 kV (Project is applied to the SS)

As a result of the Company's efforts to reduce specific investment costs, PJSC IDGC of Center and Volga Region achieved:

1. The target index of specific investment cost reduction determined by PJSC Rosseti (22.5%) for the reporting period in the amount of 23.6%. In 2016, after the implementation of the investment program of the Company the actual effect of the Method was RUB 2,653 m excluding VAT, which is higher than the planned value of the planned indicator of the Method – RUB 1,899 m excluding VAT.

2. Decrease of specific indicators of the cost of the construction of the facilities put into operation in 2016. The planned and actual specific indicators of construction are shown in Supplement 3 of this Annual Report.

Dynamics of the planned and actual values of the effect of the Method and of the planned and actual specific indicators of construction are shown in Supplement 3 of this Annual Report.

2. Number of performed contracts for technological connection (pcs.), including preferential customers

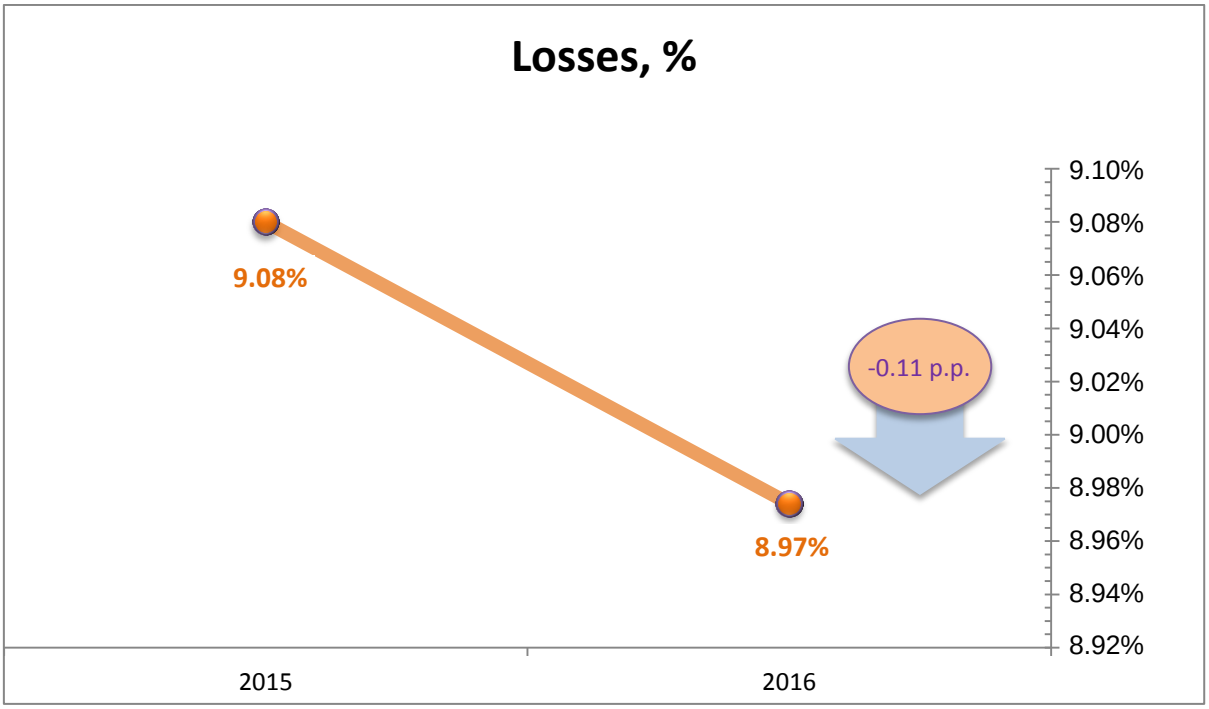
In 2016, 47,013 contracts for technological connection were performed, including 44,324 contracts with preferential customers.

3. Volume of performed contracts for technological connection (GW), including preferential customers.

Connected capacity of the performed contracts for technological connection amounted to 1.10 GW, including the capacity of the performed contracts with preferential customers amounting to 0.47 GW.

4. Energy losses level

Losses in grids of PJSC IDGC of Center and Volga Region demonstrate a steady downward trend.



The Company works on reducing losses in the power grids as part of implementation of the target programs - "Program for Power Loss Reduction", "Program for Long-Term Development of the Company's Power Metering Systems". It allowed reaching the level of losses of 8.97% from the electrical supply to network in 2016, which is 0.11 percentage points less than the actual level of loss in 2015.

5. Capacity utilization and incremental growth of open supply points

Capacity utilization

In 2016, utilization of installed capacity of power suppliers 35-110 kV amounted to 25.48% of the actual consumption on a winter metering day December 21, 2016, utilization of available capacity

(taking into account disturbance and repair states, and ensuring reliability of power supply) amounted to 47.32%.

Incremental growth of open supply points

Vladimirenergo Branch

- SS 110 kV Vorsha. Installed transformer capacity of the substation is 2x63 MVA. A capacity reserve was created for connection of new consumers and capacity increase for existing consumers.
- SS 110 kV Borisovskaya Installed transformer capacity before renovation was 2x10 MVA. Installed transformer capacity after renovation is 1x16 and 1x10 MVA.

Kalugaenergo Branch

- SS 110 kV Verkhovaya Installed transformer capacity of the substation is 1x25 MVA. A capacity reserve was created for connection of new consumers and capacity increase for existing consumers.

Kirovenergo Branch

- SS 35 kV Chistyie Prudy. Installed transformer capacity of the substation is 2x10 MVA. A capacity reserve was created for connection of new consumers of a new residential area "Chistyie Prudy" and capacity increase for existing consumers.

Nizhnovenergo Branch:

- SS 35 kV Vilya. Installed transformer capacity of the substation is 1x4 MVA. A capacity reserve was created for connection of new consumers and capacity increase for existing consumers.
- SS 110 kV Meshcherskaya. Reconstruction of a substation with the formation of bar section 10 kV was carried out. A 12.5 MVA power reserve on the 10 kV side was created. The reservation of distributing SS 10 kV powering the facilities for the Football World Cup in 2018 is provided.

Ryazanenergo Branch:

- SS 110 kV Pechatnaya. Installed transformer capacity before renovation was 1x63 and 1x40 MVA. Installed transformer capacity after renovation is 2x63 MVA.

Tulenergo Branch:

- SS 110 kV Centralnaya. Installed transformer capacity before renovation was 2x25 MVA. Installed transformer capacity after renovation is 1x25 and 1x40 MVA.

6. As of December 31, 2016, the level of depreciation of fixed assets reached 61.7%.

7. As of December 31, 2016, the share of equipment **with exceeded life expectancy** is:

- SS and TSS equipment – 62.6%;
- Power transmission lines – 52.8%;

8. Specific accident rate.

In 2016 specific accident rate in the grids of 6 kV or more per 1,000 c.u. of equipment decreased by 4% compared to 2015 and amounted to 11.1.

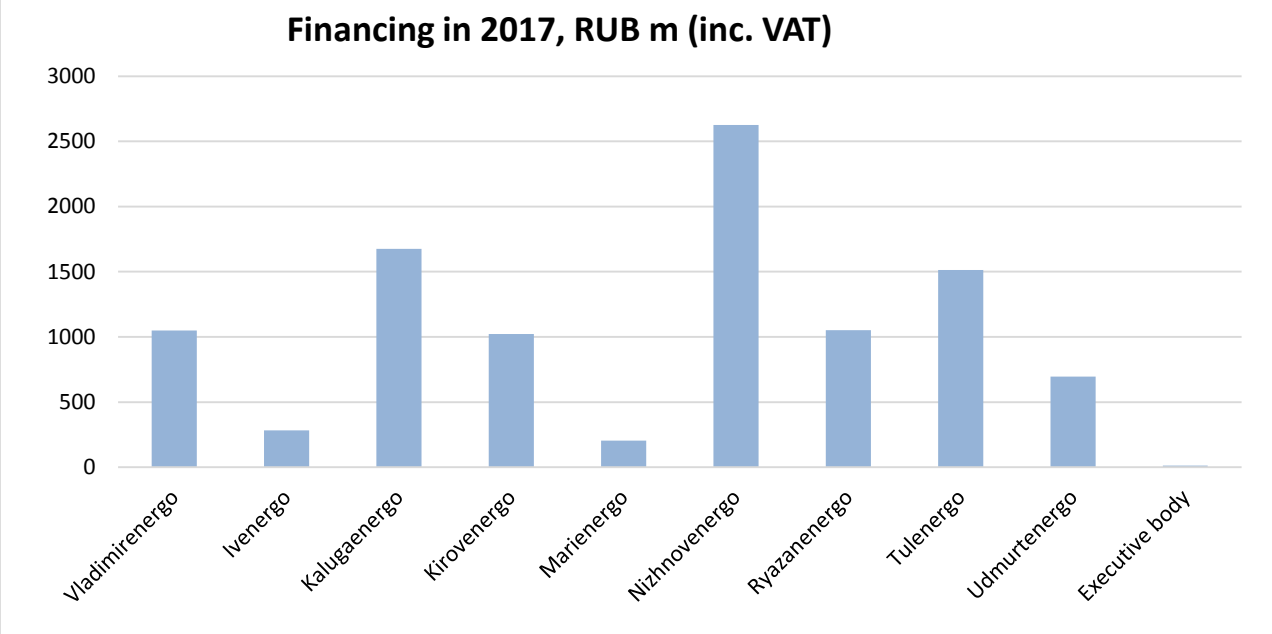
2.6.1.4. Long-Term Investment Program

The long-term investment program of PJSC IDGC of Center and Volga Region for the period from 2016 through 2022 was approved by Order of Minenergo of Russia No. 1334 dated December 16, 2016. The program was devised in accordance with territorial development plans, technical condition of power grids, given the importance of power supply facilities, based on forecasts of revenues from power transmission and receipts under technological connection contracts. The decisions made in development of the investment program comply with the goals and objectives of the Uniform Technical Policy in the Distribution Grid Complex and with the effective legislation.

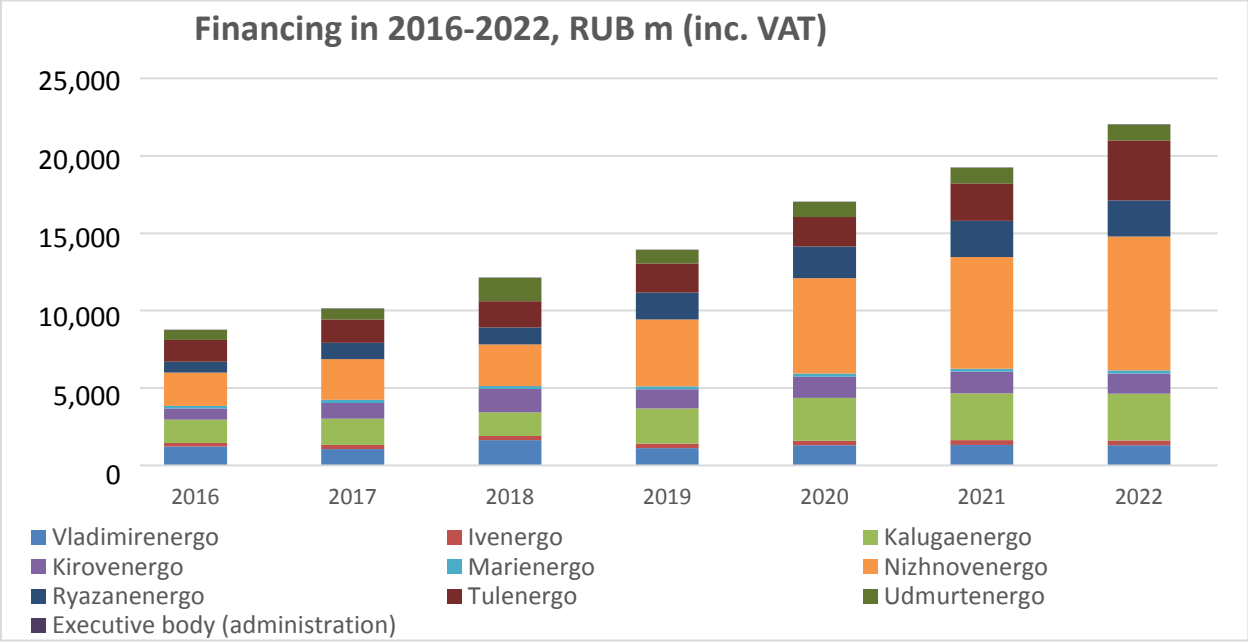
Implementation of the investment program involves achievement of the following objectives:

1. Maintaining the operational availability of equipment necessary for reliable, uninterrupted and quality power supply to consumers.
2. Implementation of measures to reduce production costs, including by improving the equipment efficiency, development of power-consumption metering systems.
3. Fixed assets upgrade.
4. Ensuring operational safety of equipment and personnel.
5. Ensuring transmission capacity of power grids to facilitate stable operation of electric power facilities and connection of consumers.
6. Improving anti-sabotage and anti-terrorism security of power facilities.
7. Development of communications, telemetry and data transfer to improve controllability of grids and reduce emergency response time.

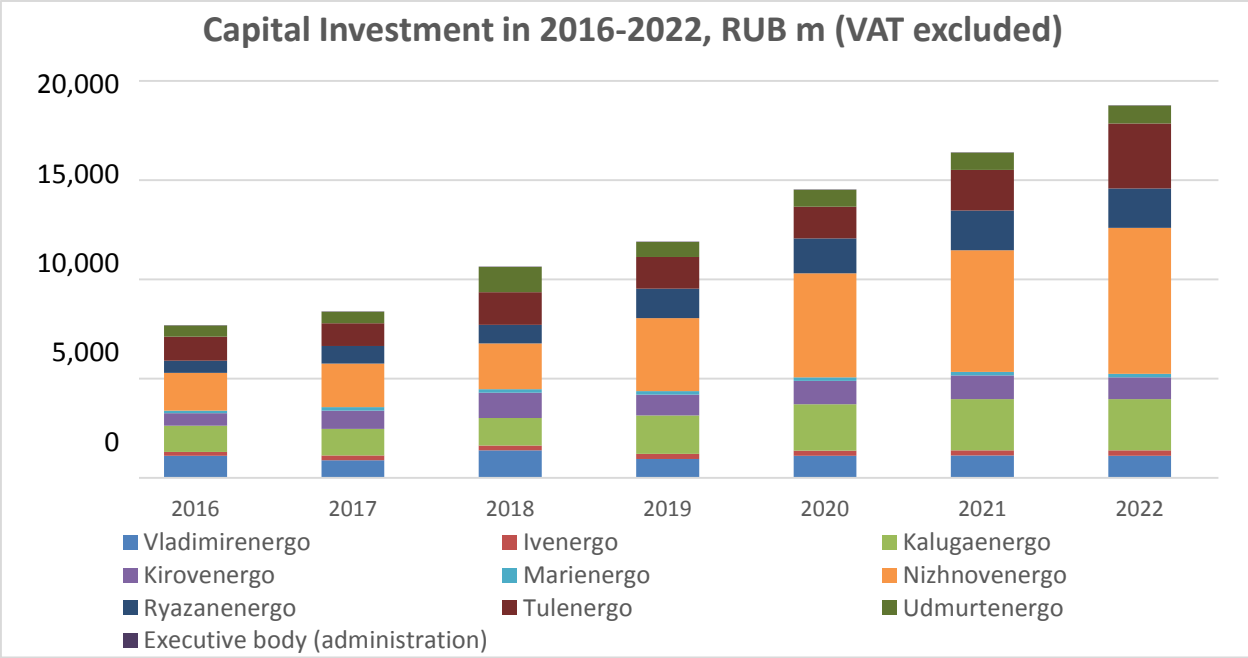
Capital investment of RUB 10,136 m (VAT included) is planned to be allocated to implementation of 2017 investment program.



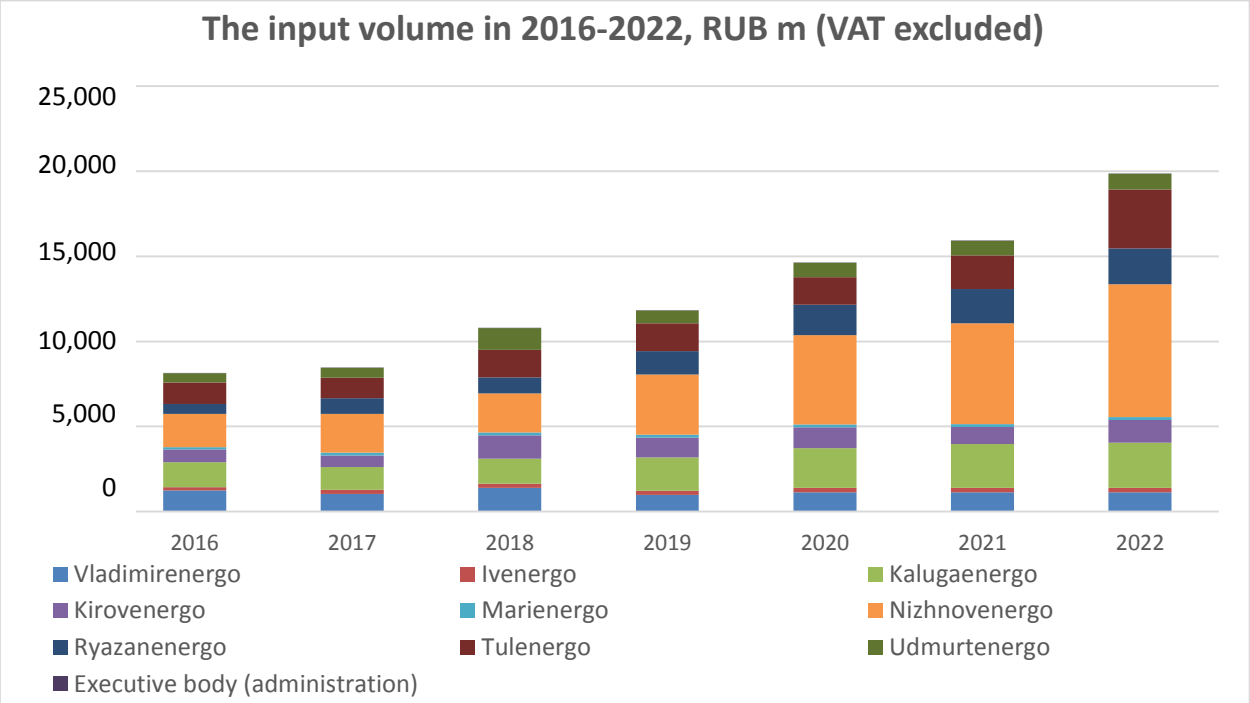
Long-term investment program financing for 2016-2022 is planned to total RUB 103,269 m.



In 2016-2022, capital investment will amount to RUB 88,320 m.



From 2016 through 2022 it is planned to commission fixed assets worth RUB 89,618 m; it is also planned to newly construct and renovate 26,985 km of power transmission lines and commission the transformer capacity of 4,277 MVA.



The Company witnesses the positive dynamics of its key indicators of the investment program (capital expenditures, financing, commissioning).

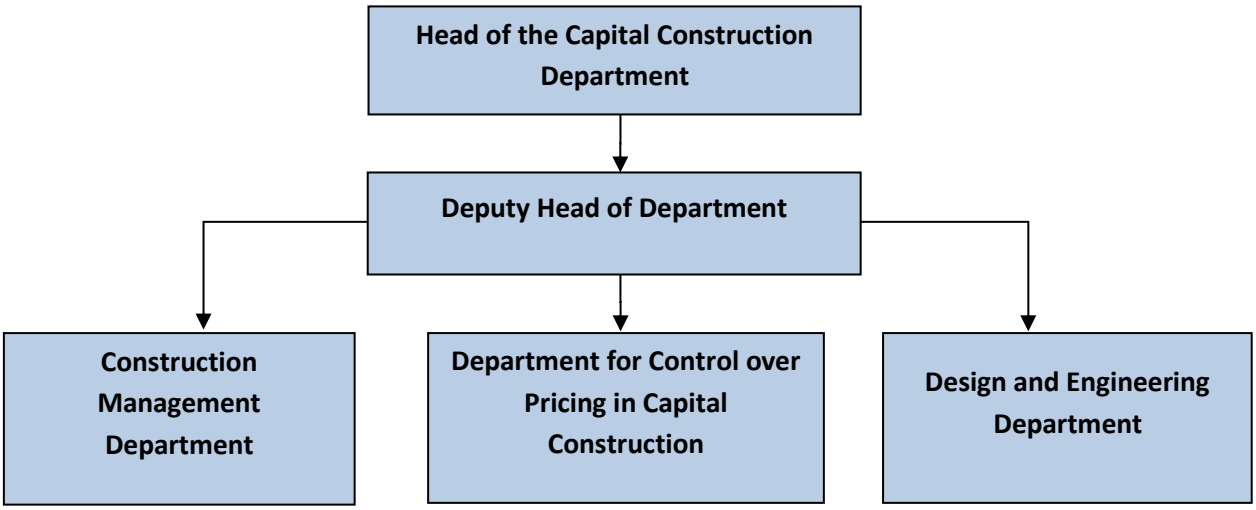
2.6.2. Capital Construction Quality Management

Construction Control

The Company exercises construction control to verify compliance of the work done with the design documentation, requirements of technical regulations, results of engineering surveying, requirements for urban planning regarding land plots in the process of construction, renovation, major repairs of capital construction facilities in accordance with the requirements of Article 53 of the Civil Code of the Russian Federation, and with the Decision of the Government of the Russian Federation No. 468 of June 21, 2010 "On the Procedure for Exercising Building Control When Carrying Out Construction, Re-Construction and Basic Repair of Capital Construction Objects".

Company's Resources Regarding Construction Control

The organizational and staffing structure of the Company does not include a special unit or service exercising construction control. Construction control is exercised by officers of the Capital Construction Directorate of branches and production departments. Capital Construction Directorates of branches are headed by Deputy Directors for Investment Activities of branches. They are to perform these functions in accordance with job descriptions and regulations of the departments. Organizational and supervisory functions, as well as methodological support are carried out by the Capital Construction Department of the Company's Executive Body; the Department is headed by A.V. Aksenov. The number of employees of the Capital Construction Department of the Company's Executive Body is 9 people; it is subordinate to the Deputy General Director for Investment Activities.



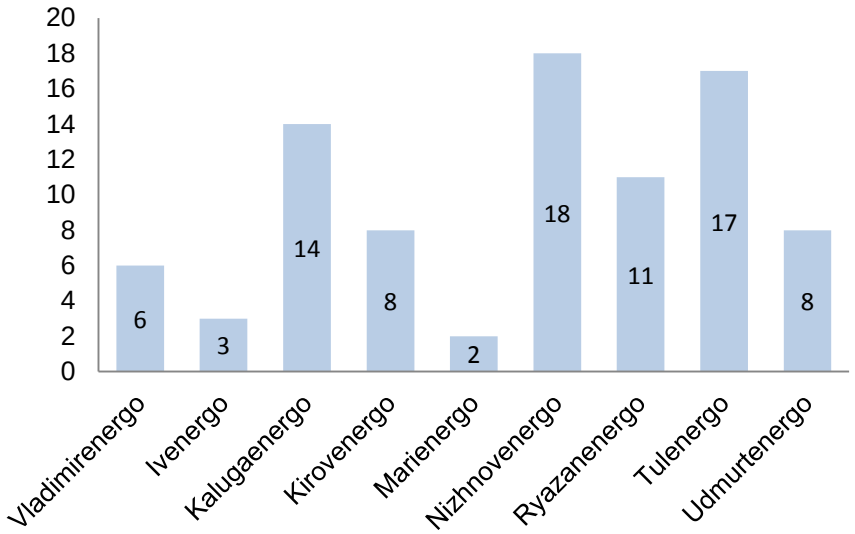
For the purposes of implementation and regulation of construction control, the Company introduced and implements the following organizational and regulatory documents: P 01-064 -2014 "Management System of JSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. Construction Control at Priority Investment Objects of Electrical Grid Facilities of JSC IDGC of Center and Volga Region and P 01-058-2014 "Management System of JSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. Construction Control during Construction, Renovation and Technical Re-equipment of Capital Construction Objects Included in Investment Programs of JSC IDGC of Center and Volga Region, R 01-046-2014 "Management System of JSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. Organization of Construction, Technical Re-equipment and Renovation of Electrical Grid Facilities of JSC IDGC of Center and Volga Region, K 01-005-2014 "Management System of JSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. Quality Management Concept for Capital Construction of JSC IDGC of Center and Volga Region, M 01-013-2014 "Management System of JSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. Confirmation and Acceptance of the Volume and Quality of Construction and Installation Carried Out by Construction Contractors at Electrical Grid Facilities of JSC IDGC of Center and Volga Region, P 01-065-2014, "Management System of JSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. On Checking the Readiness of Construction Contractors for Carrying Out Construction Contracts at Priority Investment Objects of Electrical Grid Facilities of JSC IDGC of Center and Volga Region, P 01-082-2015 "Management System of PJSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. On Preparing As-Builts and Producing Acceptance Documents at Electrical Grid Facilities of PJSC IDGC of Center and Volga Region, P 01-054-2015 "Management System of PJSC IDGC of Center and Volga Region". CAPITAL CONSTRUCTION. Regulations on the Procedure for Accepting and Putting into Operation Constructed Facilities of PJSC IDGC of Center and Volga Region, PR 01-028-2016 “Management System of PJSC IDGC of Center and Volga Region”. CAPITAL CONSTRUCTION. The procedure for assessing the conformity of the completed facilities of the power grid complex of PJSC IDGC of Center and Volga Region, R 01-081-2016 “Management System of PJSC IDGC of Center and Volga Region”. CAPITAL CONSTRUCTION. Implementation of investment projects of PJSC IDGC of Center and Volga Region

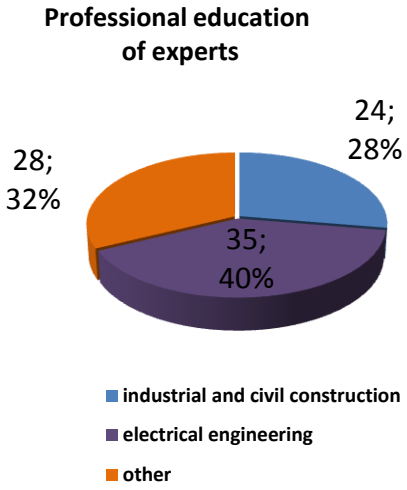
regarding the performance of survey and design works, execution of initial permissive documentation, performance of construction and assembly works".

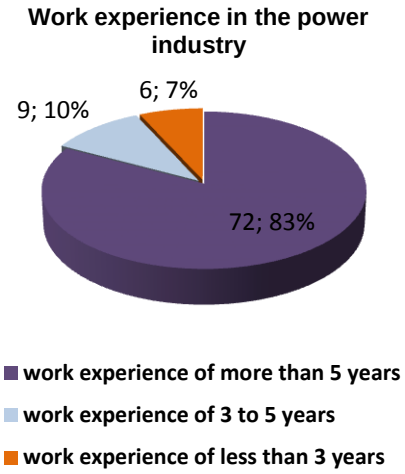
The Company exercised construction control based on SRO NP "Association of Organizations Carrying Out Construction, Renovation and Thorough Maintenance of Power Facilities, Grids and Substations "ENERGOSTROY" No. 0244.03-2012-5260200603-S-060 as of September 11, 2012, without limitation as to period of validity, and starting from May 23, 2016 – on the basis of the certificate of SRO Association – "Self-regulating organization – Interregional Industrial Association of Employers "Association of Organizations Carrying Out Construction, Renovation and Thorough Maintenance of Power Facilities, Grids and Substations "ENERGOSTROY" No. S-060-77-0127-52-230516 as of May 23, 2016, without limitation as to period of validity and validity area.

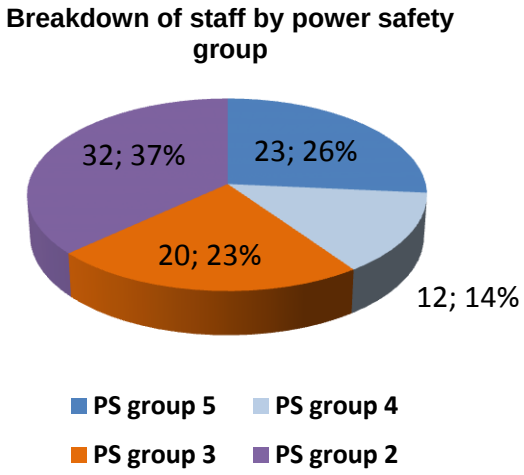
In 2016 construction control was carried out by 87 specialists of the Company's construction control, engaging the technical services staff (the total number of staff of the Capital Construction Directorate is 105 employees). To carry out independent construction control in 2016 in accordance with the agreement No. 2016/2403ke dated May 30, 2016 a contracting company JSC IDGC Research, Development and Engineering Center (JSC Technical Client Center) (IDGC RDEC (JSC TCC)) participating in the construction of the facility SS 220 kV Sozvezdie (stage 3) was engaged. Period of work execution under the Agreement: May-September 2016.

Breakdown of construction control staff by branch, 87 people total









2.6.3. Long-Term Development

Organization of Long-Term Development

The long-term development includes measures in the following areas:

- development of the grid infrastructure in order to satisfy long-term and mid-term demand for electric power and capacity;
- analysis of the load capacity of the power facilities and development of target measures to be included in the investment program in order to eliminate bottlenecks in branch power systems and to ensure technological connection to the Company's power grid;
- assessment of relevance of the current schemes and programs of long-term power grids development in the Company's branches, and coordination of long-term development schemes and programs with the executive authorities of the constituents of the Russian Federation;
- settlement of issues related to technological connection with PJSC FGC UES and the affiliated grid organizations;
- cooperation with generating companies to conclude agreements on technological connection of generating facilities to power grids;

- cooperation with PJSC FGC UES, PJSC SO UES, and the executive authorities of the RF constituents on synchronization of the terms of new construction and renovation of the power grid facilities;
- development of schemes for the external power supply of new and renovated facilities and assessment of feasibility of the suggested measures in order to guarantee the design and construction schedules;
- cooperation with local and federal executive authorities in the development of grid infrastructure.

Schemes and Programs of Long-Term Development

Schemes and programs of long-term development of power industry of the entities of the Russian Federation are developed in accordance with the Regulation of the Government of the Russian Federation No. 823 dated October 17, 2009, and are subject to approval by executive authorities of the entities of the Russian Federation for a five-year period.

Primary targets of long-term development schemes and programs in the power industry include developing grid infrastructure and generating capacities, satisfying long-term and mid-term demand for electric power and capacity, and forming a stable and favorable investment climate in the sphere of power facilities construction.

In 2016 development schemes and programs were elaborated for all regions within the footprint of PJSC IDGC of Center and Volga Region.

Pursuant to the order of PJSC IDGC of Center and Volga Region "On Schemes and Programs of Long-Term Development", the schemes and programs of long-term development of the regions where PJSC IDGC of Center and Volga Region operates were synchronized with the investment programs of its branches.

Specially designated work groups (coordinating councils) coordinate the schemes and programs of long-term development with the executive authorities of the entities of the Russian Federation. Coordinating councils are present in all entities of the Russian Federation within the area of the Company's operations.

In 2016 in accordance with the Order of PJSC Russian Grids dated August 25, 2015 No. 155 "On Improving the Quality of Power Grids Development Planning", the Company prepared a Comprehensive Program for development of power grids with the voltage of 35 kV and higher in the entities of the Russian Federation within the operations area of PJSC IDGC of Center and Volga Region, for the five-year period. The Comprehensive Program is synchronized with the Schemes and Programs of power industry development in the constituents of the Russian Federation within the operations area of PJSC IDGC of Center and Volga Region and with the Scheme and Program of Development of UES of Russia for 2016-2022 approved by Order of the Ministry of Energy of the Russian Federation No. 147 dated March 01, 2016.

Maps of Power Distribution among Branches of PJSC IDGC of Center and Volga Region

In order to adopt a unified approach to the issues concerning long-term development, territorial planning and implementation of investment projects of small and medium-sized enterprises (SMEs), the branches of PJSC IDGC of Center and Volga Region continued to improve power distribution maps developed earlier, which visualize the load level of 35-110 kV substations depending on their location.

Interactive maps contain data on supply points of 35 kV and higher, including current and prospective load of substations considering concluded contracts for technological connection of consumers. For power suppliers closed for technological connection, the period of restriction removal is indicated, taking into account the planned renovation of the power supplier.

Nizhnovenergo Branch of PJSC IDGC of Center and Volga Region developed an interactive map showing extended information on availability of the list of transformer substations with the voltage of 6-10/0.4 kV connected to the respective power suppliers of 35-110 kV.

Interactive maps are based on geodetic data, with an opportunity to scale from the entire region to individual settlements and streets.

Use of interactive maps enables online cooperation with administration of the entities of the Russian Federation and potential investors to coordinate power grid development depending on demand for power capacity.

The field of the interactive map of a branch containing a link to graphic data is located on the front page of PJSC IDGC of Center and Volga Region.

Top-Priority Facilities for the Purposes of Long-Term Development

For the purposes of developing power systems of the entities of the Russian Federation within the operations area of PJSC IDGC of Center and Volga Region, ensuring reliable power supply to consumers, facilitating sustainable functioning of the energy system of the regions in the medium term, eliminating the existing (projected) restrictions on supply to consumers, meeting the demand for electricity, as well as implementing long-term development programs and achieving strategic goals in terms of electric power in the branches of PJSC IDGC of Center and Volga Region, in 2016, the following power facilities were commissioned:

At the Vladimirenergo Branch, the new SS 110 kV Vorsha with 2 transformers with a capacity of 63 MVA each was put into operation. The construction of SS 110 kV Vorsha will allow ensuring technological connection of a major plant producing buses and special-purpose machinery using natural gas motor fuel, which is currently under construction in Sobinsky district of the Vladimir Region, as well as other regional consumers.

In the Vladimir Region, to ensure reliable power supply to consumers, as well as to meet the need for the technological connection of new consumers, especially of the galvanized steel production plant in the City of Murom, the renovation of SS 110 kV Borisovskaya with the replacement of a T-1 transformer with a capacity of 10 MVA by that of 16 MVA was carried out.

At the Kalugaenergo Branch, in order to ensure the possibility of technological connection of the residential district Koshelev Project and the projected housing estate Vesnushki in the southeastern part of the City of Kaluga on the right shore of the Oka river, a new SS 110 kV Verkhovaya with a transformer with a capacity of 25 MVA was put into operation.

At the Kirovenergo Branch, to ensure power supply to the residential district Chistiye Prudy which is under construction in the southern part of the City of Kirov the SS 35 kV Chistiye Prudy with 2 transformers with a capacity of 10 MVA each was put into operation.

At the Nizhnovenergo Branch, to ensure reliable power supply to consumers in the Vyksun District of the Nizhny Novgorod Region, as well as to meet the need for the technological connection of new consumers, the SS 35 kV Vilya with a transformer with a capacity of 4 MVA was put into operation.

At the Ryazanenergo Branch, to ensure reliable power supply to consumers in the City of Ryazan, as well as to meet the need for the technological connection of new consumers, the renovation of SS 110 kV Pechatnaya with the replacement of a T-2 transformer with a capacity of 40 MVA by that of 63 MVA was carried out.

At the Tulenergo Branch, to ensure reliable power supply to consumers in the City of Tula, as well as to meet the need for the technological connection of new consumers, the renovation of SS 110 kV Tsentralnaya with the replacement of a T-1 transformer with a capacity of 25 MVA by that of 40 MVA was carried out.

Technological connection of generating facilities

In the operations area of PJSC IDGC of Center and Volga Region, there are two major generating companies whose generating facilities were connected to the power grids of PJSC IDGC of Center and Volga Region: PJSC T Plus and PJSC Quadra.

Largest Generating Companies of the Company's Footprint

Generating company	Company branches	Power plant	Installed capacity	Location
PJSC T Plus	Ivenergo Vladimirenergo Nizhnovenergo Marienergo Kirovenergo Udmurtenergo	Ivanovskaya CHPP-2	200 MW	Ivanovo
		Ivanovskaya CHPP-3	330 MW	Ivanovo
		Vladimirskaya CHPP-2	596 MW	Vladimir
		Novogorkovskaya CHPP	548.3 MW	Kstovo Nizhny Novgorod Region
		Sormovskaya CHPP	350 MW	Nizhny Novgorod
		Dzerzhinskaya CHPP	565 MW	Dzerzhinsk, Nizhny Novgorod Region
		Kirovskaya CHPP-3	258 MW	Kirovo-Chepetsk, Kirov Region
		Kirovskaya CHPP-4	353 MW	Kirov
		Kirovskaya CHPP-5	450 MW	Kirov
		Izhevskaya CHPP-1	290 MW	Izhevsk
		Izhevskaya CHPP-2	390 MW	Izhevsk
		Sarapulskaya CHPP	10.7 MW	Sarapul Udmurt Republic
		Yoshkar-Olinskaya CHPP-1	195 MW	Yoshkar-Ola
JSC Volga	Nizhnovenergo	Nizhegorodskaya SDPP	112 MW	Balakhna Nizhny Novgorod Region
EuroSibEnergo	Nizhnovenergo	LLC Avtozavodskaya CHPP	580 MW	Nizhny Novgorod
PJSC Kvadra	Ryazanenergo, Tulenergo, Kalugaenergo	Dyagilevskaya CHPP	236.5 MW In 2016 126.5 MW were commissioned.	Ryazan
		Novomoskovskaya SDPP	323.65 MW	Novomoskovsk Tula Region
		Kaluzhskaya CHPP-1	41.8 MW	Kaluga
		Yefremovskaya CHPP	160 MW	Yefremov, Tula Region
		Aleksinskaya CHPP	62 MW	Aleksin, Tula Region
JSC INTER RAO– Electric PowerPlants	Tulenergo	Cherepetskaya SDPP	450 MW	Suvorov, Tula Region

	Ivenergo	Ivanovskiye CCGTs	325 MW	Komsomolsk, Ivanovo Region
PJSC WGC-2	Ryazanenergo	Ryazanskaya SDPP	3,130 MW	Novomichurinsk, Ryazan Region
LLC Novoryazanskaya CHPP	Ryazanenergo	Novoryazanskaya CHPP	425 MW	Ryazan
PJSC RusHydro	Nizhnovenergo	Nizhegorodskaya HPP	520 MW	Zavolzhye, Nizhny Novgorod Region
LLC Shechekinskaya SDPP	Tulenergo	Shchekinskaya SDPP	400 MW	Sovetsk, Tula Region
Pervomayskaya CHPP JSC Shekinoazot	Tulenergo	Pervomayskaya CHPP	105 MW	Urban-type village Pervomayskiy, Tula distruct.

In 2016, the obligations regarding technological connection of Dyagilevskaya CHPP (PJSC Quadra) were fulfilled. For the purpose of the project implementation, PJSC IDGC of Center and Volga Region constructed two PTLs 110 kV from 110 kV switchgear of Dyagilevskaya CHPP to connection to OL 110 kV Dyagilevo - Yamskaya with sealing off, and two PTLs 110 kV from 110 kV switchgear of Dyagilevskaya CHPP to connection to OL 110 kV Dyagilevo - Ryazan with sealing-off to SS Pechatnaya.

The implementation of technological connection of power units of the Avtozavodskaya CHPP was moved by the owner of LLC Avtozavodskaya CHPP to 2021.

Technological Connection to UNEG

In 2016, PJSC IDGC of Center and Volga Region continued operations to implement technological connection of new construction and renovation projects of the Company to UNEG power grids. Over the past year, the Company drafted and submitted to PJSC FGC UES 6 applications for technological connection to UNEG. 22 contracts for technological connection to UNEG power grids are being implemented, 4 of them were entered into in 2016.

In 2016, technological connection of the following objects to the UNEG grids was carried out:

- new SS 110 kV Vorsha with 2 transformers with a capacity of 63 MVA each in the Vladimir region;
- new SS 110 kV Verkhovaya with a transformer with a capacity of 25 MVA in the city of Kaluga;
- the existing SS 110 kV GAST-2 with the increase of its maximum capacity in Nizhniy Novgorod;
- new SS 35 kV Chistye Prudy with 2 transformers with a capacity of 10 MVA each in the City of Kirov;
- generating units of the Dyagilevskaya CHPP with a capacity of 126.5 MW and the existing SS 110 kV Pechatnaya with the increase of its maximum capacity in Ryazan region;
- the existing SS 110 kV Centralnaya with the increase of its maximum capacity in the City of Tula;
- the existing SS 110 kV Ludzinka and SS 110 kV Pyzep with the increase of the maximum capacity in the Republic of Udmurtia.

In 2016, alignment of investment programs of PJSC FGC UES and PJSC IDGC of Center and Volga Region in terms of coordination of duration of investment projects, as well as operations on relay protection and automation equipment and emergency control equipment at transmission lines 110 kV was carried out.

Implementation of Federal Target Programs

In compliance with Federal Law No. 161 - FZ "On Facilitation to Housing Construction Development" dated July 24, 2008, the Company cooperates with the Agency for Housing Mortgage Lending (JSC AHML) in developing grid infrastructure and technological connections to the power grids of PJSC IDGC of Center and Volga Region.

The Company developed the scenarios of power supply to the capital construction facilities on land plots owned by JSC AHML:

- Vladimir Region. Land plots in the City of Vladimir and Sudogodsky district of Vladimir region;
- Ivanovo Region. Land plots in the City of Ivanovo;
- Kaluga Region. Land plots in the City of Kaluga;
- Kirov Region. Land plots in the City of Kirov;
- Nizhny Novgorod Region. Land plots in the City of Nizhny Novgorod, the City of Dzerzhinsk, and Kstov district of Nizhny Novgorod Region.

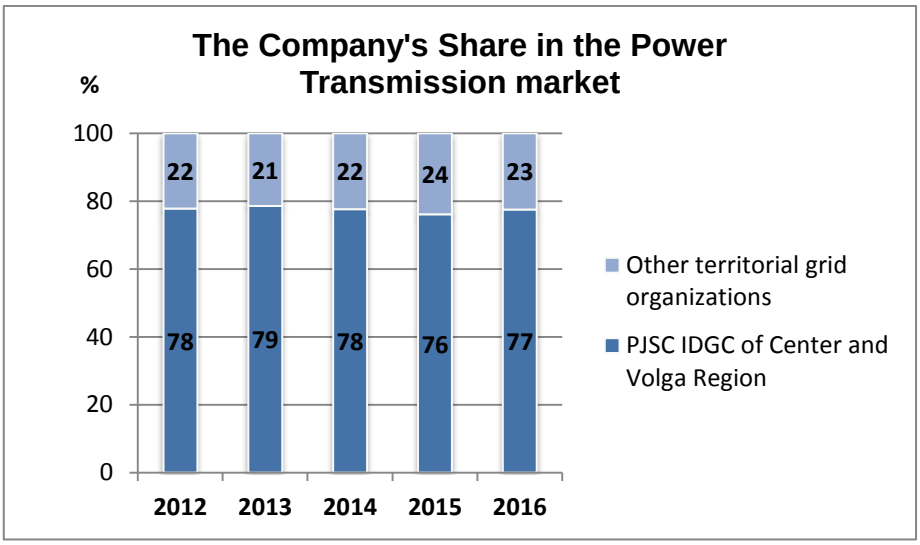
In the framework of the Agreement on Cooperation between the Ministry of Agriculture of the RF, PJSC Rosseti, and PJSC IDGC of Center and Volga Region dated June 28, 2016, options of technological connection of investment projects on construction, reconstruction, and modernization of greenhouse complexes to the power grids were suggested, with indications of preliminary activities, timing and costs of technological connection. Special attention is given to the Torchino Agricultural Production Corporation LLC with a planned technological connection capacity of 10.56 MW in the Vladimir region.

3. Report on production

3.1. Overview

The core business of PJSC IDGC of Center and Volga Region includes:

• **Power transmission services** using the power grid facilities of the Company (hereinafter, the Grids) with a voltage ranging within 220-0.4 kV (the facilities are owned by the Company or belong to it on other legal grounds).



• **Rendering the services of technological connection** to the Company's power grids. The share of the Company in the technological connection market in the footprint area within the last three years is 90%.

• **Other activities.** Other activities of the Company include technical maintenance and repairs of power grid facilities of other entities, power equipment testing, repairs and replacement of power metering devices, property lease, services of advertisement and telecommunications equipment placement at power grid facilities, etc.

Features of the Company's assets

The main business asset of the Company is the power supply facilities.

Facilities under the Company's management include:

- 1,553 high-voltage supply points with the voltage of 35/110/220 kV, with total capacity of 30.13 ths MVA;
- 271.18 ths km of distribution power grids, including:
  - 263,530 km of 0.4-220 kV overhead electric lines;
  - 7,652 km of cable lines with the voltage of 0.4-110 kV;
- 62,604 transformer substations of 6-35/0.4 kV;
- 573 distributing points of 6-10 kV.

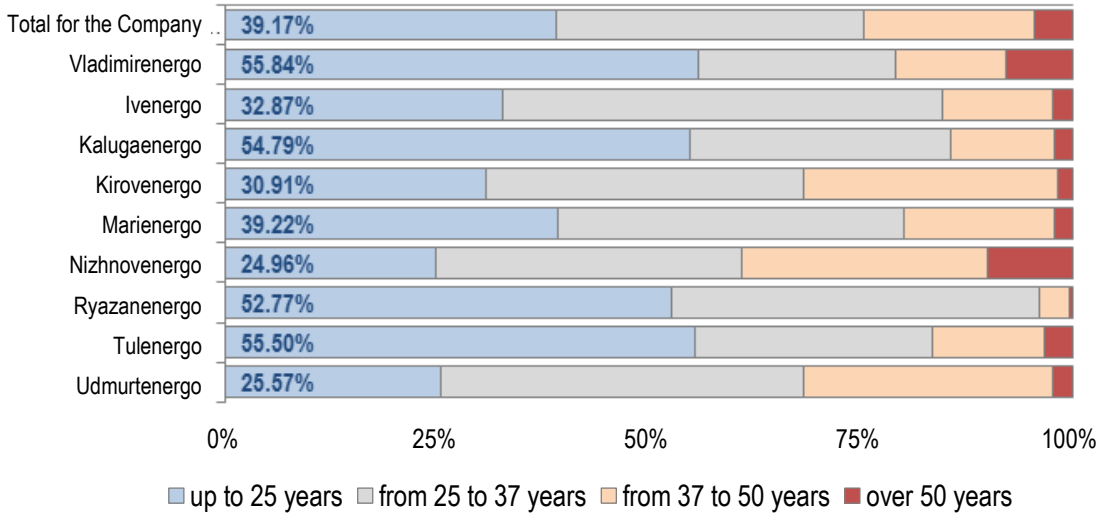
Features of the Electrical Grid Facilities as of December 31, 2016

Indicator	UOM	2012	2013	2014	2015	2016	2016/2015 (absolute increase)	2016/2015 (relative growth), %
Number of SS of 35 kV and higher	pcs.	1,550	1,551	1,552	1,552	1,553	1	0.1
Capacity of SS of 35 kV and higher	ths MVA	29.47	29.67	29.82	29.96	30.13	0.17	0.6
Number of TSS (DSS) 6-35/0.4 kV	pcs.	60,677	61,460	62,149	62,600	63,177	577	1
Length of power transmission line circuits	km	265,477	267,260	268,944	270,067	271,182	1,115	0.5
Length of power transmission line routes	km	255,068	256,816	258,408	259,461	260,525	1,064	0.5
Output to grid	m kWh	59,683	58,848	54,956	53,535	53,963	428	0.80
Productive supply	m kWh	54,236	53,582	49,882	48,676	49,121	445	0.91
Total losses	m kWh	5,446	5,266	5,074	4,860	4,843	-17	-0.35
Total losses	%	9.13	8.95	9.23	9.08	8.97	-0.11 p.p.*	-1.14
Power connected under technological connection contracts	MW	697.05	1,182.87	1,344.50	1,154.72	1,088.32	-66.40	-5.75

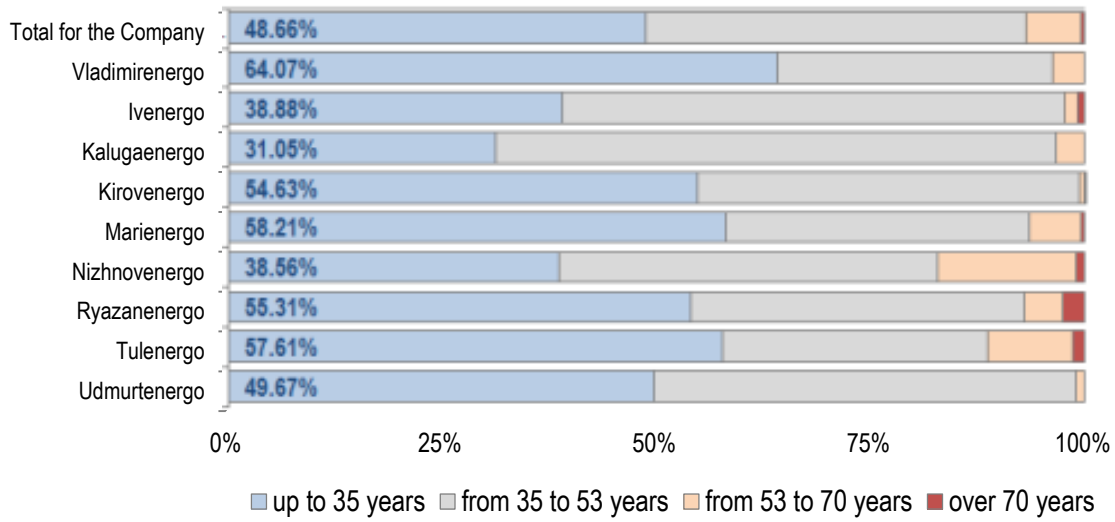
Note: 0.11 p.p. – 0.11 percentage points.*

Age composition of equipment

Power transmission lines



Substations equipment (power transformers)



Technical condition of the equipment and equipment failure risks analysis

Technical condition

Failure effects

	Good	Sufficient	Insufficient	Unsuitable
High	0.09%	0.04%	0.002%	0.004%
Medium	0.44%	0.21%	0.02%	0.01%
Low	1.16%	0.49%	0.05%	0.04%
Irrelevant	52.26%	41.15%	2.57%	1.46%

3.2. Power Transmission

The key income-generating activity of PJSC IDGC of Center and Volga Region is the provision of services for power transmission to regional consumers. This activity accounts for 98.6% of the Company's revenue (98.6% in 2015).

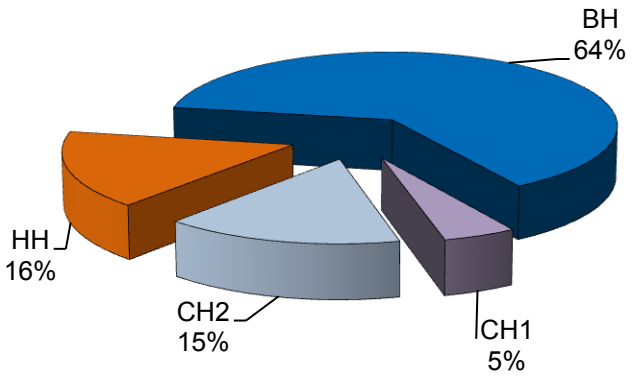
In 2016, the total of 53,963 m kWh of power was supplied to the Company's grids from the grids of PJSC FGC UES, from power generating companies and related grid companies. The Company transmitted 49,121 m kWh out of the above amount to consumers and territorial grid companies. Energy losses amounted to 4,843 m kWh, or 8.97% of the power supplied to the grids of PJSC IDGC of Center and Volga Region.

49,121 m kWh
productive supply in 2016

In 2016, losses in the grids amounted to
8.97%
(Russian average is 10 %)

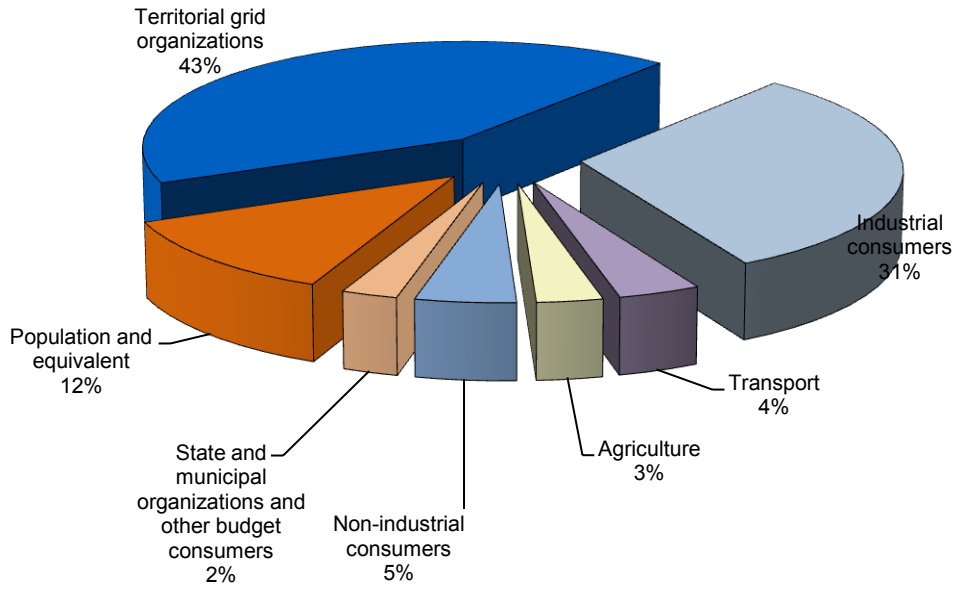
Analysis of the Company's production performance in 2016 is shown in Supplement 3 to the Annual Report.

The Company's power supply in 2016
by consumer groups



In 2016, the largest share in the total productive supply from the Company's grids is traditionally taken by territorial grid organizations (43%), industrial consumers (31%) and the population (12%). The percentage of consumers by all groups has been stable over the years.

The structure of power supply from the Company's grids in 2016, by voltage of electric grids (according to the economic balance sheet)



All the aforesaid may as well be applied to the structure of consumption of productive supply by voltage, where maximum percentage falls within high-voltage power transmission (64%) due to large share of heavy industrial consumers.

Dynamics of power transmission services rendered in 2015–2016

Branch	Volume of energy transmission services rendered							
	2015		2016		Change 2016/2015			
	m kWh	RUB m	m kWh	RUB m	m kWh	%	RUB m	%
Vladimirenergo	5,200	8,364	5,329	9,557	129	2	1,193	14
Ivenergo	2,685	2,534	2,760	3,036	75	3	501	20
Kalugaenergo	4,132	7,535	4,278	8,384	146	4	849	11
Kirovenergo	5,069	7,323	5,050	8,093	-19	0	770	11
Marienergo	1,805	2,704	1,869	3,414	64	4	711	26
Nizhnovenergo	12,469	17,765	12,345	20,754	-124	-1	2,989	17
Ryazanenergo	4,012	6,309	4,111	7,046	99	2	737	12
Tulenergo	5,190	9,352	5,329	10,349	139	3	997	11
Udmurtenergo	7,338	6,051	7,375	6,754	37	1	703	12
Total for the Company	**47,901**	**67,938**	**48,446**	**77,387**	**546**	**1**	**9,448**	**14**

As of the end of 2016 the volume of power transmission services rendered by PJSC IDGC of Center and Volga Region amounted to 48,446 m kWh, which is 546 m kWh, or 1%, more than in 2015 (47,901 m kWh).

The main reasons of the fluctuation are as follows:

- the growth of energy consumption by the largest consumers in the Company's regional footprint, including LLC Gazprom Transgaz Nizhny Novgorod (+479 m kWh), JSC SchekinoAzot (+34 m kWh), LLC LUKOIL-Nizhegorodnefteorgsintez (+41 m kWh);
- the growth of energy consumption by the population and equivalent consumer categories in all branches (+413 m kWh);
- decrease in energy consumption in part of other consumers, including regions' largest consumers (-421 m kWh).

Given the above-mentioned increase in the volume of services, the revenue from power transmission services in 2016 amounted to RUB 77,387 m, which is 14% higher than that in 2015, due to the growth of 'boiler' tariffs.

Actual power losses in 2015–2016

Branch	Total power losses				Dynamics of losses	
	2015		2016		2016/2015	
	m kWh	%, reported	m kWh	%	m kWh	%, reported
Vladimirenergo	579	9.98	578	9.78	-1	-0.2
Ivenergo	121	4.18	130	4.38	9	0.2
Kalugaenergo	685	14.15	692	13.87	8	-0.3
Kirovenergo	348	6.37	361	6.59	13	0.2
Marienergo	176	8.29	173	7.95	-3	-0.3
Nizhnovenergo	1,715	11.83	1,667	11.62	-49	-0.2
Ryazanenergo	272	6.29	273	6.20	1	-0.1
Tulenergo	563	9.58	572	9.46	8	-0.1
Udmurtenergo	399	5.20	396	5.18	-3	0.0
Total for the Company	**4,860**	**9,08**	**4,843**	**8.97**	**-17**	**-0.11**

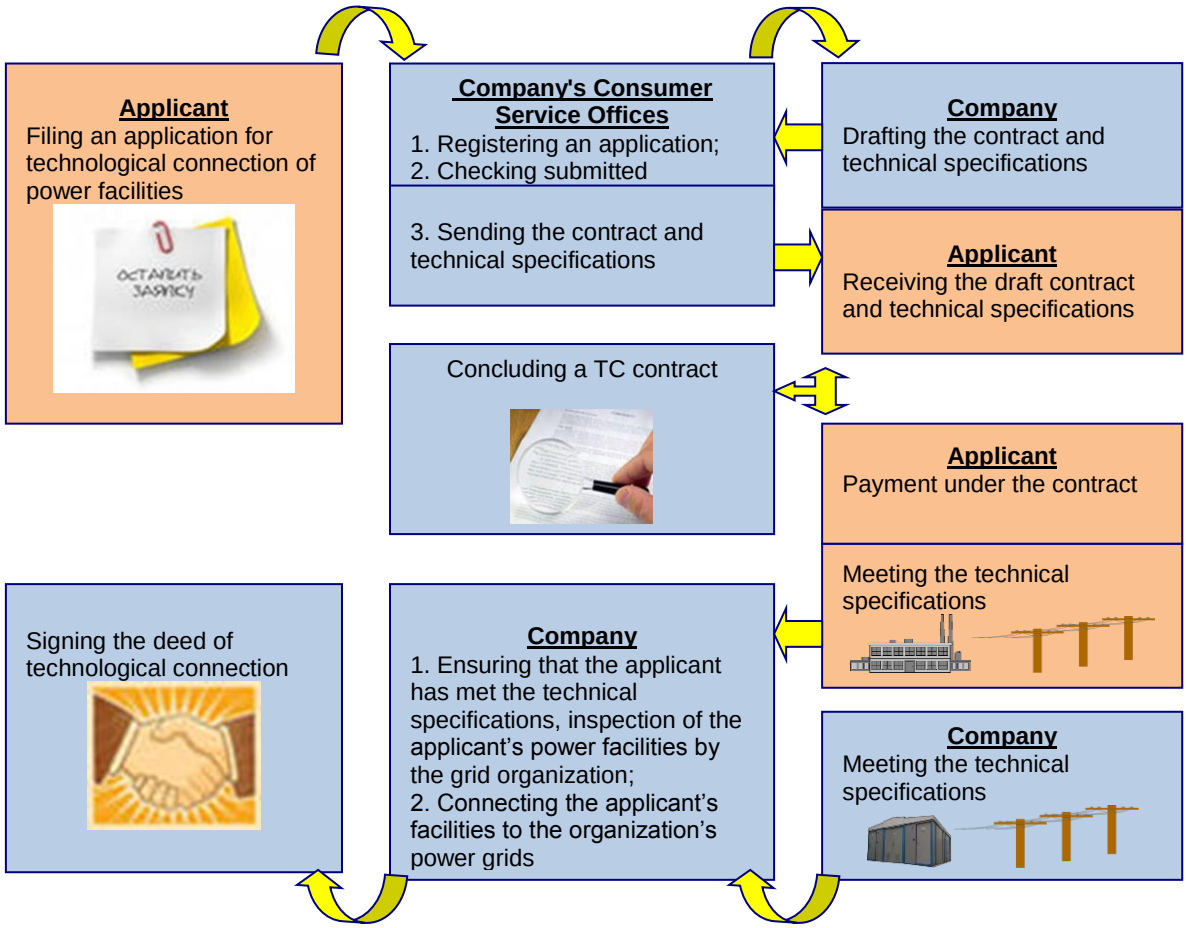
Actual losses in 2016 against 2015 decreased by 0.11 percentage points, or 17 m kWh.

The consumption of electric energy from the grids of PJSC IDGC of Center and Volga Region by 10 major consumers

No.	Branch	Consumer	Consumption volume, m kWh	Share, %
1.	Vladimirenergo Kalugaenergo Kirovenergo Nizhnovenergo Ryazanenergo Tulenergo Udmurtenergo	JSC RZD	3,042	6.2
2.	Nizhnovenergo, Marienergo	Gazprom Transgaz Nizhny Novgorod LLC (gas transmission)	1,098	2.23
3.	Vladimirenergo Ivenergo Kirovenergo Marienergo Nizhnovenergo Ryazanenergo Udmertenergo	JSC Transneft (oil pumping)	1,022	2.08
4.	Udmurtenergo	JSC Belkamneft	983	2.00
5.	Kirovenergo	JSC United Chemical Company URALCHEM	788	1.60
6.	Nizhnovenergo	JSC Volga Balakhninsky Paper Mill	567	1.15
7.	Nizhnovenergo	LLC LUKOIL-Nizhegorodnefteorgsintez	525	1.07
8.	Ryazanenergo	CJSC Ryazan Refining Plant	423	0.86
9.	Udmurtenergo	JSC Izhstal	387	0.79
10.	Tulenergo	Cargill Ltd.	232	0.47
Total for 10 largest consumers			**9,056**	**18**
Total productive supply of PJSC IDGC of Center and Volga Region in 2016			**49,121**	**100**

3.3. Technological Connection to Grids

All the Company's branches use the following procedure to conduct technological connection of an applicant's power facilities to the Company's power grids.



In 2016 for the purpose of accomplishing the plan of action on "The increase of power infrastructure accessibility" approved by the Decree of the Government of the Russian Federation No. 1144-r dated June 30, 2012 the following initiatives have been implemented:

- The "User Account" section of the Company's website has acquired wider options for filing applications for technological connection of facilities with a capacity of up to 150 kW for the applicants of the second power supply safety category;
- The following changes have been introduced to the business process concerning technological connection in accordance with the changes approved by acts of legislation:
  - ✓ If additional data is submitted, draft contracts are delivered within shorter standard terms.
  - ✓ Power receivers of the applicants get clearance for operation by notification in case if the applicants are legal entities or private entrepreneurs and need up to 150 kW in category two.
- A number of obligations to a grid organization have been fulfilled using own resources in order to cut the time for the performance of actions under the technological connection contracts;
- 30 public meetings have been held with the consumers and potential applicants concerning the questions of information provision on the procedure of access to power grid infrastructure in each region;

- Information on the quality of the provided services for the reporting period has been placed on the website;
- On the website of the Company a section "Unloaded Substations" was created with the indication of the substations' addresses;
- Information on technological connection was placed on the power grid services website of PJSC Rosseti (website address: Портал-тп.рф)
- Technological connection services passports have been updated.

The changes implemented by the Company in accordance with the Roadmap simplify and accelerate the procedure for technological connection to power grids and make it more accessible.

Over 5 years of operation, PJSC IDGC of Center and Volga Region received 307,995 applications for technological connection of power receivers with the total capacity of 13,415 MW. The customer contract demand and the number of applications over 5 years by branches are shown in Supplement 3 to the Annual Report.

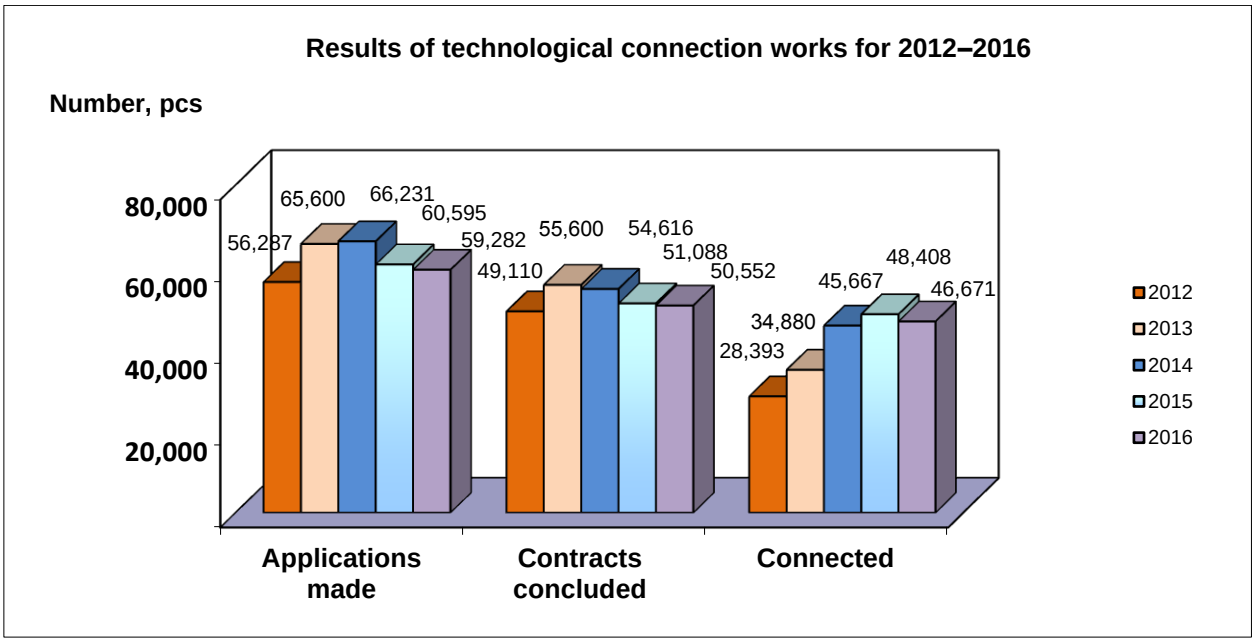
From 2010 to 2016, the Company signed 260,966 contracts for technological connection of power receivers with the total capacity of 6,966 MW.

Over this period of operation, 204,019 facilities of consumers were connected to the Company's power grids, with the total capacity of 4,422 MW.

The dynamics of demand and connected power over 5 years (exclusive of applications for technological connection of generating facilities and temporary technological connection) are given in the table and the diagram below.

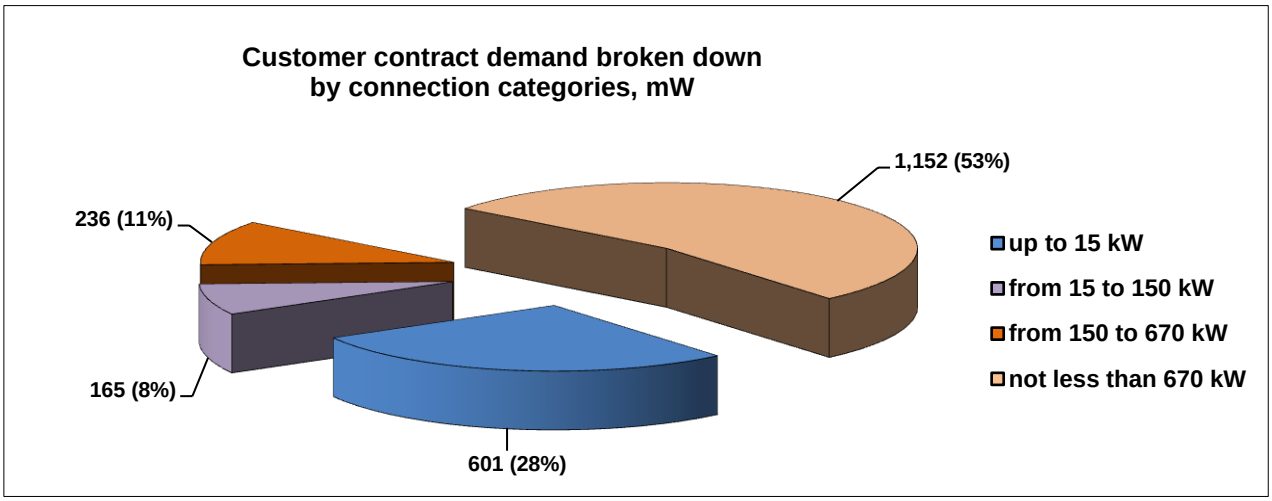
Dynamics of demand for capacity and the volume of connected capacity of power receivers in 2012–2016

Year	Number of applications for technological connection				Number of contracts concluded				Number of connections			
	pcs.	Change, %	MW	Change, %	pcs.	Change, %	MW	Change, %	pcs.	Change, %	MW	Change, %
2012	56,287		2,061		49,110		1,429		28,393		613	
2013	65,600	↑ 17	3,096	↑ 50	55,600	↑ 13	1,453	↑ 2	34,880	↑ 23	764	↑ 25
2014	66,231	↑ 1	3,486	↑ 13	54,616	↓ -2	1,596	↑ 10	45,667	↑ 31	1,018	↑ 33
2015	60,595	↓ -9	2,618	↓ -25	51,088	↓ -6	1,289	↓-19	48,408	↑ 6	1,065	↑ 5
2016	59,282	↓ -2	2,154	↓ -18	50,552	↓ -18	1,199	↓- 7	46,671	↓ -4	962	↓-10



The volume of applications for technological connection of the applicants' power receivers in 2016 increased by 5% as against 2012. The number of concluded technological connection contracts increased by 3%, and the number of fulfilled agreements increased by 64%.

The following diagram shows the customer contract demand in 2016 according to the applications of the current year, by connection category (exclusive of generating facilities and temporary technological connection).



Overall, the largest amounts of customer contract demand in the Company (53% and 28%) are attributable to the connection categories 'not less than 670 kW' and 'up to 15 kW', respectively; the smallest one (8%) – to the connection category 'from 15 to 150 kW'.

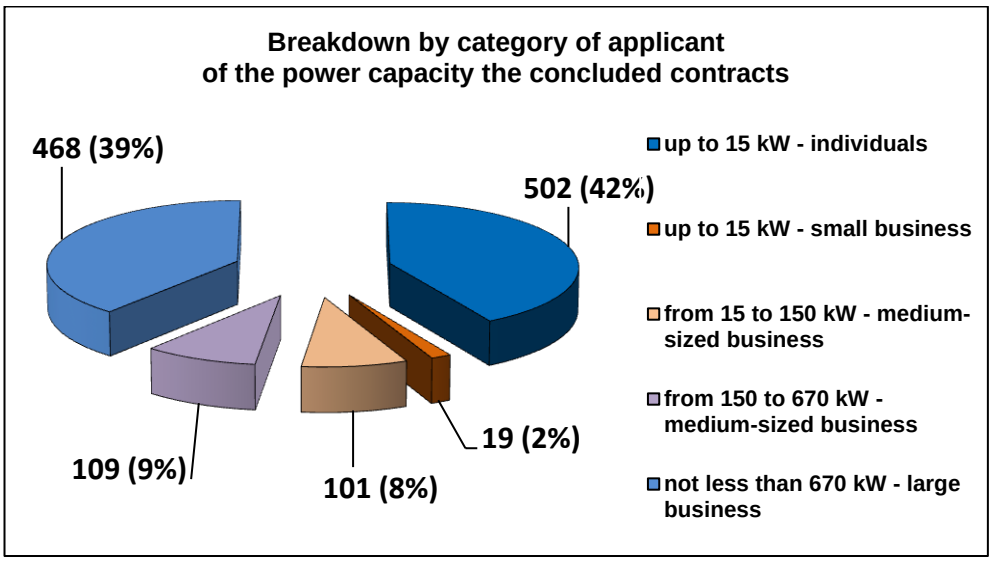
The breakdown of customer contract demand by economic activities in 2016 is shown in Supplement 3 to the Annual Report.

In 2016, the Company received 4 applications for technological connection of generating facilities with the total capacity of 8.87 MW and 542 applications for temporary technological connection with the total capacity of 13.98 MW.

In 2016, the Company signed 50,552 contracts on technological connection of power receivers with the total capacity of 1,199 MW, 94% of which were concluded with individuals or legal entities requiring

capacity of up to 15 kW and categorized as ‘preferential’ consumers. A comparative analysis of the number and power range of concluded contracts by connection category is shown in Supplement 3 to the Annual Report.

The breakdown of capacity under concluded contracts by categories of applicants in 2016 (except for generating facilities and temporary technological connection) is shown in the following diagram.



The largest volume of capacity under signed contracts 42% and 39% falls within the connection categories ‘up to 15 kW – individuals’ and ‘not less than 670 kW – large business’, and the smallest volume – within the category ‘up to 15 kW – small business’.

The breakdown of the number of contracts concluded in 2016 by connection category and dynamics of the number of concluded contracts for technological connection and their capacity over 5 years are shown in Supplement 3 to the Annual Report.

In 2016, the Company signed 2 contracts for technological connection of generating facilities with the total capacity of 2.25 MW and 465 contracts for temporary technological connection with the total capacity of 10.16 MW.

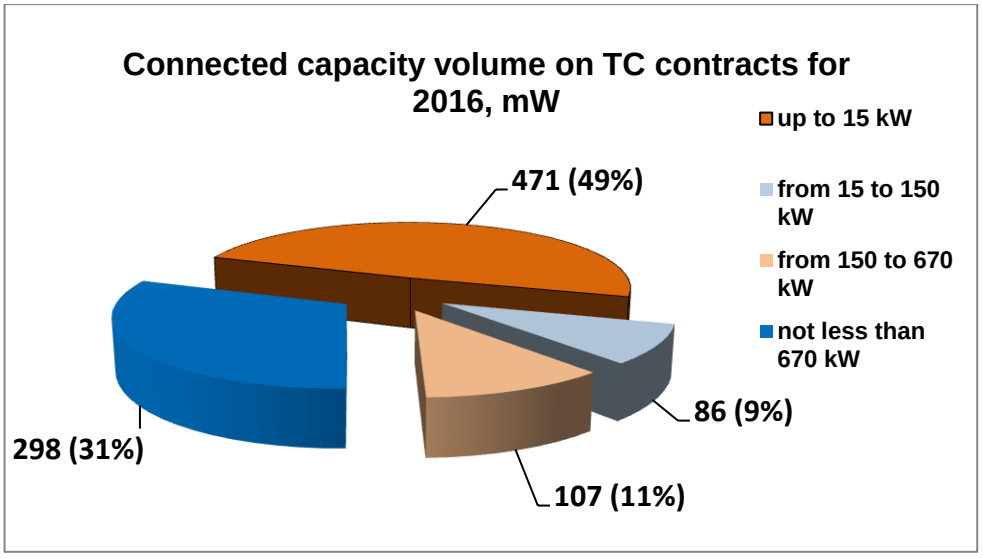
The breakdown of the number of connections and capacity connected within 5 years (except for generating facilities and temporary technological connection) by the Company's branches is shown in the table below.

Number of connections and capacity connected

Name of the branch	Data on connections									
	2012		2013		2014		2015		2016	
	pcs.	MW	pcs.	MW	pcs.	MW	pcs.	MW	pcs.	MW
Vladimirenergo	2,924	59.74	4,032	92.21	4,468	104.19	5,735	119.65	5,173	114.84
Ivenergo	822	21.06	808	17.52	1,551	67.95	1,608	40.36	1 267	37.93
Kalugaenergo	3,977	81.90	3,752	112.10	7,184	173.07	8,528	199.98	7,835	149.10
Kirovenergo	3,171	87.71	3,396	86.55	4,959	87.86	3,634	71.28	3,383	61.25
Marienergo	1,718	22.83	1,871	28.73	2,171	28.56	2,053	29.97	2,044	27.97
Nizhnovenergo	6,882	140.34	9,275	158.61	11,239	215.82	11,005	234.12	11,093	222.96
Ryazanenergo	2,601	49.55	3,211	75.73	4,835	107.92	4,392	116.55	3,051	107.37
Tulenergo	3,169	84.44	4,789	118.08	5,115	142.17	7,478	161.85	8,652	139.30
Udmurtenergo	3,129	64.98	3,746	74.75	4,145	89.96	3,975	90.96	4,173	101.10
Total for the Company	28,393	613.55	34,880	764.27	45,667	1,017.50	48,408	1,064.72	46,671	961.82

The data on capacity connected (planned/actual) and the number of connections (planned/actual) over 5 years of the Company's operation, taking into account generating facilities and temporary technological connection, are shown in Supplement 3 to the Annual Report.

The breakdown of capacity by connection category (except for generating facilities and temporary technological connection) is shown in the diagram.



The highest connected power under fulfilled contracts for technological connection falls within the connection categories of 'up to 15 kW' and 'at least 670 kW', namely, 471 MW and 298 MW, respectively.

In 2016, 1 contract for technological connection of a generating facility with the capacity of 126.5 MW and 341 contracts for temporary technological connection with the total capacity of 8.3 MW were fulfilled. The details on the connection of the generating facility can be found in the "Prospective development" part of the Annual Report.

The data on terminated contracts and refusals from offers are shown in Supplement 3 to the Annual Report.

Details on technological connection, including the number of applications and the amount of connected capacity, the amount and range of capacity under concluded contracts, the volume of

connected capacity, achievement of target volumes pertaining to technological connection are shown in Supplement 3 to the Annual Report.

During implementation of the investment program of PJSC IDGC of Center and Volga Region in 2012-2016, the number of power supply points, which were subject to limitation on extra capacity connection, reduced by 33 facilities from 95 pcs. At the beginning of 2017, 62 power supply points are still subject to limitation of extra capacity connection.

3.4. Other Activities

In order to use current resources more efficiently, the Company provides additional services to individuals and entities on a commercial basis.

Other activities of PJSC IDGC of Center and Volga Region include technical maintenance and repairs of power grid facilities of third-party entities, power equipment testing, repairs and replacement of power metering devices, property lease, services of telecommunications equipment placement at power grids facilities, etc.

Share of the other activities in total revenue for 2016 amounted to 0.3 %, including 0.2% of industrial services. The volume of revenue from other activities for 2016 amounted to RUB 234 m, including industrial services for RUB 155 m, the amount of gross profit was RUB 99 m, including RUB 50 m for industrial services.

3.5. Innovative Development

The Innovative Development Program of the Company for 2016-2020 (hereafter 'the Program') was formed with due regard to the approved Investment Program of the Company for 2016-2020 (approved by Order of the Ministry of Energy of the Russian Federation No. 1334 dated December 16, 2016) and is being prepared for submission to the Board of Directors of the Company.

The Program is implemented at the expense of the Company. The costs of measures taken in the key areas of innovative development in 2016 are indicated in the table below.

Performance Indicator	UOM	2016
Costs of research and development provided by third parties, including by provider (HEIs, research organizations, innovative companies: small- and medium-sized enterprises)	RUB ths	24,167.99
including projects implemented within the framework of:		
• technological platforms	RUB ths	0.00
• higher educational institutions (HEIs)	RUB ths	0.00
• research organizations	RUB ths	0.00
Purchase costs of innovative products (technologies, solutions, goods, works, services identified in the approved Innovative Development Program of the Company)	RUB ths	311,580.05

In 2016, financing of the Program amounted to RUB 344.29 m, while the plan actually was RUB 343.92 m; thus, implementation was 100.1% of the planned number.

The Program determines the objective of the Company's innovative development as transition to power grids based on new technologies with qualitatively new features in terms of reliability, efficiency, availability, manageability, and customer orientation of the power grid complex of the Company.

By power grids based on new technologies it is meant a power system characterized by the following basic properties:

- automatic control of the power grid on the principles of distributed (multi-agent) control;
- real-time self-diagnostic check of parameters and modes of operation of the power system, separate objects and equipment items in order to improve system and consumer reliability, reduce operating costs, etc.;
- flexible automatic reconfiguration of the grid in response to changes in its parameters and topology (including prevention of accidents / self-recovery of the grid after accidents);
- provision of specialized services and facilities to various categories of consumers (diversified in terms of time, volumes, quality and price of power supply, demand management and generation, charging of electric vehicles, etc.);

In 2016, the stated objective was achieved by solving the following tasks:

- identification of priorities and criteria for the selection of innovations, developed and implemented in the interests of the Company;
- ensuring the development and implementation of advanced technologies, creating conditions for the implementation of innovative projects;
- automation of power grid facilities and exclusion of "manual" management (transition to unmanned assets);
- implementation of pilot projects and solutions, evaluation of their effectiveness;
- replication of proven innovative projects and solutions in the field of primary production activities;
- distribution of advanced solutions to the entire power grid complex and territorial grid organizations (TGOs);
- creation of an effective innovative development management system;
- creation of conditions for the development of innovative and engineering research competencies of specialists through the improvement of personnel training programs.

Within the framework of the approved local target model of the Company's innovative development in 2016, the following activities were carried out in the main fields:

1) Technological development:

1.1) Search, selection and implementation of innovative projects (R&D);

1.2) Introduction of key innovative technologies and point innovative solutions at the power grid complex's facilities;

1.3) Implementation of comprehensive projects:

- construction of new substations, reconstruction of operating ones using devices that work on the basis of digital technologies, providing a new level of controllability of the power grid complex's facilities of the Company;
- energy saving and energy efficiency improvement;
- environmental safety improvement;
- ensuring cybersafety;
- other;

2) The Company’s human resource development;

3) Improvement of the business process management system (IMS).

In terms of implementing the R&D program in 2016, the following activities were carried out:

1) Participation in the examination of applications for the inclusion of topics in the R&D Program of PJSC Rosseti with the identification of projects that are promising in terms of implementation within the framework of R&D of the Company. In 2016, the experts of the Company carried out examinations and prepared opinions on 34 R&D projects. Two of these projects, implementation of which is scheduled to start in 2017, were included in the Company's R&D Plan:

Investigation of induced voltages on the inactive electric line under load conditions and the occurrence of a short circuit on the operating line, and development of an induced voltage compensation device;

Development of an equipment for creating a technological communication network in 6 (10) kV and 35 kV distribution grids based on PLC technology.

2) Participation in the examination and mentoring of the projects of the competition Energoproryv with the identification of projects that are promising in terms of implementation within the framework of R&D of the Company. In 2016, the project "Investigation of the physical processes of operation and development of a prototype of an automated fiscal metering point for 6 (10) kV power with a magnetotransistor converter", presented at the competition Energoproryv by the ISPU authoring team (its implementation it scheduled to start in 2019), was included in the Company's R&D Plan.

3) Finalization of the documents on the selected prospective R&D topics for the examination and approval by PJSC Rosseti. In 2016, the Company sent three applications for inclusion in the R&D Program of PJSC Rosseti.

4) Bringing the documents on the selected topics, that are candidates for the inclusion in the Company's R&D Plan, up to the requirements of tenders and contracts.

5) Analysis of incoming applications for rationalization proposals for the possibility and necessity of their development into R&D topics. In 2016, the application "Automated system for recording the results of the thermal imaging examination of electrical equipment" by Konstantin Ushakov, an engineer of the insulation and surge protection service of the Tula Electric Grids production department of the branch Tulenergo was singled out.

6) Relevance check of the topics previously included in the Company's R&D plan, as well a check of their documentation.

As a result of these activities, carried out in 2016, the following R&D projects (scheduled to be implemented in 2016-2018) were included in the Company's R&D plan:

- Investigation of induced voltages on the inactive electric line under load conditions and the occurrence of a short circuit on the operating line, and development of an induced voltage compensation device.
- Development of a highly-reliability static switching device for power transformer taps under load using powerful high-voltage photothyristors.
- Development of equipment for creating a technological communication network in medium-voltage distribution grids based on PLC technology.
- Investigation of the physical processes of operation and development of a prototype of an automated fiscal metering point for 6 (10) kV power with a magnetotransistor converter.

In 2016, the Company completed operations under two previously initiated R&D contracts.

In November 2015, tests of the "Backup power supply system of a dispatch center on the basis of a lithium-ion accumulator with an electric vehicles rapid-charging station (a smart power-supply system) connected to it", developed and assembled in Ryazan Distribution Zone, were carried out under the development engineering contract "Development of a smart power-supply system for rapid charging of electric vehicles based on lithium-ion energy accumulators at the facilities with limitations concerning allocated power capacity and power-supply category". In December 2015, it was put into pilot operation which resulted in the reveal of the following defective feature: non-compliance of the charging station with the requirements of the technical assignment (the station is inoperable and displays an error message at a temperature of -12°C). Claims activities carried out in November 2016 resulted in the replacement of the temperature module of the charging station. The smart power-supply system was put into commercial operation by Order of the Ryzanenergo Branch No. 940 dated December 14, 2016.

In December 2016, tests of the developed gantries were carried out at PJSC RDC FGC UES under the development engineering contract "Development of intermediate support gantries (single-circuit and double-circuit) made from composite materials for high-voltage power transmission lines of a 35 kV voltage class". As part of the implementation of the contract, a pilot batch of six support gantries was manufactured and received for installation and pilot operation at the Tulenergo Branch in March-May 2017. Application No. 2016152023 dated December 28, 2016 for grant of a patent for the utility model "Swiveling insulating traverse" was drawn up and filed with the Russian Federal Service for Intellectual Property "Rospatent".

In 2016, the Company obtained 3 patents for inventions, a patent for utility model and a certificate of state registration of a computer program (Supplement 3 to this Annual Report). A full list of R&D results implemented at the Company's facilities in 2016 is given in Supplement 3 to this Annual Report.

Since the Innovative Development Program was approved on July 27, 2011, the Company has obtained a total of 7 patents for inventions, 17 patents for utility models, 4 certificates of state registration of computer programs and a certificate of state registration of a data base.

The Company has a total of 15 license and equated agreements, including 5 that were signed in 2016 (information on the 2016 contracts is given in Supplement 3 to this Annual Report).

Considerations paid for 2016 amounted to RUB 1,039 ths as of December 30, 2016.

According to the main objective of the innovative development of the Company's power grid complex in 2016, within the framework of reconstruction and new construction, equipment and devices developed as a result of research and development (R&D), and key innovative technologies supporting the object-oriented standard IEC 61850, focused on the automation of substations, were introduced at a number of substations of the main grid (110 kV). Among them are:

1) In the field of power-system protection:

- fast digital protective relays (MP PSP);
- integrated monitoring systems for transient modes in real time (MP PSP with the function of oscillogram recording, MPU for determining fault locations, digital oscilloscopes).

2) In the field of management systems construction:

- ADMS, APCS, CAD system, CIMS, AMROMS, etc.;
- digital data channels (FOCL technologies, etc.).

Thus, the comprehensive application of two or more technologies from two or more production areas at a power grid facility, forming qualitatively new characteristics of the facility, such as controllability, informativeness and efficiency, was the highest priority.

Such projects implemented in the Company in 2016 include:

1) Project "Renovation of SS 110 kV Meshcherskaya with the increase of its transformer capacity":

- counter of transformer resource (CTR);
- microprocessor terminals of RPA 110 kV devices;
- channel-forming equipment of digital fiber-optic communication channels, FOCLs.

2) Project "Construction of 35 kV SS Vilya with 35 kV electricity transmission lines":

- microprocessor terminals of RPA 35 kV devices;
- microprocessor terminals of RPA 6 kV devices;
- channel-forming equipment of digital fiber-optic communication channels, FOCLs;
- teleautomation equipment set for CS Iset;
- counter of transformer resource (CTR).

3) Project "Construction of SS Chistye Prudy":

- RPAs equipment based on Radius-automatica microprocessor terminals;
- Emergency control systems based on Sirius-type microprocessor devices;
- Arc protection of cells based on OVOD-MD devices;
- transformer SS based on CS Iset;
- digital AET411-type converters;
- communication and control over 8.2 km long FOCLs.

In 2016, in order to create active and adaptive power grids, in the 6-35 kV distribution grid the following projects were implemented:

1) Project "Automation of the 10 kV overhead electric line No. 8 site at SS Seredeysk of the distribution grid of Sukhinichsky distribution zone of Kalugaenergo Branch":

- power-factor correction systems with controlled shunt reactors;
- technologies for self-recovery of elements after electric energy system disturbances (automation of distribution grids using reclosers).

2) Project "Comrehensive automation and teleautomation of the 6-10 kV power grid using reclosers":

- feeder 1001 of SS Aserkhovo – feeder 1004 of SS Aserkhovo – 1 unit;
- feeder 1027 of SS Oktyabrskaya – feeder 1002 of SS Zheredevo – 1 unit;
- feeder 131 of SS Sudogda – feeder 130 of SS Sudogda – feeder 1005 of SS Soyma – 1 unit;
- feeder 1008 of SS Borisovskaya – feeder 1005 of SS Borisovskaya – 1 unit.

Also, in the framework of the implementation of the Innovative Development Program, innovative equipment and materials were used in the power grid complex, which are the results of R&D of PJSC IDGC of Center and Volga Region:

- devices for measuring the resistance to the current flow of the grounding device of support gantries of 110 kV overhead electric lines without disconnecting the lightning protection cable MISO-1;

- microprocessor-based temperature control devices for high-voltage plug contacts of switchgears and control gears Miktem-6;
- multi-chamber insulators-arresters ShFMK-20.

In the field of improving anti-terrorism and counter sabotage security of power grid facilities, work was carried out to create a system for preventing and eliminating the consequences of computer attacks (SOPKA).

Efficiency of production activities is increased not only through the introduction of new equipment with improved characteristics of power consumption, reliability and durability, but also through intellectual potential of employees who, through the rationalization system, contribute to improving the efficiency of the Company.

In 2016, 35 proposals of authors were registered, 22 of them were determined as rationalization proposals, and a total of RUB 255,000 was paid to the authors; 4 proposals are being finalized or extended for a period of experimental application. Most rationalization inventions are aimed at improving relay protection and emergency control devices, developing information technologies and communication systems.

In 2016, in order to improve the rationalization activities, a corporate standard "PJSC IDGC of Center and Volga Region Management System". TECHNICAL PRODUCTION DEVELOPMENT. Rationalization activity organization" STO 01-036-2016 (Order of the Company No. 457 dated September 2, 2016) was updated. The framework for remuneration of authors based on the results of replication of rationalization inventions was introduced, which encourages the involvement of more workers in the process of mass technical creativity.

The Company provides access to information on rationalization proposals at any time, the most interesting of them are recommended for application at the relevant units of the Company.

An example of replication is the rationalization proposal "The software product "Lightning protection 3.0", designed to automate the control of the executed solutions to protect facilities from direct lightning strikes, as well as to automate the design of new lightning protection systems made with rod lightning receivers. The program allows making plans for arranging buildings and objects with the help of the built-in graphic editor, automatically calculates and displays zones for protection against direct lightning strikes. "The software product "Lightning Protection 3.0" successfully passed an expert test at a branch of the author, which revealed a positive technological effect due to the simplicity and labor saving compared to manual labor coming with a significantly lower productivity and the human factor that leads to errors. As a result, the rationalization invention is replicated at all branches of the Company.

Innovative development of the Company and introduction of modern technologies raise the requirements to the level of qualification of the Company's production and administrative personnel. The training system is aimed at developing advanced training of personnel required for working at newly introduced facilities; mastering new technology, and integrating scientific activity into the training process.

In 2016, according to the Program, personnel development was organized at the premises of the supporting higher educational institutions on the following innovative topics:

- "Technical operation and emergency repair work on fiber-optic communication lines on overhead electric lines. Engineering supervision. Control measurements, installation of optical splice closures and crosses" (FSBEI HPE Moscow Power Engineering Institute (National Research University), Moscow);

- "Modern methods of increasing the efficiency and reliability of the operation of distribution power grids", "Testing, monitoring and diagnostics of electrical equipment of power grids and substations", "Monitoring and evaluation of the quality of electrical insulating oils and reliability of oil-filled equipment", "Development of a systematic approach to asset management of energy enterprises based on monitoring and assessment of the technical condition of electrical equipment", "Automatic control of voltage and reactive power" (FSBEI HPE Ivanovo State Power Engineering University, Ivanovo);
- "High-frequency channels of emergency control systems on the equipment of AKA "KEDR" (FSAEI HPE Ural Power Engineering University named after the first President of Russia B.N. Yeltsin, Yekaterinburg);
- "Modern equipment used in the operation of 0.4-10 kV power supply systems", "Innovative electrical equipment and technologies" (FSBEI HPE Moscow State University of Mechanical Engineering (MAMI), Ryazan);
- "IP telephony in departmental and corporate communication networks", "Digital transmission systems and multiplexers", "Advanced equipment for the reconstruction of technological communication networks", etc. (FSBEI HPE Povolzhskiy State University of Telecommunications and Informatics, Samara);

In 2016, 6 employees of the Company completed vocational training in Innovation Management within the framework of the Presidential program for training of managers for economic organizations of the Russian Federation. 5 graduates of this program took part in the foreign project-oriented internship in Power Engineering in the Republic of Singapore.

In October of the reporting year, 2 employees of the Company completed training in Energy Efficiency and Energy Saving in the Design of Power Grid Complex Facilities within the framework of the departmental special-purpose program for Engineer-Technician Personnel Development in 2015-2016 at the FSBEI HPE MPEI National Research University in Moscow, and completed internship at the premises of facilities, research and engineering centers in Russia.

In 2016, the costs of the Company's personnel development and vocational retraining at higher education institutions amounted to RUB 4.12 m. 309 employees were trained, which meets the planned indicators.

In 2016, the Company continued to cooperate with the following leading Russian education institutions of higher professional education in the Company's regional footprint, with which agreements were concluded:

- FSBEI HPE Vladimir State University, Vladimir;
- FSBEI HPE Ivanovo State Power Engineering University, Ivanovo;
- FSBEI HPE Vyatka State University, Kirov;
- FSBEI HPE Mari State University, Yoshkar-Ola;
- FSBEI HPE Nizhny Novgorod State Technical University n.a. R.E. Alekseev, Nizhny Novgorod;
- FSBEI HPE Nizhny Novgorod State Agricultural Academy, Nizhny Novgorod;
- FSEI HPE Ryazan State Agrotechnological University n.a. P.A. Kostychev, Ryazan;
- FSBEI HPE Ryazan State Radiotechnical University, Ryazan;
- FSBEI HPE Moscow State University of Mechanical Engineering (MAMI), Ryazan;

- FSBEI HPE Tula State University, Tula;
- FSBEI HPE D. Mendeleev University of Chemical Technology of Russia (MUCTR, Novomoskovsk Branch, Tula);
- FSBEI HPE Udmurt State University, Izhevsk;
- FSBEI HPE Izhevsk State Technical University, Izhevsk;
- FSBEI HPE Izhevsk State Agricultural Academy, Izhevsk;

With a view to unlocking the intellectual potential of young people in solving of knowledge-intensive problems of the power grid industry and to promoting innovative ideas, in the reporting year young specialists of the Company and students of basic universities participated in the following events:

1) In July 2016, as part of the international forum of young power engineers and industrialists Forsage, 7 promising employees of the Company had the opportunity for exchanging ideas, presenting their own projects and technical developments, developing leadership skills, communicating with eminent scientists, innovators and top managers of large companies.

2) Power engineering students of basic higher education institutions and young professionals had the opportunity of presenting their innovative projects and developments in the field of smart energy at the contest Energoproryv-2016.

3) Young professionals of the Company took part in the international forum on energy efficiency and energy saving ENES-2016 held in November 2016.

In 2016, in order to implement the objectives of innovative development, the Company kept providing information and analytical support of this activity by using the information platform GIS-Profi, participating in congress and exhibition events, studying issues of scientific and technical periodicals.

The development of the information infrastructure in the Company is carried out using modern information and communication services of the existing solutions on the market combined with its own resources and competencies.

In the reporting year, as part of the development of the knowledge management system, the Company extended contracts signed with GIS-Profi Consulting LLC and GIS-Profi LLC, under which the Company's employees gain access to the GIS-profi software and data complex to use it in the operation of the industry knowledge base, and learn the results of information research on new developments of equipment, materials and technologies in the power industry in Russia and abroad.

In 2016, in the process of implementing the Program in the framework of continuous information and analytical support, scientific and technological forecasting and monitoring of technologies in the power industry continued. For this purpose, within the framework of the Program implementation, the following activities were carried out:

- monitoring of the development of promising technologies in Russia and abroad, including their implementation and application practices by leading companies;
- identification of new technologies and innovative solutions that can be applied in the activities of the Company, including at the early stages of their development, assessment of the capabilities for their acquisition;
- expansion of the search for new technologies and innovative solutions by expanding contacts with leading Russian organizations and their associations, regular search in intellectual property results databases, innovation product registries, technology banks, including industry directories.

3.5.1. Energy Saving and Energy Efficiency Improvement

Organization of work on energy saving and increasing energy efficiency of the Company in 2016 was carried out in accordance with the Federal Law of the Russian Federation No. 261-FZ "On Energy Saving and Energy Efficiency Improvement and Amendments to Certain Legislative Acts of the Russian Federation", Regulation of the Russian Government No. 340 dated May 15, 2010 "On Procedure for Establishing the Requirements to the Programs for Energy Saving and Energy Efficiency Improvement in Organizations Engaged in Regulated Activities", Regulation of the Russian Government No. 977 dated December 1, 2009 "On Investment Programs of Power-Industry Entities" (as amended by Regulations of the Russian Government No. 484 dated June 30, 2010, No. 1178 dated December 29, 2011), and state tariff regulations of the executive bodies of the subjects of the Russian Federation that concern power distributing organizations, as well as in accordance with the Program for Energy Saving and Energy Efficiency Improvement of the Company for 2016-2022 (hereinafter, the Program) as approved by the Resolution of the Board of Directors of the Company No. 231 dated June 8, 2016.

In order to ensure implementation of the Program in the Executive Body and in the branches of the Company according to Order of PJSC Rosseti No. 561 dated September 9, 2013 “On Operations on Energy Saving and Energy Efficiency Improvement, in PJSC Rosseti”, the managers responsible for overseeing the implementation of the Program were appointed and the commissions on energy saving and reduction of energy losses responsible for analysis of implementation of the Programs were established.

In 2012, the energy management system of the Executive Body of the Company was certified in accordance with ISO 50001:2011. In order to confirm compliance of the energy management system with the standard, the first compliance audit was conducted in March 2013. The audit showed that the Company had developed, documented, implemented and maintained the energy management system in proper working order in accordance with ISO 50001:2011.

In 2015, as part of the effort to develop and improve the Integrated Management System, the Company passed the certification audit and successfully confirmed compliance of its processes for management and provision of services related to power transmission and distribution, as well as technological connection of consumers with international standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011.

In 2016, as part of the effort to develop and improve the Integrated Management System, the Company passed the second certification audit and successfully confirmed compliance of its processes for management and provision of services related to power transmission and distribution, as well as technological connection of consumers with international standards ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011.

In 2016, 51 employees of the Company completed advanced vocational training in energy saving and energy efficiency improvement, 29 of them also completed training in the internal audit of the energy management system.

In accordance with the Program, the following energy saving and energy efficiency improvement targets were adopted:

- decrease in energy losses during transmission and distribution in the power grids;

- consumption of energy resources for economic needs;

Planned and actual values of target indicators for 2016

No.	Indicator	UOM	2016	
			Planned	Actual
1.	Energy losses	m kWh	4,806.50	4,842.70
		RUB m, excluding VAT	10,137.40	9,858.95
		% of output to grid	**9.14**	**8.97**
2.	Needs for domestic substations power consumption	m kWh	115.30	97.20
3.	Energy resource consumption for economic needs of the administrative and manufacturing facilities, including:	RUB m, excluding VAT	417.00	400.80
		TOE ths	22.80	22.10
3.1.	electric power	m kWh	104.90	102.50
		TOE ths	12.60	12.30
		RUB m, excluding VAT	327.50	317.10
		m kWh per m^2	0.00	0.00
3.2.	thermal energy	Gcal	40,984.40	39,339.30
		TOE ths	6.10	5.80
		RUB m, excluding VAT	71.60	66.60
		Gcal per m^3	0.00	0.00
3.3.	natural gas (including liquefied natural gas)	ths m^3	3,540.00	3,444.40
		TOE ths	4.10	4.00
		RUB m, excluding VAT	17.90	17.10
4.	Natural resource consumption for economic needs of the administrative and manufacturing facilities, including:	RUB m, excluding VAT	9.00	7.80
		ths m^3	209.50	193.20
4.1.	*hot water supply*	ths m^3	3.30	2.40
		RUB m, excluding VAT	0.00	0.00
4.2.	*cold water supply*	ths m^3	206.10	190.80
		RUB m, excluding VAT	8.90	7.70
5.	Motor fuel consumption by motor and special vehicles, including:	ths l	15,307.50	15,670.90
		TOE ths	17.80	18.30
		RUB m, excluding VAT	423.08	449.60
5.1.	*gasoline, including:*	ths l	10,150.40	10,085.90
		TOE ths	11.50	11.40
		RUB m, excluding VAT	278.30	289.90
		ths l per 100 km	0.00	0.00
5.1.1.	*by motor vehicles*	ths l	8,457.80	8,345.20
		TOE ths	9.60	9.50
		RUB m, excluding VAT	235.40	240.90

No.	Indicator	UOM	2016	
			Planned	Actual
		ths l per 100 km	0.00	0.00
5.1.2.	*by special vehicles*	ths l	1,674.60	1,740.80
		TOE ths	1.90	2.00
		RUB m, excluding VAT	42.90	49.00
		ths l per 100 km	0.60	0.50
		ths l per m/h	0.10	0.10
5.2.	*diesel fuel, including*	ths l	5,150.10	5,584.90
		TOE ths	6.30	6.90
		RUB m, excluding VAT	145.40	159.70
		ths l per 100 km	0.30	0.30
5.2.1.	*by motor vehicles*	ths l	1,757.7	1,841.4
		TOE ths	2.20	2.30
		RUB m, excluding VAT	48.10	51.50
		ths l per 100 km	0.20	0.10
5.2.2.	*by special vehicles*	ths l	3,392.40	3,743.60
		TOE ths	4.20	4.60
		RUB m, excluding VAT	97.30	108.30
		ths l per 100 km	0.30	0.50
		ths l per m/h	0.20	0.00
5.3.	*Other fuels for motor and special vehicles, including:*	TOE ths	0.00	0.00
		RUB m, excluding VAT	0.10	0.00
5.3.1.	*natural gas (including liquefied natural gas)*	ths l	7.10	0.00
		TOE ths	0.00	0.00
		RUB m, excluding VAT	0.10	0.00

Other types of energy resources were not used by the Company in 2016.

The area of the administrative and manufacturing facilities amounted to 615.3 ths sq. m in the reporting year of 2016, and 615.3 ths sq. m in the previous year of 2015.

The program consists of activities with direct costs and activities with a concomitant effect.

Activities with direct costs funded from OPEX must have a simple payback period not exceeding 10 years; if the activity is funded from CAPEX, IRR should be less than 15%.

In 2016, as part of measures to reduce energy losses, TMGe energy saving transformers with reduced no-load loss and short circuit loss were installed as well balance-unbalance transformers with a Y/Zn circuit. The actual effect of the implementation of the measures amounted to 689 ths kWh, which meets the planned values.

In 2016, devices for automatic switching on/off of heating systems for SS equipment were also installed. The effect amounted to 22,000 kWh, which meets the planned values.

The actual effect of the implementation of the measures aimed at reducing power losses during transmission amounted to RUB 1.37 m of monetary value, which is RUB 51 ths less than it had been planned as a result of deviation of the actual purchase rates from the planned ones.

Key target arrangements to ensure the reduction in resources consumption for economic needs are as follows: replacement of incandescent and fluorescent bulbs in lighting systems by LED ones; replacement of obsolete and worn out electric boilers by modern ones with automatic control; and hermetic sealing and insulation of buildings.

In 2016, the effectiveness of the measures aimed at reducing fuel and energy resources consumption for industrial and economic needs was as follows:

- reduction in electric power consumption: the actual values were 303 ths kWh in natural units and RUB 940 ths in monetary terms, which corresponds to the target;
- reduction in thermal energy consumption: the actual values were 70 Gcal in natural units and RUB 97 ths in monetary terms, which corresponds to the target.

Total costs of the implementation of the measures with direct costs amounted to RUB 17.02 m, which is RUB 344 ths less than it had been planned. The relative reduction in costs came as a result of economizing during trading and purchasing procedures.

3.5.2. Reactive Power Flow Management

Development and implementation of the arrangements to manage reactive power flows in the power grids of the branches of the Company are carried out in accordance with Company Standard of PJSC IDGC of Center and Volga Region STO 01-011-2013 “Requirements for Organization of Reactive Power Flow Management”.

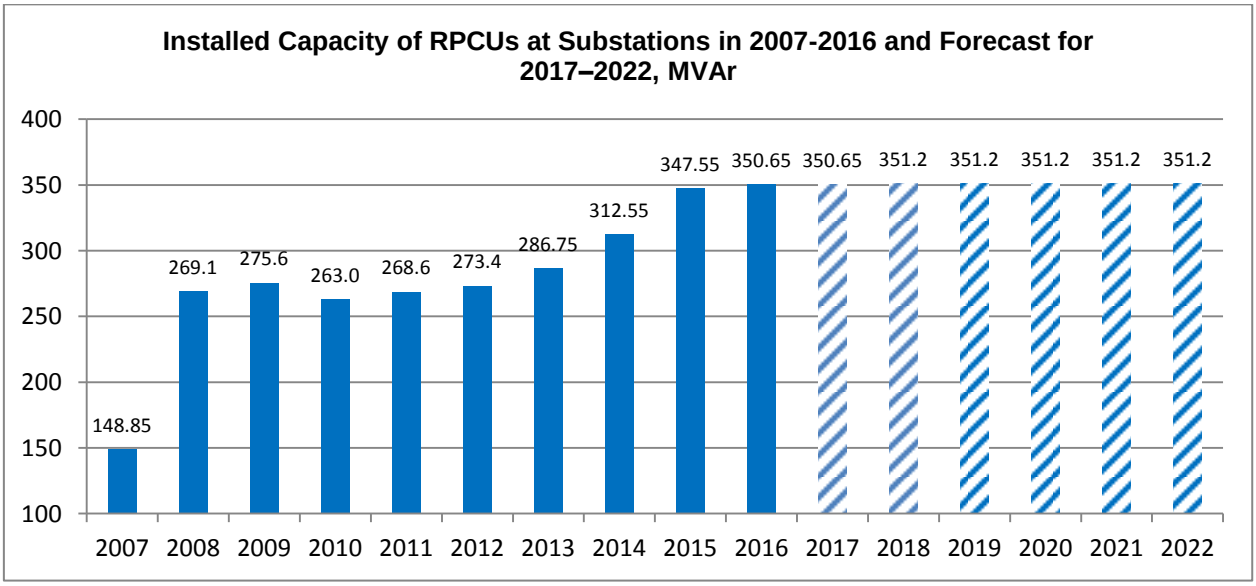
Target Programs for Reactive Power Flow Management in the power grids of the branches (hereinafter, TP RPFM) were approved both for 2016 and for 2016-2021.

In the framework of the implementation of the approved TP RPFM, in 2016, the following measures were carried out:

- 8 organizational and regulatory documents aimed to improve the reactive power management processes were prepared and issued;
- monitoring and inspection of the actual status of reactive power correction units (hereinafter, RPCU) at the substations of 361 power consumers were carried out;
- maintenance operations of the RPCUs at the substations of the branches were carried out;
- written appeals regarding 5 consumers were executed and forwarded to the regional authorities of Rostekhnadzor (the Federal Service for Environmental, Technological and Nuclear Supervision of Russia);
- the issue of 5 consumers who failed to follow the active and reactive power consumption ratio (reactive power rate for an electrical unit) within the values established in the contract for power supply was discussed at the regional headquarters' meetings on safety of power supply to consumers;
- 40 workshops with managers and professional consumers and 3 workshops with managers and professionals from the branches' units were held on the topic: Reactive Power and its Role in the Power Supply Economics and Reliability;
- 209 statements and 142 letters were executed and forwarded to consumers with recommendations on how to put the existing RPCUs into operation, carry out maintenance of new RPCUs and install them to adjust the active and reactive power consumption ratio to the standard one;

- 1061 Terms of Reference were amended to include the requirements for maintaining the power rates at the specified level;
- metrological verification of 789 reactive power metering devices and audit (calibration) of 2,158 devices, installed in the power grids of the branches, were carried out;
- 162 new multifunctional reactive power metering devices were installed at the branches' substations, and 326 devices were installed at electric-power distribution systems balance affiliation boundary with consumers;
- total capacity of the RPCUs, installed at SS Kvarts and SS Mokhovye Gory (Nizhnovenergo Branch), was increased by 3.1 MVAr.

Photograph of the workshop on RPCUs with consumers at Ryzanenergo Branch.



Installed capacity of RPCUs. Information

Year	Installed capacity of RPS, MVAr	Note
2007	148.85	
2008	269.10	There were RPCUs introduced at Ryazanenergo Branch: 110 kV RPCUs at SS Dyagilevo and SS Likhachevo, and 6-10 kV RPCUs at SS Ryazan, SS Dyagilevo, SS Pechatnaya, SS Teatralnaya, SS Likhachevo and SS Dashki.
2009	275.60	6-10 kV RPCUs were installed at Nizhnovenergo Branch (SS Kvarts, SS Pecherskaya and SS Ostankino).
2010	263.00	A 110 kV RPCU was installed at Vladimirenergo Branch (SS Pokrov). A 6 kV RPCU was installed at Kalugaenergo Branch (SS Priokskaya). A 10 kV RPCU was installed at Nizhnovenergo Branch (SS Mokhovye Gory). A 6 kV RPCU was installed at Tulenergo Branch (SS Yasnogorsk). 6 kV RPCUs were installed at Udmurtenergo Branch (SS Sotsgorod). A 110 kV RPCU was decommissioned at Ivenergo Branch (SS Furmanov).
2011	268.60	A 6 kV RPCU was installed at Kalugaenergo Branch (SS Lyudinovo). 10 kV RPCUs were installed at Udmurtenergo Branch (SS Mozhga).
2012	273.40	A 6 kV RPCU was installed at Vladimirenergo Branch (SS Melenki). 6-10 kV RPCUs were installed at Tulenergo Branch (SS Nenashevo, SS Gurovo).
2013	286.75	A 6 kV RPCU was installed at Vladimirenergo Branch (SS Zhdanovskaya). A 0.4 kV RPCU was installed at Marienergo Branch (DP-30). 6 kV RPCUs were installed at Tulenergo Branch (SS Ugolnaya). Capacity of a 10 kV RPCU at Kirovenergo Branch (SS Sovetsk) was increased.
2014	312.55	A 110 kV RPCU was installed at Ryazanenergo Branch (SS Kasimov). Capacity of 10 kV RPCUs at Ivenergo Branch (SS Ivanovskaya-7, SS Gavrilov Posad) was reduced.
2015	347.55	A 110 kV RPCU was installed at Tulenergo Branch (SS Yefremov).
2016	350.65	Capacity of 6-10 kV RPCUs at Nizhnovenergo Branch (SS Kvarts, SS Mokhovye Gory) was increased.
2017	350.65	
2018	351.20	There are plans to install a 10 kV RPCU at Vladimirenergo Branch (SS Berezovo).
2019	351.20	
2020	351.20	
2021	351.20	
2022	351.20	

Photograph of the 10 kV RPCU at SS Kvarts (Nizhnovenergo Branch)

The deliveries of the operations performed are as follows:

- the capacity of RPCUs installed at the branches' substations in 2016 increased by 3.1 MVAr (8.9%) and amounted to 350.65 MVAr;
- 83 RPCUs of 0.4-10 kV were installed at the consumers' electrical units with the total capacity of 20.42 MVAr;
- The capacity of consumers' RPCUs amounted to 1,793.07 MVAr, including those with 1,567.16 MVAr in good operation condition.

In 2016, the RPCUs, installed at the branches' substations, generated 1,556,382 MVAr/h of reactive power, which is 15% higher than the target.

The total economic effect of implementing the arrangements of the TP RPFM and operation of RPCUs was 5,987.57 ths kWh, or RUB 11,646.20 ths

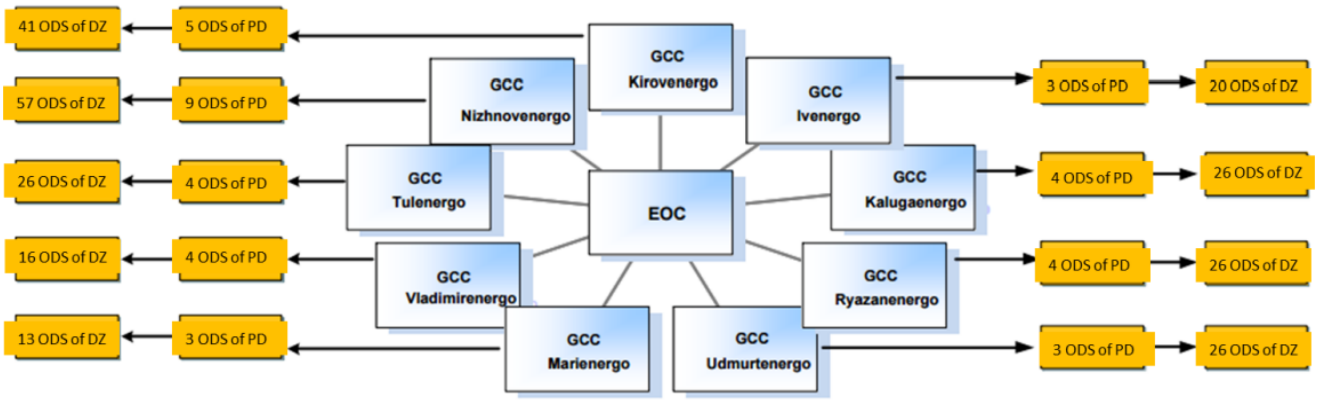
In 2016, the total costs of implementing the TP RPFM of the Company's branches amounted to RUB 8,833.70 ths.

Retrospective information on the results of the implementation of the TP RPFM of the branches in the reporting period is given in the "Technical Policy" section of the Company's website (http://www.mrsk-cp.ru/production_activities/technical_policy/svedeniya-o-realizatsii-tselevykh-programm-upravleniya-reaktivnoy-moshchnostyu-v-elektricheskikh-set/).

3.5.3. Operative and Technological Process Control

The structure of the operative and technological process control (OTPC) of the Company consists of 9 Grid Control Centers (GCC) established at each of the branches, 39 Operative Dispatch Services of production departments and 251 Operative Dispatch Teams of distribution zones established on the basis of the power grid areas.

Structure of Operative and Technological Process Control



Within development and improvement of the OTPC system, the distribution grid complex established GCCs at all branches, which played the role of centers of responsibility with OTPC functions, and formed the effective interaction with external counterparties.

All GCCs of the branches perform operational and non-operational functions, including operational management of the power grid complex equipment and support of information analytics.

3.5.3.1. GCC. Equipment of Dispatch Points

Grid Control Centers are equipped with up-to-date software and hardware complexes and collective display devices. This equipment enables operational employees to perform the following tasks in real time and on a 24/7 basis: track operation modes of equipment installed at the branches' power facilities; control equipment installed at the power grid complex facilities with telemetry systems connected to the software and hardware complex of a GCC; control voltage levels, equipment load and power flows in 35 kV and higher distribution grids.

Equipment of Dispatch Points

Branch	Type of software and hardware complex	Type of display device
Kirovenergo	PSIcontrol	DP-7 dispatcher panel
Udmurtenergo	PSIcontrol	Clarity Margay DLP 50 display cubes
Marienergo	PSIcontrol	Barco OverView 705 display cubes
Nizhnovenergo	PSIcontrol	Barco OverView c DR+67-DL display cubes
Ivenergo	PSIcontrol	PD-5U4.2 dispatcher panel
Vladimirenergo	PSIcontrol	Barco OverView c DR+67-DL display cubes
Ryazanenergo	PSIcontrol	Barco OverView c DR+67-DL display cubes
Tulenergo	PSIcontrol	Barco OverView c DR+67-DL display cubes
Kalugaenergo	PSIcontrol	PD-1 dispatcher panel

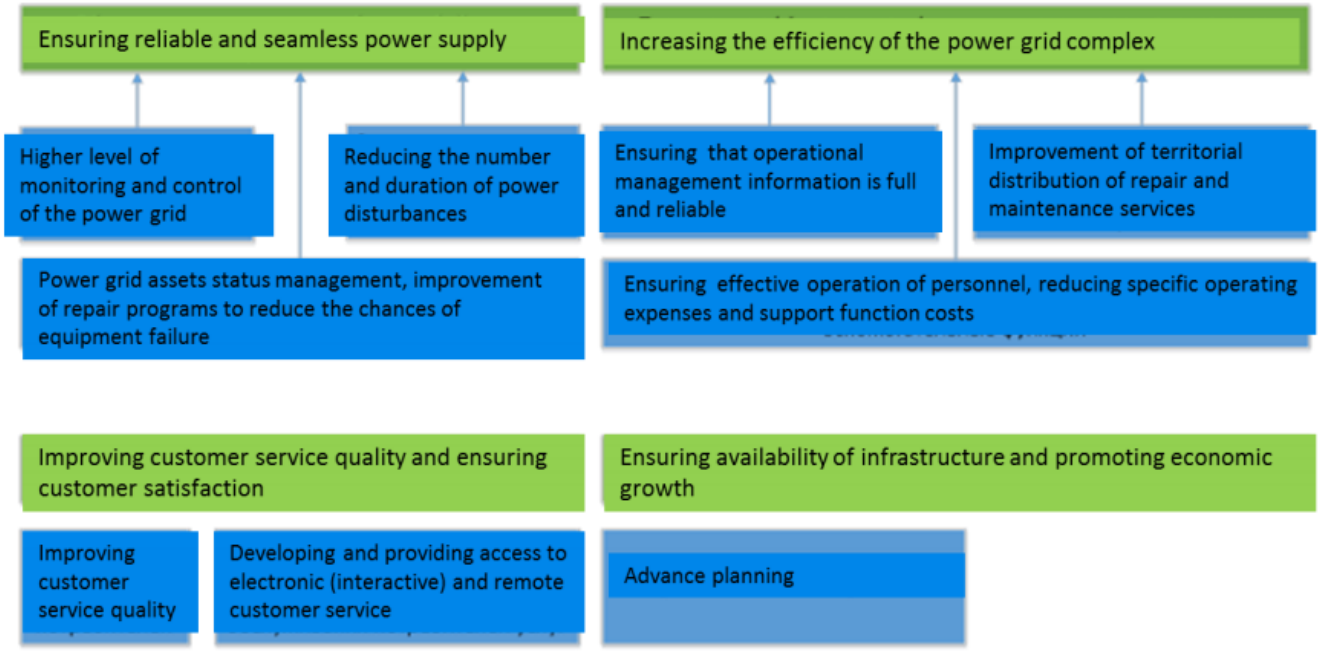
3.5.4. Information Technologies and Telecommunications

The Company is a modern energy company effectiveness of which strongly depends on the application of information technology and automation systems. In modern conditions the operation of the electric grid industry as a whole and the Company's in particular cannot be organized without such elements as:

- automated systems of technological process control, which perform automated collection and processing of information;
- automated business management systems, which ensure the efficiency of the Company's staff;
- communication systems and IT infrastructure, which support the functioning of all the above-mentioned automation mechanisms and ensure uninterrupted communication between all employees of the Company.

Information technologies play a crucial part in the achievement of key business objectives of the company, such as ensuring reliable and seamless power supply, improving the quality of service and ensuring customer satisfaction. The expanding scope of process automation also increases the efficiency of the power grid complex.

Map of Activities related to IT



The Company has been continuously introducing new IT projects, developing existing ones and supporting those that have already been implemented. These activities have been carried out in accordance with the Strategy for Information Technologies and Telecommunications of the Company (hereinafter – the ITT Strategy). This strategy defines the goals of information technology development; describes strategic initiatives and measures to achieve these goals approved by the Board of Directors of the Company on December 10, 2014; and sets out the principles of building IT given in the following table.

Principles of Building Information Technologies

IT spheres	Description of the principle of development
IT solutions	• Continuous interaction with business units and customers for IT services in the Company. • Standardization of IT processes across all divisions of the Company, including production services. • Development and implementation of standards of project program management and project portfolio management. • Rethinking the importance of the process of IT management as a service and new positioning.
IT organization	• Centralization of the IT function and establishment of effective mechanisms to coordinate the activities of all IT departments of the Company. • Development of optimal models of interaction between Company units, which will enable them to jointly solve issues related to implementation and operation of IT solutions. • Creation of a multi-functional, flexible model of IT services management.
IT processes	• Implementation of effective solutions to control the execution of IT processes for the provision of IT services. • Implementation of processes and solutions aimed at improving the level of knowledge and competence of employees of the first hotline. • Ensuring compliance with regulations on the IT process model (standards, procedures, methods).
IT services	• Providing a transparent mechanism for rendering IT services and controlling their quality. • Ensuring continuous improvement and increase in efficiency.
IT infrastructure	• Establishment of a centralized integrated monitoring system. • Creation of a unified directory service, unification of basic network services and applications. • Support of business processes for technological connection at the level of branches, creation of new jobs. • Providing users with reliable access to centralized resources by improving the reliability of network equipment. • Interaction with adjacent units to facilitate transition to standard server platforms and monitoring systems, standardization of communication channels and transition to IP telephony.
IT security	• Protection of information and telecommunications infrastructure as well as technological infrastructure. • Protection of automated process control systems. • Protection of restricted information. • Organization and management of user access. • Providing public key infrastructure. • Monitoring of the security status of information and telecommunications infrastructure.

In 2016, the introduction of PSI control computing task of software and hardware complex was carried out in Kalugaenergo, Kirovenergo, Marienergo and Udmurtenergo Branches. The introduction of the computing tasks in the software and hardware complex allows increasing the overall level of “intelligence” of the ADPCS in the branches and fulfilling the possibility of modeling the power grid modes.

The objective is to improve efficiency of power transmission and distribution, decrease technological losses through optimizing the operating modes of power grids, reduce the period for restoration of power supply to consumers by providing dispatchers with a tool increasing the speed and reliability of decision-making in taking equipment out of service for repair and in case of emergencies, invest in teleautomation in an effective way, and improve the quality of planning of the grid development.

A pilot corporate GIS project was implemented at the premises of Ryazanenergo Branch. The facilities of the 6-10 kV and 35-110 kV power grids were mapped. Integration with the production assets management system, transport monitoring system, dispatching operational information complexes was carried out.

The corporate GIS, being a unified integration service for various corporate information systems, operates to improve the quality of managerial decisions, increase the reliability of supplying consumers with power by improving operational efficiency and the enterprise management system.

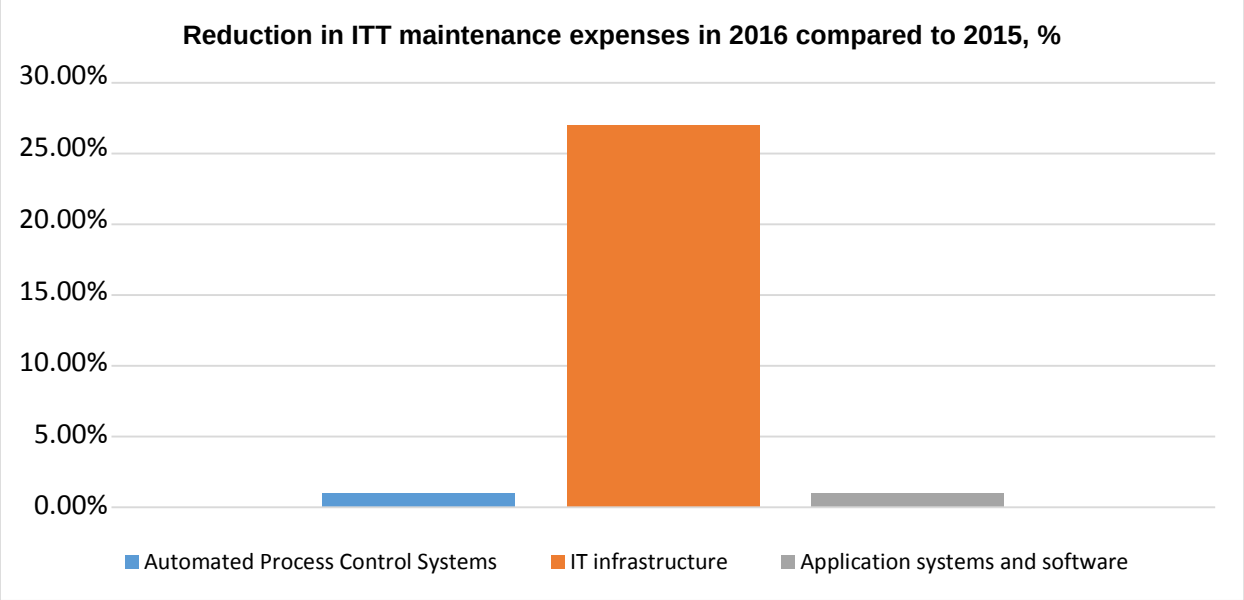
In 2016, projects to implement the functions of planning and accounting for the performance of repair work, technical inspection and comprehensive inspection of production assets in the CIMS within the framework of a unified concept for the creation of a production assets management system were completed.

The project to the expand the functionality of the HR module of the CIMS in terms of personnel management, personnel cost planning and organizational design was completed.

Monitoring system for IT infrastructure was implemented. The monitoring system includes all the components of IT infrastructure, which in itself significantly reduces the number of failures due to the implementation of mechanisms for proactive monitoring and prevention of failures. In addition, the system significantly reduces the recovery time, as it helps to locate the failure promptly.

Work is under way to extend the functionality of a unified software system for rendering services to users ServiceDesk. This software is produced in Russia, which corresponds to the state strategy of import substitution. The system improves control and management of the process of support of the IT infrastructure.

Integrated development of ITT under a single strategy helped significantly reduce the costs of ITT operation in 2015.



Dynamics of reduction in ITT maintenance expenses

Main promising areas of ITT activity:

- further development of the system of customer relationship management in terms of expanding the functionality of online services and improving the quality of services provided;
- implementation of the ITT strategy of the Company;

- development of a multi-service network of communications and data transmission with a view to synchronizing requirements to the channels of communication and data transmission set by various functional areas in order to minimize the costs of their modernization and construction;
- standardization and unification of hardware and software solutions related to telecommunications and business applications to improve the quality of work;
- continuing development based on import substitution and cost reduction.

3.6. Technical Policy

The Regulation of PJSC Rosseti on Unified Technical Policy in the Power Grid Complex (hereinafter, the Regulation) is the principal document regulating the technical policy of the Company.

The Regulation was approved as an internal document of the Company at the meeting of the Board of Directors of the Company (Minutes No. 145 dated December 30, 2013). By Order No. 91 dated February 17, 2014, the Regulation was registered in the quality management system with a sequence number assigned, and published on the Company's website in the “Technical Policy” section http://www.mrsk-cp.ru/production_activities/technical_policy/rosseti_technical_policy_thesis/.

The purpose of the technical policy is to identify key industrial directions that enhance reliability and efficiency of the power grid complex in short and medium term, at the same time ensuring proper industrial and environmental safety, based on innovative development principles that provide non-discriminatory access to power grids for all market participants.

Objectives of the technical policy:

- increasing preparedness of the power grids for power transmission and distribution to ensure reliable power supply to consumers, functioning of the wholesale and retail power markets, concurrent operations of UES of Russia and foreign power systems;
- ensuring power delivery by power generating facilities to the grid;
- creating conditions for non-discriminatory access to power grids for the participants in the wholesale and retail markets given appropriate technical conditions and their compliance with the established rules of access;
- developing the facility diagnostic system and improving its efficiency, with subsequent use of the outcomes in the algorithms of functioning of the automated systems of operational and emergency control;
- developing the patterns of operative and technological management of the facilities, as well as participation in managing the operation modes of flexible elements of grid infrastructure and power consumers;
- developing information and telecommunications infrastructure, enhancing monitoring of the power grid and the quality of information exchange with JSC SO UES and other participants in the wholesale and retail power markets;
- reducing operating costs and capital spending on the facilities by optimizing technical solutions during preparation of project documentation, using up-to-date equipment and building structures, and reducing spaces occupied by the power grid facilities;
- enhancing energy efficiency of technologies, equipment, materials, and systems applied, developing the energy saving program and reducing technological losses of power in the grids;

- handling the trend of aging of fixed assets of power grids and equipment by means of modernization, optimized reconstruction and technical re-equipment, as well as using equipment with extended life cycle;
- automation of substations, introducing and developing up-to-date systems for technical condition control, automated diagnostics and monitoring of process equipment, systems of relay protection and emergency automation, communication systems, engineering systems, commercial and technical energy metering, as well as transition to digital substations without permanent operating personnel;
- improving operation, maintenance and repair technologies. Training operating and maintenance personnel with regard to introduction of new technologies and innovative equipment;
- minimizing environmental impact of new construction, reconstruction, operation and maintenance of the facilities;
- encouraging production in the territory of the Russian Federation of up-to-date types of equipment, building structures, and enhancement of scientific, technical and design capabilities.

Supplement 3 to the present Annual Report includes:

- Key Regulations governing the Company's operations;
- Key projects of the Company in 2016, during Implementation of which advanced technical solutions were used;
- List of regulatory technical documents concerning technical regulation developed in the Group during 2016.

Since 2007, the Company has had a standing advisory body, namely the Technical Council. The Technical Council considers issues related to control and management of the technical policy implementation, issues of power grid operations, coordination of development and introduction of innovative equipment and technologies, etc.

Three meetings were held in 2016.

The Technical Council acts under the Regulation on the Technical Council of JSC IDGC of Center and Volga Region P-01-001-2013 enacted by Order of the Company No. 350 dated July 5, 2013.

The technical council consists of Senior Deputy General Director, Chief Engineer, who acts as the Chairman, Deputy Chief Engineer of Reconstruction and Maintenance, who acts as the Deputy Chairman, Investment Deputy General Director, Service Realization and Development Deputy General Director, heads of structural units of the Technical Unit of the Executive Body, first deputy directors (deputy directors) – chief engineers of the branches – 26 persons in total.

The list of key issues addressed during the meetings of Technical councils in 2016 is provided in Supplement 3 of the present Annual Report.

The Picture of the Technical Council No. 37 participants in September 2016

3.7. Power Supply Reliability

3.7.1. Reliability Assurance

Reliability of power supply to customers is a strategic development priority, being a key indicator of a grid company's performance.

To assess the efficiency of management of the distribution power grid system, key performance indicators (KPI) are used, including those related to reliability:

- Average duration of power transmission interruptions (the ratio of actual total duration of all interruptions of power transmission to consumers to the maximum points of connection, for the calculation period, of service consumers to the power network).
- Prevention from exceeding the given number of accidents (the accidents are taken into consideration if they match a number of principal criteria of Clause 4 of the Rules for Investigating the Causes of Accidents in the Power Industry).

The Company achieves the above KPIs every year.

In terms of accident indicators there is a strong tendency for decrease, as well as not exceeding the previous years' indicators in 2016 in comparison with previous years. This is due to the timely and effective measures devised on the basis of an analytical survey of the causes of disturbances (accidents). The implementation of the Company's repair and investment programs played an important part in this process.

Indicators of average duration of consumer power supply interruptions and average frequency of consumer power supply interruptions

Reliability indicator	2014	2015	2016
Average duration of Consumer Power Supply Interruptions, hours	5.9718	5.9204	5.4059
Average frequency of Consumer Power Supply Interruptions, pcs	1.6916	1.4572	1.394

In 2016, most disturbances of the power system were due to the following reasons:

- the influence of repeating natural phenomena (wind strain, wires overlapping, snow sticking);
- atmospheric (lightning) overvoltage;
- forest trees falling on the power transmission lines.

3.7.2. Repair and Maintenance

Repair program

As of the end of 2016, PJSC IDGC of Center and Volga Region accomplished its key task of providing reliable and uninterrupted power supply to consumers. Repair program of the Company was fully implemented in 2016.

Costs of the fixed assets repair totaled RUB 3,595.8 m in the reporting year (non-contracted works – RUB 2,268.8 m, contracted works – RUB 1,327.0 m).

RUB 3.6 b

– costs of power facilities repair in 2016

Repair Program for 2016 in Physical Indicators

Repair name	2016 planned	2016 actual	Deviation of 2016 actual from 2016 planned	
			absolute	relative
Overhaul of overhead electric lines 35-220 kV, km	5,464	5,464	0	0.0%
Overhaul of overhead electric lines 0.4-10 kV, km	28,505	28,634	129	0.5%
Thorough maintenance of SS 35-220 kV, units.	208	208	0	0.0%
Repairs to TSS (PTSS, CTSS, DSS), units.	8,276	8,300	24	0.3%
Clearing of routes on 0.4-220 kV overhead lines, ha	13,262	13,701	439	3.3%
Widening of routes on 0.4-220 kV overhead lines, ha	1,591	1,678	87	5.4%

In terms of physical indicators the repair program for 2016 was implemented according to the plan. All works related to overhaul and thorough maintenance of 35-110 kV substations, 6-10 kV transformer substations and 0.4-110 kV overhead lines were completed. Planned works on clearing and widening of routes on 0.4-110 kV overhead lines and scheduled works on maintaining RPA and communication devices were completed as well.

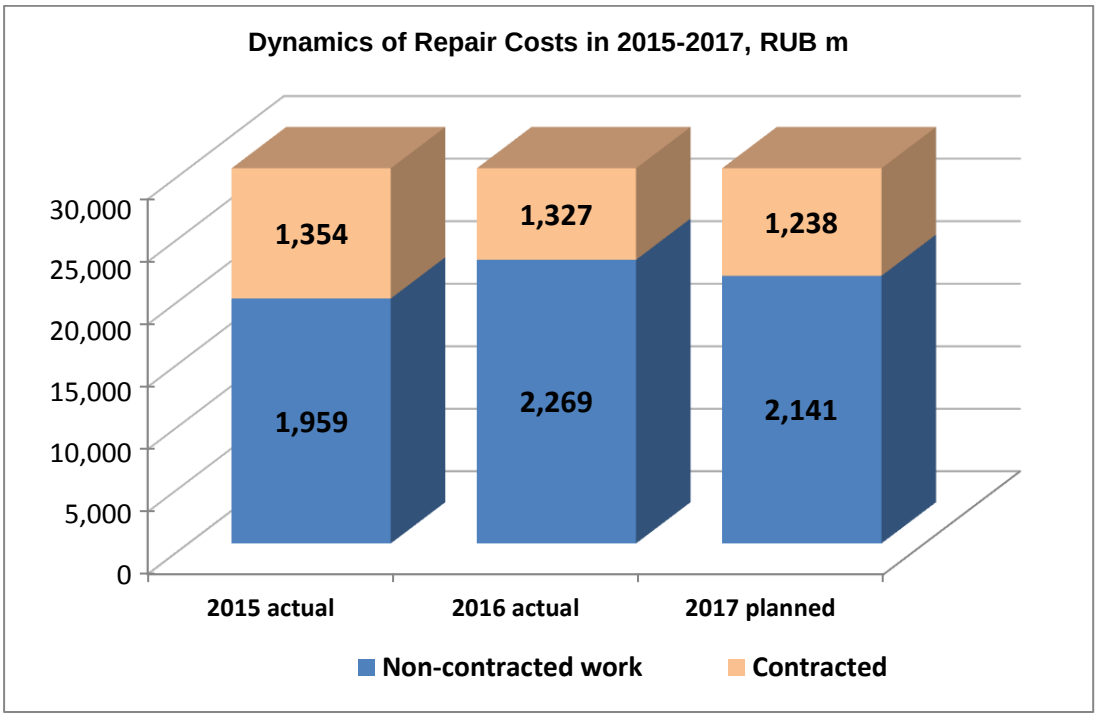
In accordance with long-term schedules and technical condition, the capital equipment was overhauled:

Changes in the volume of equipment overhaul were conditioned by natural fluctuations due to frequency of repair works.

Analysis of Production Assets Repair Costs, RUB m

Repair costs	2015 actual	2016 planned	2016 actual	2017 planned	2016/2015 (absolute increase)	2016/2015 (relative growth), %
Total	3,312.6	3,273.7	3,595.8	3,378.4	283.2	9
Non-contracted	1,959.1	2,019.7	2,268.8	2,140.5	309.7	16
Contracted	1,353.5	1,254.1	1,327.0	1,237.9	-26.5	-2

Costs of the implementation of the repair program in 2016 increased by 9% compared to 2015. Repair costs of non-contracted work increased by 16% and repair costs of contracted work decreased by 2%. Clearing of OL Routes 0.4-110(220) kV, replacement of insulators, the wire on 0.4-6(10) kV overhead lines, repairs to switching devices, replacement of stick-pedestal insulators at SS 35-110(220)kV and thorough maintenance of 6(10)/0.4 kV transformer substations accounted for the main share of increase in physical volume of non-contracted work. The number of actually replaced insulators on overhead electric lines 0.4-6(10) kV increased by 9%, wires on overhead electric lines 0.4-6(10) kV – by 30%, ground wire on overhead electric lines 35-110(220) kV – by 72%, stick-pedestal insulators – by 14%.



3.7.3. Emergency Prevention and Response at Power Distribution Grid Facilities

To improve stable operation of the distribution power grid and minimize risks of emergency situations (ES) of natural and technogenic character, the Company has developed and implemented a set of basic and additional measures, including:

1. Widening and clearing of OL routes 0.4-220 kV with the total area of 15,379 ha.
2. Installation of reclosers to create loop systems and scheme and operating conditions for reliable consumer power supply: in 2016, the Company installed 42 reclosers, and 29 OL 6-10 kV were sectioned with them. The total number of the Company's reclosers is 610. 388 OL 6-10 kV were sectioned with them.
3. Additional purchase of reserve sources of power supply (RSPS): in 2016, the Company purchased 5 units, including 1 unit of 30 kW and higher. Altogether, the Company has 904 RSPS (with the total capacity of 28.7 MW), 6 mobile modular substations (MMSS) of 110/10(6) kV (with the total capacity of 125 MVA) and 2 of 10 kV mobile complex distribution units for outside installation.
4. New-generation light facilities (factory-supplied) comprise 35 light towers and 73 petrol generators with spotlights.
5. Communication and monitoring facilities: 5,195 sets of radio communication, among which there are 276 sets of stationary radio stations, 2,361 sets of car radio stations, 1,558 sets of mobile radio stations, 109 satellite phone units and 6,323 sets of cell communication. JSC IDGC of Center and Volga Region continues to develop its Traffic Monitoring System: 2,331 team cars are equipped with GPS devices, 1,371 team cars are equipped with dash cameras. The Traffic Monitoring System allows tracing the location of vehicles of mobile crews, emergency crews and repair crews in real time.

6. Replenishment of special all-terrain vehicles (ATV): in 2016 the Company purchased 297 units of vehicles (in 2008-2016, the car fleet was renewed by 40%, its total number being 5,886 units). The Company has 8 mobile trailers (3 Berloga trailers with 8 beds each and 5 portacabin hostels with 4 beds each).

7. To minimize the emergency recovery works (ERW) period, the Company formed 86 mobile teams (MTs), which are in a state of constant preparedness to carry out emergency recovery works within 1,000 km. Mobile teams staff includes 546 persons, possessing 184 technological units (176 auto and 8 mobile trailers). Mobile teams are equipped with trained staff, packed meals, small tools and equipment, reserve sources of power supply (RSPS), financial resources, etc. Time of departure from the moment of receipt of the decision does not exceed 4 hours during working hours and 8 hours during non-working hours (2 and 4 hours, respectively, if DGCs operate in high alert regime or special working regime). During preparation for mass works and for the autumn and winter season readiness and manning checks are carried out.

8. Contract work. To promote cooperation on prevention and liquidation of accidents (emergency situations) at power grid facilities in the operations area of PJSC IDGC of Center and Volga Region, the Company concluded 337 agreements: 3 with branches of PJSC FGC UES (MPTLs of Center, Volga and Ural); 8 with IDGCs (JSC IDGC of Ural, JSC IDGC of Volga, JSC IDGC of North-West, JSC IDGC of Center, JSC IDGC of South, JSC Tyumenenergo, JSC Moscow United Electric Grid Company and JSC Kubanenergo); 11 with regional centers and chief directorates of EMERCOM of Russia; 9 with state hydro-meteorological monitoring institutions located in the operations area of the Company; 258 with city (district) administrations and divisions of EMERCOM of Russia; 32 with contracting organizations; 2 with airlines; and 14 with other entities. For prompt information exchange between the Company and regional centers of EMERCOM of Russia (Central Division in Moscow and Volga Region Division in Nizhny Novgorod), control divisions are equipped with integrated control systems.

9. Approval of the composition, structure and regulation on the Emergency Response Team (ERT). The Company formed 10 ERTs and provided them with special all-terrain command and staff vehicles (CSV) meant for autonomous operations at ERW location. CSVs are equipped with cellular, satellite and radio communication devices, with the possibility of mobile conferencing sessions using synchronous satellite communication channels, and with access to corporate telephone and information networks. Employment of all possible communication facilities in one car park is innovative. ERTs of the Company include representatives of PJSC FGC UES branches – MPTLs/PMPTLs, Regional Centers for Technical Supervision (RCTS) of Volga of PJSC Rosseti.

10. The Company has a system of automatic warning in case of ES and operational automatic SMS-informing. The Company concluded an agreement on cooperation during ES with cellular operators. Under the agreement, the Company can use cell phones in any operator's network regardless of SIM-card.

11. Informing population. Hotline numbers of PJSC IDGC of Center and Volga Region and its branches for questions and requests concerning consumer power supply are given on the websites of the Company and its branches and in the media. In addition, for the purpose of informing population about electric energy system disturbances and the ERW procedure, the Company sent contacts of the relevant managers and operational personnel to executive authorities and local government bodies.

12. The Company has a system of operational financing in cases of emergency. Heads of the operating units and chief engineers of the branches are provided with corporate bank cards with a certain limit to meet the expenditures on essential needs.

13. The procedure for creation, storage, use, and replenishment of emergency stock is carried out in accordance with the Rules for Emergency Prevention and Response at Power Grid Facilities of PJSC IDGC of Center and Volga Region; the Company has a 100% emergency stock.

14. While preparing for the autumn and winter season of 2016-2017, the Company successfully implemented a number of important measures to prevent and practice liquidation of emergencies, including the following: from February through October 2016, the Company held 30 command post exercises on organization of ERW and the work of Emergency Response Teams (ERTs) of IDGCs. In the course of joint exercises, the following issues were practiced: interaction with the territorial authorities, EMERCOM of Russia, other energy companies (Territorial Grid Operators (TGOs), PMESs, Regional Dispatching Offices (RDOs)); minimization of time required for advance of forces and facilities, RSPS connection; assembly and installation of quickly erectable support structures; ways of delivery and assembly of MMSS and MCDUOI; meetings, notification and work of ERTs; deployment of staff cars of branches in the field with functional check of communications facilities, kitting and equipment; functional check of satellite communications; preparation of ERW plan and documents required in accordance with the ERT Regulation, the Regulation on Organization of ERW and the Regulation on Operational Information Transmission.

15. Personnel's training in civil defense and emergency protection was carried out under the current regulatory documents. The following methods and techniques are used in the training process: educational classes, theoretical and practical training, organization of drills and training programs. The works were carried out under the approved Program of Key Measures to Ensure CD, Protection against ES of Natural and Technogenic Character and Fire Protection for 2016. IDGC branches have 28 special classes devoted to CD and ES, stands devoted to CD and protection from ES, tutorials on IPG and radiation and chemical survey devices, and electronic training materials. The organization of IDGC personnel training in CD and ES protection meets the necessary requirements. Training of existing personnel was held in regional training centers (TC) of respective branches, at CD courses and in the workplace. The organization of IDGC personnel training in CD and ES protection meets the necessary requirements.

Special Periods (Liquidation of Large-Scale Technological Interruptions, Accidents/Emergencies in the Company)

The Company annually develops and implements measures to ensure stable functioning of power grids in special periods (autumn and winter, thunder, flooding, fire hazardous seasons). In accordance with regulatory and administrative documents, to prevent technological interruptions (TI), liquidate ES, minimize the time of recovery of power supply to consumers, the Company effectively used the following instruments in the reporting year:

- Procedure for ERW Organization at the Power Grid of IDGC;
- Scheme of Response of Mobile Teams, Emergency Crews, Repair Teams of the Company in Emergency Situations;
- Measures and Actions of Emergency and Repair Personnel to Ensure Readiness for Emergency Liquidation Works within 2 Hours from the Beginning of an Emergency Situation;
- Algorithm of ERW at Power Grid Facilities of the Company;
- ERW Plan in case of Emergency at the Power Grid of the Company;
- Key Functionality of Groups within the ERT of the Company/Its Branches;
- Scheme of Interaction between ERT Groups of the Company during ERW Organization and Implementation.

In special periods, the Company ensured reliable power supply to customers and minimum time of power disturbances liquidation. (The average length of technological disturbances in 2016 was 3.68 h).

3.8. Consolidation of Power Grid Assets

Planning work aimed at consolidation of power grid assets and determining of the target parameters in 2016 were conducted at PJSC IDGC of Center and Volga Region in accordance with the investment program and operational business plan approved by the Company's Board of Directors.

In terms of consolidation of power grid assets PJSC IDGC of Center and Volga Region interacts with territorial grid organizations in two main directions.

The first direction is cooperation with largest regional TGOs in order to develop mutually beneficial conditions of consolidation of their assets. Conducting such transactions can enable the Company to considerably increase its share in the regional gross revenue requirement and optimize investments. This direction is preferable in accordance with the 2017-2019 Program of consolidation of power grid assets of PJSC IDGC of Center and Volga Region approved by the Company's Board of Directors.

The second direction of interaction is cooperation with the organizations to which tariff regulation is stopped due to their noncompliance with the requirements. Such transactions allow increasing of reliability of power supply for customers assigned to grids of these organizations and implement unified technical policy. In 2016 the Company acquired assets of two organizations whose tariff regulation was stopped.

An important direction of consolidation is cooperation with regional and local authorities in issues of ownerless electrical grid facilities and municipal property. In 2016 the Company took measures to consolidate power grid assets of the Vladimir Region, envisaged by a road map on consolidation of the power grid complex of the Vladimir Region signed by the Governor of the Vladimir Region S. Yu. Orlova and the General Director of PJSC Rosseti O.M.Budargin. Within the framework of implementation of this document 23 lease contracts are valid, according to which the Company acquired 93 km of electric lines and 24 transformer substations with a capacity of 4.7 MVA. In 2017 the Company and municipalities of the regions of its presence will continue to work on registration of rights over the facilities that were previously ownerless.

In accordance with the investment program in 2016 the Company planned to conduct 7 transactions on acquiring power grid assets for the amount of RUB 1.5 m. The above-mentioned transactions were carried out in full. As part of operating activities the rent of power grid facility in Kaluga and a number of facilities in the Udmurt Republic was continued. In accordance with the agreements reached with the regional authorities the volume of leased power grid assets in Nizhniy Novgorod and Tula regions was increased. The results of the work on consolidation are provided in Supplement 3 to the present Annual Report.

In 2017, the total share of PJSC IDGC of Center and Volga Region in the required gross revenue of territorial grid organizations in the regions of the Company's operation was 76.6%.

In 2015-2017, the Company's share in the total RGR from grid services (less expenses related to payment for energy losses) decreased in the Tula region. The basic reason for this decrease is the use of the RAB regulation procedure by a large regional TGO, JSC Tulskiye gorodskiye elektricheskie seti and a regulatory body establishing a high level of return of the old invested capital.

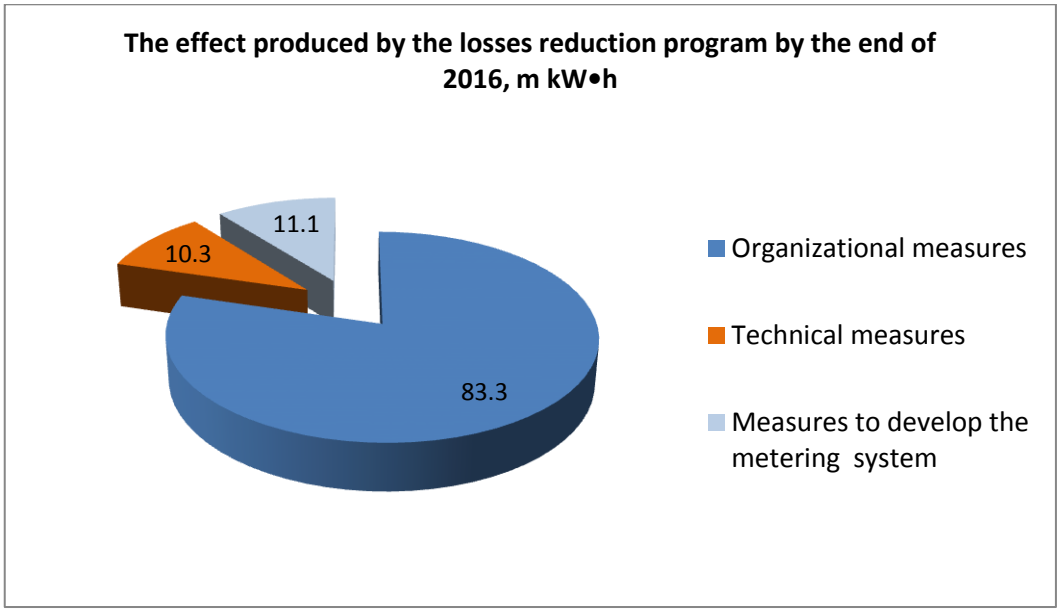
An important reason affecting the Company’s share in RGR of the regions is application of negative “smoothing” in relation to RGR of the Company’s branches by regulatory authorities in accordance with the RAB

regulation procedure. The funds will be paid back to the branches in the following years of the long-term regulation period. Positive dynamics of the share of Company's branches in RGR is observed during the 2015-2017 period in six regions of presence.

3.9. Decrease in Energy Losses

Improvement of performance is one of the core activities of the Company. In order to fulfill this condition, the Company developed and began to implement a program to reduce energy losses. This program consists of sections and target subprograms (activities), which, in turn, consist of the following principle measures:

- *Organizational measures* – measures which include disabling, on the light-load conditions, of transformers at substations with two or more transformers, disabling of transformers at substations with seasonal load, balancing of phase loads in grids, and and identification of unmetered power consumption by means of inspections;
- *Technical measures* – measures which include replacement of overloaded transformers, installation and commissioning of additional power transformers at operating substations, optimization of the loads of power grids by means of construction/reconstruction of overhead lines and substations;
- *Measures to develop the metering system* – measures which include installation of energy metering devices of enhanced accuracy at the boundaries of balance book and operational responsibility of participants of the wholesale electric power market, as well as performance of audits and provision of timely and accurate metering equipment readings.



- Organizational measures (80%, or 83.3 m kWh)
- Technical measures (9%, or 10.3 m kWh)
- Measures to develop the metering system (11%, or 11.1 m kWh)

Owing to implementation of the program aimed at reducing energy losses, in 2016 the figure decreased by 104.7 m kWh.

3.10. Organization of Interaction with Service Consumers

The policy on interaction with the service consumers of PJSC IDGC of Center and Volga Region aims at adopting a customer-oriented approach in operations. The primary objective of a customer-oriented approach is to build loyalty to the Company by providing high-quality service and meeting the needs of customers through establishment and operation of a system of centralized consumer service.

PJSC IDGC of Center and Volga Region operates in accordance with the following guidelines:

- Sufficient consumer awareness of the Company and its services;
- Territorial availability and comfortable conditions of face-to-face service of the Company;
- Availability and efficiency of face-to-face and interactive services of the Company;
- Competent service;
- Transparency of business processes of customer service and fair consumer complaint investigation.

PJSC IDGC of Center and Volga Region constantly perfects its business processes in order to create comfortable conditions and provide end-to-end consumer services.

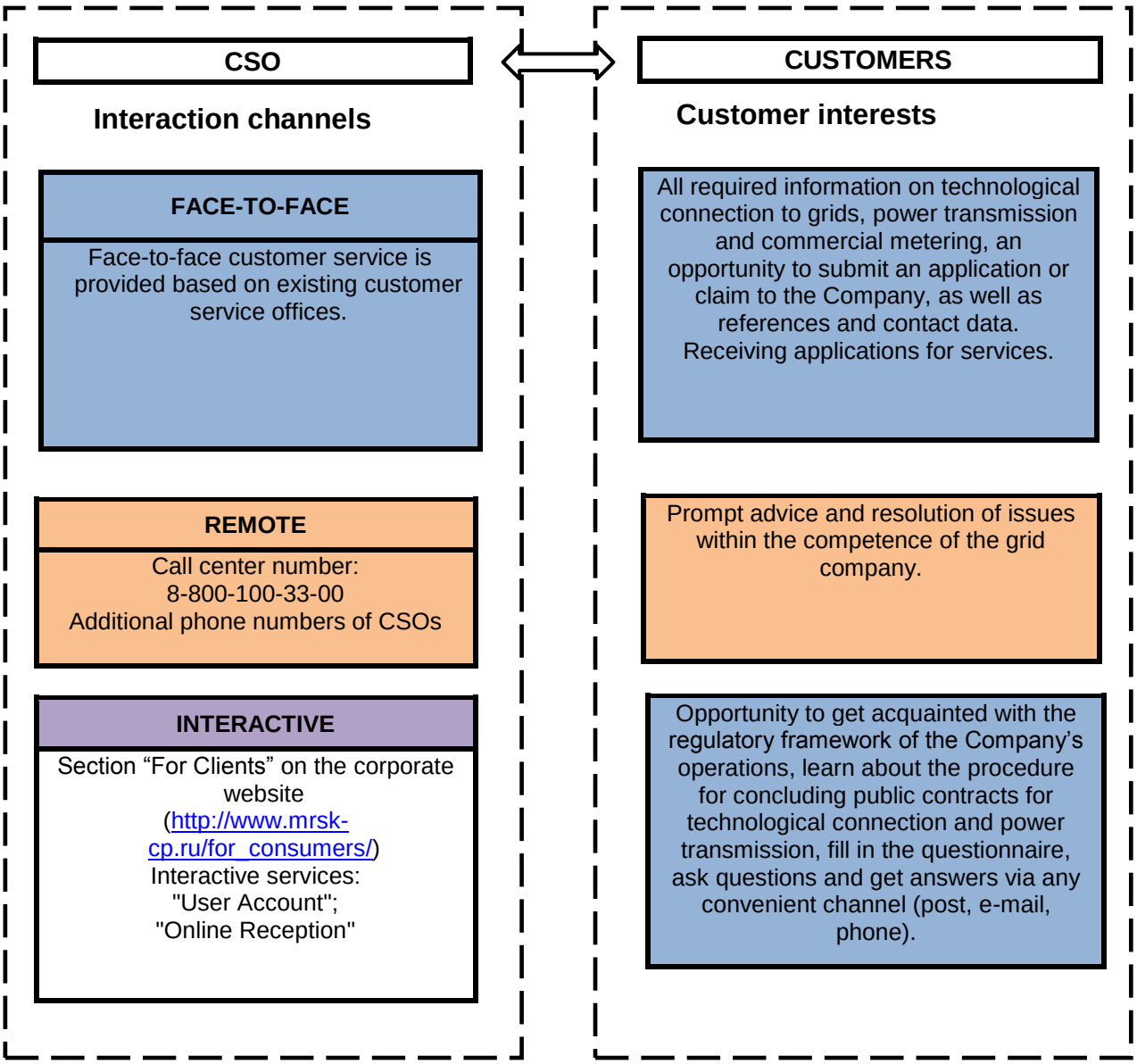
PJSC IDGC of Center and Volga Region has 33 operating Consumer Service Offices (CSOs): 9 Customer Service Centers formed on the basis of executive bodies of the branches, 23 Customer Service Units created at production departments and in areas of the branches' power grids, and a Joint Information Center of the Company's Executive Body.

Dynamics of CSOs opened by PJSC IDGC of Center and Volga Region

Vladimir, Aleksandrov, Gus-Khrustalny, Kovrov, Murom, Teykovo, Kineshma, Nizhny Novgorod, Ryazan, Tula	**Ivanovo, Kaluga, Obninsk, Kirov (Kaluga Region), Kaluga (KES), Kaluga (KGES), Kirov, Slobodsky, Yoshkar-Ola, Dzerzhinsk, Arzamas, Izhevsk, Sarapul, Glazov**	**Kstovo**	**Semenov, Zavyalovo**	**Petushki, Navashino, Karakulino**	**Nizny Novgorod, Balakhna**	**Kirov (Novovyatsky District)**	**Total CSOs:**
10	**14**	**1**	**2**	**3**	**2**	**1**	**33**
as for January 1, 2008	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**as for January 1, 2017**

Service consumers are free to select any of the three types of communication channels – face-to-face, remote or interactive – depending on the customer's individual capabilities and preferences.

Organization of Interaction with Service Consumers



PJSC IDGC of Center and Volga Region has been continuously improving face-to-face consumer services.

In 2016 providing additional services was activated. The Company approved the Standard “Providing Additional Services”. This framework document served as the basis for the plan of measures. The Standard “Providing the service Conducting Work related to the customer's competence during technological connection procedure”, Rules “Procedure for installation, replacement, operation of power measuring devices on customers' applications” were developed and introduced.

Customer service offices receive applications for transmitting electrical grid facilities in PJSC IDGC of Center and Volga Region from legal entities and individuals.

The Company continued improving the functionality of the Integrated System of Customer Relationship Management of PJSC IDGC of Center and Volga Region (CRM system) and integrating it with interactive services and automated modules. Active use of the functionality of the CRM-system considerably increased the efficiency of

interaction with service consumers, sped up the procedure for providing information and improved the quality of information provided at the consumers' requests.

In order to implement the system of remote consumer service within the entire regional footprint of PJSC IDGC of Center and Volga Region, the Company launched a free hotline: 8-800-100-33-00.

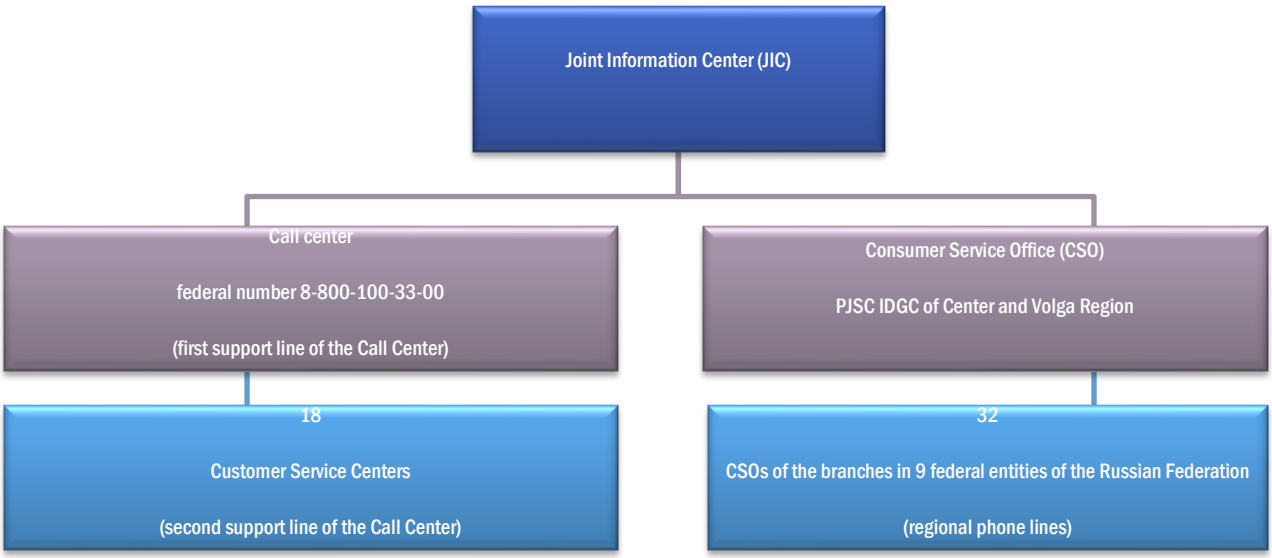
Hotline calls from service consumers are answered by:

- Operators of the Call Center of the Joint Information Center of PJSC IDGC of Center and Volga Region (on a 24/7 basis at the federal hotline number 8-800-100-33-00 and the additional number of the Call-Center 8-831-431-83-00 - for issues such as power cuts and power quality);
- Operators of the Call Center at the level of the branches of PJSC IDGC of Center and Volga Region (working hours coincide with those of the CSOs of the branches) – 18 hotline operators in 9 branches take calls on power cuts and power quality, technological connection, power transmission, energy metering devices, and additional services.

In order to expand long-distance services and ensure prompt provision of information at the consumers' requests, consultations are carried out by employees of 32 Consumer Service Offices using additional local phone numbers.

Moreover, the Executive Body of PJSC IDGC of Center and Volga Region includes a Joint Information Center working 24/7 and consisting of the Emergency Operations Center, the Call Center and CSO.

All the information about the condition of the power grid complex of PJSC IDGC of Center and Volga Region is delivered to the Emergency Operations Center online and then to the Call Center employees.



In 2016 special attention was given to implementation of measures for special control and work of hotlines in case of mass interruptions in power supply. Schemes of warning and procedure of involving additional staff for organizing 24-hour work schedule of the call center and hotlines were updated. The Company's regulation “On Temporal information centers” was prepared and implemented.

Interactive consumer services are rendered via the Internet (e-mail, “Online Reception” and “User Account”) providing remote access to the Company services.

Interactive consumer service is available in the section “For Consumers” on the corporate websites of PJSC IDGC of Center and Volga Region.

In 2016 a new official website of PJSC IDGC of Center and Volga Region was launched for consumers' convenience.

In addition to general information on technological connection, tariffs, standard document forms etc, the customer can read the instruction on the procedure of technological connection in the section “Technological connection” of the Company's website.

The website provides convenient interactive services for the customers: “Online Reception” and “User Account”.

Access to the online service “Online Reception” is provided unlisted. In the subsection “Online Reception” service consumers may ask questions, send appeals or claims to the Company, express their opinions about the service quality by filling in an interactive questionnaire, and obtain information about persons intending to redistribute the maximum capacity of their power receivers in favor of other parties.

In 2016 the interactive online service “User Account” was developed. To the existing list of services was added availability of applications for the following:

- transmitting power grid facilities;
- technological connection for legal entities and individual entrepreneurs, whose maximum power is up to 150 kW inclusive belonging to the second reliability category.

To ensure customer feedback, the Company regularly carried out face-to-face and interactive questioning in the reporting year in order to assess customer satisfaction with service quality of Consumer Service Offices and PJSC IDGC of Center and Volga Region. The results of questioning of 2,098 consumers are shown in Supplement 3 to the Annual Report.

Overall, in 2016, PSC IDGC of Center and Volga Region received over 237 ths applications from consumers.

PJSC IDGC of Center and Volga Region maintains regular monitoring of incoming consumers' claims. The general description of claims received by PJSC IDGC of Center and Volga Region in 2016 and dynamics from 2012 through 2016 are shown in Supplement 3 to the Annual Report.

The results of interaction with consumers in 2016 demonstrate an increase in operating efficiency, which is confirmed by:

- positive feedback from consumers;
- high opinion of service quality in case of face-to-face and interactive questioning;
- improvement of quality and increase in speed of information provision based on consumers' applications due to automation of processes with the use of the Integrated System of Customer Relationship Management of PJSC IDGC of Center and Volga Region (CRM system);
- active development and expansion of services provided to consumers through the interactive services “User Account” and Internet “Online Reception”;
- meeting the approved targets for the quality of services rendered;

The target for the quality of services of 1.0102 was approved for 2016 by resolutions of the regulatory authorities responsible for establishing tariffs for the branches of PJSC IDGC of Center and Volga Region. The targets for the quality of services were met.

4. Sustainable Development Report

4.1. Financial and Economic Activities

4.1.1. Accounting Policy

The Company maintains accounting in compliance with the single guidelines and rules valid in the Russian Federation based on the unified accounting of all business operations of the Company.

The accounting methods and policy used by the Company in 2016 are specified in the Accounting Policy Statement of the Company for 2016 approved by Order of the General Director of the Company No. 766 dated December 31, 2015.

The main provisions of the accounting policy are disclosed on the Company's website http://www.mrsk-cp.ru/ in the section "Information Disclosure and Accounting Information / Financial Information and Reporting" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/finansovaya-informatsiya-i-otchetnost/uchetnaya-politika/).

4.1.2. Analysis of Financial Performance under Russian Accounting Standards (RAS)

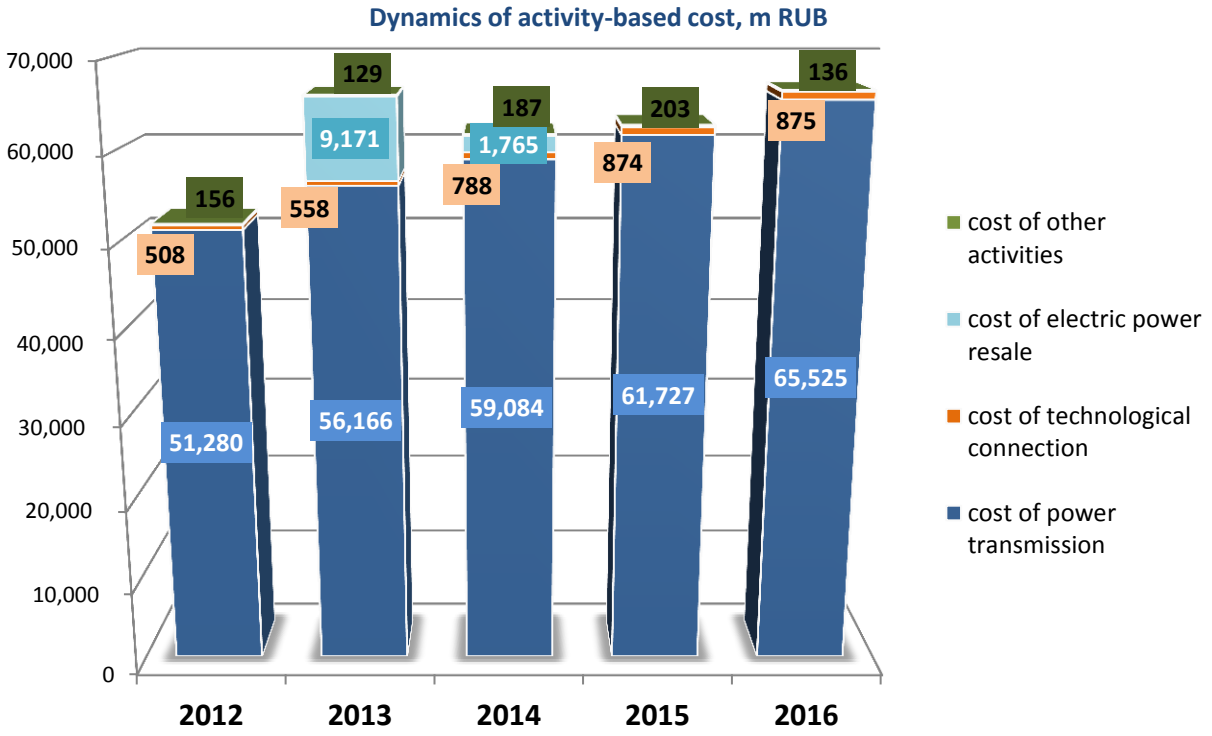
Financial Performance Results under RAS

Indicator	2012	2013	2014	2015	2016	Change 2016/2015	
						absolute	relative
Revenue, RUB m	**59,889**	**77,670**	**69,161**	**68,884**	**78,480**	**9,596**	**13.9%**
from power transmission	**58,375**	**61,225**	**65,113**	**67,938**	**77,387**	**9,448**	**13.9%**
from technological connection	1,220	828	723	692	860	167	24.1%
from resale of electric power and capacity	-	15,375	3,056	-	-	-	-
from other activities	293	243	270	254	234	-19	-7.5%
Cost, RUB m	**51,944**	**66,023**	**61,824**	**62,803**	**66,536**	**3,733**	**5.9%**
Power Transmission	51,280	56,166	59,084	61,727	65,525	3,798	6.2%
technological connection	508	558	788	874	875	1	0.2%
resale of electric power and capacity	-	9,171	1,765	-	-	-	-
other activities	156	129	187	203	136	-67	-33.0%
Gross profit, RUB m	**7,945**	**11,647**	**7,337**	**6,081**	**11,945**	**5,864**	**96.4%**
Business expenses	-	1,524	802	13	6	-7	-52.1%
Management expenses	1,063	1,022	1,072	1,099	1,150	51	4.7%
Profit (loss) from sales, RUB m	**6,882**	**9,101**	**5,463**	**4,969**	**10,788**	**5,819**	**117%**
Other income	2,204	1,174	2,415	3,446	2,770	-676	-19.6%
Other expenses	6,066	6,799	5,592	6,532	9,011	2,479	38.0%
Profit before taxes, RUB m	**3,020**	**3,477**	**2,286**	**1,883**	**4,547**	**2,664**	**141%**
Profit tax and other payments	**1,104**	**941**	**908**	**940**	**1,446**	**505**	**53.7%**
Net profit, RUB m	**1,916**	**2,536**	**1,378**	**943**	**3,101**	**2,159**	**229%**
from power transmission	1,236	1,997	2,039	945	3,015	2,070	219%
from technological connection	570	216	-52	-145	-13	133	-91.4%
from resale of electric power and capacity	0	232	-675	102	19	-83	-81.0%
from other activities	110	91	67	41	79	38	93.7%
EBITDA, RUB m	**9,783**	**10,950**	**10,181**	**10,483**	**13,335**	**2,852**	**27.2%**

At the end of 2016, the Company's revenue amounted to RUB 78,480 m, which is RUB 9,596 m higher than the similar value of 2015.

Positive dynamics resulted from the growth of tariffs for power transmission and the growth in the volume of productive power supply to consumers.

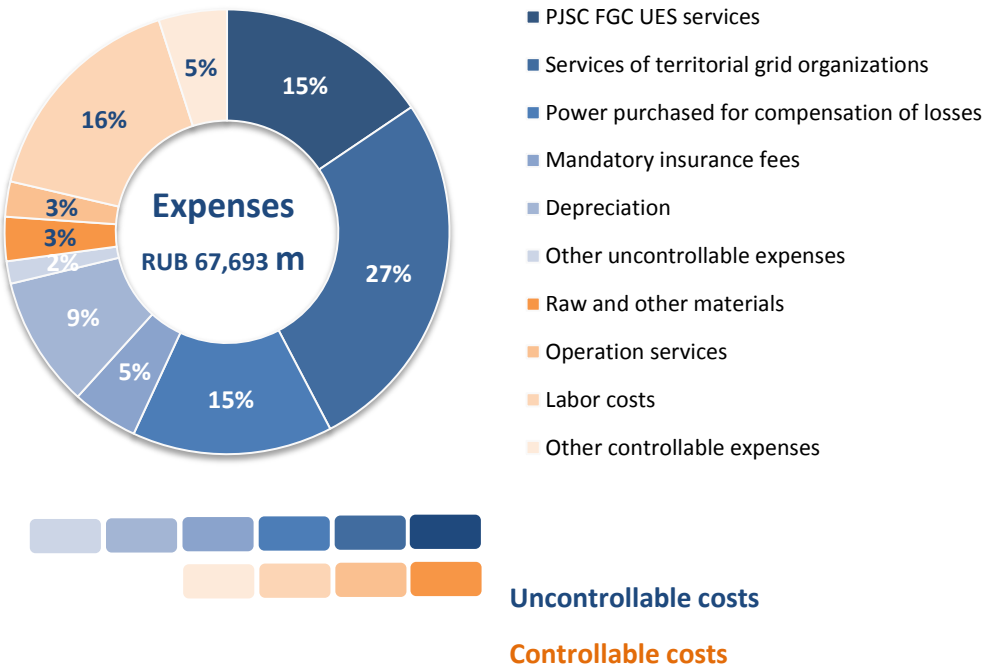
In 2016 the increase in the Company's income was accompanied by the growth of expenses assigned to the cost value of production and services. Their volume grew by RUB 3,733 m. Meanwhile, management costs remained at the level of the previous year. Dynamics of cost value for 5 years is presented in the diagram below.



Note: The cost for 2013-2014 is presented in accordance with the accounting statements (without internal business volumes between transmission and resale of electric power).

Total expenses attributed to the cost value, management and business expenses, according to the results of 2016 amounted to RUB 67,693 m, which is RUB 3,777 m or 5.9% higher than in 2015. The structure of expenses is represented in the diagram.

Structure of expenses related to cost value, managerial and business expenses in 2016

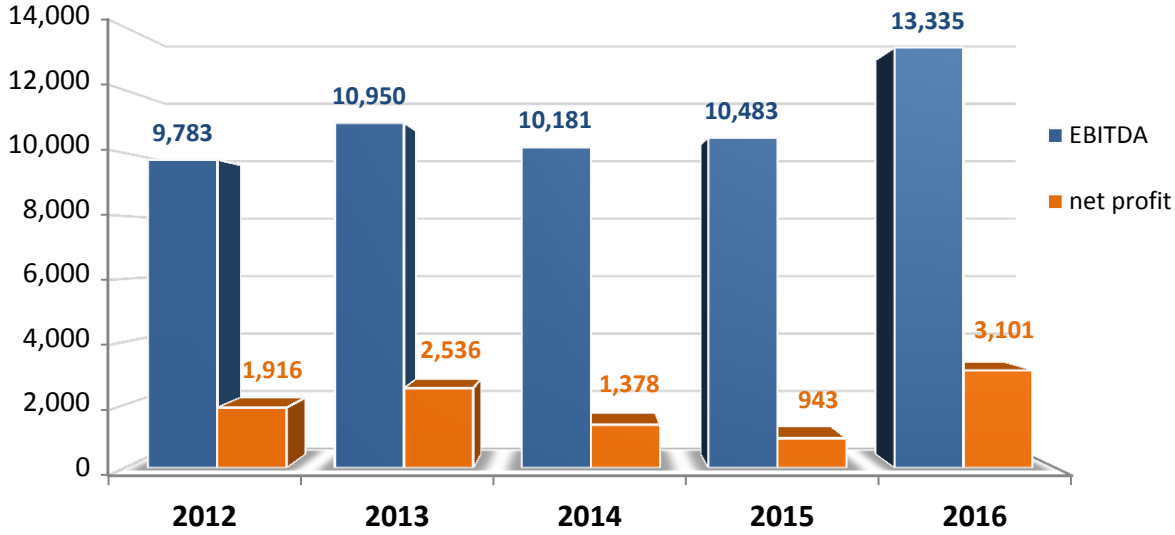


The main reason for the increase of expenses attributed to the cost value, management and business expenses in 2016 is the increase in uncontrollable costs.

The balance of other revenue/cost of the Company for 2016 amounted to RUB 6,241 m and decreased by RUB 3,155 m or 102% in comparison with the same period of the previous year. The main reason is the difference in volumes of recovery / creation of valuation reserves in 2015 and 2016.

The net profit as of the end of the reporting year was RUB 3,101 m, which represents a 229% increase as against 2015.

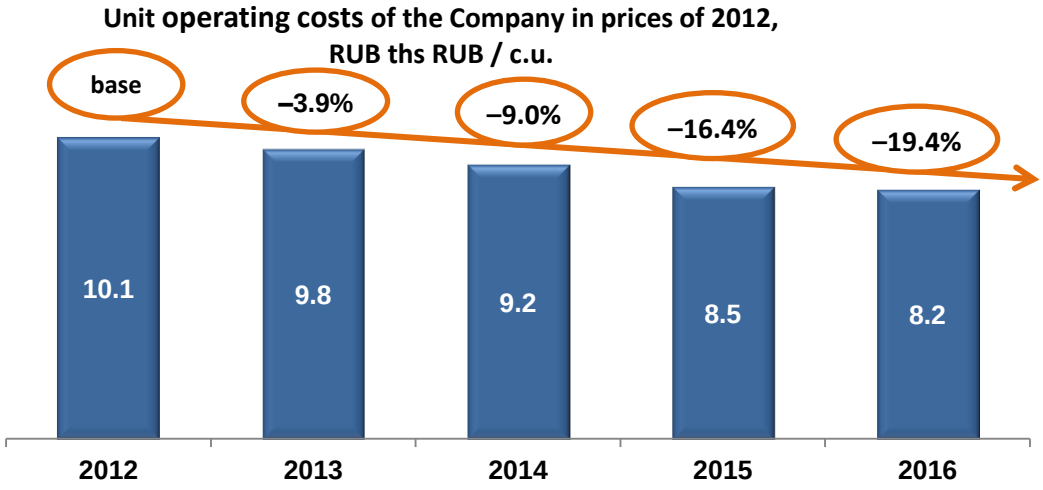
Dynamics of net profit and EBITDA, m RUB



Operational Efficiency and Cost Reduction Program

In order to improve the quality of services, while reducing operations costs, the Company is implementing a Program for operational efficiency and cost reduction.

Within the framework of the Program the Company has been implementing measures aligned with the Strategy for Development of the Power Grid Industry of the Russian Federation approved by the Order of the Government of the Russian Federation No. 511-r dated April 03, 2013. In accordance with the Strategy the target reduction in operating costs for 2017 is 15% per unit of electric equipment maintenance, adjusted for inflation against 2012. In 2016, unit operating costs decreased by 19.4%. Cumulative economic effect of the decrease amounted to RUB 2,846 m.



The Company complied with the requirements of the guideline of the Government of the Russian Federation No. 4750p-P13 dated July 04, 2016, in accordance with which unit operating costs for the reporting period should have decreased by no less than 10%.

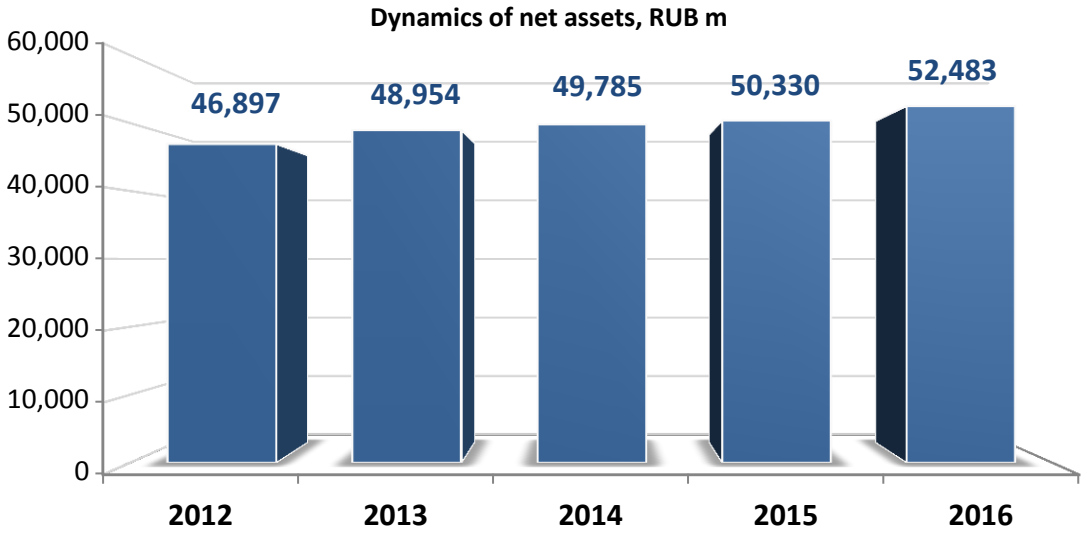
Financial Ratios

Indicator	2012	2013	2014	2015	2016
Net assets, RUB m	46,897	48,954	49,785	50,330	52,483
Liquidity indicators					
Quick assets ratio	1.24	1.13	0.92	0.74	0.93
Working capital ratio	1.37	1.27	1.00	0.81	1.03
Financial stability indicators					
Equity to assets ratio (financial autonomy)	0.56	0.55	0.53	0.55	0.57
Total debt to EBITDA ratio	2.49	2.13	2.63	2.36	1.83
Business performance indicators					
Return on equity (ROE), %	4.16	5.29	2.79	1.89	6.04%
Return on total assets according to profit before tax (ROTA), %	3.69	4.00	2.50	2.04	4.96%
EBITDA profitability, %	16.33	14.10	14.72	15.22	16.99%
Business efficiency indicators					
Receivables turnover	8.32	8.13	6.09	5.39	5.99
Payables turnover	6.69	7.34	6.13	6.26	6.82
Receivables and payables growth rates ratio	1.47	0.94	1.18	1.09	1.02
Aggregate receivables and payables ratio	1.10	1.03	1.22	1.33	1.36

Net assets

The Company's net assets are calculated in accordance with the Procedure for Evaluation of Net Assets approved by Order of the Ministry of Finance of the Russian Federation No. 84n dated August 28, 2014.

The net assets as of the end of 2016 amounted to RUB 52,483 m, with a year-on-year increase of RUB 2,153 m or 4.3%. The Company's net assets were continuously growing; their value has grown by RUB 5,586 m, or 11.9% from 2012. Positive dynamics of the net assets are due to an increase in the Company's undistributed profit.



Liquidity Indicators

Liquidity ratios characterizing the Company's ability to promptly redeem its short-term liabilities by means of current assets are at a high level, there are positive dynamics relative to the level of 2015.

Financial stability indicators

Financial stability indicators characterize the rate of dependency of a company on borrowed funds and determine the degree of risk for creditors.

Equity to assets ratio (financial autonomy) represents the share of equity in the Company's total assets. The higher the share of equity, the higher is the level of financial stability and autonomy of the Company. As a result of the Company's performance in the reporting year, the equity to assets ratio increased and amounted to 0.57 due to the increase in equity.

Total debt to EBITDA ratio is an indicator of debt load of the Company and characterizes its ability to repay the debt to creditors by means of operating cash flow. In case of stable financial condition, this ratio should not be more than 3.0. As a result of the Company's performance in 2016, the ratio improved and amounted to 1.83, which corresponds to the recommended value. This year-on-year improvement was driven by the growth of EBITDA.

Business Performance Indicators

Business performance indicators characterize the effectiveness of the Company's operation. Return on EBITDA shows operational effectiveness; return on equity and return on assets represent effectiveness of use of assets and equity by the Company.

As of the end of 2016, return on equity and return on assets were 6.04% and 4.96%, respectively. The year-on-year increase in the ratios was due to the increase of net profit and profit before taxes of the Company.

Return on EBITDA was at the high level of 16.99% in 2016. Growth of the ratio against 2015 was due to the increase in EBITDA.

Business Efficiency Indicators

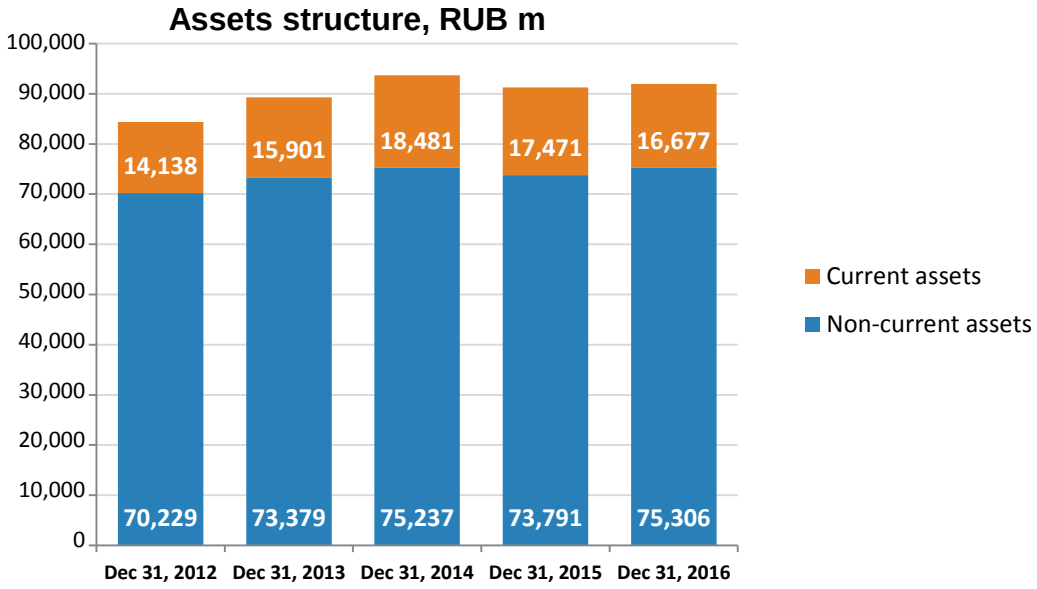
The ratio of growth rates for accounts receivable and payable in 2016 was close to one, which suggests comparability of their growth. At the same time, receivables turnover increased by 5.99 in 2016, which suggests the improvement of payment discipline among the organization's service buyers. The Company settles its accounts with creditors in time, which is confirmed by the increase in payables turnover.

In total, as of the end of the reporting period, financial position of the Company is evaluated as stable and the performance of the Company as an energy enterprise is at a high level. At the same time, the Company is actively developing by implementing a large-scale investment program financed both from the Company's own sources and long-term borrowings.

4.1.3. Capital Structure

4.1.3.1. Assets

As of the end of the reporting year, the Company's assets amounted to RUB 91,983 m. Year-on-year, the increase in the cost of assets was RUB 720 m, or 0.8%.



The Company's assets structure is characterized by a high share of non-current assets. As of the end of the reporting year, the share of non-current assets was 82%. Over the past year, non-current assets of the Company increased by RUB 1,514 m, or 2 %.

The major share in the non-current assets structure falls within fixed assets, 98%. The balance sheet value of the Company's fixed assets is mainly changing as a result of implementation of the investment program aimed at renovation of primary production assets and due to charging of depreciation. In the reporting year, fixed assets increased by RUB 1,271 m, or 2 %, due to the fact that capital investments exceeded annual depreciation. Since 2012, increase in fixed assets amounted to RUB 4,788 m, or 7%.

The main part of the Company's property is comprised of power grid complexes and independent power assets with the voltage of 110 kV and lower used for power transmission, as well as underlying land plots.

Share of current assets of the Company as of the end of the reporting year was 18%, the major part of the current assets, i.e. 78%, falls within receivables.

Non-Current Assets

The main part of the Company's property is comprised of power grid complexes and independent power assets with the voltage of 110 kV and lower used for power transmission, as well as underlying land plots.

PJSC IDGC of Center and Volga Region makes long-term financial investments in the form of investments in shares in other companies. Details on the subsidiary and dependent companies are posted on the Company's website www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/dzo_info/).

Property Complex

In 2016, the structure of property complex of PJSC IDGC of Center and Volga Region did not undergo considerable changes. Its main part was represented by power grid facilities with the voltage of 110 kV and lower,

which ensure power transmission and distribution. The cost of all power grid assets made up 91% of the Company's fixed assets. Non-core assets accounted for about 0.04% of the Company's fixed assets.

The primary way to increase the property assets of the Company in 2016 was investment in construction of new facilities and reconstruction of existing ones.

The Company's activity is based on using its own fixed assets. At the same time, while consolidating its power grid assets, the Company lays a great emphasis on acquisition of leasehold rights. Lease contracts are generally concluded as a result of owners' tender procedures, for medium- and low-voltage grid facilities for a period of more than five years.

In 2016, the Company's management continued implementation of the program of measures aimed at withdrawal from non-core activities. In accordance with the Regulation on Sales of Non-Core Assets of JSC IDGC of Center and Volga Region approved by the Resolution of the Board of Directors (Minutes No. 27 dated November 28, 2008) and the Regulation on Disposal of Residential Properties and Utilities approved by the Resolutions of the Board of Directors (Minutes No. 50 dated December 25, 2009, Minutes No. 88 dated October 31, 2011) the Company sold 25 facilities.

In accordance with the Order of the Government of the Russian Federation No. 4863p-P13 dated July 07, 2016, the Resolution of the Board of Directors of PJSC Rosseti (Minutes No. 245 dated November 30, 2016) the Board of Directors of the Company developed and approved a Program for the Alienation of Non-Core Assets that defines new approaches to the management of non-core assets, the Regulation on Sales of Non-Core Assets of PJSC IDGC of Center and Volga Region, which establishes requirements for procedures of sale of non-core assets conducted on a competitive basis.

To ensure safe and accident-free operation of the Company's power assets, areas with special use conditions are identified and registered as buffer areas of electrical grid facilities. Registration of the buffer areas is made by entering corresponding data into the State Cadastral Register. This improves protection of electrical grid facilities and reduces risks related to improper operations of third parties in proximity to electric lines. Thus, in 2016, the Company performed works aimed at registration of buffer areas for electric lines with the total length of 19,319 km. Considering this, the following buffer areas for overhead electric lines were registered: 35 kV and higher - 99.9% of the total length of these facilities, 6/10 kV - 69% of the total length of these facilities. With allowance for works performed in 2016 for 35 kV and higher substations, the total percentage of registered buffer areas for these facilities was 99.4%.

Long-Term Financial Investments

PJSC IDGC of Center and Volga Region makes long-term financial investments in the form of ownership interests in other companies. As of the reporting date, long-term financial investments in the form of joint ventures were not conducted due to expiration of the period (terms) of their recognition as long-term ones. Information on the Company's participation in commercial organizations in which the Company's interest is less than 50% is provided in Supplement 3 to the Annual Report.

Subsidiaries and Affiliates

As of December 31, 2016, 5 subsidiaries were in the corporate governance system of PJSC IDGC of Center and Volga Region.

The Board of Directors of the Company approved the Procedure for Interaction of JSC IDGC of Center and Volga Region with Entities Whose Shares (Interests) are Owned by the Company (Minutes No. 35 dated March 25,

2009). The document is available on the Company's website (www.mrsk-cp.ru) in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/?PAGEN_1=4).

The document regulates the key issues of corporate interaction with subsidiary and dependent companies, specifies the procedures for making key decisions and exercising corporate control.

Details on the subsidiary and dependent companies are disclosed on the Company's website (www.mrsk-cp.ru) in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/dzo_info).

Forms of Corporate Control over Subsidiary and Dependent Companies

Shareholders' control	Participation of the Company's representatives in management bodies of the subsidiary and dependent companies
Managerial control	Formulation and control of implementation of the development strategy for the subsidiary and dependent companies
	Development and introduction of unified business processes, internal documents and reports into the subsidiary and dependent companies
	Formulation and control of implementation of the HR policy for the subsidiary and dependent companies
Financial control	Planning and control of financial and business operations of the subsidiary and dependent companies

Subsidiaries and Affiliates of PJSC IDGC of Center and Volga Region

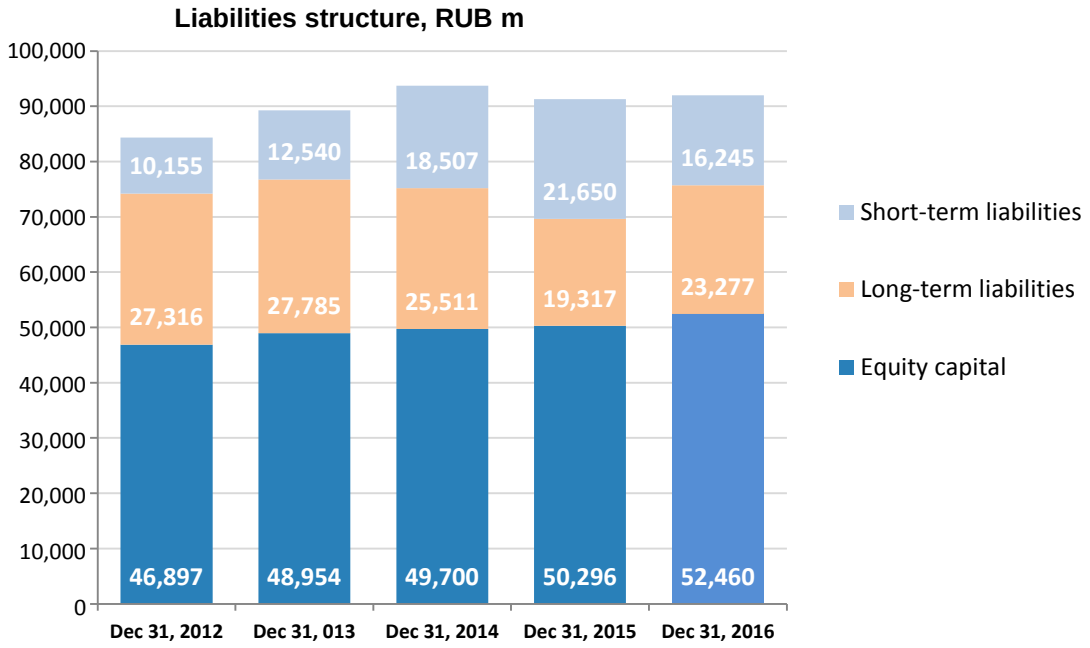
As of December 31, 2016.

– *Participation in core activities; other subsidiary and dependent companies are engaged in non-core activities.*

No.	Full and abbreviated name and location of subsidiary and dependent companies	Registration date	Key activities	Charter capital, RUB	The Company's share in the charter capital of subsidiary and dependent companies*, %	Revenues, RUB ths	Net profit (loss), RUB ths	Dividends received in 2016 for 2015, RUB ths
1	Closed Joint Stock Company Svet (CJSC Svet), 8 Lunacharsky Street, Bor, Nizhny Novgorod Region	March 6, 1998	Power transmission	2,402,883	100	43,466	5,454	2,444
2	Joint Stock Company Berendeevskoe (JSC Berendeevskoe), Berendeevka Village, Lyskovo District, Nizhny Novgorod Region	February 6, 2004	Production, processing and sales of agricultural products	54,670,600	100	34,196	111	0
3	Joint Stock Company Automobile Transport Unit (JSC ATU), 50 Yuzhnaya Street, Orichi Settlement, Orichevsky District, Kirov Region	October 14, 2003	Transportation services, motor vehicle servicing, maintenance and repair of transport, services for re-equipment and assessment of transport	205,063,407	100	1,042,428	2,706	1,915
4	Joint Stock Company Sanatorium-Preventorium Energetik (JSC Sanatorium-Preventorium Energetik) 10 Aviatsionnaya Street, Izhevsk, Udmurt Republic	January 10, 2003	Healthcare, medical treatment, health resort, sports and recreation, accommodations and catering services to the population	46,953,097	100	38,848	30	0
5	Joint Stock Company Interregional Energoservice Company Energoefficiency Technologies (JSC IEC Energoefficiency Technologies), 6 Proviantskaya Street, Nizhny Novgorod	December 27, 2010	Energy services	20,000,000	51	45,780	1,072	417

* *The Company's share in the charter capital of subsidiary and dependent companies equals the percentage of their voting shares owned by the Company.*

4.1.3.2. Liabilities



The largest share in the Company's liabilities structure fell within equity (capital and reserves), as it accounted for 57% of liabilities as of the end of the reporting year. The Company's equity capital increased by RUB 2,164 m, or 4%, year-on-year and by RUB 5,563 m, or 12%, since 2012.

In 2011, all the Company's branches adopted the RAB-based tariff regulation system for power transmission, which in the long run ensured the recovery of borrowings made to fund investment activities. In this regard, in 2011-2014, the share of equity was gradually decreasing as the Company raised borrowings to fund its investment program. In 2015-2016, the Company decreased its debt load, which drove an increase in equity share in its liabilities.

As of December 31, 2016, the short-term liabilities of the Company decreased by RUB 5,404 m, or 25%, and the long-term liabilities increased by RUB 3,960 m, or 21%. These changes were mainly caused by refinancing and reclassification of credit portfolio in the volume of RUB 6,268 m from long-term to short-term loans.

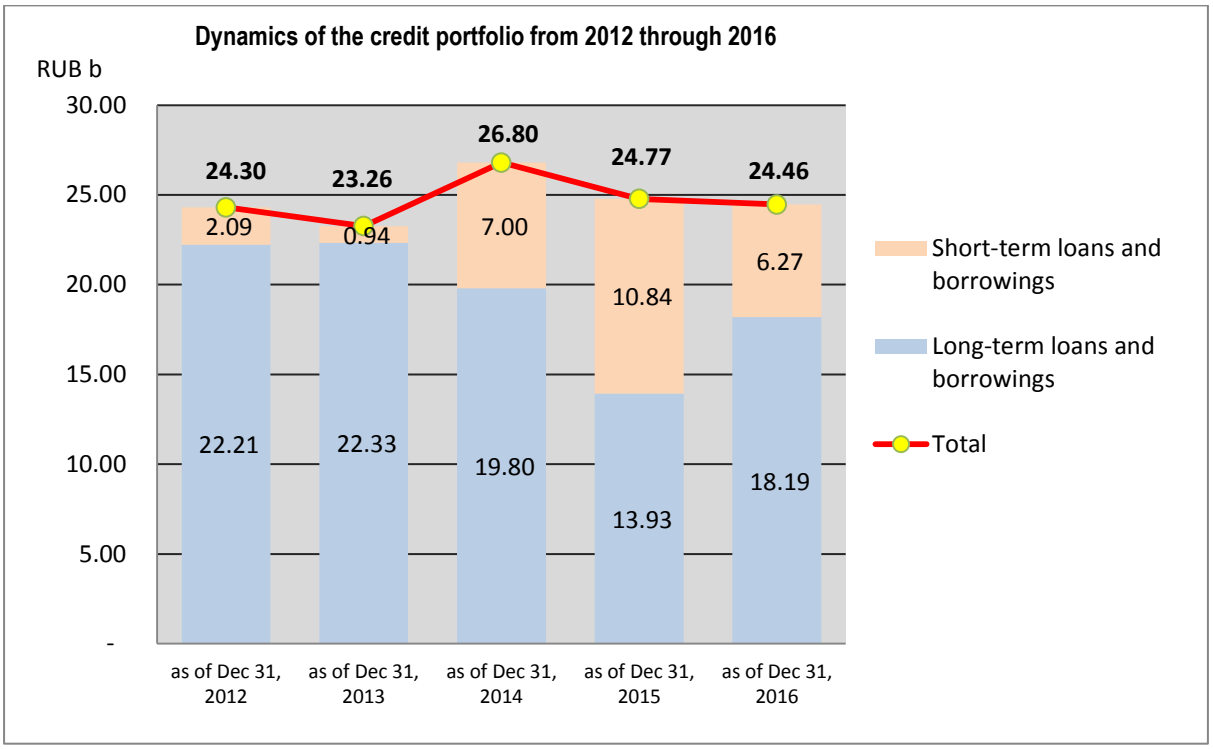
4.1.4. Credit Policy

Credit Portfolio

Credit Portfolio of the Company as of December 31, 2016

Loan type	Amount, RUB b	Maturity
Loans	24.5	2017-2021

As of December 31, 2016, the credit portfolio of the Company was RUB 24.5 b was with the repayment period from 2017 through 2021, including long-term loans with the repayment period from 2018 through 2021 and short-term loans with the repayment period expiring in 2017.



In 2016, the total amount of borrowings raised by the Company was over RUB 23 b, including RUB 1.18 b for financing investment activities. All loan funds were raised without any pledge from the Company.

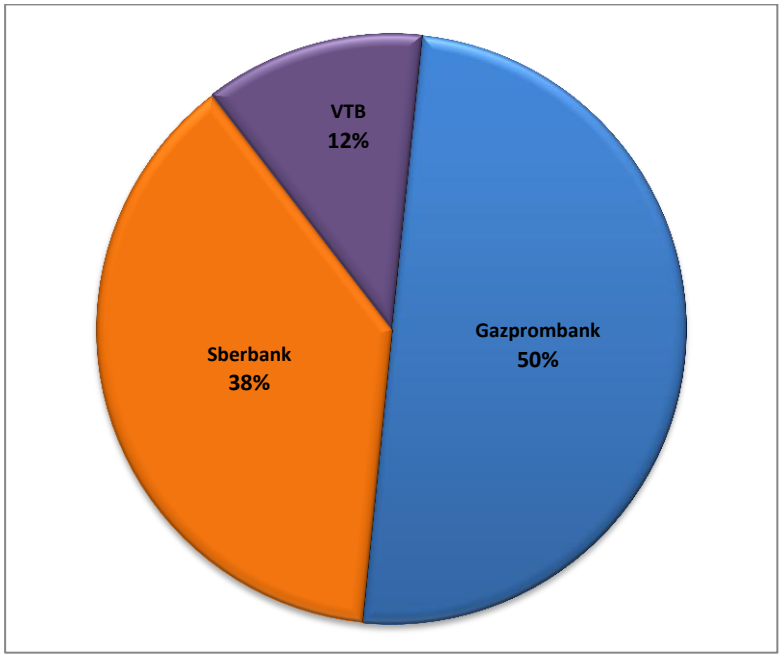
Changes in the Loans and Borrowings in 2016, RUB ths

Loans and borrowings as of December 31, 2016	**24,769,925**
Long-term loans and borrowings	13,928,505
Short-term loans and borrowings	10,841,421
Raised in 2016	**23,003,774**
Long-term loans and borrowings	18,265,120
investments	1,180,257
refinancing	17,084,863
Short-term loans and borrowings	4,738,654
Repaid in 2016	**23,318,727**
Interest accrued in 2016	**2,397,543**
Interest paid in 2016	**2,397,543**
Re-classification of debt*	
Long-term loans and borrowings	-6,268,251
Short-term loans and borrowings	6,268,251
Loans and borrowings as of December 31, 2016	**24,454,973**
Long-term loans and borrowings	18,186,722
Short-term loans and borrowings	6,268,251

** Transformation of the debt from long-term to short-term with a repayment period of less than a year.*

The Company's weighted average credit portfolio rate as of December 31, 2016 was 9.62% p.a.

Credit portfolio by banks as of December 31, 2016



Bonded Loan

In 2016, the following unplaced bonds of the Company were on the List of securities admitted to trading in CPJSC MICEX Stock Exchange:

- exchange bonds series BO-02 with the nominal value of RUB 5 b and the maturity of 10 years (identification number of the issue 4B02-02-12665-E dated May 23, 2013);
- exchange bonds series BO-03 with the nominal value of RUB 5 b and the maturity of 10 years (identification number of the issue 4B02-03-12665-E dated May 23, 2013);
- exchange bonds series BO-04 with the nominal value of RUB 5 b and the maturity of 10 years (identification number of the issue 4B02-04-12665-E dated May 23, 2013).

On October 10, 2016 CPJSC MICEX Stock Exchange assigned an identification number to the Exchange Bonds Program series 001P of PJSC IDGC of Center and Volga Region. Exchange bonds of the Company with the total nominal value up to RUB 25 b and the maturity of up to 30 years may be floated under the Program. The program has indefinite duration.

As of December 31, 2016, the exchange bonds of the Company series BO-02, BO-03 and BO-04 and under the Exchange Bonds Program series 001P were not floated. There was no necessity to float the exchange bonds of the Company due to unfavorable conditions in the debt market in 2016.

Credit Rating

Moody's Investors Service Rating Agency assigned credit ratings to PJSC IDGC of Center and Volga Region:

- long-term international credit rating at the Ba2 level, a "stable" outlook;
- probability of default rating Ba2-PD.

On April 27, 2016, the rating of the Company was confirmed at the Ba2 level with the "stable" outlook. This rating action was taken by the agency as a result of confirmation of the sovereign rating of the Russian Federation. The agency explains its decision by the fact that the Company will be able to maintain its creditworthiness and a good level of liquidity in stable conditions of the Russian economy in 2016-2018.

4.1.5. Tariff Policy

4.1.5.1. General Information

PJSC IDGC of Center and Volga Region performs the following types of activities subject to government regulation:

- **Power transmission services;**
- **The services of technological connection** to the Company's power grids.

Detailed information on all types of the Company's activities is presented in the section “Report on production” of this Annual Report.

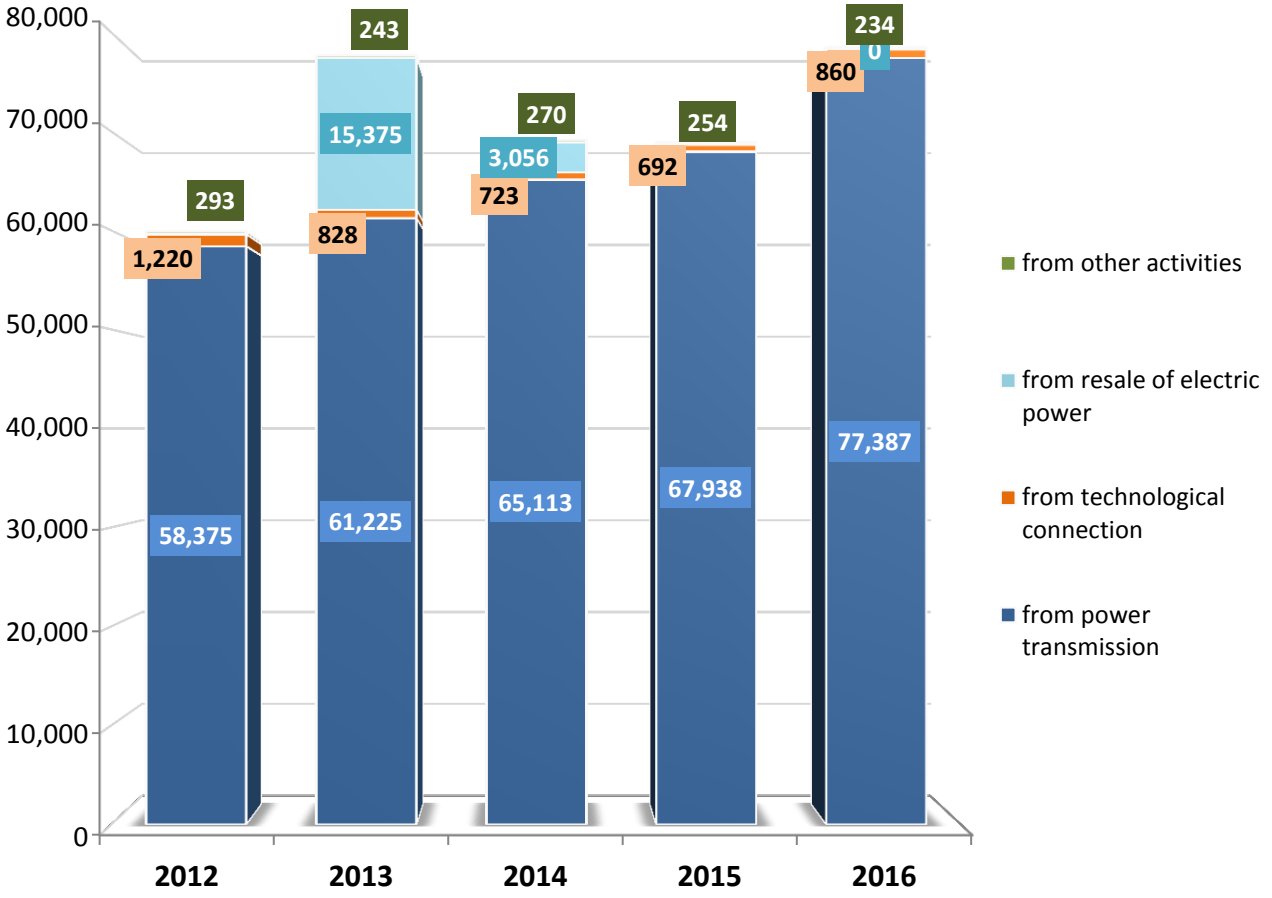
The state regulation is the key factor that influences the Company's activity. Regulatory authorities of the constituent entities of the Russian Federation establish the tariffs for power transmission services within the limits of the maximum levels of power transmission service tariffs set by the Federal Antimonopoly Service of Russia. In recent years, the Government of the Russian Federation has been implementing a policy of limited growth of regulated tariffs for the services of infrastructure companies.

Key regulatory documents governing the Company’s activities and the list of regulatory authorities responsible for setting power transmission tariffs within the Company's regional footprint are presented in Supplement 3 to this Annual Report.

In 2016, the revenue of PJSC IDGC of Center and Volga Region amounted to RUB 78,480 m, which represents a RUB 9,596 m (or 13.9%) increase in comparison to the previous year.

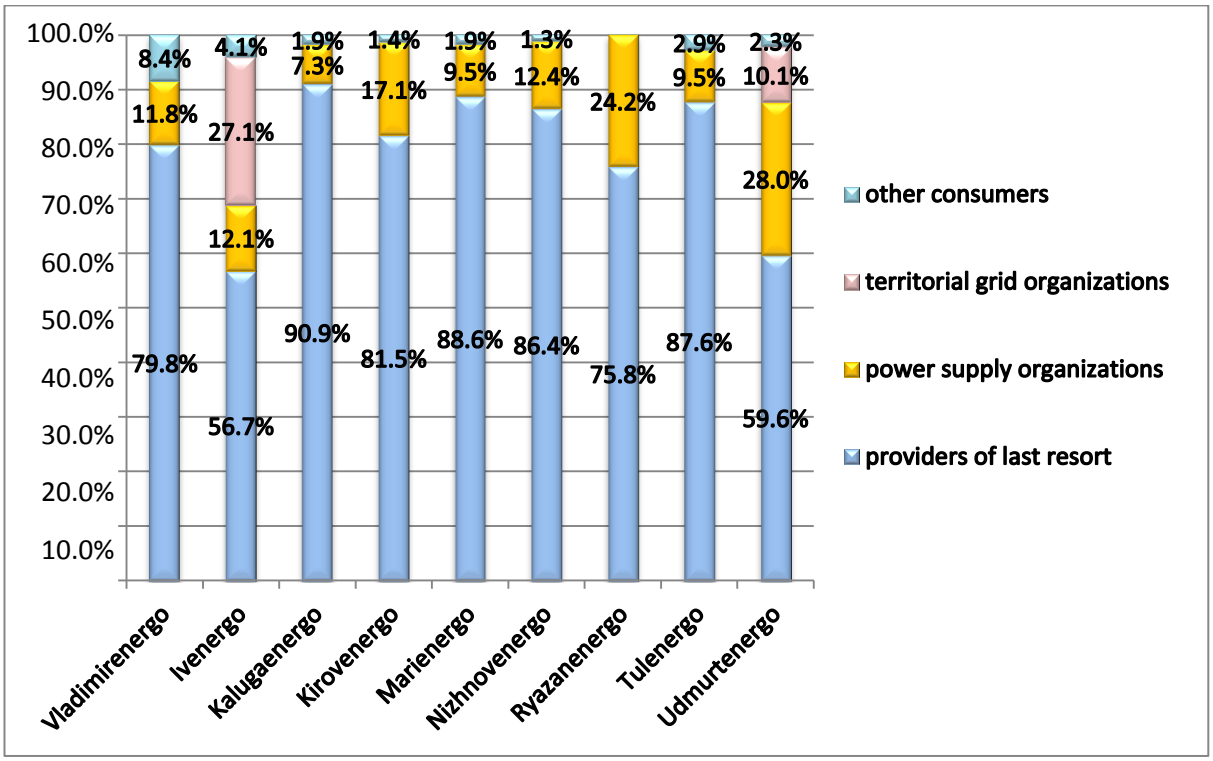
The increase in revenue in 2016 resulted from the growth of tariffs for power transmission and the growth in the volume of productive power supply to consumers.

Dynamics of revenue by activities in 2012-2016



Note: The revenue for 2013-2014 is presented in accordance with the accounting statements (without the "internal turnover" between transmission and sales (resale) of electric power).

Revenues for rendered power transmission services in 2016 by consumer groups



In the revenue structure from power transmission services rendered in 2016, providers of last resort had the largest share, which amounted to 81.3% (RUB 62,929 m, VAT excluded), followed by power supply organizations with 14.2% (RUB 10,969 m, VAT excluded), direct consumers with 2.6% (RUB 1,981 m, VAT excluded) and related territorial grid organizations with 1.9% (RUB 1,508 m, VAT excluded).

Considering the revenue in terms of the Company's branches, the largest contribution (26.8%) was made by Nizhnovenergo (RUB 20,754 m, VAT excluded), the smallest one (3.9%) – by Ivenergo (RUB 3,036 m, VAT excluded).

4.1.5.2. Power Transmission Tariffs

Power transmission services are subject to tariff (price) regulation in the power industry.

Regulatory authorities of the constituent entities of the Russian Federation established the following tariffs for power transmission services:

- Uniform (boiler) tariffs – tariffs for settlements with service consumers located in the territory of a given constituent of the Russian Federation and belonging to the same group (category) among those which are subject to differentiation of electric power (capacity) tariffs under the legislation, regardless of whose grids they are connected to;

- Individual tariffs – tariffs for settlements between two grid organizations for power transmission services rendered to each other;

- Tariffs for power transmission services for power grid organizations, which supply power largely to a single consumer (introduced by the Regulation of the Government of the Russian Federation No. 179 dated March 7, 2014).

Tariffs for power transmission services for the reporting regulation period are established with calendar breakdown by half-year periods. At that, tariffs for the first half-year are established at the level not

exceeding the respective tariffs for the second half-year of the previous regulation period as of December 31, unless otherwise stated in the regulatory acts of the Government of the Russian Federation.

Tariff regulation of all branches of PJSC IDGC of Center and Volga Region is performed on a long-term basis using the Regulatory Asset Base (RAB) method.

Transition to RAB-regulation was performed as agreed upon with Federal Tariff Service in several stages:

as of January 1, 2009, – Ryazanenergo and Tulenergo Branches;

as of January 1, 2010, – Vladimirenergo, Kalugaenergo and Udmurtenergo Branches;

as of January 1, 2011, – Nizhnovenergo, Marienergo, Kirovenergo and Ivenergo Branches.

In 2012, the long-term regulation period for all the branches was prolonged to 2017 and the long-term RAB parameters were established (revised) (as agreed with Federal Tariff Service of Russia).

On January 1, 2015, within the framework of the Regulation of the Government of the Russian Federation No. 750 dated July 31, 2014, certain regulatory authorities of the constituent entities of the Russian Federation revised the basic level of operating expenses (including the use of comparative method).

Long-term parameters of RAB-regulation in terms of the Company's branches established by the regulatory authorities prior to 2017 are presented in Supplement 3 to the Annual Report.

In accordance with the effective legislation, the required gross revenue (RGR) should be annually adjusted for deviation of actual and target calculation parameters, as well as for implementation of the approved investment program and achievement of reliability and quality indicators for rendered services.

Tariff Regulation in 2016

In 2016, the general precondition of tariff regulation was the federal-level limitation of growth of power-grid service tariffs from July 1, 2016 (no more than 7.5%), in accordance with the forecast for social and economic development of the Russian Federation approved by the Government.

The Order of the Federal Antimonopoly Service of Russia No. 1342/15 dated December 29, 2015 established the maximum levels of power transmission service tariffs for 2016.

The regulatory authorities of 5 constituent entities of the Russian Federation (Vladimir, Ryazan, Nizhny Novgorod and Tula Regions, as well as Mari El Republic) established power transmission service tariffs exceeding the maximum tariff levels established by the FAS of Russia by an investment component.

Based on the tariff and balance decisions made by the regulating authorities of the constituent entities of the Russian Federation for 2016:

- Average tariff for power transmission services was ***168.8*** kopecks/kWh, which is ***18.4%*** higher than in 2015;

- Required gross revenue (RGR) was established in the amount of RUB ***84,214*** m, which is RUB ***10,653*** m, or +***14.5%,*** higher than in 2015;

- Required gross revenue of the branches of the Company was established in the amount of RUB ***41,837*** m, which is RUB ***7,605*** m, or +***22.2%,*** higher than in 2015.

Dynamics of average tariffs for power transmission services and required gross revenue of the branches of PJSC IDGC of Center and Volga Region are presented in the following tables and diagrams.

Dynamics of Average (Boiler) Tariffs for Power Transmission Services, kopecks/kWh

Branch	2012	2013	2014	2015	2016
Vladimirenergo	130.2	141.2	149.6	168.5	191.4
Ivenergo*	79.3	89.0	99.58	107.2	123.5
Kalugaenergo	152.7	164.0	173.7	188.4	205.1
Kirovenergo	103.6	118.4	127.1	138.2	158.6
Marienergo	128.9	142.1	128.1	144.9	194.2
Nizhnovenergo	108.2	121.3	128.5	145.8	192.2
Ryazanenergo	113.9	124.2	129.0	135.2	146.8
Tulenergo	134.9	151.2	165.7	182.9	200.3
Udmurtenergo**	90.2	95.9	85.4	85.0	99.8
Company Total	**113.2**	**125.1**	**130.19**	**142.5**	**168.8**
Increase, %	103.0%	110.5%	104.1%	109.4%	118.4%

**) A mixed boiler model is used in the Ivanovo Region, thus the average tariff was determined on the basis of income-bearing RGR and productive supply of Ivenergo Branch.*

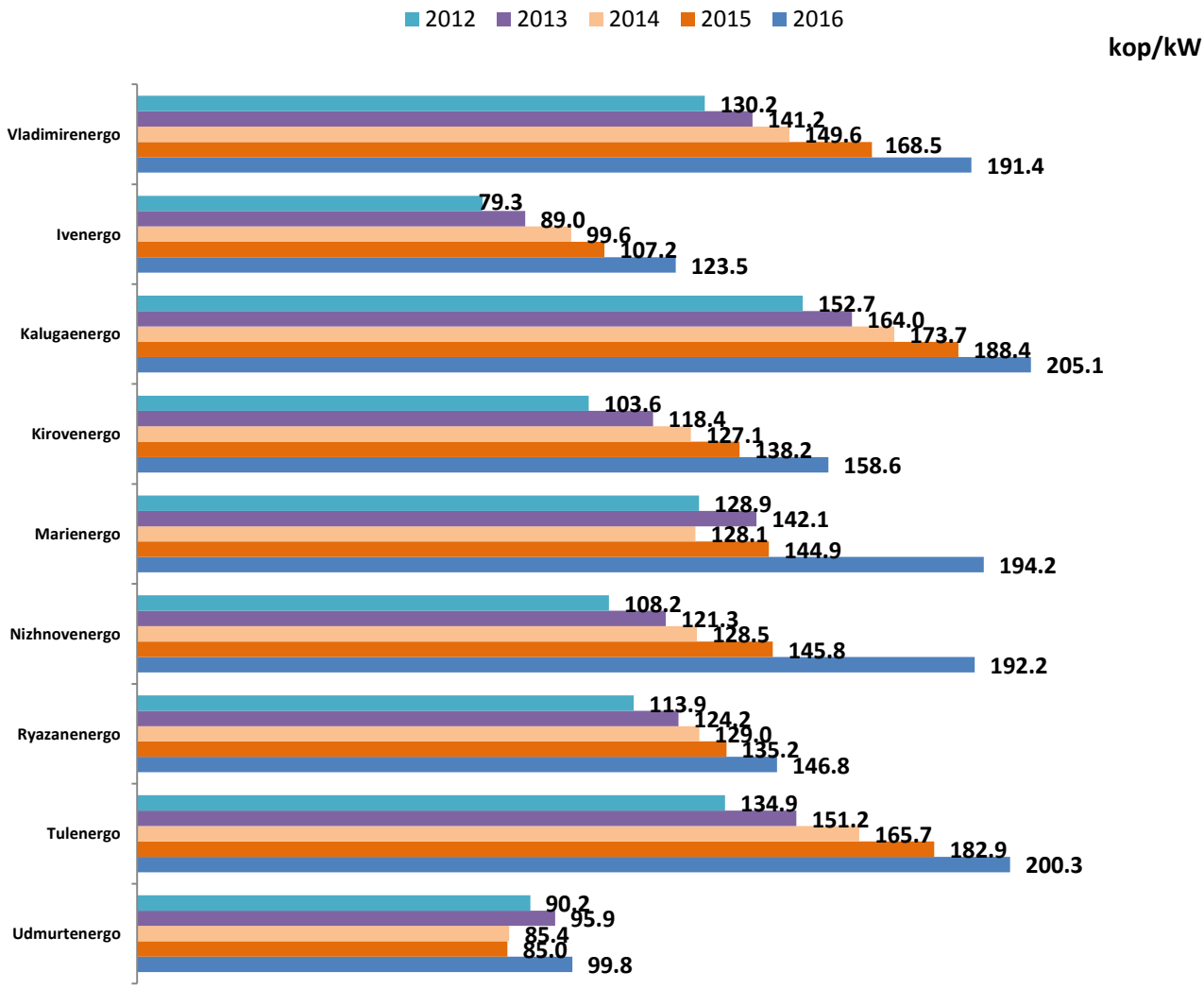
***) A model of boiler in the Udmurt Republic changed in 2014, thus the average tariff for 2014 was determined on the basis of income-bearing RGR and productive supply of Udmurtenergo Branch.*

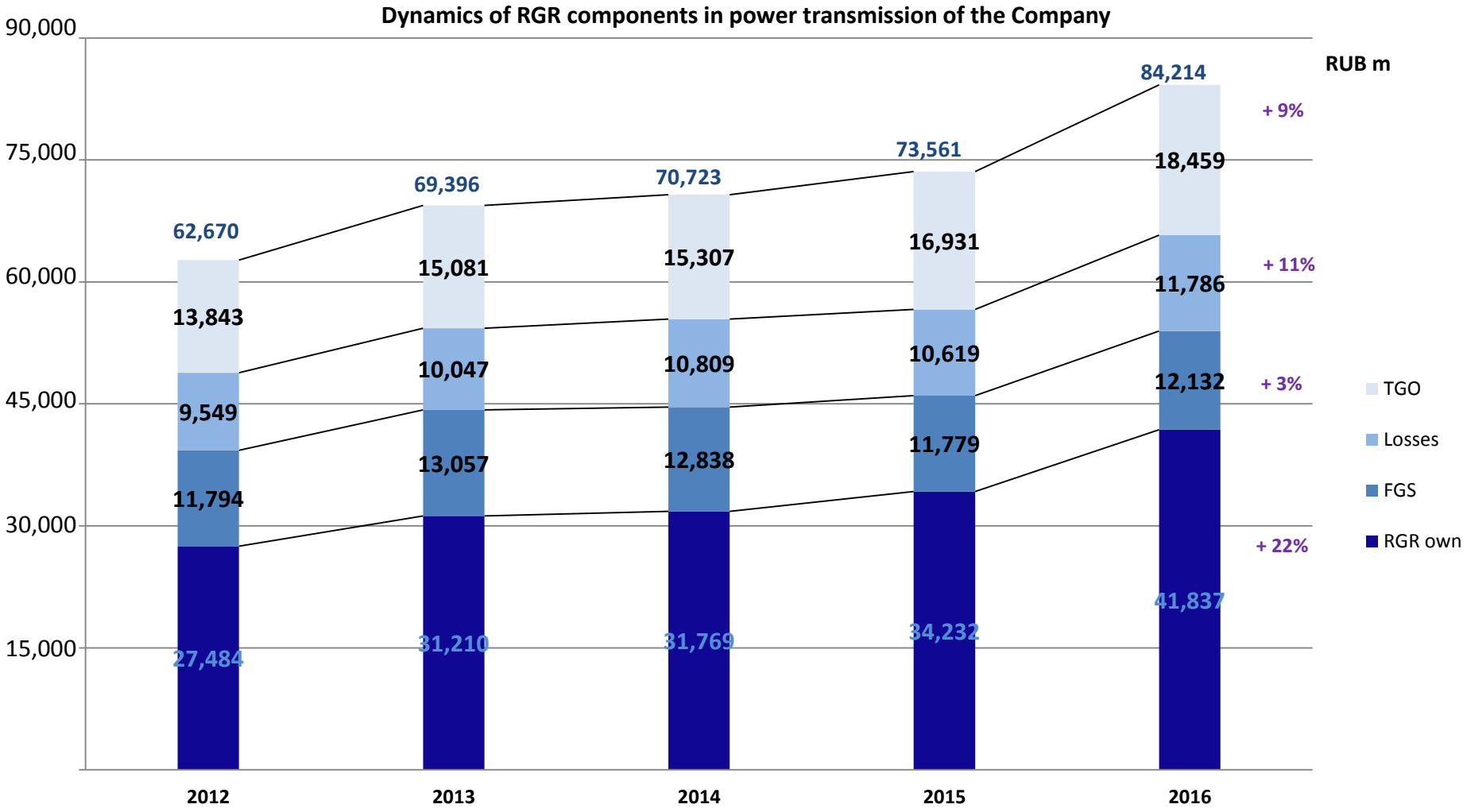
Dynamics of Required Gross Revenue, RUB m

Branch	RGR total					RGR own*				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Vladimirenergo	7,406	8,001	7,975	8,568	10,011	2,788	3,112	2,909	3,557	4,389
Ivenergo	2,442	2,705	2,919	3,008	3,405	1,110	1,266	1,586	1,395	1,748
Kalugaenergo	5,890	6,622	7,269	8,009	8,507	2,884	3,263	3,666	4,388	4,677
Kirovenergo	6,053	6,516	7,062	7,552	8,396	2,346	2,765	3,065	3,940	4,470
Marienergo	2,944	3,405	3,047	2,861	3,448	1,042	1,364	840	699	1,050
Nizhnovenergo	18,326	20,478	20,975	21,054	25,738	8,573	9,729	9,722	9,783	13,738
Ryazanenergo	5,572	6,091	6,440	6,805	7,085	2,574	2,842	2,943	3,285	3,376
Tulenergo	7,557	8,396	8,798	9,387	10,311	3,773	4,278	4,436	4,730	5,287
Udmurtenergo	6,480	7,183	6,239	6,319	7,314	2,395	2,592	2,603	2,455	3,101
Company Total	**62,670**	**69,396**	**70,723**	**73,561**	**84,214**	**27,484**	**31,210**	**31,769**	**34,232**	**41,837**

** RGR of a branch (excluding costs of services provided by PJSC FGC UES, power losses and other TGO services).*

Dynamics of average tariffs for power transmission services by the branches




Dynamics of RGR components in power transmission of the Company
RUB m
90,000
75,000
60,000
45,000
30,000
15,000
2012
2013
2014
2015
2016
62,670
69,396
70,723
73,561
84,214
13,843
15,081
15,307
16,931
18,459
9,549
10,047
10,809
10,619
11,786
11,794
13,057
12,838
11,779
12,132
27,484
31,210
31,769
34,232
41,837
+ 9%
+ 11%
+ 3%
+ 22%
TGO
Losses
FGS
RGR own

4.1.5.3. Tariffs for Technological Connection Services

In accordance with the effective legislation, the branches prepare information on expected expenses for the upcoming regulation period, which is used by the tariff regulation authorities as a basis for approval of the following:

- Standard Tariff Rates;
- Rates per unit of maximum power (RUB/kW);
- A formula of payment for technological connection using the established rates;

The specified rates are approved for administrative and investment (last-mile) arrangements.

Administrative arrangements include:

- preparation and submission of technical specifications (TS) by a grid organization to an applicant;
- grid organization's inspection of TS fulfillment by an applicant;
- grid organization's participation in inspection (examination) of the applicant's facilities by an official of the federal authority for power engineering supervision;
- actual connection of the applicant's facilities to power grids and enabling of a switch device by a grid organization.

Last-mile arrangements include those related to construction of electrical grid facilities, from the existing electrical grid facilities to power receivers, namely:

- construction of overhead and cable lines;
- construction of sectioning switches;
- construction of package transformer substations (PTS), distribution transformer substations (DTSS) with the voltage of up to 35 kV;
- construction of power suppliers, substations with the voltage of 35kV and higher.

Key Principles of Determination of Rates

Standard Tariff Rates (STR)

Standard Tariff Rates for administrative arrangements are determined on the basis of calculations which include the costs of labor, transportation and materials for performance of each separate arrangement and target maximum power for connection. Tariff rates are set in prices of the target regulation period, RUB/kW.

Standardized tariff rates as for last-mile arrangements depend on labor costs in different conditions (open or rough terrain, soil type, use of special construction machinery, etc.), brand of the material used and type of the equipment installed. Such rates are calculated on the basis of local estimates in 2001 prices. Indices of changes in estimate cost of construction and installation works as recommended by the Ministry for Regional Development of the Russian Federation shall apply for transition of rates to the current prices when determining the technological connection fee.

Moreover, if the period for arrangements during the applicant's technological connection lasts for more than a year according to the technical specifications, then deflator indices allowing for the period of arrangements shall apply for calculation of the cost of arrangements.

Rates per Unit of Maximum Power

Rates per unit of maximum power as for administrative arrangements are set equal to the standard tariff rates for similar arrangements.

Rates per unit of maximum power for last-mile arrangements are determined using the standard tariff rates and average actual data (on connected volumes of maximum power, length of constructed overhead and cable lines, volumes of maximum power of constructed power facilities) over three previous years.

Tariff Regulation

In accordance with the effective legislation, all branches of PJSC IDGC of Center and Volga Region had delivered their respective forecasts for expected technological connection expenses to tariff regulation authorities by November 1, 2015; those forecasts were used as a basis for approval of standard tariff rates and the rate per 1kW of maximum power (RUB/kW) for 2016.

On the basis of the presented forecasts the tariff regulating authorities of the Russian Federation made the following decisions on determination of standard tariff rates and rates per unit of maximum power for 2016:

- Regulation of the Rates and Tariffs Department of Vladimir Region Administration as of December 15, 2015 No. 51/1;
- Regulation of the Regional Tariff Authority of Ivanovo Region as of December 30, 2015 No. 62-e/1;
- Order of the Ministry of Tariff Regulation of Kaluga Region as of December 29, 2015 No. 609-RK;
- Decision of the Regional Tariff Authority of Kirov Region as of December 18, 2015 No. 48/3-ee-2016;
- Order of the Ministry of Economic Development and Trade of the Mari El Republic as of December 29, 2015 No. 270т and No. 277т;
- Decree by the Regional Tariff Authority of Nizhny Novgorod Region as of December 18, 2015 No. 50/55;
- Regulation of the Head Department of Regional Energy Commission of Ryazan Region as of December 29, 2015 No. 401;
- Regulation of the Tariff Commission of Tula Region as of December 29, 2015 No. 47/1;
- Ministry of Energy, Housing and Utilities Infrastructure and State Tariff Regulation of the Udmurt Republic as of November 27, 2015 No. 22/10.

Technological Connection on Preferential Terms

According to Clause 87 of the Pricing Rules, tariff regulation authorities ruled that in 2016 preferences should be provided to consumers with declared capacity of 15 kW and less (taking into account the power previously connected at the given point) who own facilities of the 3rd category of reliability (per power source), given that the distance from the boundaries of the applicant's territory to the electrical grid facilities of required voltage operated by the grid organization to which the application was filed, does not exceed 300 m in cities, towns and urban-type settlements, or 500 m in rural areas. The technological connection fee for the above mentioned consumers **amounted to RUB 550 (VAT included).**

In 2016, shortfalls in income from technological connection of preferential customers under 15 kW, in average for the Company, amounted to RUB 3,272.7 m, including:

- from administrative arrangements - RUB 747.3 m;
- from investment arrangements - RUB 2,525.4 m.

Also, in accordance with the Clause 17 of the Rules for Technological Connection (Order of the Government of the Russian Federation as of December 27, 2004 No. 861) legal entities or sole proprietors for the purpose of being connected to maximum power of more than 15 and up to 150 kW shall (at the request of such applicants) receive an interest-free extension of payment in the amount of 95% of the fee for technological connection for a period of up to 3 years from the date of signing of the act on technological connection. Shortfalls in income from the provision of interest-free extension of payment amounted to RUB 2.5 m.

Also, in accordance with the Federal Law On Electric Power Industry No. 35-FZ dated March 26, 2003 (Article 23.2), from October 1, 2015 onwards preferences are granted for technological connection of power receivers with maximum power under 150 kW. The above mentioned consumers shall pay 50% of the cost of last-mile arrangement as part of their TC fee. In 2016, shortfalls in income from technological connection of the above mentioned preferential customers amounted to RUB 35.4 m.

In accordance with the Pricing Rules, shortfalls in income from TC of preferential customers shall be considered while setting tariffs for power transmission services.

Average Approved Tariff Rates

The table below shows average standard tariff rates for 2016 calculated in accordance with the decisions of the regulation authorities.

Average Standard Tariff Rates, Arrangements*

Type of standard tariff rate	Vladimirenergo	Ivenergo	Kalugaenergo	Kirovenergo	Marienergo	Nizhnovenergo	Ryazanenergo	Tulenergo	Udmurtenergo
Rate of coverage of TC costs related to administrative arrangements - S1, RUB/kW, including:	**134**	**85**	**1,429**	**370**	**58**	**53**	**138**	**306**	**302**
Preparation and submission of technical specifications (TS) by a grid organization to an applicant	29	17	673	100	9	10	30	109	46
Grid organization's inspection of TS fulfillment by an applicant	11	23	81	51	11	16	45	82	34
Grid organization's participation in inspection (examination) of the applicant's facilities by an official of the federal authority for power engineering supervision	3	11	3	4	6	3	3	47	1
Actual connection of the facilities to power grids and enabling of a switch device by a grid organization	91	35	672	214	32	25	60	68	220
Rate of coverage of the grid organization's OL construction costs - S2, RUB/km	**933,651**	**1,265,775**	**1,211,839**	**1,274,452**	**846,749**	**1,027,871**	**1,412,708**	**840,370**	**957,362**
Rate of coverage of the grid organization's costs related to construction of cable lines - S3, RUB/km	**1,594,062**	**2,288,952**	**1,653,076**	**1,255,618**	**1,161,216**	**2,701,265**	**2,196,516**	**1,416,346**	**2,712,191**
Rate of coverage of the grid organization's costs related to substation construction - S4, RUB/kW	**9,611**	**3,647**	**3,930**	**3,958**	**3,431**	**10,499**	**4,945**	**2,910**	**4,697**

* Average standard tariff rates are given in 2016 prices.

Standard tariff rates for all branches of PJSC IDGC of Center and Volga Region are approved both for administrative and investment arrangements depending on voltage class and maximum power range.

In addition to that, the last-mile arrangements rates are approved at all branches of PJSC IDGC of Center and Volga Region (except for Tulenergo and Udmurtenergo) depending on material brand, type of the equipment used and work method used.

The table below shows average rates per unit of maximum power calculated in accordance with the decisions of the regulation authorities.

Average Tariff Rates per Unit of Maximum Power, Arrangements

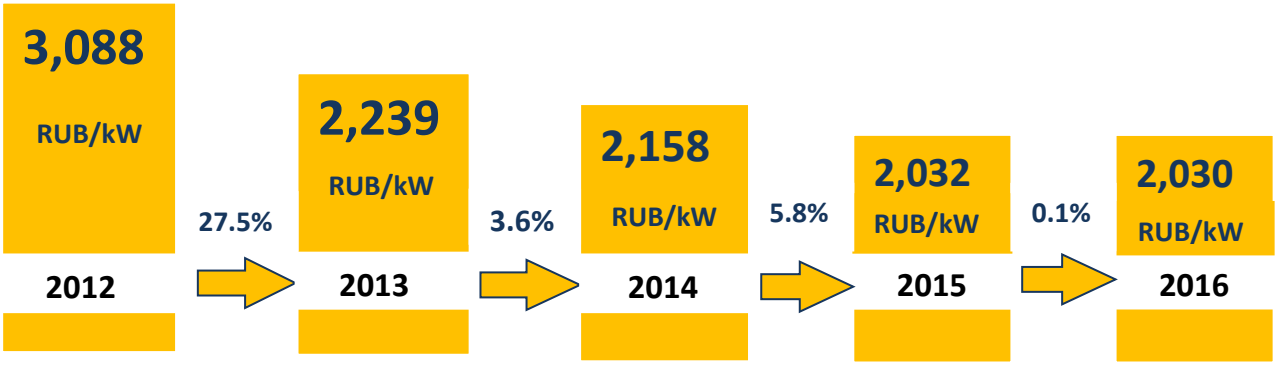
Type of rate, RUB/kW	Vladimirenergo	Ivenergo	Kalugaenergo	Kirovenergo	Marienergo	Nizhnovenergo	Ryazanenergo	Tulenergo	Udmurtenergo
Rates of coverage of TC costs related to administrative arrangements	are set equal to the standard tariff rates of similar administrative arrangements								
Rate of coverage of the grid organization's OL construction costs	9,490	8,165	9,583	9,252	3,014	3,021	12,567	7,781	6,598
Rate of coverage of the grid organization's costs related to construction of cable lines	1,527	8,062	8,647	3,566	1,577	22,161	16,839	5,962	6,241
Rate of coverage of the grid organization's costs related to SS construction	9,611	3,647	3,930	3,958	3,431	10,499	4,945	2,910	4,697

Rates per unit of maximum power for all branches of PJSC IDGC of Center and Volga Region are approved both for administrative and investment arrangements depending on voltage class and maximum power range.

In addition, the rates of SS construction are approved at all branches of PJSC IDGC of Center and Volga Region (except for Tulenergo and Udmurtenergo), depending on type of the equipment used.

In general, the average rate per unit of maximum power (RUB/kW) decreased by 34.3% over the last 5 years across PJSC IDGC of Center and Volga Region. The schedule shows the dynamics of changes of the rate.

Dynamics of Average Tariff Rates per Unit of Maximum Power



Analysis of the rate changes demonstrates that the Russian government methodically implements the policy intended to reduce the technological connection costs, namely:

✓ exclusion of profit tax, expenses related to arrangement of automated metering systems, telemetry, relay protection devices, communication devices and capacitance current compensation devices from the TC fee starting from 2013;

✓ introduction of new national cost estimating standards in 2014. Application of new rates resulted in a general decrease in standard tariff rates of the last-mile arrangements and, consequently, a decrease in rates per unit of maximum power;

✓ Preferential terms of payment for the last-mile arrangements for Technological Connection of Power Receivers with Maximum Power of 150 kW starting from 2015.

Payment Calculation for Individual Projects

Besides, in 2016 in special cases determined by the effective legislation technological connections in the branches of PJSC IDGC of Center and Volga Region were carried out under individual projects. A specific feature of determining the payment for an individual project lies in development of individual cost estimate of technological connection for each particular applicant.

In general, in 2016 there were 11 individual projects with maximum declared power of 163.5 MW worth RUB 423.1 m.

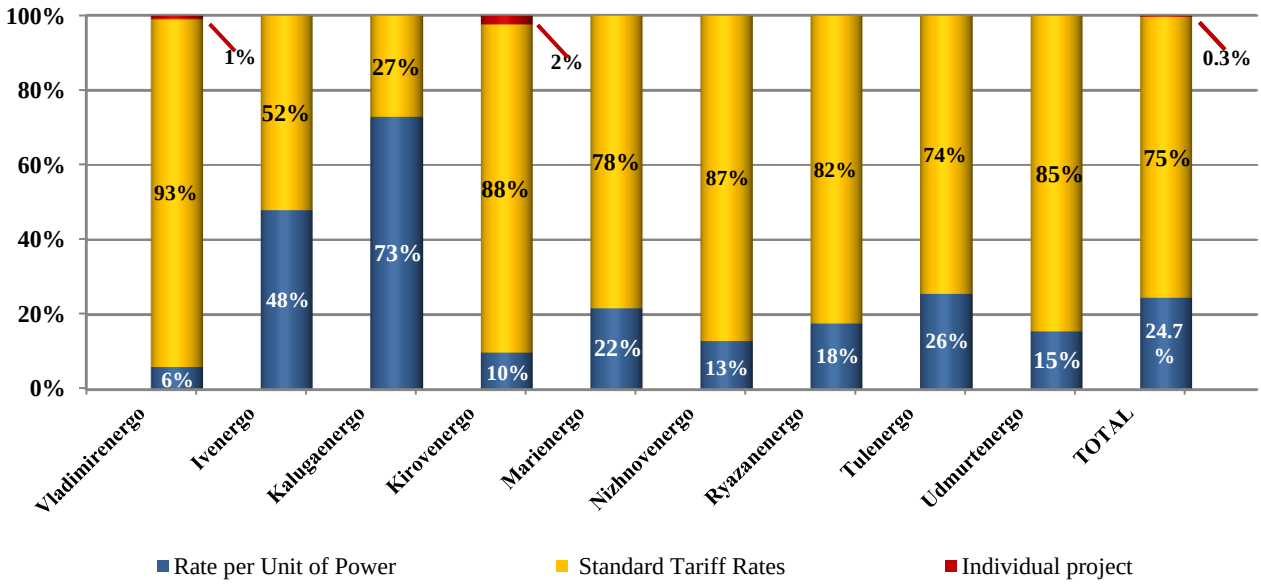
Selection of Payment Rates When Concluding a Technological Connection Agreement

In accordance with the effective legislation, an entity intending to perform technological connection is entitled to choose the type of technological connection fee rate, excluding individual projects. An applicant shall select the fee rate at the stage of conclusion of a technological connection agreement.

The amount of a technological connection agreement shall be calculated using the established rates of those arrangements that are specified as the grid organization's obligations as per the issued technical specifications.

The degree of using specific types of rates when concluding a technological connection agreement with last-mile liabilities in 2016 is graphically presented in the diagram below.

Breakdown of TC Fees Used under the Agreements Concluded in 2016



Analysis of the technological connection agreements concluded in 2016 shows that, at the stage of agreement conclusion, the applicants choose as follows:

- at Vladimirenergo, Kirovenergo, Marienergo, Nizhnovenergo, Ryazanenergo, Tulenergo and Udmurtenergo Branches predominantly standard tariff rates which in the best way reflect the economic feasibility of TC fee depending on brands and types of the materials used and work methods applied under conditions of various voltage levels;

- at Ivenergo Branch both standard tariff rates and rates per unit of maximum power almost in equal measure;

- at Kalugaenergo Branch mostly rates per unit of maximum power.

On average, the ratio of application of standard tariff rates to rates per unit of maximum power in the Company is approximately 3:1.

4.1.6. Procurement Activities

Procurement activities of PJSC IDGC of Center and Volga Region are subject to regulation by the Corporate standard "Management System of PJSC IDGC of Center and Volga Region" STO 01-033-2016. Procurement standard of PJSC IDGC of Center and Volga Region (Regulations on Procurement, hereinafter, the Regulations) was approved by the Board of Directors of the Company on September 23, 2016, (Minutes No. 242 dated September 26, 2016) and developed in accordance with the Federal Law No. 223-FZ dated July 18, 2011, “On Procurement of Goods, Works, Services Made by Legal Entities of Different Types”.

The Regulations govern the procedures for procurement of goods, works and services (products) regardless of their cost. The Regulations are mandatory for the Company's business units involved in procurement activities for the Company's needs.

Procurement regulation is applied in order to:

- Create conditions for timely and full satisfaction of the Company's needs for products with the adequate price, quality, reliability and energy efficiency indices;
- Use funds effectively;
- Increase opportunities for the participation of legal entities and individuals in the procurement procedure and encourage such participation;
- Develop fair competition;
- Ensure publicity and transparency of procurement;
- Prevention of corruption and other abuses in the procurement process.

In procurement activities, the Company seeks to maximize openness of procurement procedures, create a transparent competitive environment and use digital trading platforms. Information on the procurement procedures under the regulation is available on the official website of the Russian Federation designed for posting information on placement of orders (www.zakupki.gov.ru), on the digital trading platform of PJSC Rosseti (www.etp.rosseti.ru), on the B2B-Center digital trading platform (www.b2b-center.ru) and on the official websites of the Company (www.mrsk-cp.ru) and its branches.

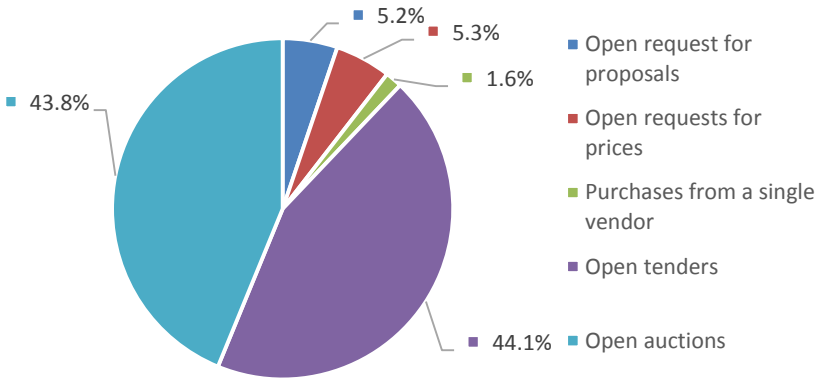
The plan for procurement of goods, works and services is developed taking into consideration a decrease in investment expenses under the strategy of power grid industry development in Russia. Target (marginal) procurement cost of the investment projects related to power grid capital facilities is calculated taking into consideration a decrease in investment expenditures by 30% in comparison with 2012.

In 2016 99.3% of the total amount of procurement procedures and 99.9% of total procurement volume in value terms was implemented on digital trading platforms.

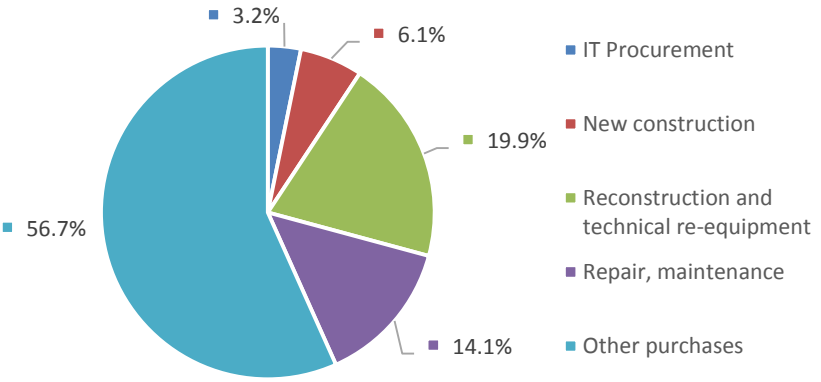
The share of open procurement procedures accounted for 95.6% of the total amount of procurement procedures and 98.4% of total procurement volume in value terms.

In 2016, there were there were in total 2,838 procurement procedures amounting to RUB 18,266,024.02 ths, VAT excluded.

Procurement structure by methods of holding (in percent of total purchases in value terms)



Procurement structure by types of activity (in percent of total purchases in value terms)



Information on Participation of Small and Medium-Sized Enterprises

The volume of procurement from small and medium-sized enterprises amounted to 2,601 purchases amounting to RUB 6,701,890.32 ths, VAT excluded, or 75.6% of the total procurement volume in value terms (excluding 153 purchases amounting to RUB 9,405,371.74 ths, VAT excluded).

Total number of completed procedures with conditions for the participation of small and medium-sized enterprises (according to the approved list of purchases from small and medium-sized enterprises) amounted to 2,153 procedures worth RUB 4,128,967.23 ths, or 46.6% of the total amount of purchases, according to the Calculation Methodology set out in the Order of the Government of the Russian Federation dated December 11, 2014 No. 1352.

Information on procurement of innovative and high-tech products

The procurement volume of innovative and high-tech products amounted to RUB 59,594.05 ths including VAT or 110.8% of the total procurement of innovative and high-tech products in 2015, including purchases from

small and medium-sized enterprises worth RUB 31,249.50 ths, which amounts to 111.6% of the volume of purchases from small and medium-sized enterprises made in 2015.

Measures aimed at improving procurement activities

In 2016, the following measures were carried out to improve organization and implementation of procurement activities:

- Quarterly assessment of the efficiency of procurement activities;
- Training of representatives of the procurement units of branches and the Company's executive administration body in organization and implementation of procurement activities;
- Engagement of small and medium-sized enterprises to join the Program of Partnership between PJSC IDGC of Center and Volga Region and small and medium-sized enterprises;
- Informing small and medium-sized enterprises about procurement activities of PJSC IDGC of Center and Volga Region.

These measures allowed the Company to obtain economic effect as a result of procurement procedures completed to the amount of RUB 1,180,541.24 ths, VAT excluded, or 6.1% of the target declared cost of competitive procurement.

4.2. Human Resources Policy

4.2.1. HR Policy

HR policy of the Company is formed in accordance with the requirements of the Russian legislation, Tariff Agreement for the Power Industry (hereinafter "TA"), Collective Labor Agreement of PJSC IDGC of Center and Volga Region, HR and Social Policy of PJSC IDGC of Center and Volga Region and ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011 standards.

The key objectives of HR and social policy are to promptly meet the Company's demand for workforce of the required quality and ensure the efficiency of personnel activities and increase in productivity. The Company pays special attention to improving quality and efficiency of human resources, encouraging personnel to achieve the Company's objectives and develop their professional skills. High qualification required from personnel of the power grid complex requires significant volume of investment in social and professional development of the Company's employees.

These key objectives of HR and social policy are being achieved by means of implementation of measures in various areas of activity and achieving of set targets:

- in the field of organizational design;
- in the field of staffing support and personnel development;
- in personnel performance management (personnel motivation);
- in the field of social benefits and social protection;
- in the field of occupational safety and work culture.

The social policy of the Company is aimed at creation of favorable conditions for ensuring high living standards for employees, promotion of health, improvement of education and culture of the personnel of PJSC IDGC of Center and Volga Region.

The Company's remuneration system is based on the principles of uniformity, transparency and equal remuneration of labor of equal significance. The amount of remuneration depends on qualification of an employee and difficulty of the work as well as quality and quantity of work done by the employee.

The salary of all the Company's employees is comprised of a fixed compensation, i.e. basic salary, premiums and increments, and a bonus.

4.2.1.1. Number and Structure of the Personnel

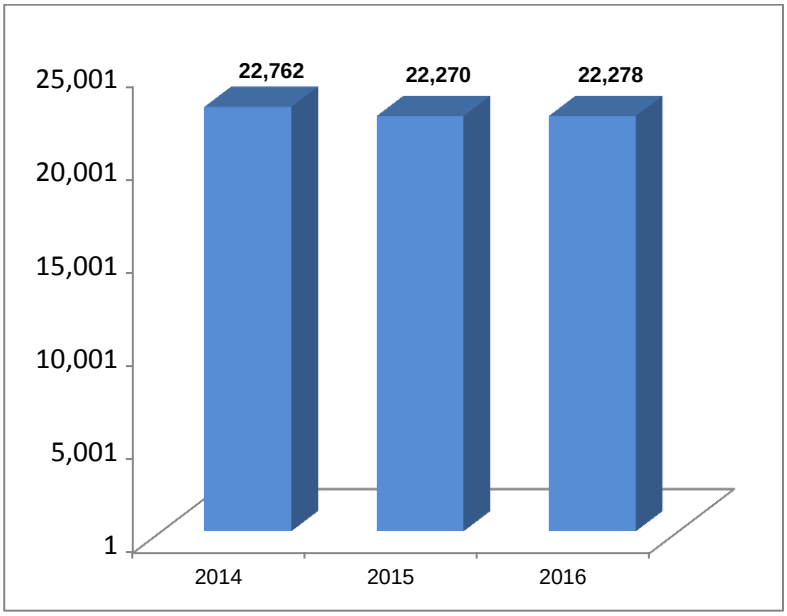
In 2016, the average personnel number of PJSC IDGC of Center and Volga Region reached 22,278, which is 0.04% higher than in 2015.

In 2016, the average personnel number amounted to **22,278 people**

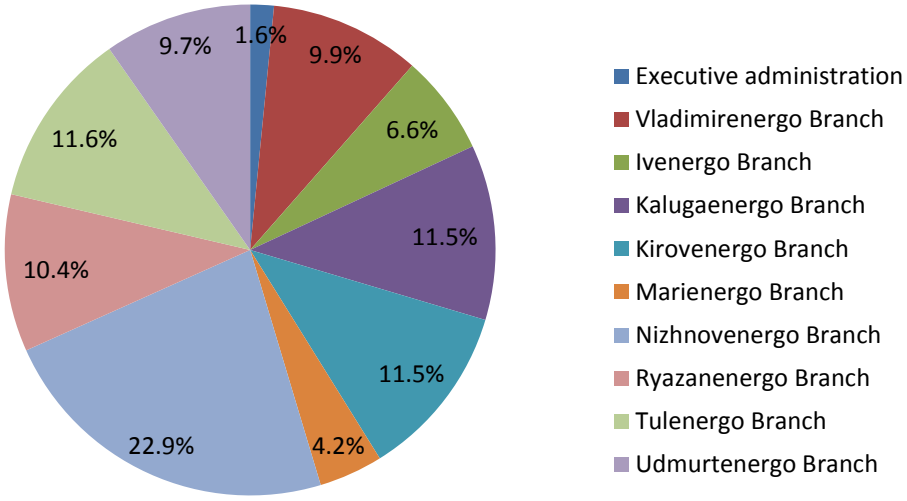
This insignificant increase in the average personnel number was caused by the employment of production personnel at the production departments and power grids units.

The share of production personnel is 88.9% of the total number of personnel of PJSC IDGC of Center and Volga Region.

Dynamics of the average personnel number from 2014 through 2016, people



Average personnel allocation in 2016



The staffing level of PJSC IDGC of Center and Volga Region has been consistent for the last three years and maintained at a quite high level – not lower than 97%.

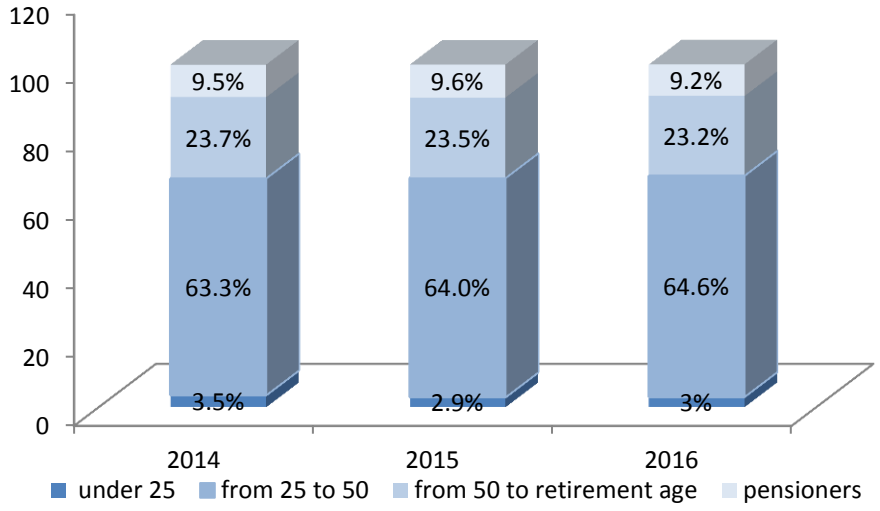
In 2016, the staffing level in the Company amounted to **98.1%**

The average age of employees in 2016 remained at the level of 2015 and was 43 years.

Personnel aged 25 to 50 (65%) constitute a significant proportion of the employees of PJSC IDGC of Center and Volga Region. For the last 3 years there has been a decline in the proportion of employees in the age category "from 50 years to the retirement age" (by 0.5 pp from 2014) and "working pensioners" (by 0.3 pp since 2014).

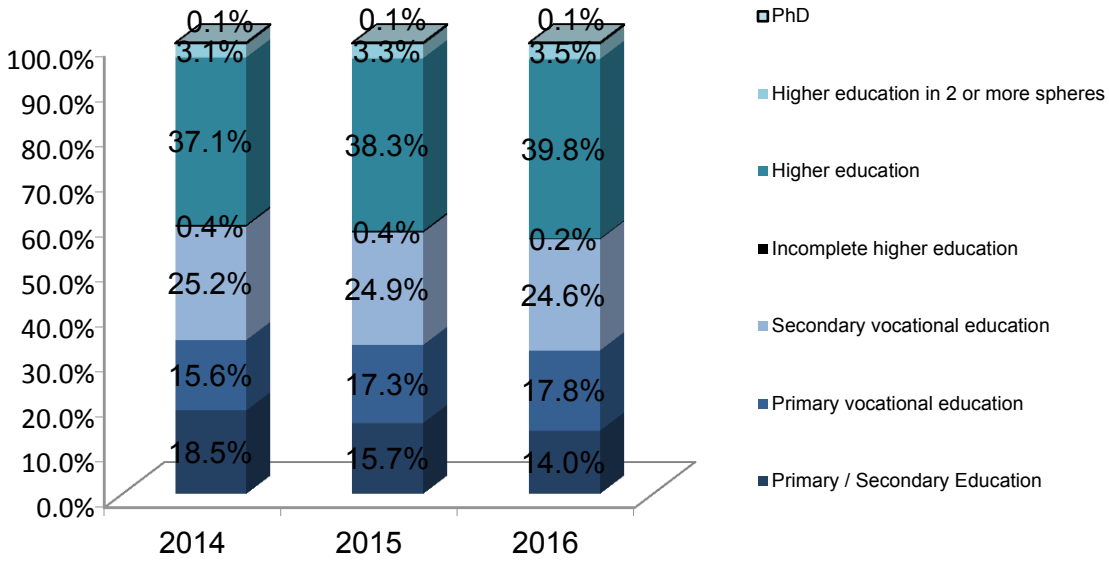
Personnel Breakdown by Age

2014-2016



The personnel of PJSC IDGC of Center and Volga Region is characterized by a sufficiently high level of qualification – about 86% of the personnel have vocational education. This index shows good dynamics as it increased by 4 percentage points over the last 3 years.

Personnel Breakdown by Education Level, 2014–2016



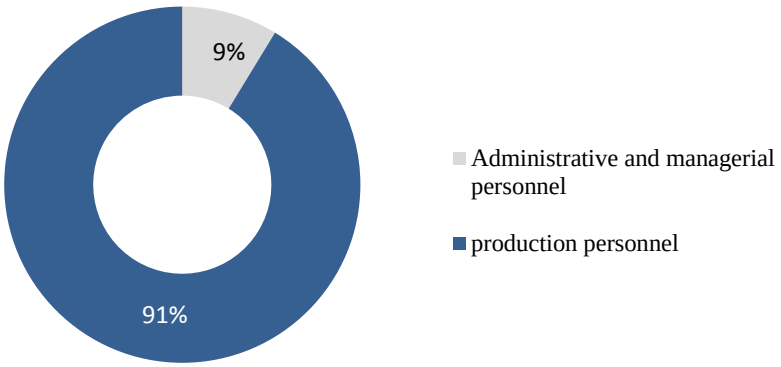
4.2.1.2. HR Training and Development

Training is one of the priorities of the Company's HR policy, which follows provisions of HR and social policy of PJSC IDGC of Center and Volga Region and the Standard "Management System of Training, Retraining, Advanced Training, Occupational Health and Labor Safety. Procedures for Organization and Performance of Staff Management", and a provision on training and development of the Company's personnel.

In the reporting year, 11,341 employees were involved in training activities on a day-release basis, or 51% of the average personnel number.

The majority of employees involved in training activities – 91% (10,349 people) belong to production personnel. In 2015 this index was 92%.

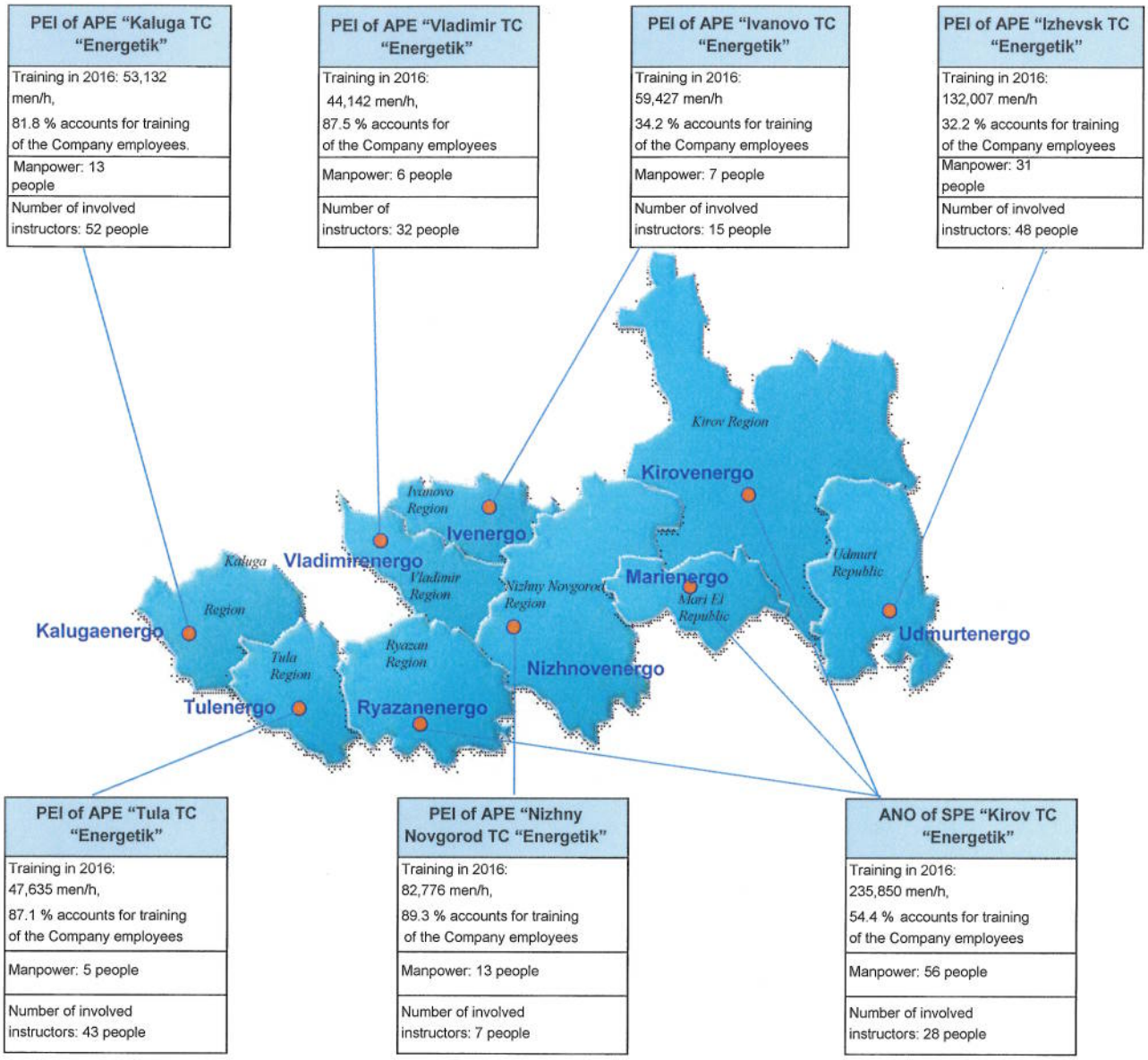
The breakdown of the personnel that took part in training activities on a day-release basis by categories, %



In 2016 7,247 people (64% of the total number of trainees) received vocational training, retraining and advanced training at corporate training centers.

The majority of employees involved in training activities at corporate training centers – 96.8% (7,016 people) also belong to production personnel.

Map of Corporate Training Centers of the Company



Training personnel at corporate training centers involves the following advantages:

- unified standards and methods of training;
- training methods that follow the Company's strategy;
- prompt response and modification of the training process;
- use of corporate training ranges;
- cost reduction;
- development of the personnel skills according to the Company's requirements;
- assessment of training efficiency.

Key training providers, besides corporate training centers, are as follows:

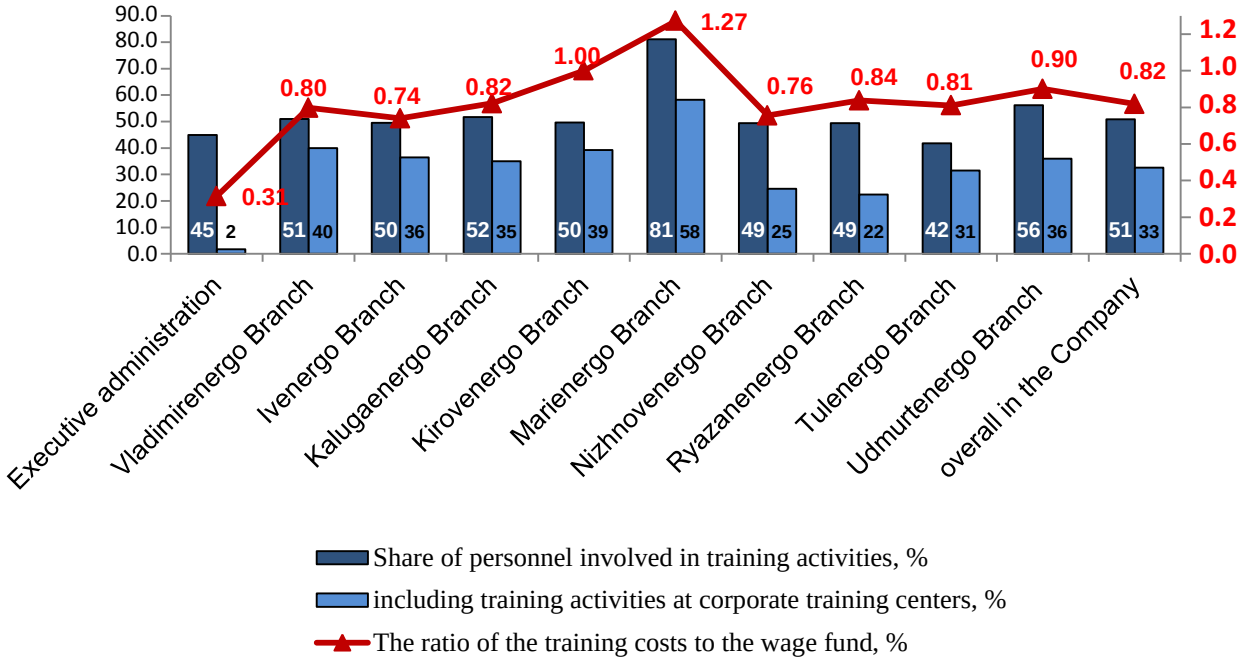
- FSBEI HPE National Research University Moscow Power Engineering Institute (MEI) and its branches;

- FSBEI HPE Ivanovo State Energy University named after V.I. Lenin;
- RSBPEI Skopin Electrotechnical College
- FSAEI FE Standardization, Metrology and Certification Academy and its branches.
- FSAEI FE Petersburg Power Engineering Institute for Advanced Studies and its branches.

Actual expenditures on personnel training (regardless of its sources) amounted to RUB 96,525.3 ths, with RUB 55,194.4 ths (57%) spent on training of personnel at corporate training centers. Expenditures on personnel training in 2015 amounted to RUB 84,811.8 ths, with RUB 52,641.7 ths (62%) spent on training of personnel at corporate training centers.

Actual training costs to personnel wage fund ratio in the reporting year was 0.8% (0.8% in 2015).

The share of employees involved in training activities on a day-release basis and the ratio of actual training costs to personnel wage fund in the reporting year, %



High shares of the employees involved in training activities in comparison to the average personnel number (81%) and the ratio of training costs to personnel wage fund (1.27%) at Marienergo Branch can mostly be attributed to training frequency plan under the Program for advanced training and professional development of personnel.

Cooperation with Educational Institutions

Cooperation of PJSC IDGC of Center and Volga Region with educational institutions involves 41 higher educational institutions (16 of them are basic ones) and 35 secondary specialized educational institutions, including: FSBEI HPE National Research University Moscow Power Engineering Institute (MEI) and its branches, FSBEI HPE Ivanovo State Energy University named after V.I. Lenin, FSBEI HPE Vyatka State University, FSBEI HPE Ryazan State Radiotechnical University, etc. The Company coordinates the interaction between PJSC Rosseti and FSBEI HPE Ivanovo State Energy University named after V.I. Lenin participating in the Consortium for Energy Education.

Cooperation of PJSC IDGC of Center and Volga Region with educational institutions involving students of schools, higher and secondary specialized educational institutions, their parents and teachers includes the following activities:

- Career guidance courses for students;
- Student construction brigades;
- Internship;
- State-funded target training at higher educational Institutions, including education with study allowance sponsored by the Company;
- Training programs update;
- Internships for professors;
- Suggestion of topics for graduation theses;
- Participation of technical managers in the training process;
- Participation in state examination committees;
- Engagement of students and professors in research papers competitions held by the Company;
- Personnel training.

Annually, the Company arranges work for student construction brigades of Russian power grid industry. 123 students of electrical and engineering faculties participated in this project in the reporting year. 28 best students participated in VII Power Grid Industry Student Brigades Rally, organized by PJSC Rosseti in Khimki town, Moscow region.

In order to reinforce theoretical knowledge and receive practical experience students of universities and colleges receive educational, production and pre-diploma training in the Company's units. In 2016, 852 students received practical training in the Company. The organization of internships for students promotes labor and social adaptation of young people, attracts to the Company young prospective professionals with practical skills in the power grid industry.

The Company's branches regularly hold Open Doors events and excursions for students of schools, higher and secondary specialized educational institutions, providing career guidance and giving them an opportunity to visit power facilities and communicate with experienced power engineers, which helps them to decide on their future profession. Employees of the Company tell their guests about the difficult but interesting work of power engineers, professions and specialties in demand on the labor market. The energy museums located in the Company's branches raise a great deal of interest among the students. Power engineers also remind the students about electric safety.

The company takes part in the All-Russia in the competition of graduate qualification works among the bachelors of technical universities on electric power and technical subjects. In the framework of this competition in 2016 8 profile specialists in the thematic areas of the competition were selected among the Company's employees and evaluated the graduation theses of the bachelors.

In addition to this competition, Kirovenergo Branch has been interacting with FSBEI HE Vyatka State University for more than 10 years in the framework of the annual contest for the best graduation paper in the field of the power industry.

4.2.1.3. Talent Pool of the Company

Building the talent pool is one of the main areas of the Company’s work in HR management. The

Company's work with its talent pool is aimed at timely preparation of succession candidates who will perform efficient professional activities in important, key positions. Talent pool training includes professional education, development of professional and managerial skills and motivation of succession candidates with a view to retain them in the organization.

There are the following types of talent pools in the Company:

- management talent pool;
- youth talent pool;
- key personnel talent pool.

The management and youth talent pools are formed at two levels: at the Company level and at the level of branches.

The management talent pool at the Company level is designated to take positions of deputies of General Director and deputies of heads of branches as well as managers of Company business units.

The management talent pool at the level of branches is designated to take positions of managers of business units at branches as well as heads and chief engineers of production departments.

In 2016, the management talent pool of the Company included 835 most promising employees. The level of the management talent pool in the Company as of the end of the reporting period was 91%.

Building the youth talent pool in the Company is mainly aimed at involvement of young employees in solving topical problems of the power grid industry, improvement of their professional competence, finding high-potential young specialists and assistance in their career progress.

The youth talent pool of the Company as of the end of the reporting period included 133 employees.

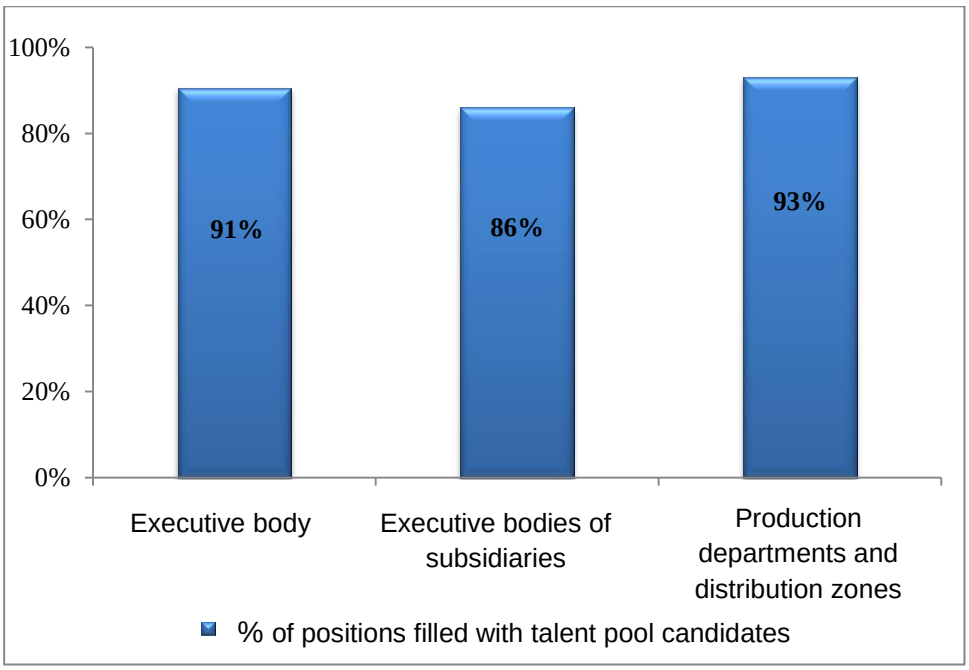
Efficiency of the talent pool directly depends on conditions for development of succession candidates. The Company has approved target positions for each member of the talent pool, formed individual plans of development and assigned mentors from among the most competent employees of the Company, who should assist succession candidates in assimilation of target positions. Implementation of individual plans of development is systematically monitored by the HR Department.

In 2016, 581 succession candidates from youth, management and key personnel talent pools at the Company level and at the level of branches took part in training activities aimed at development of management competences. In order to gain practical management skills, succession candidates performed the employment duties of superiors during their annual leaves and temporary absence.

Members of the talent pool represent the Company at important industry events. Thus, in 2016 young specialists of the Company participated in the following events:

- International Forum of Young Power Engineers and Industrialists "Forsage 2016";
- International Power Industry Forum RUGRIDS-ELECTRO 2016;
- International Forum for Energy Efficiency and Energy Saving ENES-2016.

Level of the management talent pool in the Company as of the end of the reporting period



In 2016, 49% of positions were filled with internal candidates, with 6% thereof (101 people) filled with talent pool candidates (3% in 2015). Among them 88 employees from the management and key personnel talent pools were promoted to superior and key positions or to other positions as part of personnel rotation. Moreover, 13 employees from the youth talent pool were assigned to new positions, including 5 talent pool candidates who were assigned to key positions and 8 candidates who were assigned to other positions as part of personnel rotation.

4.2.2. KPIs and Information on their Achievement

The Company's Key Performance Indicators system (KPI) has been established by the resolution of the Company's Board of Directors dated March, 28, 2016 (Minutes No 218 dated March 30, 2016).

In 2016 the KPI composition and calculating methodology were adjusted by the resolutions of the Company's Board of Directors dated December 27, 2016 (Minutes No. 252 dated December 29, 2016) pursuant to the Government Orders of the Russian Federation dated March 03, 2016 No. 1472p-P13 and July 04, 2016 No. 4750p-P13 with regard to KPI Innovation Activity Efficiency and Reduction in Specific Operating Costs (Expenditures).

In accordance with the above mentioned resolutions of the Company's Board of Directors the following structure and target values for Key Performance Indicators for 2016 were established:

QUARTERLY KPIs:

Composition	Target value in 2016
Zero increase in the number of major accidents	Zero increase
Zero increase in the number of people injured in accidents	Zero increase
Financial stability and liquidity indicator	$KPI_{Own/borrowed\ capital} \geq 0{,}67$ or according to the values in the business plan and $KPI_{Minimum\ current\ liquidity\ ratio} \geq 1$ or according to the values in the business plan

ANNUAL KPIs:

Composition	Target value in 2016

Total shareholder return (TSR)	> change in MOEX RCI (Regulated Companies Index) for the reporting period + 0.01 percentage points
Return on invested capital (ROIC)	≥ planned value, calculated in accordance with the Company's estimated indices established in accordance with the business plan formed on the basis of international financial reporting standards (IFRS).
Decrease in specific operating expenses *(Bonus condition)*	≥ 10%
Level of energy losses	≤ the value specified in the business plan
Securing the reliability of services	≤ 1
Reduction in unit investment expenditures	≤ 1
Compliance with the commissioning schedule	≥ 95%
Compliance with technological connection due dates	≤ 1.1
Increase in labor efficiency	≥ 1,177 RUB/man-hour
Share of procurement from small and medium-sized enterprises (*Dynamic index)*	≥ 10% for the share of procurement procedures that include only small and medium-sized enterprises, and ≥ 18% for the share of procurement from small and medium-sized enterprises (including contracts in which small and medium-sized enterprises act as subcontractors / co-executors)
Efficiency of innovations	≥ 90%

Due to the deadlines and the procedures of preparation of reporting that is used as the source of information for the calculation of KPIs, actual index values, were not drawn up and approved by the Company's Board of Directors at the moment of the Annual Report drafting.

No comparison between the values of the current KPIs and those of the previous years is made because the approaches for establishing target KPIs and calculation of their actual values were changed.

The Key Performance Indicators system used in the Company is connected to the amount of variable remuneration of the management – specific ratio in the amount of paid bonuses is set for each index, quarter and annual bonuses are paid on condition of achieving relevant KPIs.

4.3. Social Responsibility

4.3.1. Social Policy

The Company pays particular attention to the social responsibility issues. The social responsibility is being implemented through development of a social partnership system and in accordance with the Sectoral Tariff Agreement in the power industry of the Russian Federation for 2013-2015, extended for the period of 2016-2018, which served as a basis for the Collective Labor Agreement of PJSC IDGC of Center and Volga Region for 2016-2018 concluded on December 28, 2015. The Collective Labor Agreement comprises a unified list of additional benefits, guarantees and compensations provided to the Company employees above norms stipulated in the legislation. The Company's employment benefits include:

- voluntary health insurance and insurance against accidents and diseases;
- additional paid leave for family reasons;
- support of socially vulnerable families;
- financial assistance to employees going on vacation;
- financial assistance to employees on such occasions as marriage, birth or adoption of children, and on children's birthdays (1 to 3 years);

- financial assistance in organization of funerals of employees and their close relatives;
- financial assistance to employees in preparation for anniversary celebrations;
- payment of benefits to employees retired on disability pensions;
- payment of benefits to children of employees who lost their lives on the job;
- providing conditions for recreation and health improvement of employees;
- providing children of employees with summer camp vouchers and New Year presents;
- occupational pension maintenance of employees.

The Company performs in full the obligations stipulated in the legislation of the Russian Federation, the Sectoral Tariff Agreement in the power industry of the Russian Federation and the current Collective Labor Agreement.

An effective moral incentive for teams and individual employees is their recommendation for government awards, awards of the Ministry of Energy of the Russian Federation and for corporate awards of PJSC Rosseti, executive and legislative authorities of entities of the Russian Federation, and awards of PJSC IDGC of Center and Volga Region and its branches.

In 2016, 92 employees received awards of the Ministry of Energy of the Russian Federation (department awards), and corporate awards of PJSC Rosseti were given to 139 people. Over three ths employees of the Company received industry awards, awards of executive and legislative authorities of entities of the Russian Federation as well as awards of PJSC IDGC of Center and Volga Region and its branches.

Insurance Coverage Program

The Regulation on Insurance Coverage of PJSC IDGC of Center and Volga Region and the Company's Insurance Program stipulate coverage of all employees by voluntary health insurance (VHI) and insurance against accidents and diseases.

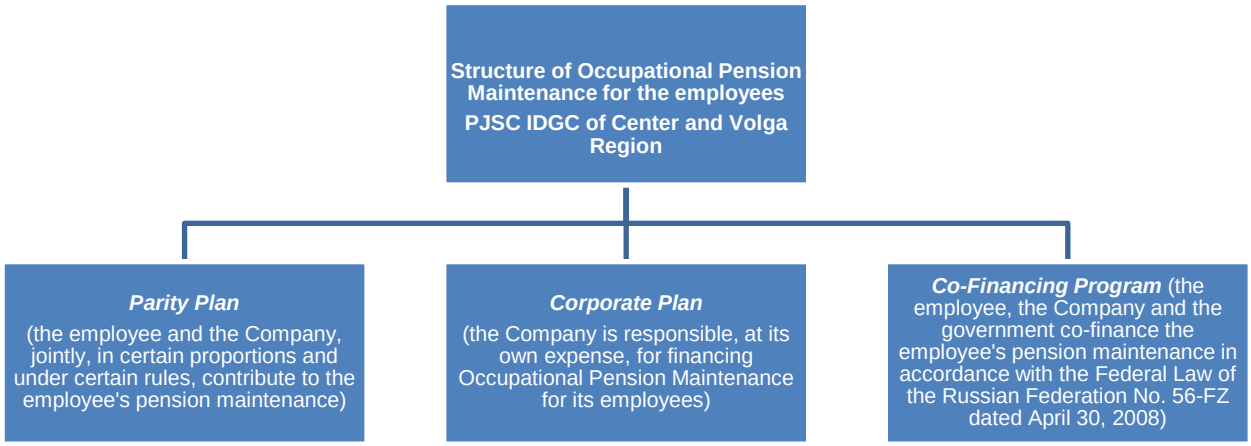
The VHI program involves the full range of medical services: ambulatory, including at home, commercial emergency medical care, hospital and dentist treatment at specialized regional healthcare centers. VHI enables an employee to select any medical institution participating in the program taking into account their health problems and location of the institution. It reduces the period of medical examination and improves the quality of treatment which, in its turn, has a positive effect on the employees' performance.

Along with the basic medical services, the VHI program includes annual influenza and tick-borne encephalitis vaccinations.

The program of voluntary insurance against accidents and diseases provides for the protection of employees for the period of work and on the way to and from work with regard to financial compensation upon the occurrence of an insured event.

Occupational Pension Maintenance

Being a socially oriented company, PJSC IDGC of Center and Volga Region has implemented its Program for Occupational Pension Maintenance (OPM) for a long time. One of the priorities for the Company is occupational pension maintenance. Under this program employees with pension qualifications may be eligible for payments from the Company in addition to state benefits.



In accordance with OPM Program, the Company regularly makes pension contributions to JSC Non--Government Energy Industry Pension Fund. Thus, the Company fully funds occupational pension payments to the employees under the Corporate OPM plan. The amount of such pension shall be determined in accordance with the effective Regulation on occupational pension maintenance for the Employees of PJSC IDGC of Center and Volga Region. The total number of the Company's employees and pensioners included in the occupational pension maintenance schemes under the Corporate Plan amounted to approximately 15 ths people as of the end of 2016. The average rate of monthly occupational pension payable to retired employees in 2016 was 15.6% higher than that of 2015.

Within the framework of the OPM Parity Plan, the employees in collaboration with the Company form their additional occupational pension, the amount of which depends on the accumulated funds. The number of parity plan participants amounted to approximately 5,000 people at the end of 2016.

PJSC IDGC of Center and Volga Region also has a Co-Financing Program, under which the employee, the Company and the government co-finance the employee's pension provision in accordance with the Federal Law of the Russian Federation No. 56-FZ dated April 30, 2008.

In addition to ensuring high living standards of retired employees, OPM Program is also aimed at creation of conditions for efficient resolution of personnel attraction, retention and motivation issues.

The incentive of occupational pension provision enhances the employees' trust in the employer, builds the corporate spirit and increases the Company's employer rating.

Housing Policy

The Housing Policy of PJSC IDGC of Center and Volga Region stipulates provision to the employees of a housing allowance as well as a partial compensation of interest payments on a mortgage loan to a bank (credit organization). The Policy is designated to attract and retain qualified specialists and young talent in the Company. In 2016, within the framework of the Policy, 25 employees of the Company received a housing allowance, 29 employees received a partial compensation of interest payments on a mortgage loan to a bank (credit organization).

Charity

Implementing the social responsibility principles, PJSC IDGC of Center and Volga Region pays considerable attention to charity. In 2016, the Board of Directors of the Company approved the Policy on the procedure of creation and usage of the fund for sponsorship and charity of PJSC IDGC of Center and Volga Region, which determines the goals, objectives, procedures and sources of financing charity and sponsorship.

As part of the traditional Best New Year Tree campaign launched to celebrate the Power Engineers' Day, the Company's employees organized New Year celebrations and gave presents to children in orphanages and in needy and large families within the Company's regional footprint. The children received New Year presents, toys, arts & crafts sets, creativity development sets, stationery, clothes, sets of bed linen, personal hygiene products, sports equipment, furniture items and household appliances.

Organization of Recreation and Promotion of Health of Employees' Children

Traditionally, the Company has placed great emphasis on recreation and promotion of health of employees' children. In 2016, recreation camp vouchers were given to 872 children.

The cost of vouchers is partially compensated by the employer and by the local authorities.

Corporate Culture Development

The Company lays great emphasis on development of its corporate culture and maintenance of its traditions. The values and norms of the existing corporate culture are fixed in the Corporate Code of Ethics. It regulates relations between employees, sets out the rules of business etiquette, defines procedures for dealing with business partners, which helps to create the spirit of cooperation in the Company and maintain efficient interaction between the Company's units, and gives a guarantee of highly ethical business practice to our partners.

The Company pays special attention to commemorating historic events and preserving traditions of the Russian power industry, thus ensuring the continuous development of Russian distribution power grid complex. Today, the branches of the Company have their own museums, devoted to the history of power industry within the Company's regional footprint.

To facilitate informal communication between employees, the Company pays special attention to corporate events, such as the Power Engineers' Day, the Defender of the Fatherland Day, and the International Women's Day. The employees of the Company participate enthusiastically in the arrangement of such events.

In 2016 the Company arranged the Annual Contest of Children's Drawings among the children of the employees. The winning pictures were sent to the Children's Drawing Contest "Rosseti Drawn by Kids" held as a part of a series of events dedicated to celebration of the Company Day. The contest winners were awarded with diplomas and prizes. Based on the contest results, the Company organized an exhibition of winning works.

Sports, Health and Fitness

PJSC IDGC of Center and Volga Region makes health and fitness promotion efforts and organizes mass participation sports events. For instance, it holds Health Days, sports competitions, tourist gatherings of branches, purchases memberships in swimming pools and fitness centers. The teams of branches adequately represent the Company in regional inter-industry competitions and friendly matches.

In April 2016 the team of PJSC IDGC of Center and Volga Region took part in the first mini-football tournament for Russian Grids Cup, timed to coincide with the 3rd anniversary of PJSC Rosseti and won the 5th place in the standings.

The combined team of PJSC IDGC of Center and Volga Region also took part in the VI chess tournament of power engineers, dedicated to the 105th birthday anniversary of the first Soviet world chess champion Mikhail Botvinnik, and won the deserved 3rd place.

Occupational Skills Contests

The Company regularly holds occupational skills contests to improve the professional level of operating and technical staff. Such contests promote best practices and innovations, quality performance and occupational safety in grid equipment maintenance, operational control and repairs.

In 2016
44 events in the framework of the occupational skills contest were arranged by the Company
with approximately 1,500 participants

In 2016, 1,543 Company employees participated in such contests. Altogether, the Company held 44 events in the framework of occupational skills contests, including the following:

- skills contests among crews involved in repair and maintenance of substation equipment and cable networks;
- skills contests among vehicle drivers;
- show contests devoted to fire safety;
- show contests devoted to occupational safety.

The Kirovenergo team represented PJSC IDGC of Center and Volga Region in the inter-regional occupational skills contest among teams for repair and maintenance of substation equipment and cable networks arranged by PJSC Rosseti as well as in the Corporate Open Championship devoted to WorldSkills methodology.

Work with Veterans

In 2016 the Coordination Board of the Company's veterans continued its work, the Board monitors 9 Boards of veterans of the Company branches which unite 5,389 working and 4,288 retired power-industry stagers, including 331 veterans of the Great Patriotic War, homefront workers, prisoners of concentration camps and residents of besieged Leningrad. Each of the stagers has worked in the power industry for more than 20 years.

The main events organized and held by the Coordination Board of veterans and Boards of veterans of the Company branches in 2016 were as follows:

- participation in preparation and celebration of the 71st anniversary of the Victory in the Great Patriotic War;
- meetings with veterans and maintenance of the grave sites of the GPW heroes aimed at promotion of patriotism among the youth;
- fitting of branch museums with war and labor exhibits was continued;
- occupational pension maintenance provision covered 5,063 power industry stagers, financial aid was rendered to 363 participants of the Great Patriotic War;
- free delivery of the corporate newspaper was provided to stagers interested in the life of the Company;
- A unique project dedicated to the 70th anniversary of the Great Victory was continued – an electronic almanac consisting of archive documents, photos and memoirs of the veterans of the Great Patriotic War and power engineers, who worked after the war for power systems of the nine regions which today form the catchment area of PJSC IDGC of Center and Volga Region. The book entitled "Keep in Perpetuity" is available on the corporate website in the section "The Light of the Great Victory": http://www.mrsk-cp.ru/press/special_projects/svet-velikoy-pobedy/elektronnaya-kniga-khranit-vechno/;
- The power industry online museum "Living History", located on the Company's corporate website http://www.mrsk-cp.ru/press/special_projects/zhivaya-istoriya/is being kept up-to-date. The project "Living History" of PJSC IDGC of Center and Volga Region is recognized as one of the best contest works aimed

at popularization of the professions of the fuel and energy industry. The diploma for the 3rd place among the federal companies of the fuel and energy industry was given to the representatives of the Company at the forum ENES-2016.

- The heads of the branches participated in the meetings with the veterans that were arranged in the framework of the International Day of Older Persons and the Power Engineer's Day.

Photos: in the Museum of the Executive board of PJSC IDGC of Center and Volga Region; laying flowers at the Eternal Flame in Nizhny Novgorod

Youth outreach

Attracting and retaining young specialists is a priority of the HR and social policy of PJSC IDGC of Center and Volga Region. With a view to build efficient interaction with young workers, the Company established a Board of Young Specialists in 2010, comprising young active and promising employees ready for professional growth in PJSC IDGC of Center and Volga Region and willing to participate in the Company's social life.

The main goals of the Board of Young Specialists are as follows: acceleration of professional and social adaptation of young employees, assistance in professional growth, development of creative and research initiatives of the youth, and promotion of active participation in production and cultural life of the Company and its units.

Among the events that were held in 2016 with active participation of the Board of Young Specialists were: the “Energy of Life” donor initiative, recreational sports activities and trips, assistance in and organization of events for children from sponsored orphanages, participation in events dedicated to the International Children's Day, volunteer clean-up days, etc.

In 2016 promising young specialists of the Company took part in such major industry forums as the International Youth Forum in the framework of the SPIEF-2016, the international forum of power engineers and industrialists "Forsage-2016", the Youth Championship "Investing in the future" within Power-Gen Russia, the North-Caucasian Youth Forum "Mashuk-2016", the International power forum Rugrids-Electro.

4.3.2. Labor Protection

Labor Protection, Injuries and Occupational Diseases. HR management

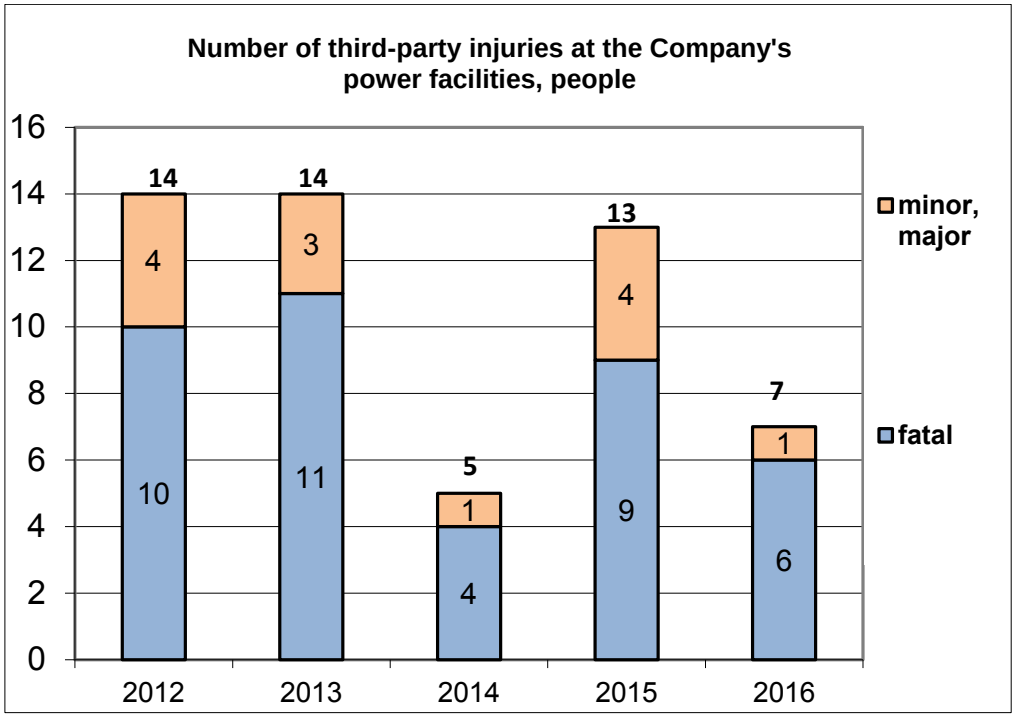
One of the Company's important performance indicators is industrial and occupational safety statistics.

In 2016, the following objectives were defined as priorities for ensuring occupational safety: reducing risks of

In 2016 there were no cases of occupational diseases, and the number of injuries of outsiders at the Company's power facilities was reduced.

industrial injuries and occupational diseases; unconditional compliance with the law requirements; enhancing occupational safety and social protection of employees; protection of their life and health at workplace; ensuring safe condition of equipment; and prevention of injuries of outsiders.

The labor protection activities performed in 2016 resulted in reduction of number of injuries of outsiders at the Company's power facilities; absence of occupational diseases; decrease in the number of employees working in harmful or dangerous labor conditions; improved performance; increasing level of social and legal protection of employees.



Positive results in 2016 were achieved through implementing the Comprehensive Program of PJSC IDGC of Center and Volga Region designed to reduce risks of injury to personnel and outsiders at the power grid facilities for 2014-2017.

This Program was developed on the basis of the results of external and internal audit inspections, comments and proposals submitted by occupational safety managers, and injury reports analysis. It is aimed at:

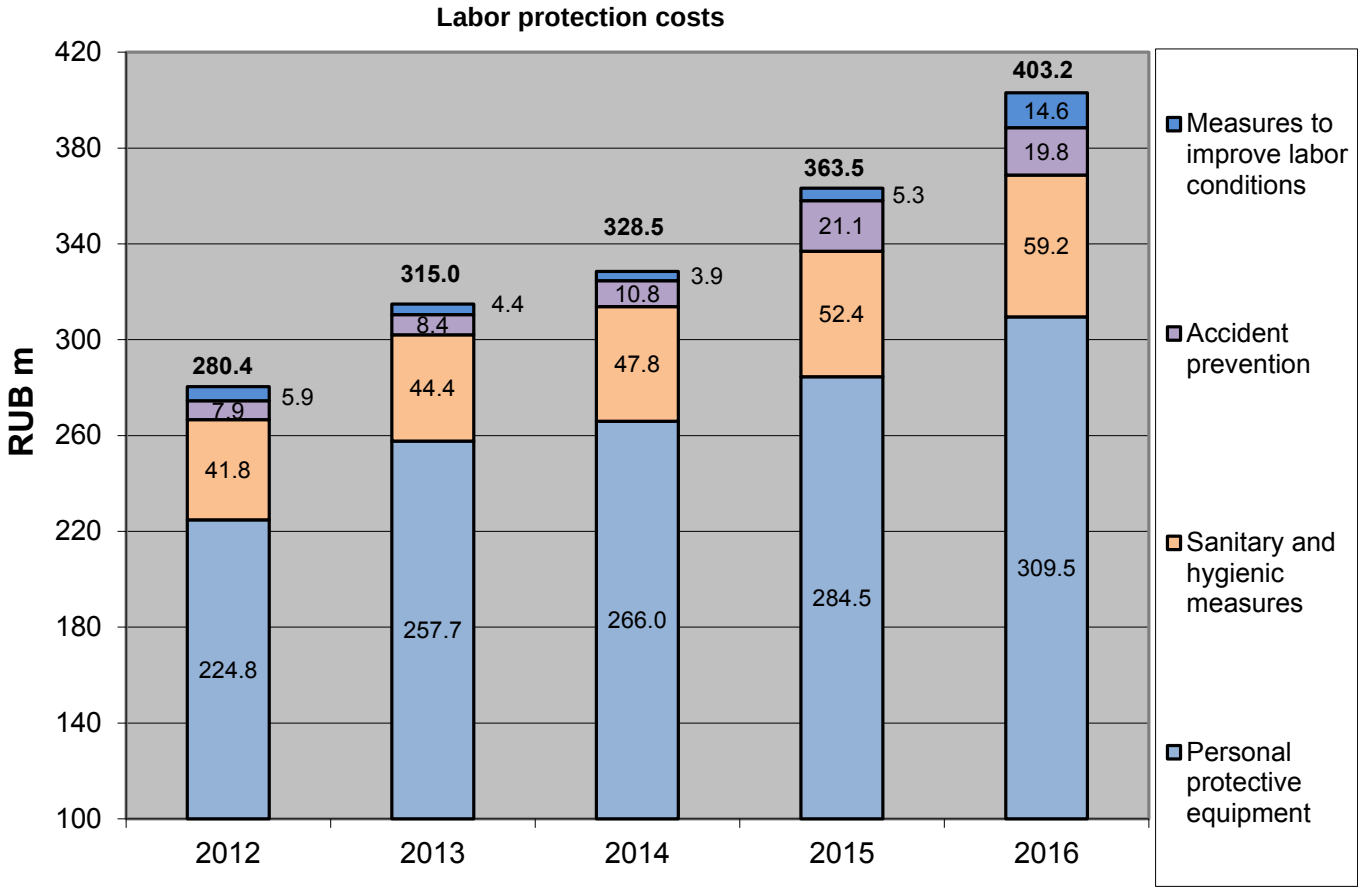
- providing personnel and equipping workplaces with up-to-date protection facilities and devices;
- accident prevention;
- implementing sanitary and engineering measures to prevent illnesses;
- implementing measures to improve the working environment.

Along with enhancing control over compliance with the occupational safety rules, improving quality of teamwork spot checks and enhancing disciplinary actions against violators, the Company provides material incentives to employees who work without violations of the occupational safety rules.

The Company also developed and approved local regulatory documents containing the requirements for human resources management and the requirements for selection and use of individual protective gear by the employees.

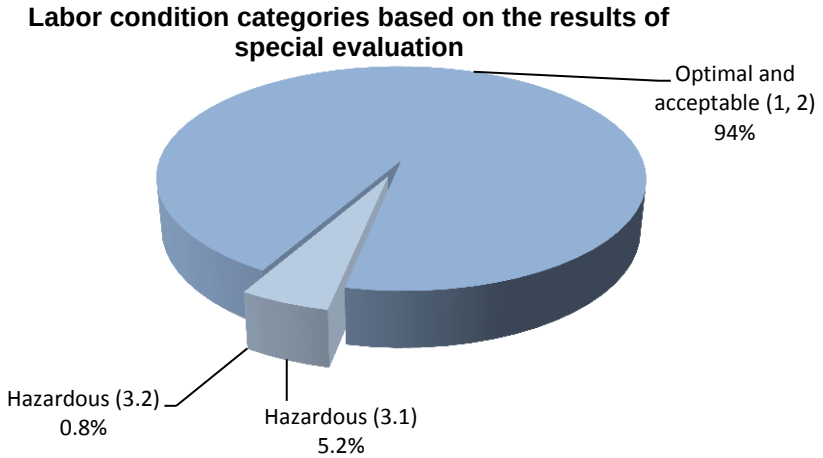
In 2016, the Company allocated RUB 403.2 m for implementation of health and labor protection measures, including integration into the grid complex of fundamentally new materials and solutions meant to ensure the safety of energy specialists in their daily production activities.

Moreover, the Company allocated more than RUB 1,627 m for ensuring safe condition of equipment. RUB 437 m from these funds was allocated for replacement of obsolete (outdated) equipment by more modern and safer one.



Special Evaluation of Labor Conditions. Bringing Workplaces in Line with the Applicable Standards

The Company carries out special evaluation of labor conditions. PJSC IDGC of Center and Volga Region has a total of 17,275 workplaces subject to special evaluation. All those 17,275 workplaces were assessed. The special evaluation detected 872 workplaces of the 3.1-3.2 working conditions categories. No workplaces of the 3.3, 3.4, and 4 categories of working conditions were detected. The Company planned to improve working conditions following these results. In 2016, it performed 100% of the target measures, their total number being 160.



As compared to 2015, the number of workplaces of the 3.1 and 3.2 categories decreased by 2%.

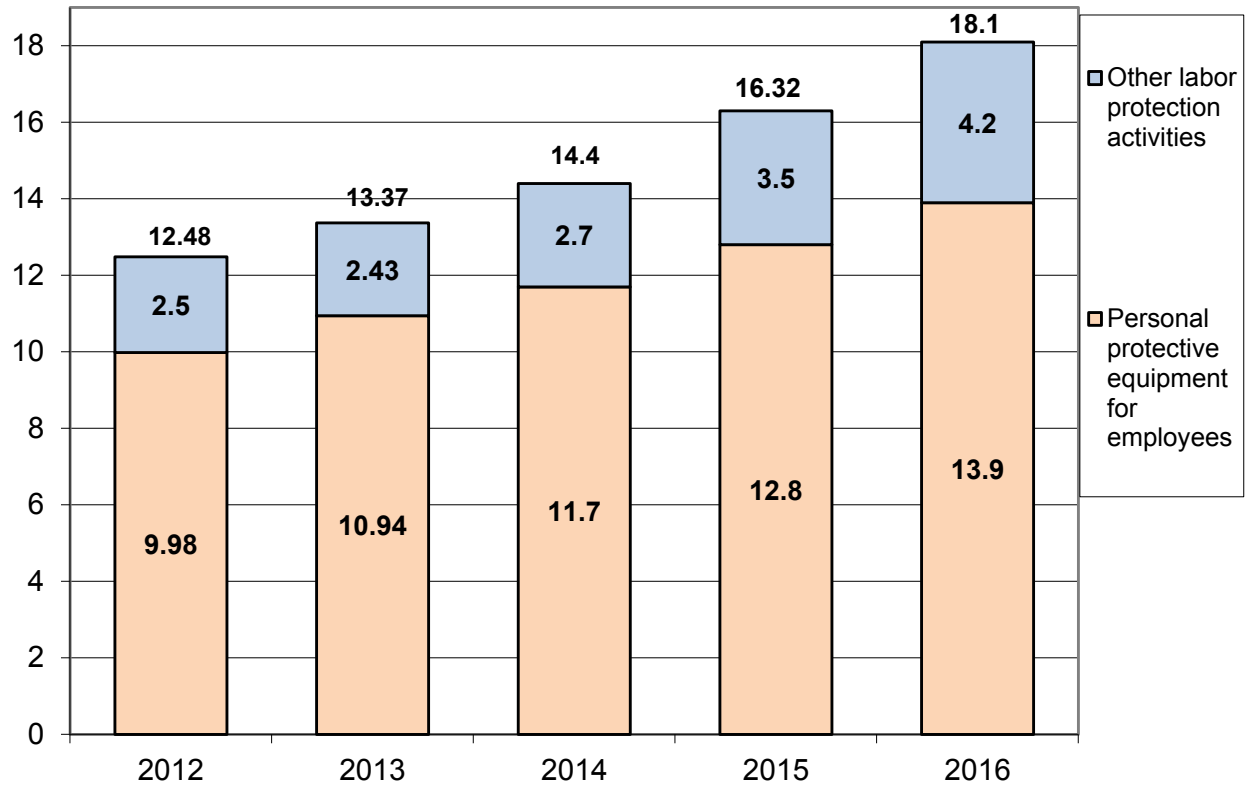
Outfitting Personnel with Safety Equipment, Tools and Fittings

The personnel are outfitted with tools, safety equipment, safety clothes and devices for the purposes of protecting employees from hazardous factors and ensuring good performance. Today, the Company provides its employees with all necessary safety equipment in accordance with the established standards.

The top priority in terms of providing personnel with individual protective gear in 2016 was purchase of fundamentally new equipment for fall protection, as well as special sets for protection from induced voltage while working at overhead electric lines and induced voltage indicators. RUB 37.2 m was spent for these purposes, which accounted for 6.8% of the total labor safety costs and 8.7% of the total costs of providing employees with individual protective gear.

Within the cost management program, a mechanism was introduced to increase the useful life of safety clothes. It optimized procurement and reduced costs of safety clothes and protective gear while meeting the requirements for safety clothes provision. In 2016, specific costs of labor protection per employee reached RUB 18.1 ths, a 10.9% increase as compared to the 2015 level. Specific costs of providing employees with individual protective gear in 2016 amounted to RUB 13.9 ths, an 8.5% increase compared to the 2015 level.

Unit costs of labor protection per employee in 2012–2016, RUB ths



The Company takes into consideration both protective properties (for example, electric current protection) and usability when selecting protective equipment. For instance, the use of induced voltage indicators makes it possible to determine the induced voltage value immediately before the start of works and accelerate and simplify workplace preparation.

That is why high priority is given to the most recent developments in safety equipment previously not applied or applied in limited scope.

Psychophysiological Checkups of the Personnel

Special Laboratories for Psychophysiological checkups (hereinafter, LPPC) have been created in the Company to maintain good health of the personnel and identify employees with difficulties in adaptation to their professional activities in a timely manner. The actual number of LPPC staff as of December 31, 2016 is 13 people.

Psychophysiological checkups (hereinafter, PPC) is mandatory for personnel working in a harmful or hazardous environment and employees carrying out works in dangerous conditions. If necessary, other employees as well as job applicants or newly hired employees may undergo PPC.

In 2016, 11,085 employees were checked by LPPC specialists. PPC results were used for individual psychological conversations. Conclusions on the category of vocational psychological aptitude and respective recommendations related to HR decisions as well as proficiency training and functional rehabilitation of employees were also made on the basis of PPC results.

In 2016, 669 people were involved in psychocorrective activities in a group and individual forms, 4,136 employees received consultative support of a psychologist on the basis of PPC results, and 1,376 employees of the Company participated in psychoprophylactic activities.

Such activities were aimed to prevent employees from making wrong decisions in the course of their professional activities by developing regulatory features of a human body, maintaining physical, psychological and emotional well-being of employees and by showing them special techniques for neuropsychic and emotional self-regulation.

Labor Protection Financed by the Social Insurance Fund

Labor protection preventive measures funded by contributions to the Social Insurance Fund (SIF) included purchasing safety clothes and shoes worth RUB 7.6 m and health resort treatment vouchers for employees working with hazardous and dangerous industrial factors worth RUB 768 ths

Corporate Technical Control System

The Corporate Technical Control System (TCS) operates on the basis of the Regulation on the Corporate Technical Control System in the power grid complex within the operations area of PJSC IDGC of Center and Volga Region. Production control has a multilevel structure and is exercised by the following operating and maintenance personnel (continuous control): individuals appointed in branch units (production departments) responsible for the condition and safe operation of power plants, buildings and structures; business units heads and their deputies, specialists, production department managers (periodic control). The frequency of inspections is defined by the approved schedules for branches and production departments of the Company.

Organization and efficiency of control in each production department is monitored by the Service of Industrial Control and Labor Protection, as well as the management of production departments and their structural units.

The industrial control performance criteria include the following:

- minimizing defects and deficiencies detected by the government and superior industry bodies and cutting costs of their elimination;
- reduced technical violations, including personnel errors, and their economic damage;

- reduced number of injuries.

Health Protection and Enhanced Occupational Safety

The Company's efforts are primarily aimed at protecting the life and health of our employees.

The Company also has also been improving the working environment, cutting the number of workplaces with unfavorable working conditions and promoting a healthy lifestyle. The Comprehensive Program to Reduce Risks of Injury for Personnel and Outsiders at the power grid facilities for 2014-2017 stipulates close cooperation on labor protection issues between the Company and the regional authorities. This will allow the Company to implement high-priority projects under the government policy on labor protection and within the framework of social partnership of PJSC IDGC of Center and Volga Region.

Implementation of the Program Aimed at Preventing Injuries to the Population

PJSC IDGC of Center and Volga Region implements annually a large-scale Electrical Safety Program for people of different ages and with different interests. All activities are designed to reduce electric injury risks and promote awareness of local communities of hazards related to electric current impact. The Company aims to inform citizens of the importance of compliance with the electric safety rules that will save their lives.

Raising awareness of the population is achieved through the media, targeted interaction and during thematic training events.

In 2016, video and audio materials on the topic of electric safety for children and adults were aired on media channels (TV and radio), displayed via OKSION monitors (screens of the Population Notification and Warning System of the Ministry of Emergency Situations of the Russian Federation), on screens at shopping centers, in educational organizations, and on public transport screens. In total video materials were displayed more than 5,000 times and audio materials were aired over 4,200 times. More than 4,800 publications were placed in various media outlets including the print media, articles on the Internet and posts in social networks.

Over 100,000 units of printed products were distributed to various target groups united by professional or other interests (fishermen, people who enjoy summer gardening, drivers of heavy machinery, children, etc.).

Children were involved in thematic lessons and school-wide events, city festivals and celebrations, online competitions and quests, online communication on a social network (since March 2016, on Vkontakte there is a social and educational group on electric safety "Electropatrul" for children, teachers and parents).

2,051 lectures were delivered by power engineers at schools and 349 educational activities were arranged at suburban recreation camps and recreation camps on school campuses. 182 guided tours to power facilities were organized for students including 36 tours for troubled teenagers. For the first time in 2016, "Not boring lessons" for preschool children, school-wide events, city festivals, fairs and celebrations in the city shopping centers were organized. More than 5,000 children participated. More than 2,000 participants from more than 700 schools took part in two Internet competitions devoted to electric safety knowledge in the form of a crossword and a virtual quest. The electric safety section on the corporate site was visited over 400,000 times.

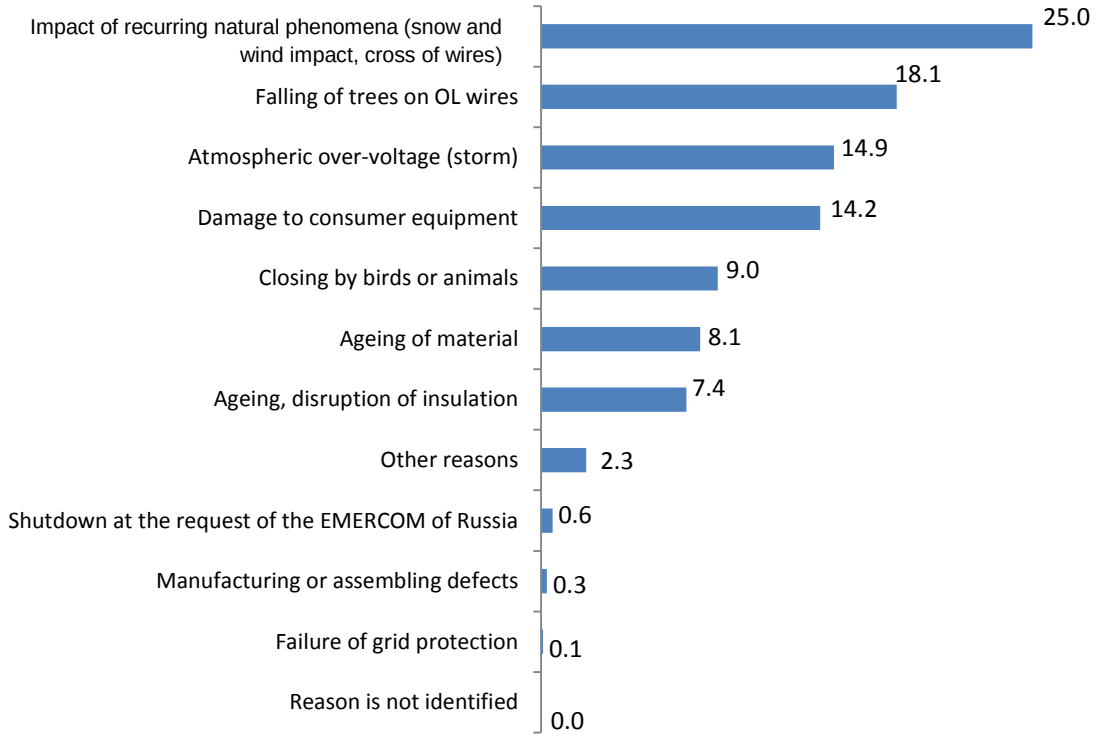
In the course of implementation of the program the Company interacted with representatives of the territorial bodies of the Ministry of Emergency Situations of Russia, the Ministry of Home Affairs of Russia, regional executive authorities responsible for education. In the framework of different activities, the Company formed partnerships with shopping centers, professional and scientific museums. In every region the Company organized numerous

meetings, conferences and round tables as well as meetings with teachers, driving instructors, parents, directors of transportation companies, representatives of fishing communities and horticultural societies, etc.

Technological disturbances related to operation of electrical equipment

	2014	2015	2016
Number of disturbances, cases	18,759	17,424	16,960

Causes of disturbances (accidents) in 2016, %



4.3.3. Environmental Protection

PJSC IDGC of Center and Volga Region considers environmental protection activities to be an integral part of its day-to-day work, being fully aware of the necessity to maintain ecological balance and ensure ecologically sustainable social and economic development of the Company.

In 2016, the Company ensured that over 3.3 ths km of overhead electric lines were safe for birds.

The Company has implemented and has been successfully operating an environmental management system in compliance with ISO 14001 requirements. One of the primary objectives of the quality, occupational health, occupational safety and environmental protection policies of PJSC IDGC of Center and Volga Region is the rational use and preservation of natural resources, a decrease in negative environmental effects, and reduction of the significance of environmental aspects. The following environmental protection standards were developed and have been used for successful operation of the Company's environmental management system:

- Corporate standard 01-030-2016 "Arrangement of works on the provision of environmental safety";
- Corporate standard 01-004-2016 "Industrial environmental control. Procedures for arrangement and performance of works";
- Corporate standard 01-018-2013 "Management of environmental aspects".

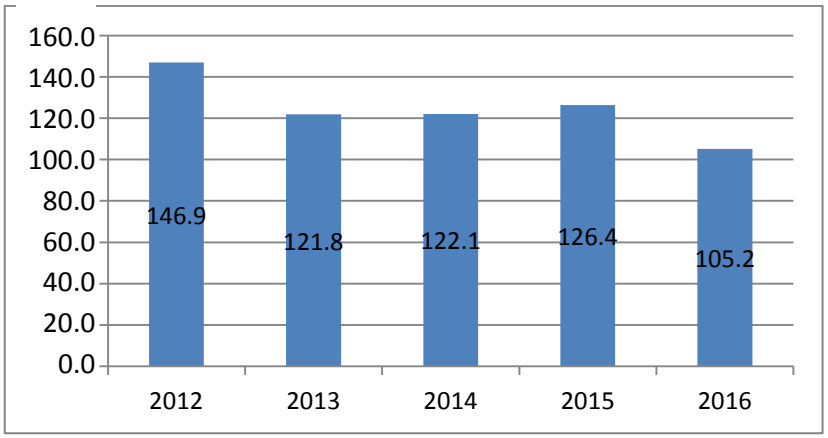
The Company pursued its environmental protection policy under the Program for Environmental Safety and Rational Use of Natural Resources for 2016-2020, approved by the Order of PJSC IDGC of Center and Volga Region No. 2 dated January 9, 2016.

In general for the reporting period, PJSC IDGC of Center and Volga Region fulfilled the Program for Environmental Safety and Rational Use of Natural Resources (hereinafter - the Program) both in terms of target activities and funding according to its main areas:

1) Atmospheric Air Protection

The Company regularly carried out analytic control of compliance with the pollutant emissions standards and instrumental control of the gas cleaning unit performance. Gross pollutant emissions into the air amounted to 105.2 tons in 2016 (in comparison with 126.4 tons in 2015). The reduction in emissions amounted to 16.8%.

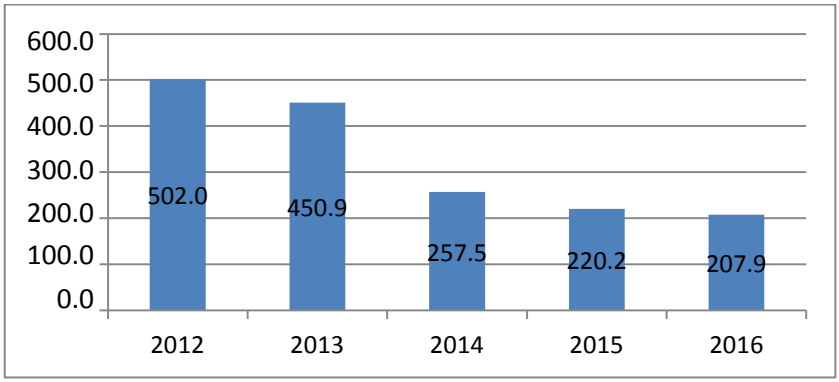
Gross pollutant emissions into the air, tonnes



2) Water Resources Protection and Rational Water Use

The Company carried out instrumental control of pollution content in rain and melt waters and waste waters discharged into the city sewage systems and monitored the quality of extracted water in terms of its compliance with the sanitary and hygiene standards. Volume of water used (taken from third-party organizations and extracted from underground sources) in 2016 amounted to 207.9 ths m^3 (in 2015 – 220.2 ths m^3). The reduction in the volume of water used amounted to 5.6%.

Extraction and receiving of water, ths m^3

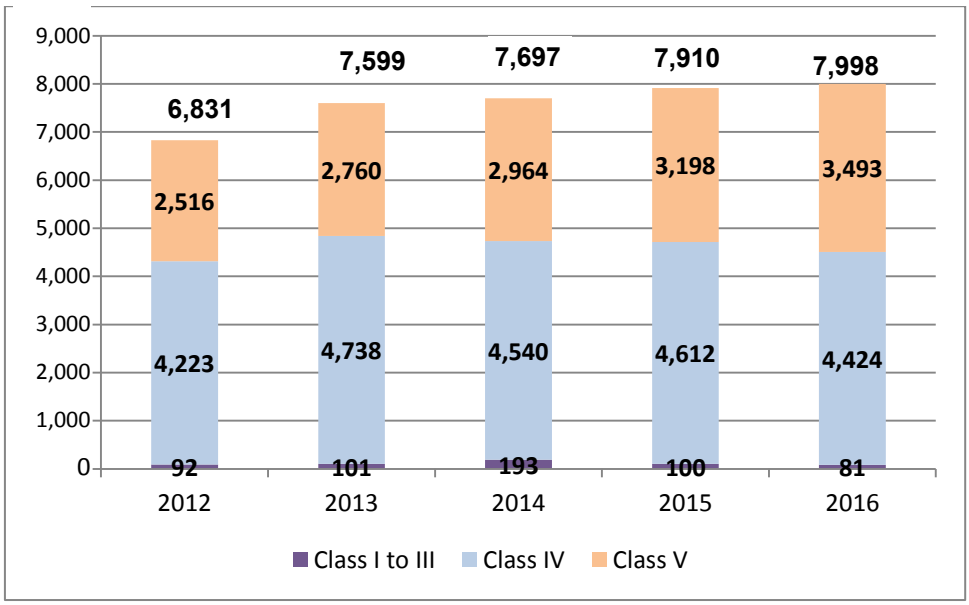


3) Use of Advanced Solutions and Technologies

The implementation of technical measures that allow increasing the reliability and safety of power supply, reduce the accident rate during operation and the negative impact on the environment is a priority for PJSC IDGC of Center and Volga Region. Among them:

- Use of self-supporting insulated wires for 0.4-10 kV overhead lines increases the reliability, reduces the number of cut-down trees and prevents the death of birds on overhead lines;
- Replacing oil circuit breakers by vacuum breakers and sulfur hexafluoride circuit breakers allows to reduce the amount of oil used, reduce the risks of soil contamination, meanwhile being highly reliable and flameproof;
- Insulation of substation bus arrangement conductive parts increases reliability and safety of power supply, reduces operating accident rate, and prevents the death of animals and birds.

Production and consumption waste generation in 2012-2016, tons

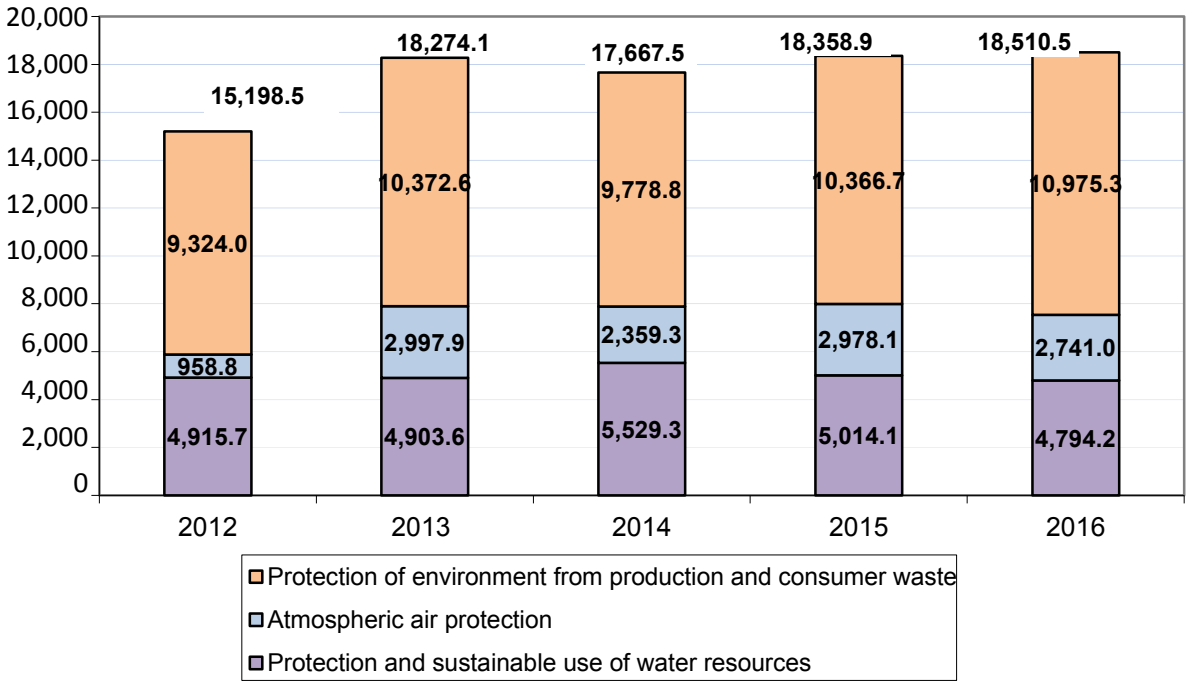


Waste of class IV (55.3%) and class V (43.7%) accounts for the major part of production and consumption waste generated by PJSC IDGC of Center and Volga Region in 2016. Class I-III waste accounts for 1.0% only.

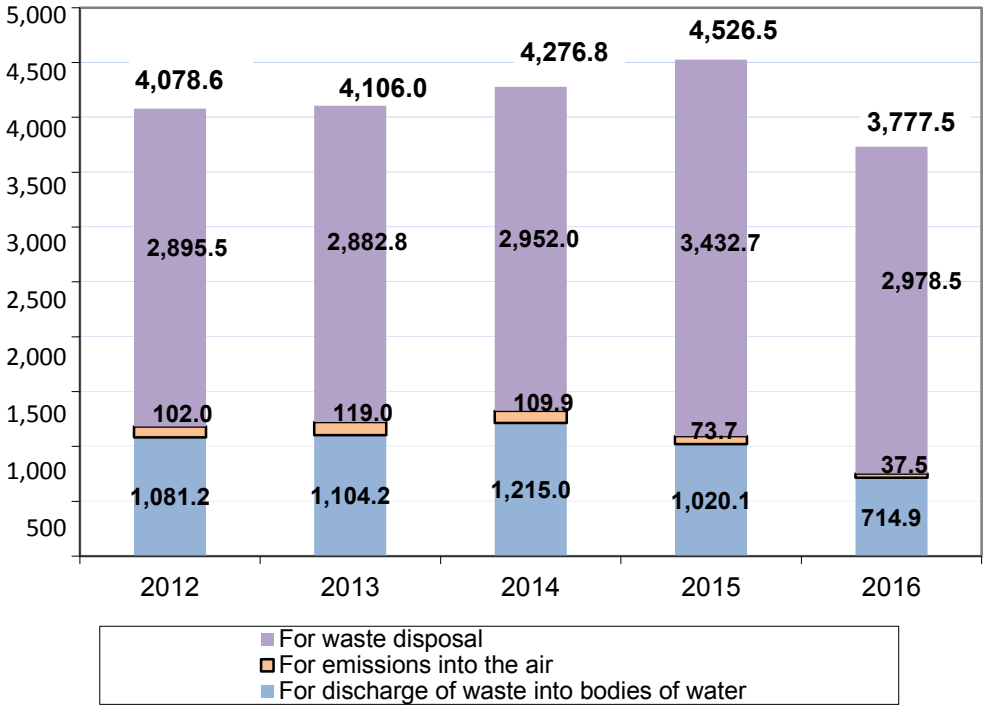
Waste temporarily stored at the units' industrial sites has minimal environmental impact due to the following measures implemented by the Company:

- the Company appointed officers responsible for recycling production and consumption waste;
- the sites of Company's units were equipped for temporary waste collection (sites and containers) in compliance with sanitary, hygienic and environmental requirements;
- the Company carries out regular production environmental control to prevent negative effects.

Environmental protection costs in 2012-2016, RUB ths



Payments for negative environmental impact in 2012-2016, RUB ths



4) Fauna Protection

Fauna protection from the consequences of production operations remains one of the key issues in implementation of the Program for Environmental Safety. In 2016, the branches of the Company continued work aimed at preserving the biodiversity.

In places of mass nesting of birds, 35-110 kV overhead lines are equipped with bird protection devices to eliminate the possibility of birds landing or nesting on the overhead lines. The installation is carried out stage by stage at the time of repairs. In 2016, 2,218 bird protection devices were purchased and installed, allowing better birds protection and the reduction of risks of disturbances of the power system involving birds for over 100 km of overhead lines. In accordance with the requirements of the environmental protection legislation, overhead electric lines from 6 kV and above shall be equipped with special bird protection devices. In 2016, in order to comply with this requirement PJSC IDGC of Center and Volga Region purchased 4,705 sets of isolating-type bird protection devices that allowed equipping more than 120 km of 6-10 kV overhead electric lines. Bird protection devices are primarily installed on OL in the territory of nature reserves.

The total number of bird protection devices installed on OL of PJSC IDGC of Center and Volga Region increased by 7,103 in 2016 and reached 37,730, allowing equipping more than 1,000 km of overhead electric lines. The technical measures carried out to reconstruct and modernize the power grid complex also lead to a reduction of the risks to the animal world during the operation of power facilities. For example, use of self-supporting insulated wires (SIW) in reconstruction and building of overhead electric lines increases the reliability, reduces the number of cut-down trees and prevents the death of birds on overhead lines. In 2016, the amount of overhead lines equipped with bird protection devices increased by 3.1 ths km.

PJSC IDGC of Center and Volga Region pays great attention to environment protection and restoration of forests within its regional footprint. Within the framework of environmental initiatives, power engineers of the Company branches take an active part in measures aimed at restoration of natural balance, tree planting, landscaping of cities, and improvement of territories around production departments and distribution zones.

Qualifications of Personnel Responsible for Environmental Protection

Professional training, retraining and advanced training of specialists in environmental protection is performed regularly by educational institutions and other organizations holding the relevant license. In 2016, 100 specialists received training.

Environmental Audit Conduct

In 2016, the Company continued to carry out environmental audits of the branches of PJSC IDGC of Center and Volga Region to detect noncompliance with the requirements of environmental protection laws and ISO 14001 and define the basic measures to mitigate negative environmental effects. In 2016, 42 environmental audits were organized and conducted.

Carried out internal environmental audits showed no significant violations related to environmental protection, however there were certain discrepancies. Based on the audit results, the Company delivered recommendations and target measures to eliminate the detected defects.

4.3.4. Taxation

PJSC IDGC of Center and Volga Region is a bona fide and responsible taxpayer that complies with all provisions of tax legislation of the Russian Federation. PJSC IDGC of Center and Volga Region is a major budget revenue generating enterprise in nine regions within its regional footprint.

The amount of taxes and fees paid by the Company in 2016 **in accordance** with Russian laws was

more than RUB 11.4 b

Subject to Tax Legislation of the Russian Federation, the Company pays the following taxes:

- Value added tax;
- Profit tax;
- Property tax;
- Land tax;
- Other taxes;
- Fees to non-budget funds of the Russian Federation.

Tax Contributions of the Company in 2012-2016, RUB m

Budget levels	2012	2013	2014	2015	2016	2016/2015 (absolute variation)	2016/2015 (relative variation), %
Federal budget	2,490.7	3,251.4	3,454.0	4,005.3	4,600.4	595.1	14.86
Consolidated budget of the Russian Federation	1,726.2	2,334.1	2,782.3	2,698.2	3,605.7	907.5	33.63
Non-budget funds of the Russian Federation	2,328.5	2,685.8	2,865.8	2,980.3	3,262.5	282.20	9.47
Total	**6,545.3**	**8,271.3**	**9,102.1**	**9,683.8**	**11,468.6**	**1,784.8**	**18.43**

The total amount of taxes and fees paid by the Company in 2016 was RUB 11,468.6 m, which is 18.43% more than in 2015. The changes in the tax burden of the Company are conditioned by the increase in the volume of services provided and in power transmission tariffs.

4.4. Stakeholder Relations

4.4.1. Stakeholders

Due to the high importance of consumers, business partners and other stakeholders for the Company's activities, the Company pays special attention to maintaining and developing stable and trusting relations with the stakeholders in both the short and the long terms. The company highly values its business reputation and image. The Company's external relations are built on the basis of the principles of mutual respect, openness, honesty and responsibility.

The Code of Corporate Ethics is a code of principles governing the Company's activity, of rules and norms of conduct of its employees and members of management and control bodies. Compliance with the Code of Corporate Ethics promotes the establishment of a single corporate culture within the Company, efficient interaction between all the units, and gives a guarantee of ethical business practice to our partners.

Principles of the Company's interaction with stakeholders:

- **Compliance with the ethical norms based on the principles of fairness and integrity**
- **Eradication of corruption**
- **Fair competition**
- **Respect for human rights**
- **Non-discrimination**
- **Respect for property rights, including intellectual property rights**

Major stakeholder groups have been defined to develop an effective interaction system. The stakeholders have been rated on the basis of interaction level (mutual influence) between the Company and the stakeholder in question determined by either overlap or collision of interests.

The first group includes shareholders and employees of the Company (internal stakeholders).

The second group comprises consumers and partners of the Company, the government, regulatory and supervision authorities (stakeholders with direct significant influence - the contact audience).

The third group includes stakeholders with indirect or limited influence (external environment): non-governmental organizations, the population, the mass media, educational institutions, and the academic and expert community.

Map of the Company's interaction with stakeholders:

Stakeholders	Interests/expectations	Channels/means of interaction	2016 Performance report (the information is specified in the following sections)
SHAREHOLDERS AND INVESTORS	• Dynamic growth and development of the Company. • Efficiency • Increase in the Company's capitalization • Transparency of the Company's activities and management • Growth of dividend payments	• General Shareholders Meeting • Annual and social reports, informational brochures and leaflets • Regular meetings, negotiations involving the management of the Company • Press conferences, presentations and forums • Federal and regional media • Corporate website • Surveys of shareholders and investors	• "Stakeholder Relations" • "Corporate Governance" • "Shareholders' Capital and Dividend Policy"
PERSONNEL (Company's employees, trade union, Council of Young Specialists and Council of Veterans)	• Decent standard of living • High level of social protection • Opportunities for personal and professional growth • Occupational safety • Improving the status of the job of a power engineer	• Collective Labor Agreement and internal documents within the framework of the Company's social responsibility • Corporate means of communication • Work with the talent pool • Personnel training • Cultural and sports activities	• "Human Resources Policy" • "Social Responsibility" • "Labor Protection"
CONSUMERS	• Reliable, uninterrupted and high-quality power supply • High quality of service • Transparency and accessibility of information on the Company's activities • Meeting the demand for the Company's services	• Customer Service Centers • Joint Information Center • Single federal hotline • Polls and surveys • Corporate website (Internet reception) • Federal and regional media • Press conferences, workshops and forums	• "Organization of Interaction with Service Consumers"
PARTNERS (suppliers and contractors)	• Mutually beneficial and long-term collaboration • Transparency of the Company's activities • Gaining profit from collaboration • Timely and exact fulfillment of obligations under agreements	• Procurement • Negotiations • Commercial offers • Corporate website	• "Procurement Activities" • "Credit Policy" • "Power Supply Reliability" • "Innovative Development"

	• Fair competition	• Federal and regional media • Workshops and conferences including meetings of the Technical Committee of the Company	
AUTHORITIES (federal, regional and municipal authorities), REGULATORY AND SUPERVISION AUTHORITIES	• Reliable and sustainable functioning of the energy system • Government regulation of the Company's activities • Implementation of programs aimed at comprehensive development of the systems of social infrastructure • Implementation of long-term projects aimed at development of the power industry • Meeting the medium- and long-term demand for electricity and capacity • Attraction of additional investments to regions and creation of new jobs • Taxation	• Setting prices (tariffs) for regulated types of activity • Alignment of investment programs and reports on their implementation • Work groups to elaborate schemes and the Program for long-term development of the power industry • Agreements on collaboration on the development of the power industry in the regions • Reporting to authorities and disclosure of information and issuer's reporting in accordance with the current legislation • Work meetings and joint activities with representatives of the regional authorities	• "Tariff Policy" • "Investment Activities" • "Stakeholder Relations" • "Social Responsibility" • "Power Supply Reliability"
SOCIETY (local communities within the regional footprint, NGOs, mass media)	• Reliable, uninterrupted and high-quality power supply • Job availability • Transparency of Company's activities • Social and economic development within the regional footprint • Environmental protection and safety • Energy security • Implementation of social programs • Charity	• Social programs within the regional footprint • Federal and regional media (print, television and radio) • Press conferences, PR campaigns, workshops, forums and contests • Meetings of top managers with veterans, students and other social groups • Corporate website • Measures to prevent electrical injuries	• "Power Supply Reliability" • "Stakeholder Relations" • "Social Responsibility"
EDUCATIONAL INSTITUTIONS	• Advancement of education • High potential staff training • Improvement of educational programs	• Agreements with higher education institutions • Organization of scientific and practical conferences • Joint organization of competitions between the thesis projects related to the power grid industry • Establishment of student brigades	• "Innovative Development" • "Human Resources Policy" • "Social Responsibility"
ACADEMIC AND EXPERT COMMUNITIES	• Advancement of science • Integration of the latest scientific achievements into the power grid industry • Application of effective innovative technologies	• Implementation of the Innovative Development Program • Cooperation with research organizations as part of R&D • Participation in science conferences and exhibitions	• "Innovative Development" • "Technical Policy" • "Social Responsibility"

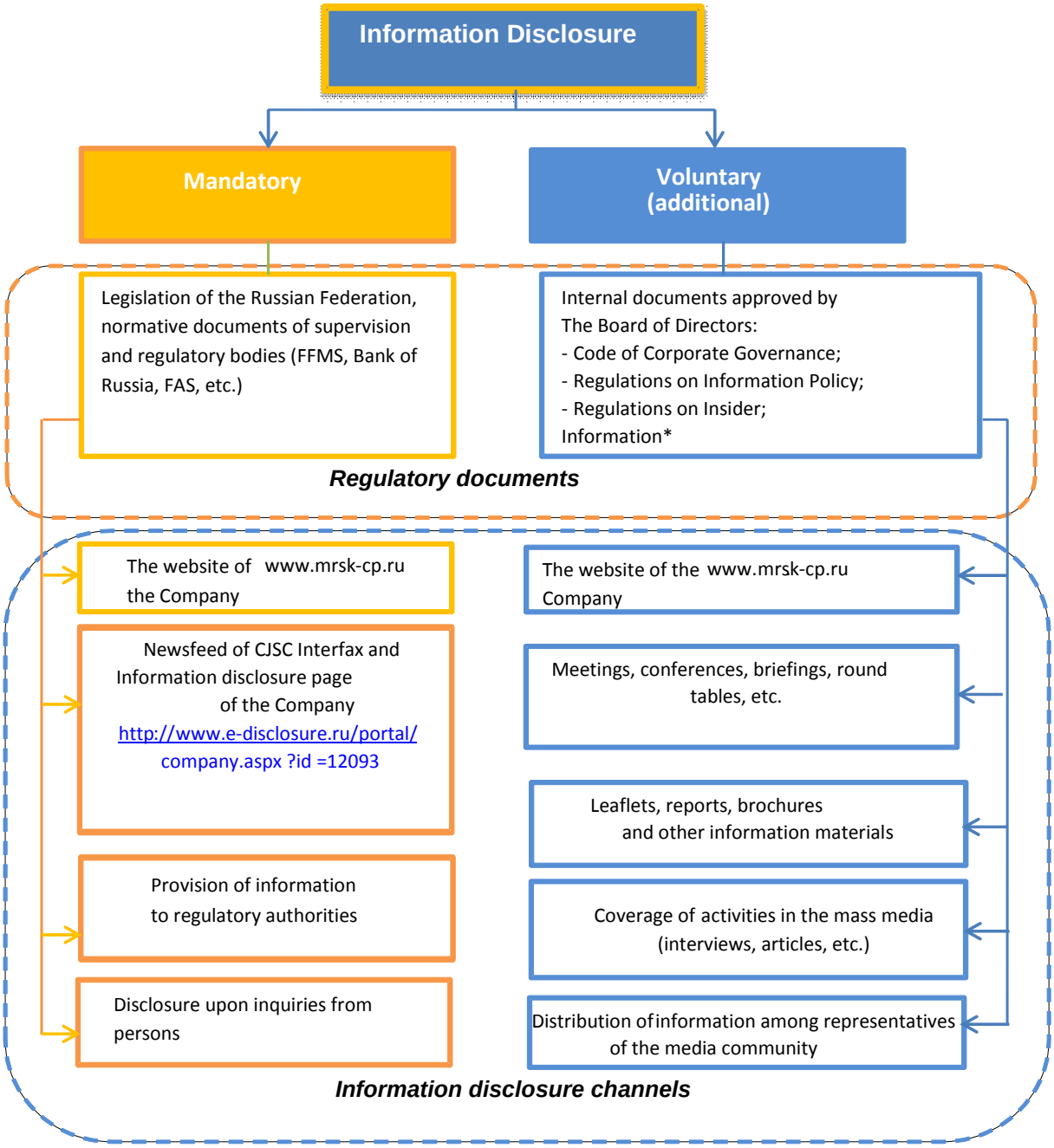
4.4.2. Information Disclosure

Disclosure of Information by the Issuer of Securities

PJSC IDGC of Center and Volga Region is a public company that strives for maximum informational transparency and openness, taking into consideration the best Russian and world practice in the field.

The Company's Information Disclosure Policy is based on the following principles:

- regularity and promptness;
- availability of information;
- completeness, accuracy and objectivity of the information disclosed;
- reasonable balance between openness and transparency and protection of the Company's commercially sensitive information and other confidential information.



**The text of the documents is available on the website of the Company www.mrsk-cp.ru in the section "For Shareholders and Investors"/"Disclosure of Information by Issuer of Securities"/"Internal Documents of the Company": http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/*

Information Disclosure by an Electricity Market Participant

PJSC IDGC of Center and Volga Region, as a participant of the retail electricity market, discloses information on its activities in accordance with the Information Disclosure Standards for participants in retail and wholesale electricity markets established by the Order of the Government of the Russian Federation No. 24 dated January 21, 2004.

The Company also elaborated an internal document that regulates the terms and procedures for information disclosure - the corporate standard No. STO 01-002-2015.

The information is disclosed on the official website in the section "Information disclosure" http://www.mrsk-cp.ru/disclosure/ and published in the official print media within the regional footprint of the Company.

4.4.3. Interaction with Shareholders and Investors

Interaction with shareholders and investors is carried out by a special IR unit within PJSC IDGC of Center and Volga Region – the Division for Interaction with Shareholders and Investors of the Department for Corporate Governance and Interaction with Shareholders. Contacts of its experts are available on the website of the Company (*www.mrsk-cp.ru*) in the sections "For Shareholders and Investors"/ "Contacts" (*http://www.mrsk-cp.ru/stockholder_investor/contacts/*).

Cooperation with shareholders and investors is based upon the principles of timeliness, completeness and availability of information. Shareholders, investors, analysts and other stakeholders may promptly receive up-to-date information and count upon relations based on mutual respect and protection of rights and legitimate interests.

PJSC IDGC of Center and Volga Region is constantly improving the practice of corporate governance and interaction with shareholders and investors. In 2016, in accordance with the decision taken by the annual General Meeting of Shareholders, **100% of the Company's net profit (based on the results of 2015) was directed to dividends payment to the Company's shareholders.**

PJSC IDGC of Center and Volga Region implements measures under the Corporate Governance Code, including the following activities implemented in 2016:

- the independence of the internal audit unit was ensured, its functional and administrative accountability was delineated;

- the policies on the Audit Committee and on the Corporate Secretary of the Company were aligned with the requirements of the Corporate Governance Code;

- an independent director was appointed for the Audit Committee of the Board of Directors.

In 2016, the capitalization of PJSC IDGC of Center and Volga Region on the Moscow Exchange grew 2.4 times. This fact can be seen as a confirmation of the Company's investment attractiveness.

Full information for shareholders and investors is available on the Company's website (*www.mrsk-cp.ru*) in the section "For Shareholders and Investors" (*http://www.mrsk-cp.ru/stockholder_investor/capital/*), in accordance with the legislation of the Russian Federation and internal documents of the Company.

The IR Calendar of the Company for 2017 is available on the website of the Company (*www.mrsk-cp.ru*) in the section "For Shareholders and Investors"/ "Investor Calendar" (*http://www.mrsk-cp.ru/stockholder_investor/investor_calendar/*).

4.4.4. Public Relations, Government Relations, Media Relations, Congress and Exhibition Activities

In order to maintain the high level of business reputation and the effectiveness of the Company's business strategy PJSC IDGC of Center and Volga Region pays a lot of attention to the development of effective long-term communications and the creation of a favorable information field. Information Policy of the Company complies with the provisions of the Unified Information Policy adopted by PJSC Rosseti.

Public Relations

PJSC IDGC of Center and Volga Region carries out measures to ensure information openness, timely and objective disclosure of information regarding its activities and prospects of development to shareholders and the public. For that purpose the Company communicates with the representatives of the business, professional, expert, scientific communities, state and municipal authorities, public, youth and veterans' organizations, and the employees of the Company, using all possible tools and channels of communication.

More than 33,000 materials published in the media

More than 822 ths visitors to the site www.mrsk-cp.ru

All information on the Company activities including the information subject to mandatory disclosure is available on the official website of PJSC IDGC of Center and Volga Region www.mrsk-cp.ru. The website is available in Russian and English versions and is updated daily.

The Company pays much attention to informational interaction with industry, business, federal and regional (municipal and district) media. In 2016 the Company was mentioned in more than 33,000 materials published in the regional and federal media. Positive and neutral materials accounted for 97% of the publications.

In 2016 the main topics of the publications regarding PJSC IDGC of Center and Volga Region covered: implementation of investment, repair and other production programs, increasing payment discipline of energy consumers, preparation for the autumn-winter period, emergency restoration works, increased accessibility of the power grid infrastructure in the regions, prevention of injuries of the production personnel and third parties. The employees of the Company often act as experts on topics related to the power industry in specialized media.

In addition to the main external and internal communication channels in 2016 the Company was developing its official accounts in social networks and the blogosphere: VK.com, Facebook, Twitter and YouTube. Presence in social networks allows to build effective interaction with the representatives of the Internet community, inform consumers, manage reputation (SERM) in the event of reputational risks.

Corporate Media

In order to increase loyalty to the Company, timely inform the team about important industrial and social issues, industry news and the news about the “Rosseti” Group of companies, PJSC IDGC of Center and Volga Region issues its own edition of the federal corporate newspaper "Russian Grids". 8 issues were published in 2016.

Special Projects

Special attention is paid to special projects initiated by PJSC IDGC of Center and Volga Region. The social donor activity "Energy of Life" received a massive response of the public. The project, annually organized by the Public Relations Department of the Company, was recognized as the best regional project in the category "Social and Environmental Initiative" at the regional stage of the All-Russian competition "MediaTEK-2016", and the Company's press center won in the category "Press centers / public relations departments of regional companies of the fuel and energy industry" (in the Nizhny Novgorod region).

The press center of the Company won at the regional stage of the Ministry of Energy of the Russian Federation contest "MediaTEK-2016" in the category "Press centers / public relations departments of regional companies of the fuel and energy industry".

Another important communication project aimed at preserving the historical heritage of PJSC IDGC of Center and Volga region and popularization of professions of the fuel and energy industry, "Living History" also received the recognition of "MediaTEK-2016" and the diploma for the 3rd place. The project is available on the official website of the Company and its official YouTube channel. It comprises of two parts: a virtual Living History Museum and a series of films "The way it used to be." The first part shows the main milestones of the formation and development of the power systems of the nine regions of the country, the second includes the living memories of power engineers – front-line soldiers and workers on the home front – those who took part in electrification of modern Russia and devoted their lives to the power industry. The project promoted the profession of a power engineer for employees and external target audiences.

Hosting Congresses and Exhibitions

Hosting congresses and exhibitions is an important area in brand communications development. In 2016, Company's representatives took part in 15 exhibitions, conferences, and industry forums including International Forum on Energy Efficiency and Development of the Power Industry ENES and RUGRIDS-ELECTRO forum. In the framework of RUGRIDS-ELECTRO forum the results of the contest of breakthrough technologies in the field of the power industry Energopropiv-2016 were announced. The project "Automated system for recording the results of the thermal imaging inspection of electrical equipment", created by specialists from Tulenergo, the branch of PJSC IDGC of Center and Volga Region, won in the nomination "Best Corporate Project of PJSC Rosseti".

In 2016 Company's specialists took part in such important events, as: VII International Exhibition and Conference on Industrial Health and Safety in the Power Industry (SAPE 2016); St. Petersburg International Economic Forum (SPIEF-2016); International forum of young power engineers and industrialists "Forsage-2016".

PJSC IDGC of Center and Volga Region continuously interacts with regional and municipal government bodies, public organizations and the business community. During the reporting period, the Company's representatives took an active part in regional meetings for ensuring the security of energy supply, commissions for monitoring the payment discipline of energy consumers and in other events. In addition, PJSC IDGC of Center and Volga Region organized a series of educational seminars for representatives of small and medium-sized businesses wishing to use the service of technological connection to power grids.

Next year PJSC IDGC of Center and Volga Region will continue its communication efforts to create the most favorable environment for business development, promote the interests of the Company, realize the rights of shareholders and facilitate the dialogue with all stakeholders.

4.5. Sustainability Reporting

PJSC IDGC of Center and Volga Region prepares and publishes social reporting using management recommendations on reporting with regard to Global Reporting Initiative Sustainability Reporting Guidelines (GRI), in compliance with AA1000 standards (a set of reporting standards with regard to sustainable development prepared by the Institute of Social and Ethical Accountability, UK).

The Social Report for 2009-2010 complies with GRI B+ Application Level and passed independent certification by CJSC Bureau Veritas Certification Russia with conclusion on compliance of the Report with GRI recommendations and the declared level of information disclosure and on correspondence to the principles of AA1000APS standard (2008).

The Social Report for 2011-2012 complies with GRI B Application Level. No independent certification was carried out.

The Company’s Social Report for 2013-2014, prepared in accordance with Sustainability Reporting Guidelines, version 4.0 (Global Reporting Initiative-GRI, G4), was included in the list of the top ten social and sustainability reports compiled by the RAEX international rating agency (Expert RA) in 2015. Thus, it confirmed that PJSC IDGC of Center and Volga Region is resolved to promote sustainability and social development.

The Reports shall give coverage of the corporate social responsibility of the Company, demonstrate development trends and show both the Company's responsible approach to its main activities, i.e. provision of regular power supply to consumers, and its great attention and responsibility to employees and partners, to the environment and cultural traditions within the Company's regional footprint. Social reporting is part of an integrated process of strategic development, implementation of target measures and evaluation of their results.

Social Reports of PJSC IDGC of Center and Volga Region are available on the website of the Company (www.mrsk-cp.ru) in the section "For Shareholders and Investors" / "Disclosure of Information by the Issuer of Securities" / "Social Reports" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/sotsialnye-otchety/). They are also included in the National Register of Non-Financial Reports of the Russian Union of Industrialists and Entrepreneurs (http://рспп.рф/simplepage/157).

5. Governance of the Company

5.1. Corporate Governance

5.1.1. Structure and Principles of Corporate Governance

Corporate governance is a concept describing a system of relationships between the executive bodies of a joint-stock company, its board of directors, shareholders and other stakeholders. Corporate governance is an instrument for determination of the Company's goals and means to achieve them, as well as for ensuring efficient control over the Company's activities on the part of the shareholders and other stakeholders.

The main objectives of corporate governance are the creation of an efficient system ensuring preservation and effective utilization of the funds provided by shareholders, and the reduction of the risks which may lead to a decrease in the Company's investment attractiveness and in the value of its shares.

Report on Compliance with Principles and Recommendations of the Code of Corporate Governance

The management of PJSC IDGC of Center and Volga Region continuously analyzes the best Russian and international practices of corporate governance, adhering to the policy of constant improvement of the corporate governance system, ensuring its compliance with the best international standards.

The Board of Directors of the Company approved a new version of the Code of Corporate Governance of JSC IDGC of Center and Volga Region (Minutes No. 121 dated March 04, 2013), based on the legislation of the Russian Federation, the Company's Charter, the Corporate Conduct Code recommended for application by Instruction of the Federal Financial Markets Service (FFMS) of the Russian Federation No. 421/r dated April 04, 2002. The full text of the Code of Corporate Governance is available on the website www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" /"Internal Documents of the Company" (*http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/?PAGEN_1=4*).

PJSC IDGC of Center and Volga Region improves its corporate governance practices on an regular basis.

The Company aims to comply with the provisions of the Code of Corporate Governance recommended for application by the Letter of the Bank of Russia No. 06-52/2463 dated April 10, 2014 and the Listing Rules approved by the Board of Directors of CJSC "MICEX Stock Exchange" dated August 26, 2015 (Minutes No. 27).

The management of the Company regularly monitors the compliance of the Company's internal documents with the current legislation of the Russian Federation.

In order to address the new trends and challenges of external and internal environment, it is necessary to improve the Internal Control System (hereinafter, ICS), review the organizational principles of the System of Internal Audit (IA), Internal Control (IC) and Risk Management (RM), as well as targets and activities in the sphere of IA, IC and RM.

In 2017 the Audit Committee of the Board of Directors of the Company is planning to conduct an assessment of the Company's corporate governance.

Given the need to address issues related to the Company's development and reduce the impact of external and internal risks on its performance, it is planned to delegate the risk management and internal control functions to the Strategy and Development Committee of the Board of Directors.

The Board of Directors considered the Report on Compliance with the Corporate Governance Principles stipulated in the Code of Corporate Governance and set out in the Annual Report.

The explanation of the key reasons, factors and (or) circumstances which prevented the Company from complying or fully complying with the principles of corporate governance provided for by the Code of Corporate Governance and the planned (intended) measures and activities of the Company aimed at improving the model and practice of corporate governance is given in the Report on Compliance with the principles and recommendations of the Code of Corporate Governance, drawn up in accordance with “The Recommendations on Preparation of a Report on Compliance with the principles and recommendations of the Code of Corporate Governance” recommended for application by the Letter of the Bank of Russia No. IN-06-52/8 dated February 17, 2016 given in Supplement 4 to the Annual Report.

In 2016 the Board of Directors approved new versions of the Regulation on the Corporate Secretary of the Company, Internal Control Policy, Risk Management Policy and Internal Audit Policy developed in accordance with the recommendations of the Code of Corporate Governance recommended for use by joint-stock companies in accordance with the letter of the Bank of Russia No. 06-52/2463 dated April 10, 2014.

A number of regulatory documents are effective in the Company regulating the activity of the management and control bodies. The full text of these internal documents can be found on the website of the Company www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" /"Internal Documents of the Company" (*http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/*).

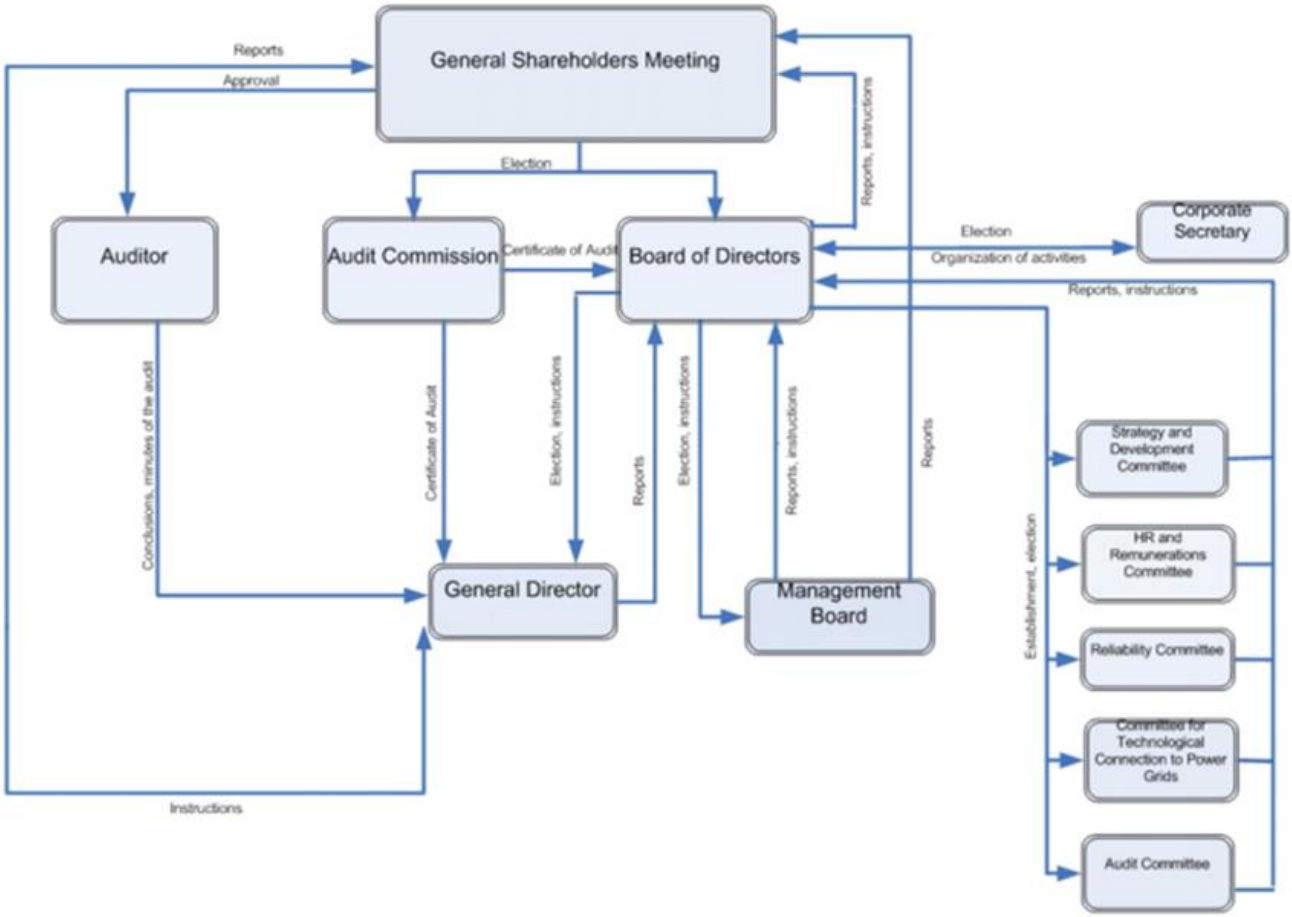
Corporate Governance Rating

On March 12, 2014, the Expert RA rating agency rated the governance quality of JSC IDGC of Center and Volga Region at the level of **“8” (Advanced Corporate Governance Practice).**

The information on assignment of the rating and the report on the corporate governance practices in the Company are available on the website of the Company www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Information on Evaluation of Corporate Governance Practice"

(*http://www.mrsk-cp.ru/stockholder_investor/corporate_management_estimation/*).

Structure of Governance and Control Bodies



5.1.2. Management Bodies

Under the Charter of PJSC IDGC of Center and Volga Region, the corporate system of management and control bodies includes:

- The General Shareholders Meeting is a supreme management body of the Company used by the shareholders to exercise their rights to participate in the management of the Company.
- The Board of Directors is a management body responsible for the Company's strategy development, the general management of the Company's activities and control over the executive bodies.
- The Management Board and the General Director are the executive bodies of the Company responsible for management of the Company's day-to-day operations. The area of responsibility of these bodies includes all issues pertaining to daily activities of the Company, except for the issues which relate to the responsibility of the General Shareholders Meeting or the Board of Directors. The executive bodies are accountable to the Company's Board of Directors and the General Shareholders Meeting.
- The Audit Commission is a body responsible for the control of financial and economic activities of the Company and accountable directly to the General Shareholders Meeting.

The Company confirms that it has received the consent from all members of management and control bodies and the committees of the Board of Directors to the processing of their personal data according to Paragraph 4 of Article 9 of Federal Law No. 152-FZ "On Personal Data" dated July 27, 2006, in order to disclose information in accordance with Federal Law No. 208-FZ "On Joint-Stock Companies" dated December 26, 1995 and Federal Law No. 39-FZ "On Securities Market" dated April 22, 1996.

General Shareholders Meeting

The General Shareholders Meeting is the supreme management body of the Company, with the authority to deal with the most significant issues pertaining to the Company's operations, as specified in the current legislation of the Russian Federation and in Article 10 of the Charter of PJSC IDGC of Center and Volga Region. The full text of the Charter can be found on the website of the Company www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" /"Charter" (*http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/incorporation_certificate/*).

The main issues that fall within the area of responsibility of the General Shareholders Meeting of the Company are as follows:

- making modifications and amendments to the Charter or approval of the new version of the Charter;
- reorganization of the Company;
- liquidation of the Company, appointing the Liquidation Commission and approval of the interim and final liquidation balance;
- determination of the quantity, nominal value, category (type) of authorized shares and rights granted by these shares;
- increase in the charter capital of the Company by increasing the nominal value of the shares or by placing additional shares;
- decrease in the charter capital of the Company by decreasing the nominal value of the shares, or through the acquisition by the Company of a part of the shares to reduce the total number of outstanding shares, or by redeeming the shares acquired or bought back by the Company;
- splitting and consolidating the Company's shares;
- making decisions on placement of convertible bonds or other convertible securities;
- determination of the quantitative composition of the Company's Board of Directors, election of

its members and early termination of their powers;

- election of the members of the Audit Commission of the Company and early termination of their powers;
- approval of the Auditor of the Company;
- making decisions on delegation of powers of the Sole Executive Body of the Company to a managing entity (a manager) and early termination of its powers;
- approval of annual reports, annual accounting statements, including profit and loss statements (the accounts of profits and losses), as well as distribution of profit (including payment (declaration) of dividends, except for the profit distributed as dividends for the first quarter, six and nine months of the financial year) and the Company's losses in the financial year;
- payment (declaration) of dividends for the first quarter, six and nine months of the financial year;
- determining the procedure for conducting the General Shareholders Meeting;
- making decisions on the approval of transactions in cases specified by Federal Law “On Joint-Stock Companies”;
- making decisions on the participation in financial industrial groups, associations and other unions of commercial organizations;
- approval of internal documents regulating the operations of the Company's bodies;
- making decisions on the payment of remuneration and (or) compensation to the members of the Audit Commission;
- making decisions on the payment of remuneration and (or) compensation to the members of the Board of Directors;
- making decisions on statements of delisting of Company shares and (or) convertible securities;

The Company approved the Regulation on the Procedure for Preparation and Holding of General Shareholders Meetings of PJSC IDGC of Center and Volga Region regulating in detail the procedures for conducting the General Shareholders Meetings.

In 2016, there was one General Shareholders Meeting.

On June 09, 2016, the Company held the Annual General Shareholders Meeting (Minutes No. 10) and adopted the following resolutions:

1.1. Approve the Annual Report of the Company, the annual accounting statements of the Company for 2015;

1.2. Approve proposed distribution of profit (losses) of the Company for 2015 financial year;

1.3. Pay dividends on common shares of the Company based on the results of 2015;

1.4. Determine the date for preparation of the list of persons entitled to receive dividends;

2. Elect the Board of Directors of the Company;

3. Elect the Audit Commission of the Company;

4. Approve the Auditor of the Company;

5. Approve the new version of the Regulation on the Board of Directors of PJSC IDGC of Center and Volga Region.

Materials and resolutions of General Shareholders Meetings are available on the Company's website www.mrsk-cp.ru in the section "For Shareholders and Investors" / "General Shareholders Meeting" (http://www.mrsk-cp.ru/about/management/meeting/decisions/).

The Board of Directors

The Board of Directors of PJSC IDGC of Center and Volga Region operates in accordance with the legislation of the Russian Federation, the Company's Charter, and the internal documents of the Company.

95%
is the average percentage of participation of the members of the Board of Directors in its meetings in 2016

In accordance with the Federal Law No. 208-FZ "On Joint-Stock Companies" dated December 26, 1995 and Article 15 of the Company's Charter, the Board of Directors exercises the general management of the Company, except for the issues which relate to the area of responsibility of the General Shareholders Meeting.

The main goals and objectives set before the Board of Directors of the Company are as follows:

- determination of the Company's development strategy aimed at improvement of its market capitalization and attractiveness for investors, maximum profitability and growth of the Company's assets;
- implementation and protection of the rights and legitimate interests of the shareholders of the Company, as well as assistance in resolution of corporate conflicts;
- ensuring full, reliable and objective disclosure of information about the Company for the shareholders and other stakeholders;
- establishment of effective mechanisms of internal control;
- regular assessment of the performance of executive and management bodies of the Company.

To implement the above mentioned goals and objectives, the Board of Directors abides by the following principles:

- making decisions based on reliable information about the Company's activity;
- eliminating any restrictions on the rights of shareholders to participate in the Company's management, receive dividends and information about the Company;
- achieving a balance between interests of different groups of shareholders and making objective decisions in the interests of all shareholders of the Company.

The information on the activities of the Board of Directors and its composition is available on the website of the Company www.mrsk-cp.ru in the section "About the Company"/ "Management Bodies" / "Board of Directors" (http://www.mrsk-cp.ru/about/management/directors/).

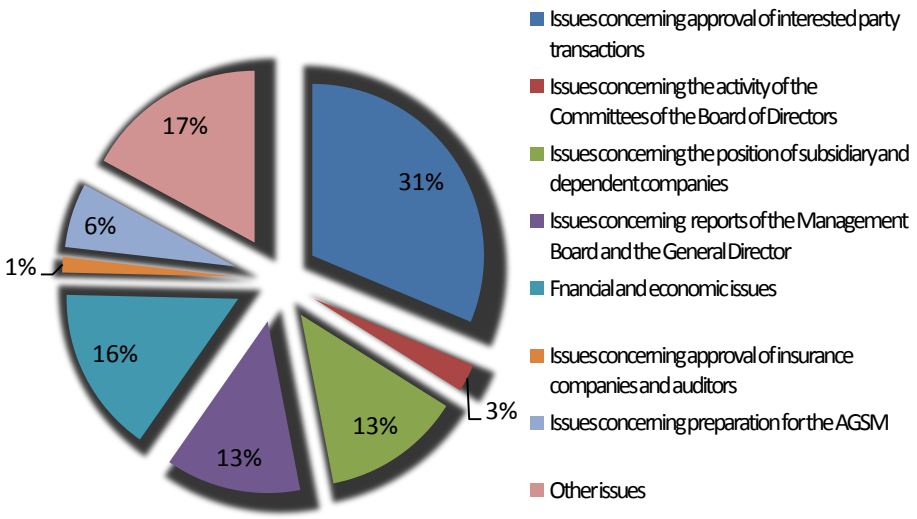
The procedural matters of the Board of Directors are governed by the Regulation on the Procedure for Summoning and Holding Meetings of the Board of Directors of PJSC IDGC of Center and Volga Region.

The resolutions of the meetings of the Board of Directors are passed by the majority of votes of the board members present at the meeting, except for the cases specified in the legislation of the Russian Federation and the Company's Charter.

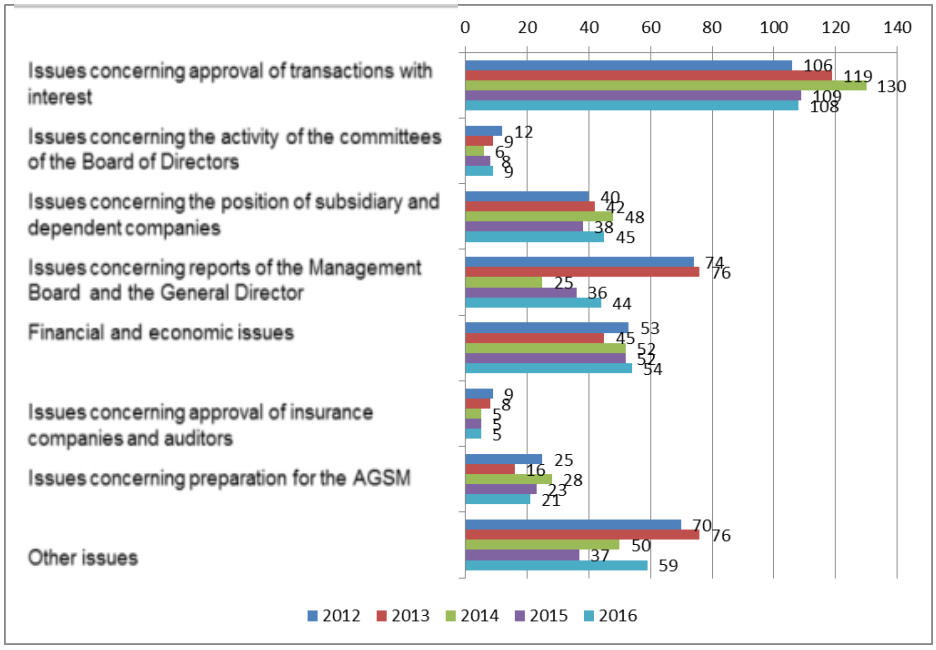
The quorum for holding a meeting is at least half of the number of the elected members of the Board of Directors of the Company.

44 meetings of the Board of Directors of PJSC IDGC of Center and Volga Region were held in 2016 (of which 4 were held in form of presence and in absentia); over 345 issues were addressed at the meetings.

Key Groups of Issues Considered by the Board of Directors in 2016, %



Comparative Analysis of the Key Groups of Issues Considered by the Board of Directors of the Company in 2012-2016



Composition of the Board of Directors

According to Article 16 of the Company's Charter, the number of the members of the Board of Directors is 11.

In 2016, there were two compositions of the Board of Directors of the Company.

Composition of the Board of Directors elected by the Annual General Shareholders Meeting on June 16, 2015 (Minutes No. 9) (positions are indicated as of the moment of election):

1. **Fadeev Aleksandr Nikolaevich** – (Chairman of the Board of Directors of the Company) – Deputy General Director for Security of JSC Rosseti;
2. **Varlamov Nikolay Nikolaevich** (Deputy Chairman of the Board of Directors of the Company) – Deputy Director General – Chief of Staff of JSC Rosseti;
3. **Branis Aleksandr Markovich** – Director of Prosperity Capital Management (RF) Ltd;

4. Grinkevich Yegor Borisovich – Deputy Director of the Department of the Power Industry Development of the Ministry of Energy of the Russian Federation (Minenergo of Russia);

5. Guriyanov Denis Lvovich – Director of the Department for the Corporate Governance and Shareholder and Investor Relations of JSC Rosseti;

6. Kobelyan Ashot Mikhailovich – Head of Consolidated Planning Management, Statutory regulation and Organization of Procurement Activities of the Procurement Department of JSC Rosseti;

7. Petrov Sergey Aleksandrovich – Head of the Organization of Operation of Electrical Equipment of the Production Assets Management Department of JSC Rosseti;

8. Ushakov Evgeny Viktorovich – General Director of JSC IDGC of Center and Volga Region;

9. Filkin Roman Alekseevich – Co-Director, Power Industry and Engineering at the Representative Office of Prosperity Capital Management (RF) Ltd;

10.Chistyakov Vladimir Sergeevich – First Deputy General Director of CJSC Energy Union Investment Holding;

11.Shevchuk Aleksandr Viktorovich – Executive Director of the Association of Institutional Investors.

The acting Board of Directors of PJSC IDGC of Center and Volga Region was elected by the Annual General Shareholders Meeting on June 09, 2016 (Minutes No. 10) (positions are indicated as of the moment of election):

1. Fadeev Aleksandr Nikolaevich – (Chairman of the Board of Directors of the Company) – Deputy General Director for Security of PJSC Rosseti.

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region two times: on June 16, 2015 and June 09, 2016.

2. Varlamov Nikolay Nikolaevich (Deputy Chairman of the Board of Directors of the Company) – Deputy General Director - Chief of Staff of PJSC Rosseti.

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region 4 times: on June 18, 2013, June 26, 2014, June 16, 2015 and June 09, 2016.

3. Grinkevich Yegor Borisovich – Deputy Director of the Department of the Power Industry Development of the Ministry of Energy of the Russian Federation (Minenergo of Russia).

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region two times: on June 16, 2015 and June 09, 2016.

4. Guriyanov Denis Lvovich – Director of the Department for the Corporate Governance and Shareholder and Investor Relations of PJSC Rosseti.

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region two times: on June 16, 2015 and June 09, 2016.

5. Ushakov Evgeny Viktorovich – General Director of PJSC IDGC of Center and Volga Region.

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region 9 times: on June 22, 2007, May 30, 2008, June 14, 2011, June 22, 2012, August 22, 2012, June 18, 2013, June 26, 2014 and June 16, 2015, and June 09, 2016.

6. Filkin Roman Alekseevich – Director, Power Industry and Engineering, at the Representative Office of Prosperity Capital Management (RF) Ltd.

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region 9 times: on June 19, 2009, June 16, 2010, June 14, 2011, June 22, 2012, August 22, 2012, June 18, 2013, June 26, 2014, June 16, 2015, and June 09, 2016.

7. Chistyakov Vladimir Sergeevich – First Deputy General Director of CJSC Energy Union Investment Holding.

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region 9 times: on June 19, 2009, June 16, 2010, June 14, 2011, June 22, 2012, August 22, 2012 ,June 18, 2013 ,June 26, 2014 ,June 16, 2015 and June 09, 2016 .

8. Shevchuk Aleksandr Viktorovich – Executive Director of the Association of Institutional Investors

Elected to the Board of Directors of PJSC IDGC of Center and Volga Region three times: June 26, 2014, June 16, 2015 and June 09, 2016.

9. Goncharov Aleksey Nikolayevich - Head of the Department for Interaction and Settlements with the Subjects of Electric Power Markets of the Department of Power Accounting and Interaction with the Subjects of Electric Power Markets of PJSC Rosseti.

First elected to the Board of Directors of PJSC IDGC of Center and Volga Region on June 09, 2016.

10.Pavlov Aleksey Igorevich – Director of the Treasury Department of PJSC Rosseti.

First elected to the Board of Directors of PJSC IDGC of Center and Volga Region on June 09, 2016.

11.Fedorov Oleg Romanovich - member of the Board of Directors of PJSC Rosseti

First elected to the Board of Directors of PJSC IDGC of Center and Volga Region on June 09, 2016.

Detailed information on the members of the Company's Board of Directors is shown in Supplement 3 to this Annual Report.

The minutes of meetings of the Board of Directors of PJSC IDGC of Center and Volga Region and its Committees are available on the Company's website at http://www.mrsk-cp.ru/about/management/directors/decisions_of_directors/ and http://www.mrsk-cp.ru/about/management/directors/board_committees/ respectively.

Participation of Members of the Board of Directors in Meetings of the Board of Directors and its Committees in 2016

Full name	Independent member of the Board of Directors	Participation in Meetings					
		The Board of Directors	Audit Committee	Strategy and Development Committee	HR and Remunerations Committee	Reliability Committee	Committee for Technological Connection to Power Grids
From January 01, 2016 till June 09, 2016							
Branis Aleksandr Markovich		22/21					
Varlamov Nikolay Nikolaevich		22/22	5/5		5/5		
Ushakov Evgeny Viktorovich		22/22		12/12			
Filkin Roman Alekseevich		22/21	5/4	12/12	5/5		
Chistyakov Vladimir Sergeevich		22/22	5/5		5/5		2/2
Shevchuk Aleksander Victorovich	+	22/22	5/5	12/12	5/5		
Grinkevich Yegor Borisovich		22/11					
Guriyanov Denis Lvovich		22/22	5/4		5/5		
Kobelyan Ashot Mikhailovich		22/22	5/5		5/5		
Petrov Sergey Aleksandrovich		22/21	5/5				
Fadeev Aleksandr Nikolaevich		22/22			5/5		
From June 10, 2016 till December 31, 2016							
Varlamov Nikolay Nikolaevich		22/22	6/6		8/8		
Ushakov Evgeny Viktorovich		22/22		11/11			
Filkin Roman Alekseevich		22/22	6/6	11/11	8/8		
Chistyakov Vladimir Sergeevich		22/22	6/5		8/8		3/3
Shevchuk Aleksander Victorovich	+	22/22	6/6	11/11	8/8		
Grinkevich Yegor Borisovich		22/14					
Guriyanov Denis Lvovich		22/22	6/6		8/8		
Fadeev Aleksandr Nikolaevich		22/22			8/8		
Pavlov Aleksey Igorevich		22/22	6/6	11/11			
Goncharov Aleksey Nikolaevich		22/22	6/6		8/8		
Fedorov Oleg Romanovich	+	22/22		11/11	8/8		

Note: The first figure is the total number of meetings (in the stated period); the second one is the number of meetings attended by the member of the Board of Directors of the Company.

The average participation of the members of the Board of Directors in the meetings is 95%. Over 50% of the meetings of the Board of Directors of the Company had 100% participation.

Remuneration for the Members of the Board of Directors

According to Federal Law No. 208-FZ “On Joint-Stock Companies” dated December 26, 1995 and the Company’s Charter, resolutions on the payment of remunerations and (or) compensations to the members of the Board of Directors are adopted by the General Shareholders Meeting.

The Annual General Shareholders Meeting approved the new version of the Regulation on Payment of Remuneration and Compensation to the Members of the Board of Directors of PJSC IDGC of Center and Volga Region (Minutes No. 9 dated June 16, 2015). The Regulation determines the criteria for remuneration for the members of the Board of Directors. The full text of the Regulation can be found on the Company's website www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" / "Internal Documents of the Company" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/).

If the Chairman and members of the Board of Directors of the Company fall into the category of people restricted or prohibited from receiving any payments from commercial organizations by the federal law, the remuneration for them is not accrued or paid. Also, no remuneration is paid to members of the Board of Directors who are also members of the collective executive body of the Company or the sole executive body (General Director) of the Company.

Payment of remuneration to the members of the Board of Directors of the Company is made based on the results of work for the period from the moment of election of a candidate to the members of the Board of Directors of the Company until the election of a new Board of Directors. Members of the Board of Directors of the Company are financially remunerated in the form of a single payment.

1. Remuneration for Participation in Meetings of the Board of Directors

The fixed part of remuneration is established on the basis of the Company's revenue calculated under RAS for the financial year. In 2016 the fixed part of remuneration in the Company amounted to RUB 900,000.

The remuneration for participation in meetings of the Board of Directors for each member of the Board of Directors is calculated based on the total number of meetings of the Board of Directors of the Company for the previous corporate year and the number of meetings in which a member of the Board of Directors participated, according to the formula:

S (1) = Rfixed x 100/130 (n/m),

S (1) - remuneration for participation in meetings of the Board of Directors of the Company;

Rfixed - the fixed part of remuneration;

n - the number of meetings of the Board of Directors (irrespective of the form of their holding), in which a member of the Board of Directors participated in the period between annual General Shareholders Meetings;

m - a total number of meetings of the Board of Directors (irrespective of the form of their holding) in the period between annual General Shareholders Meetings.

In addition to remuneration the following payments are established:

- 30% for the Chairman of the Board of Directors
- 20% for the Chairman of a special Committee of the Board of Directors
- 10% for membership in a special Committee of the Board of Directors

Condition: the remuneration for participation in meetings of the Board of Directors of the Company including additional payments may not exceed the fixed part of remuneration (RUB 900,000).

2. Additional Remuneration from Net Profit in case of Increase in the Company's Market Capitalization for the period of work of the Board of Directors

Additional remuneration of each member of the Board of Directors is 0.0175% from the increase of the market value of equity of the Company, calculated from the moment of election of the member of the Board of Directors until the election of a new Board of Directors of the Company.

Total amount of remuneration of the members of the Board of Directors of the Company for the increase in market capitalization may not exceed 5% of the net profit under RAS received in the financial year.

A member of the Board of Directors of the Company may refuse in whole or in part to receive remuneration stipulated in the Regulation by sending an application to the name of the sole executive body (General Director) of the Company.

The expenses of the members of the Board of Directors related to participation in the meetings of the Board of Directors are subject to compensation according to the rules of reimbursement of travel expenses established by the Company and applicable at the time of the meeting.

In 2016, compensation of expenses to the members of the Board of Directors of the Company was RUB 56,630.80.

The internal documents of the Company specify no non-financial remuneration for the members of the Board of Directors of the Company.

The total remuneration paid to the members of the Board of Directors in 2016 was RUB 7,534,333.96 (before personal income tax), including:

RUB 7,534,333.96 – for participation in the meetings of the Board of Directors;

RUB 0.00 – additional remuneration for increase in the market capitalization;

RUB 0.00 – other types of remuneration.

In the reporting year, no salary, bonuses or commission fees were paid to the members of the Board of Directors who were not Company employees.

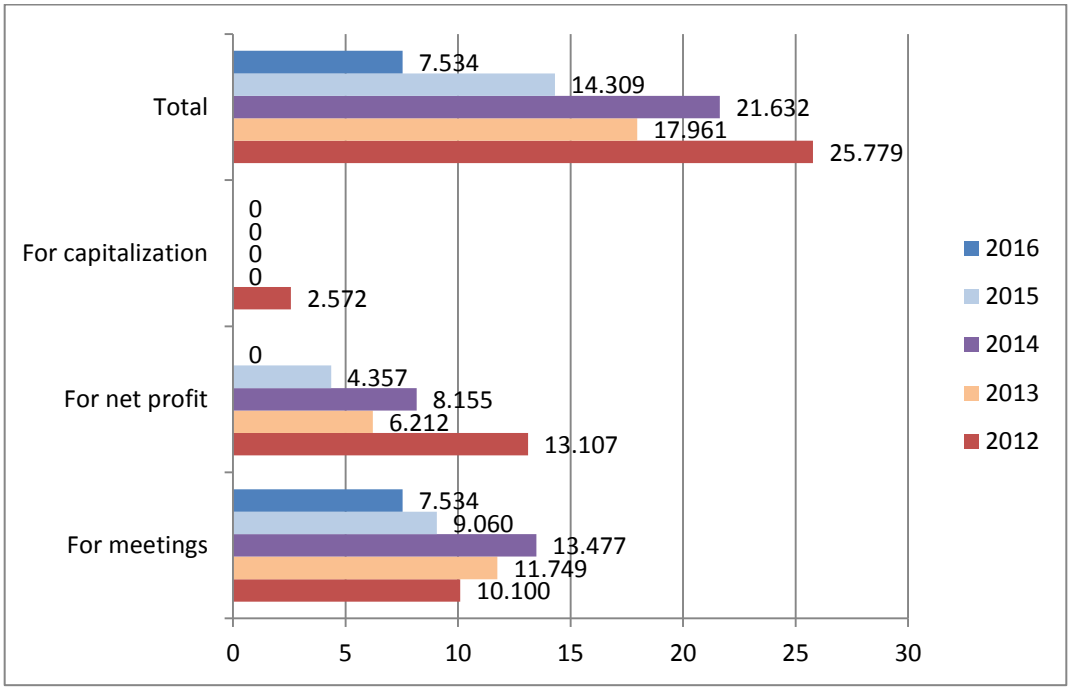
Remunerations to the Members of the Board of Directors in 2016

	S (1)	Additional remuneration				Total	Total (with restrictions)
		30%	20%	10%			
Branis Aleksandr Markovich	675,422.14				0.00	675,422.14	675,422.14
Varlamov Nikolay Nikolaevich	675,422.14		2		270,168.86	945,590.99	900,000.00
Ushakov Evgeny Viktorovich	0.00				0.00	0.00	0.00
Filkin Roman Alekseevich	675,422.14			3	202,626.64	878,048.78	878,048.78
Chistyakov Vladimir Sergeevich	590,994.37		1	2	236,397.75	827,392.12	827,392.12
Shevchuk Aleksander Victorovich	692,307.69			3	207,692.31	900,000.00	900,000.00
Grinkevich Yegor Borisovich**	0.00				0.00	0.00	0.00
Guriyanov Denis Lvovich	692,307.69			3	207,692.31	900,000.00	900,000.00
Kobelyan Ashot Mikhailovich	675,422.14			2	135,084.43	810,506.57	810,506.57
Petrov Sergey Aleksandrovich	675,422.14			1	67,542.21	742,964.35	742,964.35
Fadeev Aleksandr Nikolaevich	692,307.69	1		1	276,923.08	969,230.77	900,000.00
							7,534,333.96

* No remuneration was accrued or paid to Ushakov E.V., since he was the General Director of the Company.

** No remuneration was accrued or paid to Grinkevich Ye. B., since he was a civil servant.

Remuneration Paid to the Members of the Board of Directors for 2012-2016, RUB m



Training of the Members of the Board of Directors

In 2016, the members of the Board of Directors did not receive training at the Company's expense.

Corporate Secretary of the Company

Corporate secretary of PJSC IDGC of Center and Volga Region acts on the basis of the Charter and the Regulation on the Corporate Secretary of the Company approved by the resolution of the Board of Directors of the Company (Minutes No. 242 dated September 26, 2016).

The full text of the Regulation can be found on the website of the Company www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" / "Internal Documents of the Company" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/).

The Corporate Secretary is functionally subordinate to the Board of Directors of the Company and responsible for ensuring that the management bodies and officials of the Company act in compliance with the procedures that guarantee implementation of the rights and legitimate interests of the shareholders of the Company. According to the Regulation on the Corporate Secretary the functions of the Corporate Secretary include:

- preparation for and conduct of General Shareholders Meetings in accordance with the requirements of the current legislation of the Russian Federation, the Charter and other internal documents of the Company;

- ensuring the operation of the Board of Directors and Committees of the Board of Directors of the Company;

- rendering assistance to the members of the Board of Directors / Committees of the Board of Directors of the Company while they are performing their functions;

- organization of interaction between the Company (represented by the Board of Directors and the General Director) and its shareholders, storage of the Company's documents.

Ms. Guseva Yulia Stanislavovna is the Corporate Secretary of PJSC IDGC of Center and Volga Region (by resolution of the Board of Directors of the Company (Minutes No. 232 dated June 16, 2016).

Ms. Guseva Yu. S. graduated from Nizhny Novgorod Commercial Institute majoring in "jurisprudence" in 1997. In 2014 she underwent professional retraining at National Research University Higher School of Economics under the Presidential Program on Training Managers for Enterprises of National Economy of the Russian Federation (Innovative Management program).

Ms. Guseva Yu. S. has been working for the Company since 2007, currently holds the position of the Head of the Corporate Relations Division of the Corporate Governance and Relations with Shareholders Department of PJSC IDGC of Center and Volga Region.

Ms. Guseva Yu. S. does not own the shares of the Company and its subsidiary and dependent companies, has no affiliation with the members of the Company's management bodies and the shareholders of the Company. Ms. Guseva Yu. S. has no criminal record and has committed no administrative violations in the field of business, finances, taxes and fees and the securities market.

In 2016, the Corporate Secretary's remuneration was RUB 473,714 (before personal income tax).

Committees of the Board of Directors

	Audit Committee	Strategy and Development Committee	HR and Remunerations Committee	Reliability Committee	Committee for Technological Connection to Power Grids
Website containing data on the powers and composition of the Committee, as well as its resolutions	www.mrsk-cp.ru Section "About the Company" / "Management Bodies" / "the Board of Directors" / "Committees of the Board of Directors"				
	http://www.mrsk-cp.ru/about/management/directors/board_committees/audit/	http://www.mrsk-cp.ru/about/management/directors/board_committees/strategy_and_development/	http://www.mrsk-cp.ru/about/management/directors/board_committees/hr_and_remuneration/	http://www.mrsk-cp.ru/about/management/directors/board_committees/reliability/	http://www.mrsk-cp.ru/about/management/directors/board_committees/techno-connection_to_electric_networks/
Date of establishment of the Committee	July 31, 2008	July 31, 2008	July 31, 2008	October 12, 2007	February 19, 2009
Documents regulating the Committee's operations *	Regulation on the Audit Committee of the Board of Directors	Regulation on the Strategy and Development Committee of the Board of Directors	Regulation on the HR and Remunerations Committee of the Board of Directors	Regulation on the Reliability Committee of the Board of Directors	Regulation on the Committee for Technological Connection to Power Grids of the Board of Directors
Number of Committee members: January to July 2016 July to December 2016	*7* *7*	*16* *16*	*7* *8*	*7* *9*	*5* *6*
Current composition of the Committee as approved by the Board of Directors of the Company on July 15, 2016, October 31, 2016 and December 27, 2016	1. Shevchuk Aleksander Victorovich 2. Varlamov Nikolay Nikolaevich 3. Guriyanov Denis Lvovich 4. Goncharov Aleksey Nikolaevich 5. Pavlov Aleksey Igorevich 6. Chistyakov Vladimir Sergeevich *7.* Filkin Roman Alekseevich	1. Pavlov Aleksey Igorevich 2. Sofyin Vladimir Vladimirovich 3. Podlutsky Sergey Vasilievich 4. Gurenkova Irina Sergeevna 5. Lavrova Marina Aleksandrovna 6. Bindar Oleg Leonidovich 7. Troinina Olga Nikolaevna 8. Ozherelyev Alexey Alexandrovich 9. Skulkin Vyacheslav Sergeevich 10. Ushakov Evgeny Viktorovich 11. Fedorov Oleg Romanovich 12. Zharikov Aleksey Nikolaevich 13. Filkin Roman Alekseevich 14. Shevchuk Aleksander Victorovich 15. Pokrovsky Sergey Vadimovich 16. Klaptsov Aleksey Vitaliyevich	1. Varlamov Nikolay Nikolaevich 2. Fadeev Aleksandr Nikolaevich 3. Guriyanov Denis Lvovich 4. Goncharov Aleksey Nikolaevich 5. Filkin Roman Alekseevich 6. Chistyakov Vladimir Sergeevich 7. Fedorov Oleg Romanovich 8. Shevchuk Aleksander Victorovich	1. Dobahyants Yulia Vladimirovna 2. Ukolov Vladimir Anatolievich 3. Smaga Mikhail Vladimirovich 4. Pilyugin Aleksander Victorovich 5. Vedernikov Andrey Yurievich 6. Tikhomirova Olga Vladimirovna 7. Lobov Evgeny Vladimirovich 8. Zharikov Aleksey Nikolaevich 9. Polovnev Igor Georgievich	1. Chistyakov Vladimir Sergeevich 2. Polovnev Igor Georgievich 3. Lobova Natalia Sergeevna 4. Masaleva Irina Borisovna 5. Davydkin Vladimir Alexandrovich 6. Pilyugin Aleksander Victorovich
Number of meetings in 2016 Total, including in presentia	*11* *4*	*23* *1*	*13* *0*	*15* *1*	*5* *0*
Total remuneration paid to the Committee members in 2016 (RUB) before personal income tax **	0	594,560	0	193,232	89,184

* *The full text of regulations on the committees can be found on the Company's website www.mrsk-cp.ru in the section* "For Shareholders and Investors" / "Disclosure of Information by Issuer" / "Internal Documents of the Company" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/)

** *Remuneration to members of the Committee is paid for participation in meetings according to the Regulation on Remuneration and Compensation for the Members of the Committees of the Board of Directors of PJSC IDGC of Center and Volga Region, approved by the resolution of the Board of Directors of the Company dated August 29, 2016 (Minutes No. 239 dated August 31, 2016).*

Reports on the performance of the Board of Directors committees are provided in Supplement 3 to the Annual Report.

Detailed information on the members of the committees of the Board of Directors of the Company is provided in Supplement 3 to the Annual Report.

Management Board

The Management Board is the collegiate executive body intended to directly manage the Company, as guided by the resolutions of the General Shareholders Meeting and the Board of Directors, and acting in accordance with the law of the Russian Federation, the Company's Charter and other internal documents of the Company.

The key objectives of the Company's Management Board are as follows:

- ensuring the observance of the rights and legitimate interests of the Company's shareholders;
- providing suggestions on the Company's development strategy;
- implementing the Company's financial and economic policy, developing decisions on the major issues related to the Company's current economic operations and coordinating the operation of the Company's units;
- increasing the efficiency of the internal control and risk monitoring systems;
- ensuring high level of income from the Company's assets and the maximum profit from the Company's operations.

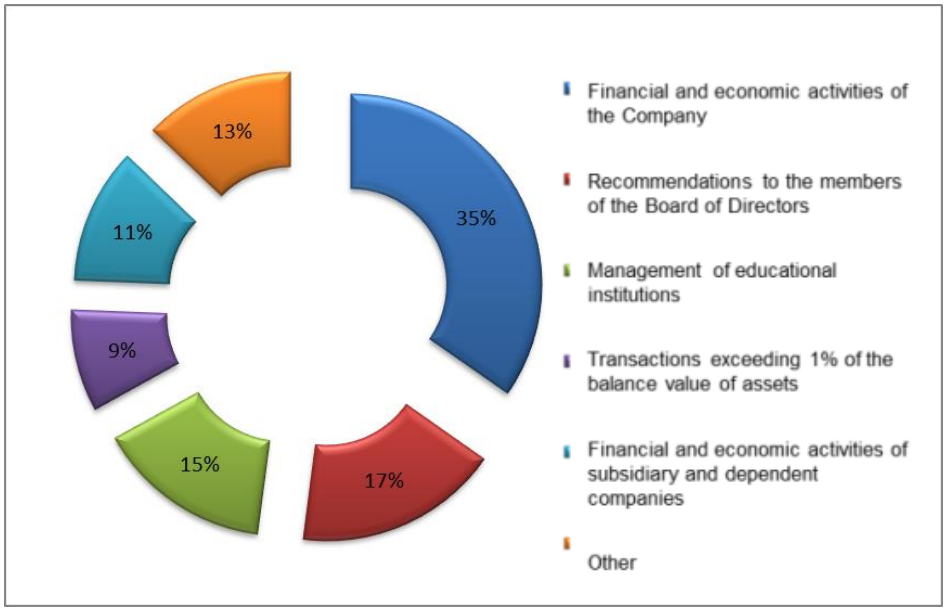
The activities of the Company's Management Board are governed by the Company's Charter, the Regulation on the Management Board, and the Code of Corporate Governance.

The information on the composition and authority of the Management Board is available on the Company's website www.mrsk-cp.ru in the section "About the Company" / "Management Bodies" / "Management Board" (http://www.mrsk-cp.ru/about/management/board_of_directors/).

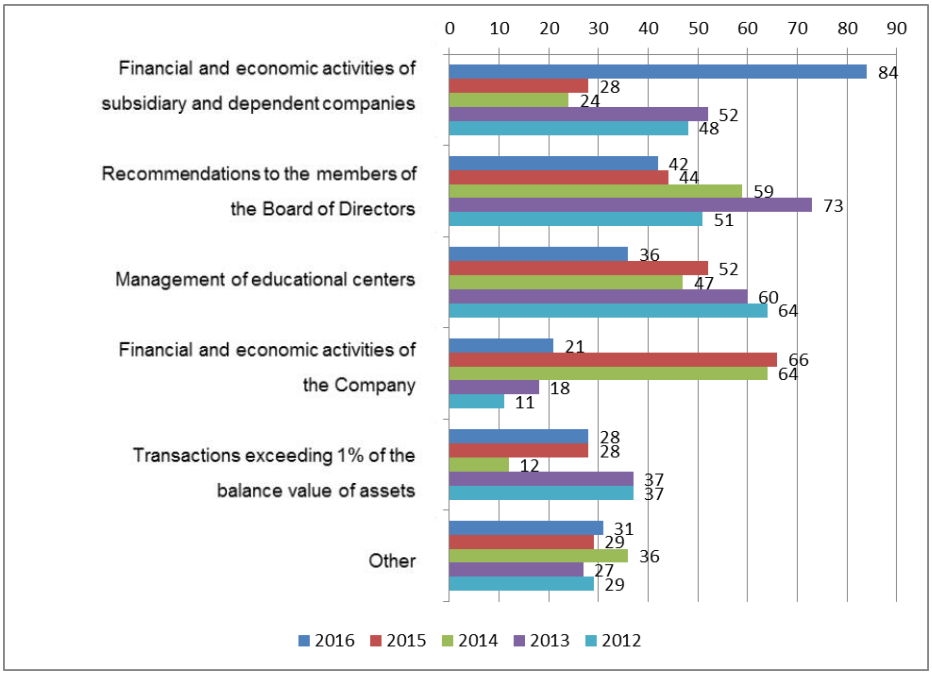
In 2016, there were 75 meetings of the Company's Management Board, 44 of them were held in the form of copresence, and 31 meetings were held in absentia (by enquiries).

242 issues within the authority of the Management Board **were considered and resolved at the meetings.**

Key Groups of Issues Considered by the Management Board in 2016, %



Comparative analysis of the key groups of issues considered by the Management Board of the Company in 2012-2016



84%
is the average percentage of participation in the Management Board meetings in 2016

To ensure efficient operation of the Board of Directors and weighted and substantiated decisions made by it, the Management Board carried out preliminary consideration and submitted to the Board of Directors the recommendations on the main issues within the competence of the Board of Directors, as follows:

- Strategic and operational priorities of the Company;
- Approval of the target (adjusted) values for the Company's Key Performance Indicators (KPIs) and the reports on their achievement;
- Recommendations on the amount of dividend on shares and the dividend payment procedure;
- Approval of candidates for the position of independent appraisers;
- Decisions on the Company's participation in other organizations;
- Preliminary approval of transactions related to the transfer of the Company's property free of charge.

The recommendations developed by the Management Board were taken into account by the Company's Board of Directors when making decisions.

Management Board Composition

The acting Management Board was approved by the Board of Directors (Minutes No. 9 dated March 5, 2008). Changes were made in accordance with the resolutions of the Board of Directors (Minutes No. 9 dated March 05, 2008, No. 10 dated March 24, 2008, No. 17 dated June 25, 2008, No. 21 dated September 24, 2008, No. 55 dated April 30, 2010, No. 209 dated January 11, 2016, No. 243 dated October 14, 2016, No. 249 dated December 01, 2016 and No. 252 dated December 29, 2016).

As of December 31, 2016 the acting Management Board included six persons:

1. **Isaev Oleg Yurievich –** acting General Director of PJSC IDGC of Center and Volga Region, **Chairman of the Management Board;**

2. **Kuranov Artem Evgenievich** – first Deputy General Director of PJSC IDGC of Center and Volga Region, **Deputy Chairman of the Management Board;**

3. **Pilyugin Alexander Viktorovich** – advisor of PJSC IDGC of Center and Volga Region;

4. **Vedernikov Andrey Yurievich** – Deputy General Director for Sales and Services Development of PJSC IDGC of Center and Volga Region;

5. **Gorev Vyacheslav Alexandrovich –** Deputy General Director for Investment Activity of PJSC IDGC of Center and Volga Region;

6. **Tikhomirova Olga Vladimirovna –** Deputy General Director for Economics and Finance of PJSC IDGC of Center and Volga Region.

By resolution of the Board of Directors of PJSC IDGC of Center and Volga Region dated December 30, 2015 (Minutes No. 209 dated January 11, 2016), the authority of Yashanina Irina Viktorovna, the member of the Management Board of PJSC IDGC of Center and Volga Region and Deputy General Director – Head of Administration of PJSC IDGC of Center and Volga Region, was terminated; the new composition of the Management Board includes 8 (eight) persons.

By resolution of the Board of Directors of PJSC IDGC of Center and Volga Region dated October 12, 2016 (Minutes No. 243 dated October 14, 2016), the authority of Shitts Vladimir Viktorovich, the member of the Management Board of PJSC IDGC of Center and Volga Region, was terminated; Gorev Vyacheslav Alexandrovich, Deputy General Director for Investment Activity of PJSC IDGC of Center and Volga Region, was elected to the Management Board.

By resolution of the Board of Directors of PJSC IDGC of Center and Volga Region dated October 31, 2016 (Minutes No. 245 dated November 01, 2016) the authority of Ushakov Evgeny Viktorovich, the General Director of PJSC IDGC of Center and Volga Region, was terminated; Isaev Oleg Yurievich was elected as acting General Director (part-time). Starting from November 01, 2016 Isaev Oleg Yurievich has occupied the position of the Chairman of the Company's Management Board (clause 3.2.1 of the Regulations on the Management Board of PJSC IDGC of Center and Volga Region).

By resolution of the Board of Directors of PJSC IDGC of Center and Volga Region dated November 30, 2016 (Minutes No. 249 dated December 01, 2016) the authority of Andrus Sergey Timofeevich and Nikitushkin Evgeniy Vladimirovich, members of the Management Board of PJSC IDGC of Center and Volga Region was terminated; Kuranov Artem Evgenievich, first Deputy General Director of PJSC IDGC of Center and Volga Region, and Pilyugin Alexander Viktorovich, advisor of PJSC IDGC of Center and Volga Region, were elected to the Management Board.

By resolution of the Board of Directors of PJSC IDGC of Center and Volga Region dated December 27, 2016 (Minutes No. 252 dated December 29, 2016), the authority of Podolskaya Lada Alexandrovna and Prepodobny Aleksander Vasilievich, members of the Management Board of PJSC IDGC of Center and Volga Region, was terminated; the new composition of the Management Board includes 6 (six) persons.

Detailed information on the members of the Company’s Management Board is provided in Supplement 3 to the Annual Report.

Participation of the Management Board Members in Meetings of the Management Board and the Committees of the Board of Directors in 2016

Full Name	Meetings			
	Management Board	Strategy and Development Committee	Reliability Committee	Committee on Technological Connection to Power Grids
Isayev Oleg Yurievich	12/12			
Kuranov Artem Evgenievich	6/6			
Pilyugin Aleksander Victorovich	6/6			
Vedernikov Andrey Yurievich	67/75		5/5	
Tikhomirova Olga Vladimirovna	57/75		15/15	
Gorev Vyacheslav Aleksandrovich	13/15			
Ushakov Evgeny Viktorovich	55/63	23/23		
Andrus Sergey Timofeevich	44/69		15/15	2/2
Nikitushkin Evgeny Vladimirovich	63/69			
Podolskaya Lada Aleksandrovna	65/75			
Prepodobny Aleksander Vasilievich	68/74			
Shitts Vladimir Viktorovich	46/60			

Notes:

- *The first figure is the total number of meetings in which the Management Board member was entitled to participate, and the second one is the number of meetings attended.*
- *Management Board members are not in the Audit Committee or HR and Remunerations Committee.*

The average percentage of the Management Board members' participation in meetings is 84%.

Remuneration to the Members of the Management Board

By resolution of the Board of Directors of PJSC IDGC of Center and Volga Region, the Chairman of the Management Board determines the conditions of work and signs labor agreements with the members of the Management Board.

All members of the Management Board are considered top managers of PJSC IDGC of Center and Volga Region, the list of which is approved by the Board of Directors of the Company. The remunerative incentives for top managers of the Company are subject to the Regulation on Remunerative Incentives and Social Benefits of Top Managers of PJSC IDGC of Center and Volga Region (approved by the Board of Directors on June 08, 2016, Minutes No. 231), which intends to increase the efficiency of management of the Company’s property and finance.

According to the Regulation on Remunerative Incentives and Social Benefits to Top Managers, the members of the Management Board receive personal monthly bonuses in the amount of 15% of the official salary for exercise of their powers.

Remuneration and compensations paid
to the members of the Management Board in 2016, RUB ths

Indicator	2016
Remuneration for work in the management body	3,876.2
Salary	56,630.6
Bonuses	46,510.0
Commission	0.0
Other types of remuneration	0.0
Compensation of expenses	919.0
Total	**107,935.8**

Note: Amounts are indicated before the personal income tax.
Information on remuneration paid to the members of the Management Board in 2016 due to participation in the meetings of the Board of Directors is disclosed in the "Board of Directors" subsection of this Annual Report.

Quarterly and yearly bonuses for top managers depend on the degree of achievement of the Key performance indicators (KPIs) set by the Board of Directors of the Company, which are related to the Company's strategy. KPIs are measurable and motivate employees to achieve results and ensure objective assessment of their performance.

Detailed information on KPIs is presented in Section 4.2.2. "Information on Achievement" of KPIs" of this Annual Report.

The Regulation on Remunerative Incentives and Social Benefits to Top Managers provides for non-recurrent bonuses for essential accomplishments.

In 2016, due to their high professionalism and personal contribution to the development of the power industry, a number of members of the Management Board of PJSC IDGC of Center and Volga Region were given corporate awards of PJSC Rosseti.

Training of Members of the Management Board

Pursuant to the Standard titled "Management System of Training, Retraining, Advanced Training, Occupational Health and Safety. Procedure for Organizing and Carrying Out HR Management" (STO 01-070-2016 developed in accordance with requirements of ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, ISO 50001:2011) and in accordance with the approved Advanced Program for Training and Advanced Training of the Company's Personnel, the Management Board members are involved in the single corporate system of continuing professional education of personnel.

In 2016 Deputy General Director for Corporate Governance Podolskaya L.A. participated in the training program "Law for a Business Man".

Tikhomirova O.V., Deputy General Director for Economics and Finance, and Shitts V.V., Deputy General Director for Investment Activity, participated in the training program for members of the

commission for the prevention and elimination of emergency situations and fire safety in the Nizhny Novgorod region.

Gorev V.A., Deputy General Director for Investment Activity, participated in the training program "Industrial and Civil Construction. Management of Construction Organization".

General Director

In accordance with Article 23 of the Company's Charter, the issues within the competence of the General Director of PJSC IDGC of Center and Volga Region include all issues related to the management of daily operations of the Company, except for the issues that fall within the competence of the General Shareholders Meeting, the Board of Directors and the Management Board.

The General Director presents for the consideration of the Board of Directors the reports on fulfillment of resolutions (assignments) of the Board of Directors of PJSC IDGC of Center and Volga Region, and other reports in compliance with the current legislation, the operations plan of the Board of Directors and the internal documents of the Company.

The General Director completed all assignments of the Board of Directors of PJSC IDGC of Center and Volga Region for 2016.

On November 1, 2016, Isaev Oleg Yurievich was elected Acting General Director of PJSC IDGC of Center and Volga Region (part-time).

Isaev Oleg Yurievich – Chairman of the Management Board, Acting General Director of PJSC IDGC of Center and Volga Region (the Company's Sole Executive Body)

Year of birth: 1969.

Education: higher professional, Military Red Banner Institute (major: jurisprudence, lawyer), Russian Academy of Public Administration under the President of the Russian Federation (major: state and municipal management, manager), professional retraining "Management in the Power Industry".

Degree, title: Doctor of Law.

All positions held by the person in the Company and other organizations for the last 5 years and presently, including part-time positions, are listed below:

Period of time		Organization	Positions
from	through		
November 2016	Present	PJSC IDGC of Center and Volga Region (part-time)	Acting General Director
November 2016	Present	PJSC IDGC of Center and Volga Region	Chairman of the Management Board
June 06, 2016	Present	PJSC MOESK	Member of the Board of Directors
May 25, 2916	Present	Moscow Chamber of Commerce and Industry	Member of the Board
June 2013	Present	PJSC IDGC of Centre	Member of the Board of Directors
April 2013	Present	PJSC IDGC of Centre	General Director
December 2012	April 2013	PJSC IDGC of Centre	Acting General Director
December 2012	Present	PJSC IDGC of Centre	Chairman of the Management Board
October 2012	May 2016	Moscow Chamber of Commerce and Industry	Member of the Management Board
December 2011	December 2012	JSC VO Tyazhpromexport	Chairman of the Board of Directors
September 2010	December 2011	JSC VO Technopromexport	General Director, Interim General Director, First Deputy General Director

The Company's ordinary shares owned by the person (share in the charter capital) as of December 31, 2016: **none.**

In 2016, the person made no transactions with the shares of the Company.

From June 28, 2007 to October 31, 2016, Ushakov Evgeny Viktorovich was the General Director of PJSC IDGC of Center and Volga Region.

Year of birth: 1964.

Education: higher professional, the Lenin Komsomol Chelyabinsk Polytechnic Institute.

All positions held by the person in the Company and other organizations for the last 5 years and presently, including part-time positions, are listed below:

Period of time		Organization	Positions
from	through		
2007	2016	PJSC IDGC of Center and Volga Region	General Director
2008	2016	PJSC IDGC of Center and Volga Region	Chairman of the Management Board
2011	Present	PJSC IDGC of Center and Volga Region	Member of the Board of Directors

The Company's ordinary shares owned by the person (share in the charter capital) as of December 31, 2015: **0.077%.**

The Company's ordinary shares owned by the person (share in the charter capital) as of December 31, 2016: **none.**

Information on the transactions made in 2016 for the alienation of the Company's shares is presented in Supplement 3 to the Annual Report.

Remuneration to the General Director

The labor conditions, guarantees and compensations to the General Director during fulfillment of his duties are defined by the labor agreement, the terms and conditions of which are determined by a person authorized by the Board of Directors of the Company.

The Regulation on Remunerative Incentives for the General Director regulates the amount of quarterly and yearly bonuses for achievement of KPIs, and provides for non-recurrent bonuses for essential accomplishments.

Information on remuneration, benefits and compensations paid to the person acting as the General Director in 2016 is disclosed as part of remuneration to the members of the Company's Management Board in subsection "Remuneration to the Members of the Management Board" of this Annual Report.

Detailed information on KPIs is presented in Section 4.2.2. of this Annual Report.

Assessment of the Input

Isaev Oleg Yurievich

For the services in the development of power industry Isaev O. Yu. received a governmental award – the medal of the Order "For Merit to the Fatherland" 2nd class, 2015.

Isaev O. Yu. also holds the following industry and corporate awards:

- The Letter of Gratitude from the Ministry of Energy of the Russian Federation, 2014;
- Medal, 2nd class "For Contribution to the Development of the Power Grid Complex" from JSC Rosseti, 2014;

- Badge of Honor “For Contribution into Construction of Olympic Facilities" from JSC Rosseti, 2014;
- Badge of Honor “For reliable operation of the Olympic Power Facilities" from JSC Rosseti, 2014;
- Golden Badge of Honor of JSC IDGC of Centre, 2014.

Moreover, he received:

- Commemorative Medal "300 Years of the Russian Fleet", 1996;
- Medal "In memory of the 850th anniversary of Moscow", 1997;
- Commemorative Medal "50 years of the Special Construction of Russia", 2000;
- Medal "For Exemplary Service" 3rd class, 2003;
- Medal of the Ministry of Defense of the Russian Federation "200th anniversary of the Ministry of Defense", 2003;
- Medal "For distinction in the service" of the All-Russian Research Institute of the Ministry of Internal Affairs of Russia, 3rd class, 2006;
- Medal "For distinction in the service" of the Ministry of Internal Affairs of Russia, 2nd class II, 2007;
- Commemorative Medal “XXII Olympic Winter Games and XI Paralympic Winter Games of 2014 in Sochi”, 2014.

For his major contribution to fostering the cooperation with the Orthodox establishments Isaev O. Yu. was awarded the medal of the Bryansk Diocese of the Russian Orthodox Church of Saint Blessed Knyaz Oleg Bryanskiy, 1st class, in 2015.

Ushakov Evgeny Viktorovich

Mr. Ushakov E.V. received a governmental award for his personal contribution to the development of power industry – title of the Honored Power Engineer of the Russian Federation in 2011.

He also holds the following industry and corporate awards:

- The title of the Honorary Worker of the Unified Energy System of Russia from JSC RAO UES of Russia, 2004;
- The title of the Honorary Power Engineer from the Ministry of Energy of the Russian Federation, 2009;
- Badge of Honor “For Development of the Distribution Grid Complex” from JSC IDGC Holding, 2011;
- Badge of Honor “Honorary Worker of the Distribution Grid Complex” from JSC IDGC Holding, 2012;
- The title of the Honorary Worker of Fuel and Energy Industry from the Ministry of Energy of the Russian Federation, 2014;
- Badge of Honor “For Contribution into Construction of Olympic Facilities" from JSC Rosseti, 2014;
- Medal "In Commemoration of the 95th Anniversary of GOELRO Plan", 2015;
- Medal, 2nd class “For Contribution to the Development of the Power Grid Complex" from PJSC Rosseti, 2015;

In 2011, Mr. Ushakov E.V. was included into the Book of Honor of JSC IDGC Holding.

Moreover, he received:

- The Letter of Gratitude from the Government of the Nizhny Novgorod Region, 2007;
- The Certificate of Merit from the Governor of the Nizhny Novgorod Region, 2009;
- Commemorative Medal “XXII Olympic Winter Games and XI Paralympic Winter Games of 2014 in Sochi”, 2015;
- Badge of Honor "For Fellowship" of the public organization All-Russian Electric Trade Union, 2015.

On behalf of His Holiness Patriarch of Moscow and All Russia, Mr. Ushakov was awarded the Order of the Russian Orthodox Church of the Reverend Seraphim of Sarov of III Grade in 2009 and the Order of the Reverend Sergius of Radonezh of III Grade in 2010 for his major contribution to fostering the cooperation with the Orthodox establishments.

Training of the General Director

In 2016, according to the established periodicity, the General Director Ushakov E.V. underwent an advanced training "Current Problems of the Power Industry".

5.1.3. Information on major transactions and Interested Party Transactions

In 2016, the Company made no transactions considered as major transactions under the Russian legislation.

All interested party transactions were conducted by the Company under the general market conditions and were approved by the Board of Directors. Full information on these transactions is available in Supplement No. 5 to the Annual Report.

In 2016, the Company did not enter into any deal the arrangement of which holds an interest and the volume of which is at and above 2% of the balance sheet value of assets.

5.1.4. Participation in Non-Commercial Organizations

As of December 31, 2015, the Company is a member of 16 (sixteen) different non-commercial organizations of regional and federal significance and is the founding member of 7 (seven) educational organizations in the regions of its operation.

Detailed information on the non-commercial organizations in which the Company participates or is a founding member, is available on its website: http://www.mrsk-cp.ru in the section “For Shareholders and Investors” / “List of the Non-Commercial Organizations, in which the Company Participates” (http://www.mrsk-cp.ru/stockholder_investor/nonprofit_organizations_list/).

Information on the network of corporate training centers of the Company is disclosed in the "Sustainable Development" section of this Annual Report.

In 2017, the Company plans to continue active participation in non-commercial organizations and develop the specialized educational centers, where the Company is a founding member.

5.2. Shareholders' Capital and Dividend Policy

5.2.1. Securities

The charter capital of PJSC IDGC of Center and Volga Region totals RUB 11,269,781,704.30 (eleven billion two hundred sixty nine million seven hundred eighty one thousand seven hundred four point thirty).

The Company placed 112,697,817,043 (one hundred twelve billion six hundred ninety seven million eight hundred seventeen thousand forty three) ordinary shares with the nominal value of 10 kopecks each.

The number of authorized shares is 2,182,957 (two million one hundred eighty two thousand nine hundred fifty seven) ordinary registered shares with the nominal value of 10 kopecks each. These shares are the difference between the number of authorized shares (112,600,000,000) and the number of shares (112,597,817,043) placed during the reorganization of the Company, which took place in 2008 in the form of merger with nine distribution grid companies (DGC).

The Company placed no preferred shares

Issue of shares by the Company

Issue	Date of the issue registration	State registration number of the issue	Number of shares in the issue	Nominal value, RUB
Initial (primary) issue	August 20, 2007	1-01-12665-E	100,000,000	0.1
Additional Issue 001	February 21, 2008	1-01-12665-E-001D	9,933,178,038	0.1
Additional Issue 002	February 21, 2008	1-01-12665-E-002D	5,238,075,351	0.1
Additional Issue 003	February 21, 2008	1-01-12665-E-003D	10,154,553,057	0.1
Additional Issue 004	February 21, 2008	1-01-12665-E-004D	8,579,998,539	0.1
Additional Issue 005	February 21, 2008	1-01-12665-E-005D	4,095,509,962	0.1
Additional Issue 006	February 21, 2008	1-01-12665-E-006D	31,184,103,348	0.1
Additional Issue 007	February 21, 2008	1-01-12665-E-007D	13,343,991,837	0.1
Additional Issue 008	February 21, 2008	1-01-12665-E-008D	7,567,715,086	0.1
Additional Issue 009	February 21, 2008	1-01-12665-E-009D	9,990,288,421	0.1
Additional Issue 010	February 21, 2008	1-01-12665-E-010D	665,242,563	0.1
Additional Issue 011	February 21, 2008	1-01-12665-E-011D	2,574,822,120	0.1
Additional Issue 012	February 21, 2008	1-01-12665-E-012D	327,892,112	0.1
Additional Issue 013	February 21, 2008	1-01-12665-E-013D	7,749,197,134	0.1
Additional Issue 014	February 21, 2008	1-01-12665-E-014D	1,193,249,475	0.1
Primary and additional issues combined (July 1, 2008)	August 20, 2007	1-01-12665-E	112,697,817,043	0.1
Total number of shares outstanding			**112,697,817,043**	**0.1**

Cross-holding as of December 31, 2016

Name of the shareholder	Number of shares		Nominal value of the share, RUB	Nominal value of the investment, RUB	% of the charter capital
	Ordinary	Preferred			
Information on the shares in PJSC IDGC of Center and Volga Region held by PJSC Rosseti					
PJSC Rosseti	56,799,338,107	-	0.1	5,679,933,810.7	50.4
Information on the shares in PJSC Rosseti held by PJSC IDGC of Center and Volga Region					
PJSC IDGC of Center and Volga Region	2,080,389	-	1.0	2,080,389	0.0011

The Company holds shares in PJSC Rosseti due to the legal succession of the shares in JSC RAO UES of Russia from JSC Kirovenergo which was merged with the Company in 2008. During the reorganization of JSC RAO UES of Russia the shareholders in the latter were given the shares in a number of power industry companies, including JSC IDGC Holding (currently PJSC Rosseti).

Shareholders

Structure of the shareholders' capital (5% and more)

Type:	Full (abbreviated) company name	Location	% of the charter capital	
			as of December 31, 2015	as of December 31, 2016
Ow	Rosseti, Public Joint Stock Company (PJSC Rosseti)	121353, 4 Belovezhskaya Street, Moscow, Russia	50.40	50.40
NH	Non-Banking Credit Organization Closed Joint Stock Company National Settlement Depository (NPO CJSC NSD) (NPO CJSC NSD)	105066, 12 Spartakovskaya Street, Moscow, Russia	44.48	45.53
	Other		5.12	4.07
	Total		**100**	**100**

** Ow – Owner, NH – Nominee holder*

Note: The information above contains no data on the clients of nominee holders.

Structure of the shareholders' capital (5% and more) on the date of compilation of the list of persons entitled to participation in the General Shareholders Meeting

Name	% of the charter capital	
	as of May 8, 2015	as of April 22, 2016
PJSC Rosseti	50.40	50.40
Genhold Limited	15.87	15.87
Energyo Solutions Russia (Cyprus) Limited	6.26	6.26
Energosouz Holdings Limited	5.40	5.40
Other	22.07	22.07
Total	**100**	**100**

Note: The Company has no data on the existence of the shareholdings exceeding 5%, except for the above-mentioned.

Shareholders statistics

Type of shareholder	As of December 31, 2015		As of December 31, 2016	
	Number of shareholders	% of the charter capital	Number of shareholders	% of the charter capital
Owners – individuals	18,952	3.728	18,932	3.676
Owners – legal entities	147	1.277	147	0.291
State property (Russian Federation, entities of the Russian Federation)	3	0.004	3	0.004
Nominee holders	8	94.991	7	96.029
Beneficial owners	1	< 0.001	1	< 0.001
Total	**19,111**	**100**	**19,090**	**100**

Note: The information above contains no data on the clients of nominee holders.

Shareholders' capital concentration

Number of shares owned	Number of shareholders as of May 19, 2014	Number of shareholders as of May 8, 2015	Number of shareholders as of April 22, 2016
1 – 1,000	2,983	2,950	2,932
1,001 – 10,000	5,628	5,619	5,635
10,001 – 100,000	5,208	5,188	5,247
100,001 – 1,000,000	6,026	6,008	6,253
1,000,001 – 10,000,000	1,036	994	1,141
10,000,001 – 100,000,000	116	112	132
100,000,001 – 1,000,000,000	37	31	28
1,000,000,001 – 10,000,000,000	5	6	6
10,000,000,001 – 56,799,338,107	2	2	2
Total	**21,041**	**20,910**	**21,376**

The rights of shareholders are stipulated by the legislation of the Russian Federation (federal laws and other regulatory acts), as well as by the Charter of PJSC IDGC of Center and Volga Region. The Company guarantees that the rights of shareholders are properly respected. The key rights of the Company's shareholders are stated in Supplement No. 3 to the Annual Report.

Shares in the Stock Market

In 2016, the shares of PJSC IDGC of Center and Volga Region were traded on the leading Russian stock exchange, PJSC Moscow Exchange (Until December 19, 2016 – CJSC SE MICEX).

After consolidation of the primary issue and 14 additional issues of the Company's shares on July 1, 2008, the Company's shares of the primary (consolidated) issue are traded on the stock market under registration number 1-01-12665-E, with the ticker MRKP.

Presence of the Company's shares in the stock market quotation list

Starting date without listing procedure	Starting date in 'B' Quotation List	Starting date in 'A' Quotation List, Level 2	Starting date in 'A' Quotation List, Level 1	Starting date in 'A' Quotation List, Level 2	Starting date in Quotation List, Level 1 (Top Level)	Starting date in Quotation List, Level 2
April 7, 2008	September 23, 2008	May 18, 2011	February 27, 2012	April 8, 2014	June 9, 2014	January 31, 2017

Company's Shares Included in Stock Indices

The shares of PJSC IDGC of Center and Volga Region are included in the basis for calculation of the following stock indices:

Index name	Index code	Share of securities of PJSC IDGC of Center and Volga Region in the index, %*	Updated on
The Moscow Exchange Second-Tier Index	MICEXSC	1.75	December 30, 2016
The Moscow Exchange Second-Tier Index in USD	RTS2	1.75	December 30, 2016
MICEX Power Index	MICEX PWR	1.36	December 30, 2016
RTS Electric Utilities	RTSeu	1.36	December 30, 2016
The Moscow Exchange Broad Market Index	MICEXBMI	0.03	December 30, 2016
The Moscow Exchange Broad Market Index	RUBMI	0.03	December 30, 2016
MOEX Regulated Companies Index	MOEX RegCo Index	1.56	December 30, 2016

In 2016, the capitalization of PJSC IDGC of Center and Volga Region increased by 135.6% to RUB 16.65 b, the MICEX Index increased by 26.8%, and the MICEX Power Index rose by 110.1%.

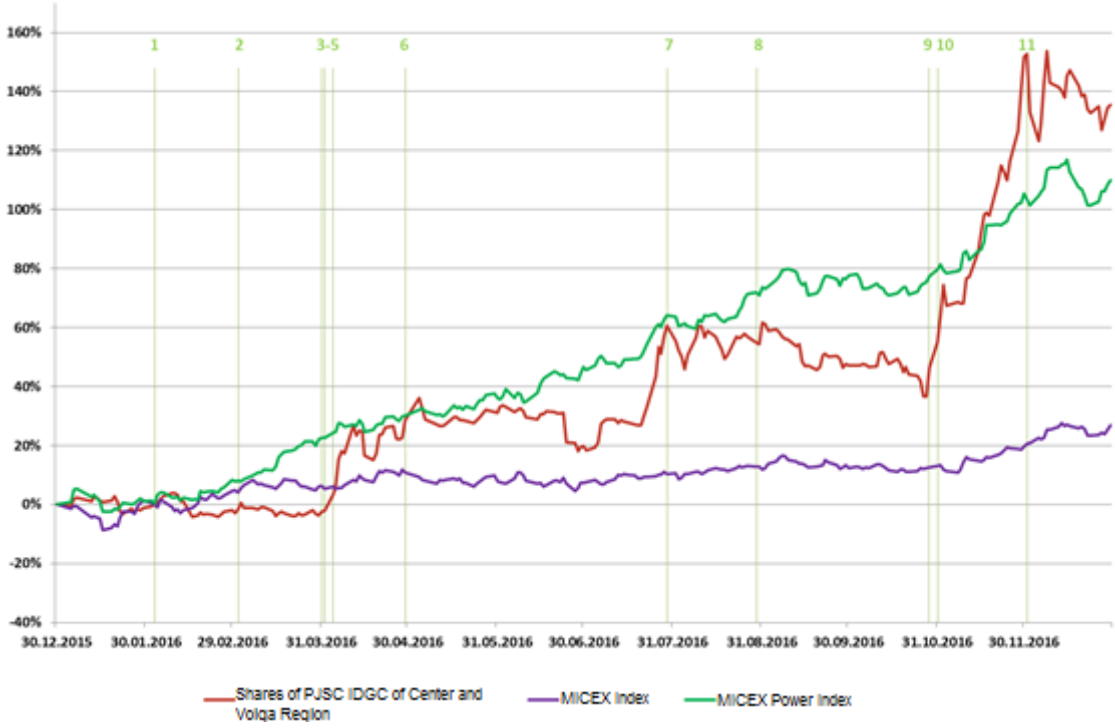
In 2016, maximum capitalization reached RUB 17.93 b, while the minimum one was RUB 6.77 b.

Share Price of PJSC IDGC of Center and Volga Region on MICEX in 2014-2016

Price, RUB	2014	2015	2015/2014 (relative growth), %	2016	2016/2015 (relative growth), %
Maximum for the year	0.118	0.099	-16.1	0.165	66.7
Minimum for the year	0.060	0.061	1.7	0.060	-1.6
Weighted average at the year end	0.106	0.063	-40,6	0.148	134.9

The expectations of the investment community that the dividend payments will be increased, the growth of the Company's financial indicators, possible decrease of the share of PJSC Rosseti in the equity capital of the Company to 25% plus 1 share in 2017-2019 affected the trends in the Company's shares in the previous year.

Changes in the Company's share value and MICEX indices in 2016



Deciphering the chart:

1 Proposal of Federal Agency for State Property Management (Rosimushchestvo) that the standard dividend payments to state enterprises be increased from 25 to 50% of net profit.

2 Publication of the Company's IFRS consolidated financial statements for 2015.

3 Publication in the mass media of information on the submission of a draft decision that establishes the standard dividend payments to state enterprises of no less than 50% of net profit.

4 Approval of the adjusted business plan for 2016 by the Board of Directors of PJSC IDGC of Center and Volga Region.

5 Publication of the Company's IFRS consolidated financial statements for 2015.

6 Publication of accounting (financial) statements under RAS for the quarter 1 of 2016.
Recommendation of the Board of Directors of PJSC IDGC of Center and Volga Region to the Company's shareholders on the annual meeting to make a decision on allocation of 100% of profit calculated based on RAS to pay dividends.

7 Publication of accounting (financial) statements under RAS for semester 1 of 2016.

8 Decision taken by PJSC Rosseti on creating a unified management of PJSC IDGC of Centre and PJSC IDGC of Center and Volga Region.

9 Publication of the draft budget of the RF for 2017 and the planned period of 2018-2019 the materials of which state the decrease of the share of PJSC Rosseti in 6 interregional distributing grid companies to 25% plus 1 share planned for 2017-2019.

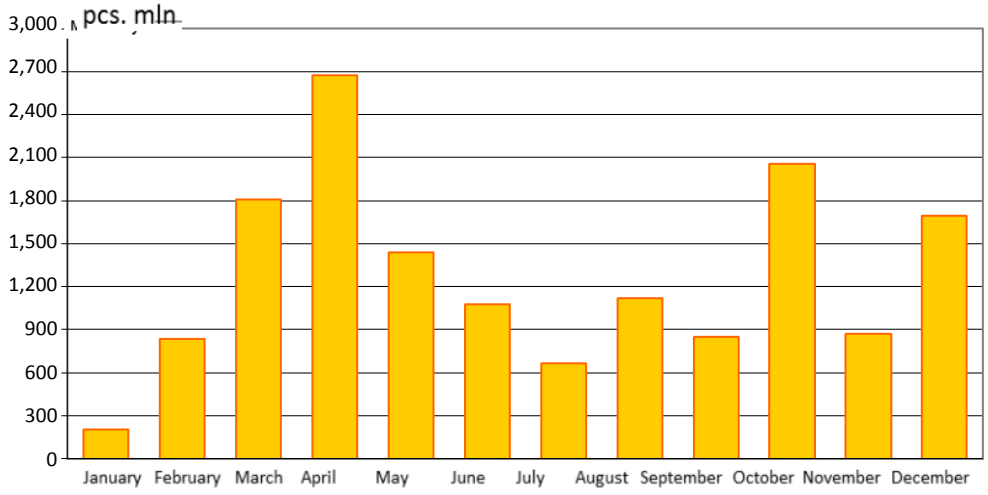
10 Publication of accounting (financial) statements under RAS for 9 months of 2016.

11 Approval of the adjusted business plan for 2017 by the Board of Directors of PJSC IDGC of Center and Volga Region.

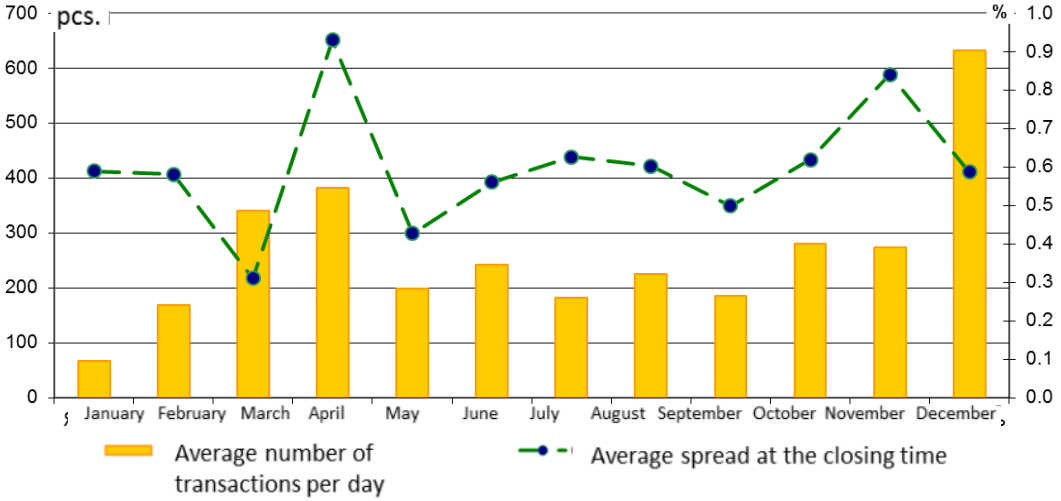
Trading volume of the Company's shares on MICEX in 2015-2016

	Num.			RUB		
	2015	2016	Change, %	2015	2016	Change, %
Trading volume	4,304,880,000	13,602,880,000	216.0	305,402,308	1,121,763,765	531.9

Trends in the trading volume of the Company's shares on MICEX in 2016



Trends in the spread* and number of transactions on MICEX in 2016



** Spread is the percentage difference between the best purchase offer price and the best sales offer price.*

More details on the results of the Company's shares trading on PJSC Moscow Exchange (Until December 19, 2016 – CJSC SE MICEX) are shown on the corporate website http://www.mrsk-cp.ru in the section "For Shareholders and Investors" / "Securities market/Interactive Stock Chart" (http://www.mrsk-cp.ru/stockholder_investor/securities/stock_graph/).

Market features

Indicator	December 30, 2014	December 30, 2015	2015/2014 (relative growth), %	December 30, 2016	2016/2015 (relative growth), %
Weighted average price, RUB	0.1064	0.0627	-41	0,1477	136
Capitalization, RUB m	11,991	7,066		16,646	
EV, RUB m	34,554	29,598	-14	39,380	33
EV/EBITDA	3.39	2.82	-17	2.95	5
P/E capitalization/net profit	8.7	7.49	-14	5.37	-28
P/S capitalization/revenue	0.17	0.10	-41	0.21	110
EV/RAB	0.37	0.33	-11	0.43	30

The special right to participation of the Russian Federation, the entities of the Russian Federation, or municipal entities in the management of PJSC IDGC of Center and Volga Region ("golden share") is not stipulated.

5.2.2. Profit Allocation

At the end of 2016, PJSC IDGC of Center and Volga Region earned net profit of RUB 3,101 m. The net profit corresponds to the data in the Company's accounting statements. According to the Company's Charter, the decision on profit allocation is made by the General Shareholders Meeting.

For the first time, the dividends on the Company's shares were accrued for 2010. In 2012-2014, no less than 25% of net profit were allocated to pay dividends to the Company's shareholders, in accordance with the Decree of the Government of the RF No. 774-r dated May 29, 2006. In the end of 2015, in accordance with the Decree of the Government of the RF No. 705-r dated April 18, 2016, 100% of net profit were allocated to pay dividends to the Company's shareholders. The table below shows profit distribution for five years preceding the reporting year. The report on dividend payments is available in the "Dividend Policy" section of the Annual Report.

Net profit allocation by the end of 2011-2015, RUB m

	2015	2014	2013	2012	2011
Retained profits	**943**	**1,378**	**2,536**	**1,916**	**4,232**
Reserve fund	0	0	0	0	46
Development	0	1,029	1,902	1,437	3,870
Dividends	943	349	634	479	316

In 2011, the Reserve Fund of the Company was formed in full, and reached the amount of 5% of the charter capital as regulated by the Company's Charter. The Reserve Fund is established for covering losses, as well as for redemption of the Company's bonds and shares in case of unavailability of other funds.

5.2.3. Dividend Policy

PJSC IDGC of Center and Volga Region recognizes how important it is for the shareholders to receive income in the form of dividends on their investments made by purchasing the Company's shares. The Company **has adopted a transparent and clear mechanism for determining the sum of dividends and their payment** and established a procedure for dividend payment that is most convenient for the shareholders. In addition, the Company has taken measures to eliminate incomplete or untimely payment of dividends.

The Company's dividend policy aims to recognize and observe the rights of all the shareholders, to provide necessary conditions for increasing the capitalization and investment attractiveness of the Company and to ensure effective balance between net profit allocation for dividend payment and the Company's development.

To ensure that the mechanism for determining the amount of and procedure for dividend payment is transparent, the Board of Directors approved the Regulation on the Dividend Policy (Minutes No. 61, as of September 1, 2010), which establishes conditions, procedure, terms and form of dividend payment. The full text of the Regulation can be found on the Company's website (www.mrsk-cp.ru) in the section "For Shareholders and Investors" / "Disclosure of Information by Issuer" / "Internal Documents" (http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/).

Dividend yield*

	UOM	In the end of 2013	In the end of 2014	In the end of 2015
Basic earnings per share	RUB	0.0225	0.0122	0.0084
Diluted EPS	RUB	-	-	-
Dividend payout ratio	%	25.0	25.4	100.0
Dividend per share	RUB	0.00563	0.0031	0.008363605
Dividend yield (as of the year end)**	%	8.3	2.9	13.3

** Indicators are calculated on the basis of accounting data (RAS) as of the end of the reporting year.*

*** The indicator is calculated as (the ratio of the dividend per 1 share to the weighted average price per 1 share as of the year end) * 100%.*

Payout of dividends accrued in 2010-2015

Date of the decision to pay dividends the date of the Annual General Shareholders Meeting	Reporting period for which dividends were accrued and paid	Dividends accrued, (RUB m)	% of declared dividends in net profit of the reporting year	Dividends paid as of December 31, 2016 (RUB m)	% of dividends paid*
June 26, 2014	2013	634.49	25.0	625.68	98.61
June 16, 2015	2014	349.36	25.4	344.89	98.72
June 9, 2016	2015	942.56	100.0	931.03	98.78

** Deviation from 100% payment of accrued dividends is connected with the fact that information about postal and banking details of some shareholders in the register system, necessary for the transfer of funds, is absent or unreliable.*

Dividend payout in 2016

Reporting period for which dividends were accrued and paid	Dividends paid in 2016, RUB ths
2012	51.04
2013	952.04
2014	666.14
2015	931,029.66
Total	**932,698.88**

The amount of dividends transferred to the federal budget in 2016 was RUB 37,482.49. There is no debt related to payment of dividends to the federal budget.

5.2.4. Tax Liabilities of Shareholders

The taxes imposed on legal entities and individuals in connection with the outstanding equity securities of the Company are regulated by the Tax Code of the Russian Federation and other regulatory and legal documents adopted in accordance with the Tax Code of the Russian Federation.

Tax rates on the securities income, %

Type of income	Legal entities		Individuals	
	Residents	Non-residents	Residents	Non-residents
Dividends	13 or 0*	15	13	15
Proceeds from securities sales	20	20	13	30

** In cases stipulated by Paragraph 1 of Clause 3 of Article 284 of the Tax Code of the Russian Federation.*

6. External and Internal Control System

6.1. Audit Commission

Key functions

The Audit Commission is a permanently functioning body of internal control of the Company, controlling on a regular basis the financial and economic activities of the Company, its separate units, officers of the Company's management bodies and structural units of the Company's executive body to ensure compliance with the legislation of the Russian Federation, the Company's Charter and the Company's internal documents. The Audit Commission acts in the interests of the Company's shareholders. The Audit Commission is accountable to the Company's General Shareholders Meeting.

In accordance with Federal Law No. 208-FZ "On Joint Stock Companies" dated December 26, 1995, the framework of reference of the Audit Commission is determined by the Company's Charter (Article 24 of the Charter of PJSC IDGC of Center and Volga Region).

The functions of the Audit Commission are also described in the Regulation on the Audit Commission of PJSC IDGC of Center and Volga Region, approved by the resolution of the Company's General Shareholders Meeting (Minutes No. 9 dated June 06, 2015).

The full text of the Charter and the Regulation is available on the Company's website: http://www.mrsk-cp.ru/stockholder_investor/disclosure_reporting_info/vnutrennie-dokumenty-obshchestva-/

Key objectives of the Audit Commission include:

- controlling the Company's financial and economic activities;
- independent assessment of accuracy of data provided in the Company's Annual Report and annual accounting statements.

In 2016 the Audit Commission of the Company held 6 meetings in person and in absentia; at the meetings the Audit Commission considered 12 issues. Minutes of the meetings of the Audit Commission are available on the Company's website at http://www.mrsk-cp.ru/about/internal_control_and_risk-management/audit_commission_protocols/.

According to the work plan of the Audit Commission, in the reporting period it held 1 (one) audit of the financial and economic activities of the Company for 2015.

Members of the Audit Commission

The number of the Company's Audit Commission members as stipulated by Paragraph 24.1 of Article 24 of the Company's Charter is 5 (five) persons.

In the reporting period, the Audit Commission worked in two compositions.

The current Audit Commission was elected by the Annual General Shareholders Meeting of the Company on June 9, 2016 (Minutes No. 10 dated June 9, 2016) (positions are indicated as of the moment of election):

1. Lelekova Marina Alekseevna (Chairman of the Audit Commission) – Director of the Department for Internal Audit and Control of PJSC Rosseti;

2. Kabizskina Elena Aleksandrovna – Deputy Head of the Audit Activity Administration at the Department for Internal Audit and Control of PJSC Rosseti;

3. Medvedeva Oksana Alekseevna — Leading Expert of the Audit Activity Administration at the Department for Internal Audit and Control of PJSC Rosseti;

4. Yerandina Elena Stanislavovna – Leading Expert of the Control and Expert Administration at the Department for Internal Audit and Control of PJSC Rosseti;

5. Slesareva Elena Yurievna – Leading Expert of the Internal Audit Management of PJSC Rosseti.

Details on the members of the Audit Commission of the Company are shown in Supplement 3 to this Annual Report.

From June 16, 2015 through June 9, 2016 the Audit Commission was composed of the following members elected at the Annual General Shareholders Meeting of June 16, 2015 (Minutes No. 9 dated June 16, 2015) (positions are indicated as of the moment of election):

1. Lelekova Marina Alekseevna (Chairman of the Audit Commission) - Director of the Department for Internal Audit and Control of JSC Rosseti;

2. Kirillov Artyom Nikolaevich – Head of the Investment Audit Division of the Audit Activity and Internal Audit Administration at the Department for Internal Audit and Control of JSC Rosseti;

3. Lukovkina Irina Pavlovna – Head of the Methodology Division of the Control and Risks Administration at the Internal Audit and Control Department of JSC Rosseti;

4. Medvedeva Oksana Alekseevna – Head of the General Audit and Inspections Division of the Audit Management Body and Internal Audit Administration at the Internal Audit and Control Department of JSC Rosseti;

5. Guseva Elena Yurievna – Leading Expert of the Investment Audit Division of the Audit Activity and Internal Audit Administration at the Internal Audit and Control Department of JSC Rosseti.

Details on the members of the Audit Commission of the Company are shown in Supplement 3 to this Annual Report.

Remuneration of the Audit Commission members

Pursuant to the Regulations on Remunerations and Compensations to the members of the Audit Commission of PJSC IDGC of Center and Volga Region, as approved by the Annual General Shareholders Meeting (Minutes No. 9 dated June 16, 2015), remuneration is paid to a member of the Company's Audit Commission at the end of the corporate year depending on their involvement in the work of the Audit Commission.

Remuneration to the Audit Commission members for participation in the Audit Commission from 2014 through 2016 (before individual income tax), RUB:

Payment, RUB	2014	2015	2016
Remuneration	1,432,500.00	876,150.00	793,260.00
Compensation	0.00	0	0
Total	1,432,500.00	876,150.00	793,260.00

The Company confirms that the current members of the Audit Commission have agreed to disclose personal information.

6.2. Auditor of the Company

The Auditor performs independent audit of the Company's accounting and financial (accounting) statements and draws a conclusion on their accuracy and compliance of the accounting procedures with the legislation of the Russian Federation.

The Central Purchasing Commission of a superior entity selects an audit company to audit the financial statements of the Company prepared in accordance with the Russian Accounting Standards (RAS) and the International Financial Reporting Standards (IFRS).

The Audit Committee of the Board of Directors of the Company assesses the auditor's qualification, performance and compliance with the requirements of independence, providing a conclusion regarding the candidate. The Board of Directors proposes a candidate for auditing the financial statements of the Company prepared in accordance with RAS for consideration and approval at the General Shareholders Meeting of the Company.

The Auditor, approved by the resolution of the Annual General Shareholders Meeting of the Company as of June 16, 2015, (Minutes No. 9), was operating in the Company from January 1, 2016 through June 9, 2016. – Limited Liability Company RSM RUS (LLC RSM RUS).

LLC RSM RUS was also chosen for carrying out financial (accounting) statements audit and consolidated financial statements audit for 2015.

LLC RSM RUS is a member of the Self-Regulatory Organization of Auditors Non-Commercial Partnership "Audit Association Sodruzhestvo".

On October 5, 2015, the Company signed an audit services agreement (audit of financial statements prepared in accordance with RAS and IFRS) with LLC RSM RUS No. 15a091 in the amount of RUB 3,051.422 ths, including VAT.

The fee paid to LLCRSM RUS under the agreement was RUB 3,051.422 ths, including VAT.

By the resolution of the Annual General Shareholders Meeting of the Company (Minutes No. 10 dated June 9, 2016), Limited Liability Company RSM RUS (LLC RSM RUS) was also approved as the Auditor of the Company to conduct an audit of financial (accounting) statements for 2016.

LLC RSM RUS was also chosen to audit the consolidated financial statements of PJSC IDGC of Center and Volga Region for 2016.

On August 5, 2016, the Company signed an audit services agreement (audit of financial statements prepared in accordance with RAS and IFRS) with LLC RSM RUS No. 161a066 in the amount of RUB 3,051.422 ths, including VAT.

The fee paid to LLC RSM RUS in 2016 under the agreement was RUB 610.284 ths, including VAT.

Special audit services or non-audit services were not provided by LLC RSM RUS in 2016.

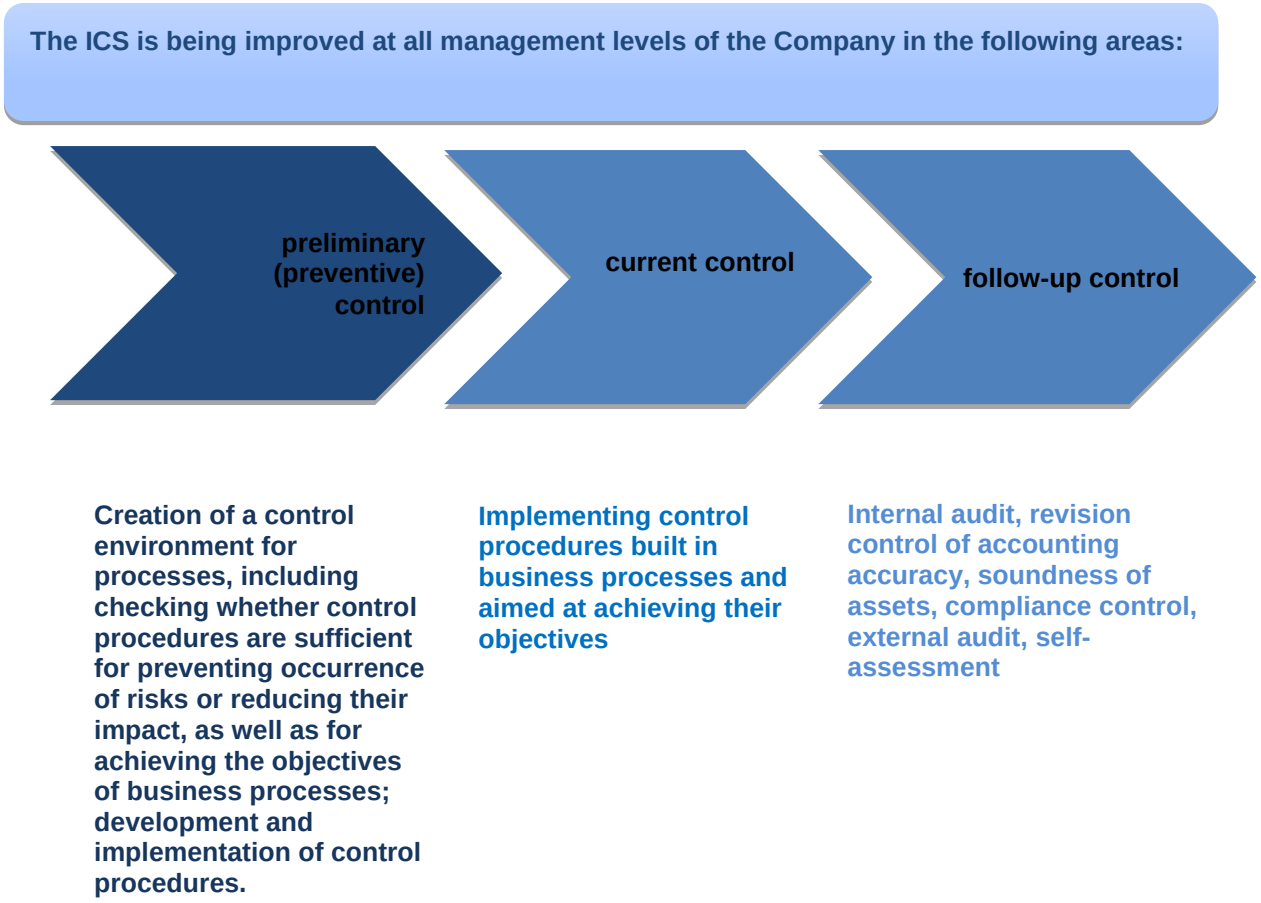
6.3. Internal control system

The Internal Control System (hereinafter, ICS) of the Company is incorporated in the Corporate Governance System of the Company. It comprises all areas of the Company's activities and has procedures for constant control over all processes (areas of the Company's activities) at all management levels, which are aimed at ensuring reasonable guarantees of goal achievement in the following areas:

- efficiency and performance of the Company and soundness of its assets;

- observance of the legislative requirements applied to the Company and the Company's local regulations, including in the course of economic operations and accounting;
- accuracy and timeliness of accounting (financial) statements and other types of statements.

Internal Control System



In order to implement the Strategy for Developing and Improving the Internal Control System of PJSC Rosseti and subsidiary and dependent companies of PJSC Rosseti approved by the resolution of the Board of Directors of PJSC Rosseti as of February 10, 2014 (Minutes No. 143), by the resolution of the Board of Directors as of March 11, 2016 (Minutes No. 216 as of March 14, 2016), the Company approved the Internal Control Policy of PJSC IDGC of Center and Volga Region (new version). The Internal Control Policy specifies the objectives, functioning principles and elements of the Company's ICS, the primary functions and responsibilities of the ICS participants, as well as the procedure for assessment of performance of the ICS.

Besides, the Company has the following internal documents regarding the issues related to the ICS:

1. Methods for assessing the performance of the Internal Control System and risk management system of the Rosseti group of companies (approved by the resolution of PJSC Rosseti dated December 31, 2015, No. 624r and adopted in accordance with the Company's order No. 21 dated January 19, 2016);

2. The Company's Order No. 344 dated June 17, 2015 "On Improvement of the Internal Control System for Accounting, Tax Accounting and Preparation of Accounting (Financial) Statements";

3. The Company's Decree No. 92 dated August 7, 2015 "On Approval of Documentation Prepared during Phased Improvement of the ICS for Accounting, Tax Accounting and Preparation of Accounting (Financial) Statements";

4. The Company's Decree No. 61 dated May 20, 2016 "On Amendments to the Decree No. 92 dated August 7, 2015 of PJSC IDGC of Center and Volga Region";

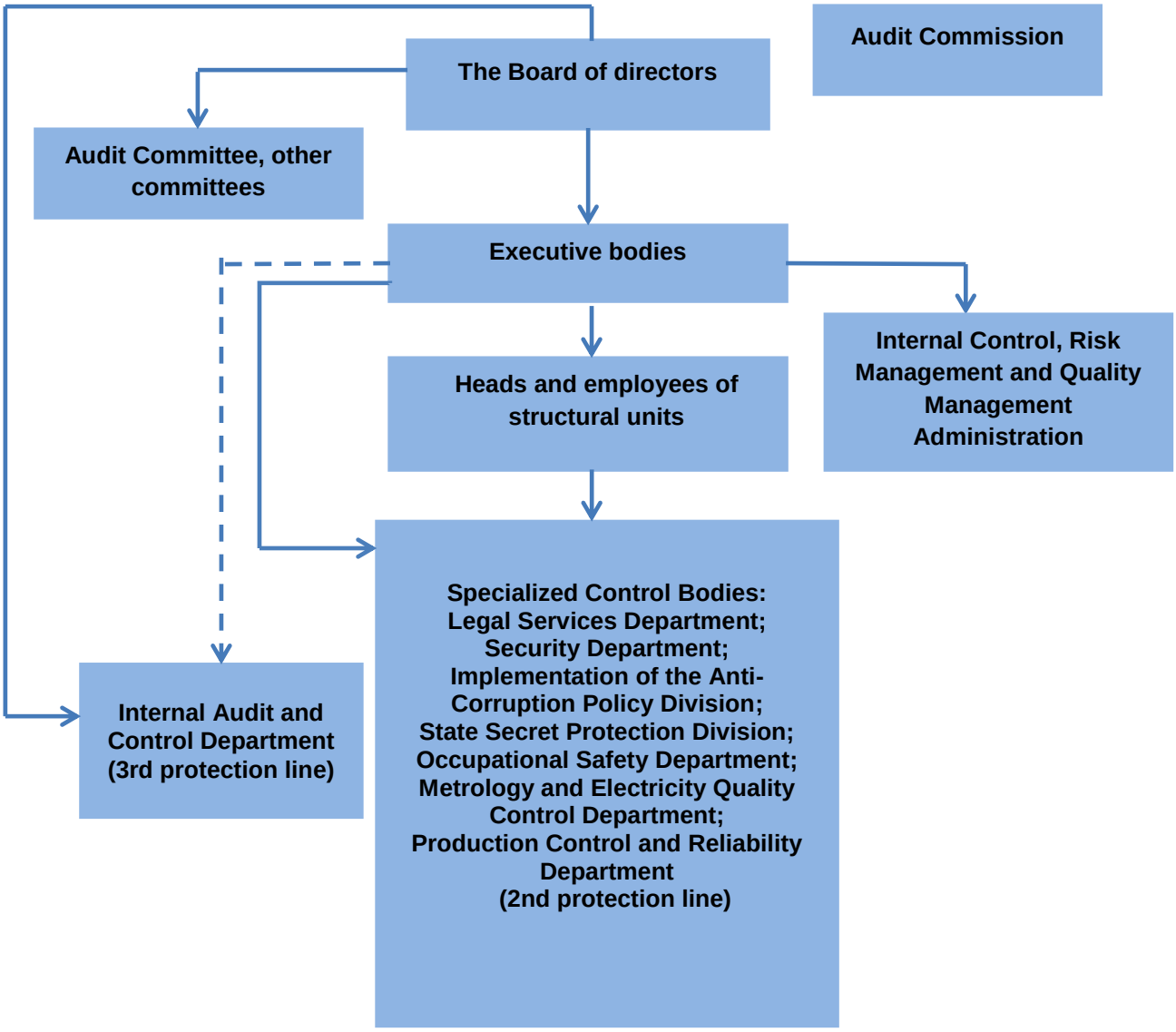
5. The Company's Order No. 218 dated April 29, 2016 "On Implementing Measures for Developing and Improving the Internal Control and Risk Management System";

6. Rules for interaction with national supervisory authorities and logging checks in the process of state supervision (the Company's order No. 511 dated September 29, 2016);

7. The Company's Order No. 639 dated December 2, 2016 “On the Distribution of Responsibilities between the Deputy General Directors of PJSC IDGC of Center and Volga Region”;

8. The Regulation On internal control and risk management, risk management and quality management PSP 24/33-2016 dated August 30, 2016 (supplement to PSP 24/33-2016 No. 1 dated December 1, 2016).

Internal control system participants



Functions of ICS participants

Name of Participant	Key functions in the ICS
Audit Commission	• exercises control over financial and economic activities of the Company; based on its results, it prepares proposals/recommendations for improvement of the ICS; • carries out independent assessment of accuracy of the data contained in the Company's Annual Report and the annual accounting statements of the Company.
The Board of Directors	• determines principles and approaches to the ICS organization, including approval of the Company's internal documents, determining the organization and strategy for developing and improving the Company's ICS; approves the Company's Internal Control Policy; • exercises control over the activities of the Company's executive bodies in the key (priority) areas; • carries out consideration of the Management board's report on the organization and functioning of the Company's ICS; • carries out annual consideration of the reports of the internal

	auditor on the ICS efficiency; • carries out consideration of the results of external independent assessment of the ICS efficiency.
Audit Committee of the Board of directors	• carries out preliminary consideration (prior to the approval by the Board of Directors) of the Company's internal documents determining the organization and strategy for developing and improving the Company's ICS, the Internal Control Policy and further amendments to them; • carries out preliminary consideration (prior to consideration by the Board of Directors) of the results of assessment of the ICS efficiency based on the report of the internal auditor on the ICS efficiency, as well as reports on the results of external independent assessment of the ICS; it also prepares proposals / recommendations for improvement of the ICS; • supervises the reliability and efficiency of the ICS in terms of considering the following issues: ensuring accuracy of accounting (financial) statements of the Company; supervising the process of selection of an external auditor and external audit; ensuring compliance with regulatory requirements; considering the Management Board's report on organization and functioning of ICS; analysis and assessment of compliance with the Internal Control Policy.
Other committees of the Board of Directors	• supervise achievement of the established financial and operating results, compliance with applicable laws, rules and procedures stipulated in local regulatory documents, and accuracy and timeliness of the Company's statements.
The Company's executive bodies (Management board, Sole Executive Body)	• ensure creation and daily functioning of the effective and reliable ICS in the Company; • ensure execution of decisions of the Board of Directors in terms of ICS organization.
Heads of units and business units	• arrange an effective control environment of supervised processes (activities); bear responsibility for effective achievement of the operating objectives of supervised processes (activities) and for execution of control procedures.
Management board	• establishes the direction and strategies of development and improvement of ICS; • prepares reports on the Company's economic performance, organization and functioning of ICS; • considers the results of external independent assessment of the ICS efficiency; it also prepares proposals/recommendations for improvement of the ICS.
SEB – Sole Executive Body	• approves the Company's regulatory and methodological documents on organization and functioning of ICS, except for the documents within the competence of the Company's Board of Directors; • ensures execution of the Company's business plan necessary for achieving its targets; • supervises accounting and administrative reporting, preparation of accounting (financial) and other statements; • presents for the consideration of the Board of Directors the reports on the Company's financial and economic performance and organization and functioning of the Company's ICS.
Collegiate work bodies, created by the Company's executive bodies for performing certain functions (commissions, work groups etc.)	• perform control procedures and/or develops recommendations for improving control procedures and certain components (elements) of internal control and the ICS, based on the results of internal audit.
Heads of the Company's units and structural units	• design, document, implement, monitor and develop ICS in the Company's functional areas, whose organization and coordination / implementation they are responsible for in accordance with the

	Company's regulatory documents / regulations on structural units, including: • ensure realization of ICS principles; • arrange an effective control environment of supervised processes (activities) including development and implementation with regard to the identified risks of new control procedures or changes in the existing ones; • ensure regulation of supervised processes (activities); • arrange execution of control procedures; • assess (monitor) execution of control procedures; • assess the supervised processes (activities) to determine the necessity of their optimization in order to increase efficiency and align them with the changes in external and/or internal operating conditions of the Company, ensure development of proposals to improve the control procedures; • ensure elimination of identified drawbacks of control procedures and processes (activities).
Employees of the Company's structural units performing control procedures as part of their professional duties	• perform control procedures; • ensure prompt informing of immediate superiors when execution of control procedures becomes impossible for any reasons, and/or if it is necessary to change the design of control procedures due to changes in internal and/or external operating conditions of the Company; • present for the consideration of the immediate superiors the proposals for introduction of control procedures in relevant areas of activities.
Specialized control bodies:	
Legal Services Department	• representation and protection of the interests of the Executive body and the Company's branches in the law enforcement agencies, judicial authorities and administrative bodies, in interaction with government (municipal) authorities and other bodies, individuals and legal entities; • claim administration; • preparation, alignment, examination of the contracts and other transactions, local acts and other documents, addressed to third parties, responses to received letters and inquiries; • participation in development, implementation of measures aimed at decreasing of receivables; • control and legal support of the measures at all stages of appeal (including in court, lodging complaints with higher bodies) of decisions, orders, representations, decrees, created by antimonopoly services, the public prosecution office bodies, supervisory structures).
Implementation of the Anti-Corruption Policy Division	• development and implementation of measures aimed at implementation of principles and requirements of anti-corruption policy; • regulation of the IDGCs' charity and sponsorship; • ensuring disclosure of information about the entire chain of ownership (beneficiaries) of the Company's counterparties; • execution of anti-corruption examination of local acts and organizational and regulatory documents; • anti-corruption control of procurement activities; • execution of control over compliance with legal requirements on insider information.
Security Department	• determination and control over achievement of goals, tasks, development of organizational and regulatory documents on anti-terrorism and counter sabotage security of facilities, economic and information security, safety and regime; • development and control over execution of the unified policy on application of technical means of security, regulations on confidential information etc.;

	• planning, organization and implementation of programs and measures in the field of ensuring economic and information security, safety and regime; • control of the correctness of the existing account system to avoid the possibility of abuse of power connected with material resources and cash flows; • check of the supposed counterparties and business partners of the Company by the appeals of economic security and schedule units of the Company's branches; • check of the transactions conducted; • development and implementation of target programs on anti-terrorism security status of power grid facilities; • organization and control over implementation of measures to ensure security of personal data of the Company; • arranging of work on the comprehensive protection of information in the Executive Body, the Company's branches, ensuring effective application of the existing organizational and technical measures and means for the purposes of protection of information representing state and trade secret; • alignment and control of implementation of the set of technical security means and other technical means of security.
State secret protection division	• control over implementation of measures in the field of state secret protection in the Company; • confidential records management.
Occupational Safety Department	• control of fulfilling law requirements, regulatory documents and technical regulatory documents of the Russian Federation and the relevant subject of the Russian Federation, collective agreement, agreements on labor protection and occupational safety, other local regulatory documents and organizational and regulatory documents in terms of occupational safety; • control of fulfilling the decisions of state bodies, senior management of the higher bodies on providing requirement of system and network security; • control over implementation of activities under programs, plans on improvement of labor conditions and protection, section of the collective agreement, related to the issues of labor protection as well as implementation of measures to eliminate the reasons that caused the job-related accident (data from acts of N-1 form) by execution the orders of state supervisory labor protection bodies, other measures to create safe labor conditions; • control over compliance with the requirements of environmental protection laws; • control over compliance with license requirements; • control over of the investigation of workplace accidents;
Metrology and Electricity Quality Control Department	• control over the status and application of rules and norms, regulatory documents on ensuring the unity of measurements and power quality, update of technical regulatory documents; • organization of work on compulsory certification of electric power, execution of inspection, periodic, entrance control of power quality indicators; • metrological control over the use of measuring instruments by calibration of measuring instruments, check for timeliness of presentation of measuring instruments for examination, increase in the level of measuring technology development, implementation of modern methods and measuring instruments.
Occupational Control and Reliability Department	• control of implementation of measures aimed at increasing reliability of power transmission and distribution; • organization of technical control of the condition of power grid equipment, investigating accidents at the power facilities and their causes, development and implementation of measures to eliminate the consequences and prevent accidents;

	• ensuring timely implementation of measures stipulated by regulations on investigating electric energy system disturbances, orders of state supervisory bodies and technical departmental inspections; • organization of effective functioning of the ICS in the Company.
Internal control management, risk management and quality management	• develops and ensures implementation of the framework and methodological documents related to forming and improving the ICS; • assists management in creating the control environment, development of recommendations for description and implementation into processes (activities) of control procedures and assignment of responsibility for the executives. • coordinates the activity aimed at maintaining and monitoring the target state of the ICS; • prepares information on the state of the internal control system for the parties concerned; • interacts with state control and supervisory bodies on the internal control issues.
Internal Audit and Control Department	• develops recommendations for improving control procedures and certain components (elements) of internal control and the ICS, based on the results of internal audit; • carries out internal independent assessment of the ICS efficiency and produces recommendations for improving the efficiency and effectiveness of the ICS.

In order to guarantee that the ICS is efficient and complies with changing requirements and conditions, the Company assesses the efficiency of the ICS, i.e., its compliance with the target status and the maturity level.

The Strategy for Developing and Improving the Internal Control System of PJSC Rosseti and subsidiary and dependent Companies of PJSC Rosseti, approved by the resolution of the Board of Directors of PJSC Rosseti as of February 10, 2014 (Minutes No. 143) (hereinafter, the Strategy for Developing the ICS), distinguishes between six maturity levels of the Internal Control System (from 1 ("Zero") to 6 ("High")).

In the reporting year the Company implemented the following key measures aimed at improvement of the ICS:

- the internal documents in the field of internal control are updated in the new version;
- within the framework of order to improve the internal system control of accounting, tax accounting and preparation of accounting (financial) statements (Order No. 344 dated June 17, 2015) schemes and matrices of control of Accounting and Tax Accounting Reporting and Statements process are described;
- the format of control matrix and the instruction of its filling are approved (the Company's order No. 61 dated May 20, 2016);
- in order to formalize the control procedures and develop control matrices of the Company's business processes by internal control management, risk management and quality management alongside the Company's profile departments measures to describe schemes and control matrices and risks are taken: the process analysis, preparation of typical schemes and control matrices for the Company's processes;
- a set of measures to distribute functions within the Company, support and coordinate the ICS implementation and risk management system and the function of independent assessment of ICS and RMS was taken;

- the main technical requirements to the automation system of risk management system;
- internal documents are updated in terms of the part connected with the Company's information security;
- measures to increase and maintain on the adequate level the Company's employees' qualification in the field of internal control and risk management were taken.

Implementation of the mentioned measures enabled the Company to increase the maturity level of the ICS from "Moderate" to between "Moderate" and "Optimal" (this intermediate level has the characteristics of both Level 4 and Level 5).

The Company's internal auditor carried out independent assessment of the ICS efficiency; an external assessment was not carried out.

The issue of the ICS efficiency based on 2016 results was considered at the meeting of the Board of Directors (Minutes No. 262 dated April 3, 2017) with a prior discussion by the Audit Committee of the Board of Directors (Minutes No. 10/81 dated March 14, 2017).

In order to continue the implementation of the Strategy for Developing the ICS during 2017, the following measures for improving the ICS have been planned:

1) introduction and implementation of execution of the Internal Control Policy norms in the new version;

2) ending of the description of business processes schemes with risk management and creation of control matrices for all business processes of the Company and implementation of control matrices in the practice of process management;

3) update of risk registers considering information on risk, which control procedures set out in control matrices and risks are aimed to decrease;

4) regulation of the self-assessment of the Company's business processes by their owners;

5) phased assessment of design and operational efficiency of control procedures;

6) re-certification of the integrated management system for compliance with the requirements of new versions of international standards ISO 9001:2015, ISO 14001:2015, ISO 45001:2017, ISO 50001:2011, implementing risk-oriented management of the Company's activities.

The unit responsible for implementing the internal audit function in the Company is the Internal Audit Department.

Internal audit is functionally accountable to the Company's Board of Directors (the Audit Committee of the Board of Directors), which means that the Board of Directors ensures control and organization of activity of the internal audit unit, including approval of a plan of internal audit activity, the report on performance of the plan of activities of internal audit and budget of the internal audit unit, approval of decisions on the appointment, termination, and also definition of remuneration of the head of the internal audit unit.

Aims and principles of implementation, functions and powers of internal audit are set out in the Internal Audit Policy of PJSC IDGC of Center and Volga Region (new version) approved by the resolution of the Board of Directors as of March 11, 2016 (Minutes No. 216 dated March 14, 2016).

The Company approved the following documents regulating the internal audit function:

1) Regulations on the Internal Audit Department approved on September 01, 2016;

2) Internal Audit Policy of PJSC IDGC of Center and Volga Region (Minutes of the meeting of the Board of Directors No. 216 dated March 14, 2016);

3) Rules for organizing the activity of audit commissions of subsidiary and dependent companies of PJSC Rosseti (adopted in accordance with the Order No. 443 dated August 30, 2016);

4) The format and structure of the quarterly (annual) report of the Internal Audit and Control Department (Minutes No. 123/60 of the Audit Committee of the Company's Board of Directors as of April 15, 2015);

5) Superiors of conducting of internal audit of PJSC IDGC of Center and Volga Region (Order No. 36 dated January 29, 2016);

6) Regulations on interaction between the internal audit and control department and structural units of the Executive body and branches of PJSC IDGC of Center and Volga Region during conducting checks and monitoring plans of correcting measures (Order No. 219 dated April 29, 2016);

7) Instruction on monitoring the execution of plans for correcting measures to eliminate violations and drawbacks, identified in the course of audit (Order No. 391 dated July 27, 2016);

8) Instructions on forming and using the Uniform Classification of Violations and Drawbacks of PJSC IDGC of Center and Volga Region (Order No. 394 as of July 14, 2015);

9) Program of ensuring and improving the quality of the internal audit of PJSC IDGC of Center and Volga Region (Minutes of the meeting of the Board of Directors No. 252 dated December 29, 2016);

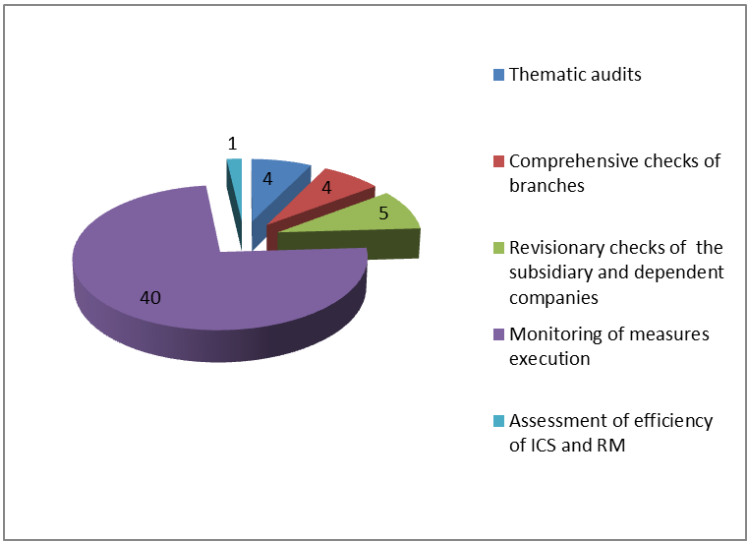
10) Methods for assessing the performance of the Internal Control System and Risk Management System of the Rosseti group of companies (adopted in accordance with the Company's order No. 21 dated January 19, 2016).

The internal audit function assists the Board of Directors and executive bodies in improving the efficiency of the Group's management, improving its financial and business operations using a systematic and consistent approach to the analysis and assessment of the risk management, internal control and corporate governance system as tools for ensuring reasonable confidence that the Group's goals will be achieved.

In 2016 the number of employees performing the internal audit function was 12.

In 2016 the internal auditor implemented 54 control measures (follow-up control).

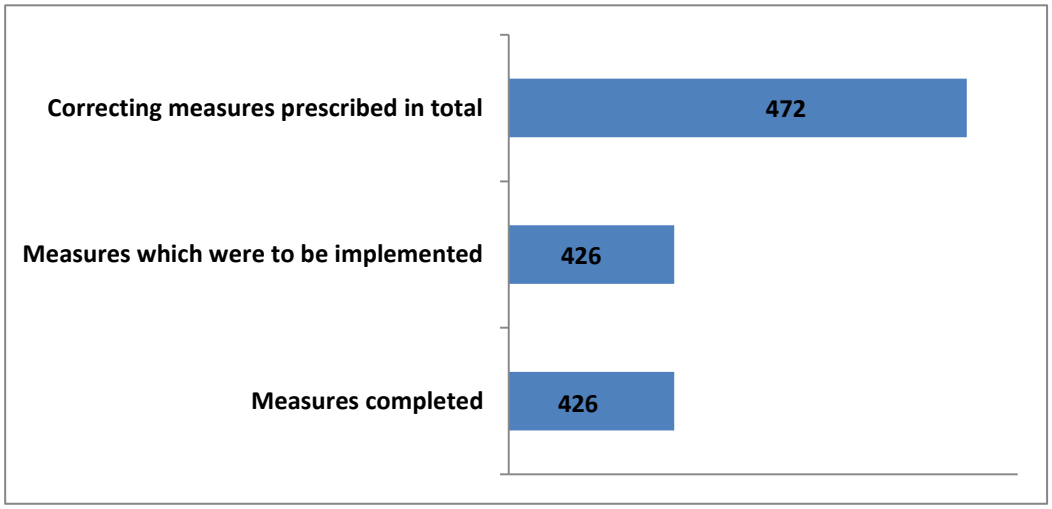
Results of control measures implemented as part of internal audit in 2016.



As a result of control measures implemented as part of internal audit in 2016, 472 corrective measures are to be taken in order to eliminate violations and drawbacks identified in the process of internal audit and to prevent them in the future.

Out of 426 measures, which were to be implemented by the end of the reporting year, 426 corrective measures were implemented.

Corrective measures



Implementation of corrective measures is controlled by the Audit Committee of the Board of Directors during hearings: the Company's management presents periodic reports on implementing the planned corrective measures for eliminating drawbacks identified by the Company's Audit Commission, the internal auditor and external supervisory bodies.

6.4. Anti-corruption policy and economic security

Anti-Corruption Policy

1. Standards of behavior, ethics, business reputation, conflict of interests, presents are regulated by the following regulatory documents of the Company:

- Provision P 01-047-2016 PJSC IDGC of Center and Volga Region Management System. LEGAL SUPPORT Provision of PJSC IDGC of Center and Volga Region on conducting contract work. (Order No. 409 dated August 10, 2016), in terms of amendments to anti-corruption clause;

- Provision P 01-032-2016 PJSC IDGC of Center and Volga Region Management System. PROVIDING SECURITY Provision on regulation of the conflict of interest in PJSC IDGC of Center and Volga Region (Order No. 343 dated June 30, 2016);

- Provision P 01-073-2016 PJSC IDGC of Center and Volga Region Management System. PROVIDING SECURITY. Provision on insider information of PJSC IDGC of Center and Volga Region, approved by the resolution of the Board of Directors (Minutes No. 241 dated September 21, 2016, Order No. 499 of PJSC IDGC of Center and Volga Region dated September 27, 2016);

- By Order No. 500 of PJSC IDGC of Center and Volga Region dated September 27, 2016 on the Enactment of the Regulatory Documents, the Company introduced:

a) Provision P 01-007-2016 PJSC IDGC of Center and Volga Region Management System. PROVIDING SECURITY. On Approval of the Procedure for Acceptance, Processing and Settlement of

Claims Concerning Possible Instances of Corruption Submitted by Applicants (Employees and Counterparties of PJSC IDGC of Center and Volga Region as well as Other Individuals and Legal Entities);

b) Provision P 01-028-2016 PJSC IDGC of Center and Volga Region Management System. PROVIDING SECURITY. Provision on the PJSC IDGC of Center and Volga Region commission for compliance with the norms of corporate ethics and settling conflicts of interest;

c) Provision P 01-028-2016 PJSC IDGC of Center and Volga Region Management System. PROVIDING SECURITY. Provision on Communication of Information by Employees of PJSC IDGC of Center and Volga Region about Receipt of a Gift in Connection with Their Position or Duties, Delivery of the Gift and Assessment of Its Value, Sale (Redemption) of the Gift and Crediting of Funds from Its Sale.

2. Management of conflicts of interest is carried out with the participation of the Commission for Observance of Corporate Ethics and Settlement of Conflicts of Interests.

The Commission organizes its activity by holding meetings in accordance with the agenda created by the secretary and approved by the Head of the Commission.

In 2016 three meetings of the Management of conflicts of interest are carried out with the participation of the Commission for Observance of Corporate Ethics and Settlement of Conflicts of Interests were held, which discussed three issues: two on the Company's charity donating and one on the consideration of the results of a conflict of interest in 2015, declared by the employees. As a result of consideration of these issues, no risks of conflict of interest were detected.

The employees the meeting was concerned with as well as other parties concerned are necessarily informed about the decisions of the Commission in the form of statements of the minutes from the Commission's meeting.

The control over execution of the decisions made by the Commission is conducted by the Anti-corruption Policy Division of the Company’s Security Department.

3. A survey of the Company employees (by questionnaire) focusing on corporate conduct, social responsibility, the state of corruption in the Company and the effectiveness of the current anti-corruption measures was organized and carried out from October to December 2016;

4. As part of the Company's measures to eliminate corrupt practices and affiliation in production and economic activities of PJSC IDGC of Center and Volga Region.

-There were checked:

1) 7,715 Company's employees and members of their families, 1,086 applicants, 563 decisions of the contest commission as a result of which one fact was detected as affiliated. Negative conclusions were made with regards to 11 applicants;

2) 119 references of the Company's superiors and its branches on revenues and property responsibilities for 2015 (total of 655 people checked: 119 – the Company's executives and 536 – their close relatives). The results of the inspection carried out showed 3 facts with signs of the conflict of interest and pre-conflict situation related to the performance of professional duties by the above-mentioned parties;

3) 563 decisions of contest commission apps;

4) 3,136 potential business partners. In the course of checks 105 negative conclusions were made about the advisability of establishing business relations with them.

In addition, the Safety Unit of the Company reviewed claims filed by 37 legal entities and individuals and 38 electric power consumers concerning violations on the part of officers and employees of the branch during fulfillment of their duties. In the course of checks disciplinary actions were taken against the Company's 44 employees.

5. Within the framework of execution of the Russian Federation government's assignment No. VP-P13-9308 dated December 28, 2011, No. VP-P24-1269 dated March 5, 2012:

1) the information on 14,835 contracts concluded by the Company and the subsidiary and dependent companies, 1,352 additional agreements and 277 contracts, according to which work with subcontractors are carried out, is uploaded onto the Automated System of Collection and Analysis of Information on Beneficiaries (AS CAIB);

2) the compliance with the requirements of organizational and regulatory documents of PJSC Rosseti and PJSC IDGC of Center and Volga Region in the anti-corruption field, organization of disclosure of the information on the entire chain of ownership of the Company's counterparties, presence of the section on anti-corruption activity in the in contracts were checked, additional checks of such branches as Kalugaenergo, Nizhnovenegro, Ryazanenergo, Tulenergo and Udmurtenergo were conducted;

3) the Company was checked for compliance with Federal law No. 224-FZ dated July 27, 2010 On Control of Illegal Use of Insider Information and Market Manipulation and Amendments to Certain Legislative Act of the Russian Federation, in the Company:

- an additional section Information for Insiders was created on the Company's website with the information on the implemented Provision on insider information and its updated list;
- there was consulting and explanation for the new insiders how to use insider information in the Company;
- amendments were made to the lists of insiders: individuals and legal entities of the Company. 119 individuals and 1 legal entity as well as 15 individuals and 2 legal entities were included and excluded respectively;
- 94 notifications according to established order were sent to insiders – individuals and legal entities on including them into the list of the Company's insiders and excluding them from it;
- in accordance with the Order No. 13-51/pz-n of FFMS of the Russian Federation dated June 18, 2013 On Approval of the order of transmission of insiders list to trade organizations through which the transactions with financial instruments, foreign currency and (or) goods are made, amendments and new versions of lists of insiders, included into the PJSC IDGC of Center and Volga Region lists of insiders, were prepared, approved and transmitted to the stock of CJSC FB MMVB as requested.

Economic security

Ensuring economic security and physical soundness of the Company's assets including its security is stipulated by the PJSC IDGC of Center and Volga Region policy of providing comprehensive security (approved by the Board of Directors on February 20, 2015 (Minutes No. 177 dated February 24, 2015) by the order of PJSC IDGC of Center and Volga Region General Director No. 144 dated February 27, 2015 On Implementation of the Policy of the Company's Comprehensive Security, Regulation on the Security Department and annual plans of measures to ensure security of the Company, approved by its General Director and agreed with Deputy General Director on the security of PJSC Rosseti. 195 electrical grid facilities are under physical protection of the Company. In addition to physical protection there were

2,475 technical security systems installed in the Company, 1,398 facilities (or 79.6% of their total amount in the Company – 1,757) equipped with engineering and technical means of protection. Thus, in 2016 67 facilities were equipped with engineering and technical means of protection.

One of the prior tasks completed by the Company's security unit is decreasing the rate of overdue accounts receivable for the power transmission service. The interaction with law enforcement agencies, the public prosecution office and local units of Russian Federal Bailiff Service has been organized and is being carried out on a regular basis.

Thus, in 2016 8,269 measures were made, including 1,464 ones in cooperation with units of Russian Federal Bailiff Service which arrested within the framework of raids the debtors' liquid assets, vehicles, real estate, settlement accounts in credit and financial institutions.

There are 3,545 executive lists in the Company's security unit at work, of which 244 belong to power transmission.

By January 1, 2017 2,946 enforcement proceedings were finished, of which 309 belong to power transmission service.

In the reporting period 27 applications for criminal prosecution of Heads of legal entities – debtors according to article 315 and article 177 of the Criminal Code of the Russian Federation were sent to local Administrations of Federal Bailiff Service and law enforcement agencies, one criminal case was instigated in accordance with article 315 of the Criminal Code of the Russian Federation.

As a result of measures taken by the security unit, the Company was compensated with RUB 1,493 m, of which RUB 1,433 m belong to Power transmission service.

In order to decrease commercial losses of power, determined mainly by its unaccounted and non-contracted consumption, the Company's security unit within the framework of the measures implemented, including 270 checks and raids in cooperation with law enforcement agencies identified and documented 1,549 cases of thefts of power equating RUB 249,966,000 (of which RUB 154,276,855 were within the framework of operational support of criminal cases, instigated by the facts provided) of which in 45 cases customers used special devices to underrate their consumption. The damage of RUB 67,648,000 inflicted to the Company was compensated. In connection with thefts of power three criminal cases, by signs of article 165 of CC RF and 103 administrative cases were instigated, one person was subject of criminal and 78 people were subject of administrative proceedings, respective.

In order to prevent the economic damage to the Company in 2016 the security unit:

- performed 339 checks of contract work and identified 11 unreliable partners among the Company's counterparties.

- participated in:

1) 354 checks of financial and economic activities of the Company's structural units, as a result of which 37 people were fired;

2) 149 checks of routes and roads as a result of which 24 cases of negligence in the performance of the contractual responsibilities on the part of the contracting organization.

In 2016 over inflicting economic damage to the Company 66 applications were forwarded to law enforcement agencies, 34 criminal cases were initiated (27 – article 158 of CC RF, 3 – article 165 of CC RF, 2 – article 204 of CC RF, 1 – article 327 of CC RF, 1 – article 315 of CC RF).

Glossary

Abbreviations

- **ERT–** Emergency Response Teams
- **ALT –** automatic load transfer
- **ERW –** emergency recovery works
- **AEPFMS** – Automated Electric Power Fiscal Metering System
- **JSC** – joint stock company
- **AR** – automatic reclosing
- **ER –** emergency reserve
- **ATS** – automatic telephone station
- **UFLS** – under-frequency load shedding
- **CB** – capacitor bank
- **VCB** – vacuum circuit breaker
- **GDP** – gross domestic product
- **OL** – overhead line
- **HV** – high voltage (voltage level of the power grid)
- **FOC** – fiber optic cable
- **FOCL** – fiber optic communication line
- **ITC** – internal technical control
- **VC** – videoconferencing
- **AGSM** – Annual General Shareholders Meeting
- **POLR** – provider of last resort
- **FL** – fuel and lubricants
- **HPP** – hydropower plant
- **SDPP** – thermal condensation power plant that produces only electric energy
- **SDC** – subsidiary and dependent companies
- **VHI** – voluntary health insurance
- **DP** – dispatch point
- **UNPG** – Unified National (all-Russian) Power Grid
- **HUI** – housing and utility infrastructure
- **CJSC** – Closed Joint Stock Company
- **EB** – Executive Body (administration)
- **IT** – Information Technology
- **ITT** – Information Technologies and Telecommunications
- **DIP** – Development Investment Program
- **SP** – shorting plug
- **CTSS** – complete transformer substation
- **CIMS** – Corporate Information Management System
- **KPIs** – Key Performance Indicator
- **OS** – outdoor switchgear

- **CTSS** – complete transformer substation
- **CSV** – command and staff vehicle
- **PTL** – power transmission line
- **MT** – mobile team
- **MOS –** mobile outdoor switchgear
- **MICEX** – Moscow Interbanking Currency Exchange
- **MMSS** – mobile modular substation
- **IDGC** – Interregional Distribution Grid Company (or the Company in certain table abbreviations)
- **SMEs** – small and medium-sized enterprises
- **IFRS** – International Financial Reporting Standards
- **EMERCOM** – Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters
- **MPTL –** main power transmission lines
- **NH** – nominee holder
- **VAT –** value added tax
- **RGR** – required gross revenue
- **R&D** – research and development, design and experimental and technological works
- **RA** – residential area
- **OPM** – Occupational Pension Maintenance
- **STD** – standard technical documents
- **OJSC** – Open Joint Stock Company
- **PJSC** – Public Joint Stock Company
- **PJSC IDGC of Center and Volga Region –** Public Joint Stock Company Interregional Distribution Grid Company of Center and Volga Region
- **JSC RAO UES of Russia** – Russian Joint Stock Company of Energy and Electrification UES of Russia
- **JSC SO UES** – Open Joint Stock Company System Operator of the Unified Energy System
- **PJSC FGC UES** – Public Joint Stock Company Federal Grid Company of Unified Energy System
- **PJSC Rosseti** – Public Joint Stock Company Rosseti (up to April 4, 2013 JSC IDGC Holding – Open Joint Stock Company Interregional Distribution Grid Companies Holding)
- **LCSQ** – level of consumer service quality
- **EC** – emergency crew
- **WGC** – generating company of the wholesale energy market
- **PSRN** – primary state registration number
- **IS** – isolating switch
- **ODT** – Operative Dispatch Team
- **ODS** – Operative Dispatch Service
- **AWS** – autumn and winter season
- **OIC** – Operative Information Complex
- **JIC** – Joint Information Center
- **LLC** – Limited Liability Company

- **CSO** – Consumer Service Offices
- **ORD** – organizational and regulatory documents
- **ODU** – open distribution unit
- **EOC** – Emergency Operations Center
- **OTPC** – Operative and Technological Process Control
- **BPD** – bird protection device
- **D&E** – design and exploration
- **LM** – last mile
- **PD** – production department
- **P.p.** – percentage point
- **SS** – substation
- **SHC** – software and hardware complex
- **RPA** – relay protection and automatics
- **DDP** – District Dispatch Point
- **RDO** – Regional Dispatching Office
- **RSPS** – reserve sources of power supply
- **DP** – distributing point
- **RAS** – Russian Accounting Standards
- **DGC** – distribution grid company
- **DTSS** – distribution transformer substation
- **RPG** – region of power grids
- **RCSD** – radiation and chemical survey devices
- **DPCE** – dispatch and technological process control equipment
- **IPG** – individual protective gear
- **SIW** – self-supporting insulated wire
- **MV1** – medium voltage of the first level (voltage level of the power grid)
- **MV2** – medium voltage of the second level (voltage level of the power grid)
- **SCDR ERW** – system of control over distributed resources for performance of emergency recovery works
- **TG** – turbo generator
- **TGC** – territorial generating company
- **TI** – technological interruption
- **MRE** – maintenance and repair of equipment
- **TSS** – transformer substation
- **TC** – technological connection
- **TRR** – technical re-equipment and renovation
- **V** – vehicle
- **TGO** – territorial grid organization
- **TS** – technical specifications
- **CHPP** – combined heat and power plant
- **CC** – charter capital

- **CC RF** — the Criminal Code of the Russian Federation
- **PFCU** – power-factor correction units
- **RPFM** – Reactive Power Flow Management
- **TC** – training center
- **FAS** – Federal Antimonopoly Service
- **FZ** – Federal Law
- **PF** – payroll fund
- **FCSM** – Federal Commission for the Securities Market (FCSM of Russia) – a federal executive body, which regulated the Russian securities market , implemented the state policy on developing the Russian securities market, supervised the operations of issuers and market participants and ensured information disclosure in the securities market from 1993 through 2004. As of March 13, 2004 the powers of FCSM of Russia were delegated to the Federal Financial Markets Service (FFMS of Russia). On September 1, 2013, FFMS was abolished in accordance with the Decree of the President of the Russian Federation No. 645 dated July 25, 2013.
- **SIF** – Social Insurance Fund
- **FTS** – Federal Tariff Service
- **FFMS** – Federal Financial Markets Service. On September 1, 2013 the powers of the Federal Financial Markets Service related to regulation, control and supervision of financial markets were delegated to the Central Bank of the Russian Federation (pursuant to Federal Law No. 251-FZ, dated 23 July 2013, "On Amending Certain Laws of the Russian Federation Due to the Delegation to the Central Bank of the Russian Federation of the Authority to Regulate, Control and Supervise Financial Markets").
- **TP** – Target program
- **GCC** – Grid Control Center
- **CB** – SF6 circuit breaker
- **EBITDA** –**financial indicator** – **earnings before interest, taxes, depreciation and amortization**
- **EV** – (**Enterprise Value)** – financial indicator – the economic value of the company, which equals market capitalization plus total debt minus cash and cash equivalents.
- **IR** – (**Investor Relations)** relations with shareholders and investors
- **MSCI Russia Small Cap Index** – an index of the MSCI Barra international analytical agency; companies with a market capitalization of USD 0.2-1.5 b are selected for the index. Selection is also based on the volume of shares traded on the established securities market, free float and existing restrictions on ownership for non-residents
- **RAB** –Regulatory Asset Base
- **ROE** – (**Return On Equity)** financial indicator; it is calculated as the ratio of net income to average shareholders' equity

Units of measurement

- **b** – billion
- **Gcal** gigacalorie – a unit for measuring heat
- **kV** kilovolt – a unit for measuring voltage
- **kWh** kilowatt-hour – a unit for measuring real power
- **m** – million

- **ths** - thousand
- **VA, kVA, MVA** voltampere, kilovoltampere, megavoltampere – units for measuring full electric capacity
- **Var, kVar, MVar** volt-ampere reactive, kilovolt-ampere reactive, megavolt-ampere reactive – units for measuring reactive capacity
- **W, kW, MW, GW** watt, kilowatt, megawatt, gigawatt – units for measuring active (real) power

Terms

- **Dividend** – a share of the Company's net profit allocated among shareholders.
- **Subsidiary and dependent companies** – legal entities in which the Company owns over 20% of voting shares, due to a major interest in their charter capital or under a concluded agreement, or whose decisions the Company may determine for other reasons.
- **Unified National (all-Russian) Energy Grid, UNEG** – a system of power grids and other power grid facilities owned by power industry entities as property or on other legal grounds set by federal laws, which ensures stable power supply to consumers, the functioning of the wholesale energy market, and parallel operation of the Russian energy system and the energy systems of foreign countries.
- **Capitalization** – market value of a company. Calculated as the share price multiplied by the number of shares.
- **Company** – PJSC IDGC of Center and Volga Region
- **Compensation of reactive power** – stimulation of the balance of reactive power in the grid node to adjust the voltage. The same stimulation in distribution grids is exercised to lower the losses of energy.
- **Quotation list** – a number of securities listed for trading and presented as a list structure under separate sections.
- **Power transmission line** – an electric installation consisting of wires, cables, insulating elements and bearing structures designed to transmit electric power between two points of an energy system with possible intermediate take-off.
- **Interregional distribution grid company, IDGC** – joint stock company established on a territorial basis.
- **Regulatory Asset Base (RAB)** – a system of tariff formation based on long-term regulation of tariffs. The system is intended to attract major investments to the industry. The system is based on ensuring the return of the Company's funds invested in assets over a period which corresponds to the service life of the assets in order to obtain rated income. The rate of income determined by the state should correspond to the level of risks in grid companies and make the industry attractive for investors.
- **Productive supply** – the amount of power transmitted to end consumers connected to the grids of a power grid organization.
- **Distribution grid company, DGC** – a joint stock company established as a result of disintegration of power joint stock companies by type of activity on the basis of power grid facilities which are not part of the unified national (all-Russian) power grid.
- **Residents and non-residents of the Russian Federation** – tax residents are individuals actually staying in the Russian Federation for not less than 183 calendar days within 12 consecutive months. The period of time for which an individual is deemed to be in the Russian Federation shall not be interrupted by periods in which they depart from the Russian Federation for short-term (i.e. less than six months) treatment or education. (Clause 2, Article 207 of the Tax Code of the Russian Federation).

- **Technical specifications** – a technical document stipulating a full range of requirements for products, their manufacturing, control and acceptance.
- **Stock market** – a share of financial market covering the organized trading of securities through different stock exchanges and OTC market.
- **Net assets** – the value determined by way of deduction of a company's liabilities from its total assets.
- **Power industry** – a branch of the Russian economy which includes economic relations arising during production (including combined production of electric and heat energy) and transmission of energy, operative dispatch control, sale and consumption of energy using production facilities and other property articles (including those that form part of the Unified Energy System of Russia), which are owned by the entities of the power industry or other persons as property or on other legal grounds set by federal laws. The power industry is the basis for the functioning of the economy and sustainment of population.
- **Electric energy (power) system** – the electric part of the energy system and electric energy receivers united by the common process of production, transmission, distribution and consumption of power.

Reference Information

Full name	Public Joint Stock Company Interregional Distribution Grid Company of Center and Volga Region
Abbreviated name	PJSC IDGC of Center and Volga Region
Primary state registration number	1075260020043
State registration of the legal entity certificate number and date of issue	Series 52 No. 003273906 dated June 28, 2007
TIN/TRRN	TIN 5260200603 TRRN 526001001
Bank details	The Branch of Gazprombank (JSC) in Nizhny Novgorod Settlement account 40702810500010001930 RCBIC 042202764 Correspondent account 30101810700000000764
Location and postal address	603950, 33, Rozhdestvenskaya Street, Nizhny Novgorod, Russia
Russian region where the Company is registered	Nizhny Novgorod Region
E-mail	info@mrsk-cp.ru
Website	www.mrsk-cp.ru
Vice General Director	**Isayev Oleg Yurievich** Tel. (reception room): +7 (831) 431-83-59, Fax (reception room): +7 (831) 434-38-06
Shareholder and investor relations	IR Department e-mail: ir@mrsk-cp.ru **Koltunov Vladimir Igorevich,** Head of the Corporate Governance and Shareholder Relations Department Tel.: +7 (831) 431-83-43 E-mail: koltunov_vi@mrsk-cp.ru **Kiseleva Natalia Gennadievna,** Head of the Investor and Shareholder Relations Division of the Corporate Governance and Shareholder Relations Department Tel.: +7 (831) 431-74-46 E-mail: kiseleva_ng@mrsk-cp.ru
Corporate Secretary	**Guseva Yulia Stanislavovna**, Head of the Corporate Relations Division of the Corporate Governance and Shareholder Relations Department Tel.: +7 (831) 431-74-30 E-mail: guseva_ys@mrsk-cp.ru
Press center	**Novikova Galina Vladimirovna,** Head of the Public Relations

	Department Tel.: +7 (4842) 71-63-49 E-mail: depsmi@mrsk-cp.ru
Call center	**8-800-100-33-00**
Internet reception for clients	https://utp.mrsk-cp.ru/Pages/default.aspx

Information on branches

Vladimirenergo	600016,106, Bolshaya Nizhegorodskaya Street, Vladimir Tel.: +7 (4922) 21-57-61 Fax: +7 (4922) 21-55-65
Ivenergo	153000, 8/2, Krutitskaya Street, Ivanovo Tel.: +7 (4932) 38-63-71 Fax: +7 (4932) 33-99-17
Kalugaenergo	248009, 35, Grabtsevskoye shosse, Kaluga Tel.: +7 (4842) 71-63-59 Fax: +7 (4842) 56-56-11
Kirovenergo	610000, 51, Spasskaya Street, Kirov Tel.: +7 (8332) 64-76-50 Fax: +7 (8332) 69-13-71
Marienergo	424006, 39A, Panfilova Street, Yoshkar-Ola Tel.: +7 (8362) 42-52-92 Fax: +7 (8362) 41-28-80
Nizhnovenergo	603950, 33, Rozhdestvenskaya Street, Nizhny Novgorod Tel.: +7 (831) 431-93-59 Fax: +7 (831) 431-93-81
Ryazanenergo	390013, 12, MOGES Street, Ryazan Tel.: +7 (4912) 20-43-50 Fax: +7 (4912) 20-44-30
Tulenergo	300012, 99, Timiryazeva Street, Tula Tel.: +7 (4872) 32-77-69 Fax: +7 (4872) 32-71-14
Udmurtenergo	426004, 30, Sovetskaya Street, Izhevsk Tel.:+7 (3412) 66-15-66 Fax: +7 (3412) 66-15-22

Information on the Auditor

Full name	Limited Liability Company RSM RUS
Abbreviated name	LLC RSM RUS
Primary state registration number	1027700257540
Location	119285, 4 Pudovkina Street, Moscow, Russian Federation
Mail address	119285, 4 Pudovkina Street, Moscow, Russian Federation
Phone, fax	+7 (495) 363-2848, +7 (495) 981-4121
Website	www.rsmrus.ru
Authorization to carry out activities	Pursuant to Federal Law No. 135-FZ dated July 19, 2007 licensing of auditing activities was terminated from July 01, 2008. Pursuant to Federal Law "On Auditing" the company is a member of the Self-Regulatory Organization of Auditors Non-Commercial Partnership "AUDITORSKAYA ASSOTSIATSIYA SODRUZHESTVO".

*The Company's auditor was selected by the resolution of the General meeting of PJSC IDGC of Center and Volga Region shareholders (Minutes No. 10 dated June 9, 2016).

Information on the Registrar

Full (abbreviated) name	Joint Stock Company Registrar Company Status (JSC Status)
Location	109544, bldg. 1, 32, Novorogozhskaya Street, Moscow
Phone:	+7 (495) 974-83-50, 974-83-45
Fax	+7 (495) 678-71-10
Website	http://rostatus.ru/
E-mail address	office@rostatus.ru
Authorization to carry out activities	License No. 10-000-1-00304, issued by the Federal Financial Markets Service on March 12, 2004 to maintain the registry. The License is limitless
General Director	Nedelsky Mikhail Nikolaevich