

# TOWARDS DIGITAL ENERGY

## INTEGRATED ANNUAL REPORT

OF PUBLIC JOINT-STOCK COMPANY  
**“FEDERAL GRID COMPANY  
OF UNIFIED ENERGY  
SYSTEM”**

2017

The Annual Report was approved by the Annual General Meeting of Shareholders of PJSC FGC UES on 28 June 2018  
(minutes No. 20 of 02.07.2018)

Preliminarily approved by the decision of the Board of Directors 24.05.2018  
(minutes No. 405 of 24.05.2018)

Chairman of the Management Board of PJSC FGC UES  
A.E. Murov

## ABOUT THE REPORT

The Annual report of Public Joint Stock Company Federal Grid Company of Unified Energy System for 2017 (the Report) is the Company's first ever integrated report. The Report is meant for a wide range of stakeholders.

### THE REPORT ADDRESSES THE FOLLOWING PRIORITY TOPICS:

- Federal Grid Company's contribution in ensuring the energy security of the Russian Federation,
- Federal Grid Company's contribution to the digital transformation of the electric power industry of the Russian Federation.

The Report has been prepared in accordance with international and Russian standards and regulatory requirements, including:

- GRI Sustainability Reporting Standards,
- International Integrated Reporting Framework,
- AA1000 Stakeholder Engagement Standard.



For detailed information on the Report, see section [Additional information / About the Report](#).  
An interactive version of the Report is available on the Company's website [www.fsk-ees.ru](http://www.fsk-ees.ru) in the section [Shareholders and investors / Disclosures / Annual reports](#)

<sup>1</sup> An integrated report is a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term. An integrated report should be prepared in accordance with International Integrated Reporting Framework.

(102-1, 102-5)

Within the text of the Report, the Public Joint Stock Company Federal Grid Company of the Unified Energy System is also referred to as PJSC FGC UES, JSC FGC UES (used until 07 July 2015), FGC, FGC UES or the Company.

## TOWARDS DIGITAL ENERGY

INNOVATIVE DEVELOPMENT drives the Company's improvements in efficiency, reliability, quality and cost effectiveness in supplying energy to consumers through the deployment of modern technologies to transform the intellectual core of the technological infrastructure of the electric power industry.

Federal Grid Company's strategic priority of innovative development comes to life through the introduction of digital technologies and platforms. In today's business world, the use of digital data is a crucial factor in production across all spheres of the economy, a precondition for competitiveness and economic development of the country, ensuring the betterment of people's quality of life. The digitisation of business is a response to external technological challenges and future structural changes in the energy industry.

Another area of innovation for the Company is superconductivity, within the framework of which a high-temperature superconducting DC cable line is being produced, the first of its kind in Russia and the largest of its kind in the world. The Russian Ministry of Energy has included Federal Grid Company's developments in the field of superconductivity as part of a national project, which will lead to the scaling of this technology both in Russia and abroad.

Federal Grid Company is one of the key players in the implementation of such innovative projects. In executing this strategy, the Company strives to meet the future requirements of all stakeholders.

For more information on digital grid projects and other innovative projects, see pages 2-7 of the Annual Report and the Intellectual Capital section.

**REMOTE CONTROL**  
IS A SET OF MEASURES THAT ALLOW TO REMOTELY PERFORM A FULL RANGE OF SWITCHING OPERATIONS ON THE UNEG FROM GRID CONTROL CENTERS, INCLUDING THE MANAGEMENT OF PRIMARY EQUIPMENT AND SECONDARY SYSTEMS

## REMOTE MANAGEMENT AND SECURITY

### EXPECTED RESULTS

#### REDUCTION of operating costs

#### MINIMISATION OF RISKS

of erroneous actions of personnel when performing switchovers at substations

#### REDUCTION OF THE TIME

of planned switching operations for the commissioning of power lines, equipment and substations

#### MAINTENANCE FREE SUBSTATIONS

### WHAT HAS BEEN DONE

Six backbone substations have been successfully transferred to the remote control from the dispatch centers of the System Operator and the branch of FGC UES as part of this pilot project

#### 3 BACKBONE SUBSTATIONS

##### IN ST. PETERSBURG:

- VASILEOSTROVSKAYA
- PLANT ILICH
- TESTERS' PROSPECT

#### 3 BACKBONE SUBSTATIONS

##### IN THE SOUTH OF RUSSIA:

- SETTLEMENT
- BLACK SEA
- PSOU

### PROGRESS IN 2017

#### 37 PROJECTS

for the creation of a software and hardware system for automated dispatch and technological management of the Grid Control Center (PTC ASDTU GCC)

#### 57 PROJECTS

for the modernisation of the information collection and transmission system (ICTS)

#### 10 PROJECTS

for the creation / modernisation of the substation automated process control system (APCS SS) with remote control functionality

### PLANS FOR THE FUTURE

BY 2021 THE COMPANY PLANS TO TRANSFER

**93** OF ITS SUBSTATIONS across the country to remote control operations

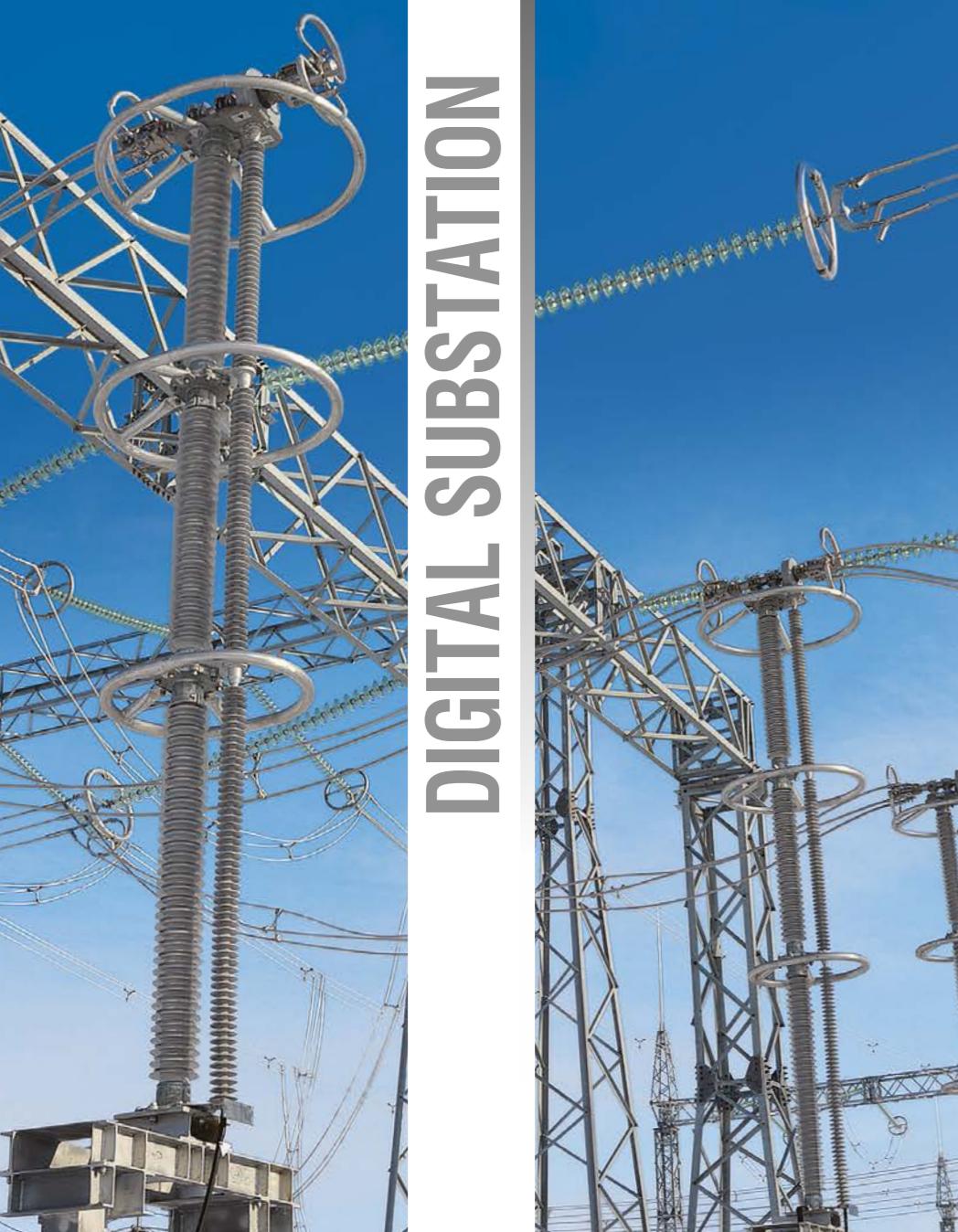
BY 2025 ALL OF THE COMPANY'S SUBSTATIONS will be equipped with digital communications for remote control from single centers



A DIGITAL  
SUBSTATION  
IS A SUBSTATION  
EQUIPPED FOR:

- DIGITAL MEASUREMENTS OF CURRENT AND VOLTAGE TRANSFORMERS,
- DIGITAL RELAY PROTECTION AND AUTOMATION,
- DIGITAL HIGH-VOLTAGE EQUIPMENT CONTROL SYSTEMS.

## DIGITAL SUBSTATION



## EXPECTED RESULTS

### FORCED TRANSITION

TO DIGITAL METHODS OF DESIGN AND CONSTRUCTION OF FACILITIES (DESIGN TIME WILL BE REDUCED BY 50%).

### COST REDUCTION

(DESIGN AND CONSTRUCTION COSTS WILL BE REDUCED UP TO 20%, WHILE OPERATING COSTS MAY BE REDUCED UP TO 40%).

### OPERATIONAL

RELIABILITY IMPROVEMENTS AT FACILITIES.

## WHAT HAS BEEN DONE

AS OF 31 DECEMBER 2017,  
FGC UES HAD

**125**

FIRST-GENERATION  
DIGITAL SUBSTATIONS

*(employing elements  
of the innovative Digital Substation  
equipment)*

AT THESE FACILITIES, ACCORDING TO THE PUBLISHED STANDARD OF SERVICE IN 2017, THE PLANNED WORK ON THE PREVENTION OF AUTOMATION AND RELAY PROTECTION SYSTEMS WAS REDUCED FROM 40 HOURS TO 8 HOURS.

## PROGRESS IN 2017

THE MAIN STAGE OF CONSTRUCTION OF THE TOBOL 500 KV SWITCH POINT WAS FINISHED IN TOBOLSK (TYUMEN REGION).

THE TOBOL SWITCH POINT IS RUSSIA'S FIRST ULTRA-HIGH VOLTAGE ENERGY FACILITY TO INTEGRATE DIGITAL SUBSTATION TECHNOLOGIES, IN PARTICULAR, THE CONSTRUCTION OF AUTOMATION AND CONTROL SYSTEMS BASED ON THE IEC 61850 PROTOCOL STANDARD USING THE LATEST PROCESSING AND DATA COLLECTION DEVICES, SUCH AS DIGITAL OPTICAL CURRENT AND VOLTAGE TRANSFORMERS.

THE NEW POWER FACILITY OF FGC UES WILL ENSURE THE TRANSFER OF UP TO 300 MEGAWATTS OF POWER TO SIBUR HOLDING'S NEWLY CONSTRUCTED ZAPSIBNEFTEKHM FACILITIES, WHICH WILL BE RUSSIA'S LARGEST MODERN COMPLEX FOR DEEP PROCESSING OF HYDROCARBON RAW MATERIALS.

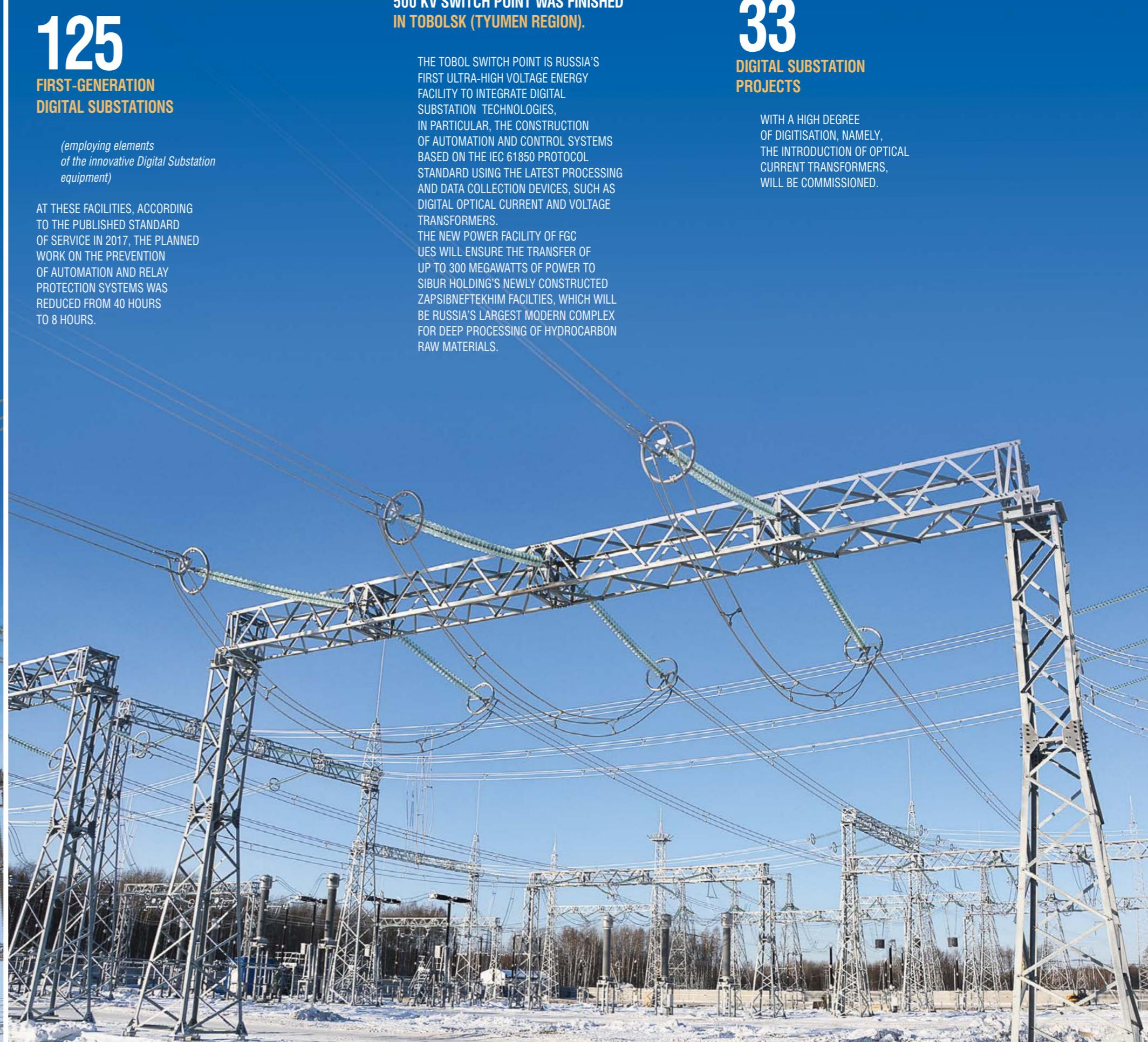
## PLANS FOR THE FUTURE

(by 2025)

**33**

DIGITAL SUBSTATION PROJECTS

WITH A HIGH DEGREE OF DIGITISATION, NAMELY, THE INTRODUCTION OF OPTICAL CURRENT TRANSFORMERS, WILL BE COMMISSIONED.





HTSC CL TRANSMITS SIGNIFICANT POWER WITH A MINIMAL CUT SET, AND HAS GREATER BANDWIDTH THAN TRADITIONAL CABLES. WHEN THE CURRENT PASSES THROUGH THE SUPERCONDUCTOR, HEAT IS NOT RELEASED, THE MAGNETIC FIELD IS LOCALISED INSIDE THE CABLE, AND THERE IS PRACTICALLY NO LOSS OF ELECTRICITY, THEREBY **SOLVING THE MAIN** PROBLEM FACED BY GRIDS.

## HIGH-TEMPERATURE SUPERCONDUCTING DC CABLE LINE (HTSC CABLE LINE)

### EXPECTED RESULTS

**TRANSMISSION OF ELECTRICITY** with minimal losses

**REDUCING THE COST** of line construction by up to 20%

**REDUCTION OF CONSTRUCTION COSTS** of energy bridges and ring circuits

**TRANSMISSION OF HIGH POWER** at a relatively low voltage

**ENHANCED FIRE SAFETY**

**FREEING UP OF LAND** in large cities



### WHAT HAS BEEN DONE

In 2015, the HTSC cable line was manufactured in full.

**IN 2016,** JSC STC FGC UES completed a five-year project to create a high-temperature superconductor for the cable line

**2,500** METRE-LONG

WITH A CURRENT OF  
**2,500** AMPERES

FOR A VOLTAGE OF  
**20** KILOVOLTS

**IN 2016,** an experimental base was prepared at the JSC STC FGC UES testing site for large-scale resource testing of the **HTSC cable line** assembled with a regular autonomous cryogenic system.

### PROGRESS IN 2017

**IN 2017 THE STAGE OF RESOURCE TESTING OF HIGH-TEMPERATURE SUPERCONDUCTORS IN THE COURSE OF WHICH THE LINE WAS ERECTED,**

PRE-COMMISSIONING ACTIVITIES AT THE CSS (CRYOGENIC SUPPORT SYSTEM), COMPLETION OF THE SOFTWARE OF THE CONTROL SYSTEM OF THE CSS AND THE SOFTWARE OF THE CONTROL, REGULATION, PROTECTION AND AUTOMATION SYSTEM (CRPAS) HTSC CABLE LINE. IN ESSENCE, A FULLY FUNCTIONING SIMULATION OF THE OPERATING MODE AT THE INSTALLATION SITE OF HTSC CABLE LINE IN ST. PETERSBURG.



### PLANS FOR THE FUTURE

**IN 2018-2020, THE COMPANY PLANS TO COMPLETE** all testing of emergency modes and develop a system of locks and protections, carry out construction, installation and commissioning works.

**IN 2020, THE HTSC CABLE LINE** will be put into operation on the St. Petersburg power system and will connect two substations

**330 KV CENTRAL AND RP-9 SUBSTATIONS,**

which will increase the reliability of the city's electricity supply

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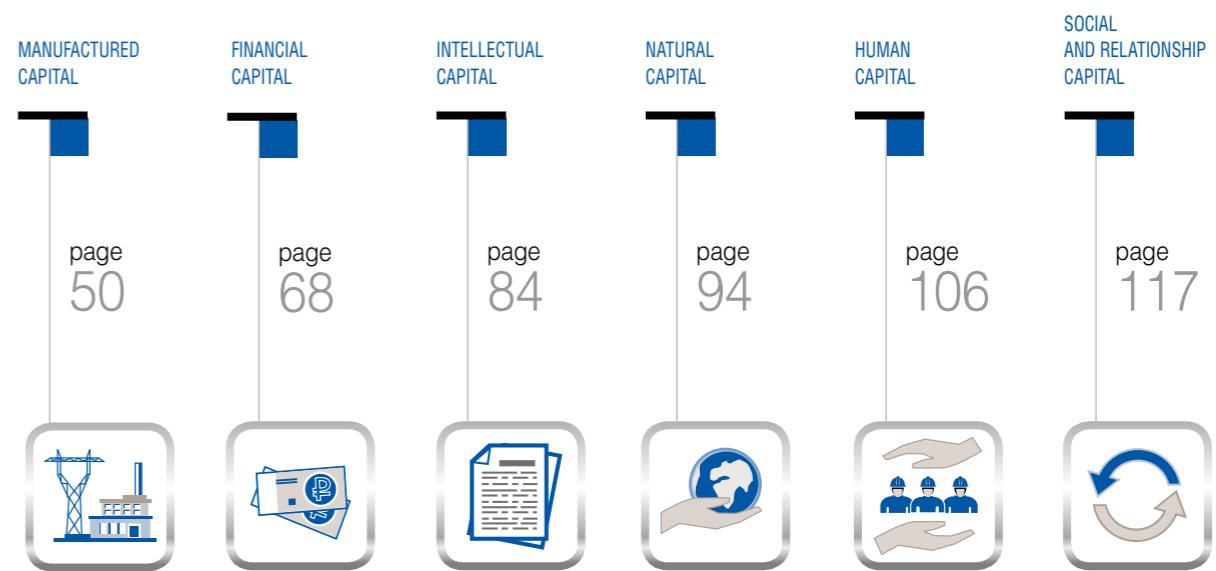
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Our performance results are disclosed in the context of creating value for all stakeholders through the consistent implementation of the mission and strategy of Federal Grid Company based on the effective use of various types of capital

## FORMS OF CAPITAL



## Appendices

Appendices are available in electronic format and on our corporate website



Corporate Website: [www.fsk-ees.ru/eng/](http://www.fsk-ees.ru/eng/)

Interactive Version:



# STRATEGIC REPORT

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## ABOUT THE COMPANY

CONSISTENCY, EFFICIENCY, PROFESSIONALISM

### PJSC FGC UES

is a Russian energy company that provides electricity transmission services through the Unified National Electrical Grid. In this type of activity the Company is a subject of natural monopoly.

The company is included in the list of the core Russian organisations of strategic importance.

#### FGC activities

(102-2)

The activity of the PJSC FGC UES is a low-risk business, steadily developing due to the consistent implementation of strategic priorities, effective management and high professionalism of our employees.

#### Core areas of business:

- management of the Unified National Electrical Grid;
- provision to the entities of the wholesale electricity and capacity market of electricity transmission services and technological connection;
- investment activity for the development of the Unified National Electrical Grid.

#### We facilitate:

- power transmission through the backbone grids in 77 regions of Russia, participating in solving the most important problems of the country's socio-economic development;
- the movement of electric energy across the borders of 11 foreign countries, the collection and processing of information on the flow of electricity through 133 interstate transmission lines.

### WE OPERATE:

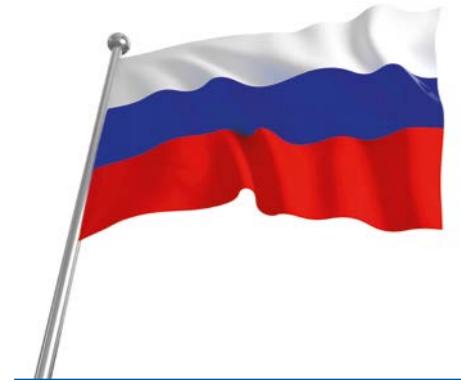
**142.4**

THOUSAND KM  
OF HIGH-VOLTAGE  
BACKBONE  
TRANSMISSION  
LINES

**944**

SUBSTATIONS

## Federal Grid Company investment profile



- FGC is a company with state participation, included in the list of strategic enterprises, which makes the Company's business predictable and reliable
- FGC is a natural monopoly operating in the electric power sector, which, combined with a predictable tariff policy, provides relatively stable and easily forecastable revenues
- The three leading international rating agencies (Moody's, Standard & Poor's and Fitch Ratings), as well as the national rating agency ACRA, have assigned credit ratings to FGC



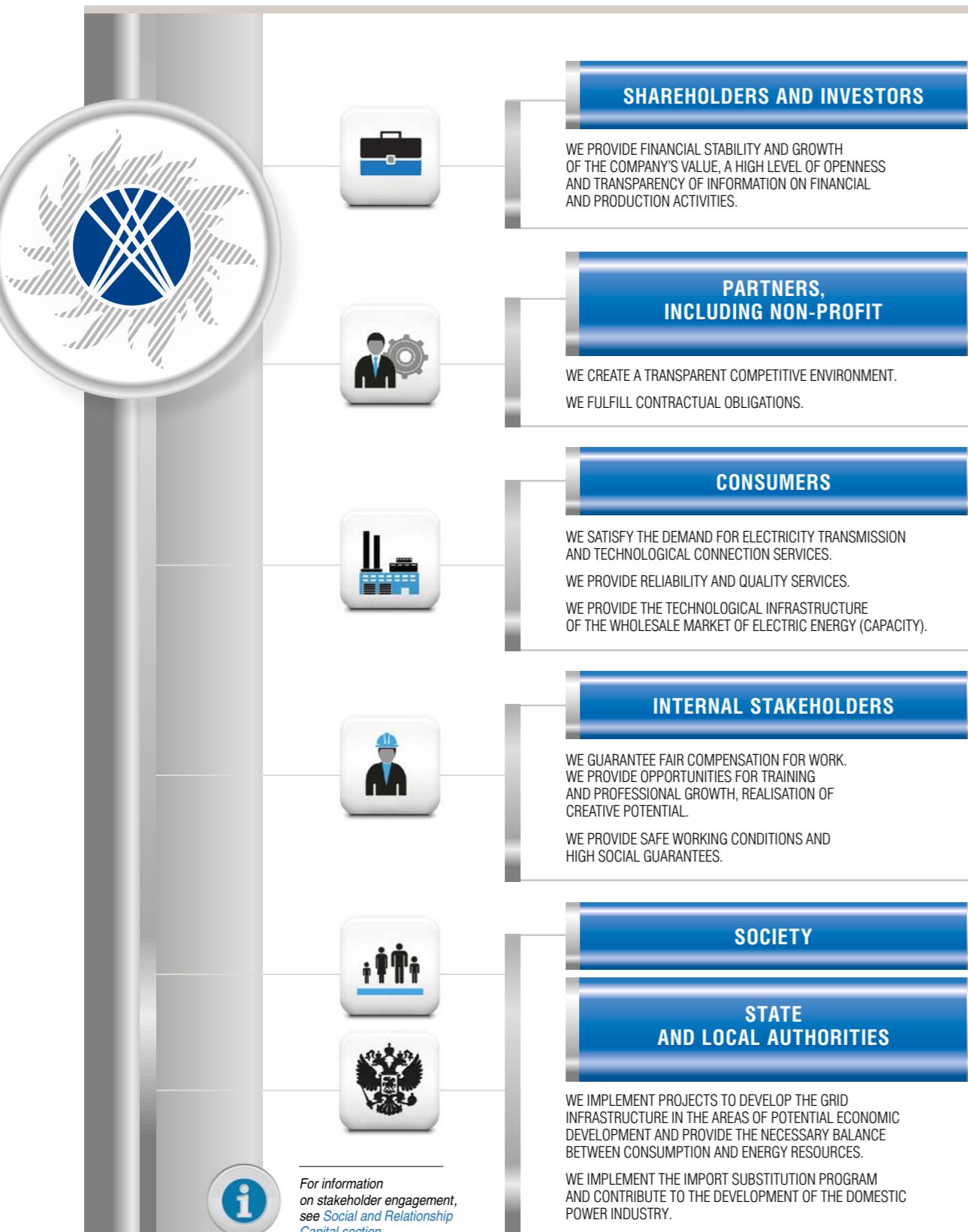
- For the fifth year in a row, FGC has delivered positive financial results, thanks not only to the growth in revenue from electricity transmission services, but also due to increased internal efficiency
- The rates for a significant share of the Company's debt portfolio are tied to inflation, which in the current economic conditions in Russian Federation, along with the optimal gearing, provide FGC with significant savings in debt servicing
- Positive dividend history over recent years



- Shares of PJSC FGC UES are included in the first level of the quotation list of Moscow Exchange
- FGC's developed corporate governance practices reduce risks of losses for shareholders and investors and ensure transparency and efficiency of the Company's management processes
- FGC's professional management team ensures achievement of strategic goals with maximum efficiency



## WHO WE WORK FOR



## STRATEGY IN ACTION - MORE RELIABLE, MORE EFFECTIVE, MORE MODERN

## RESULTS OF OUR ACTIVITY

### Electricity supply from UNEG to service consumers, bln kWh



### Specific accidents at PJSC FGC UES facilities (the number of accidents per 1,000 conventional units)



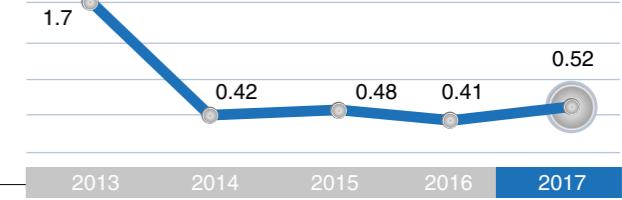
### Current costs for environmental measures, RUB mln



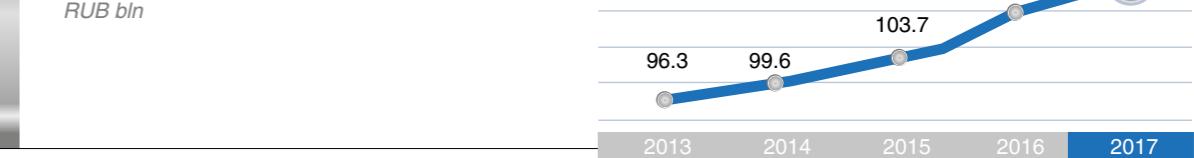
### Average monthly salary of employees, RUB



### Research and development investment, RUB bln



### Adjusted EBITDA\*



\*In accordance with RAS, excluding operations for the accrual and recovery of provisions for doubtful debts, revaluation of financial investments and revenues from technological connection.

# STATEMENT OF THE CHAIRMAN OF THE MANAGEMENT BOARD OF PJSC FGC UES ANDREY MUROV

## NEW AREAS FOR GROWTH

**WE HAVE  
CHOSEN  
DIGITISATION AS ONE  
OF THE KEY VECTORS  
OF THE COMPANY'S  
DEVELOPMENT<sup>11</sup>**

### Dear shareholders, customers and partners,

In 2017, Federal Grid Company of Unified Energy System celebrated its 15th anniversary. The creation of the operator of the Unified National Electrical Grid was a turning point in energy reform. A company emerged that was able to focus on the development of the main power grid complex, an infrastructure system on which the growth of the national economy, scientific and technological progress and the welfare of society depend.

Federal Grid Company has carried out hundreds of power supply projects for power plants, and technological connection of industrial and public facilities, as well as transportation infrastructure. The quality of power supply to consumers has improved, while the Company has become one of the world leaders in terms of reliability.

Over the course these years the global economy has been undergoing a profound transformation. The technological paradigm shift of our customers also impacts the requirements for quality of services offered by power grid companies. We are well aware of this. Therefore, we have chosen digitisation as one of the key vectors of the Company's development. It is important that FGC UES completed the anniversary year with not only good production and financial performance, but also with a clear understanding of its prospects for further growth.

### Production and financial results

The key metric that demonstrates our Company's operational efficiency is the unit accident rate in the main electric power networks. In 2017, the Company once again made progress, reducing this indicator by 19%.

**Andrey Murov**

Chairman of the Management Board  
of PJSC FGC UES

# STATEMENT OF THE CHAIRMAN OF THE MANAGEMENT BOARD OF PJSC FGC UES ANDREY MUROV

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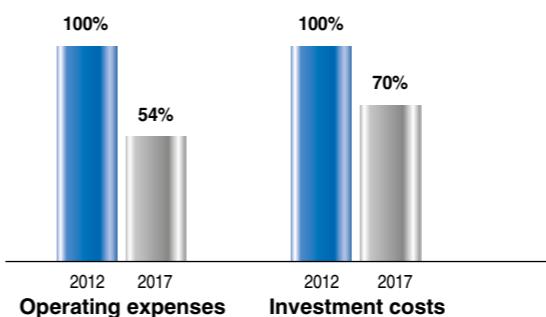
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### Production and financial results

The key metric that demonstrates our Company's operational efficiency is the unit accident rate in the main electric power networks. In 2017, the Company once again made progress, reducing this indicator by 19%.

IN 2017, FGC UES COMMISSIONED 4.9 GVA OF TRANSFORMER CAPACITY AND 1.2 THOUSAND KM OF POWER TRANSMISSION LINES. THE TOTAL CONNECTED CAPACITY OF CONSUMERS WAS 13.6 GW, WHICH IS 2.4 TIMES MORE THAN IT WAS A YEAR AGO.

For the fifth consecutive year, the Company has delivered a positive financial result on the bottom line. In 2017, net profit under IFRS increased by 6.3%, to RUB 72.7 billion, adjusted EBITDA grew by 8.3% to RUB 126.4 billion. This was thanks not only to the growth in revenue from electricity transmission services, but also to increased internal efficiency. Using 2012 as a base year, unit operating expenses (in comparable prices) have decreased by 46%, and investment by 30%.



### Development projects

I always underscore that the Company works for its customers. Today, the pace of construction of energy facilities has been synchronised with the implementation of territorial development projects, commensurate with the start-up of new power plants and the requests of industrial consumers.

In 2017, FGC UES commissioned 4.9 GVA of transformer capacity and 1.2 thousand km of power transmission lines. The total connected capacity of consumers was 13.6 GW, which is 2.4 times more than it was a year ago.

At the same time, we have constructed or reconstructed network facilities for a number of new production sites, including the Zapsibneftekhim complex in the Tyumen region, the Bystrinsky ore mining and processing enterprise in Transbaikalia, gold mining enterprises in the Krasnoyarsk Territory, as well as the BAM and Transsib infrastructure projects, the ESPO oil pipeline, and others.

In addition, the bulk of the work on the macro project aimed at strengthening the links between the Center and the North-West Center has been completed.

### New areas for growth

The resource for increasing the efficiency and quality of FGC's power grid infrastructure is found in the use of digital technologies.

Our main priority is the development of a network of low-maintenance digital facilities with a high degree of reliability. In addition, over the past ten years, the Company has been introducing elements of digital substation technology on the basis of the international standard IEC 61850. By 2025, we will build 32 high and ultra-high voltage facilities with integrated digital solutions. At the same time, all our substations will be equipped with digital communication systems capable of remote control from unified centers.

However, digitisation is not the only task of innovative development. In 2017, two of FGC's projects received the national status. The first of them is focused on increased energy efficiency of substations, while the second relates to the use of high-temperature superconductors. This technology minimises energy losses during transport and the subject of scientific research in many countries. Last year FGC UES completed testing the world's largest superconducting cable line. It will be put into operation in 2020 in St. Petersburg.

### Sustainable development

**(102-14)** We strive to find a balance between economic feasibility and social responsibility.

FGC UES cooperates with leading environmental organisations, participates in federal programs for the reproduction of flora and fauna and implements its own "green" initiatives.

All target environmental indicators have been achieved. Comprehensive work to improve environmental management has allowed FGC UES to be audited in 2017 and receive a certificate of compliance with the ISO 14001: 2015 international standard.

### Personnel policy

As always, our Company's key asset is our experienced and professional workforce. Its formation is the result of systematic effort to improve working conditions, increase the welfare of employees and create opportunities for realising their potential.

The introduction of innovative technologies forces us change. Through FGC's joint projects with Russia's leading technical universities, and the development of our own educational centers, our specialists receive in-demand knowledge and competencies. In 2017, 17,500 employees (nearly three fourths of the Company's workforce) took part in educational projects.

In total, FGC UES employs 21,900 people throughout the country. Together, we are one big team that is focused on delivering exceptional results and is prepared to solve the most ambitious tasks.



## STATEMENT FROM ANDREY DEMIN, MEMBER OF THE BOARD OF DIRECTORS<sup>2</sup>

DURING THE PERIOD 2018-2020, THE COMPANY WILL PUT INTO OPERATION 8,9 THOUSAND KM OF POWER TRANSMISSION LINES.

**“ IN 2017,  
THE UNIT ACCIDENT  
RATE AT THE COMPANY’S  
FACILITIES WAS REDUCED  
BY 19% YEAR-ON-YEAR”**

### Dear shareholders and investors,

FGC UES is the largest subsidiary of Rosseti Group. It manages Russia's Unified National Electrical Grid and implements projects of strategic importance that create the basis for reliable, high-quality and affordable power supply to consumers, thereby ensuring the country's energy security and sustainable economic growth.

### Development of the Unified National Electrical Grid

In 2017, FGC UES celebrated its 15th anniversary. During this time the Company has transformed the backbone electric grid complex of Russia, and the number of power facilities under its management has increased threefold.

A high, world-class level of reliability of electricity supply to consumers has been achieved, which is demonstrated by the fact that today FGC UES operates with one of the lowest accident rates in the world.

### Economic efficiency

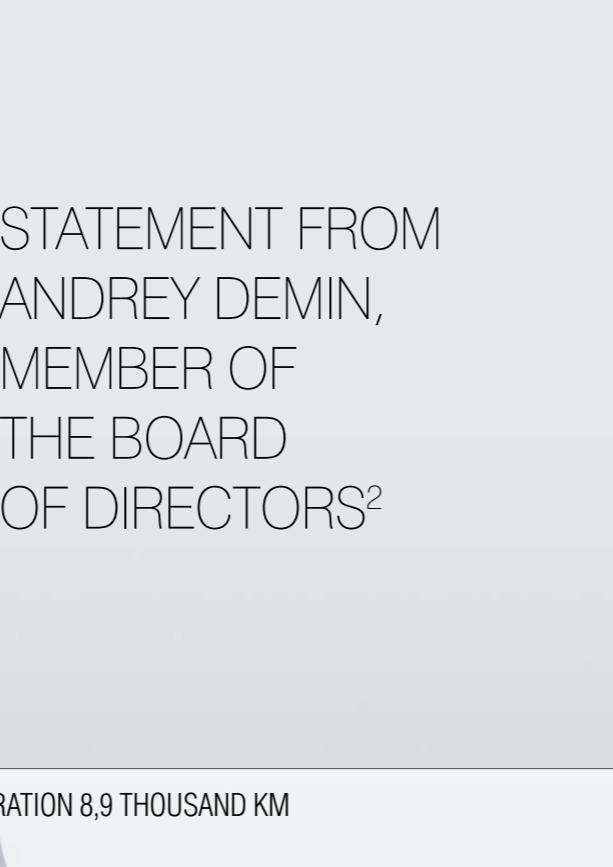
In concert with successfully solving of operational tasks, FGC UES has delivered a positive financial result on the bottom line. This is a result of the systematic and well-coordinated work of an entire team of like-minded people – the Board of Directors, management and staff – to improve the Company's internal efficiency.

FGC UES maintains and increases a consistently high level of financial stability; dividend payments in 2017 set a new record for the entire 15-year history of the Company.

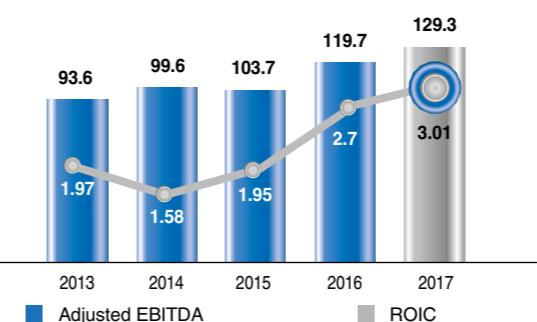
**Andrey Demin**  
member of the Board  
of Directors \*

<sup>2</sup> By the decision of the Board of Directors on September 27, 2017 (Minutes No. 378 of September 29, 2017), Mr Demin was elected Chairman of the Board of Directors of PJSC FGC UES until the election of the Chairman of the Board of Directors of PJSC FGC UES.

(102-23)



DIGITISATION OF THE GRID WILL GIVE THE COMPANY THE OPPORTUNITY TO FURTHER SIGNIFICANTLY IMPROVE ITS PRODUCTION AND FINANCIAL AND ECONOMIC PERFORMANCE.



### Investment activities

The Board of Directors and management determined the vector of technological development of FGC UES. This investment programme, mapped out through 2020, was approved and is being successfully implemented. The main areas of focus are strengthening system reliability in the North-West and South of Russia, development of infrastructure in the Far East, projects of national importance, including external power supply of the Baikal-Amur and Trans-Siberian railways and oil and gas pipelines, and connection of new industrial enterprises and generation facilities.

It is important that FGC's development projects are implemented first and foremost with the involvement of Russian suppliers and contractors. The share of domestic equipment in the Company's procurement for electrical engineering equipment reached 85%. By 2030, it is planned for this figure to grow to 95%, which is consistent with the objectives of the Energy Strategy of Russia.

### Innovative development

The President of the Russian Federation and Government of the Russian Federation are advancing a policy aimed at accelerating innovative development. The task for companies with state participation is to intensify their work on the introduction of breakthrough technologies and methods of organising production.

Digitisation of the Russian power grid complex will be at the forefront of important tasks. New technologies will make it possible to qualitatively improve the reliability of energy supply to consumers, thereby leading to a reduction in the costs of construction and operation of infrastructure facilities. FGC UES has been introducing digital solutions since 2006 and is the flagship of the power grid complex. A wealth of experience has been accumulated, enabling the Company to speak about its effectiveness.

Today, a new stage of innovative development of the Company begins: new high and ultra-high voltage substations are being built, in which the whole array of modern digital technologies is being deployed. By 2025, 32 such facilities will be commissioned.

### Corporate Governance

Improving the quality of corporate governance directly affects the efficiency and investment profile of the business. The Company's corporate governance system is based on the principles of transparency, accountability, fairness and responsibility. This means timely and full disclosure of reliable information about our activities, a strict management reporting system, equal and fair attitude to shareholders, and active cooperation with all stakeholders.

In October 2017, based on the results of an assessment of the quality of corporate management of FGC UES, the Russian Institute of Directors confirmed the rating assigned in 2016 on the scale of the national corporate governance rating at the level of 7++. This assessment confirms that the Company complies with the requirements of Russian

IN 2017, THE RATING WAS CONFIRMED ACCORDING TO THE SCALE OF THE NATIONAL CORPORATE GOVERNANCE RATING AT THE LEVEL OF 7++.

legislation in the field of corporate governance and follows a significant number of recommendations of the Russian Corporate Governance Code.

Thus, the Board of Directors of FGC UES has every reason to declare a high level of corporate governance of the Company and compliance with key applicable recommendations of the Russian Corporate Governance Code.

### Tasks for 2018-2020

The priorities of the Company remain unchanged: reliable, accessible, quality power supply to consumers, increased economic efficiency, and development of Russia's backbone electrical power grid system.

FGC UES's investment plan for the period 2016-2020 will require RUB 475 billion, including the Company's investment of over RUB 289 billion in 2018-2020. In total, as a result of the five-year programme, over 10 thousand km of new transmission lines and over 40 GVA of transformer capacity will be put into operation.

The consistently strong operating and financial results achieved in 2017 lay a strong foundation for the successful solution of the tasks ahead the Company, and for the priority implementation of innovative development projects.

I am confident that implementation of the plans mentioned will allow FGC UES to remain one of the most important companies supporting infrastructure growth in Russia.

<sup>3,4</sup> Figures based on the 2016 and 2017 actual volumes as per the accounts provided to the Ministry of Energy of the Russian Federation.



PERSISTENT WORK IN ALL AREAS

## KEY EVENTS

### Achievements and events of 2017

Production and implementation of the investment programme

WERE COMMISSIONED:

**4,925 MVA**  
OF TRANSFORMER CAPACITY  
**1,217 KM**  
OF TRANSMISSION LINES

**13.6 GW**

THE TOTAL  
CONNECTED  
CAPACITY  
WAS 13.6 GW

BY 18 %

THE NUMBER OF ACCIDENTS  
AT THE COMPANY'S  
FACILITIES DECREASED  
BY 18%

**271 AGREEMENTS**

ON TECHNOLOGICAL  
CONNECTION  
OF CONSUMERS WERE  
IMPLEMENTED



- The construction of power facilities for electricity supply to Bystrinsky mining and enrichment plant (PJSC MMC Norilsk Nickel), JSC Polys Krasnoyarsk was completed using co-financing schemes. These facilities are reflected on the balance sheet of PJSC FGC UES.
- Most of the activities of the macro project on strengthening the energy links between the North-West UES and the Center have been completed.
- The scheme of power delivery of Nizhne-Bureyskaya HPP was implemented.
- Order of the Ministry of Energy of Russia No. 31 @ dated December 27, 2017 approved the adjustment of the investment programme of PJSC FGC UES for 2016-2020.



Innovative development and import substitution

- The share of Russian equipment purchased by FGC UES in terms of main electrical engineering equipment reached 85% in 2017. Scientific and technical center of PJSC FGC UES presented the world's largest project on the introduction of high-temperature superconducting cable lines at the Russia: Looking to the Future exhibition.

Financial activities

IN JUNE 2017, AT THE ANNUAL GENERAL MEETING OF SHAREHOLDERS (AGM),  
A DECISION WAS TAKEN TO PAY DIVIDENDS

**18.2 BILLION RUB**  
FOR 2016

**1.4 BILLION RUB**  
FOR THE FIRST QUARTER  
OF 2017

FOR **9 BILLION RUB**

IN OCTOBER, THE COMPANY PLACED EXCHANGE-TRADED SERIES BO-03 BONDS FOR RUB 9 BILLION WITH A 5-YEAR MATURITY AND THE COUPON OF 7.75% PER ANNUM

FOR **7 BILLION RUB**

IN DECEMBER, THE COMPANY PLACED EXCHANGE-TRADED BO-04 BONDS FOR RUB 7 BILLION WITH A 6-YEAR MATURITY AND A COUPON OF 7.6% PER ANNUM

THESE PLACEMENTS BECAME THE MOST ADVANTAGEOUS FOR THE COMPANY SINCE 2010.

The coupon rate was a record low among the market placements among all Russian issuers in the modern post-crisis period.

- ACRA assigned a national rating of AAA (RU "Stable", the ratings of international credit agencies remained at the sovereign level (Fitch Ratings BBB- "Positive", Moody's Ba1 "Stable", Standard & Poor's BB + "Positive").

- The directive of the Government of the Russian Federation No. 2303p-P13 of May 16, 2015 on the reduction of operating costs by 2-3 percent per year was implemented - specific operating expenses (costs) in 2017 decreased relative to the fact of 2016 (in comparable prices) by 3.3%.

## strategic report

### KEY EVENTS

#### International activity

- PJSC FGC UES and State Electric Grid Corporation of Vietnam EVN NPT signed a memorandum on the main approaches and areas of cooperation.
- FGC UES supported:
  - Relay Protection and Automation 2017 international conference,
  - International colloquium of the Study Committee (SC) D2 of CIGRE in the field of Information Systems and Telecommunications,
  - Digital Substation – Standard IEC 61850 international conference and exhibition.



#### Corporate Governance

- In 2017, the Company continued to implement the Corporate Governance Code recommended by the Bank of Russia.
- The Annual General Meeting of Shareholders held on June 29, 2017, approved the Company's revised Articles of Association, according to which:
  - the opportunity to participate in voting at the General Meeting of Shareholders of the Company through electronic voting was guaranteed,
  - the competence of the Board of Directors of the Company to conduct an annual assessment of the effectiveness of the risk management system and the Company's internal control system was expanded.



#### Sustainable development

- The Company carried out a set of activities to improve environmental management, which allowed obtaining a certificate of compliance with the international standard ISO 14001: 2015.
- 10,600 capacitor units containing trichlordiphenyl, one of the persistent organic pollutants, were transferred from the territory of ten substations of five branches of FGC UES - Volga, the Center, the Northwest, the South and Siberia. This exceeds last year's volumes almost 100 times.
- Work was carried out to restore fish resources in the rivers of the basin of the Sea of Azov and Lake Baikal; tens of thousands of seedlings of plants were planted in the Khanty-Mansiysk Autonomous Okrug, the Bryansk and Amur Regions.
- With the support of FGC UES, the Amur Basin Complex Expedition of the Russian Geographical Society began to study the problems of protecting the Far Eastern stork in relation to power facilities.

BY **55.6%**

LABOR PRODUCTIVITY\*  
AT FGC UES IN MONETARY  
TERMS INCREASED  
BY 55.6% COMPARED TO  
THE BASE LEVEL OF 2012

APPROXIMATELY  
**17,500**

EMPLOYEES TOOK  
PART IN TRAINING,  
RETRAINING AND  
ADVANCED TRAINING  
PROGRAMMES

**MORE THAN  
1.6 THOUSAND**

STUDENTS  
ARE INVOLVED  
IN FGC UES DAY  
ACTIVITIES  
IN UNIVERSITIES

**MORE THAN  
110**

THE COMPANY  
COOPERATED  
WITH MORE THAN  
110 EDUCATIONAL  
INSTITUTIONS

\*Labor productivity is calculated on the basis of the consolidated financial statements of the Company and its subsidiaries prepared in accordance with International Financial Reporting Standards (IFRS). The indicator is defined as the ratio of revenue from electricity transmission services, net of expenses for services of third-party organizations for the transit of electricity to the total number of man-hours worked by employees of the payroll staff and external part-time employees of the Company.





## EVENTS AFTER THE REPORTING PERIOD

- 26
- January 2018, Moody's revised the Company's credit rating (Ba1) outlook from Stable to Positive.
  - February 2018, Standard and Poor's agency raised the Company's credit rating by one step to the investment grade of "BBB-", the outlook is Stable.
  - Resource testing of the high-temperature superconducting DC cable line, which is the first in Russia and the largest in the world, was completed at the FGC UES polygon in Moscow. The Ministry of Energy of Russia included the Company's development in the field of superconductivity into a national project, which will lead to the scaling of technology both in Russia and abroad.
  - The power receivers of three oil pumping stations of the Eastern Siberia-Pacific Ocean pipeline system (ESPO) in Khabarovsk Krai were energised. Thus, conditions have been created for the electric supply of a new branch of the oil pipeline with a length of 293 km, which will connect the ESPO and the Komsomolsk refinery.
  - Completion of measures for the construction of a new transmission line 500 kV "Rostov NPP – Rostovskaya". The new facility is the main element of the power delivery scheme for the fourth power unit of Rostov NPP.

HONORED RECOGNITION FOR  
A JOB WELL DONE

## AWARDS OF 2017



Organisations / events / competitions / awards	Company's achievements
Cbonds Awards	FGC UES is a laureate in the nomination Best Primary Corporate Bond Placement
The award "For significant contribution to ensuring the reliability of the regimes of the UES of Russia", established by the System Operator of the UES	FGC UES is the winner of the award in 2017
Rating Top 1000 Managers of Russia, organised by the Association of Managers of Russia	Representatives of the Company entered the top three in the following nominations: Top Managers, Directors of Corporate Governance, Director of Personnel
Crystal Pyramid 2017 - VII Prize for achievements in the field of human capital management	Grand Prix in the nomination Talent Management System
All-Russian branch association of employers of electric power industry	Honorary badge for Organisation of High Social Efficiency / Honorable diploma for significant achievements in the development of the movement of student brigades of Russia in 2017
The Best Social Projects in Russia Fifth Annual Competition, organised by the Fund "Social Projects" in conjunction with the Agency for Strategic Initiatives, the Government of Moscow, the Moscow Chamber of Commerce and Industry, and others	FGC UES is the laureate in the category Corporate Projects for organising student construction brigades
XIII All-Russian competition Leader of Environmental Activities in Russia 2017	FGC UES is a laureate in the nomination The Best Environmentally Responsible Company in the Electric Power Industry
Ministry of Energy of Russia	Gratitude for the contribution to the organisation of the National Brighter Together Festival 2017
International Forum on Energy Efficiency and Development of Energy Russian Energy Week 2017, organised by the Ministry of Energy of Russia	Diploma for assistance in organising the forum
Eastern Economic Forum	Gratitude for the contribution to the organisation of the forum
Corporate Transparency among the Largest Russian Companies in 2017 survey, conducted by the Russian Regional Network for Integrated Reporting	Ninth place in the ranking of the largest Russian companies in 2017 (out of 956 companies)
XX Annual MICEX Annual Report Competition	FGC UES is the winner in the nomination "Best Corporate Governance Disclosure an Annual Report"
XIX Competition of annual reports of rating agency Expert RA (RAEX)	Diploma in the nomination Integrated Disclosure of Strategic Priorities of the Company in Sustainable Development in a CSR Report
Report Watch: Best Annual Report	Seventh place in the ranking of the reports of electric power companies in the world, B+ rating
International Competition for Marketing and Communication Professionals MarCom Awards	Platinum award for the annual report in the category Print Media / Platinum award for the annual report in the category Interactive reports

## RELIABILITY ON A NATIONAL SCALE

## WHERE WE OPERATE

PJSC FGC UES operates in 77 Russian regions. The locations of FGC facilities are divided into zones of responsibility for the corporate branches - main power systems (MPS) and their regional enterprises (EMPS). Sparsely populated territories without large customers (Chukotka, Kamchatka, Magadan Oblast, Sakhalin, Nenets Autonomous District and the Republic of Altai) are not integrated into the UNEG because of the lack of economic conditions for laying power lines and establishing large substations.

(102-4, 102-6, 102-7)

## UNIFIED NATIONAL ELECTRICAL GRID

The power line and the substation are indicated for which the right of ownership of PJSC FGC UES and other owners, including facilities with the voltage class of 0.4-110 kV, but without taking into account power lines and substations of voltage class 10 kV and below, accepted by PJSC FGC UES for long-term lease and operating in the territory of Krasnodar region.

**133** INTERSTATE POWER LINES

FGC PROVIDES THE TRANSFER OF ELECTRICITY AT THE BORDERS WITH 11 FOREIGN STATES AND COLLECTS AND PROCESSES INFORMATION ON ELECTRICITY FLOWS ACROSS 133 INTERSTATE POWER LINES

**50** REGIONAL BRANCHES:

8 MAIN POWER SYSTEMS (MPS)  
41 ENTERPRISES OF THE MAIN POWER SYSTEMS (EMPS)  
1 SPECIALISED PRODUCTION BASE "BELY RAST"

**25** BUSINESS ENTITIES

FGC PARTICIPATES IN 25 BUSINESS ENTITIES OPERATING IN VARIOUS SECTORS, INCLUDING THOSE THAT ENSURE THE FUNCTIONING OF THE ELECTRIC GRID ECONOMY



For information on the Company's international activities, as well as on export and import of electricity under contracts of PJSC Inter RAO see Appendix 1.



For information on the branches of FGC, see [www.fsk-ees.ru](http://www.fsk-ees.ru) in the section About / Branches.



For information on subsidiaries, see Appendix 6.

**MPS  
THE SOUTH**  
SS - 145 pcs. / 30,085 MVA  
PL - 348 pcs. / 12,887 km  
  
**EMPS**  
Kaspiiskoye / Kubanskoye / Rostovskoye / Sochinskoye / Stavropolskoye

**MPS  
CENTER**  
SS - 200 pcs. / 99,930 MVA  
PL - 478 pcs. / 29,540 km  
  
**EMPS**  
Valdaiskoye / Verkhne-Donskoye / Volga-Donskoye / Vologodskoye / Moskovskoye / Volga-Okskoye / Priokskoye / Chernozemskoye

**MPS  
NORTH-WEST**  
SS - 102 pcs. / 40,200 MVA  
PL - 327 pcs. / 14,474 km

**EMPS**  
Bryanskoye / Vyborgskoye / Karelskoye / Leningradskoye / Novgorodskoye / Severnoye

**MPS  
VOLGA**  
SS - 88 pcs. / 32,346 MVA  
PL - 190 pcs. / 12,902 km

**EMPS**  
Nizhevologodskoe / Nizhegorodskoye / Samarskoye / Sredne-Volzhskoye

**MPS  
WESTERN  
SIBERIA**

SS - 88 pcs. / 39,146 MVA  
PL - 211 pcs. / 14,098 km

**EMPS**  
Vostochnoye / Tsentralnoye / Yuzhnoye / Yamal-Nenetskoye

**2,357\***  
POWER LINES

WITH VOLTAGE UP TO 1,150 KV, LENGTH - 142.4 THOUSAND KM

**944\***  
SUBSTATIONS

WITH VOLTAGE UP TO 1,150 KV WITH A CAPACITY OF 345,083 MVA

**MPS  
THE URALS**  
SS - 107 pcs. / 42,830 MVA  
PL - 250 pcs. / 16,746 km

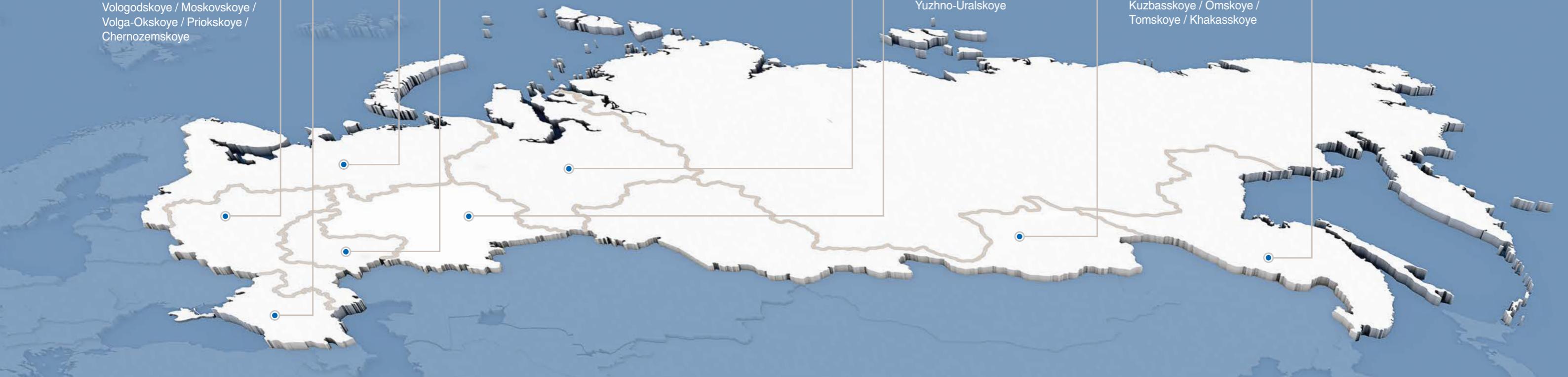
**EMPS**  
Orenburgskoye / Permskoye / Sverdlovskoye / Yuzhno-Uralskoye

**MPS  
SIBERIA**  
SS - 122 pcs. / 45,244 MVA  
PL - 340 pcs. / 24,629 km

**EMPS**  
Zabaikalskoye / Zapadno-Sibirskoye / Krasnoyarskoye / Kuzbasskoye / Omskoye / Tomskoye / Khakasskoye

**MPS  
EAST**  
SS - 92 pcs. / 15,299 MVA  
PL - 213 pcs. / 17,168 km

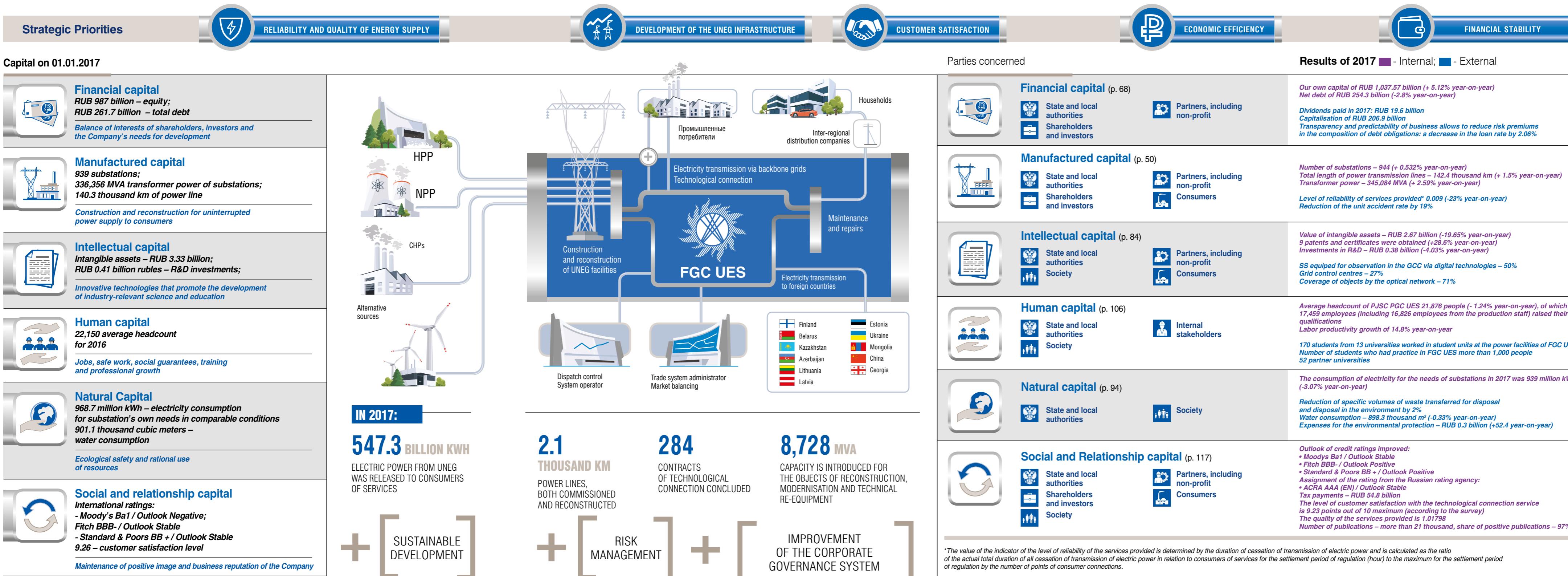
**EMPS**  
Amurskoye / Primorskoye / Khabarovskoye



# BUSINESS MODEL

(102-7)

THE MISSION OF FGC is to ensure reliable operations and adequate growth of the economic development of the UNEG with high economic efficiency and maximum cost reduction



## Key risks in terms of quality and availability of capital and actions to improve the efficiency of the use of capital

(102-15)

<b>Financial capital</b>	<ul style="list-style-type: none"> <li>• Lack of or increased cost of borrowed capital</li> <li>• Risk of unbalanced tariff decisions</li> </ul> <ul style="list-style-type: none"> <li>• Active interaction with investors and the market, diversification of financing sources, increasing transparency and business predictability to reduce the risk premium as part of the cost of debt</li> <li>• Preparation of economically sound proposals on tariff regulation</li> </ul>
<b>Manufactured capital</b>	<ul style="list-style-type: none"> <li>Decrease in return on capital:</li> <li>• Excess of planned costs and non-compliance with deadlines</li> <li>• Power failure</li> <li>• Excess / lack of capacity</li> </ul> <ul style="list-style-type: none"> <li>• Innovation and planning of the structure of grid assets</li> <li>• Selection of contractors on a competitive basis, control of construction schedules</li> <li>• Reconstruction of electric grid facilities</li> <li>• Forecasting network loads</li> </ul>
<b>Intellectual capital</b>	<ul style="list-style-type: none"> <li>Risks associated with the implementation of new technologies</li> <li>Violation of rights to the result of intellectual activity</li> </ul> <ul style="list-style-type: none"> <li>• Improvement of planning and acceptance of scientific and technical works</li> <li>• Training</li> <li>• Improvement of contractual activities</li> </ul>
<b>Human capital</b>	<ul style="list-style-type: none"> <li>Risk of deviation from the value of the indicator of productivity increase established in the business plan</li> <li>Decreased staff qualification level</li> </ul> <ul style="list-style-type: none"> <li>• Implementation of a programme to increase labour productivity</li> <li>• Staff professional development</li> <li>• Integrated implementation of professional standards</li> <li>• Formation of a personnel reserve</li> </ul>
<b>Natural capital</b>	<ul style="list-style-type: none"> <li>Environmental risks (risks of environmental pollution)</li> </ul> <ul style="list-style-type: none"> <li>• Implementation of environmental policy;</li> <li>• Reduction of the negative impact on the environment</li> </ul>
<b>Social and relationship capital</b>	<ul style="list-style-type: none"> <li>Decrease in UNEG operational reliability, occasional systemic violations of power supply to consumers, occurrence of accidents</li> <li>Risks associated with the political and economic situation</li> </ul> <ul style="list-style-type: none"> <li>Increasing the level of disclosure of information about the Company's activities</li> <li>Increasing the effectiveness of Company' interaction with stakeholders</li> </ul>

■ - Key risks in terms of quality and availability of capital; ■ - Actions to improve the efficiency of the use of capital

## MEETING THE NEEDS OF THE MARKET

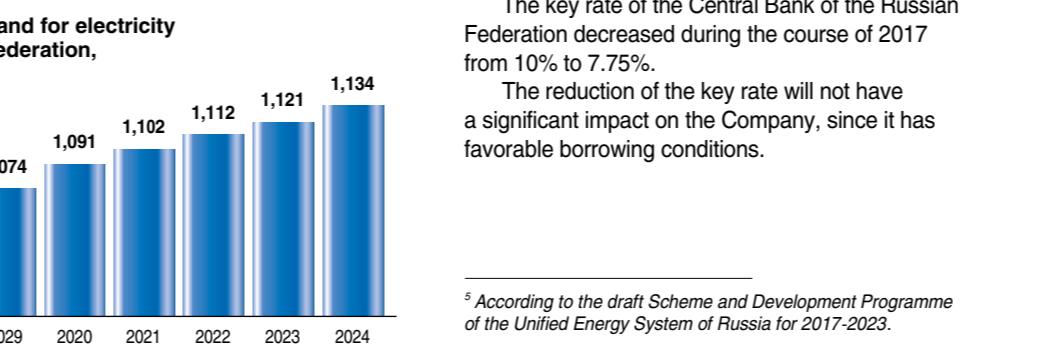
### MARKET REVIEW

The main Russian macroeconomic indicators in 2017 markedly improved compared year-on-year.

#### Macroeconomics

The main Russian macroeconomic indicators in 2017 markedly improved compared year-on-year. GDP increased by 1.5%, the industrial production index grew by 1.0%, and investments rose by 4.4%. The average annual inflation in 2017 was 3.7%, significantly down from 2016 (7.1%). The reduction in inflation had a positive impact on the financial position of the Company, as it led to a reduction in the growth of monetary costs for the acquisition of goods and services and a reduction in the cost of FGC debt, a large part of which is placed at a floating rate.

The volume of electricity consumption within the boundaries of the Unified Energy System for 2017 amounted to 1,040 billion kWh, which is 1.27% higher than in 2016. The trend of moderate growth will continue in the near future. The expected average annual increase in demand for electricity by UES



<sup>5</sup> According to the draft Scheme and Development Programme of the Unified Energy System of Russia for 2017-2023.

#### Industry

PJSC FGC UES transfers electricity through the UNEG and provides services for technological connection to this grid. In addition to PJSC FGC UES, a number of services for transmission, distribution and technological connection in the UNEG are provided by the regional grid organisations of OJSC Grid Company (Kazan), Bashkir Grid Company,

LLC, JSC RES (Novosibirsk), and OJSC Irkutsk Electric Grid company. The total size of the transformer capacity at the substations of the high-voltage grid of these organisations is approximately 40 thousand MVA. These organisations do not compete directly with PJSC FGC UES, because they operate within their respective service areas.

The main strategic priorities of the state policy in the field of the power grid complex, established by the Strategy for the Development of the Electric Grid Complex of the Russian Federation through 2030:

- ensuring the reliability of energy supply to consumers;
- ensuring the quality of services;
- development of infrastructure to support the growth of the Russian economy;
- competitive electricity tariffs for industrial development;
- development of the scientific and innovative potential of the power grid complex, including in order to stimulate the development of related industries;
- a return on capital that is attractive to investors.

## Electricity transmission services market

Transmission of electricity through grids relates to infrastructural activities carried out in conditions of natural monopoly. The market of goods and services related to natural monopoly, in accordance with the legislation, is subject to state regulation.

In the past five years, the volume of the market for FGC UES' electricity transmission services has stabilised<sup>6</sup> and is determined by the low growth rates of electricity consumption, the possibilities for optimising consumption patterns, and the development of distributed generation sources.

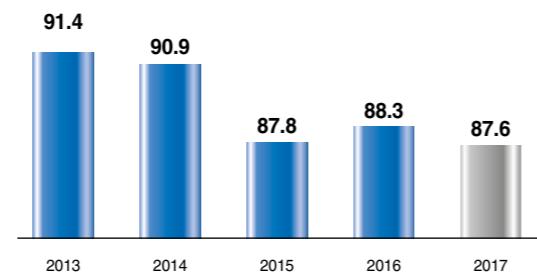
PJSC FGC UES renders electric energy transmission services on the territory of the Russian Federation up to the state border of the Russian Federation in accordance with the terms of the contract with PJSC Inter RAO, through grid facilities included in the UNEG and owned or otherwise legally based at PJSC FGC UES.

During the reporting period, the amount of payable capacity averaged 87.6 GW, which is 0.7 GW less than

in 2016 due to the gradual transition of subsidiaries and affiliates of PJSC Rosseti to actual capacity calculations (in a number of regions capacity was reduced starting on 01 July 2017).

The foreign trade turnover of electric power does not exert a tangible influence on the volume of paid grid services of FGC for export / import. In 2017, exports decreased slightly, but imports almost doubled.

**Power capacity paid for by consumers for the transfer of PJSC FGC UES to the UNEG, GW**



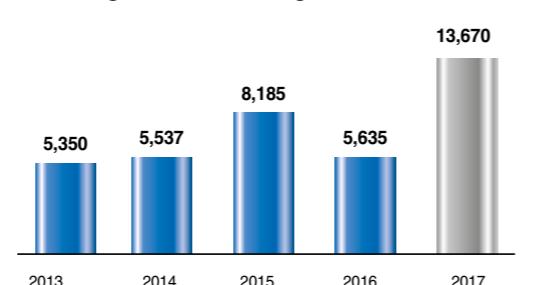
<sup>6</sup> Reduction in the volume of services in 2015 is caused by a change in the procedure for calculating the value.

## Market of services for technological connection

The dynamics of the physical volume of services for technological connection in recent years did not have a pronounced tendency, as it is largely determined by the power requirements for investment projects of consumers and electricity producers.

The significant increase in physical volumes in 2017 was caused by the completion of large-scale technological connection projects: power units of Rostov NPP and Novovoronezh NPP-2, hydroelectric units of Nizhne-Bureyskaya HPP, Boguchanskaya HPP and their documentary registration with the signing of TC certificates.

**Maximum capacity under the completed technological connection agreements, total, MW**



**Alexey Molsky,**

Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES

## – How is the interaction with the energy systems of neighboring countries organised?

Currently, FGC UES, within the framework of the advisory bodies of the Eurasian Economic Commission, takes an active part in the systemic work on forming a common electric power market of the Eurasian Economic Union. This work includes the development of the draft International Agreement and a number of other international regulatory legal acts necessary for the formation and full-scale operation of a common electric power market of the Union.

In this market, we will perform the functions of an infrastructure organisation as a grid operator that ensures the implementation of mutual electricity trade between the participants of this market. We will also participate in providing interstate energy transmission through the territories of the member states of the Union, including interstate transfer through the territory of the Russian Federation.

Currently, there are agreements on the parallel operation of the Russian UES with the electric power systems of foreign countries – Georgia, Azerbaijan, Kazakhstan, the Baltic States and the Republic of Belarus. In addition, agreements on the technical maintenance of parallel work have been signed with Ukraine, the Republic of Belarus and Mongolia. An Intersystem Agreement with Finland and an Inter-system Agreement with the People's Republic of China have also been signed.

## SOLVING LARGE-SCALE TASKS THROUGH EFFECTIVE DEVELOPMENT

# DEVELOPMENT STRATEGY

FGC's strategic plans allow the Company to steadily follow its mission, while responding to a number of technological and economic challenges related to the development of the electric power industry and consumers requirements.

Fullfilment of the Company's strategic goals is achieved through the adoption and implementation of a number of programmes, which include, in particular:

- The long-term development programme,
- The investment programme,
- The innovative development programme,
- The Unified Technical Policy,
- The import substitution programme of equipment, technologies, materials and systems,
- The energy saving and energy efficiency programme,
- The programme to improve investment and operational efficiency and reduce costs,
- The environmental policy.

## THE MISSION OF FGC

IS TO ENSURE RELIABLE OPERATION AND ADEQUATE GROWTH OF THE ECONOMIC DEVELOPMENT OF THE UNEG WITH HIGH ECONOMIC EFFICIENCY AND MAXIMUM COST REDUCTION.



*A list of other programmes that come into play as part of the strategic development plans and the Company's Long-term Development Programme is given in [Appendix 1](#).*

### Long-term development programme

The main strategic development directions of FGC are set out in the Long-Term Development Programme (LDP), approved in 2014.

The programme was developed in accordance with the targets and provisions of the Strategy for the Development of the Russian Federation's Electric Grid Complex and the Methodological Recommendations for the Development of Long-Term Development Programmes of the Ministry of Economic Development of Russia, agreed with the interested federal executive bodies and approved by the Government of the Russian Federation.

The LDP takes into account risks that may affect the implementation of FGC's strategic plans, and provides for measures to mitigate them.

To monitor the implementation of activities and the actual results achieved by FGC as outlined in the LDP, an audit was conducted, the results of which are presented in the audit report dated 08 May 2018. An independent auditor compared the values of the key performance indicators of the Long-Term Development Programme achieved in 2017 with the targets and analysed the reasons for the deviations. Based on the results of the analysis, the auditor determined the reliability of the actual values of the Company's performance indicators and establishes the correspondence between the values of the actual indicators and their planned values.



**Maria Tikhonova,**

Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES

### – What changes in the Company's long-term development plans took place during the reporting year?

In 2017, in accordance with the recommendations of the Strategy Committee of the Board of Directors, PJSC FGC UES began the development of a new Long-Term Development Programme (LDP). The main period of the current LDP ends in 2019. A significant part of the activities aimed at achieving the strategic goals of the LDP have been implemented already: the planned indicators for reducing specific operating and investment costs and improving labour productivity, energy saving, and energy efficiency have been achieved. A great deal of work has been done to develop and introduce innovative products and technologies in joint projects by PJSC FGC UES and domestic manufacturers, and in other relevant areas.

The new Long-Term Development Programme of the Company will take into account the changes in social and economic conditions, new challenges and opportunities, and the significant experience we've acquired in the process of solving the strategic tasks of the current programme. It is still too early to talk about the content of the LDP being developed in detail, but the Company's management is keeping in mind both traditional, basic goals of maintaining a high level of reliability of energy supply to consumers, improving the management of the UNEG, improving customer relations, and maintaining financial stability, as well as current innovative development challenges: digitalisation of substations, increasing the level of automation in the management of technological processes and production asset management, and increasing the level of automation in the management of UNEG remote objects.

The Company is also exploring the possibility of consolidating electric grid facilities that meet the criteria for being part of the UNEG facilities under the management of PJSC FGC UES, including the legal, economic, financial, tax and regulatory / technical aspects.

<sup>7</sup> Approved by decision of the Board of Directors, Minutes No. 243 dated 22.12.2014.

<sup>8</sup> Approved by decree of the Government of the Russian Federation No. 511-r dated 03.04.2013.

## Strategic priorities and tasks



### Reliability of energy supply to consumers

#### Strategic Objectives

To maintain a high level of reliability in the transmission of electricity, and to reduce shortages of electricity.

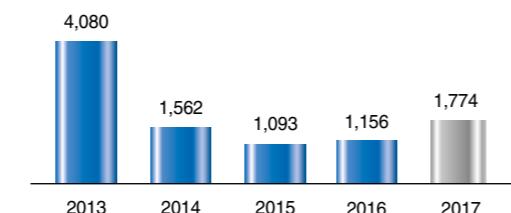
#### Results of 2017

**18%**

— decrease in the number of accidents at FGC facilities year-on-year.

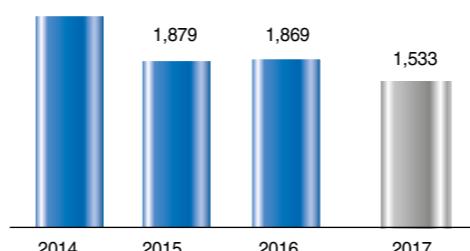
#### Dynamics of power shortage of PJSC FGC UES, MWh

(according to acts of accident investigation)



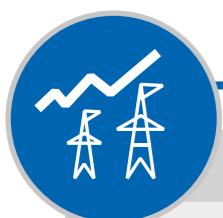
#### Number of accidents at the facilities of PJSC FGC UES

2,348



#### Plans

- Implement the Regulation on the Unified Technical Policy in the Electric Grid Complex, a document that establishes the main technical directions that ensure an increase in the reliability and efficiency of the FGC grid complex.
- Implement plans for maintenance and repair.
- Maintain high reliability indicators while paying special attention to personnel actions, operation of power lines and automatic reclosing devices on overhead lines.
- Decrease the share of equipment that has reached the end of life through the implementation of projects for the reconstruction, modernisation, and technical re-equipment of fixed assets as part of the PJSC FGC UES investment programme.
- Create an effective control system for the functioning of the UNEG to ensure increased observability of electric grid facilities.



### Development of the UNEG infrastructure

#### Strategic Objectives

Carry out investment projects on schedule, including those of national importance.

Develop mechanisms for financing investments in the development of the UNEG to create the possibility of technological connection with non-tariff sources.

Ensure the timely development of the UNEG infrastructure in places of "real" demand growth.

Introduce modern innovative technologies aimed at transforming the power grid complex into an intellectual (actively-adaptive) core of the technological infrastructure of the Russian electric power industry.

#### Results of 2017

4,925 MVA of transformer capacity were put into operation with a plan of 4,245 MVA and 1,217 km of power transmission lines with a plan of 1,219 km.

The commissioning of the facilities was carried out within the timeframe determined by the investment programme approved by Order of the Ministry of Energy of Russia No. 31@, dated 27.12.2017.

Technical solutions for building new and increasing the capacity of existing electric grid facilities have been optimised.

Innovative projects and development projects of supporting types of equipment were implemented.

A list of 32 facilities has been approved within the framework of which the use of domestic elements of the digital substation is planned.

#### Plans

- As part of the implementation of the Company's 2016-2020 investment programme, we plan to put the following into operation in 2018-2020:
  - 26.9 thousand MVA of transformer capacity,
  - 8.9 thousand km of power transmission lines.
- The total volume of investment planned for 2018-2020 is RUB 289.1 billion.
- Improve the business process of planning and monitoring investment projects.
- Conduct price and technological audits of large investment projects worth RUB 1.5 billion or more.
- Implement the Innovative Development Programme of PJSC FGC UES:
  - further development of the Corporate Management Information System and other projects of the Company's IT strategy for 2014-2020,
  - implementation of measures aimed at import substitution.

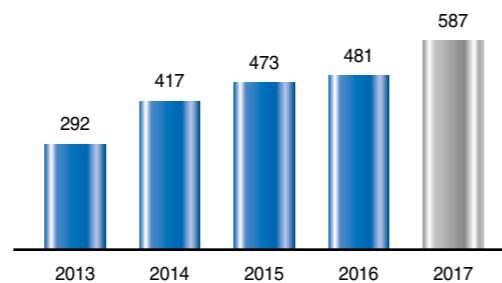
**Customer Satisfaction****Strategic Objectives**

Introduce an economic model of technological connection, based on a balance of interests and fair distribution of risks between the applicant and the Company.

Increase the level of customer service for technological connection and transmission of electrical energy.

**Results of 2017**

**587** – total number of counterparties of the Company under contract for the provision of electricity transmission services.

**Plans**

- Based on the questionnaire survey conducted in 2017 aimed at revealing the degree of customer satisfaction with the quality of technological connection services provided, the satisfaction score on the 10-point scale was 9.2 points.

- In order to improve the level of customer service, the possibility of filing an application for technological connection (TC) in electronic form on the TC portal of PJSC FGC UES corporate site was implemented. It is planned to optimise the work of FGC UES employee interaction with the applicants, observance of the terms for processing documents and performance of tasks.

**58.6** million kWh – the technological effect of implementing measures to reduce energy losses.

**17** large technological connections:  
three installations of power plants,

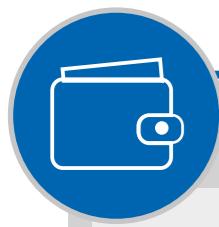
**14** connections of power consumers' facilities.

The PJSC FGC UES Council of Consumers has been formed and is operating. It considered:

- the results of activities on technological connection and transmission of electric power,
- results and effectiveness of the investment programme,
- reports on technological and price audit of investment projects,
- areas for improvement of the regulatory and legal framework in the electric power industry,
- issues of introducing innovative technologies in the UNEG.

The quality level of the technological connection to the grid is maintained at a consistently high level:

- 2016 – 1.0252,
- 2017 – 1.01798.

**Financial stability****Strategic Objectives**

- Maintain PJSC FGC UES' credit rating at the level of the sovereign rating.
- Phased consolidation of electric grid facilities included in the UNEG\*.

**Results of 2017**

The stand-alone credit ratings assigned by Moody's, Standard & Poor's, and Fitch Ratings Ltd as of December 31, 2017, are at the Ba1 / BB + / BBB- levels corresponding to the sovereign rating level.

In 2014-2017, contracts on the use of certain UNEG facilities were concluded or prolonged.

**Plans**

- Implement the approved Procedure for managing receivables and payables.
- Analyse the possibility of consolidating electric grid facilities meeting the criteria for being part of the UNEG facilities under the management of PJSC FGC UES, including the legal, economic, financial, tax, and regulatory and technical aspects.



For information on the consolidation of electricity grid assets, see Appendix 1.

**Economic efficiency****Strategic Objectives**

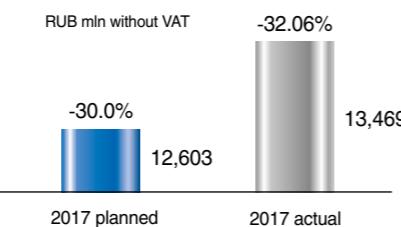
1. Implement the investment programme in conditions of tariff restrictions with a decrease in specific investment costs by 30% by 2017 (relative to 2012) and a minimum reduction in physical indicators.

2. Reduce specific operating costs by 25% by 2017 (relative to 2012). At the same time, measures to reduce costs should not adversely affect the level of reliability and do not lead to increased costs in future periods.

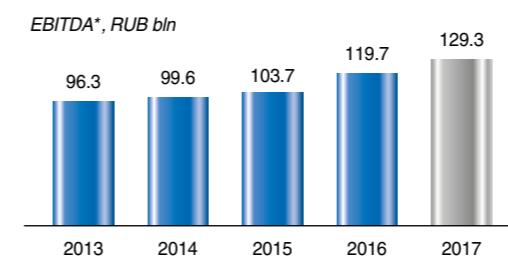
3. To use the programme-target principle in the formation of investment programmes, within the framework of which the activities of investment programmes aimed at meeting the targets will be grouped and combined by quantitative indicators reflecting the effect from the implementation of these activities.

**Results of 2017**

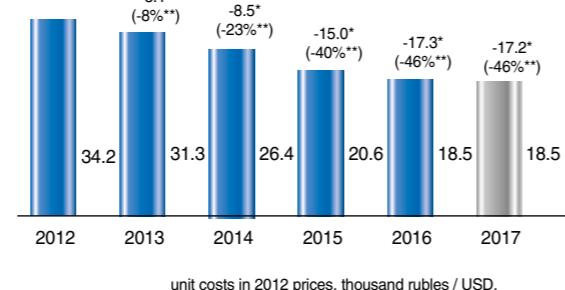
1. When executing the investment programme for 2017, the effect of reducing investment costs reached 30%.



3. The efficiency of operations and management has improved.



2. Specific operating expenses were reduced by 46% compared to the level of 2012 (the total effect from the reduction of operating costs amounted to RUB 17.2 billion).



unit costs in 2012 prices, thousand rubles / USD.

\* Effect of reducing costs, billion rubles.

\*\* Decrease in the level of specific Opex is determined from the adjusted base of 2012 in connection with the approval of new standards for SF6 gas equipment, as well as on 330 kV, 500 kV cable lines (in accordance with Order No. 482 of PJSC FGC UES dated 03.12.2015 "On Approval of the Methodological Guidelines for Calculating the Amount of Servicing of PJSC FGC UES in Conditional Units").

**Plans**

Further implementation of programmes aimed at reducing costs and increasing the efficiency of PJSC FGC UES activities, including the Import Substitution Programme for 2015-2019.

Realisation of the project on increasing the professional productivity of industrial and production personnel:

- identification of reserves and reduction of working time losses of production personnel,
- consolidation of management units, expansion of service areas,
- optimisation of the load on personnel,
- improving the quality of repair planning,
- introduction of typical maintenance schemes.



For information on improving reliability, see the section *Production Capital / Production Results*.

For information on the UNEG development, see the section *Production Capital / Production Results*.

For information on financial results, see the section *Financial Capital / Financial Results Analysis*.

For information on KPI, see the section *Development Strategy / Key Performance Indicators*.



## Key Performance Indicators

The Company has developed a system for measuring targets based on key performance indicators (KPIs) and provided management motivation to meet the KPI targets that characterise the achievement of the Company's development goals.

The KPI motivation system consists of quarterly and annual reviews and applies to managers at all levels, from top management, heads of structural units of the executive body, as well as branches and subsidiaries.

The motivation system is based on KPIs which are designed to evaluate the effectiveness

and bonuses of senior management<sup>9</sup>, and also used to assess the established objectives of the Company's activities, as part of the LDP and business plan.

PJSC FGC UES has a multi-level KPI system: the Company's level (KPI of senior managers), the level of the executive office of the Company<sup>10</sup>, and the level of PJSC FGC UES branches - MPSs and EMPS<sup>11</sup>.

The KPIs of each level of management are established and monitored at a higher level of management, which allows for the implementation of an end-to-end monitoring mechanism.

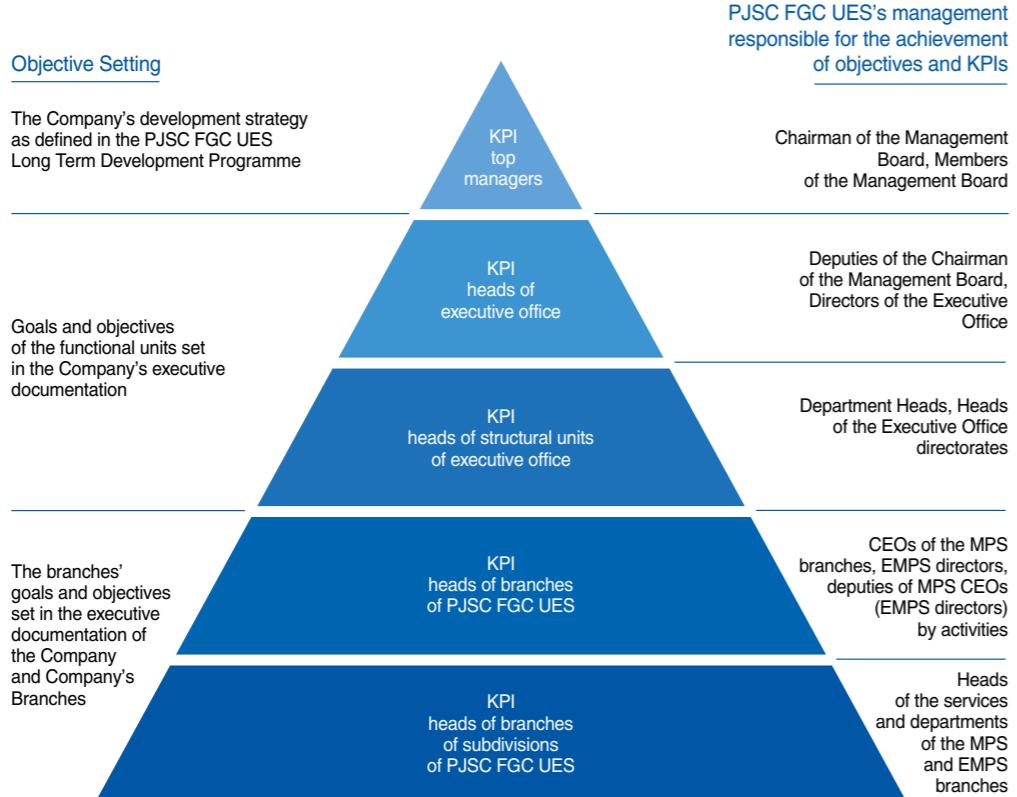
<sup>9</sup> Determined by the Methodology for calculating and evaluating whether KPIs are met by top managers, approved by the Board of Directors of the Company (Minutes No. 370 dated 13.06.2017).

<sup>10</sup> The order of PJSC FGC UES approved the Regulation on key performance indicators of the executive office and branches of PJSC FGC UES (Order No. 519 dated 11.12.2017). The KPI system of the heads of the executive office and divisions of the Company's branches was approved by order No. 145 of PJSC FGC UES dated 29.04.2016 "On Approval of the Methodology for Calculating and Evaluating the Implementation of KPIs by the Heads of the Executive Office and the Divisions of the Branches of PJSC FGC UES - MPS".

<sup>11</sup> The KPI system of the heads of the Company's branches was approved by the order No. 143 of PJSC FGC UES dated 26.04.2016 "On approval of the Methodology for Calculating and Evaluating the Implementation of KPIs by the Heads of the Branches of PJSC FGC UES".



Information on key changes in the KPI system for top managers in 2017 compared to the previous year is given in [Appendix 1](#).



## KPI in relation to strategic objectives

Strategic Objective	KPI	2016		2017		2018
		Actual KPI values	Target KPI values	Assessment of the performance of KPI (met / not met)	Target KPI values	
Reliability of energy supply to consumers	Lack of growth in major accidents	Quarters 1, 2, 3, 4 – lack of growth	Lack of growth	Quarters 1, 2, 3, 4 – lack of growth	Lack of growth	
	No increase in the number of injuries	Q1 – goal not met Q2 – goal not met Q3, Q4 – goal met	Lack of growth	Q1 – goal met Q2 – goal met Q3 – goal not met Q4 – goal met	Lack of growth	
Development of the UNEG infrastructure	Implementation of the schedule of commissioning of facilities	114 %	≥ 90 %	104%	≥ 90 %	
Customer Satisfaction	Compliance with the deadlines for technological connection	1.0	≤ 1.1	1.0	≤ 1.1	
	Achieving the level of reliability of services provided	0.28	≤ 1.00	0.23	≤ 1.00	
Economic efficiency	Consolidated operating profit (EBITDA)	----	for Q1, 6 months and 9 months of the reporting year ≥ 0; for the year ≥ 5.3%	Qs 1, 2, 3 - met; the year - met	for Q1, 6 months and 9 months of the reporting year ≥ 0; for the year ≥ 3.0%	
	Consolidated net cash flow	----	≥ RUB -6,394 million	RUB 20,581 million	≥ planned value as per accounting income of the IFRS	
	Reducing unit operating expenses (costs)	23 %	≥ 3.0 %	3.3 %	≥ 2.0 %	
	Increase in capacity utilisation of electric grid equipment	----	met	met	met	
	Power loss level	met	met	met	in accordance with the approved scenarios of the accounting income	
	Reduction of specific investment costs	0.97	≤ 1.00	0.98	≤ 1.00	
	Increase in labor productivity	4,264 rubles / man-hour	≥ 5.90 %	14.77 %	≥ 2.00 %	
	Efficiency of innovation activities	107 %	≥ 90 %	----	≥ 90 %	
Financial stability	Consolidated net debt / EBITDA	----	Quarters 1, 2, 3, 4 ≤ 3.0	Quarters 1, 2, 3, 4 - met	Quarters 1, 2, 3, 4 ≤ 3.0	
	Implementation of the plan of measures to reduce accounts receivable	----	≥ 100.0 %	Quarters 1, 2, 3, 4 - met	≥ 100.0 %	

## STRATEGY IN ACTION - RESPONSIBLE CAPITAL MANAGEMENT

## PERFORMANCE RESULTS FOR 2017

**Manufactured capital**

Management of manufactured capital – is the effective use of the Company's own production facilities, as well as the production facilities of contractors and suppliers.

Manufactured capital is the production assets available to FGC UES for the provision of services, including equipment and infrastructure.

FGC runs the Unified National (All-Russian) Electric Grid (UNEG) and provides electricity transmission services to consumers through the UNEG. Such services are monopolistic and regulated by the state. Payment for electricity transmission services is the main source of the Company's revenue (approximately 80% of revenue).

The cost of electricity transmission services is determined by tariffs calculated by the commercial operator of the wholesale electricity market (JSC ATS) and established by the Federal Antimonopoly Service (FAS Russia). The main

consumers of FGC transmission services are regional distribution companies, distribution companies, and large industrial enterprises.

Reliability and safety of UNEG operation is provided by management systems.

The Company operates:

- quality management system,
- environmental management system,
- energy management system.



Information on management systems is given in Appendix 1

The Company has a Regulation on the Unified Technical Policy in the power grid complex, which was approved by the Board of Directors of PJSC Rosseti (minutes No. 138 dated 23.10.2013) and was brought into effect as an internal document of PJSC FGC UES by decision of the Board of Directors of PJSC FGC UES (minutes No. 208 dated 27.12.2013). The purpose of FGC's Unified Technical Policy in the power grid complex is to determine the main technical areas to ensure the reliability and efficiency of the power grid

complex in the short and medium term, with proper industrial and environmental safety, based on innovative development principles, and ensuring non-discriminatory access to electric grids for all market participants.



The document is published on the site <http://www.tsk-ees.ru> in the section [About company / Technical policy](#).

Control over the implementation of the Unified Technical Policy in the power grid complex is carried out by PJSC FGC UES' dedicated structural subdivisions through expert examination:

- development schemes and development programmes for the UNEG and the electric power industry of the subjects of the Russian Federation;
- power output schemes for power plants and external power supply schemes for enterprises;

- technical conditions for technological connection;
- tasks for the design of construction (expansion, reconstruction, technical re-equipment, modernisation) of electric grid facilities;
- design and working documentation for the construction, reconstruction and technical re-equipment of substations and power lines;
- procurement documentation and technical and commercial proposals of participants in procurement procedures for the implementation

of design and survey, construction and installation works and the supply of equipment, technologies and materials for the needs of the power grid complex, as well as in the implementation of operational activities.

In 2017, one of the Company's foundational documents in the field of substation design was updated,

namely PJSC FGC UES's policy on "Standards for the technological design of AC substations with a high voltage of 35-750 kV0 (NTP PS)".



Information on PJSC FGC UES's corporate standards developed in 2017 is given in Appendix 1.

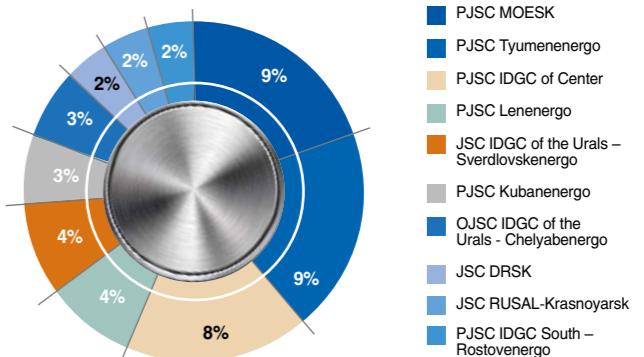
**Transmission of electricity****RELIABILITY AND QUALITY OF ENERGY SUPPLY**

Based on the results of PJSC FGC UES' performance in 2017, the volume of electricity supply from the UNEG to consumers amounted to 547,351 million kWh, which is 6.8 million kWh (by 1.26%) more than in 2016.

	2017 target	2017 result	2018 target
Electricity supply from the UNEG to service consumers, million kWh	533,753	547,351	546,366
Electricity losses in the UNEG, million kWh	24,890	24,307	25,415

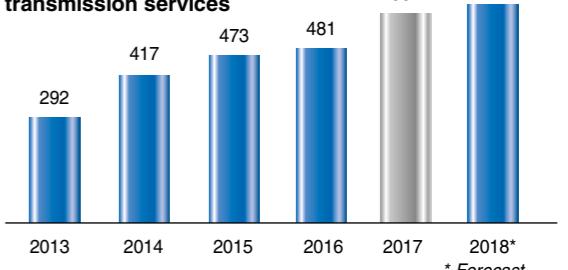
In 2017, the number of contracts increased due to measures for a new technological connection to the UNEG, as well as through the termination of the "last mile" mechanism in 16 regions of the Russian Federation in accordance with Federal Law No. 308-FL dated 06.11.2013.

According to 2017 totals, the total number of the Company's contractors under contract for the provision of electricity transmission services increased to 587.

**Largest consumers of services by revenue from the sale of electricity transmission services in 2017**

THE NUMBER OF CONTRACTORS WORKING WITH THE COMPANY UNDER CONTRACT FOR THE PROVISION OF ELECTRICITY TRANSMISSION ANNUALLY HAS GROWN. AS OF THE END OF 2017 THERE WERE

**587 CONTRACTORS**

**Number of contractors under contract for the provision of electricity transmission services**

## Electricity transmission services market

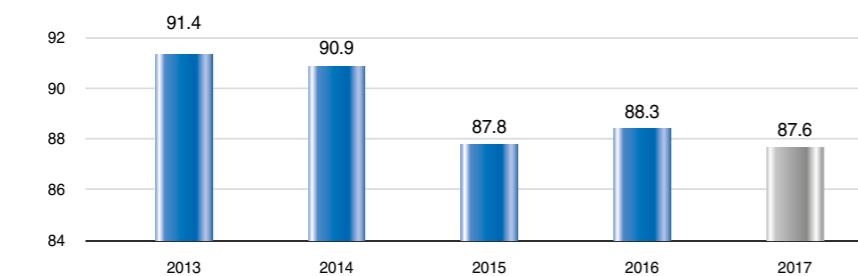
Up until 01 August 2017, PJSC FGC UES acquired electric energy and power on the wholesale electricity market (WEM) to compensate for actual losses in the UNEG, except for losses recorded and paid for by participants in the WEM at equilibrium prices.

However, after 01 August 2017, in accordance with the Russian Federation Government Resolution No. 810 dated 07.07.2017, PJSC FGC UES has been acquiring electric energy in the amount corresponding to the actual volume of losses in the UNEG.

The purchase is carried out in the territories of the Russian Federation, which are united in price and non-price zones.

Markets for goods and services in a state of natural monopoly depend to a large extent on the general state of the country's economy. The volume of services in the grid is determined by the amount of power released to consumers of transmission services and the power levels of power receivers connected to the grid.

**Power paid for by consumers of services for the transfer of electricity via the UNEG, GW**



In 2017, the amount of payable capacity averaged 87.6 GW. The decrease in paid capacity in 2017 compared to 2016 amounted to 0.7 GW.

(EU12) Electricity losses in 2017 amounted to 24,307 million kWh (4.44% of the supply of electricity from the grid to consumers of transmission services via the UNEG).

**Dynamics of production activity in 2014-2017, mln kWh**

	2014	2015	2016	2017
Supply of electricity to consumers of services	515,250	525,769	40,540	547,351
Electricity losses in the UNEG	21,261	23,478	25,033	24,307

THE TECHNOLOGICAL EFFECT FROM THE IMPLEMENTATION OF MEASURES TO REDUCE ENERGY LOSSES BY THE END OF 2017 AMOUNTED TO

**58.6  
MILLION KWH**

The reduction in power losses was made possible by a change in the UNEG operation mode in 2017 due to a change in the loading mode of power plants and the redistribution of the load of service consumers in the grids of PJSC FGC UES.

Measures to reduce energy losses were approved under the Energy Saving and Increasing Energy Efficiency Programme of PJSC FGC UES for 2015-2019 and implemented in three key areas:

- optimisation of circuit and mode parameters in operation and operational management of electric grids,
- reduction of power consumption for the needs of substations,
- construction, reconstruction and development of electric grids, commissioning of energy-saving equipment (loss reduction has a concomitant effect).



## Technological connection

### CUSTOMER SATISFACTION

The company provides a comprehensive service for connecting consumers' power receivers, power generation facilities, and electric grid facilities to the electric grids of FGC. The service includes the acceptance of an application for technological connection, the development of technical conditions, the conclusion of a contract, the receipt of permission from the federal state energy supervision authority for access to operation of the applicant's facilities, and the issuance of a certificate of connection.

During the reporting year, the Company carried out technological connection for 271 agreements for technological connection. Seventeen of these were large technological connections, of which 3 were power plant connections and 14 were power consumer facility connections.

**17**

MAJOR  
TECHNOLOGICAL  
CONNECTIONS  
WERE CARRIED OUT  
IN 2017.

### – What were the largest projects of connection of power generation facilities and power installations of consumers to grids carried out by the Company in 2017?

During the reporting year, there were 17 large technological connections: three power plant connections and 14 power consumer facility connections.

One of the most significant projects was the project to connect power unit No. 4 of Permskaya GRES. This made it possible to improve the systematic reliability of the power supply to consumers in the industrial centres of the Perm Region and the Verkhnekamsk industrial hub, including for oil production and refining, petrochemical, machine building, non-ferrous and ferrous metallurgy. The ability to transfer additional power capacity also increased the flow of electricity to neighboring regions, namely the Sverdlovsk and Kirov regions, and the Republics of Udmurtia and Bashkortostan.

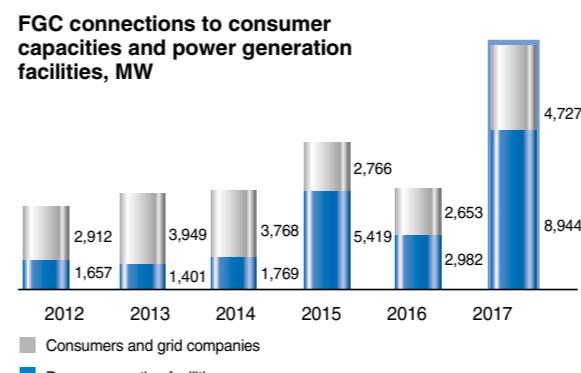
FGC UES has put into operation a new power transmission line to the Arkhara substation, intended for power delivery to the Nizhne-Bureyskaya HPP. The length of the 220 kV line Nizhne-Bureyskaya HPP – Arkhara is 52 km.

Power unit No. 3 of Chelyabinsk SDPP [State District Power Plant] was also connected.

Among large projects on technological connection of electricity consumers, there were the JSC EESK (500 kV SS South, 223 MW) in the Sverdlovsk region and LLC NLMK-Kaluga (500 kV Kaluzhskaya, 222.4 MW) in the Kaluga region.

**Alexey Molsky,**

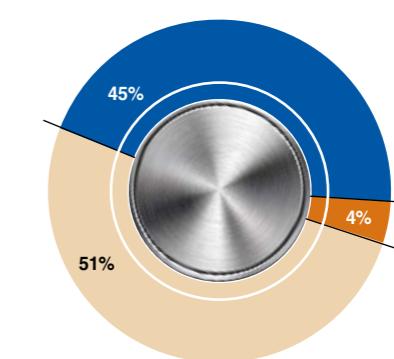
Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES



**Structure of consumers of the Company's services for technological connection (estimated by the number of contracts concluded in 2017)**



Information on major technological connections in 2017 and those planned for 2018 is given in Appendix 1.





## Increased reliability of the power supply in the Russian regions

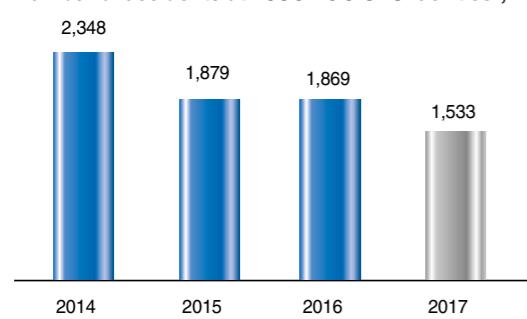
### RELIABILITY AND QUALITY OF ENERGY SUPPLY

FGC UES' work is aimed at ensuring the reliable and uninterrupted operation of the UNEG.

In 2017, due to the introduction of new equipment, improvement of skills and professionalism of maintenance personnel and other efforts, the specific accident rate at FGC facilities decreased by 19%. The number of staff errors has decreased almost twofold compared to 2016; they were less than 1% of the total number of accidents. Accident reduction was recorded across all equipment groups and in all MPSs (main power systems). The leading MPSs in the reduction of accidents were the Urals (-34%) and MPS of the South (-30%).

An analysis of technological violations on transmission lines showed that most emergencies occurred due to

#### Number of accidents at PJSC FGC UES facilities\*, incidents



Starting from 01.01.2017, in accordance with the Minutes of the production meeting of the technical management of PJSC FGC UES and JSC SO UES, in addition to the existing order of investigation of accidents, an investigation and recording of events related to the withdrawal of equipment of substations and overhead lines from the work on "urgent" dispatching applications and violations in the work of the DOCS [dispatcher operations control system] were organised, which do not fall under the requirements of paragraph 4 of the Rules of Investigation of accidents in the electric power industry. For a correct comparison of the number of accidents, the data on the number of accidents for 2014-2016 were supplemented by the above events on the basis of materials provided by JSC SO UES. Comparison with the indicators of 2013 and earlier will be incorrect.

The number reflecting electricity shortage to consumers of services has stabilised within the medium-term. In 2017, the value increased to 1,774 MWh (by 53%) compared to 2016. The increase in the indicator is associated with an increase in the requirements for the composition of technological irregularities that are taken into account when calculating reliability indicators by Order No. 1256 of the Ministry of Energy of Russia dated 29.11.2016 and the corresponding order of PJSC FGC UES No. 168 dated 10.05.2017.

#### Indicator of the level of reliability of services provided<sup>13</sup>

2013		2014		2015		2016		2017	
planned	actual								
0.048	0.020	0.047	0.020	0.036	0.013	0.035	0.012	0.035	0.009

<sup>13</sup> The reliability of services rendered is calculated as the ratio of the actual total duration of all cessation of transmission of electricity to consumers of services for the period of regulation (hour) to the maximum for the period of regulation by the number of points of consumers connection.

thunderstorms and other natural and climatic phenomena. These were 55% of all violations; another 18% of violations were due to the normal activity of birds. Another 10% of violations were due to the impact of the third parties and organisations.

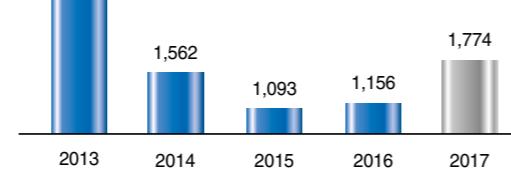
RELIABILITY OF THE COMPANY'S GRIDS IS INCREASING EVERY YEAR. IN 2017, THE SPECIFIC ACCIDENT RATE AT FGC FACILITIES DECREASED BY

**19%**

#### Accidents at PJSC FGC UES facilities (number of accidents per 1,000 conventional units)



#### Electricity shortage rates of PJSC FGC UES, MWh



In 2018, in order to maintain highly reliable measurements, special attention will be paid to personnel actions, the operation of power lines, and automatic reclosing devices on overhead lines.

### Renovation of fixed assets

The renovation programme of fixed assets is aimed at ensuring reliable and efficient operation of the power grid complex.

The investment projects of this Programme are part of the adjustment of the Company's Investment Programme for 2016-2020<sup>14</sup> and are presented in section 0.2: "Reconstruction, modernisation, and technical re-equipment" of the Investment Programme of PJSC FGC UES.



Posted on the Company's website at [http://www.fsk-ees.ru/investments/investment\\_program/2016\\_2020/](http://www.fsk-ees.ru/investments/investment_program/2016_2020/).

<sup>14</sup> Approved by Order of the Ministry of Energy of Russia No. 31@ dated 27.12.2017.

### Financing of the Renovation Programme

Year	Amount of financing, RUB mln (VAT included)	MVA	MVAr	km of PL
2016*	21,138.09	4,002	806	13.51
2017*	19,218	2,693	152	0.21
2018**	30,418.55	1,845	743.4	56.28
2019**	31,905.22	3,295	149.5	153.20
2020**	24,875.11	4,852	564	20.32
<b>Total</b>	<b>127,284.97</b>	<b>16,687</b>	<b>2,414.9</b>	<b>243.52</b>

\* Actual data for 2016 and 2017.

\*\* Planned data for 2018-2020.

### Repair programme

In the framework of PJSC FGC UES's repair programme in 2017, repairs and maintenance of substation equipment and high-voltage lines were performed. Also, a number of unscheduled projects was carried out in order to implement the priority measures for preparing the electric power engineering entities for the autumn-winter period 2017-2018.

Actual expenses for repairs and target programmes for 2017 amounted to RUB 11,519 million.

PLANNED  
REPAIR WORK  
WAS COMPLETED  
**IN 2017**  
IN FULL



The results of the repair programme are outlined in Appendix 1.

## Operational, technological and situational management

Operational and technological management is a set of measures taken to ensure the reliable operation of UNEG facilities and the fulfillment of the technological operating modes set by the dispatch centres of the System Operator.

The Company's operational and technological management involves solving situational management tasks, which are a set of measures taken in accordance with a contingency or emergency situation at the grid

facilities (analysis and assessment of the risks of occurrence and consequences of situations, adoption and implementation of relevant management decisions).



*Information on operational, technological and situational management activities, as well as on the dynamics of indicators of the effectiveness of operational, technological and situational management, is given in Appendix 1.*

## Work in special periods

Weather and climate conditions have a significant impact on the activities of PJSC FGC UES. The electric grid equipment, buildings and structures are prepared in advance for special periods: autumn-winter (conditions of low temperatures and maximum loads), flood, fire and thunderstorm (conditions of natural anomalies).

In 2017, the UNEG operated in a normal mode, including in special periods.

On a permanent basis, the company has 44 centres focused on ensuring the reliable operation of facilities in emergency and contingency situations. The Company had 566 stand-by power sources with a total capacity of 170.5 MW.

## Industrial Safety Management

The operation of hazardous production facilities is carried out in FGC UES within the framework of the fulfillment of the requirements of Federal Law No. 116-FL dated 21.07.1997, "On Industrial Safety of Hazardous Production Facilities", and other regulatory legal acts in the field of industrial safety.

264 hazardous production facilities of III and IV hazard classes are in operation by PJSC FGC UES, which are identified by the following characteristics:

- use or storage of hazardous substances;
- use of equipment operating at a pressure of more than 0.07 MPa or at a water heating temperature of more than 115° C;

ON 27.10.2017

COMMISSION OF THE MINISTRY OF ENERGY OF RUSSIA ISSUED A PASSPORT OF THE COMPANY'S READINESS FOR WORK IN THE AUTUMN-WINTER PERIOD 2017-2018.

- use of permanently installed lifting mechanisms.

Industrial safety management system requirements are established by the legislation only for I and II hazard class facilities. There are no such facilities within FGC. Ensuring the safe operation of PJSC FGC UES's hazardous production facilities, preventing accidents at these facilities, and ensuring preparedness for the localisation of accidents and the elimination of their consequences is carried out through the organisation and implementation of production control.

## Results of industrial safety

The Company's main activities in 2017:

- identification, registration / exclusion, and re-registration of hazardous production facilities with the establishment of a hazard class in the State Register of Hazardous Production Facilities;
- interaction with Rostekhnadzor and the Ministry of Emergency Situations of Russia to amend

Article 10 of Federal Law No. 116-FL dated 21.07.1997 "On Industrial Safety of Hazardous Production Facilities" when establishing the obligation of the operating organisation to enter into service contracts with professional rescue services or professional emergency teams, taking into account the hazard class of hazardous

production facilities, their category, and the severity of the consequences of the accident on them;

- Measures to conduct industrial safety expert review of pipelines operated in the branches of PJSC FGC

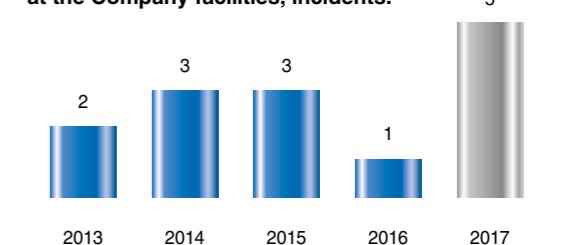
UES – MPS, EMPS (enterprises of the main power systems).

All industrial safety requirements are fulfilled in accordance with the procedure established by law.

PJSC FGC UES'S HAZARDOUS PRODUCTION FACILITIES HAD NO INCIDENTS OR ACCIDENTS REGISTERED

IN 2005-2017

Recorded cases of fires at the Company facilities, incidents.



*Information on the number of fire-prevention and firefighting exercises conducted by operational personnel is given in Appendix 1.*

## Investment activities

### DEVELOPMENT OF THE UNEG INFRASTRUCTURE

The company carries out construction of new and reconstruction of existing electric grid infrastructure facilities. Particular attention is paid to modernising and improving the reliability of the

unified power system for uninterrupted power supply to consumers.

FGC UES's investment programme for 2016-2020 was approved in 2016<sup>15</sup> and revised in 2017<sup>16</sup>.

Investments in the development of grid infrastructure are the basis for reliable energy supply and an important economic growth factor.

<sup>15</sup> Order of the Ministry of Energy of Russia No. 1432 dated 28.12.2016.

<sup>16</sup> Order of the Ministry of Energy of Russia No. 31 @ dated 27.12.2017.

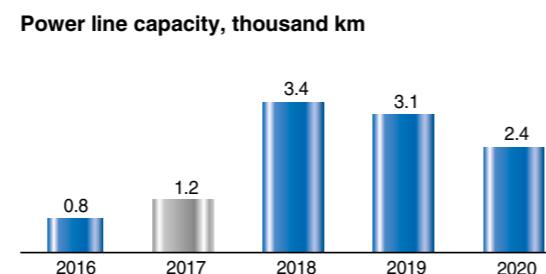
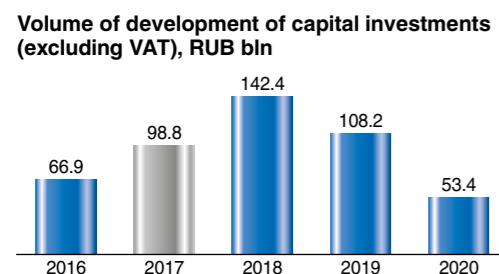
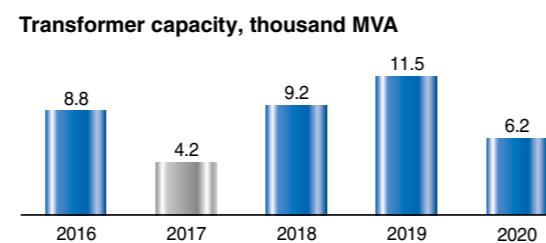
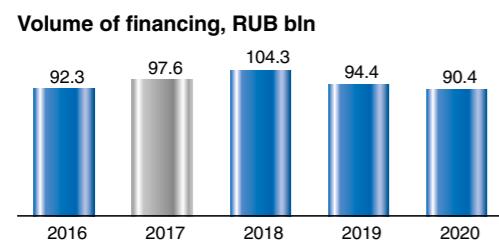
The main objectives of FGC's investment programme are to:

- maintain the reliability of the operation of the unified power system necessary for uninterrupted power supply to consumers;
- provide power supply for facilities of significant national importance;
- ensuring the quality and accessibility of electricity transmission services and connection to consumers' power grids;
- increase the efficiency of grids by reducing costs and introducing energy efficiency programmes;
- synchronise development programmes with power generation facilities and distribution grids;
- create an effective system for managing the functioning of the UNEG and improving the observability of electric grid facilities;

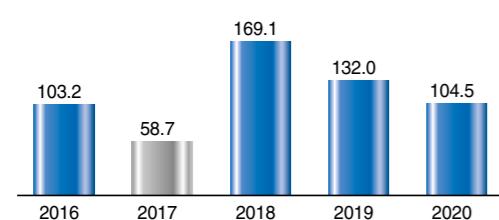
- Ensure uninterrupted power supply in the separate work of the UES of Russia and the ES of the Republic of Ukraine;
- provide external power supply for the facilities of Gazprom's Power of Siberia project.

In the previously approved investment programme for 2016-2020, changes were made with regard to financing facilities that are aimed at developing the electric grid infrastructure in Eastern Siberia and the Far East, including those related to the expansion of the capacity of the Baikal-Amur Mainline and the Trans-Siberian Railway. The programme has also been amended with regard to providing the required amount of financing to provide external power supply to the facilities of PJSC Gazprom as part of the construction of gas production, gas transmission and gas processing facilities in the Far Eastern Federal District (the comprehensive Power of Siberia project ).

#### The main parameters of the approved adjustment of Federal Grid Company's investment programme for 2016-2020:



#### Deployment of fixed assets, RUB bln



**THE COMPANY'S INVESTMENT PROGRAMME INVOLVES ADDING**  
**40.0 GVA OF CAPACITY AND**  
**10.9 THOUSAND KM OF TRANSMISSION LINES**  
**TO THE COMPANY'S FIXED ASSETS IN 2016-2020.**

The total volume of investments planned for 2016-2020 is RUB 479.07 billion. Financing of the investment programme for 2016-2020 is to be provided by PJSC FGC UES' own funds, bonded loans, loans from organisations, and federal budget funds. The programme provides for a uniform distribution of investment costs within a five-year period, which will allow the Company to maintain a balanced structure of financing sources.



**Roman Filimonov,**

First Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES

#### – What can you say about the implementation of the investment programme in the reporting year?

In the reporting year, the volume of financing of the investment programme amounted to RUB 95.6 billion. A number of power facilities across the country have been reconstructed; cities, enterprises and infrastructure have been connected to a reliable power supply. In particular, an updated substation "Starominskaya" was put into operation in the Krasnodar Territory. In the Ivanovo region, a new substation "Vichuga", was launched. The transformer capacity of the Pogorelovo substation in the Rostov region has been increased twice, the new autotransformer has been installed at the Volgograd substation Balashovskaya, and the modernisation of the Arzamasskaya and Borskaya substations has been completed, which supplies most of the population of the Nizhny Novgorod region with electricity.

In the Urals, modernisation of power centers in Yekaterinburg and some Kamensk-Uralsky enterprises – Kamenskaya and Kalininskaya substations – was completed, and the Vector substation was put under the workload to supply the oil and gas sector of the Khanty-Mansi Autonomous Okrug.

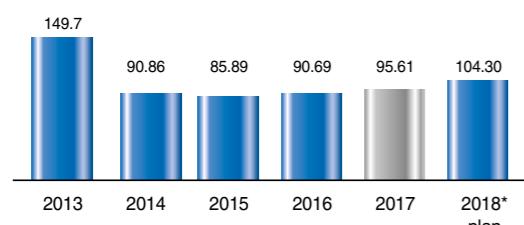
In St. Petersburg and the Leningrad Region, after comprehensive reconstruction, four substations were launched at once: "Primorskaya", "Semiconductors", "Zapadnaya" and "Kingiseppskaya."

Another group of investment projects is aimed at developing the electric grid infrastructure in the territory of Eastern Siberia and the Far East, including expanding the capacity of the Baikal-Amur and Trans-Siberian railway lines. I would like to especially note the completion of such an important social and economic task as the construction of grids for the connection of the isolated power system of Yakutia to the IPS of the East. No less important is the task of connecting the three territories of advanced development - Khabarovsk, Nadezhinskaya and Mikhailovskiy.

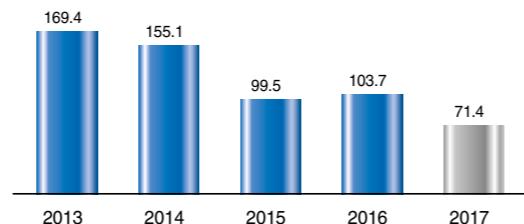
According to the results of a survey of consumers and investors, 72% of respondents are completely satisfied with the Company's activity in the field of investments. Positive factors include transparency in the formation of the investment programme and a decrease in specific investment costs.

## Implementation of the investment programme in 2017

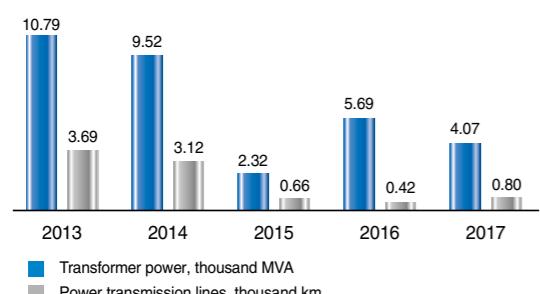
**Dynamics of the volume of investment financing, RUB bln**



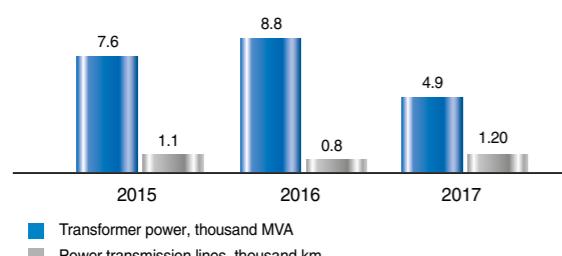
**Dynamics of commissioning of fixed assets (excluding VAT), RUB bln**



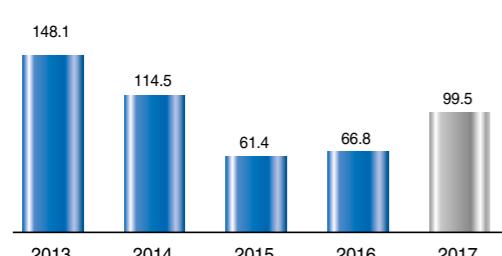
**Dynamics of power input  
(for the system to which power is applied)**



## Capacity commissioning



**Dynamics of development of capital investments (excluding VAT), RUB bln**



## Key investment projects for 2016-2020

Investment projects	Socio-economic importance
Development of energy infrastructure for the oil transport system (ESPO - I, II)	In 2017, in order to ensure an increase in oil pumping up to 80 million tonnes per year through the ESPO-I pipeline system, which was implemented as part of the intergovernmental agreements with the People's Republic of China, design and survey work on external power supply facilities OPS (oil pumping station)-23, 26, 32 was carried out. Construction and installation work was carried out for the external power supply facilities OPS-6 and 29, and reconstruction of PJSC FGC UES' facilities was performed in order to increase the capacity of OPS-15, 16.
Increase of accessibility of the power grid infrastructure of the Krasnodar Territory	To create the possibility of technological connection for consumers in Krasnodar, including a large-scale housing project, it is planned to build the substation Eastern Industrial Zone in the city. In order to increase the reliability of power supply to consumers in the Pavlovsk and Krylovsky districts of the Krasnodar Territory, the construction of a 110 kV Tikhonkaya substation with a capacity of 64 MVA (2x32 MVA) with two 110 kV Tikhonkaya-Krylovskaya overhead lines with an approximate length of 24 km each and the reconstruction of 220 kV Krylovskaya substation is envisaged.
Provision of power capacity to generation facilities	As part of measures to implement the technological connection of OJSC Oboronenergo, PJSC FGC UES is implementing a project for the construction of the 220 kV Substation Novo-Labinskaya with taps of 220 kV overhead lines with commissioning of 250 MVA capacity in 2018.
Development of energy infrastructure in the BAM Baikal-Amur Mainline and Transsib zone	In 2017, work was completed to implement power distribution schemes for Rostov NPP, Nizhne-Bureyskaya HPP. The work on the implementation of power delivery schemes for Novovoronezh NPP-2, Leningrad NPP-2, and Zaramagskaya HPP has been and continues to be carried out.
Creation of an electric power infrastructure for the gas transmission system Power of Siberia	In 2017-2022, to ensure the power output of stations, 901.6 km of lines and 1,002 MVA transformer and 560 MBar reactor capacity are planned to be commissioned.
	To ensure the prospective loads of the Eastern polygon of OJSC Russian Railways, PJSC FGC UES is implementing the Complex investment project "Development of energy infrastructure in the Baikal-Amur and Trans-Siberian railways zone". The project will provide the infrastructure for the facilities of OJSC Russian Railways' Eastern polygon. A positive effect will be achieved for large prospective consumers (PJSC Transneft - MN ESPO-1, PJSC Polyus, LLC Baikal Mining Company - Udokansky GOK) and for existing consumers in the project area (increase in reliability of power supply due to commissioning of new and reconstruction of existing transformer capacities and transmission lines).
	In 2017, in order to supply the gas transportation system for gas production centres in the Republic of Sakha (Yakutia) and the Irkutsk Region, and to ensure the transportation of gas from them through Khabarovsk to Vladivostok, as well as to the People's Republic of China, design and survey work on external power supply facilities of a number of compressor stations, the "Power of Siberia", and the acceptance-delivery point for the accounting of the oil of the Chayandinskoye oil and gas condensate field were completed.



The main parameters of key investment projects are outlined in Appendix 1.

**Dmitry Faustov,**

Director for Information Technologies – Head of the Department for Development and Operation of Information Technologies of PJSC FGC UES

#### – What tasks were set for 2017 to develop the Unified Technology Communication Network of the Electric Power Industry (UTCNEPI) and what are the main results of the year?

The main areas of the UTCNEPI development are the digitisation of the grid, making it a "smart" grid, which is achieved due to the wide introduction of modern equipment and technologies of communication networks of the next generation at the power grid facilities. One of the key indicators for the development of the technological communication network is the level of power grid facilities' digital communication channels for the introduction and operation of dispatching and technological and corporate control systems. This is done to improve the observability of the power grid complex and improve the level of management. In the reporting year, the level of digitisation of power grid facilities reached 83.7%, which is 4.1% more than in 2016.

One of the main elements of the UTCNEPI is the fiber-optic communication network (FOCN). It is constructed with the placement of a fiber-optic cable on overhead power transmission lines. In 2017, more than three thousand kilometers of fiber-optic lines were put into operation on power transmission lines.



#### Development of communication networks and IT-systems

##### DEVELOPMENT OF THE UNEG INFRASTRUCTURE

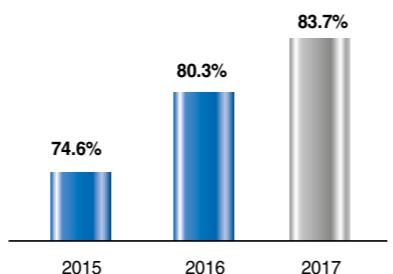
The reliability of the functioning of the power grid infrastructure, innovative development of the UNEG, and effective business management of the Company is impossible without the use of advanced and modern telecommunication and information technologies.

The general scheme for the creation and development of the Unified Technology Communication Network of the Electric Power Industry (UTCNEPI) provides for the digitisation and intellectuality of the network, which is achieved due to the broad introduction of modern equipment and technologies for communication networks of a new generation.

One of the key indicators of the development of FGC UES's technical communications network is the level of electric grid facilities' digital communication channels (digitisation) for the introduction and operation of dispatching and technological and

corporate management systems. In order to improve the observability of the power grid complex and increase the level of control, digitalisation of automated dispatching communication channels and technological control systems is underway.

##### Dynamics of digitisation of FGC UES power grid facilities

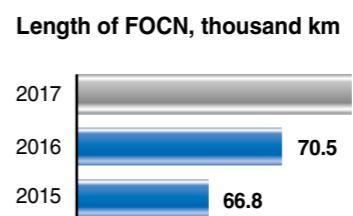


#### Structure of the Unified Technology Communication Network of the Electric Power Industry and Applied Technologies

Structural Element of the UTCNEPI	Results of 2017	Share of use of domestic equipment, %
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The fiber-optic communication network (FOCN) is the basic technological communication network, constructed by placing fiber-optic cable on overhead transmission lines.

More than three thousand km of fiber optic lines were put into operation by power transmission lines.

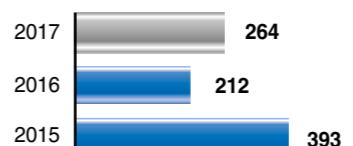


**37**  
(including cable communication line)

The HF communication network over air lines is a specific type of communication where phase wires and cables of overhead transmission lines are used as a signal transmission medium. The voice, telemetry, automatic system for commercial accounting of power consumption, and relay protection and emergency commands necessary for controlling the technological processes of the electric power industry in normal and emergency modes are transmitted over the HF communication channels.

The modernisation and decommissioning of HF communication equipment due to introducing fiber-optic communication lines was carried out. 264 pieces of HF communication half-kits (w/k) were installed. A total of 11,533 stations were installed at FGC facilities.

##### Number of HF systems installed, pcs.

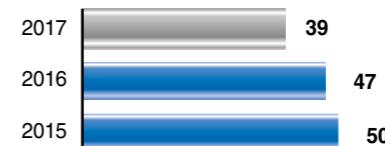


**80**

The telephone network is built on the radial-node principle and provides interaction with the technological network of the System Operator and other entities of the wholesale electricity market.

At the power grid facilities of FGC branches, 39 digital enterprise-industrial automatic telephone exchanges (private automatic branch exchanges, PABX) have been installed, as well as systems for recording the negotiations of operational personnel, DECT wireless communication systems, and loudspeaker and radio communication systems.

##### Number of PABX introduced, pcs.



**52**

Utilising modern IT-technologies, FGC UES has created and is developing the Automated System of Technological Control and the Corporate Information Management System.

The Automated System of Technological Control (ASTC) is a single distributed hierarchical system allowing us to perform operational and non-operational functions through the Network Management Centres, to improve the management efficiency of the UES modes due to a high level of observability, prevent emergency shutdowns to consumers, and reduce decision-making time and the probability of erroneous actions by operational personnel in emergency modes.

The Corporate Information Management System (CIMS) is a set of information systems, methodologically and technically united among themselves, designed to automate the business processes of the Company in order to improve their efficiency.



*Information on ASTC and CIMS is provided in Appendix 1.*

## Procurement activities

(102-9) In all regions of operation, FGC UES conducts active procurement activities aimed at acquiring the necessary equipment and services in a competitive market within the framework of the Investment Programme, as well as the annual repair and target programmes.

The main document regulating the procurement activities of the Company, PJSC FGC UES's Unified Purchasing Standard (the Regulation on procurement).

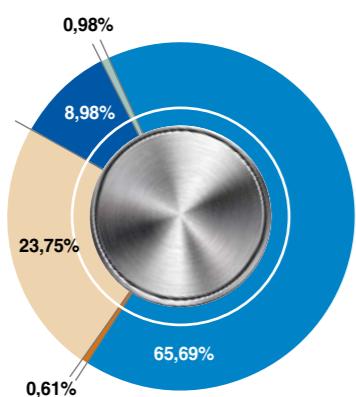


*Information on amendments to the Procurement Regulations made in 2017 is outlined in Appendix 1.*

### Principles and main tasks of the Company's procurement activity

Principles	Tasks of procurement activity
● Openness	● Optimisation of procurement management based on best practices
● Competitiveness	● Reducing Company costs by saving money when purchasing goods, works and services, including minimising intermediary services
● Reasonableness	● Providing the Company with goods, works and services of the required quality, at a minimum cost, right on time.

### Structure of regulated purchases by methods of implementation in 2017



- OC – open competition
- ORP – open request for proposals
- ORR – open request for rates
- SP – simple purchase
- SS – single source

Total	All methods	OC	ORR	ORP	SS	SP
Cost of procedures, RUB billion	142.9	93.9	0.86	33.9	12.8	1.4
Number of procedures performed	12,423	551	655	1,758	618	8 841
Percent of the total amount of performed procedures	100 %	65.69 %	0.61 %	23.75 %	8.98 %	0.98 %

Following the results of the 2017 purchase campaign, 12,423 procurement procedures for a total of RUB 142.9 billion were completed in FGC UES. The share of procurement procedures conducted on a competitive basis amounted to RUB 130.1 billion, or 91.02% of the total volume of purchases. The economic effect of the procurement amounted to RUB 2.8 billion.



*Information on methods of procurement is provided in Appendix 1.*

IN 2017, THE COMPANY ATTRACTED

**6,494 SUPPLIERS**

FOR PROCUREMENT OF GOODS, WORKS AND SERVICES. (102-9)

### Procurement from local suppliers and small and medium-sized businesses

(204-1) In connection with the implementation of procurement by region / PJSC FGC UES branch location, a large number of local suppliers and contractors, including small and mid-sized enterprises (SMEs), are involved in procurement procedures.

For the performance of highly specialised works, organisations that perform such works throughout the territory of Russia may be involved. During the construction and commissioning of power facilities, new jobs are created and employees from local residents and related industries are brought on board.

The list of products purchased only with the participation of SMEs has been expanded significantly, including the supply of high-voltage equipment, distribution and control electrical equipment, construction,

installation and commissioning work at substations and overhead lines, and development of design and working documentation.

According to the results of 2017, 2,893 contracts were concluded with SMEs for a total of RUB 53.5 billion. That is, when carrying out procurement procedures, the Company solves not only the tasks of securing its own business, but we also work to solve a number of socio-economic tasks that are important for the whole country.

Meetings with SMEs, including those affiliated with our Partnership Programme, are held on a regular basis every year to better identify the needs of small and mid-sized businesses, taking into account the implementation of PJSC FGC UES's investment and production programmes.

**“** We conduct purchases by region, at the location of the branches of FGC UES. Accordingly, a large number of local suppliers and contractors are involved in procurement procedures. In each region, on average, up to 75% of local organisations participate in procurement. To put it more broadly, our development projects are implemented primarily with the involvement of Russian suppliers and contractors. In the last three years, 70-85% of Company's main electrical engineering equipment purchases which once were highly import-dependent have now become domestic purchases.

I would also like to note that last year, RUB 53.5 billion (including VAT) in purchases were made from small and mid-sized businesses, and nearly 2,900 contracts were concluded. That is, when carrying out procurement procedures, we solve not only the tasks of securing our own business, but we also work to solve a number of socio-economic tasks important for the whole country.

**Roman Filimonov,**

First Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES

**Information on the number and total value of contracts concluded with SMEs based on the results of purchases in 2017**

Number of contracts	The value of contracts, RUB bln, with VAT
Procurement from SMEs	2,893 53.503



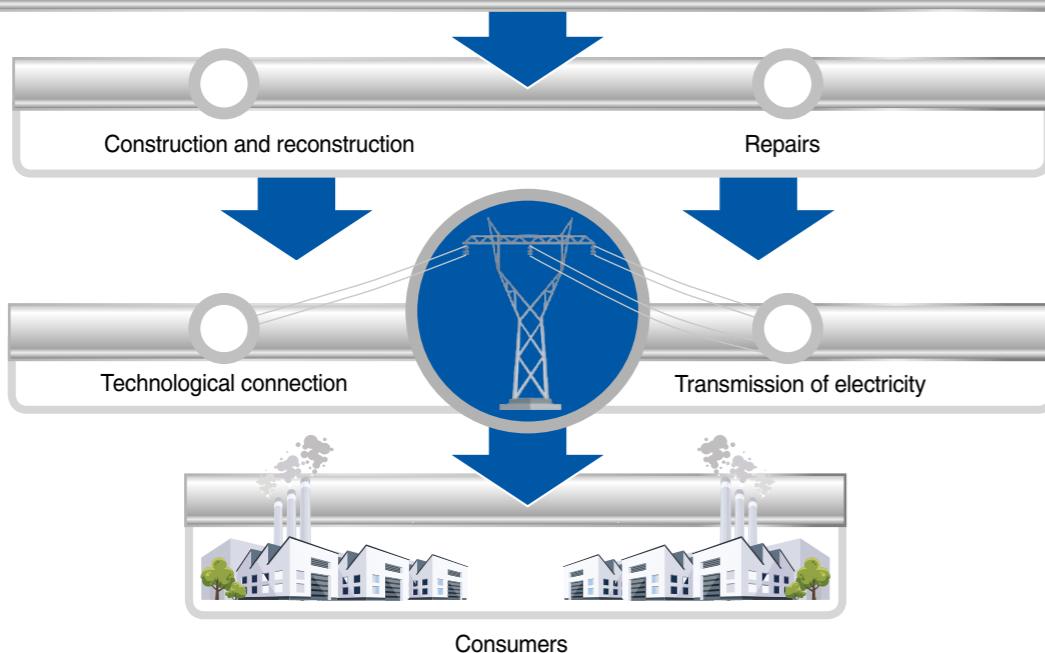
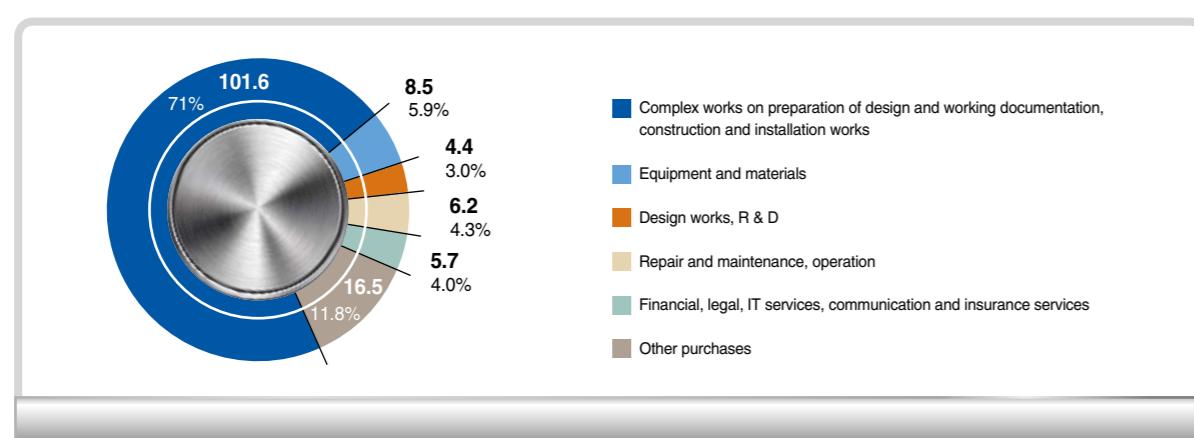
The official site includes the section "Roadmap for cooperation with SMEs" available at [www.fsk-ees.ru/suppliers/dorozhnaya\\_karta\\_po\\_sotrudnichestvu\\_s\\_msp](http://www.fsk-ees.ru/suppliers/dorozhnaya_karta_po_sotrudnichestvu_s_msp).



Information on working with suppliers (contractors, executors) that have joined the Partnership Programme between PJSC FGC UES and SMEs is provided in Appendix 1.

<sup>17</sup> As part of the implementation of the Russian Federation Government Decree No. 867-r dated 29.05.2013 "On the approval of the action plan ("road map") expanding the access of small and medium-sized businesses to the procurement of infrastructure monopolies and companies with state participation". At the present time, Order No. 867-r has been executed (Order of the Government of the Russian Federation No. 174-r dated 06.02.2016).

**The main types of purchased products, works and services, billion rubles (% of total purchases)**



**(206-1)** The total number of legal actions in relation to the Company in connection with procurement activities.

In 2017, 156 appeals were sent to the Russian Federal Anti-monopoly Service (FAS), including 118 complaints filed by persons who are not participants in procurement

procedures. Based on the results of the FAS commission's examination, 10 complaints were found to be justified, 47 complaints were found unfounded, 99 complaints were partially acknowledged.



For information on complaints submitted to the FAS, see [Appendix 1](#).

In 2017, we implemented antimonopoly compliance as a preventive measure to identify and suppress the risks of violating the law on the protection of competition. This significantly reduced the costs of applying sanctions on the part of the state regulator and the claims of the procurement participants. The company voluntarily assumed obligations on the maximum transparency and openness of counterparty access procedures on a non-discriminatory basis, price and tariff policy.

The main principle behind this policy is that the boundary between good conduct and abuse of each official depends on how legitimate and justified are the decisions made by him. At the same time, neither economic benefits nor expediency can serve as a basis for committing actions or concluding transactions contrary to the requirements of competition law. Such risks can not be justified.

**Alexander Zaragatsky,**

First Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES

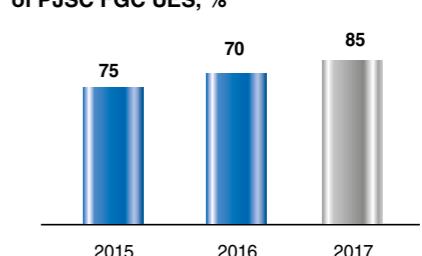
**Import Substitution policy**

PJSC FGC UES's corporate plan for import substitution<sup>18</sup> was developed in accordance with the recommendations of the Ministry of Economic Development of Russia<sup>19</sup>, taking into account the Analytical report "Assessment of import substitution potential, the main directions of import substitution, and terms of their implementation in the subsidiaries and affiliates of PJSC Rosseti until 2019", considered by the Board of PJSC Rosseti<sup>20</sup>.

The implementation of PJSC FGC UES's corporate plan for import substitution was reflected in our Long-term Development Programme.

FGC's innovative development plan first and foremost aims to utilise domestic industrial production for the most critical types of electrical engineering equipment as it relates to the import dependency of the electrical power industry of the Russian Federation.

**The share of purchases of domestic equipment in the total volume of purchases of PJSC FGC UES, %**



<sup>18</sup> Approved by PJSC FGC UES order No. 494 dated 28.11.2017 "On the implementation of the corporate plan of import substitution".

<sup>19</sup> Methodical recommendations on the preparation of corporate plans for import substitution by state corporations, state companies, and joint-stock companies in which the share of the Russian Federation in the authorised capital exceeds 50 percent, as well as organisations implementing investment projects included in the register of investment projects in accordance with the decision of the Governmental Commission for Import Substitution, Ministry of Economic Development of Russia No. 219R-AU dated 11.08.2016.

<sup>20</sup> Minutes No. 386pr dated 14.10.2015.

The chart illustrates information for 2017 concerning the share of domestic electrical engineering equipment across 20 of the most import-dependent categories which were acquired for the needs of PJSC FGC UES centralised (through supply contracts) and as part of general contracting agreements.

In 2017, the following sublicensing contracts were concluded for the right to use the results of intellectual activity of PJSC FGC UES in the production of products:

- JSC NCT (composite supports of 220 kV voltage class and foundation structures, elements),
- OOO Anapsky ZHBI Plant (mushroom-like foundations for the towers of overhead transmission lines with voltage up to 500 kV),
- LLC PO Energozhelezobetoninvest (mushroom-like foundations for the hauling of supports of overhead lines with voltage up to 500 kV). **(102-9, 204-1)**

The goals and objectives of the corporate import substitution plan are aimed at ensuring the technological security of the power grid complex of the Russian Federation and reducing dependence on foreign products, equipment, and technical devices, as well as services / works of foreign companies and the use of foreign software.

PJSC FGC UES' corporate plan for import substitution provides for a set of measures aimed at implementing the Company's import substitution policy.



*Information on the goals and objectives of the corporate import substitution plan and measures aimed at implementing the import substitution policy is provided in Appendix 1.*



## Financial capital

Financial capital management is the effective use of all financial tools for the implementation of the company's strategic goals.



ECONOMIC  
EFFICIENCY

Financial capital is a reserve of funds kept by the Company for use when providing services created as a result of commercial and investment activities, as well as through financing (debt, equity).



**Sergey Terebulin,**

Deputy Chairman of the Management Board, member of the Management Board of PJSC FGC UES

### - What are the most significant financial results of the reporting year?

Over the years, we have maintained a consistently high level of financial stability and growth in financial results. In 2017, adjusted profit (earnings) before interest, income tax and depreciation (EBITDA) increased by RUB 9.6 billion (8.1%) compared to the same period in 2016, and amounted to RUB 129.3 billion.

The main growth drivers are the ongoing management work on cost containment, dividends for the year 2016 for the shares of JSC Inter RAO, the recognition of income in the form of sanctions for violation of contractual obligations, and the increase in interest income for installments of payment for technological connection.

In October, we placed five-year bonds worth RUB 9 billion with a coupon of 7.75% per annum. For us, this placement has become the most profitable since 2010, and the coupon rate is a record low among the market placements of all Russian issuers in the modern post-crisis period.

This transaction was recognised by Cbonds analytical agency as the best initial placement of corporate bonds in 2017.

### - What are the results of the reporting year with regard to improving internal efficiency?

We operate within a programme to improve investment and operational efficiency and reduce costs of PJSC FGC UES. The decrease in specific operating expenses in 2017 compared to 2012 reached 46%, and the total effect of reducing operating costs was RUB 17.2 billion.

This significantly exceeds the target value of 15% set by the Strategy for the Development of the Electric Grid Complex of the Russian Federation.

## Financial Performance Analysis

The following analysis is based on the indicators of the annual accounting statements of PJSC FGC UES for the year 2017 under Russian Accounting Standards (RAS). Separate indicators are given according to the consolidated financial statements according to IFRS and are accompanied by the corresponding note.

### Financial Ratios showing the Efficiency of the Company's Financial Policy

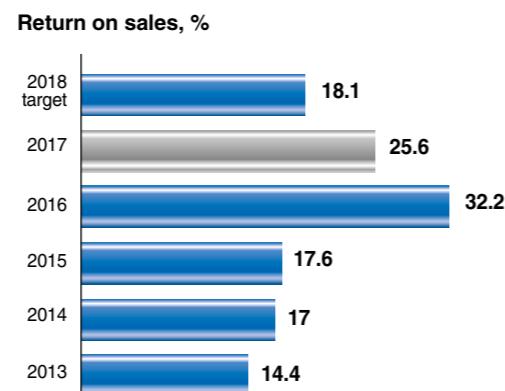
In 2017, the return on sales was 25.6%. The decrease in return on sales compared to the previous year was due to:

- lower revenues from the provision of technological connection services related to connecting large nuclear and hydroelectric power plants to the ENES grid in 2016 (the costs associated with connecting facilities are capitalised);
- higher costs that were beyond the control of the Company, for example taxes and duties (in connection with the gradual elimination of property tax benefits with regard to electric grid facilities).

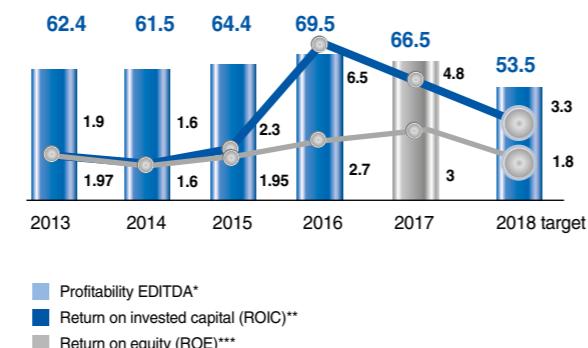
Excluding the change in revenue and profit from sales related to the provision of services of technological connection to the grid, the return on sales in 2017 amounted to 17.4%, which is 3 percentage points higher than the return on sales in 2016, which amounted to 14.4%.

The decrease in the return on sales for 2018 relative to the fact for 2017 is planned in connection with the growth of costs beyond the control of the Company, including:

- expenses on property tax in connection with the gradual elimination of tax benefits with regard to power grid facilities and commissioning of new facilities, as well as the elimination of tax benefits on movable property as of 01.01.2018 in connection with Federal Law No. 335, which came into force on 22.11.2017;
- depreciation charges due to the introduction of new facilities and revaluation of fixed assets.



### Financial ratios that demonstrate the effectiveness of financial policies, %

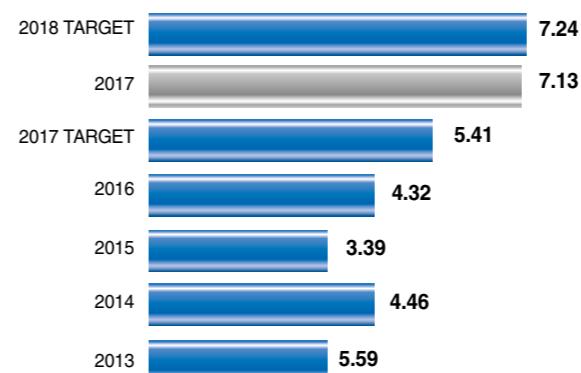


\* When calculating the indicator, the Company's revenue was taken without revenue from the provision of technological connection services (in order to lead to a comparable comparison with the EBITDA indicator).

\*\* Calculation of the indicator is made from the adjusted EBIT indicator excluding operations on charge and recovery of provisions on doubtful debts, revaluation of financial investments and revenue on technology accession.

\*\*\* Calculation of the indicator is based on the adjusted net profit of the Company (excluding the balance of estimated reserves and revaluation of financial investments) and the corresponding adjustment of the amount of equity.

### Interest payment coverage ratio



The actual and expected decrease in the EBITDA margin in 2017 and 2018 relative to the previous periods (2013-2015) is also associated with an increase in non-controlled costs due to Russian legislation, and an increase in the cost of servicing facilities commissioned as part of the FGC investment programme.

Current liquidity ratios are within the regulatory limits, which indicates that the Issuer is able to repay its short-term liabilities using current assets.

The interest coverage ratio shows uneven dynamics due to the fact that most of the debt portfolio is formed by bonds with floating rates calculated on the basis of the inflation index (CPI). Inflation growth in 2014-2015 had an impact on interest payments. Since 2016, the coverage ratio has been increasing as the interest burden on the Company decreases.

EBITDA MARGIN FOR THE REPORTING PERIODS DID NOT FALL BELOW  
**60%**

### Key Financial Indicators

The dynamics of financial indicators of PJSC FGC UES shows the financial status and performance of the Company.

#### (102-7) Key financial indicators, RUB bln

	2013	2014	2015	2016 actual	2017 actual	Change 2017/2016, %	2018 target
Revenue	155.4	168.9	173.3	218.4	216.0	-1.1	230.9
Cost of sales*	124.8	132.5	134.9	140.0	152.4	8.8	180.3
Net profit	-25.9	5.1	17.9	106.1	42.4	-60.1	28.7
Adjusted EBITDA**	96.3	99.6	103.7	119.7	129.3	8.1	112.4
Cash flow from operating activities	86.7	101.0	99.1	101.1	120.7	19.4	79.6
Net debt***	230.6	221.1	220.3	229.9	224.7	-2.26	253.5

\* Taking into account the retrospective change of indicators.

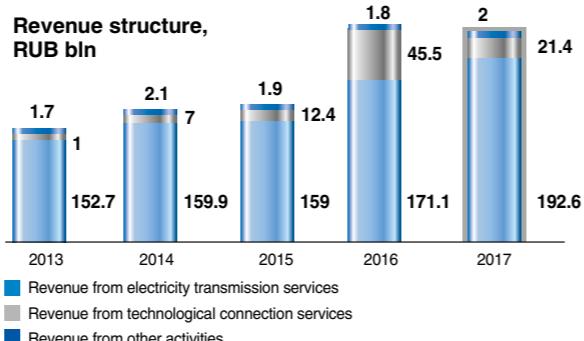
\*\* Excluding operations related to accrual and recovery of provisions on doubtful debts, revaluation of financial investments and revenue related to technological connection.

\*\*\* The amount of short-term and long-term borrowed funds, off-balance-sheet liabilities for leasing transactions, as well as secured obligations and issued payments, less cash and equivalents and short-term financial investments.

**Revenue**

The Company's revenue for 2017 decreased compared to 2016 by RUB 2.4 billion (-1.1%), including:

- revenues from technological connection services decreased by RUB 24.1 billion (-52.9%) due to the connection of large nuclear and hydroelectric power plants to the ENES grid in 2016 and the recognition of the corresponding revenues, as well as due to changes in the schedule of services determined by consumer requests;
- revenue from electricity transmission increased by RUB 21.4 billion (+12.5%) due to higher revenues from compensation of electricity losses and revenue growth at power transmission as a result of increase in tariffs by 7.5% as of 01.07.2016 and 5.5% as of 01.07.2017, as well as increase in capacities for direct-to-consumer.



<sup>21</sup> Entry into force of Resolution No. 810 of the Government of the Russian Federation dated 07.07.2017.

**EBITDA and Profit**

Adjusted profit (earnings) before interest, income tax and depreciation (EBITDA) increased by RUB 9.6 billion (8.1%) compared to the same period in 2016 and amounted to RUB 129.3 billion. The main growth factors for this indicator are the receipt of

dividends for 2016 on the stake of PJSC inter RAO, recognition of income in the form of sanctions for breach of contractual obligations, and increase in interest income for payment by installments of technological connection services.

**EBITDA and net profit, RUB bln**

Indicator	2013	2014	2015	2016	2017	Change 2017/2016, %
Adjusted EBITDA*	96.3	99.6	103.7	119.7	129.3	8.1
Depreciation & amortisation	-70.8	-78.0	-77.2	-81.5	-82.0	0.6
Interest payable	-1.4	-5.5	-8.5	-6.2	-3.9	-36.7
Balance of provision for doubtful debts	-19.4	-1.6	-6.5	10.1	2.3	-77.1
Balance of transactions in reserves for financial investments	-0.7	-0.3	-2.0	-1.5	-0.9	-39.9
Balance from revaluation of securities	-22.1	-4.5	5.8	39.8	-7.5	-118.8
Balance of expenses from revaluation of assets	-0.5	-2.3	0.3	-1.5	1.9	-228.3
Revenue from technological connection	1.0	7.0	12.4	45.5	21.4	-52.9
Write-off of overdue bad accounts receivable	-0.01	-0.03	-0.02	0.00	-0.02	1 678.3
Profit before tax	-17.7	14.3	27.9	124.3	60.6	-51.3
Income tax and adjustments, deferred tax assets and liabilities	-8.2	-9.2	-10.0	-18.2	-18.2	-0.1
Net profit	-25.9	5.1	17.9	106.1	42.4	-60.1

\* Excluding operations for accrual and recovery of provisions on doubtful debts, revaluation of financial investments and revenues on technological connection.

**Net Profit**

Net profit for 2017 was earned in the amount of RUB 42.4 billion, which is 60.1% less than in 2016. The financial result was greatly influenced by non-cash transactions.

Indicator	2016	2017	Change 2017/2016, %
Net profit	106.1	42.4	-60.1
Balance of reserves	8.6	1.4	-83.7
Revaluation of shares of JSC Inter RAO and JSC Rosseti	39.8	-7.5	-118.8
Write-off of overdue receivables	-0.001	-0.016	increase by 16 times
Revaluation of fixed asset value	-1.5	1.9	increase by 2.3 times
Adjusted net income*	59.2	46.6	-21.3
Income from technological connection services (TC)	37.2	19.3	-48.12
Adjusted net income without TC	22.0	27.3	24.09

\* Cash-secured (including adjustments to the accrual/recovery balance of doubtful debts, revaluation of fixed assets and financial investments).

Adjusted net income (excluding mark-to-market and accrual / recovery of reserves and revenues from technological connection services) increased by RUB 5.3 billion, or 24.1%.

A noticeable increase in expenses was seen in 2017 compared to 2016, mainly for unmanaged items of costs (in particular, the purchase of electricity to compensate for losses by 64.3%, taxes and fees by 14.2%).

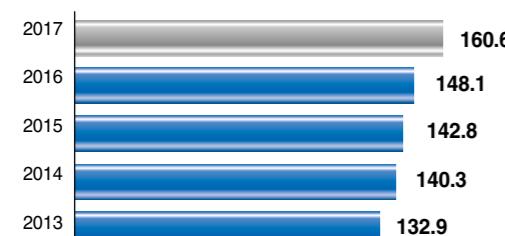
In 2017, some financial indicators showed a decline. This was influenced by non-cash factors, as well as the reduction in revenues from technological connection services. However, in the previous period, a large amount of nuclear power generation was added and the company will continue to receive financial benefits for many years. And if "paper" operations and revenue from services on technological connection are excluded from the calculations, growth can be seen for all key financial indicators.

**Costs**

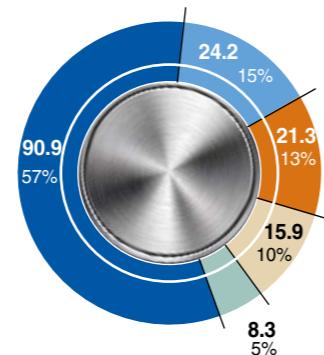
The main reasons for change in cost of sales in 2017 compared to 2016 are:

- an increase in expenses on purchasing electricity and capacity by RUB 9.5 bln (+64.3%) in connection with Resolution No. 810 of the Government of the Russian Federation dated 07.07.17, which came into force on 01.08.2017;
- an increase in expenses for property tax and depreciation by RUB 2.4 billion (+2.8%) in connection with the commissioning of new fixed assets as part of the investment programme, the gradual elimination of property tax benefits and revaluation of fixed assets.

The increase in management costs (+2.8%) is mainly due to an increase in depreciation charges due to the registration of intangible assets.

**Dynamics of the full cost of sales, RUB bln**

**The structure of the full cost of sales, RUB bln**



- The purchase of electricity and capacity
- Expenses for labour payment and deductions on social needs of the production personnel
- Other operating expenses
- Administrative expenses
- Depreciation and property tax (by production assets)

**Cost reduction, %**

Name	2013	2014	2015	2016	2017 target	2017 actual
Reduction of specific operating expenses relative to the level of 2012, %	-8	-23	-40	-46	-45	-46

**Cash Flow****Movement of funds, RUB billion exc. VAT**

	2013	2014	2015	2016	2017
Cash flow balance	-3.2	22.1	-17.5	14.0	-2.6
Balance of cash flows from current operations	86.7	101.0	99.1	101.1	120.7
Balance of cash flows from investment operations	-163.5	-53.8	-132.6	-57.1	-96.3
Balance of cash flows from financial operations	73.6	-25.0	16.0	-30.0	-27.0



Information on the main sources of cash flow is given in Appendix 1.

**Economic Performance of PJSC FGC UES, RUB bln (201-1)**

	2016	2017
<b>ECONOMIC VALUE CREATED</b>		
Earnings	229.9	226.7
<b>DISTRIBUTED ECONOMIC VALUE</b>	109.1	122.6
Operating costs*	39.5	49.6
Salaries and other employee benefits	19.7	20.5
Payments to suppliers of capital	23.2	23.5
Payments to the state	26.5	28.9
Investing in communities	0.046	0.091
<b>UNALLOCATED ECONOMIC VALUE</b>		
	120.8	104.1

\* The increase in operating costs in 2017 compared to 2016 is mainly due to the following factors:

- increase in expenses on purchase of electricity for compensation of losses in connection with Resolution No. 810 of the Government of the Russian Federation dated 07.07.2017 that came into force, according to which changes are made to rules of non-discriminatory access to services in electric power transfer and provision of these services regarding acquisition of the actual volume of electricity losses;
- increase in expenses on purchased electricity and heat for business needs related to rising tariffs for electricity and heat;
- increase in material costs due to increase in volumes of purchased materials, tools, equipment, and fuel.

## Cost Optimization and Cost Reduction

**ECONOMIC EFFICIENCY**

In order to improve the efficiency of PJSC FGC UES's operations, optimise the volume and structure of production and management costs, and to comply with Directive No. 2303p P13 of the Government of the Russian Federation dated April 16, 2015, the Company has developed a programme to increase investment and operational efficiency and reduce expenses of PJSC FGC UES, which has been approved as part of the business plan for 2017-2021.

The decrease in specific operating expenses in 2017 from the level of 2012 amounted to 46%, which significantly exceeds the target value set by the Strategy

for the Development of the Electric Grid Complex of the Russian Federation<sup>22</sup>, to the amount of 15%.

In accordance with Directive No. 2303p-P13 of the Government of the Russian Federation, On Reduction of Operating Expenses by at least 2-3% Annually dated 16.04.2015, operating expenses decreased by 3.3% (in comparable prices) compared to the level of 2016, which corresponds to the target value.

<sup>22</sup> Order of the Government of the Russian Federation No. 511-r of April 3, 2013.

The total effect of the reduction in unit operating costs for 2017 compared to 2012 amounted to RUB 17.2 billion (in comparable prices).

## Profit Distribution and Dividend Policy

IN 2017,  
**RUB 115.5 MILLION**  
WAS TRANSFERRED  
TO THE FEDERAL BUDGET  
IN THE FORM  
OF DIVIDENDS

In the formation of dividend policy, FGC UES is guided not only by strict compliance with the requirements of law, but also by the need to ensure an optimal balance between the interests of shareholders and the Company's needs for development, increasing investment attractiveness and capitalisation. The principles of dividend policy of FGC are enshrined in the Regulations on dividend policy of FGC UES approved by the Board of Directors.



The regulations on dividend policy are available on the website [www.fsk-ees.ru](http://www.fsk-ees.ru) in the section *Shareholders and Investors*.

In May 2017, the Government of the Russian Federation issued an order<sup>23</sup>, stating that for PJSC Rossetti (the majority shareholder and principal shareholder in relation to PJSC FGC UES), the amount allocated for dividend payment shall be at least 50% of the net profit of the joint-stock company (determined according to the financial statements, including the consolidated profit made in accordance with IFRS), from which the following shall be excluded: income and expenses related to the revaluation of the shares of subsidiaries; share of net income allocated to the provision of financial support to the development plans of subsidiaries; actual investments made at the expense of net profit derived from regulated activities within the framework

of the investment programme approved by the Russian Ministry of Energy; share of net profit from activities on technological connection to electric grids (including interest income for installments of payment for technological connection in accordance with the Resolution of the Government of the Russian Federation<sup>24</sup>), except for actually received funds in the reporting period.

Representatives of the interests of the Russian Federation on the Board of Directors of PJSC Rossetti are instructed to ensure implementation of the provisions established by the said order, PJSC Rossetti, and its subsidiaries (to which PJSC FGC UES belongs) carrying out activities for transfer of electricity and technological connection.

The decision to pay dividends is made at the General Shareholder Meeting on the basis of recommendations of the Board of Directors. The recommended amount of dividend payments is determined based on the financial results of

the Company, taking into account the Federal Law No. 208-FZ, On Joint Stock Companies, dated 26.12.1995, the Order of the Government of the Russian Federation No.1094-r dated 29.05.2017, as well as other regulatory legal acts of the Russian Federation.

The Company continues to direct a significant share of the net profit generated by cash flow to paying dividends, which in the current market conditions makes it possible to ensure high profitability per share while respecting the interests of other stakeholders of the Company.

<sup>23</sup> Order of the Government of the Russian Federation No. 1094-R dated 29.05.2017.

<sup>24</sup> Resolution of the Government of the Russian Federation No. 1265 dated 30.11.2016.

## Dividend history of PJSC FGC UES

	2014 (for Q1 2014)	2015 (for 2014)	2016 (for 2015)	2017 (for 2016)	2017 (for Q1 2017)
Total amount of dividends, RUB mln	436.8	847.4	16,976.6	18,184.8	1,423.1
The amount of dividend per one share, RUB	0.0003427	0.0006647883	0.0133185	0.0142663525	0.0011164730
Dividends (% of net profit under RAS)	36 %	25 %*	95 %	17%**	16 %
Announcement date	27.06.2014	26.06.2015	29.06.2016	29.06.2017	29.06.2017
Date of actual payment	25.07.2014*** 20.08.2014****	30.07.2015*** 20.08.2015****	25.07.2016*** 15.08.2016****	02.08.2017*** 23.06.2017****	02.08.2017*** 23.08.2017****
Balance of unpaid dividends *****(as of 31.12.2017), RUB mln	1.6	3.3	64	70.5	5.5

\* Taking into account dividends paid in Q1 2014.

\*\* 50% of the adjusted net profit under RAS, calculated in accordance with Resolution of the Government of the Russian Federation No. 1094-r of 29.05.2017.

\*\*\* Nominal holder and Trustee.

\*\*\*\* Other persons registered in the register of shareholders of PJSC FGC UES.

\*\*\*\*\* Dividends are paid in full to all persons registered in the Company shareholders register, except for persons who did not inform the holder of the Company shareholders register in a timely manner of changes in their data, as well as persons for whom the Company shareholders register contains incorrect details for the payment of dividends.

## Retained earnings and dividend payments, thousand RUB\*

	2013 (for 2012)	2014 (for 2013)	2014 (for Q1 2014)	2015 (for 2014)	2016 (for 2015)	2017 (for 2016)	2017 (for Q1 2017)
Unallocated profit (loss) of the reporting period, including:	-24,501,917	-25,897,521	1,210,472	4,699,940	17,870,137	106,070,911	8,837,987
Reserve fund	-	-	=	256,837	893,507	5,303,546	-
Development	-	-	=	-	-	21,599,974	-
Payment of dividends	-	-	436,803	847,383	16,976,630	18,184,825	1,423,129
Coverage of prior period losses	-	-	-	3,595,720	-	60,982,566	-

\* Information on the distribution of profit and dividends paid is presented in accordance with the decisions of the following Annual General Meetings of shareholders (AGM):

AGM 2013 (for 2012) – minutes No. 13 dated 02.07.2013,

AGM 2014 (for 2013 and Q1 2014) – minutes No. 15 dated 30.06.2014,

AGM 2015 (for 2014) – minutes No. 16 dated 30.06.2015,

AGM 2016 (for 2015) – minutes No.17 dated 04.07.2016,

AGM 2017 (for 2016 and Q1 2017) – minutes No. 18 dated 03.07.2017.

## The list of organisations included in the scope of consolidated financial statements (102-45, 201-1)

No	Name of the organisation	TIN
1	PJSC FGC UES	4716016979
2	JSC APBE	7729530055
3	JSC DEP	2536132443
4	LLC Index of Energy - FGC UES	7729601362
5	OJSC Kuban Trunk Grids	2312130841
6	JSC Mobile GTES	7706627050
7	JSC MUS Energetiki	7705039240
8	JSC Scientific and Technical Center of FGC UES	7728589190
9	OJSC Tomsk Trunk Grids	7017114665
10	JSC TslUS UES	7728645409
11	JSC ChitaTechenergo	7536053550
12	JSC Electrosetservice UNEG	7705825187
13	JSC Energostrojnsabkomplekt UES	7723185941
14	LLC IT Energy Service	7729403949
15	LLC FGC - Asset Management	7728320231



Additional information on the main financial and economic indicators, accounts receivable and accounts payable is provided in Appendix 1.

## Debt Obligations

As of December 31, 2017, the volume of the PJSC FGC UES debt portfolio (principal debt, excluding interest accrued at the balance sheet date) amounted to RUB 254.3 billion, down RUB 7.4 billion, or 3% year-on-year. Of these, RUB 254 billion were bonded loans with an average rate of 5.77%.

The debt portfolio is represented mainly by long-term rates, 2/5 of the portfolio is fixed interest rates, 3/5 of portfolio – variable rates (slightly more than half of the debt – infrastructure bonds with floating coupon rate linked to inflation rate). There is no currency risk at all – all bonds are in rubles.

The company adheres to a moderately conservative financial policy that allows it to maintain a status as highly reliable borrower, fulfill its obligations to implement a large-scale

investment programme, debt obligations and dividend payments. For these purposes, FGC UES clearly fulfills the following targets for the debt load:

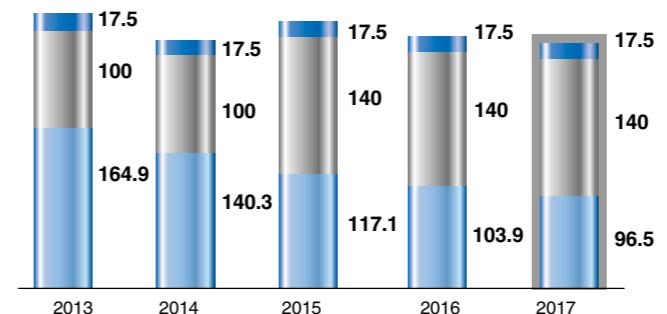
- limit on debt coverage (net financial debt / EBITDA) – no more than 3x,
- debt service coverage limit (net debt service / EBITDA) – no more than 0.25x.

The Company fulfilled all its obligations on servicing the debt portfolio and repaying the debt in full and in full within 2017.



Information on issue of outstanding bonds of PJSC FGC UES is provided in Appendix 1.

## Structure of the bond portfolio, RUB bln\*



\* Principal debt, excluding interest accrued at the balance sheet date.

## THE STRUCTURE OF THE DEBT PORTFOLIO

IS OPTIMALLY BALANCED IN TERMS OF TERMS, INSTRUMENTS, VALUE AND CURRENCY.

█ Bonded loans  
█ Infrastructure bonds  
█ Eurobonds

## Credit Ratings



## FINANCIAL STABILITY

In 2017, three international agencies improved the outlook for the Company's global scale ratings: from "Stable" to "Positive" (Standard & Poor's and Fitch Ratings) and from "Negative"

to "Stable" (Moody's), which was caused by a similar revision of forecasts for sovereign ratings of the Russian Federation.

## Credit ratings of PJSC FGC UES as of December 31, 2017

Rating agency	International scale rating		National scale rating		Date of last rating assignment
	Rating	Forecast	Rating	Forecast	
Standard & Poor's	BB+ <sup>25</sup>	Positive	Withdrawn	-	17.05.2017
Moody's	Ba1	Stable <sup>26</sup>	Withdrawn	-	07.12.2017
Fitch Ratings Ltd	BBB-	Positive	Withdrawn	-	28.09.2017
ACRA	-	-	AAA(RU)	Stable	28.11.2017

<sup>25</sup> 27.02.2018 rating changed to BBB-, forecast Stable.

<sup>26</sup> 01.01.2018 rating outlook changed to Positive.



Information on the history of credit ratings for 2013-2017 is given in Appendix 1.

Rating agencies highly appreciate the financial stability of the Company. The assessment of its own (excluding external support factors) creditworthiness assigned by Moody's and Standard & Poor's as of December 31, 2017, are at Ba1 / BB + levels corresponding to the level of the sovereign rating.

## Medium-term Forecast of Financial Results and Financial Position PJSC FGC UES

### Forecast of main financial indicators, RUB bln

Indicator	2018	2019	2020	2021	2022
Revenue	230.9	233.7	224.6	234.3	238.6
Cost price	180.3	193.1	200.5	208.3	216.1
Net profit	28.7	22.4	6.8	8.2	5.3
Adjusted EBITDA	112.4	111.2	113.6	114.8	116.7
Cash flow from operating activities	108.1	128.2	119.4	122.8	129.1
Capital expenditures	104.3	94.4	90.4	90.4	90.4

### Tariff Regulation

FGC carries out regulated activities to provide electricity transmission services through the UNEG, power distribution grids (DGC facilities), technological connection to electric grids, and other non-regulated activities.

The main activities of FGC in the provision of electricity transmission services for UNEG and services for technological connection to UNEG are carried out in accordance with the tariffs approved by the federal executive

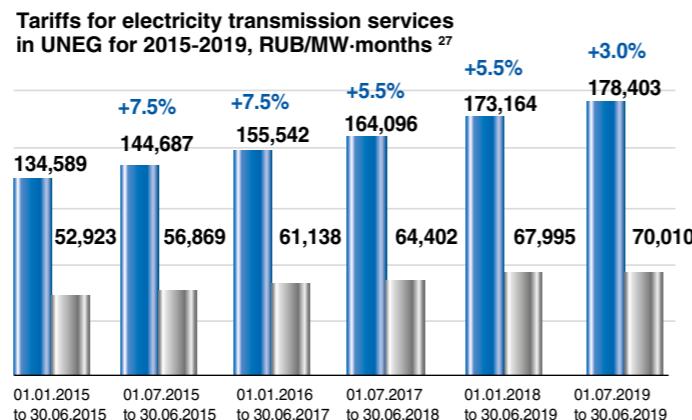
authority in the field of tariff regulation, whose functions were transferred to the Federal Antimonopoly Service (FAS Russia) in 2015.

The Company's activities in providing electricity transmission services through power distribution grids are regulated at regional level by the executive authorities of the constituent entities of the Russian Federation.

### Tariffs for Electricity Transmission Services in UNEG

Tariffs for electricity transmission services through UNEG are established based on the return on invested capital method (RAB-regulation).

In order to establish tariffs for each year of the settlement control period, the necessary gross proceeds (NGP) are determined by summing up the return values, the return on invested capital, and the amount of expenses necessary to provide electricity transmission services to the UNEG. To avoid a sharp increase in tariffs, the RAB-regulation methodology provides for a smoothing mechanism consisting in redistribution of the necessary gross proceeds over the years throughout the long-term regulatory period.



For the subjects of the Russian Federation included in the North Caucasus Federal District

### Main long-term regulatory parameters established by the Federal Tariff Service of Russia for the second long-term regulatory period 2015-2019

	2015	2016	2017	2018	2019
Rate of return on invested capital, %	10	10	10	10	10
Basic level of operating expenses, RUB million	35,023	-	-	-	-
The index of efficiency of operating expenses, %	-	3.0	3.0	3.0	3.0
Net working capital, RUB million	11,417	11,919	12,432	12,967	13,524
Term of return of invested capital, years	35	35	35	35	35
Level of losses of electricity during its transmission through electric grids, %	4.27	4.27	4.27	4.27	4.27



Information on tariff regulation, including tariffs for electricity transmission services for power distribution grid facilities, regulation of reliability and quality of services, tariffs for services related to technological connection to UNEG, as well as a list of basic regulatory legal acts that regulate tariffs and activities on the transmission of electricity through the UNEG, are given in [Appendix 1](#).

## Summary of IFRS Financial Results

(in RUB billion, except for coefficients and indicators expressed in %)	2013	2014	2015	2016	2017
<b>Indicators of the consolidated income statement and other comprehensive income</b>					
Revenues from core activities	158.0	176.0	187.0	255.6	242.2
Other operating income	6.2	5.6	4.0	6.0	6.4
Operating expenses	(133.8)	(126.1)	(131.0)	(155.5)	(151.7)
Profit / (loss) for the year	(234.8)	(20.6)	44.1	68.4	72.7
<b>Financial information not regulated by IFRS</b>					
EBITDA (1)	(234.2)	25.8	98.1	120.3	129.0
Adjusted EBITDA (2)	92.6	107.7	104.4	116.7	126.4
Adjusted profit for the period (3)	23.4	40.8	46.4	86.6	83.9
<b>Coefficients and other indicators</b>					
Return On Assets (4)	2.1%	4.4%	4.8%	8.3%	7.4%
Return On Equity (5)	3.2%	7.3%	7.8%	12.8%	11.0%
Coefficient of current liquidity (6)	1.22	0.93	1.22	1.19	1.18
Aggregate capital / total assets	0.60	0.61	0.62	0.66	0.68
Total debt	287.6	263.0	281.5	266.7	257.9
Short-term debt	29.6	29.7	31.5	29.7	24.0
Long-term debt	258.0	233.3	250.0	237.0	233.9
Net debt (7)	224.0	220.1	222.9	221.8	215.4
Net debt / adjusted EBITDA	2.4	2.0	2.1	1.9	1.7
Cash flow from operating activities	78.8	93.0	98.0	111.5	120.8

(1) EBITDA is profit / (loss) for the period before taxation, financial income and expenses, and depreciation.

Adjusted EBITDA for 2015-2017 is calculated as EBITDA after deduction of net loss from impairment and revaluation of fixed assets, income / loss from the cessation of recognition of the subsidiary (only for 2016 and 2017), revenues from technological connection, income from recovery / expenses for creation of allowance for doubtful accounts receivable except for the amount of impairment of receivables calculated as the difference between the carrying amount of receivables and the present value of estimated future cash flows), and taking into account financial income (with the exception of the effect of discounting long-term accounts payable and amortising the discount of receivables as part of financial income).

Adjusted EBITDA for 2013-2014 is calculated as EBITDA after deduction of net impairment loss and revaluation of fixed assets, impairment of available-for-sale investments, impairment of promissory notes, reversal of impairment losses on financial investments in associates, and financial income.

(2) Adjusted earnings for the years 2015-2017 is calculated as profit for the period after deduction of net impairment loss and revaluation of fixed assets, income / loss from the cessation of recognition of the subsidiary (only for 2016 and 2017), including the corresponding amounts for deferred income tax.

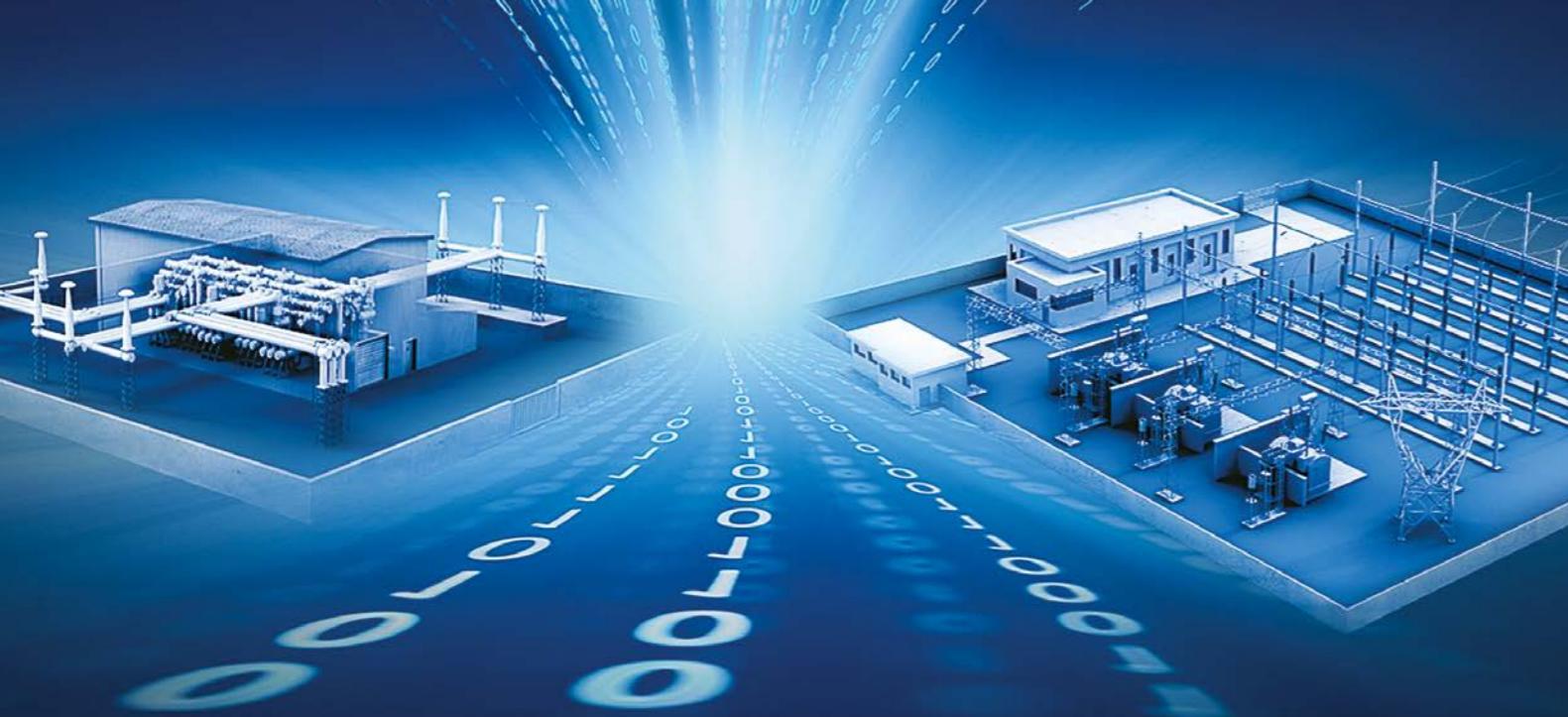
(3) Adjusted profit for 2013-2014 is calculated as profit / (loss) for the period after deduction of depreciation of fixed assets, loss from revaluation of fixed assets, impairment of available-for-sale investments, restoration of impairment losses on investments in associates, impairment of promissory notes, including deferred taxation at a profit.

(4) The return on assets is calculated as the adjusted profit for the period divided by the average of the total assets for the period.

(5) The return on equity is calculated as the adjusted profit for the period divided by the average amount of capital for the relevant period.

(6) The ratio of current liquidity is calculated as the ratio of total current assets to total short-term liabilities.

(7) Net debt - long-term and short-term debt, net of cash and cash equivalents, short-term bank deposits and short-term bills.



## Intellectual Capital

Intellectual capital management is using the Company's intangible assets to maintain technological leadership in the industry.

Intellectual capital is made up of the Company's intangible assets, such as knowledge, scientific developments, and technologies, including information, and intellectual property. Intellectual capital is of fundamental importance for innovation activities and achievement of PJSC FGC UES'

strategic goals. Management of intellectual capital includes contributions to the development of new technologies and improvement of existing technologies, preservation and enhancement of accumulated professional knowledge, innovative developments, R&D and patenting of developments.



### Management of Innovative Activities

#### RELIABILITY AND QUALITY OF ENERGY SUPPLY

#### Innovative Development Programme

PJSC FGC UES's innovative development programme for 2016-2020 with the perspective up to 2025<sup>28</sup> (adjusted innovation development programme<sup>29</sup>) is aimed at achieving the Company's strategic goals for the period up to 2030.

Key priorities of the innovative development of PJSC FGC UES:

- affordability, reliability, and quality of services for the Company's customers (ensuring a client-oriented Company),
- introduction of new types of equipment and support of new processes that allow us to fulfill our strategic goals,



For more information about PJSC FGC UES' innovative development programme, see [www.fsk-ees.ru/eng/](http://www.fsk-ees.ru/eng/).

<sup>28</sup> Approved by decision of the Board of Directors of PJSC FGC UES (Minutes No. 328 dated 28.06.2016).

<sup>29</sup> Approved by decision of the Board of Directors of PJSC FGC UES (Minutes No. 370 dated 07.06.2017).

**Aleksey Teksler,**  
First Deputy Minister of Energy  
of the Russian Federation



#### - In 2017, the Government of the Russian Federation adopted the Digital Economy programme. What are the main objectives of the programme for this industry in the coming years?

Today, digitisation is increasingly "seizing" the global economy. Inclusion of Russia in this trend is a matter of domestic companies preserving their positions in the international arena. Over the long term, we expect that the creation of our own high-tech solutions will enable our country not only to win a competitive race in traditional markets, but also to enter new frontiers and take the leading positions in the global market for complex systems and services for smart energy.

Inside the country, we have to solve the tasks of increasing the efficiency of the traditional energy system, involving distributed generation in energy exchanges, creating energy storage systems, devices and complexes with regulated consumption, and fulfilling various consumer services.

To that end, in the coming years we must form a package of successful solutions for further replication. Already today, several pilot projects on the development of new digital and intelligent technologies are being implemented. A number of them are supported at the state level in the framework of the road maps for introduction of innovations in the fuel and energy sector and the branch line of the Energynet National Technology Initiative.

With the approval of the programme "Digital Economy of the Russian Federation" by the Government of the Russian Federation in 2017, this work became part of the state course aimed at realising Russia's potential in the global digital revolution.

#### - What role does FGC UES play in the digital transformation of the industry?

The success of digitisation depends directly on the coordinated work of the state, the companies of the fuel and energy complex, and development institutions. Today, FGC UES is actively introducing new solutions.

Since 2006, digital technologies based on the international standard IEC 61850 have been used by the Company to create automated control systems for technological processes. In addition, a wide range of high-tech solutions is used in the construction and reconstruction of power facilities.

The large-scale plans of FGC UES for the commissioning by 2025 of more than 30 digital substations of high and ultra-high voltage class allow us to say that one of the leading roles will be assigned to our Company in the process of digital transformation of the power industry.

#### - What benefits will consumers receive from digitisation?

"Smart" electrical grids and digital substations will help reduce the influence of the "human factor" and significantly improve the reliability of the electrical system by monitoring the characteristics of its operation in real time, which, among other things, will help reduce the number of accidents and accelerate recovery afterwards if they do occur. In addition, digital technology will reduce costs to electric grid companies, and therefore reduce the costs to consumers.



**Boris Ayuyev,**  
Chairman of the Management Board  
of JSC SO UES

#### - How will the task of digitisation of the energy sector be solved?

The goal of digitisation is to increase the efficiency of the entire electric power complex and market mechanisms with a real positive effect for consumers and the energy system as a whole. We cannot allow digitisation to become a long-term implementation of costly projects that do not have tangible effects, and thus discredit themselves in the eyes of consumers. Therefore, it is necessary to talk not about abstract "digitisation", but to define concrete real processes in which the introduction of digital technologies will allow us to implement various market mechanisms, increase the efficiency of the energy system and the speed of liquidation of accidents, reduce costs, and improve reliability.

One of the main directions in the electric power industry with the most potential for improvement with modern digital solutions is intelligent accounting at sites where increasing the accuracy of measurements leads to a clear economic effect, i.e. when measuring large volumes of flows, and where maximum functionality is used, primarily in the management of demand; telecontrol at substations in high voltage grids; systems of relay protection and monitoring of the condition of substation equipment; and technologies of remote control at distribution grid sites. For each of these areas, it is necessary to formulate technical and functional requirements that will allow us to involve a wide range of professional participants in the implementation of technologies.

One of the most striking examples of a power grid management digitisation project that has already been implemented is the introduction of remote control technology for substation equipment.

#### - This project of FGC UES was granted the award "For significant contribution to ensuring the reliability of the regimes of the United Energy System of Russia", in 2017, which was established by the System Operator. What is its significance and effect for consumers and energy systems?

Pilot projects to implement telecontrol implemented at six substations of FGC UES in the North-West and South of Russia, in practice, have confirmed the effectiveness of this technology.

Telecontrol makes it possible to increase the reliability of the Unified National Electrical Grid by reducing the production time of operational switching and reducing the risk of erroneous actions of power facilities' personnel. The use of this technology improves the management quality of the power system's electric power regime by increasing the speed of control actions to change the topology of the electrical grid and reducing the time for deviating the operating mode of power plants from the planned operations schedule. This means that the most efficient stations remain in operation and there is no need to include less efficient generating sources for the time of switching operations.

Work on this direction of digitisation will be continued. According to the plan formed by FGC UES, Rosseti Group and the System Operator, the telecontrol technology should be implemented at 93 substations of the Unified National Electrical Grid in all unified power systems by 2021. The largest number of such facilities will be in Siberia, the Far East, the North-West and the South of Russia.

#### Priority Directions of Innovative Development

Direction	Implementation period	Technologies
<b>DIGITAL SUBSTATION</b>  A digital substation is a substation (SS) with a high level of automation of technological processes, equipped with advanced information technology and management systems and facilities, in which all the processes of information exchange between the elements of the SS, information exchange with external systems, and management of the SS are carried out in digital form on the basis of IEC protocols. At the same time, both the primary power equipment of the SS and the components of information technology and control systems should be functionally and constructively oriented to support the digital data exchange, which makes it possible to provide a high level of diagnostics and operational reliability while reducing maintenance costs.	2016-2025	SS equipment supporting information exchange based on IEC 61850 standard: interconnection controllers, switches, fiber optic communication lines, optical and electronic current and voltage transformers (conversion devices), intelligent electronic devices, recording and diagnostic systems.
<b>DIGITAL DESIGN</b>  One of our priority directions is to provide an ecosystem of engineering and design on the basis of modern design information technologies, support of teamwork and parallel engineering, introduction of methods of digital estimation, and virtual inspections of engineering solutions. This strategic initiative is aimed at implementing the Strategy for the development of the power grid complex of the Russian Federation (in terms of increasing efficiency and reducing the unit cost of investment) and complying with the requirements of the Regulation on the Uniform Technical Policy in the Electric Grid Complex at all stages of the life cycle of energy facilities. We aim to do so by solving optimisation and informatisation problems in engineering and employing modern industrial production methods by creating electronic services that can work into an integrated information environment that ensures uniformity of design processes and structures, and interaction between the subjects in the construction of power grid facilities.	2015-2020, development of information services 2020-2025	CAD (PLM, BIM), modeling tools, electronic catalogs, electronic settlement services, logistics data processing tools, mobile terminals, geolocation, laser technologies.
<b>ENERGY EFFICIENCY AND LOSS REDUCTION</b>  Within the framework of the approved Energy Saving and Energy Efficiency Programmes, work aimed at improving the energy efficiency of UNEG and reducing the relative losses of electric energy is continuously being carried out. The level of technological losses in the UNEG is comparable to foreign counterparts. Further loss reduction is possible only with the implementation of technological innovations. The analysis showed that measures related to the reconstruction and development of electrical grids – the use of new types of wires, transformer equipment, commissioning of reactive power compensation equipment – are not recoverable from the viewpoint of reducing losses.  The most promising areas for reducing losses are:	2015-2018, the implementation of targeted programmes 2018-2025	Functional coatings of wires, distributed (intelligent) automatic control systems for voltage and reactive power, heat recovery of transformers, energy-efficient control systems for cooling power transformers, automatic heating control systems for equipment.

**Priority Directions of Innovative Development (continued)**

Direction	Implementation period	Technologies
<ul style="list-style-type: none"> <li>● reduction of electrical energy consumption for a substation's own needs. At the same time, measures to increase the efficiency of the cooling systems of transformers and to automate the heating of cabinets of drives, switches, separators, and on-load tap-changers of autotransformers have the greatest potential;</li> <li>● research and testing of functional wire covers to reduce energy losses, including losses to the crown;</li> <li>● new developments and testing in the field of creation of distributed (intelligent) voltage and reactive power control systems.</li> </ul> <p>It is planned to implement a number of research and pilot projects aimed at creating standard technical solutions to reduce the technological losses of electricity during its transmission.</p>		
<b>REMOTE MANAGEMENT AND SECURITY</b> FGC UES introduces an automated system of technological management – a set of automation tools for the tasks of production, technical and operational management of UNEG grid facilities, which provides the possibility of remote control and observability of the operation of facilities to ensure high operational readiness of the UNEG and the system reliability of the UES as a whole. As part of the project, remote control technology is developed from the Grid Control Centers of PJSC FGC UES, and interaction with Dispatching Departments of JSC SO UES with optimisation of the operation scheme of the facilities is coordinated. At the same time, the manageability of facilities increases with a simultaneous reduction in management costs. To ensure the implementation of the project and the development of the market for management and protection tools, it is necessary to carry out a set of measures for the pilot implementation and development of normative and technical documentation, as well as the solution of a number of integration problems and the development of appropriate tools.	2016-2025	Systems of technological control of the level of control centres (SCADA, EMS) and level of objects (ICTS, SCTT) and modern digital measurement systems (monitoring and diagnostic tools, systems and means of information and physical protection, systems for detection and localisation of cyber attacks).
<b>QUALITY OF ELECTRIC POWER</b> Work in this direction provides for placement of devices for voltage regulation, balancing and compensation of voltage harmonics in complex circuit-mode grid nodes. FGC UES has developed a wide class of devices on the hardware base of power electronics, which make it possible to impart active properties to the elements of electrical grids and provide management at a new qualitative level. To scale the technology to the distribution complex and power receivers of industrial consumers, it is necessary to implement pilot projects, develop new types of control systems, adjust the regulatory and legislative framework, and create an extensive system of objective quality electricity control.	2016-2025	The FACTS technology package (LCD, STEJ, CSR, FTD, STATCOM), systems of balancing and compensation of voltage harmonics, distributed monitoring and control systems and typical automatic control systems making it possible to regulate voltage by several power quality criteria.

**Priority Directions of Innovative Development (continued)**

Direction	Implementation period	Technologies
<b>RELIABILITY AND ASSET MANAGEMENT</b> We are working on development of a methodology for the integrated management of production funds and assets, based on the planning of technical impacts on equipment, taking into account the analysis of its current technical condition, costs and potential risks. According to foreign studies, the use of such an integrated approach to the management of production assets can reduce repair costs by 5-15% (depending on the region of presence), downtime of equipment by 5-20%, and it increases the useful life by 5-30%. It is planned to create infrastructure for data aggregation, carry out a number of studies on data processing, adapt and introduce technological innovations that are actively used in logistics, rework normative documents, and introduce new approaches to maintenance, including servicing.	2016-2019, finalisation and development of information services 2020-2025	Transaction elements of the asset management system, mobile terminals of production personnel, unmanned aerial vehicles, systems for modeling the consequences of technological violations, remote sensing and RFID tags, structurisation and risk analysis systems, geolocation technologies, intelligent monitoring and diagnostic systems, integration systems and the collective use of production data, the system of accumulation and visualisation of production and information (stationary, mobile), knowledge management systems, remote training and personnel certification systems, distribution systems of positive experience in the field of production equipment operation.
<b>COMPOSITE MATERIALS AND SUPERCONDUCTIVITY</b> The initiative is aimed at the implementation of the Strategy for the Development of the Electric Grid Complex of the Russian Federation, as well as the order of the Government of the Russian Federation "Development of the Composite Materials Industry" in terms of increasing efficiency and reducing the unit cost of investment by developing new technical solutions with wider use of new construction materials, relevant standard solutions, industry standards, and organisation standards.	2015-2025	Composite materials for OL and SS designs, composite materials for insulating products, composite cores and conductor products, high-temperature superconductivity technology, functional coatings for overhead lines, new insulating materials to reduce consumption for our own needs.



### Pavel Korsunov

Deputy Chairman of the Board of PJSC FGC UES

#### – What are the main areas of innovative activity for FGC UES?

We have seven such areas: digital substation, digital design, energy efficiency and loss reduction, remote control and safety, power quality, reliability and asset management, composite materials and superconductivity.

#### – In the course of the reporting year, you completed the pilot project of the SS 500 kV Tobol in the Tyumen Region. What is the essence of the project?

The Tobol Substation 500 kV is the country's first power project of ultra-high voltage class into which digital substation technologies are integrated. All the innovative digital equipment installed here, from optical current and voltage transformers to relay protection to automation and accounting, is manufactured in Russia.

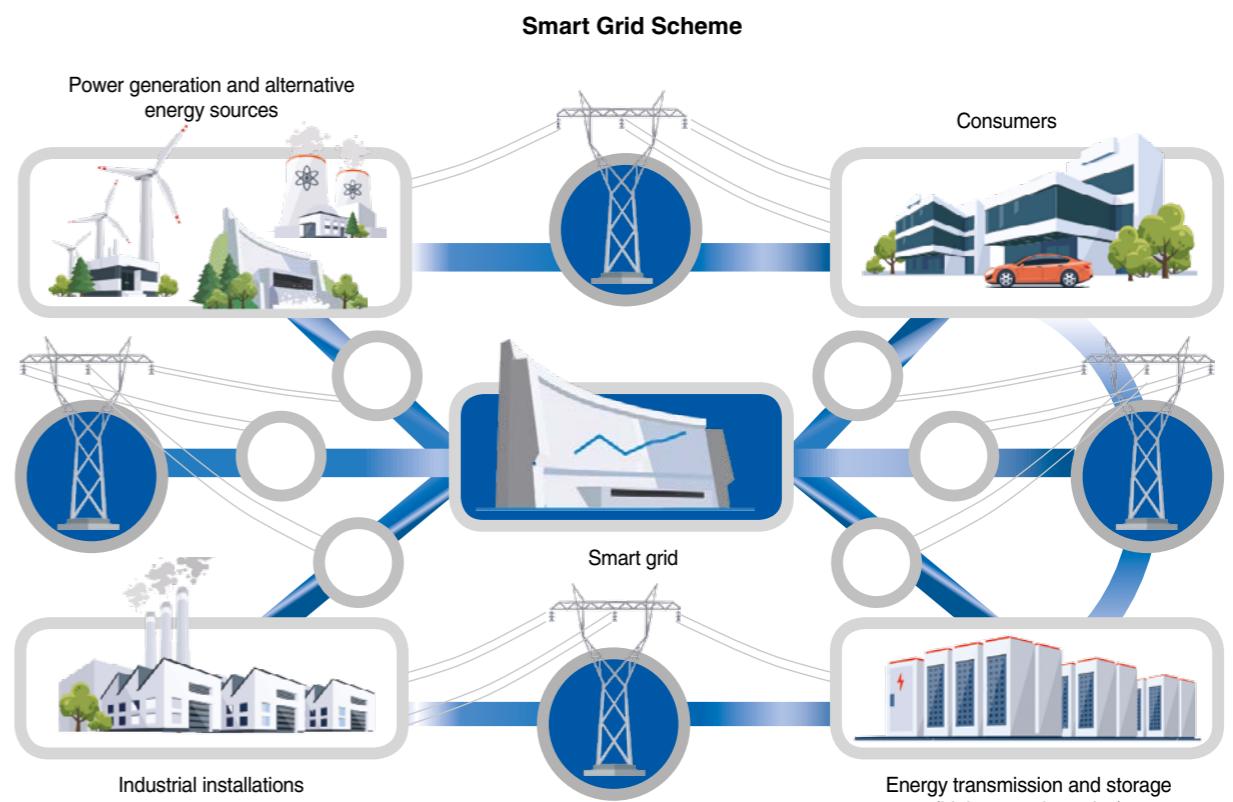
This substation is a key link in the external power supply scheme of ZapSibNeftekhim. It will provide transmission from a single grid of up to 300 megawatts of power for the needs of the enterprise under construction.

The use of digital substation technologies is one of the priorities of FGC UES's innovative development programme. It helps to reduce accidents, improve collection and analysis of data, and in the future (with a wide application), to reduce the cost of construction and operation of the substation.

In the next three years, it is planned to launch 32 digital substations. And by 2025 all substations of FGC UES will be equipped with digital communication with the possibility of remote control from unified control centres.

### Intelligent (Active-Adaptive) Grid

The result of the Innovative Development Programme should be the creation of an electric power system with an intelligent grid that differs from the existing grid in that it has innovative elements: automated power transmission control systems, active grid elements with variable parameters, a grid monitoring system, and automated real-time systems to support the operation of the power system within specified limits, as part of a unified system of analysis and decision making.



The basis for building an intelligent grid and principles for managing the energy system is the priority of system factors and conditions – the reliability and economy of the system as a whole.

New principles and technologies that serve as the basis for building an intelligent energy system with an active-adaptive grid:

- a data collection and processing system and tools for managing active grid elements and consumer electrical installations;
- the necessary executive bodies and mechanisms which make it possible to change the grid's topological parameters in real time and interact with related energy objects;
- means of automatic assessment of the current situation and building forecasts for the operation of the grid;
- performance of the control system and high speed of information exchange.



## Results of Innovation Activities

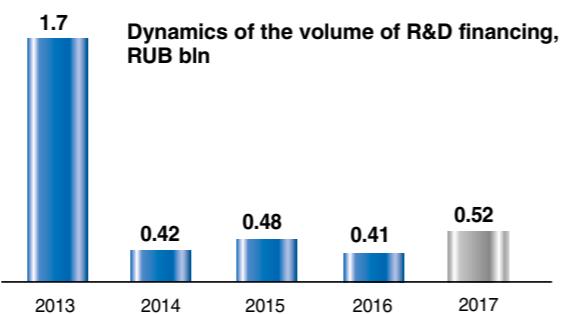
In 2017, more than half a billion rubles were allocated to R&D.

### Investments in Innovation

One of the tools for implementing PJSC FGC UES's Innovative Development Programme for 2016-2020 with the prospect up to 2025 is our Research, Development and Technological Works (R&D) Programme.

In accordance with the Investment Programme for 2017, RUB 0.52 billion were allocated for the implementation of the R&D Programme.

The R&D programme is designed to provide sustainable and long-term financing for the development of the latest technologies, equipment and instruments within the framework of the investment programme of PJSC FGC UES. It is aimed at improving the reliability, quality and economy of energy supply to consumers by upgrading the electrical grids of UES of Russia.



Information on the main results of the R&D programme for 2017 is provided in Appendix 1.

### HIGH-TEMPERATURE SUPERCONDUCTIVITY

The main stage of testing of the first in Russia and the world's largest high-temperature superconducting cable line has been completed.

Tested with a full simulation of the operating mode, a prototype HTSC of a 2.5 km long cable line of D.C. will be put into operation in the power system of St. Petersburg in 2020 and will connect two substations – SS 330 kV Central and SS 220 kV

RP-9, which will increase the reliability of the city's electricity supply.

At the end of 2017, project documentation for the implementation of the line was approved by the FAI Glavgosexpertiza of Russia. The Ministry of Energy of Russia has included FGC's developments in the field of superconductivity in the national project.

### Scientific and Technical Partnership

The Innovative Development Programme strives to facilitate interaction with the subjects of the innovative ecosystem of this industry and institutes of innovative development, technological platforms, universities, research and scientific and design organisations, and equipment manufacturers.

The interaction is carried out mainly through the implementation of research and development work with organisations such as:

- JSC Scientific and Technical Centre of FGC UES,
- Tomsk Polytechnic University,
- Uniteel Engineering LLC,
- OJSC VNIIR,
- CJSC Institute of Automation of Energy Systems.

In 2017, emphasis was placed on the priority areas of scientific and technological development associated with "digitisation", namely digital substation, digital design and remote control and security. For these works, funds were allocated in the amount of RUB 175 million (33% of total R&D funding), which is 64% more than in 2016.

In addition, FGC UES interacts with organisations within the structure of the Ministry of Energy of Russia. By order of PJSC FGC UES in 2017, FSBI Russian Energy Agency performed the work "Comparison of the level of technological development and values of PJSC FGC UES's key performance indicators to the level of development and indicators of leading foreign analog companies".

### Plans for 2018 and the Medium Term

The Innovative Development Programme enables increased quality and efficiency of planning and implementing the R&D Programme by concentrating on the most advanced and critical areas of innovation.

Furthermore, it is planned to update the tools of "open innovation" to work with partners in the following areas:

- development and popularisation of public documents and Internet resources on the subject of innovative development of the Company;
- development of innovative competence centres, created with the participation or support of FGC;
- development of tools for managing knowledge and competencies, and managing the Company's production system.



## Natural capital

Management of natural capital is the rational and frugal use of environmental resources in the Company's production activities and unconditional fulfillment of all necessary ecological norms and requirements.

Natural capital includes all renewable or non-renewable natural resources that are used in one way or another by the Company when rendering services.

Natural capital is used by everyone and includes air, water, land, minerals, and forests, as well as biological diversity and ecosystem health.

## Environmental policy

PJSC FGC UES considers environmental activities an integral and important part of its activities.

Our goals in the field of environmental protection and environmental management include:

- minimisation of negative impact on the environment, including through the use of innovative solutions and the introduction of the best available technologies;
- compliance with the requirements of environmental legislation;
- effective functioning of the environmental management system (EMS).



*The main directions of the implementation of the Environmental Policy are outlined in Appendix 1.*

The environmental policy of JSC FGC UES<sup>30</sup> was adopted in 2014 (Environmental Policy) and complies with the principles of the State policy in the field of environmental development of the Russian Federation, with the Energy Strategy of Russia up to 2030 and with the provisions of the Environmental Policy of the Electric Grid Complex<sup>31</sup>.

The purpose of the Environmental Policy is to minimise the negative impact on the environment in the transmission and distribution of electrical energy.

PJSC FGC UES, in accordance with the precautionary principle (102-11), seeks to avoid supposed harm to the environment, even if there is no proven scientific evidence that a certain activity causes such harm. At the stage of development of project documentation for

the construction / reconstruction of power grid facilities, an assessment of the impact of their activities on the environment is made and design solutions are adopted that assume the prevention or minimisation of possible negative impacts.

In 2017, within the framework of the EMS transition to the new version of the ISO 14001:2015 standard, the approach to the environmental management system has been improved and new requirements for managing the risks associated with the impact on the environment have been established. Recertification audit confirmed the complete compliance of the EMS with the requirements of ISO 14001:2015. The certificate issued on the basis of an independent verification is valid until 2020.

## Target environmental indicators

In order to implement the Environmental Policy and establish documented environmental goals and objectives, PJSC FGC UES approved the Target Quantitative Environmental Indicators (TQEI) for 2017-2019.

All established target quantitative environmental indicators for 2017 have been achieved.

### Achievement of the Target Quantitative Environmental Indicators in 2017

TQEI	Number of facilities		Absolute value of the indicator		Specific value of the indicator		2017 fact, %	2018 plan, %
	2016	2017	2016	2017	2016	2017		
Reducing the amount of equipment containing trichlorodiphenyl in operation by 4% from the previous year's total	-	-	39,637	33,137	-	-	-16	-4
Reducing the specific volumes of waste transferred for disposal in relation to the total number of production facilities by 2% of the previous year's total	950	960	6,797	6,745	7.15	7.02	-2	-2
Reducing the specific volumes of water consumption in relation to the total number of production facilities by 2% from the previous year's total	950	960	901	898	0.95	0.93	-2	-2
Reducing the number of non-conformities detected during the internal environmental audit in relation to the annual number of audited objects by 2% of the previous year's total	371	379	604	539	1.62	1.42	-12	-2

<sup>30</sup> Confirmed by the Board of directors of PJSC FGC UES, Minutes No. 230 dated 30.09.2014.

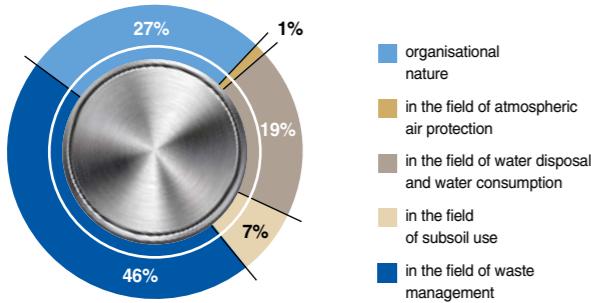
<sup>31</sup> Confirmed by the Board of Directors of PJSC Rosseti, Minutes No. 254 dated 03.03.2017.

When implementing the Environmental Policy, FGC UES conducts technical and organisational measures to minimise the negative impact of the Company's production activities on the environment.

Technical activities	Organisational activities
Replacement of equipment containing hazardous and toxic substances.	Development of the necessary normative and technical documentation and improvement of the documentation support for nature protection activities.
Reconstruction and repair of systems and devices of oil receivers and oil sump.	Effective functioning of an EMS conforming to the requirements of the international standard ISO 14001:2015.
Construction and reconstruction of water supply and drainage systems.	Improvement of the system of industrial environmental control and internal environmental audits of EMS. Environmental education and staff education.
Equipment of places of temporary waste accumulation.	

**Internal environmental audits**

In order to assess compliance with the requirements of environmental legislation of the Russian Federation and EMS, 379 production facilities were inspected in the framework of internal environmental audits (IEA) in 2017, which is 39.5% of the total number of facilities. During the audits 539 comments were issued.

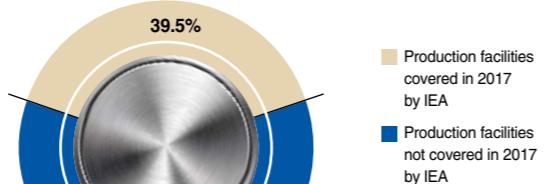
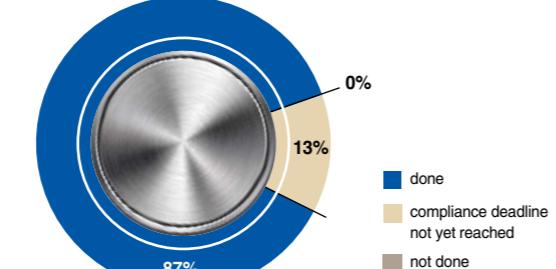
**Identified violations in 2017**

The specific number of discrepancies identified by the results of the IEA of 2017 per one inspected object as compared to the previous year decreased by 12%, which indicates the effectiveness of the work carried out in PJSC FGC UES aimed at minimising the negative impact on the environment.

**Results in the field of environmental protection**

PJSC FGC UES recognises that its operational activities can have a negative impact on the environment in connection with:

- production waste generation,
- water intake from underground and surface water bodies,
- emissions and discharges of pollutants,
- physical impact on atmospheric air.

**Elimination of violations in 2017**

**1,581 LABORATORY ANALYSES**

OF THE QUALITY OF ATMOSPHERIC AIR, UNDERGROUND AND WASTE WATER, AND THE LEVEL OF PHYSICAL IMPACT WERE CONDUCTED IN 2017

**Dmitry Vodennikov,**

Deputy Chairman of the Management Board - Chief Engineer,  
Member of the Management Board of PJSC FGC UES

– What are the main results you achieved in the field of environmental protection in 2017, which was declared “the year of ecology” by the President of the Russian Federation?

In the reporting year, our environmental management system was transferred to the new version of ISO 14001:2015.

We have improved our approach to the environmental management system and have established new requirements for managing environmental risks. The recertification audit conducted in November-December confirmed full compliance with the requirements of this standard.

In terms of specific environmental indicators, in 2017 the volume of water disposal to water facilities decreased by 29%, and the volume of waste generation decreased by 16.8%. All the target quantitative environmental indicators set for the year were achieved.

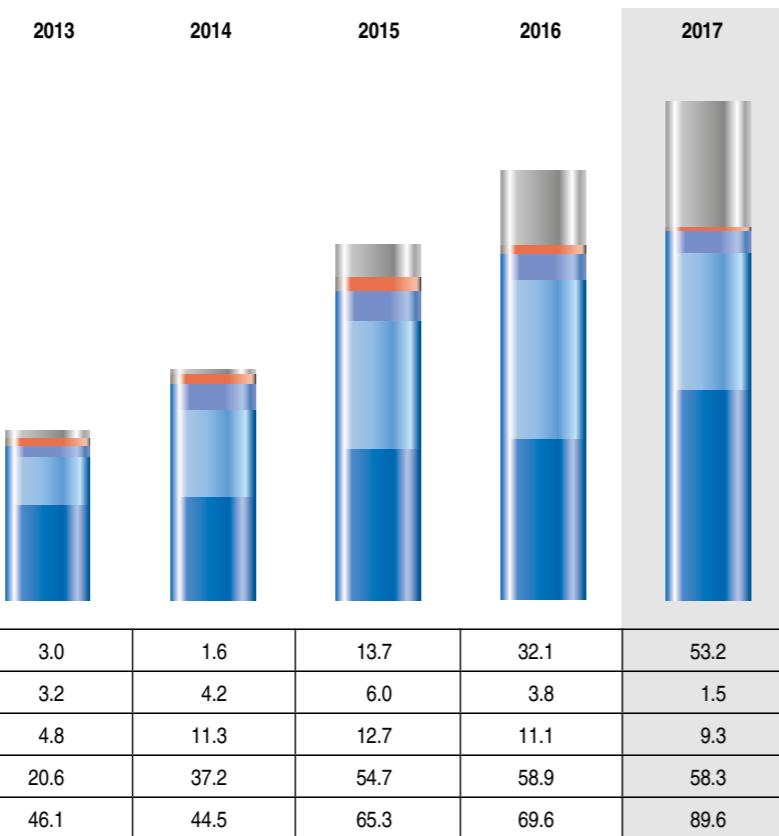
In March we traditionally took part in the international action “Earth Hour”. This year, 762 of our facilities participated. Due to joint efforts, the energy saving amounted to almost 10 MWh.

– Does FGC UES cooperate with environmental NGOs?

This year, as before, we provided charitable assistance to the Center for the Study and Conservation of the Amur Tiger. We also cooperate with the Russian Geographical Society, the Russian Bird Conservation Union and the World Wildlife Fund of Russia (WWF-Russia).

**Expenditure on environmental protection (307-1)**

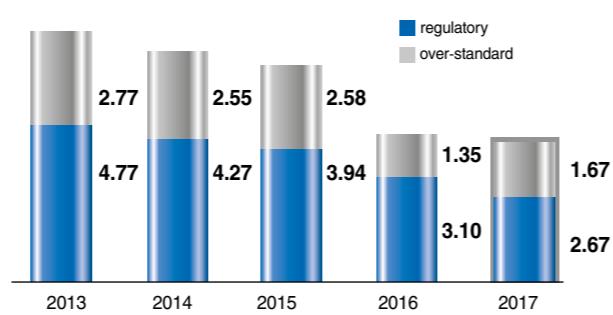
Total costs for environmental protection in 2017 amounted to RUB 295.7 million, of which:  
 ● current costs are RUB 211.9 million,  
 ● payments for negative impact on the environment were RUB 4.3 million.  
 ● capital expenditure was RUB 79.5 million,

**Structure of current costs for environmental measures, RUB mln**

**(307-1)** In 2017, environmental compliance authorities conducted three inspections to ensure compliance with the requirements of environmental legislation in the branches of PJSC FGC UES.

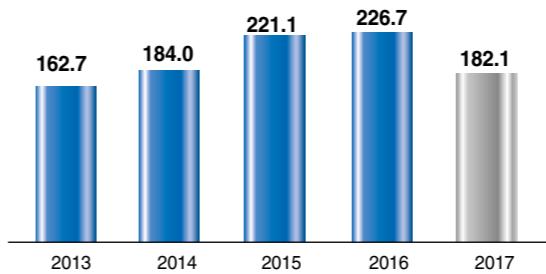
Based on the results of the inspections, five orders were issued; the amount of penalties amounted to RUB 130.0 thousand. Four regulations were implemented in 2017, the deadline for the implementation of one prescription is set for 2018.

Raw materials, semi-finished products and secondary materials are not used by FGC in the process of transmission and distribution of electricity to consumers.

**Volume of payments for negative impact on the environment, RUB mln****Effects on the atmosphere****Emissions of pollutants**

In the course of production activities at PJSC FGC UES's branches, air pollution occurs as a result of pollutants from stationary sources of emissions (wood / metalworking machines, parking lots, diesel generator sets, oil-filled equipment, welding stations, etc.).

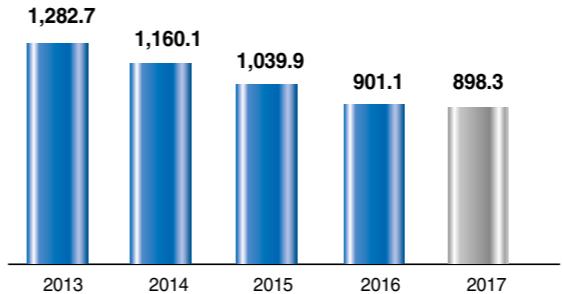
Volumes of emissions are set by calculation during the development of projects of maximum

**Volumes of emissions of pollutants into the atmosphere, tonnes**

The Company does not create direct greenhouse gas emissions from its primary business (transmission and distribution of electricity).

**Use of water resources (303-1)**

In the branches of PJSC FGC UES, water withdrawal for industrial and other needs is carried out from both surface and underground sources, from urban water supply and other sources (for example, bottled water). Water resources are used for household, drinking, fire and technological needs.

**Water consumption, thousand m<sup>3</sup>**

permissible emissions (MPE) and are not analytically measured, since the operation of this equipment is not permanent and the emissions are very small.

**(102-48)** Reducing the volume of pollutant emissions into the atmosphere in 2017 is connected with exclusion of diesel-generator sets from sources of emissions in new MPE projects.

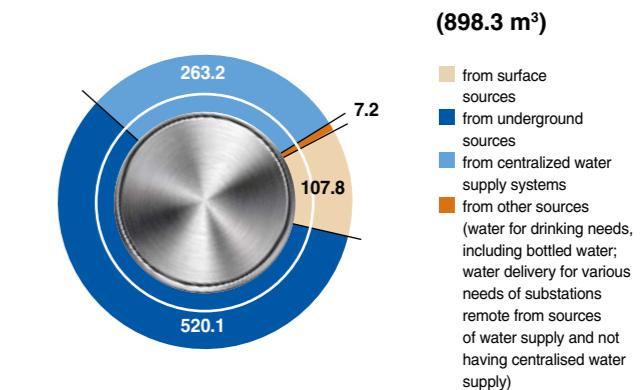
**Emissions of greenhouse gases (305-1, 305-5)**

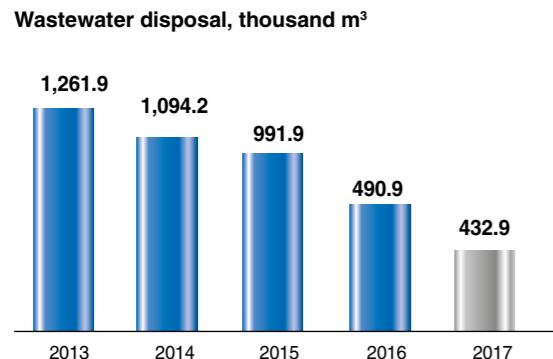
In the process of transmission and distribution of electricity due to losses in electrical grids and the consumption of electricity for the needs of substations, indirect emissions of greenhouse gases are formed.

The energy saving and energy efficiency improvement programme in the UNEG for 2015-2019 includes three key areas that allow for the reduction of indirect greenhouse gas emissions:

- optimisation of operation and control modes of electric grids,
- reduction of power consumption for our substations' own needs,
- introduction of energy-saving equipment.

The annual decrease in water consumption is associated with a reduction in losses due to timely maintenance and repair of water supply systems in the branches of PJSC FGC UES, as well as actions to save water resources.

**Water consumption in 2017, thousand m<sup>3</sup>**



**(102-48)** The significant reduction in wastewater disposal in 2016-2017 is also due to the cessation of accounting for the volume of unorganised discharges into the surrounding landscape, which is excluded from the types of negative impact on the environment in accordance with changes in the environmental legislation of the Russian Federation.

In order to minimise the impact on the natural environment in 2017, the following activities were carried out:

- reconstruction of water supply and sanitation systems at six production facilities;
- repair and maintenance of water supply and sanitation systems at 207 production sites;
- five drafts of permissible discharge standards were developed, 63 draft waste generation standards and limits on its disposal, 66 draft standards for permissible emissions, 25 projects of sanitary protection zones, and 14 projects of sanitary protection zones for drinking water supply sources;
- geological study of groundwater resources at two fields;
- 30 licenses for the right to use subsurface resources for the purpose of extracting groundwater.

**(306-1)** Sewage wastewater (industrial, stormwater, household) from the territory of PJSC FGC UES' production facilities is drained to centralised water disposal systems (87.6%) and to surface water bodies (12.4%).

#### Volume of water disposal in 2017, thousand m<sup>3</sup>

Total, including:	432.9
wastewater disposal to centralised systems	379.0
water disposal into surface water bodies,	53.9
of them:	
- without cleaning	0.0
- insufficiently purified	25.8
- normally purified	28.1

#### Waste (306-2)

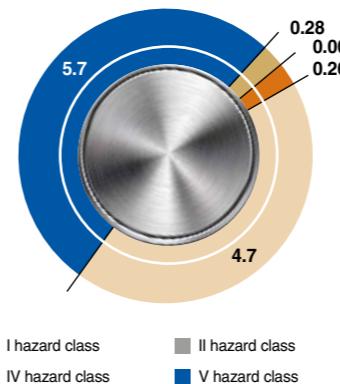
In the process of production activities in the branches of PJSC FGC UES, more than 80 kinds of I-V hazard class production and consumption wastes are formed.

The generated waste is transferred to specialised licensed organisations for neutralisation, recycling, use, and placement on landfills.

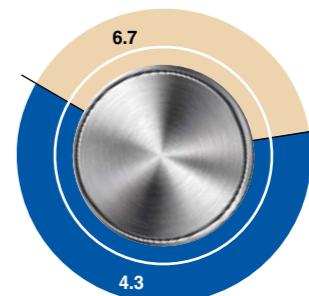
#### Wastes from production and consumption of hazard classes I-V

I hazard class	Spent mercury and fluorescent lamps
II hazard class	Spent lead batteries and storage sulfuric acid
III hazard class	Spent car filters, transformer, transmission and motor oils, waste paint and varnish products
IV hazard class	Garbage from repair and construction works, estimates from the territory of production facilities, absorbent materials contaminated with oils, office equipment wastes, worn out overalls, worn out tires
V hazard class	Spent porcelain insulators and tires, scraps of ferrous metals, waste products of concrete products, waste of insulated wires and cables, wood waste, waste of branches from logging, polyethylene waste, waste paper and paperboard

#### Waste generation in 2017, thousand tonnes



#### Utilisation of waste in 2017, thousand tonnes



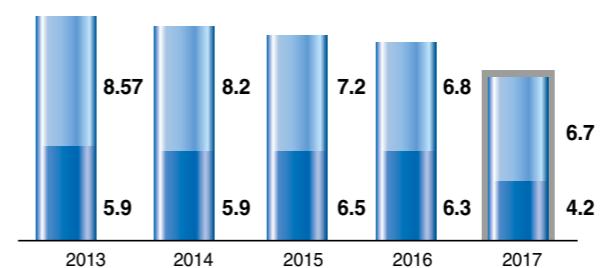
- Transmitted to specialised organisations for neutralisation, recycling and use
- Submitted to specialised organisations for placement on landfills

The annual decrease in the volume of waste generation is primarily related to a reduction in the volume of reconstruction and technical re-equipment works on electric grid facilities.

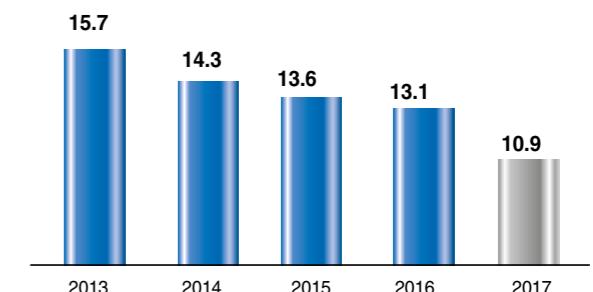
In order to minimise our environmental impact, in 2017 the following works were carried out:

- reconstruction of systems and devices of oil receivers and oil collectors at nine production facilities;

#### Volume of waste by methods of circulation, thousand tonnes



#### Volume of waste generation, thousand tonnes





### Alexei Knizhnikov

Head of the Programme on Environmental Policy  
of the World Wildlife Fund (WWF-Russia)

#### - In 2017, the Year of Ecology was held in Russia. What results in the field of environmental protection have been achieved in the electric power industry?

The development of any industry at the present stage is impossible without a responsible attitude towards nature. In the Year of Ecology, interest in "green" issues has grown. Many energy companies have increased the transparency of their environmental activities. However, it is not the individual achievements of the Year of Ecology that are important, but rather systematic work to reduce negative impacts on the environment.

#### - How do you assess the results of FGC UES activities in the field of ecology?

We consider partnership with companies one of the most effective ways to achieve environmental goals. WWF-Russia has been cooperating with FGC UES since 2013. The main areas of interest for us are the environmental safety of power grid facilities, implementing energy-efficient solutions, biodiversity conservation, developing and supporting a system of specially protected natural territories, and sustainable forest management.

FGC UES has demonstrated consistent improvement in environmental performance. Energy-saving programmes are being implemented, and the volume of production wastes transferred to landfills is reduced.

In the power grid complex there is a specific problem: birds often choose to nest in the support of high-voltage lines. This creates a threat of accidents in power grids, as a result of which the birds themselves, of course, die. The company installs protective devices and special platforms for nesting on power line supports, which reduces the risk of such accidents.

#### - Which WWF-Russia projects are implemented jointly with FGC UES?

In the Amur region, WWF Russia, the Russian Geographical Society and FGC UES are carrying out a project called "Let's Save the Far Eastern Stork Together". It's about protecting a very rare near-extinct species of bird. Creating safe conditions for nesting for the Far Eastern stork is especially important. To achieve the best result, a detailed analysis of the situation and an assessment of the effectiveness of the protective measures taken are needed. In 2017, with the support of FGC UES, the Amur Basin Expedition carried out such a study. We expect that in the future this unique work will allow us to achieve new successes in protecting the Far Eastern stork.

### Conservation of biodiversity<sup>32</sup> (304-1, 304-4)

The activities of PJSC FGC UES do not have a significant impact on biodiversity in nature protection zones and areas that are significant from the point of view of biodiversity outside the nature protection zones.

In accordance with the Regulation on the Uniform Technical Policy in the Electric Grid Complex, the Company takes the necessary measures to reduce the impact of electric grid facilities on biodiversity:

- limiting production and construction activities in areas of special environmental significance;
- taking management and investment decisions which take environmental impact into account, and developing measures to reduce and prevent adverse environmental impacts;
- use of innovative materials and technologies in production process, which ensure compliance with environmental requirements and minimise negative impact on the environment.

If necessary, FGC:

- uses high-altitude supports with arrangement of wires above the crowns of valuable forest trees,
- implements measures for the protection of fauna at power grid facilities (equipping the supports of overhead lines with special devices that prevent the nesting of birds on structural support elements, the use of scaring and bird protection devices, the preventing members of the animal world from penetrating into the substation, into operating nodes and mechanisms, etc.).

In 2017 a number of measures were implemented to conserve biodiversity:

- compensatory planting of green plants – 68.5 thousand,
- planting seeds of small-coniferous species – 4 kg;
- regeneration of natural resources by 1,014 hectares;
- release of minnows – 2.9 million;
- installment of 40.7 thousand bird protection devices for air lines.

In the course of the Company's operations, cases of displacement and / or destruction of animal habitats are not observed.



Information on the total number of species listed in the IUCN Red List and the national list of protected species, including those located in specially protected natural areas on which FGC UES operates, is provided in Appendix 9. (304-4)

<sup>32</sup> The issue of electric grid companies' impact on biodiversity has not been sufficiently studied to date. (304-2)

### ACTIVITIES IN PROTECTED NATURAL AREAS

#### Monitoring the state of the environment in the national park

In 2009-2017, on the territory of the FGU Smolny National Park (the Republic of Mordovia), located in the Nizhny Novgorod EMPS activity zone, environmental monitoring was conducted in the area of the 500 kV overhead power line. The purpose of the monitoring is to assess the species diversity, abundance, and spatial distribution of birds within the control areas located on the 500 kV Ulyanovskaya-Severnaya and Ulyanovskaya-Yuzhnaya.

The monitoring results showed that climatic and phenological fluctuations of different seasons (years) influence the dynamics of terrestrial ecosystems most seriously. These include, first of all, fluctuations in the surface moistening of the soil and the dynamics of the development of herbaceous and shrubby plant formations; also, cutting and thinning of shrub and tree undergrowth in selected sections of the 500 kV transmission lines; and finally, forest fires and the long-term transformations of plant communities they cause.



Information on the Register of Specially Protected Natural Territories on which FGC UES operates is provided in Appendix 10. (304-1)

## Energy efficiency and internal energy consumption

BASED ON THE RESULTS OF 2017,  
THE TECHNOLOGICAL EFFECT  
FROM MEASURES TAKEN TO REDUCE  
ELECTRICITY LOSSES AS A WHOLE  
FOR FGC UES WAS

**58.6**  
MILLION KWH

## THE TECHNOLOGICAL EFFECT

OF THE MEASURES TAKEN TO REDUCE  
ENERGY / FUEL CONSUMPTION

**7,438**  
T.F.E.

## THE ECONOMIC EFFECT

OF MEASURES TAKEN TO REDUCE  
ENERGY CONSUMPTION / FUEL

RUB **74.8**  
MILLION  
(EXCLUDING VAT)

During the reporting year, the Company continued implementation of the Energy Conservation and Energy Efficiency Programme of PJSC FGC UES for 2015-2019<sup>33</sup>.

### Objectives of the Programme:

- ensuring the economic and rational use of fuel and energy resources, and reducing the technological consumption of electricity during its transfer to UNEG by increasing the energy efficiency of PJSC FGC UES' facilities and equipment,
- implementing an energy management system and certifying activities based on the requirements of the international standard ISO 50001:2011 "Energy management systems. Requirements and Application Guide",
- Improving the energy efficiency of grid facilities and FGC equipment.

In 2017, the corporate energy management system of PJSC FGC UES (within the Company's borders) was certified for compliance with the requirements of the international standard ISO 50001:2011 "Energy management systems. Requirements and guidance for use" (National Standard of the Russian Federation GOST R ISO 50001-2012) with the scope of certification "Provision of services for transmission and distribution of electrical energy".

As a result of the audit, the independent organisation did not reveal any inconsistencies with the requirements of the international standard.



The programme is available on the website  
[www.fsk-ees.ru](http://www.fsk-ees.ru)

<sup>33</sup> Excerpt from minutes No. 1326/2 of the meeting of the Management Board dated 04.08.2015.

(302-4) Results of activities in the field of energy efficiency and energy saving in 2017:

- reduction in the specific electricity consumption for the substation's own needs for one unit of substation equipment was 4.6%, with the Russian FAS's target being 0.5%;
- equipping buildings and structures with used water meters, natural gas meters, and heat and electric meters – the indicator is 100% completed (CPE-2);
- reduction in the specific consumption of electric energy in buildings and structures

per sq. m. of the area of these premises was 4.5%, with the Russian FAS's target being 3.4%;

- reduction in specific heat consumption in buildings and structures per one cubic meter of the volume of these premises was 5.8%, with the Russian FAS's target being 5.8%;
- reduction in the specific consumption of gasoline used by FGC to provide electricity transmission services through the UNEG per km of transport with a motor vehicle was 1.5%, with the Russian FAS's target being 0.4%;

- the reduction in the specific consumption of diesel fuel used by FGC for the provision of electricity transmission services through the UNEG per km of transport with a motor vehicle was 2.9%, with the Russian FAS's target being 0.5%;

- the installation of lighting devices using LEDs, the percentage of the total number of lighting devices (the figure introduced since 2017) was 17%, with the Russian FAS's target being 10%.

On 25.03.2017 PJSC FGC UES became a participant in the international action "Earth Hour". As part of this event, the lighting of the administrative buildings and the lighting of the territories of the substations and other facilities that did not affect production activities and security were disconnected. 762 PJSC FGC UES facilities took part. The total amount of electricity saved was 10 MWh.

To reduce the technological consumption of electricity (losses) in UNEG, FGC is carrying out work on:

- optimising circuit and mode parameters in operating conditions and operational control of electrical grids,
- reducing the consumption of electricity for the needs of substations,
- constructing, reconstructing and developing electrical grids, as well as introducing energy-saving equipment (loss reduction has a concomitant effect).

According to the results of 2017, the technological effect of implementing measures to reduce electricity losses as a whole for FGC was 58.6 million kWh or 7,204.81 tonnes of fuel equivalent<sup>34</sup>; the economic effect was RUB 66.6 million excluding VAT.

The effect from the implementation of targeted measures to reduce the consumption of resources

<sup>34</sup> 1 t.f.e. = 29.3 GJ.

for economic needs amounted to 227.17 tonnes of fuel equivalent (1,068.17 thousand kWh, 0.795 thousand Gcal, and 84.94 thousand litres of fuels and lubricants) for a total of RUB 8.195 million excluding VAT.

The total technological effect of measures taken to reduce energy consumption (losses) in UNEG and resource consumption for economic needs in FGC amounted to 7,431.98 tonnes of fuel equivalent; the economic effect amounted to RUB 74.8 million excluding VAT.



For information on the amount of energy resources used by the Company in 2017 see Appendix 1.



## Human capital

Managing human capital is the practice by the Company of interacting with personnel, using their professional competencies, and creating an effective system of motivation and involvement in the workflow.

Human capital is the competence of employees, their abilities and experience, as well as their motivation to contribute to the implementation of the Company's strategy and to introduce innovations. Managing human capital assumes:

- professional development of employees;
- continuous work with the personnel reserve and the labour market;
- availability and development of a system for motivating and supporting staff.

### Personnel Management

PJSC FGC UES's personnel and social policy is a unified human resources management system aimed at achieving a balance between the optimal use of the results of employees' professional activities, the achievement of the Company's strategic goals, and the provision of remuneration, as well as social benefits and guarantees that meet the needs and expectations of employees.

The main objectives of FGC UES' personnel policy are to manage the efficiency, number and development of personnel.

The Company uses various mechanisms to create conditions for the professional and career development of employees, effective motivation, and the strengthening of a united corporate culture, while taking into account socio-economic development and the specifics of the regions of the Company's presence.

The Code of Corporate Ethics and Employee Conduct of PJSC FGC UES determines the basic norms and rules for individual and collective behavior. Employees of the Company, as well as members of its management and control bodies, must take all necessary measures to comply with the provisions of the Code of Corporate Ethics and official conduct of employees of PJSC FGC UES. [\(102-16\)](#)

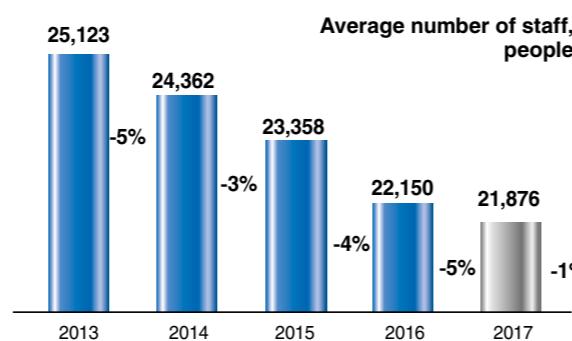
### Results of Implementation of Personnel Policy

#### Number and Quality of Staff

[\(102-7\)](#) The average number of personnel of PJSC FGC UES for 2017 was 21,876 people, which is 1% less than the previous year.



For information on the headcount of the Company as of 31.12.2017 see [Appendix 1](#).



Natalia Ozhegina

Deputy Chairman of the Board of PJSC FGC UES

#### – What are the main results of implementing PJSC FGC UES's HR policy in 2017?

As a result of 2017, labour productivity in value terms increased by 14.8% compared to 2016. The indicators have been achieved by improving the organisational and functional structure of the Company and improving the efficiency of the industrial and production staff. At the same time, the average wage increased by 6.8% compared to the previous year.

One of the priority activities is the process of updating and maintaining the quantitative and qualitative composition of personnel to ensure the reliable functioning and development of the Company.

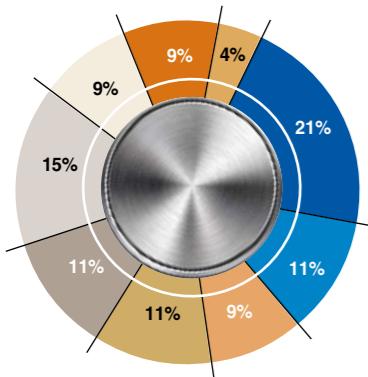
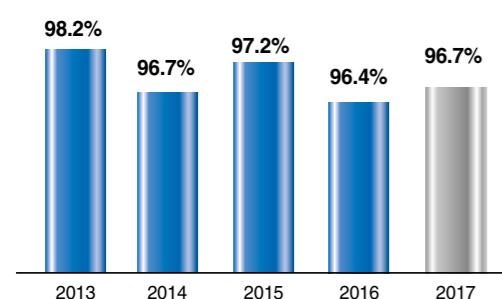
In 2017, almost 18,000 employees took part in various training, retraining and advanced training programmes. At the same time, the portion of personnel that trained with a break from the main activity was 80% of the total number of employees. For achievements in the field of talent management, FGC UES won the Grand Prix of the Crystal Pyramid Award in the framework of the XVIII Summit of HR Directors of Russia and the CIS. The activities of FGC UES for the development of international cooperation in the field of engineering education and the implementation of joint projects within the framework of the youth section of the Russian National Committee of the International Organisation CIGRE were especially celebrated.

#### – How will the Company's staffing need change in connection with the trend of digitalisation of the Russian economy? What kind of work is planned in 2018 and in the medium term in this direction?

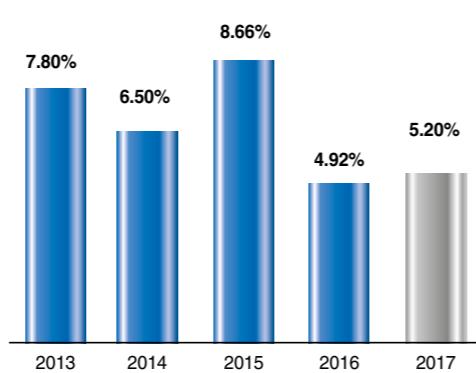
Electric power as one of the leading industries is a driver of change. The development of technology and technologies, digitalization dictate new requirements for the knowledge and skills of personnel, lead to the need for training of high-class specialists, combining, in addition to the basic profile education, interdisciplinary knowledge and practical experience in "adjacent" areas.

Many believe that the main challenge of digitisation will be robotization. A machine can cope with the task of any complexity, but the task before it will still be people. And these people should be very well prepared.

Consolidation, generalisation of experience and best practices are an important component of the personnel policy of FGC UES. Combining the efforts of energy companies, universities and professional communities, collective expertise will create a perspective vision of what professional competencies will be in demand in the short and long term, and take the necessary steps towards the staffing of the new energy sector.

**Distribution of staff by branch in 2017****PJSC FGC UES's personnel levels (percent)**

The staffing indicator has traditionally remained at a high level and as of December 31, 2017 it was 96.7%, which indicates the high efficiency of HR's corporate functioning.

**Active staff turnover**

In 2017, the active staff turnover rate remained at the same level of the previous year and amounted to 5.2%.

One of our top priorities is updating and maintaining the quantitative and qualitative composition of personnel to ensure the reliable operation and development of the Company.

At FGC UES, we have high standards for the level of education and qualifications of employees. The structure of employees by education has remained unchanged over the past few years. Employees with higher education prevail (63%). The share of employees with secondary vocational education is 36.6%.

The average age of the employees is 41 years. At the same time, the majority of staff (51%) are employees who are in the most economically and socially active age – up to 40 years. The age structure of the Company's personnel has remained stable over the past few years. Thus, an optimal combination of young, initiative employees and experienced, highly professional workers is achieved.

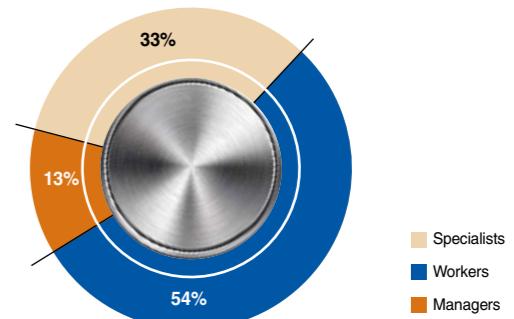
**Training and Development of Personnel****Training, Retraining and Advanced Training of Personnel**

PJSC FGC UES' corporate training system is aimed at providing the Company with highly qualified personnel in a timely manner through continuous employee training and development.

379 planned emergency drills were conducted at the Personnel Training Centres.

In 2017, 17.5 thousand employees (16.8 thousand of them from the production staff) took part in various training, retraining and advanced training programmes. 80% of the staff were trained in isolation from their main activities.

The distribution of FGC UES's employees who took part in training, retraining and advanced training programmes in 2017, by job category



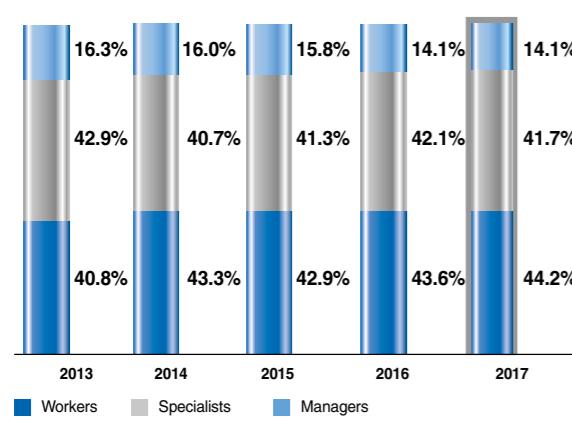
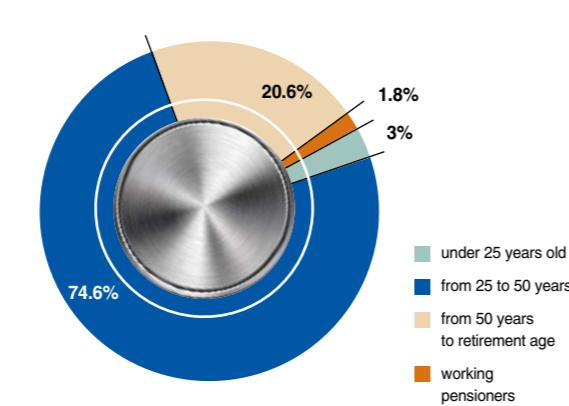
occupational safety in the operation of electrical installations, production of operational switching, and the elimination of technological violations is tested. The project allowed us to reduce the number of technological violations associated with erroneous actions on the part of operational personnel at the facilities of FGC UES (before the project there were five violations, after the project, one).

In 2017 the Company implemented the project "Increasing the Reliability of Operational Personnel", aimed at reducing the number of technological violations due to erroneous actions on the part of employees. In the corporate training centres, operational personnel were trained under specially developed professional development programmes where their knowledge of issues related to

In PJSC FGC UES's Personnel Training Centre, 69 unified professional development programmes and 17 training programmes for working professions are implemented.

**Average number of hours of training in 2017, hour / person**

Category of employee	Among those who participated in training	Among all personnel
<b>Managers</b>		
men	32	21
women	24	30
<b>Specialists</b>		
men	24	21
women	20	2
<b>Workers</b>		
men	38	37
women	34	14

**Personnel structure by category****Personnel structure by age in 2017**

## Personnel Assessment

In 2017, a project for personnel assessment was launched at PJSC FGC UES. 100 technical managers of the Company's branches took part in the evaluation events: first deputy directors of the Company / chief engineers of the MPSs (Main Power Systems), deputy chief engineers of the MPSs, and deputy directors / chief engineers of the EMPSs (Enterprises of the Main Power Systems),

as well as employees of the Chief Engineer Block of MPSs from the personnel reserve.

The evaluation was conducted through a 360-degree survey and was aimed at determining the level of corporate and managerial competencies of personnel in accordance with the model approved by the Company. The evaluation also took into account the results of the implementation of key performance indicators.

## Staff Reserve

PJSC FGC UES has three personnel reserve programmes, the implementation of which reduces the likelihood of shortage of qualified job candidates,

increases the level of professional competence of employees, and allows us to spot especially talented employees.

Tactical personnel reserve of the production and technical unit of PJSC FGC UES - MPS (289 people)

- A reserve is formed for:
- Improving the reliability of electric grid facilities,
- formation of the optimal professional and qualification structure of personnel,
- Training of reservists able to quickly take targeted, vacant or newly vacated positions.

The reserve was formed on the positions of the head of the structural unit and the deputy head of the structural subdivision of the branches of FGC in the following areas:

- relay protection and automation,
- operation of substation equipment,
- information technology systems,
- operational and technological management,
- power line.

"Chief Engineer School" is a long-term multi-level project for prospective specialists (started in 2017)

The reserve is formed for the managerial positions of the chief engineer's units in the Company's branches. The goal of the project is the development of reservist competencies and the enhancement of a culture of safety.

Youth staff reserve (59 people)

The reserve was created with the aim of forming a system for transferring knowledge and experience, as well as motivating young Company employees and furthering their advancement along the career ladder.

## Appointments to higher posts from the number of reservists as of December 31, 2017, people.

Type of personnel reserve	Targeted posts	Other posts
Tactical personnel reserve of the production and technical unit of PJSC FGC UES - MPS	49 (17%)	22 (7.6%)
Youth Human Resources	21 (35.6%)	-



**Nikolai Rogalev,**  
Rector of the National Research University MPEI

– For many years FGC UES has been cooperating with the Moscow Energy Institute. What are the main areas of joint work?

The main task is to improve the quality of training specialists for the power grid complex. FGC UES participates in the creation of educational and methodological materials and invites students to their enterprises to practice. Company employees are curators of our students' final qualifying works and participate in the work of examination and certification commissions. Student groups are formed every year to participate in the construction and reconstruction of trunk electricity grid facilities. This is an excellent production practice for students. At the corporate training centre "Bely Rast", training is conducted under the "Young Engineer School" programme.

– Were new projects launched in 2017?

A new area of cooperation between the university and FGC UES was the joint development of the youth section of the Russian National Committee of CIGRE (RNC CIGRE). The organising committee of the youth section was organised at MPEI. Nineteen events were held for students and post-graduates of the partner universities of the youth section – olympiads, competitions, conferences and lectures of representatives of the research subcommittees of the RNC CIGRE. Synergy with the international energy community and the development of international cooperation in the field of engineering education make it possible to train engineers with advanced knowledge in the electric power industry.

– What joint work is being done in the field of digitisation?

The development of the competence of electric power engineers in the digital economy era is one of the university's priorities. The Company provides us with this support. MPEI specialists are involved in the scientific and technical work of FGC UES, in particular, in the creation of intelligent grid technologies.

In 2017, with the participation of the Company, laboratories for automation and commercial metering of electricity were modernised. A laboratory for scientific research has been created, which will make it possible to significantly advance the creation of prototypes and samples for the Digital Substation project. Earlier, with the assistance of FGC UES, MPEI opened the research and education centre "Reliability and Efficiency of Relay Protection and Telecommunications in the Intelligent Electric Power System with Active-Adaptive Grids" named after A.F. Dyakov. This year, a number of unique digital energy master's programmes were developed.

## Interaction with Educational Organisations

**86 UNIVERSITIES AND  
31 SECONDARY SCHOOLS**

WERE INVOLVED IN VARIOUS FORMS  
OF COOPERATION WITH FGC UES IN 2017.

In 2017, PJSC FGC UES continued the development of mutually beneficial relations with educational institutions that train dedicated specialists. The main areas of cooperation are:

- training, professional retraining and advanced training of employees,
  - practice-oriented, hands-on training for personnel,
  - vocational guidance,
  - staffing of the educational process,
  - development and modernisation of training bases,
  - attraction to the innovative activity of the Company.
- As of 31 December 2017, the Company has signed operating agreements on cooperation with 52 higher and 13 secondary specialised educational institutions.
- The main activities implemented by PJSC FGC UES in 2017 together with educational institutions:
- FGC UES Day was carried out – Company managers and specialists met with university and college students. 43 higher education and 5 specialised secondary schools participated in the event. 1,610 students and 142 Company employees were involved;

## Productivity of Labor

The Company's HR policy focuses on managing performance through increased productivity.

Labour productivity in 2017 was 4,894 rubles / person hour, which is 14.8% higher than in 2016.

To improve the efficiency of production personnel, an analysis of the existing equipment maintenance schemes has been carried out, and measures have been implemented to optimise staff utilisation.

Since 2016, a project to increase labour productivity has been under way. The project is being conducted in the pilot EMPS. Within the framework of the project, initiatives have been introduced to increase the productivity of industrial processes in the functional areas of substations, lines, and relay protection and automation.

Significant effect in the implementation of programmes was achieved through the study and replication of best practices of FGC UES' leading branches.

## Remuneration

At PJSC FGC UES, a wage system has been created that takes into account job categories, the performance of branches and structural units, and the peculiarities of regional labour markets, as well as the individual contribution of each employee. The evaluation of the Company's top management is carried out through an analysis of the implementation of KPIs, which are approved by the Board of Directors.

Differentiation of employees' salaries is determined by the level of complexity and responsibility of the work

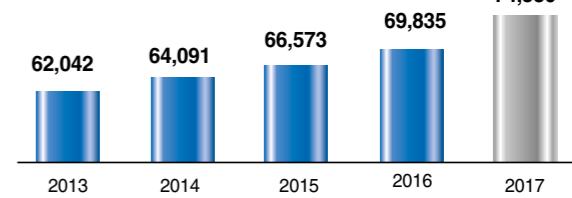
performed, the qualification of the employee, and his or her influence on the main results of the Company's activities.

The Company uses a time-based payment system for employees which also includes bonuses. The salary (the tariff rate) of the employee corresponds to the staff schedule and the scheme of official salaries. Tariff rates (salaries) to workers are determined taking into account the minimum monthly tariff rate of the 1st category worker as established by the Industry Tariff Agreement.

IN 2017, THE AVERAGE WAGE WAS

**74,580 RUBLES,**  
WHICH IS 6.8% MORE THAN IN 2016.

Average monthly salary of employees of PJSC FGC UES, rubles.



## Social Security

(401-2) The Company's social package is a tool for motivating and social protection of employees. It includes voluntary medical insurance,

accident insurance, a non-state pension, payment of material assistance, and advance payment of wages.

## Voluntary Health Insurance

In FGC UES, there is a corporate voluntary medical insurance system for employees (VMI), which guarantees timely and quality provision of additional medical and other services. The amount and conditions of said services are over and above those established by the mandatory medical insurance programme.

The voluntary medical insurance programme contains an expanded list of medical services, including expensive high-tech medical procedures, a wide range of specialist doctors, and care in the best medical and preventive Russian institutions.

## Award Policy

FGC UES has a programme for encouraging employees with state awards, awards from the Government of the Russian Federation, the Ministry

of Energy of Russia, the All-Russian branch association of employers of the electric power industry, PJSC Russian Grids, and corporate awards.

In 2017, upon the recommendation of PJSC FGC UES, 1,448 employees, subsidiaries and contractors were recognised, including three employees who were awarded state awards and prizes of the President of the Russian Federation.

## Improvement of Housing Conditions for Workers

In order to attract qualified personnel to key facilities, facilities under construction, and remote power facilities, FGC UES has a programme to provide workers with accommodation in the service housing fund, as well

as a programme to compensate for the cost of rental housing. The company provides support in the form of loans, guarantees and compensations to employees who purchase housing under the credit programmes of banks.

## Non-state Pension Provision

The non-state pension programme for employees of PJSC FGC UES has been in effect since 2004. Main principles of the programme:

- a unified approach to the organisation of non-government pensions,

- a differentiated approach to setting the size of non-state pensions,
- stimulating employees to provide long-term, conscientious services to FGC UES and the electric power industry.

In 2017, RUB 327.3 million were allocated for non-state pensions.

## Veteran Support

PJSC FGC UES is one of the founders of the Council of Energy Veterans non-profit partnership and annually pays the membership fees that are used to provide material assistance to energy veterans. The company provides support to the Council of Energy Veterans in organising celebratory and cultural events.

IN 2017,  
**327.3**  
RUB MILLION  
WERE ALLOCATED FOR  
NON-STATE PENSIONS.

## Occupational Safety and Health

### Occupational Health and Safety Management

Employee safety is a top priority for the Company. FGC's occupational safety policy is one of the main elements of our OSH management system.

The Company's main objectives in the field of occupational safety and health are:

- elimination of occupational injuries and occupational diseases,
- formation of safe behavior at work and the skills of preventing dangerous situations among employees,
- continuous improvement of working conditions.

### Occupational Safety Committees

The functioning of the OSH management system in the Company is organisationally based on the Occupational Safety Committees, whose work is built in accordance with the Regulations on the Occupational Safety Committee of PJSC FGC UES, effective from 2012.

(403-1) The Company has an Occupational Safety Committee, which includes representatives from the various departments of the Company's executive staff and first deputy directors / chief engineers of MPS branches and the Company's subsidiaries and affiliates. The Occupational Safety Committee is a collegial advisory body that develops the policy of FGC UES in occupational safety. In 2017, three meetings of the Occupational Safety Committee were held, at which measures to prevent occupational injuries were developed and subsequently implemented.

Also each branch of the MPSs and EMPSs has its own Committee. As of December 31, 2017, there

were 45 Committees functioning in the Company. On all the issues discussed, the decisions of the Committees have been fulfilled.

An important element of OSH management is the involvement of the work collective in creating healthy and safe working conditions through the involvement of authorised (entrusted) persons in occupational safety. The authorised persons check the working conditions in their subdivision and the level of occupational safety, as well as the workers' observance of the occupational safety standards. All authorised persons received training in occupational safety in specialised organisations.

Thanks to the work of authorised persons on occupational safety, the number of workplace inspections and working teams has been increased in order to prevent violations of the requirements of occupational safety legislation.

In 2017, a review competition was held for the best organisation of work on occupational safety among the EMPSs and among the MPSs. The Transbaikalian MPS of Siberia and MPS of Siberia, respectively, were recognised as the Company's best branches at organising work on occupational safety in 2017.

## Harmful Production Factors Present at the Company's Facilities

(403-3) The Company strives to provide employees with safe working conditions at workplaces, maximally shielding personnel from exposure to harmful production factors. The main dangerous and harmful production factors that can have a negative impact on the health of workers at the workplace are:

- physical (microclimate, temperature and relative humidity, noise, electromagnetic fields, etc.);

- chemical (chemical substances and mixtures, measured in the air of the working area);
- the severity of the work process (physical dynamic load, work posture, weight of lifted cargo, etc.);
- the intensity of the labour process (the duration of concentrated observation, the load on the voice apparatus, etc.).

FGC pays special attention to the working conditions of employees. To provide employees with the necessary sanitary and consumer services and create favourable and healthy working conditions which contribute to reducing the risk of disrupting employees' health, a comprehensive programme to improve working conditions at the facilities of MPS branches was developed and implemented. In addition, measures to further improve sanitary services were included in action plans to improve labour conditions and safety and reduce occupational risks.

In order to reduce (protect against) the impact of hazardous and harmful production factors, work is being carried out to identify hazards and assess the risks of injury to workers and the production control of compliance with sanitary regulations,

as well as a special assessment of working conditions (SAWC).

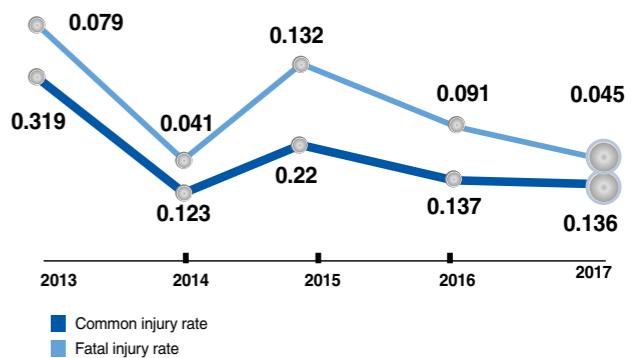
Based on the results of the SAWC in 2017, there were no harmful or hazardous production factors exceeding permissible levels at the workplace.

## Occupational Injuries

According to the Federal State Statistics Service for the year 2016, the coefficient of the frequency of general injuries by type of economic activity under the category "Transmission of electricity" in the country as a whole is 0.5. The frequency of general injuries in PJSC FGC UES is 3.6 times lower than in the industry and equals 0.136.

For an objective assessment of the level of injuries, specific indicators are used:

- the coefficient of the frequency of general injuries,
- factor of frequency of a fatal traumatism.



The main activities associated with a high risk of injury to employees in the Company are work in existing electrical installations, the operation of vehicles, and work at heights.

**(403-2)** In 2017, three accidents occurred at the branches of PJSC FGC UES – MPS, as a result of which one person was fatally traumatised. The causes of injury were electric shock (light casualty) (one person – man)

### Injury to Third Parties

**(413-2)** In 2017, the Company recorded four accidents involving third parties, including contractors. As a result of the incidents, five people were injured.

### THE PROGRAMME OF MEASURES TO REDUCE RISKS OF INJURIES TO THIRD PARTIES AT THE FACILITIES OF FGC UES

In order to prevent injury to third parties, including children's injuries, the "Programme of public and informational activities to reduce the risks of injuries to third parties at the facilities of PJSC FGC UES" was approved.

The main directions of the Programme are work with authorities and interaction with the public, including with summer residents, horticulturists and citizens who are keen on fishing, as well as

MPS North-West, a fall from a height (fatal outcome) (one person – man) – MPS Center, and foreign objects entering the eye (severe casualty) (one person – man) – MPS Volga.



For information on the injury rate (IR) see  
Appendix 1.

There are no registered cases of occupational diseases in the Company in 2017.



Information on measures to prevent injuries to third parties is provided in  
Appendix 1.



## Social and Relationship capital

Management of social and relationship capital is the use of effective mechanisms for interaction with stakeholders, which facilitates mutually beneficial cooperation.

In addition to efficient use of production assets, personnel, and intellectual resources, PJSC FGC UES's reputation as a socially responsible, successful company also contributes significantly to the achievement of the Company's strategic goals.

Social and relationship capital is formed by organising constructive interaction with

key stakeholders, contributions to the development of the territories where we work, brand management, interaction with the media, social and charitable programmes, etc. Social and relationship capital, in the long run, impacts not only Federal Grid Company's enterprise value in monetary units, but also raises the public profile of the Company.

### Information disclosure

Principles of disclosure of information:

- regularity,
- sequence,
- operational efficiency,
- availability, reliability, completeness and comparability of the disclosed data.

The Company has an Information Policy aimed at ensuring effective interaction with shareholders, investors and other interested parties in order to fully realise their rights to receive up-to-date and reliable information necessary for making informed investment and management decisions.

To disclose information, FGC uses a variety of channels, primarily electronic, which provide free access for stakeholders to published information.

Our regularly expanded and updated corporate website, <http://www.fsk-ees.ru/>, contains sections for information mandatory for disclosure, additional

information on all areas of FGC activities, information for shareholders and investors, consumers, suppliers, and employees, as well as current press releases and news, financial statements, annual reports and reports on sustainable development. The Company makes sure that the structure of the site and the interactive tools help to facilitate a maximally quick and convenient search function for finding the necessary information.

In addition, FGC discloses information on the websites of [Interfax](#), the [Moscow Exchange](#) and the [London Stock Exchange](#), and on the official website for disclosing and storing the mandatory information of the British Financial Regulator of the financial market (the Financial Conduct Authority). We also disseminate information on the Company's activities which has a significant impact on the share price through the international information portal RNS.



The full text of the Information Policy of PJSC FGC UES can be found on the website <http://www.fsk-ees.ru/> in the section [Investors / Corporate Governance / Corporate Documents](#).



Detailed information on the Company's compliance with the information policy is presented in paragraphs 6.2 and 6.3 of the Report on compliance with the principles and recommendations of the Corporate Governance Code in Appendix 3.

**Socio-economic Results****Tax Deductions**

The Company has a significant influence on forming the revenue side of the budgets of the territories where it operates.

**Tax deductions to federal, regional and local budgets, RUB thsd.**

Taxes (contributions to extrabudgetary funds)	Amount of taxes transferred 2017	Tax 2017	Penalties, fines 2017
<b>Federal taxes and fees</b>			
VAT	20,600,654	20,598,092	2,562
Personal Income Tax	2,591,246	2,591,093	153
Income Taxes	2,185,432	2,185,432	0
Tax on income from income of foreigners	4,949	4,949	0
Water tax	348	348	0
Government duty	63,959	63,959	0
Payments for emissions of harmful substances into the environment	4,177	4,177	0
Other	50	50	0
<b>Regional taxes</b>			
Income Taxes	14,687,470	14,687,470	0
Property tax	9,982,996	9,982,282	714
Transport tax	27,552	27,541	11
<b>Local taxes and fees</b>			
Land tax	62,050	61,956	94
<b>Extrabudgetary funds</b>			
Russian Pension Fund	3,459,031	3,458,764	267
Social security fund	210,867	210,837	30
Federal compulsory medical insurance fund	888,219	888,200	19
Accident insurance fund	57,439	57,437	2
<b>Total</b>	<b>54,826,439</b>	<b>54,822,587</b>	<b>3,852</b>

**Contribution to the Development of Regions of Presence**

FGC UES is implementing projects to build an electric grid infrastructure aimed at the social and economic development of the Russian regions and reliable electricity supply to consumers. Transmission of electricity through backbone grids is carried out in 77 regions of Russia.

IN 2017, FGC UES SENT

**49.2**

**MILLION RUBLES**  
FOR CHARITABLE ASSISTANCE  
TO LEGAL ENTITIES  
AND INDIVIDUALS.

Investments in the development of grid infrastructure form the foundation of reliable energy supply and are one of the important factors of economic growth. In 2017, the volume of investments amounted to RUB 98.27 billion, (7.7% increase year-on-year).



Information on the construction of new and reconstruction of existing backbone grid facilities can be found in the section *Manufactured Capital*.

**Charity and Sponsorship**

The main focuses of PJSC FGC UES's charitable activities include:

- assistance with activities in the field of education, science, culture, art and enrichment;
- assistance with activities in the field of fitness and sports (with the exception of professional sports);
- assistance with activities in the field of public health and disease prevention, as well as promoting a healthy lifestyle and improving citizens' moral and psychological state;
- protection and proper maintenance of buildings, facilities and territories of historical, traditional, cultural or environmental significance;
- social support and protection of citizens, including improving the financial situation of the poor, social rehabilitation of the unemployed, disabled and other persons who, due to their physical or intellectual characteristics or other circumstances, are unable to independently realise their rights and legitimate interests;
- social rehabilitation of orphans, children left without parental care, neglected children, and children in difficult life situations;
- assistance to victims of natural, environmental, industrial or other disasters, social, national, or religious conflicts, victims of repression, refugees and internally displaced persons;
- assistance to individuals if they have a need to treat a serious illness or need a medical operation necessary to preserve life and health, including prevention of disability and long-term rehabilitation.

**SPONSORSHIP**

PJSC FGC UES is the general sponsor of the Russian national chess teams. Within the framework of the partnership, with the support of FGC UES, a number of events were held: the Aeroflot open chess tournament, the Russian junior chess championship among classical, fast chess and blitz, the Nationwide open competitions among the teams of the Whitehouse Ladder educational institutions, the championship league of Russia, and the super finals of the Russian men's and women's chess championships, as well as the European Chess Championship, in which the women's team took the first place, and the men's team won the silver medal.

FGC UES acted as a partner of the Russian Geographical Society in two projects: "Save

the Far Eastern Stork Together", aimed at studying the problems of protecting the endangered species of birds in interaction with the power grid infrastructure, and the "Gogland Integrated Expedition", a large-scale study of the outer islands of the Gulf of Finland.

FGC UES supports the professional football club CSKA. At the matches, a number of image events were organised with a reference to FGC UES as a club sponsor, as well as events involving the children of the Company's employees.

In 2017, the Company sponsored the country's largest business events with the participation of top government officials: The International Forum on Energy Efficiency and Development of the Energy Industry entitled "Russian Energy Week" and the Eastern Economic Forum.

With the support of FGC UES, scientific and technical exchanges were organised involving international experts: The International Colloquium of the CIGRE D2 Research Committee on "Information Technologies and Telecommunications" and the International Conference-Exhibition "Digital Substation: IEC 61850 Standard".

IN 2017, FGC UES PROVIDED SPONSORSHIP SUPPORT IN THE AMOUNT

**OF 207.5 MILLION RUBLES**

**Stakeholder Engagement****Approach to Stakeholder Engagement**

PJSC FGC UES seeks to ensure a high level of transparency, implementing the principle of active dialogue with stakeholders. FGC understands that ensuring reliable, uninterrupted and high-quality power supply to consumers throughout the Russian Federation is possible only with the direct cooperation of all stakeholders of the Company.

The traditional understanding of sustainable development entails the desire to meet the needs of the present generation without creating threats to meeting the needs of future generations (UN International Commission on Environment and Development, 1987). This approach can be implemented only if we take into account the interests of the main stakeholders in constructive interaction with them and the integration of this practice into all Company business processes.

The basis for identifying and selecting stakeholders for further collaboration is the assessment of their impact on the current activities and strategic development of PJSC FGC UES, as well as the established practice of the Company's interaction with external stakeholders and their dependence on the results of the Company's work. (102-42)

## Principles underlying stakeholders engagement:

- respect and consideration of the interests of all stakeholders, timely response to their requests,
- open, productive cooperation,
- regular and full information about all material topics of FGC UES activities, including through annual reports,
- the desire to achieve concrete benefits for all participants,
- fulfillment of our obligations.

**Alexander Zaragatsky,**

First Deputy Chairman of the Management Board, member of the Management Board of PJSC FGC UES

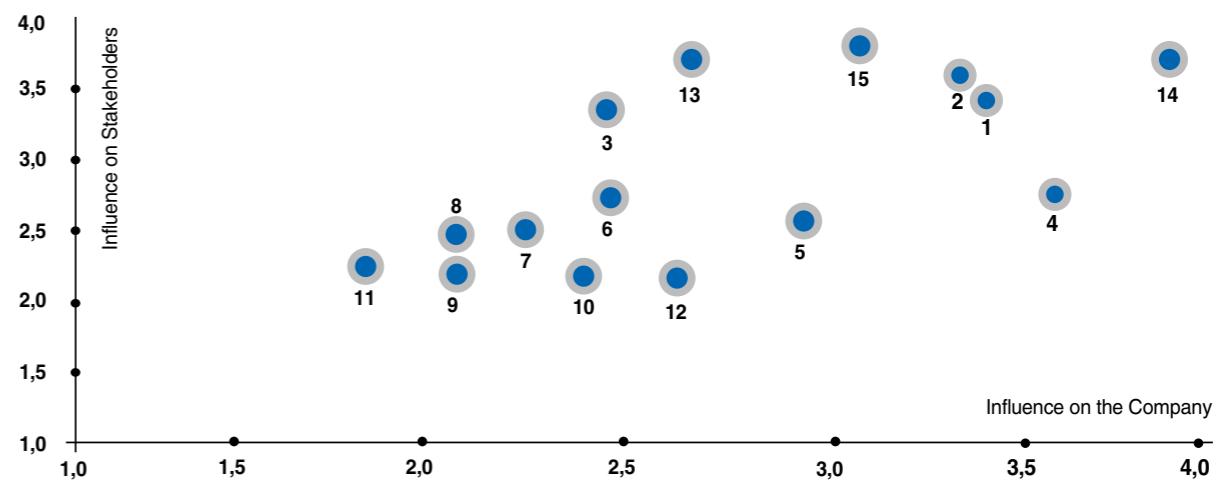
**– What is the role of interaction with stakeholders in terms of implementing the strategy of FGC UES?**

Infrastructure is the "framework" for the economy. If we want it to be really useful and provide timely reliable access to consumers, we must cooperate with the widest range of stakeholders. The sustainability of business development in the long term depends heavily on the effectiveness of this cooperation.

We actively interact with shareholders, investors, state and regional authorities, educational and scientific institutions, Russian and foreign business partners, public organisations, the media, sectoral Russian and international organisations, and other stakeholders.

Regular open communication with stakeholders in various forms allows us to better understand their expectations and requests, and to use this understanding purposefully both in current activities and in forming an agenda, including with regard to sustainable development.

An assessment of the degree of mutual influence of the stakeholders and the Company is presented on the Stakeholder Map. The Company adopted a two-year cycle of updating the Map. The last update was made in 2017.

**Map of PJSC FGC UES stakeholders**

## List of stakeholders\* (102-40)

No	Stakeholder group
<b>Shareholders and investors</b>	
1	Shareholders and investors
<b>Partners, including non-profit</b>	
3	Business Partners, suppliers and contractors
6	Professional associations and industry organisations
<b>Consumers</b>	
2	Customers, consumers
<b>State and local authorities</b>	
4	Government departments
5	Regional authorities, local authorities
<b>Society</b>	
7	Population of regions of presence, local communities
8	Scientific community
9	Educational institutions
10	Ecological organisations
11	Public social and charitable organisations
12	Mass media
<b>Internal stakeholders of the Company</b>	
13	Subsidiaries
14	Top-management of the Company
15	Personnel of the Company

\* The number in the table is the same as the number on the Stakeholder Map.

## Interaction with stakeholders

Stakeholders	Stakeholder Interests	Basic mechanisms of interaction
<b>Shareholders and investors</b>		
Shareholders Investors	<ul style="list-style-type: none"> <li>● Economic efficiency</li> <li>● Sustainability of business</li> <li>● Transparency of business processes</li> <li>● Growth in shareholder value</li> </ul>	<ul style="list-style-type: none"> <li>● Meetings of shareholders and other corporate events</li> <li>● IR-presentations and IR-events</li> <li>● Obtaining credit ratings from leading international and national rating agencies</li> <li>● Information disclosure</li> </ul>
<b>Partners, including non-profit</b>		
Business partners Suppliers Contractors	<ul style="list-style-type: none"> <li>● Fair competition and responsible market behaviour</li> <li>● Transparency of activities, including transparency of procurement activities</li> </ul>	<ul style="list-style-type: none"> <li>● Participation in forums, exhibitions, conferences, dialogues</li> <li>● Open and competitive procurement procedures</li> <li>● Joint projects</li> <li>● Support of domestic suppliers</li> <li>● Export promotion of high-tech products</li> <li>● Interaction within the framework of contracts</li> <li>● Anti-corruption</li> </ul>
Professional associations Industry organisations	<ul style="list-style-type: none"> <li>● Development and modernisation of the electric power industry</li> <li>● Transparency of activities</li> </ul>	<ul style="list-style-type: none"> <li>● Cooperation with specialised Russian and international organisations</li> <li>● Participation in professional and business associations</li> <li>● Scientific and technical exchange</li> </ul>
Customers Consumers	<ul style="list-style-type: none"> <li>● Ensuring reliable and uninterrupted power supply</li> <li>● Development and modernisation of the UNEG</li> <li>● Compliance with the requirements of Russian and international law</li> </ul>	<ul style="list-style-type: none"> <li>● Meetings of the Consumer Council</li> <li>● Consumer surveys</li> <li>● Development of the practice of construction of electric grid facilities on the principles of co-financing with the participation of consumers by creating special project companies to accelerate consumers' access to the UNEG</li> <li>● Interaction in the framework of contracts and cooperation agreements</li> </ul>
Government departments	<ul style="list-style-type: none"> <li>● Ensuring reliable and uninterrupted power supply</li> <li>● Support for the development of regions of presence</li> <li>● Tax deductions</li> </ul>	<ul style="list-style-type: none"> <li>● Agreements on social and economic cooperation with the subjects of the Russian Federation</li> <li>● Contribution to the development of regions of presence</li> <li>● Social and charity programmes</li> </ul>
Regional authorities, local authorities	<ul style="list-style-type: none"> <li>● Ensuring reliable and uninterrupted power supply</li> <li>● Improving the quality of life in the regions of presence</li> <li>● Reduction of negative impact on the environment</li> </ul>	<ul style="list-style-type: none"> <li>● Contribution to the development of regions of presence</li> <li>● Social and charity programmes</li> <li>● Public hearings</li> </ul>

Stakeholders	Stakeholder Interests	Basic mechanisms of interaction
<b>Society</b>		
Population of regions of presence, local communities	<ul style="list-style-type: none"> <li>● Ensuring reliable and uninterrupted power supply</li> <li>● Improving the quality of life in the regions of presence</li> <li>● Reduction of negative impact on the environment</li> </ul>	<ul style="list-style-type: none"> <li>● Contribution to the development of regions of presence</li> <li>● Social and charity programmes</li> <li>● Public hearings</li> </ul>
Scientific community	<ul style="list-style-type: none"> <li>● Development and modernisation of the UNEG</li> <li>● Development of branch science</li> <li>● Development and implementation of innovative technologies</li> <li>● International scientific and technical exchange</li> </ul>	<ul style="list-style-type: none"> <li>● Joint projects</li> <li>● Financing R&amp;D</li> <li>● Scientific and technical partnership with RNC CIGRE</li> </ul>
Educational institutions	<ul style="list-style-type: none"> <li>● Targeted training</li> <li>● Development of branch science</li> <li>● Development of innovative technologies</li> </ul>	<ul style="list-style-type: none"> <li>● Cooperation in the field of scientific and research activities</li> <li>● Training, retraining and advanced training of workers</li> <li>● Financing R&amp;D</li> </ul>
Ecological organisations	<ul style="list-style-type: none"> <li>● Reduction of negative impact on the environment</li> </ul>	<ul style="list-style-type: none"> <li>● Cooperation with the World Wildlife Fund (WWF-Russia), All-Russian Research Institute of Nature Protection of the Ministry of Natural Resources of the Russian Federation, LLC Russian Bird Protection Union, and Information agency Interfax-ERA</li> <li>● Adoption of obligations to comply with the social and environmental requirements of the European Bank for Reconstruction and Development within the framework of the agreement on the financing of the Company's projects</li> </ul>
Public social and charity organisations	<ul style="list-style-type: none"> <li>● Social responsibility</li> </ul>	<ul style="list-style-type: none"> <li>● Participation in forums, conferences, dialogues, round tables</li> <li>● Membership in public and expert associations</li> <li>● Cooperation Agreements</li> </ul>
Mass media	<ul style="list-style-type: none"> <li>● Providing operational access to information about the Company's activities</li> </ul>	<ul style="list-style-type: none"> <li>● Organisation of events for the media</li> <li>● Initiation of publications in all-Russian, regional and local media</li> <li>● Update information on the corporate site, the official blog and the Company's resources in social networks (Facebook, Live Journal, Instagram, etc.)</li> </ul>
<b>Internal stakeholders of the Company</b>		
Subsidiaries	<ul style="list-style-type: none"> <li>● Implementation of the strategy (Long-term development programme)</li> <li>● High quality of corporate governance</li> <li>● Execution of the business plan</li> <li>● KPI implementation</li> </ul>	<ul style="list-style-type: none"> <li>● Organisational and administrative documents</li> </ul>
Top management	<ul style="list-style-type: none"> <li>● Implementation of the strategy (Long-term development programme)</li> <li>● The growth of all types of capital - financial, operational, personnel, intellectual, social-reputation</li> <li>● KPI implementation</li> <li>● Unified corporate values in the field of sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>● Organisational and administrative documents</li> </ul>
Staff	<ul style="list-style-type: none"> <li>● Professional and career growth</li> <li>● Safe working conditions</li> <li>● Fair remuneration</li> </ul>	<ul style="list-style-type: none"> <li>● Staff development</li> <li>● Social support of employees</li> <li>● Information and communication through internal channels</li> <li>● Interviews that reveal the level of employee satisfaction</li> <li>● Interaction with trade union organisations</li> </ul>

## Interaction with stakeholders in 2017

Interaction with stakeholders is carried out in all regions where FGC is present.

(102-43) The Company has a number of corporate documents regulating various aspects of interaction with stakeholders: Code of corporate ethics and professional conduct of the employees of PJSC FGC UES, Information Policy, Investment Programme, Innovative Development Programme,

Import Substitution Programme for Equipment, Technologies, Materials and Systems, Environmental Policy Implementation Programme, Partnership Programme between PJSC FGC UES and subjects of small and medium-sized business, etc.

Certain structural divisions of the Company are responsible for interaction with specific stakeholder groups.

## INTERACTION WITH SHAREHOLDERS AND INVESTORS

Company priorities in terms of working with shareholders and investors are to increase the investment community's level of awareness and ensure effective interaction with it in order to increase investor confidence and increase the demand for the Company's shares. For FGC, dialogue with the investment community is very important, including from the point of view of feedback from the given audience, which makes it possible to assess the consequences of certain decisions.

Activities of 2017:

- annual business breakfast of the Chairman of the Board with representatives of the investment community and analysts;
- presentation of the results of the Company's activities by 2016 totals according under IFRS during a conference call by the Head of the Economic and Finance Block;
- a one-on-one meeting of the heads of the key blocks of the Company with representatives of Russian and foreign

investment companies within the framework of the VTB Capital Russia Calling international investment forum;

- regular communication of employees of the Department of Corporate and Strategic Management with analysts of investment banks in order to provide them with the information necessary to update their investment models on FGC;
- prompt presentation of information at the request of shareholders and investors;
- regular monitoring of PJSC FGC UES's share capital, allowing us to structure the main groups and types of investors with the purpose of working out the optimal mechanism of interaction with them;
- work to attract major minority shareholders to participate in voting on the agenda items in preparation for the Annual General Meeting of Shareholders.

## The structure of the questions asked by analysts and investors in 2017:

- 1/3 of questions were related to financial and economic results and forecasts,  
 1/4 of questions were related to the development strategy of PJSC FGC UES,  
 1/4 of questions were related to the investment programme,  
 1/6 of questions were related to the dividend policy.

In December 2017, on the Moscow Stock Exchange, the Chairman of the Management Board of FGC, Andrey Murov, together with the heads of the key blocks of the Company, held an annual meeting with representatives of the investment community and analysts, in the course of which the results of

the Company's work in 2017 and medium-term plans were discussed.

As a result of the meeting, the parties agreed to continue active interaction in a dialogue format that allows investors to communicate information about the Company's activities and receive feedback from industry experts.



For more information on IR events held by the Company, see [www.fsk-ees.ru/eng](http://www.fsk-ees.ru/eng) in the [Shareholders and Investors / IR releases](#) section. A list of investment analysts covering the Company's activities can be found on the website [www.fsk-ees.ru/eng](http://www.fsk-ees.ru/eng) in the [Shareholders and Investors / Analysts](#) section. The investors' calendar is available and regularly updated on the website [www.fsk-ees.ru](http://www.fsk-ees.ru) in the [Shareholders and Investors / Investor calendar](#) section.



### INTERACTION WITH PARTNERS, INCLUDING NON-PROFIT

FGC seeks to develop long-term mutually beneficial relations with business partners, including suppliers and contractors, on the basis of fair, open and ethical methods of cooperation, mutual respect, and observance of obligations and agreements.

Interaction with representatives of professional associations and industry organisations is aimed at joint actions in the development and

modernisation of the electric power industry as a whole (scientific and technical exchange, the activities of industry and interdepartmental working groups, the holding of Russian and international conferences and forums, etc.).



For more details, see [About the Company](#) section.

In order to increase the transparency of procurement activities, FGC UES conducts open and competitive procurement procedures. The share of procurement procedures conducted on a competitive basis amounted to 130.1 billion rubles in 2017 (91.02% of the total volume of purchases). FGC UES supports Russian suppliers and contractors: 85% of Company's electrical engineering equipment purchases are domestic. The volume of procurement from small and medium-sized businesses amounted to 53.5 billion rubles in the reporting year.



### INTERACTION WITH CONSUMERS OF SERVICES

A customer-centred approach is one of the Company's key principles. While facilitating about half of Russia's total energy consumption, FGC builds long-term mutually beneficial relations with consumers, offering them high-quality services.

PJSC FGC UES provides consumers with comprehensive service for technological connection of power receivers of electric energy consumers and electric power production facilities, as well as electric grid facilities belonging to network organisations and other persons, to the electric grids of FGC UES. We provide full-time service at the offices of PJSC FGC UES – MPS



For more details, see [Manufactured Capital selection](#).

branches and by correspondence through the Portal "Technological connection services" (see <http://portaltp.fsk-ees.ru/>).

The portal "Technological connection services" provides applicants with online access to up-to-date information on the status of PJSC FGC UES' power centres (under construction, commissioned, under constraint, closed, under reconstruction), and the load level of their equipment, as well as informing applicants about the progress of submitted applications for technological connection to the electric grids of FGC UES.

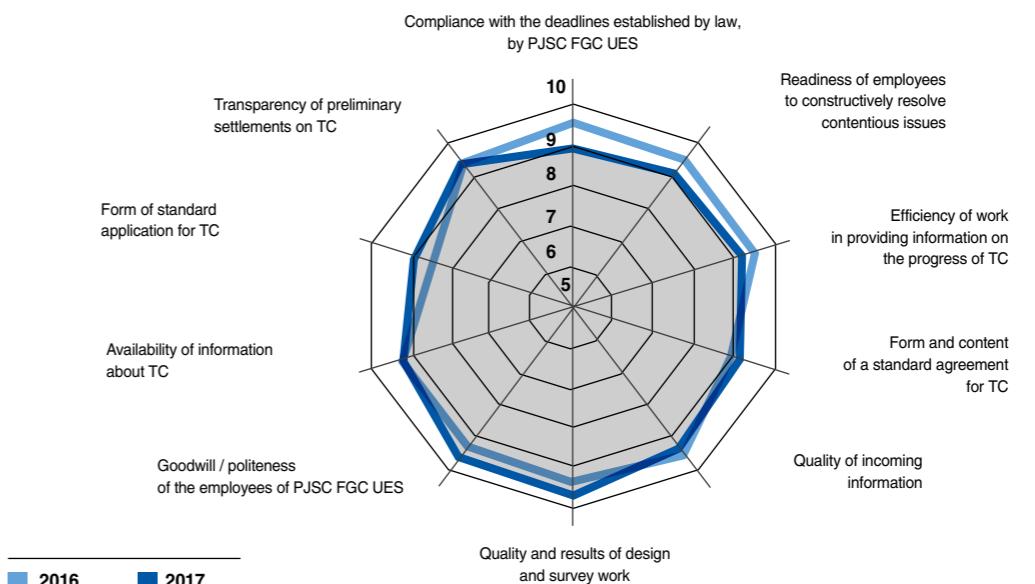
### Council of consumers of services of PJSC FGC UES

The Council of Consumers of Services PJSC FGC UES is a collegial body in which the interests of all groups of consumers, public associations and business associations are represented. Issues related to the implementation of the strategy for the development of the power grid complex of the Russian Federation, in particular, the availability of energy infrastructure, the efficiency of the Company's operational and investment activities, its information openness and public control are discussed at its site.

In 2017, one meeting of the Consumer Service Council was held, which addressed issues:

- approval of the membership of the Council of Consumers for 2017,
- results of FGC UES activities on technological connection and transmission of electric power for 2016,
- results and effectiveness of the implementation of the FGC UES investment programme in 2016,
- reports on the results of technological and price audit of FGC UES investment projects in 2016.

### Customer satisfaction levels for technological connection service



2016      2017

In the opinion of the survey participants regarding the level of satisfaction in 2017, the quality of the conduct and the results of design and survey work increased, the level of transparency of preliminary

calculations for technological connection increased, and the quality of documentation increased. The kindness and courtesy of the Company's personnel was particularly noted.



### INTERACTION WITH STATE AUTHORITIES AND LOCAL AUTHORITIES

PJSC FGC UES regularly interacts with representatives of federal executive bodies:

- Ministry of Energy of the Russian Federation,
- Ministry of Economic Development of the Russian Federation,
- Ministry of Industry and Trade of the Russian Federation,
- The Federal Antimonopoly Service of the Russian Federation,
- Federal Agency for State Property Management (Federal Property Management Agency),
- Federal Service for Environmental, Technological and Nuclear Supervision,
- The Federal Service for Supervision in the Sphere of Nature Management,
- Central Energy Customs of the Federal Customs Service and others.

The Company's interaction with the state as a shareholder has procedural specifics determined by normative acts of the President and Government of the Russian Federation. In particular, representatives of the state in the Company's management bodies have obligations to vote on a certain range of issues in accordance with the directives of the Government of the Russian Federation.

FGC UES supports constructive interaction with regional authorities and local administrations in addressing urgent socio-economic and environmental problems, and cooperates with non-profit organisations and the expert community at the regional level.

## INTERACTION WITH THE POPULATION OF REGIONS OF PRESENCE, LOCAL COMMUNITIES

Interaction with the population of the territories where we work is carried out through cooperation with local authorities and public organisations. The main subject of this interaction is providing a reliable and uninterrupted power supply to the population. The reliability of the Company's networks is increasing every year: in 2017, due to the introduction of new equipment and the improvement of the skills and professionalism of the operating personnel, the specific accident rate at the FGC facilities decreased by 19%.

Providing the population with jobs with a decent level of remuneration and social guarantees is also a mutually beneficial subject of interaction.

## INTERACTION WITH THE SCIENTIFIC COMMUNITY

Interaction with innovative development institutes, technological platforms, universities, research and scientific organisations and design organisations is one of the tasks of the Innovative Development Programme. This interaction is carried out mainly through research and development work. In 2017, emphasis was placed on priority areas of scientific and technological development related to "digitalisation". To that end, financing

## INTERACTION WITH EDUCATIONAL INSTITUTIONS

FGC UES has existing cooperation agreements with 52 higher educational institutions and 13 secondary specialised educational institutions. Subjects of cooperation: educational events for students of the leading energy universities of the country, production and pre-diploma practice for students, attraction of students and graduate students of universities to research and innovation activities, student construction teams, development and modernisation of training bases, etc.

### FGC UES EMPLOYS ABOUT

**22 THOUSAND PEOPLE.**  
TAKING INTO ACCOUNT THEIR FAMILY MEMBERS,  
THE COMPANY HAS A DIRECT IMPACT  
ON THE QUALITY OF LIFE OF  
**100 THOUSAND PEOPLE.**



For more information see  
*Intellectual Capital* section.

In total in 2017, 86 universities and 31 secondary specialised educational institutions were involved in various forms of cooperation.



For more information see  
*Human Capital* section.

## INTERACTION WITH PUBLIC ENVIRONMENTAL ORGANISATIONS

As part of our Environmental Policy, FGC UES cooperates with Russian and international environmental organisations. Joint projects with environmentalists have contributed to reducing the negative impact on the environment. In the Year of Ecology, the Company achieved:

- reduction of water consumption by 0.3%;
- reduction of the volume of gross discharge of pollutants into water bodies by 5.9%;
- reduction of the volume of waste transferred for disposal and disposal in the environment by 0.8%.

As a result of that year, FGC UES won the nomination "Best Environmentally Responsible Company in the Electric Power Industry" in the nationwide competition "Leader of Environmental Activities in Russia 2017".



For more information see  
*Natural Capital* section.

## INTERACTION WITH SOCIAL AND CHARITY ORGANISATIONS

FGC UES pays considerable attention to charity and sponsorship support of public organisations. In 2017, RUB 256.7 million was allocated to charity and sponsorship.

FGC cooperates with the Council of Energy Veterans, rendering constant support to the participants

## INTERACTION WITH THE MASS MEDIA

Regular, open communication is of great importance to FGC, since it makes it possible to inform stakeholders about all key aspects of the Company's work. FGC UES cooperates with the leading business and socio-political Russian media at the federal level and in the regions where we operate. Media space

In 2017, the total number of publications about the Company in various media exceeded 21.3 thousand articles.

## INTERACTION WITH STAKEHOLDERS DURING THE PREPARATION OF THE REPORT

To increase the transparency and accountability of PJSC FGC UES, representatives of the main stakeholders are involved in the preparation of a report by helping identify significant topics for disclosure in the Report, participating in Public hearings on the draft report, and participating in the public certification of the Report.

Interaction with stakeholders in public reporting processes is a requirement of the international

of the Great Patriotic War and the homefront workers. Veterans of the Company receive a one-time payment for state holidays and anniversaries of the Victory. Annually, a celebration of veterans of the electric power industry in connection with the Victory Day and the Energy Day is organised.

is constantly monitored, press events are organised, and materials about the activities of the main electric grid complex are disseminated to the media. Projects in the field of FGC UES public relations are implemented within the framework of PJSC Rosseti's Unified Information Policy.

standards of the AA1000SES Institute for Social and Ethical Accountability, the Global Reporting Initiative (GRI SRS), and the Integrated Reporting International Framework.

When preparing the previous report, the Company assumed obligations, most of which were taken into account in the report for 2016, some of the obligations were adopted for 2017.

**Fulfillment of obligations to take into account the proposals of interested parties,  
expressed at the Public hearings of the Draft Report for 2016 (22.04.2017) (102-44)**

Stakeholder	Proposals from stakeholders	Accounting for stakeholder proposals
Business partners, suppliers and contractors	Make a greater emphasis on ecology in the report for 2017	Taken into account in the section "Natural Capital"
	Disclose information about the certification of new Russian equipment in the report	Reported in the section "Production Results"
Ecological organisations	Expand the circle of stakeholders	Stakeholder Map updated in 2017
Public social and charity organisations	Disclose more detailed information on the environmental management system in accordance with ISO 14000, in particular the hierarchy of management and performance indicators	Taken into account in the section "Natural Capital"
	Pay more attention to biodiversity, as the impact of the Company is not limited to impact on birds	Taken into account in the section "Results in the field of environmental protection"
	Add a page with MPS indicators to each section	The Report includes information on the main production indicators of the MPSs
	Greater emphasis on global trends in sustainable development	The Report reflects information on the FGC UES' commitment to the United Nations' sustainable development goals

In preparing this Report, the Company, in conjunction with representatives of the major stakeholder groups, identified significant topics for disclosure in the Report. Representatives of the main stakeholder groups (65 respondents) were surveyed. Based on the results of the questionnaire, a matrix of relevant topics was made.

Public hearings on the Draft Report were held on 17.04.2018 at PJSC FGC UES' office at 9/11, Bolshaya Nikolovorobinsky Lane, Moscow.

(102-43) Public hearings from PJSC FGC UES were attended by the Management Board Deputy Chairmen, the project directors, heads of departments, and dedicated specialists. Participants of the hearings from interested parties were representatives of organisations of the electricity

sector, industry associations, large companies of other economic sectors, non-profit organisations, and educational institutions.

During the public hearings, 10 proposals and recommendations were made.

All proposals related to requests for publication of certain information in the Report. The Company carried out a special review of the proposals for the draft Report we received (on the structure, content, and form of reporting information). As a result, 40% of the proposals were accepted; 20% were not accepted (reasonable answers are given as to the reasons for not accepting them); 40% of suggestions will be considered in the preparation of reports for the next reporting periods.

FGC UES participates annually in Russian and international report competitions. The results of participation in the competitions can be found in the "Awards of 2017" section. Reports on social responsibility and corporate sustainability are included in the National Register of Corporate Non-Financial Reports, formed by the Russian Union of Industrialists and Entrepreneurs.



*The minutes of the Public hearings are given in Appendix 2. (102-43)*

**Accounting for stakeholder proposals expressed  
at the Public Hearings on the Draft Report for 2017 (102-44)**

No.	Stakeholder	Proposal	Accounting
1		Compare the Company with international analogues	Will be considered in preparation of the report for 2018
2		Disclose in Appendix 1 to the Annual report the development plans for normative and technical documents	Recorded in Appendix 1 to the Annual Report
3	Business partners, suppliers and contractors	Add a column showing the share of purchases from small and mid-sized businesses to two tables in the sub-section "Main purchases and the volume of purchases in the Russian regions in 2017" in Appendix 1 to the annual report	Will not be taken into account due to the fact that in accordance with Russian Federation Government Resolution No. 1352 dated 11.12.2014, there is no obligation for the Customer to generate and provide information on purchases from SME by main procurement areas (in terms of procurement) and the volume of purchases in the regions (branches of PJSC FGC UES).
4		Save the section on digitalisation in subsequent annual reports	Will be taken into account when preparing upcoming reports
5	Scientific community	Give qualitative assessments in a comparative manner; in particular, specify on what scale the assessment of the level of customer satisfaction is equal to 9.23 points	Included in the section "Business model"
6		Include information that the Company would like to receive from consumers, counterparties, and customers in terms of a certain declaration, promotion of the Company's goals	Will not be included, as this information does not correspond to the format of the annual report
7	Professional associations and industry organisations	Include in the Annual report information about professional standards being implemented in the Company, about the Centre for Qualification Assessment and about the Company's need for employees qualified in digitalisation	Will be included when preparing the report for 2018
8	Educational institutions	Continue to disclose information about the number of students who have been practicing in the Company	Will be included when preparing the following reports
9		Review the status of the Company's compliance with the principles of corporate governance as per item 6.2.1. of Appendix 3 to the Annual report "Report of PJSC FGC UES on compliance with the principles and recommendations of the Corporate Governance Code approved by the Board of Directors of the Bank of Russia"	Included in Appendix 3 to the annual report  The status under item 6.2.1. was changed from "partial compliance" to "compliance"
10	Moscow Exchange	Present in the form of diagrams the participation of independent directors in the work of the Board of Directors and Committees of the Board of Directors	Included in the section "Corporate Governance Report" in the subsection "Independent Directors"



*The public assurance statement of the Report is provided in the section Additional information.*

# CORPORATE GOVERNANCE REPORT

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# CORPORATE GOVERNANCE REPORT

CONFIRMATION OF A HIGH LEVEL OF CORPORATE GOVERNANCE TO THE ADVANTAGE OF ALL COMPANY STAKEHOLDERS

## GENERAL INFORMATION ON THE COMPANY'S CORPORATE GOVERNANCE

The Corporate Governance Code approved by the Central Bank of Russia defines "corporate governance" as a system of interactions between the Company's executive authorities, the Board of Directors, its shareholders and other stakeholders. Corporate governance is a tool that the Company uses to set objectives and means for achieving these objectives. Furthermore, corporate governance also ensures that shareholders and other stakeholders have efficient control over the Company's operations.

(102-16) In accordance with the Corporate Governance Code of PJSC FGC UES approved by decision of the Board of Directors of PJSC FGC UES on 20 August 2015, the Company's corporate governance is based on principles of accountability, fairness and transparency, aimed at:

- equal conditions for shareholders in exercising their rights related to participation in the Company's activities;
- the Board of Directors' strategic management of the Company, as well as efficient supervision and control over the activities of the Company's executive authorities;

- the accountability of the Board of Directors' to the General Meeting of Shareholders;
- the required efficiency, professionalism and independence of the Board of Directors in order to meet the interests of shareholders and the Company;
- the ability of the Company's executive authorities to manage the Company's day-to-day operations reasonably and in good faith, and holding the executive authorities accountable to the Company's Board of Directors and to the General Meeting of Shareholders;
- the timely disclosure of the Company's information, including financial situation, economic indicators, ownership and governance structure;
- the efficient operation of the internal control and risk management systems to ensure supervision and control over the Company's financial and operating activities, and reasonable confidence in the achievement of the Company's objectives;
- the independence of assessment of risk management and internal control systems, as well as corporate governance practices, through the Company's internal audit.

The Board of Directors annually reviews information on improving the corporate governance practice of PJSC FGC UES. The Company follows legislative requirements and standards of best practice corporate governance.

Corporate governance principle	Content
Rights of Shareholders	<p>1) Competitive selection of suppliers, the cost of which exceeds a certain level fixed by the relevant internal document. The Board of Directors regularly reviews procurement policy issues.</p> <p>2) Update of outdated information on shareholders with assistance of the registrar.</p> <p>3) Extended competence of the Board of Directors in respect of approval of material transactions.</p> <p>4) Audit of financial statements in accordance with IFRS and RAS is conducted by a generally recognised auditing company. The external auditor does not provide consulting services. Rotation of the external auditor.</p> <p>5) Positive dividend history.</p> <p>6) FGC UES holds regular meetings with investors and shareholders and participates in all major conferences of investment brokerage organisations.</p>
Activities of Supervision and Control Authorities	<p>1) Composition of the Board of Directors provides the necessary balance for its independence from the management. At the same time, the Board of Directors includes three independent directors.</p> <p>2) The composition of the Board of Directors is balanced in terms of their experience of working on the Board and the availability of key skills necessary for the Board's members to function effectively in the Board of Directors.</p> <p>3) Meetings of the Board of Directors are held regularly, in sufficient quantity and in accordance with an approved work plan.</p> <p>4) The Audit Committee, the HR and Remuneration Committee, the Investment Committee, and the Strategy Committee have been established within the Board of Directors. Activities of the Committees are governed by relevant Regulations. The Board of Directors' Committees annually report on their work to the Board of Directors of FGC UES.</p> <p>5) In accordance with the Regulation on the Evaluation of Activities of the Board of Directors of PJSC FGC UES, the Company annually conducts a comprehensive assessment of the effectiveness of activities of the Board of Directors, its Committees, and individual evaluation of activities of directors.</p> <p>6) The Board of Directors is responsible for control over significant transactions of entities controlled by the Company.</p> <p>7) FGC UES insures liability of members of the Board of Directors.</p> <p>8) FGC UES has established internal divisions responsible for the implementation of internal audit, internal control and risk management, and has developed a regulatory framework for risk management.</p> <p>9) The Internal Audit Department is accountable to the Board of Directors, and its functions correspond to the best practice of corporate governance.</p> <p>10) The Company has comprehensive regulations on conflicts of interests of members of the Company's management bodies.</p>
Financial and Non-Financial Information Disclosure	<p>1) The Regulation on Information Policy has been approved. It complies with recommendations of the Corporate Governance Code. The Board of Directors considers the implementation of the Company's information policy at its meetings.</p> <p>2) Detailed information on the Board of Directors members and members of the executive bodies is disclosed, as well as on the composition of the Committees of the Board of Directors, including Chairmen of the Committees.</p> <p>3) In the Annual Report, the Company discloses information on the individual amount of remuneration of each member of the Board of Directors, details the system of KPIs of members of the executive bodies of the Company, and discloses information on the amount of remuneration of the sole executive body.</p> <p>4) A separate section has been created on the Company's Internet website with decisions of the Board of Directors.</p> <p>5) The website of FGC UES is regularly updated with current information on the Company and its results. An English-language version of the Internet website has been created. It contains a substantial amount of information for shareholders and investors.</p>

Corporate governance principle	Content
Corporate Social Responsibility and Sustainable Development	<p>1) The Company has approved a number of internal documents regulating corporate social responsibility policies.</p> <p>2) The Board of Directors of the Company approved the Corporate Ethics Code, which is available publicly.</p> <p>3) The Company has an Anti-Corruption Policy approved by the Board of Directors.</p> <p>4) The Company regularly implements corporate social projects for its employees, as well as charitable and sponsorship projects.</p> <p>5) The Company's activities are certified for compliance with the environmental management standard ISO 14001: 2004 in the field of environmental protection. FGC UES became a laureate in the nomination "The Most Environmentally Responsible Company in the Electric Power Industry" in the Russian contest "Leader of Environmental Activities in Russia 2017".</p> <p>Environmental activities of FGC UES are conducted in accordance with principles of the State Policy in the field of environmental development and the Energy Strategy of Russia until 2030.</p> <p>6) The Company received international and Russian certificates of compliance with requirements of the energy management standard ISO 50001:2011 and GOST R ISO 50001-2012. The documents were issued by the Russian Register Association.</p> <p>During the audit, the Certification Association "Russian Register" noted the strengths of the energy management system of FGC UES: the involvement of employees in energy efficiency activities, the high level of teamwork, the professional approach to the initial internal audit of the system, the introduction of the practice of combining energy analysis within ISO 50001 and a mandatory energy audit in accordance with 261-FZ.</p> <p>7) The Company prepares public reports on standards GRI SRS, AA1000SES and &lt;IR&gt;.</p>

## Assessment of the Quality of Corporate Governance

### Independent Assessment by the Russian Institute of Directors

In October 2017, proceeding from results of the assessment of the quality of corporate governance, the Russian Institute of Directors confirmed the rating assigned to FGC UES at a level of 7++ on the scale of the national corporate governance rating. This rating confirms that the Company meets

the requirements of Russian legislation on corporate governance and follows a significant number of recommendations of the Russian Corporate Governance Code. The owners' risk of loss related to corporate governance quality is assessed as being quite low.

The Russian Institute of Directors granted FGC UES a corporate governance rating level of 7+ "Well-Developed Corporate Governance Practice".

### Assessment of elements of the corporate governance practice

Shareholders' rights	Activities of supervision and control authorities	Information disclosure	Corporate social responsibility and sustainable development
GOOD	GOOD	HIGH	HIGH



For more details about the features of key elements of the corporate governance system of FGC, see the Articles of Associations and internal documents of FGC UES posted on the website <http://www.fsk-ees.ru/eng/> in the [Investors / Corporate Governance / Corporate Documents](#) section..

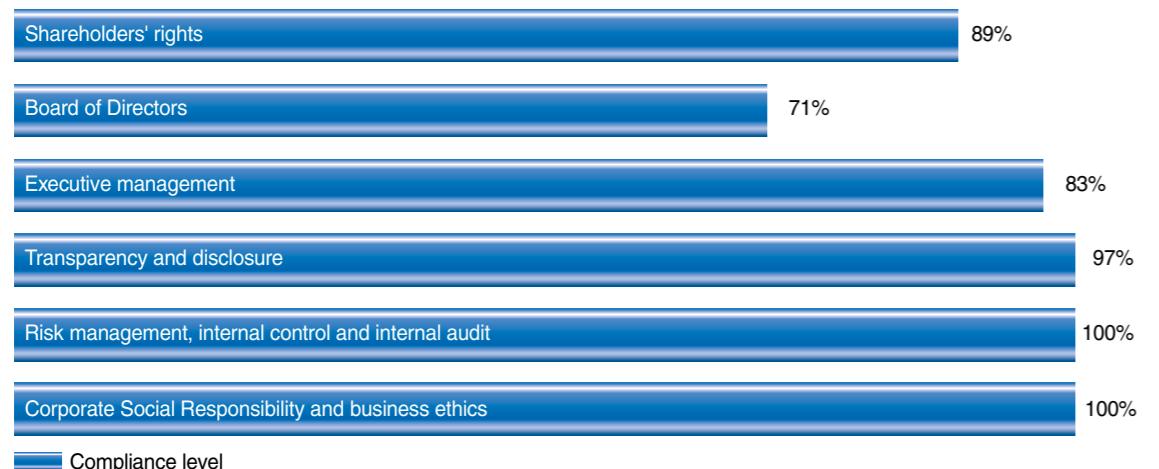
## Self-Assessment of the Quality of Corporate Governance

The Self-assessment Methodology for Corporate Governance was approved by the decision of the Board of Directors of the Company<sup>34</sup> in April 2016. This Methodology was developed on a Methodology of Self-assessment of the Quality of Corporate Governance approved by the Federal Agency for State Property Management (Rosimushchestvo) of 22 August 2014 in state-owned companies to ensure comparability of results of the annual self-assessment conducted by the Company.

The Methodology assumes an assessment of the quality of corporate governance, including in terms of compliance with principles and recommendations laid down in the Corporate Governance Code approved by the Bank of Russia. At the same time, the Methodology allows a number of assumptions taking into account specifics of the Company's activities.

The Company has achieved a compliance level of 86% with the guidelines for the self-assessment of corporate governance, which affirms a high level of corporate governance quality.

**Results of the self-assessment of the corporate governance level by component\*, %**



\* The Company's self-assessment of its corporate governance level was carried out in the 1st quarter of 2018.

Furthermore, FGC assessed its compliance with principles of corporate governance of the National Corporate Governance Code in accordance with the Methodology recommended by the Bank of Russia in Letter No. IN-06-52/8 of 17 February 2016 "On disclosure in the annual report of a public joint-stock company of a report on compliance with the principles and recommendations of the Corporate Governance Code".



The report on compliance with the principles and recommendations of the Corporate Governance Code is presented in Appendix 3.

<sup>34</sup> Minutes No. 318 of 28 April 2016.

## Improvement of the Corporate Governance System

Main results of the corporate governance improvement in 2017:

- introduction of amendments to the Company's Articles of Association to bring it in line with amendments to the legislation of the Russian Federation and further introduction of recommendations of the Corporate Governance Code approved by the Bank of Russia in the Company's practice;

- securing the possibility for shareholders to participate in voting at the General Meeting of Shareholders of the Company by electronic means;
- expansion of the competence of the Board of Directors of the Company regarding the annual assessment of the effectiveness of the risk management system and the Company's internal control system, as well as consideration of reports of the Company's executive

bodies on the functioning of the risk management and internal control system;

- approval of the new Regulation on the Internal Control System of FGC UES;
- approval of the Corporate Ethics Code and Job Behaviour of Employees of FGC UES;
- implementation of the procedure for preparing materials for the adoption by the FGC UES management bodies of decisions on the approval or subsequent approval of transactions requiring corporate events, to which FGC UES is a party, in accordance with the amendments

entered into on 1 January 2017 and the Law "On Joint-Stock Companies", concerning the procedure for the execution of major transactions and transactions in which there is an interest<sup>35</sup>.

The Company is aware of the importance of improving corporate governance at its subsidiaries. During the reporting year, the Company developed standard documents that took into account the requirements of the Bank of Russia Corporate Governance Code for the purpose of their implementation at its subsidiaries.

<sup>35</sup> Order of PJSC FGC UES No. 369 dated 12 September 2017 "On approval of the Procedure for preparing materials for the adoption by the management bodies of PJSC FGC UES".

## Plans to Improve the Corporate Governance System for 2018

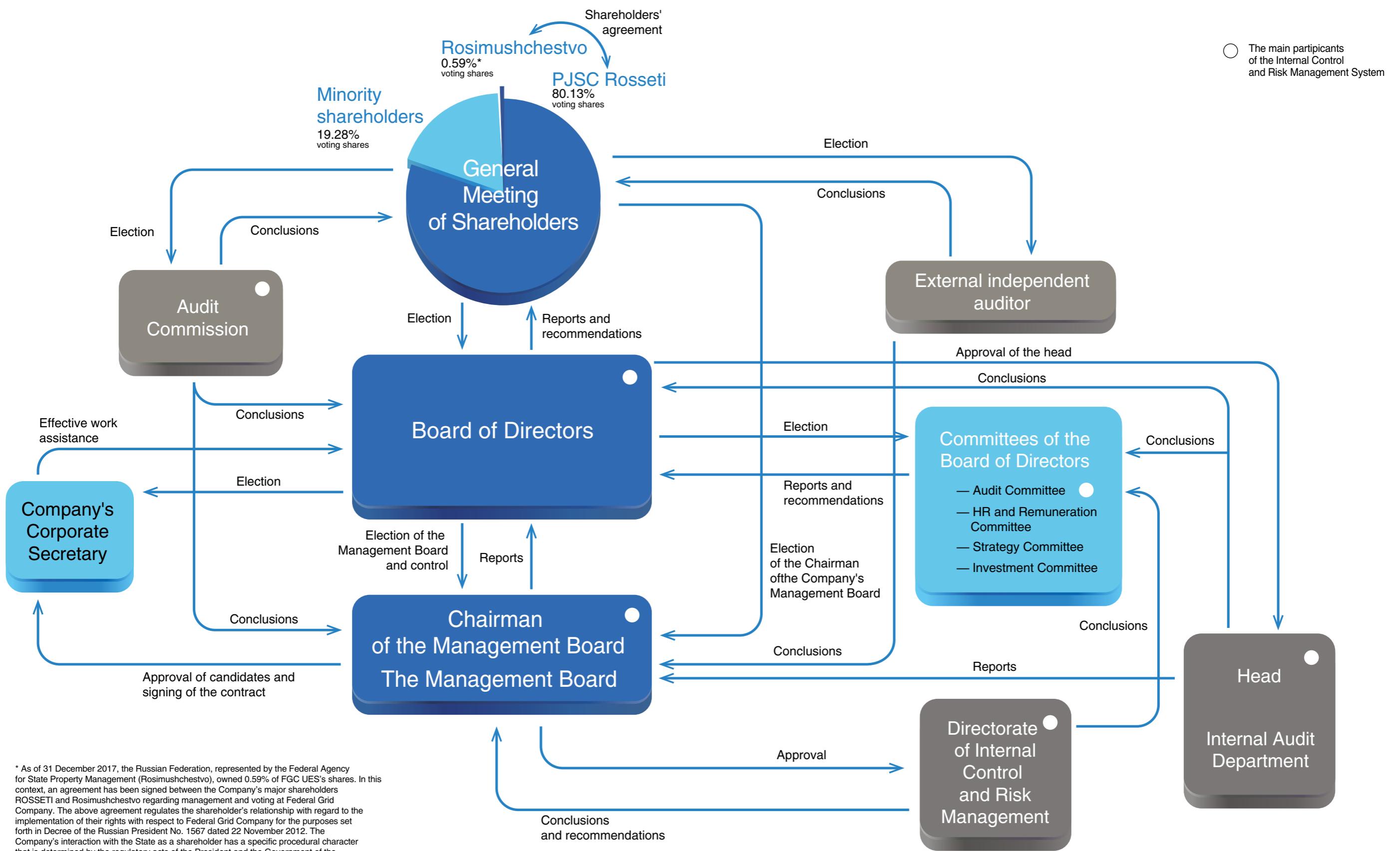
All recommendations planned to be introduced into the practice of corporate governance in accordance with the road map approved in 2015 have been achieved, but the Company hasn't stopped in its development of the corporate governance system.

Since 2014, the Company has been actively working to implement recommendations of the Corporate Governance Code into its activities. As a result, all the recommendations that were planned to be introduced into corporate governance in accordance with the road map approved in 2015 have been achieved.

The Company hasn't stopped at the achieved results, and is taking the development of corporate legislation and corporate governance practices in Russia and abroad into account. A number of measures are planned to increase the number of complied recommendations of the Corporate Governance Code.

Area of improvement	Planned actions
Shareholders' Rights	<ul style="list-style-type: none"> <li>● Provide the opportunity to shareholders to vote at general meetings of shareholders by sending electronic ballots to the registrar. For this purpose, the information service of the registrar "STATUS Online Shareholder's Desk" will be used. Shareholders of PJSC FGC UES have free access to the service.</li> <li>● Update the Regulation on the Dividend Policy. The new version will use figures for the consolidated financial statements prepared in accordance with International Financial Reporting Standards to determine the amount of dividends.</li> <li>● Abandon the practice of participation of a quasi-treasury shareholding in voting at general meetings of shareholders.</li> </ul>
Government Bodies Effectiveness of Work	<ul style="list-style-type: none"> <li>● Amend the Corporate Governance Code of PJSC FGC UES to determine the issues to be considered at the Board of Directors' internal meetings.</li> <li>● Increase the number of meetings of the Board of Directors.</li> </ul>
Information Disclosure	<ul style="list-style-type: none"> <li>● Amend the Information Policy to clarify the procedure and methods for providing information to stakeholders.</li> <li>● Improve the quality of information disclosure in the annual report and on the Company's website.</li> </ul>

## Corporate Governance Scheme of FGC UES (102-18)



\* As of 31 December 2017, the Russian Federation, represented by the Federal Agency for State Property Management (Rosimushchestvo), owned 0.59% of FGC UES's shares. In this context, an agreement has been signed between the Company's major shareholders ROSSETI and Rosimushchestvo regarding management and voting at Federal Grid Company. The above agreement regulates the shareholder's relationship with regard to the implementation of their rights with respect to Federal Grid Company for the purposes set forth in Decree of the Russian President No. 1567 dated 22 November 2012. The Company's interaction with the State as a shareholder has a specific procedural character that is determined by the regulatory acts of the President and the Government of the Russian Federation. In particular, the State representatives within the Company's governing bodies are required to vote on certain matters as instructed by the Government.

## Management Bodies of the Company

Management bodies	Competencies	Regulatory documents	Regularity of events
General Meeting of Shareholders	The supreme management body of the Company. The competence includes the most important issues: <ul style="list-style-type: none"><li>● approval of annual reports and annual financial statements;</li><li>● election of the Board of Directors and the Audit Commission;</li><li>● decision-making on payment of dividends;</li><li>● selection of an external auditor.</li></ul>	Legislation of Russia Company Articles of Association Regulation on the Procedure for Preparation and Holding of the General Meeting of Shareholders of PJSC FGC UES	The Annual General Meeting of Shareholders is held once a year. Extraordinary General Meetings of Shareholders are held by a decision of the Board of Directors. In 2017, one extraordinary meeting of shareholders was held.
Board of Directors	The Board of Directors of PJSC FGC UES conducts the overall strategic management of the Company and is a key element of the corporate management system of PJSC FGC UES. The competence includes general issues of Company management: <ul style="list-style-type: none"><li>● forming and monitoring the implementation of the Company strategy;</li><li>● ensuring the implementation and protection of rights and legitimate interests of shareholders and the safety of the Company's assets;</li><li>● control over the activities of the executive bodies of the Company, and the introduction of an effective system of their motivation;</li><li>● ensuring the creation and effective operation of internal control and risk management systems;</li><li>● control over the practice of corporate governance in the Company.</li></ul>	Legislation of Russia Company Articles of Association Regulation on the Board of Directors of PJSC FGC UES	An average of 5-7 meetings of the Board of Directors are held per year in the form of joint presence.  In 2017, 36 meetings of the Board of Directors were held, with 4 of them held in the form of joint presence.
Committees of the Board of Directors	Specialised consultative and advisory bodies of the Board of Directors, which provide preliminary consideration of issues and development of recommendations for the Board of Directors.	Legislation of Russia Company Articles of Association Regulation on the Board of Directors of PJSC FGC UES Regulation on Committees of the Board of Directors	The frequency and format of holding meetings of the Committees of the Board of Directors is determined by specifics of each Committee.
Management Board	The collective executive body. The competence relates to the management of current activities of the Company in accordance with the Articles of Association, decisions of the General Meeting of Shareholders, and the Board of Directors.	Legislation of Russia Company Articles of Association Regulation on the Board of PJSC FGC UES	Meetings of the Board are held both in remote format and in-person format. In 2017, 78 meetings of the Board were held.
Chairman of the Management Board	Sole executive body. The competence includes all issues related to the management of the current activities of the Company, with the exception of matters falling within the competence of the General Meeting of Shareholders, the Board of Directors and the Management Board.		

## GENERAL MEETING OF SHAREHOLDERS

The Company is committed to creating the most favourable conditions for its shareholders in order to enable them to participate in the General Meeting of Shareholders and to develop sound positions on agenda items, as well as to provide them with the opportunity to coordinate their actions and express opinions on the items discussed.

The General Meeting of Shareholders is the supreme governing body of the Company.

Federal Grid Company has defined a list of additional materials to be provided to shareholders when preparing for a general meeting to enable them to take well-founded decisions. Such materials include, among other things, the positions of the Board of Directors regarding all items on the meeting agenda, extended information about candidates for governing and control bodies, tables comparing amendments to be made to the Company's Articles of Association, and internal documents with existing versions. All materials are disclosed on the Company's website, in both English and Russian,

not later than 30 days prior to the date of the General Meeting of Shareholders.

Federal Grid Company's Regulation on the General Meeting of Shareholders provide clear procedures for holding the General Meeting, including providing opportunities for shareholders to ask questions on items on the agenda. Shareholders are able to pose questions directly to members of governing and control bodies, as well as to the Chief Accountant and the Company's auditors, who shall be mandatorily invited to attend the meeting.

In 2016, a live video broadcast of the General Meeting of Shareholders was introduced on the Company's website.

In 2017, in the process of preparation for the Annual General Meeting of Shareholders, the Company filmed and posted a special information clip on the Company's website which clearly demonstrates the answers to the most popular questions that arise among shareholders during the Meeting.

## Annual General Meeting of Shareholders

The Annual General Meeting of Shareholders of FGC was held on 29 June 2017. In accordance with the AGM agenda, the shareholders decided on the following:

- to approve the Company's annual report;
- to approve the Company's annual financial statements;
- to approve the Company's profit and loss account for 2016;
- on the amount of dividends, on the terms and form of their payment based on results of the 2016 reporting year, and on the date on which persons entitled to receive dividends is determined;
- on the amount of dividends, on the terms and form of their payment based on results of

the 1st quarter of the 2017 reporting year and on the date on which persons entitled to receive dividends is determined;

- on the payment of remuneration for the work in the Board of Directors to members of the Board of Directors who are not state employees, in the amount established by the internal documents of PJSC FGC UES;
- on the payment of remuneration for work in the Audit Commission to members of the Audit Commission that are not state employees, in the amount established by the internal documents of PJSC FGC UES;
- to approve the external auditor of PJSC FGC UES;

- on termination of participation of PJSC FGC UES in the Association of Construction Organisations "Self-Regulating Organisation 'Inzhspetsstroy-Elektrosetstroy'";
- on participation of PJSC FGC UES in the Self-Regulating Organisation of the Association of Construction Organisations "Support of Construction Organisations";



The minutes of the AGM are available on the website [www.fsk-ees.ru/eng/](http://www.fsk-ees.ru/eng/) in the [Investors / Corporate Governance / Shareholders Meetings](#) section.

- to approve a new edition of the Articles of Association of PJSC FGC UES.

## Extraordinary General Meeting of Shareholders

The Extraordinary General Meeting of Shareholders of FGC was held on 15 September 2017. In accordance with the EGM agenda, the shareholders decided on the following:



The minutes of the EGM are available on the website [www.fsk-ees.ru/eng/](http://www.fsk-ees.ru/eng/) in the [Investors / Corporate Governance / Shareholders Meetings](#) section.

- on election of members of the Board of Directors of PJSC FGC UES;
- on election of members of the Audit Commission of PJSC FGC UES.

## REPORT OF THE BOARD OF DIRECTORS

**(102-26)** The Board of Directors of FGC UES performs the general strategic management of the Company and plays a key role in its corporate governance system.

Activities of Federal Grid Company's Board of Directors are governed by the Company's Articles of Association<sup>36</sup>, the Regulation on the Board of Directors of Federal Grid Company, and FGC's Corporate Governance Code.

In total in 2017, 36 meetings were held, with 4 of them

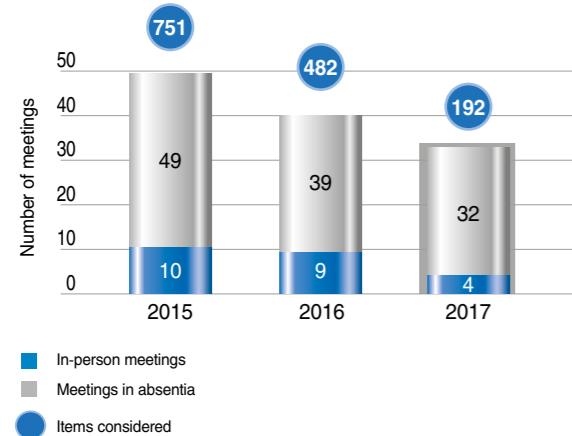
taking place as in-person meetings. A total of 192 issues were considered at these meetings.



See Minutes of the Board of Directors meetings at [www.fsk-ees.ru](http://www.fsk-ees.ru) under in the [Shareholders and Investors / Corporate Governance / Decisions of the Board of Directors](#) section.

<sup>36</sup> In the revision approved by the decision of the General Meeting of Shareholders of PJSC FGC UES dated 29 June 2016 (Minutes No. 17 of 4 July 2016).

### Statistics of work of the Board of Directors



### Items considered by the Board of Directors



In 2017, the Board of Directors considered a range of key items concerning priority directions for the Company's operations

Strategic objective	Key items
Reliability and Quality of Energy Supply	<ul style="list-style-type: none"> <li>Consideration of reports on the implementation of action plans to eliminate comments noted in the audit certificates of the Ministry of Energy of Russia for the period 2014–2016, as well as the results of field inspections of the Ministry of Energy of Russia, and the implementation of investment projects of PJSC FGC UES.</li> <li>Consideration of the report on the implementation of measures to bring the Company's automated system for the control and accounting of electric power into compliance with the technical requirements of the Wholesale Electric Power Market.</li> </ul>
Customer Satisfaction	<ul style="list-style-type: none"> <li>Consideration of reports on the results of work to improve the quality of services and customer satisfaction for 2016 and 2017.</li> <li>Consideration of reports on consideration of applications for technological connection and execution of contracts on technological connection to the grid facilities of FGC UES for 2017.</li> </ul>
Preserving Financial Sustainability	<ul style="list-style-type: none"> <li>Approval of the FGC UES business plan for 2017 and the forecast indicators for 2018–2021.</li> <li>Approval of the actual and planned indicators for reducing overdue accounts receivable.</li> <li>Consideration of the consolidated business plan (RAS) and the consolidated business plan (IFRS) for the Federal Grid Group for 2017 and the forecast for 2018–2021.</li> <li>Consideration of reports on the implementation of the business plan of PJSC FGC UES for 2016 and H1 2017.</li> <li>Approval of the general limit of the Company's debt to third parties on borrowed funds.</li> <li>Approval of the Uniform Standard for Procurement (Regulation on Procurements) of PJSC FGC UES.</li> <li>Consideration of the report of PJSC FGC UES on the results of work in the capital markets and interaction with rating agencies for 2016.</li> </ul>
Effective Governance	<ul style="list-style-type: none"> <li>Consideration of questions on the participation of PJSC FGC UES in JSC STC FGC UES (change in the number of shares of JSC STC FGC UES owned by PJSC FGC UES), PJSC Inter RAO, PJSC Rosseti and FGC LLC - Management assets.</li> <li>Approval of the termination of participation in JSC Stand, CJSC Energorynok.</li> <li>Approval of the plan for the development of the production assets management system of PJSC FGC UES.</li> <li>Approval of the Regulation on the Organisation (Order) of Disposal of Non-core Assets of PJSC FGC UES.</li> <li>Approval of reports on the progress and results of the implementation of the Programme for the disposition of non-core assets of PJSC FGC UES and its subsidiaries for the year 2016 and Q1 2017.</li> </ul>
Development of UNEG Infrastructure and Consolidation of UNEG Facilities	<ul style="list-style-type: none"> <li>Approval of the adjustment of the investment programme of PJSC FGC UES for 2016–2020.</li> <li>Approval of the order of accounting for investment projects included in the new edition of the list of investment projects.</li> <li>Approval of the list of investment projects of PJSC FGC UES subject to public technological and price audit in 2017.</li> <li>Consideration of the annual report on technological and price audit of investment projects of PJSC FGC UES in 2016.</li> </ul>

## Activities for Improving the Company's Corporate Governance System

As a key governing body of the Company that is responsible for creation and development of the Company's corporate governance system, the Board of Directors paid close attention in 2017 to the general issues of

developing the corporate governance system, improving internal control and risk management procedures, and defining remuneration to members of the Company's governing bodies.

Aspect of the corporate governance system	Items considered
Improving the Corporate Governance System and Practices of the Board of Directors' Activities	<ul style="list-style-type: none"> <li>● Approval of the Regulation on the Evaluation of Activities of the Board of Directors of PJSC FGC UES.</li> <li>● Consideration of the evaluation results on the efficiency of the Board of Directors and the self-assessment of FGC's corporate governance quality.</li> <li>● Decisions were taken to recognise P.S. Gracheva and E. Ferlenji as independent members of the Board of Directors of PJSC FGC UES.</li> <li>● Approval of changes to the terms of the contract with the registrar.</li> <li>● Creation of the Board Committees and a plan of action for FGC's Board of Directors.</li> <li>● Consideration of the report of the internal auditor of PJSC FGC UES on the effectiveness of corporate governance in PJSC FGC UES following the results of 2016.</li> <li>● Approval of the Corporate Ethics Code and official conduct of employees of PJSC FGC UES.</li> <li>● Consideration of the report on the performance of PJSC FGC UES under the requirements of the legislation of the Russian Federation on countering the misuse of insider information and the Regulation on the Protection of Insider Information of PJSC FGC UES for 2016.</li> <li>● Consideration of the report of the Corporate Secretary of PJSC FGC UES.</li> </ul>
Internal Control and Risk Management	<ul style="list-style-type: none"> <li>● Approval of the list of corruption risks of PJSC FGC UES and the Corruption Risk Map of PJSC FGC UES.</li> <li>● Approval of a new edition of the Road Map on the organisation of risk management and internal control processes in the field of preventing and combating corruption.</li> <li>● Approval of a new edition of the Anti-Corruption Policy of PJSC FGC UES.</li> <li>● Approval of the report on key operational risks of PJSC FGC UES for 2016.</li> <li>● Consideration of the report of the Chairman of the Management Board and members of the Management Board of PJSC FGC UES on the functioning of the risk management and internal control system for 2016.</li> <li>● Consideration of results of anticorruption monitoring of PJSC FGC UES for 2016 and the first half of 2017.</li> </ul>
Internal Audit	<ul style="list-style-type: none"> <li>● Approval of the work plan and budget of the Internal Audit Department for 2017.</li> <li>● Consideration of the report on the implementation of the work plan of the Internal Audit Department of PJSC FGC UES for 2016.</li> <li>● Consideration of the report of the internal auditor of PJSC FGC UES on the effectiveness of the internal control and risk management system in PJSC FGC UES as of the results of 2016.</li> <li>● Consideration of results of the audit of business processes "Investment activity", "Procurement activity", "Project management", and "Capital construction".</li> </ul>
Remuneration to the Members of Governing Bodies	<ul style="list-style-type: none"> <li>● Approval of the guidelines on the calculation and assessment of implementing quarterly KPIs by FGC's senior management.</li> <li>● Approval of the report on the implementation of KPIs by the Company's senior management.</li> <li>● Consideration of a number of personnel issues related to the implementation of work activities by members of the Management Board of the Company.</li> </ul>

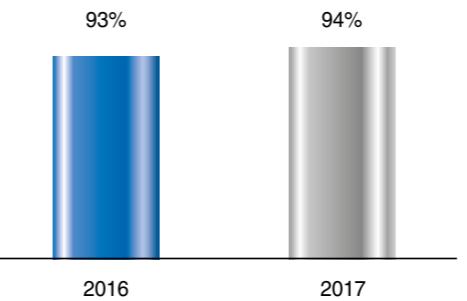
## Evaluation of the Board of Directors

(102-28) In accordance with the Regulation on the Evaluation of Activities of the Board of Directors of PJSC FGC UES, the Company annually conducts a comprehensive assessment of the effectiveness of activities of the Board of Directors, its Committees, and individual assessment of activities of directors.

At the beginning of 2018, the independent company Topcompetence LLC conducted an assessment of the Board of Directors' and its Committees' activities for 2017. The purpose of the evaluation was to obtain objective information on the activities of the Board of Directors and Committees, as well as to analyse the individual contribution of directors to the work of the Board, to determine the directions for improving the practices of the work of the Board of Directors and Committees of the Board of Directors. The evaluation methodology was based on best practices and recommendations of the national Corporate Governance Code. The evaluation tasks included:

- obtaining objective information about the activities and roles of the Board of Directors, Committees, the Corporate Secretary and the balance of the composition of the Board of Directors and Committees;
- determination of strengths and weaknesses of the Board of Directors, Committees and the Corporate Secretary, as well

### Participation of members of the Board of Directors in meetings



as directions for improving plans and methods of their work; ● development of recommendations aimed at increasing the effectiveness of the activities of the Board of Directors, Committees and the Corporate Secretary.

The assessment procedure includes the assessment of the Company's internal documents and minutes of meetings, reports and work plans of the Board of Directors and Committees. Questionnaires were also filled out by the members of the Board of Directors and its Committees, and the members were interviewed. The progress made in implementing the recommendations of the evaluation of the Board of Directors of the previous year was evaluated.

The results of the evaluation showed that the attendance of directors and members of the Committees was high, the activities complied with internal documents, and the Committees were efficient. The participants highly appreciated the work of the Board of Directors in the field of control over the Company's performance, as well as the valuable contribution of independent directors to the work of the Board and the Committees. At the same time, directions for development and improvement of activities were identified.

The evaluation results served as the basis for the development of an action plan for improving the work of the Board of Directors and the Committees. The report on the results of the evaluation is planned for consideration by the Board of Directors in Q2 of 2018.

## Composition of the Board of Directors<sup>37</sup>

In accordance with the Company's Articles of Association, the Board of Directors of the Company is elected in the number of 11 persons. This number of Board members makes it possible to form a composition balanced in terms of professional qualifications, experience and business skills of the members, to ensure high efficiency of work, and fully meets the needs of the Company and the interests of shareholders.

In accordance with the structure of the share capital (80.13% of the total number of ordinary shares belongs to PJSC Rosseti), the overwhelming majority of the members of the Board of Directors of PJSC FGC UES are elected at the request of the controlling shareholder – PJSC Rosseti.

<sup>37</sup> Hereinafter, personal information about members of the management and control bodies of PJSC FGC UES is represented with the consent of the said persons.

The composition of the Board of Directors is balanced from the point of view of both members possessing the key competence necessary for effectiveness and duration of their work in the Board. Members of the Board of Directors have skills in the areas of strategic management, corporate governance, corporate finance, risk management, and accounting, as well as knowledge and experience in the electricity sector.

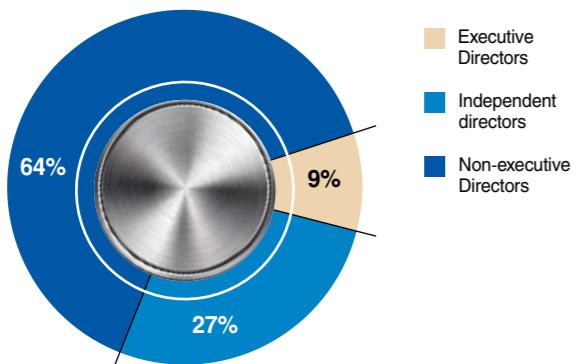
**(102-24)** Candidates for the Board of Directors are elected taking into account their personal and business qualities, as well as compliance with the independence criteria stipulated in the Listing Rules of PJSC Moscow Stock Exchange.

**(102-22)** When forming the Board of Directors of the Company, the following criteria are taken into account:

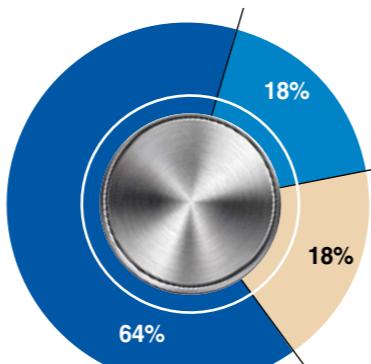
- possession by the members of the Board of Directors of certain requirements as to level of qualifications,

- experience, knowledge, business qualities and business reputation;
- election to the Board of Directors of at least three independent directors, as well as one representative of the NP Market Council;
- limitation of the number of executive directors, which cannot be more than 25% of the composition of the Board of Directors.

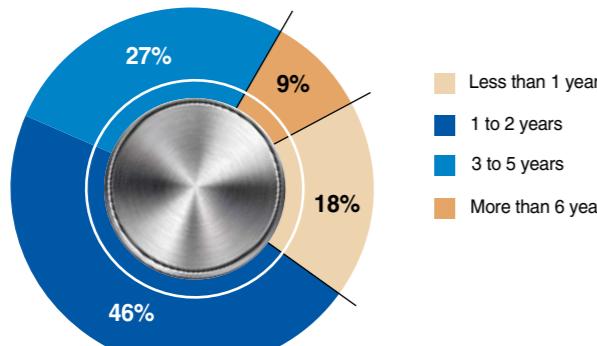
#### Composition of the Board of Directors



#### Work experience in power engineering



#### Duration of work in the Board of Directors of PJSC FGC UES



#### Participation in meetings of the Board of Directors and Committees of the Board of Directors in 2017

Board of Directors	Investment Committee	Strategy Committee	HR and Remuneration Committee	Audit Committee
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##### Persons who were members of the Board of Directors throughout the year 2017

I.A. Kamenskoy	31*/35	89 %	100 %	-	100 %	100 %
P.S. Grachev	34*/35	97 %	-		100 %	100 %
E. Ferlengi	35*/35	100 %	-	94 %	100 %	100 %
P.N. Snikkars <sup>38</sup>	26*/35	74 %	100 %	100 %		
A.A. Demin	35*/35	100 %		94 %		
A.E. Murov	33*/35	94 %				
E.V. Prokhorov <sup>39</sup>	34*/35	97 %		100 %		
N.P. Roshchenko	31*/35	89 %				
S.V. Sergeev	35*/35	100 %	85 %			

##### Persons who left the Board of Directors in 2017

O.M. Budargin <sup>40</sup>	24*/24	92 %	
S.N. Mironosetsky <sup>41</sup>	22*/24	92 %	67 %
<b>Persons who joined the Board of Directors in 2017</b>			
M.I. Poluboyarinov <sup>42</sup>	11/11	100 %	
O.V. Shatokhina <sup>43</sup>	11/11	100 %	100 %

<sup>38</sup> Elected to the Investment Committee by the decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017). Attended the only meeting of the Committee in its new composition.

<sup>39</sup> Elected to the Strategy Committee by the decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017). Attended all meetings of the Committee in its new composition.

There were three meetings of the Committee in its new composition, he attended all the meetings.

<sup>40</sup> During the participation of O.M. Budargin, 24 meetings were held by the Board of Directors of PJSC FGC UES in 2017. At the Extraordinary General Meeting of Shareholders of PJSC FGC UES on 15 September 2017 (Minutes of the EGM No. 19 dated 15 September 2017), the composition of the Company's Board of Directors was reelected; O.M. Budargin was not elected to the new composition.

<sup>41</sup> During the participation of S.N. Mironosetsky, 24 meetings were held by the Board of Directors of PJSC FGC UES in 2017. At the Extraordinary General Meeting of Shareholders of PJSC FGC UES on 15 September 2017 (Minutes of the EGM No. 19 dated 20.09.2017), the composition of the Company's Board of Directors was reelected; S.N. Mironosetsky was not elected to the new composition.

<sup>42</sup> During the participation of M.I. Poluboyarinov, 11 meetings were held in the Board of Directors of the Company at the Extraordinary General Meeting of Shareholders of PJSC FGC UES on 15 September 2017 (Minutes of the EGMS No. 19 dated 20 September 2017).

<sup>43</sup> During the participation of O.V. Shatokhina, 11 meetings were held by the Board of Directors of PJSC FGC UES in 2017. O.V. Shatokhina was elected a member of the Board of Directors of the Company at the Extraordinary General Meeting of Shareholders of PJSC FGC UES on 15 September 2017 (Minutes of the EGMS No. 19 dated 20 September 2017).

\* The meeting was not taken into account, where, in accordance with art. 68 of Federal Law No. 208-FZ dated 26 December 1995 and paragraph 18.12 of art. 18 of the Articles of Association of PJSC FGC UES, the quorum for holding a meeting of the Board of Directors is at least half of the total number of Board members of PJSC FGC UES. By the time of the beginning of the meeting, the quorum for the meeting was less than that established by the Federal Law "On Joint-Stock Companies" and the Articles of Association of the Company. In accordance with the Federal Law "On Joint-Stock Companies" and the Company's Articles of Association, the meeting of the Board of Directors is deemed not to have taken place due to the absence of a quorum.

## Competences and industry experience of members of the Board of Directors of PJSC FGC UES

Members of the Board of Directors	Duration of work in the Board of Directors, as of 31 December 2017	Work experience in power engineering	Key competencies				
			Strategy	Finance and audit	Power engineering	Legal issues	Corporate governance
P.S. Grachev	3 years 6 months	4 years	+	+	+	+	+
A.A. Demin	3 years 6 months	19 years	+	+	+		+
I.A. Kamenskoy	1 year 6 months	1.5 years	+	+	+		+
A.E. Murov	4 years 6 months	5 years	+	+	+	+	+
N.P. Roshchenko	1 year 6 months	9 years		+	+	+	+
S.V. Sergeev	1 year 6 months	9 years	+	+	+		+
P.N. Snikkars	1 year 6 months	13 years	+	+	+	+	+
M.I. Poluboyarinov	3 months	6 years	+	+	+		+
E.V. Prokhorov	1 year 6 months	10 years		+	+		+
O.V. Shatokhina	3 months	15 years	+	+	+		+
E. Ferlengi	7 years	9 years	+	+	+		+

## Introduction of new members of the Board of Directors

In order to ensure the efficient operation of the Board of Directors, familiarise itself with production and financial/economic activities, and maximise the quick incorporation of new directors, the Company conducts:

- meetings with representatives of senior management, key management personnel and members of the Management Board of the Company in order to obtain basic information on the Company's activities;
- familiarisation with the main documents of the Company, including descriptions of the main business issues, internal procedures in the Company, and organisation of the work of the management bodies;

- public events of the Company with the participation of new directors;
- meetings with the Chairman of the Board of Directors;
- consideration and discussion of the work plan for the Board of Directors and priorities of the Company's activities;
- determining the future role of the director in the Board of Directors in accordance with his or her professional knowledge and experience;
- consultations with the Corporate Secretary of the Company on various aspects of organising the activities of the Board of Directors.

## Independent Directors

In order for the Board of Directors to function effectively, take reasonable and informed decisions, and ensure control over management, the Board of Directors of PJSC FGC UES includes independent directors.

The purpose of attracting independent directors to the Board of Directors is to ensure an independent perspective on the Company's activities and its management bodies, based on their knowledge, experience and qualifications. The objectivity of independent directors and their constructive criticism are of great value to the Board of Directors and the Company as a whole.

Based on the experience of cooperation with independent directors, it can be argued that they demonstrate high professionalism, independent

judgments, and vote independently on issues on the agenda. The contribution of independent directors promotes decisions that take into account the interests of different stakeholder groups and improves the quality of management decisions.

Independent directors play a crucial role in determining the Company's development strategy and monitoring its implementation, evaluating the performance of executive bodies, assessing the effectiveness of the risk management system, internal control, internal audit, and in assessing the work of the Board of Directors and its committees.

The Company highly appreciates the contribution of independent directors in enhancing the effectiveness of the Board of Directors.

## Involvement of independent directors in the work of the Board of Directors and Committees of the Board of Directors



The Board of Directors of PJSC FGC UES includes three independent directors, and the Audit Committee and the HR and Remuneration Committee are made up exclusively of independent directors, which is in line with the recommendations of the Bank of Russia Corporate Governance Code and the requirements of the Listing Rules of the PJSC Moscow Stock Exchange. In addition, the independent director I.A. Kamenskoy was elected the Chairman of the Investment Committee in 2017.

In 2017, PJSC FGC UES' Board of Directors decided to recognise E. Ferlengi and P.S. Grachev as independent members of the Board of Directors, E. Ferlengi based on the criterion of his connection with the issuer<sup>44</sup> and P.S. Grachev based on the criterion of his connection with a significant counterparty<sup>45</sup>.

In accordance with the adopted decisions, the Board of Directors of PJSC FGC UES determined that E. Ferlengi's and P.S. Grachev's affiliations with

PJSC FGC UES and with significant counterparties of the Company respectively are of a formal nature and do not affect the independence in the formation of their positions on the agenda items of the Board of Directors, or their ability to make objective and honest judgments independent from the influence of the executive bodies of PJSC FGC UES, certain groups of shareholders, counterparties, competitors of PJSC FGC UES, and the state.

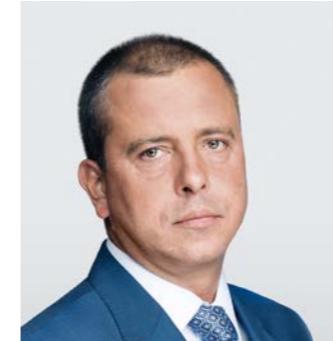
<sup>44</sup> P. 7 of Minutes of the meeting of the Board of Directors of PJSC FGC UES No. 381 dated 27 October 2017.

<sup>45</sup> P. 6 of Minutes of the meeting of the Board of Directors of PJSC FGC UES No. 381 dated 27 October 2017, p. 5 of Minutes of the meeting of the Board of Directors of PJSC FGC UES No. 387 dated 9 January 2018.

\* The Investment Committee and the Strategy Committee have one independent director out of three.

## Biographies of the Members of the Board of Directors

Composition of the Board of Directors of PJSC FGC UES as of 31 December 2017 was elected by the Extraordinary General Meeting of Shareholders held on 15 September 2017. (Job titles are indicated as of 31 December 2017). (102-24)



**Andrey A. DEMIN** (102-23)

Non-Executive Director  
Member of the Strategy Committee<sup>46</sup>

**On the Board of Directors since 2014.**

Born in 1974.  
Graduated from Zaporozhye State University with a degree in Applied Mathematics and Zaporozhye Institute of Economics and Information Technologies, majoring in Finance.  
**Experience:**  
2010–2012 — Adviser to the Director General for Strategic Development of LLC Mezhrayonsbyt.  
2012–2013 — Adviser to the Chairman of the Management Board of JSC FGC UES.  
2013–2015 — First Deputy General Director for Economics and Finance of PJSC Rosseti.  
Since 2013 — Member of the Management Board of PJSC Rosseti.

**Participation in management bodies of other organisations:**  
Member of the Board of Directors of PJSC MOESK.

**Does not own any shares of PJSC FGC UES.**



**Pavel S. GRACHEV**

Independent Director  
Member of the Audit Committee  
Member of the HR and Remuneration Committee<sup>47</sup>

**On the Board of Directors from 27 June 2013 to 27 June 2017, was re-elected in 2015.**

Born in 1973.  
Graduated from St. Petersburg State University and the University of Trieste (Italy), with a degree in Jurisprudence. Doctor of Law.  
**Experience:**  
2013 — Director General of the OJSC Fund for Development of the Far East and the Baikal Region.  
2013–2014 — Interim Chief Executive Officer of Polyus Gold International Limited.  
2014–2016 — President of JSC Polyus Krasnoyarsk (prior to its being renamed JSC Polyus).  
2014–2016 — Chief Executive Officer of Polyus Gold International Limited.  
Since 2014 — General Director of PJSC Polyus.  
Since 2016 — General Director of LLC MC [management company] Polus.

**Participation in management bodies of other organisations:**  
Member of the Board of Directors of PJSC Polyus, PJSC RusHydro; Chairman of the Board of Directors of LLC SL Gold.

**Does not own any shares of PJSC FGC UES.**

<sup>46</sup> Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).

<sup>47</sup> Decision of the Board of Directors dated 27 September 2017 (Minutes No. 378 dated 29 September 2017).

**Igor A. KAMENSKOY**

Independent Director  
Chairman of the Audit Committee<sup>48</sup>  
Chairman of the Investment Committee<sup>49</sup>  
Member of the HR and Remuneration Committee<sup>50</sup>

**On the Board of Directors since 2016.**

Born in 1968.  
Graduated from Moscow State Pedagogical Institute named after Lenin with a degree in Russian language and literature.

**Experience:**

2009–2014 — Managing Director of Renaissance Capital, LLC - Financial Consultant.  
Since 2014 — Managing Director of Renaissance Broker, LLC.

**Participation in management bodies****of other organisations:**

Member of the Board of Directors of IC Soglasie LLC, PJSC Aeroflot, PJSC VSMPO-AVISMA Corporation; Chairman of the Board of Directors of LLC Novakom Group.

**Does not own any shares of PJSC FGC UES.****Andrey E. MUROV**

Executive Director  
Chairman of the Board

**On the Board of Directors since 2013.**

Born in 1970.  
Graduated from St. Petersburg State University with a degree in Law; passed professional retraining under the Financial Management programme in the Interindustry Institute of Advanced Studies and Retraining of Leaders; graduated from the State University of Civil Aviation, specialising in the organisation of transportation and management in transport (air transport). Doctor of Economic Sciences.

**Experience:**

2007–2012 — General Director of Pulkovo Airport OJSC.  
2012–2013 — Acting General Director, Executive Director, Member of the Management Board of JSC IDGC Holding (since April 2013 — Rosseti OJSC).  
2012–2013 — First Deputy Chairman of the Management Board of PJSC FGC UES.  
Since 2013 — Chairman of the Management Board of PJSC FGC UES.  
Since 2015 — Chairman of RNC CIGRE Nonprofit partnership “Russian National Committee of the International Council for Large Electrical Voltage Systems”.

**Participation in management bodies****of other organisations:**

Member of the Board of Directors of PJSC Rosseti, PJSC Inter RAO, JSC SO UES;  
Member of the Board of Trustees of the FSBEI HE [Federal State Budgetary Educational Institution of Higher Education], Moscow Power Engineering Institute, FSBEI HE SPb State University, FSBEI HE SPb State University of Economics; Member of the Supervisory Board Association for the Development of International Studies and Energy Projects “Global Energy”;  
Member of the Supreme Council All-Russian Public Organisation “Rugby Sports Federation (Union) of Russia”.

**Does not own any shares of PJSC FGC UES.****Mikhail I. POLUBOYARINOV**

Non-Executive Director

**On the Board of Directors since 2017.**

Born in 1966.  
Graduated from Moscow Finance Institute with a degree in Finance and Credit. Candidate of Economic Sciences.

**Experience:**

2009–2011 — Director of the Department of Infrastructure of Vnesheconombank.  
Since 2017 — First Deputy Chairman of Vnesheconombank - Member of the Management Board.

**Participation in the management bodies of other organisations:**

Member of the Board of Directors of CJSC Leader, PJSC Rostelecom, PJSC Rosseti;  
Member of the Supervisory Board of JSC AHML [Agency for Housing Mortgage Lending];  
Chairman of the Board of Directors of PJSC Aeroflot.

**Does not own any shares of PJSC FGC UES.****Egor V. PROKHOROV**

Non-Executive Director  
Member of the Strategy Committee<sup>51</sup>

**On the Board of Directors since 2016.**

Born in 1982.  
Graduated from St. Petersburg State University with a degree in Mathematical Methods in Economics. Candidate of Economic Sciences.

**Experience:**

2011–2013 — General Director of LLC Index of Energy – FGC UES (shared position).  
2012–2013 — Director of Finance of OJSC IDGC [Interregional Distribution Grid Companies] Holding (shared position).  
2012–2013 — Financial Director of OJSC FGC UES.  
2013 — Financial Director of OJSC Rosseti.

Since 2013 — Deputy General Director for Finance, PJSC Rosseti.

**Participation in management bodies of other organisations:**

Member of the Board of Directors of PJSC Lenenergo, JSC Yantarenergo, JSC FEEMC [Far Eastern Energy Management Company], PJSC IDGC of the Volga; Chairman of the Board of Directors of JSC NIC EES.

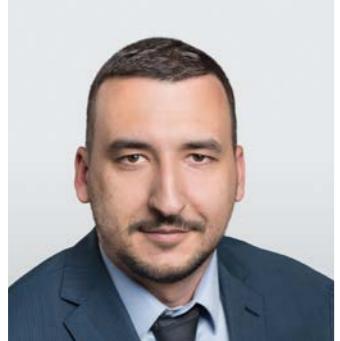
**Does not own any shares of PJSC FGC UES.**

<sup>48</sup> Decision of the Board of Directors dated 27 September 2017 (Minutes No. 378 dated 29 September 2017).

<sup>49</sup> Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).

<sup>50</sup> Decision of the Board of Directors dated 27 September 2017 (Minutes No. 378 dated 29 September 2017).

<sup>51</sup> Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).

**Nikolay P. ROSHCHELENKO**

Non-Executive Director

**On the Board of Directors since 2016.**

Born in 1981.

Graduated from the All-Russian State Tax Academy of the Ministry of Finance of Russia, majoring in Jurisprudence.

**Experience:**2008 to the present — Head of the Legal Department of the Association NP Market Council.  
Since 2014 — Member of the Board of the Association of NP Market Council.

Since 2017 — Deputy Chairman of the Management Board, Member of the Management Board of JSC ATS.

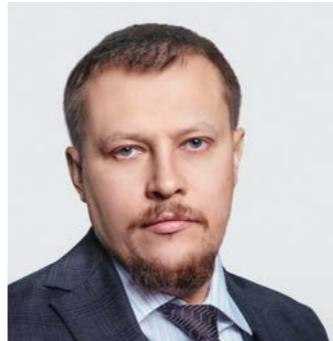
**Participation in management bodies of other organisations:**

Member of the Board of Directors of JSC ATS.

**Does not own any shares of PJSC FGC UES.****Sergey V. SERGEEV**Non-Executive Director  
Member of the Investment Committee<sup>52</sup>**On the Board of Directors since 2016.**

Born in 1976.

Graduated with honors from Novocherkassk State Technical University with a degree in Industrial and Civil Engineering.

**Experience:**2009–2013 — Deputy Chairman of the Board of OJSC FGC UES.  
2012–2013 — General Director of OJSC CIUS EES.  
Since 2013 — Deputy General Director for Capital Construction of PJSC Rosseti.**Participation in management bodies of other organisations:**Member of the Board of Directors of PJSC Lenenergo;  
Chairman of the Board of Directors JSC CTZ.**Does not own any shares of PJSC FGC UES.****Pavel N. SNIKKARS**Non-Executive Director  
Chairman of the Strategy Committee<sup>53</sup>  
Member of the Investment Committee<sup>54</sup>**On the Board of Directors since 2016.**

Born in 1978.

Graduated from the Siberian Academy of Civil Service with a degree in State and Municipal Management; Siberian University of Consumer Cooperatives, majoring in Jurisprudence. Candidate of Economic Sciences.

**Experience:**2012–2013 — Deputy Chairman of the Board of NP Market Council.  
Since 2013 — Director of the Department for the Development of the Electric Power Industry of the Ministry of Energy of Russia.**Participation in management bodies of other organisations:**Member of the Board of Directors of PJSC Lenenergo, OJSC IDGC of the Centre;  
Chairman of the Board of Directors of JSC Centre for Financial Settlements, JSC Institute ENERGOSETPROEKT.**Does not own any shares of PJSC FGC UES.****Oksana V. SHATOKHINA**Non-Executive Director  
Member of the Strategy Committee<sup>55</sup>**On the Board of Directors since 2017.**

Born in 1975.

Graduated from the Finance Academy under the Government of the Russian Federation with a degree in Finance and Credit.

**Experience:**2012–2013 — Director for Economics of OJSC FGC UES.  
2012–2013 — Director for Economics of OJSC IDGC Holding (since April 2013 — OJSC Rosseti).  
2013 — Deputy General Director for Economics and Finance of PJSC Rosseti.  
Since 2013 — Deputy General Director for Economics, PJSC Rosseti.**Participation in management bodies of other organisations:**

Member of the Board of Directors of PJSC IDGC of the Centre.

**Does not own any shares of PJSC FGC UES.**<sup>52</sup>Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).<sup>53</sup>Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).<sup>54</sup>Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).<sup>55</sup>Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).

**Ernesto FERLENZI**

Independent Director  
Chairman of the HR and Remuneration Committee<sup>56</sup>  
Member of the Audit Committee<sup>57</sup>  
Member of the Strategy Committee<sup>58</sup>

**Member of the Board of Directors from 2008 to 2014, he was re-elected in 2016.**

Born in 1968.  
Graduated from the University of Tor Vergata (Rome), Faculty of Mathematics, Physics and Natural Sciences.  
**Experience:**  
2005–2013 — Head of the representative office of the concern Eni in the Russian Federation and the CIS.  
2013–2014 — Deputy General Director for External Relations of OJSC ARKTIKGAZ.  
2014v2014 — Advisor to the Chairman of the Management Board of the Renova Group of Companies.  
2014v2017 — Senior Adviser for Russia Eni S.p.A.  
2014–2015 — Business Development Advisor Maire Tecnimont S.p.A.  
2015–2017 — Senior Business Development Advisor Saipem S.p.A.  
2015–2015 — Consultant SIIRTEC NIGI S.p.A.  
2016–2017 — Consultant of LLC SIAD RUS.  
2016–2017 — Senior adviser Snam S.p.A (oilfield services company).  
Since 2013 — individual entrepreneur.  
Since 2015 — President of the Association of Italian Industrialists "Confederation of Italian Industry".  
Since 2017 – Eni Executive Vice President for Market Development in Russia and Central Asia Eni S.p.A.

**Does not own any shares of PJSC FGC UES.**

<sup>56</sup> Decision of the Board of Directors dated 27 September 2017 (Minutes No. 378 dated 29 September 2017).

<sup>57</sup> Decision of the Board of Directors dated 27 September 2017 (Minutes No. 378 dated 29 September 2017).

<sup>58</sup> Decision of the Board of Directors dated 11 December 2017 (Minutes No. 383 dated 14 December 2017).

No deals were made with the shares of PJSC FGC UES by the members of the Board of Directors in 2017.

**Membership of the Board of Directors, effective from 29 June 2016 to 15 September 2017**  
(positions are indicated at the time of election)**Oleg M. BUDARGIN**  
*Non-executive Director*

General Director,  
Chairman of the Board of PJSC Rosseti,  
Chairman of the Board of Directors of PJSC FGC UES  
**Born in 1960**  
**Education:** Higher.  
Candidate of Economic Sciences  
**Share in the authorised capital of the Company:**  
0.0006403563%.

**Ernesto FERLENZI**  
*Independent Director*

President of Confindustria Russia  
“Association of Italian businessmen in Russia”  
**Born in 1968**  
**Education:** Higher  
**Has no share of the Company's capital.**

**Andrey E. MUROV**  
*Executive Director*

Chairman of the Board of PJSC FGC UES  
**Born in 1970**  
**Education:** Higher.  
Doctor of Economic Sciences  
**Has no share of the Company's capital.**

**Igor A. KAMENSKOY**  
*Independent Director*

Managing Director of Renaissance Broker, LLC  
**Born in 1968**  
**Education:** Higher  
**Has no share of the Company's capital.**

**Andrey A. DEMIN**  
*Non-executive Director*

Member of the board of PJSC Rosseti  
**Born in 1974**  
**Education:** Higher  
**Has no share of the Company's capital.**

**Sergey V. SERGEYEV**  
*Non-executive Director*

Deputy General Director for capital construction of PJSC Rosseti  
**Born in 1976**  
**Education:** Higher  
**Has no share of the Company's capital.**

**Sergey N. MIRONOSETSKY**  
*Non-executive Director*

Member of the Board of Directors, LLC Siberian Generating Company  
**Born in 1965**  
**Education:** Higher  
**Has no share of the Company's capital.**

**Nikolay P. ROSHCHEKO**  
*Non-executive Director*

Head of the Legal Department of the Association NP Market Council  
**Born in 1981**  
**Education:** Higher  
**Has no share of the Company's capital.**

**Pavel S. GRACHEV**  
*Independent Director*

General Director of PJSC Polus  
**Born in 1973**  
**Education:** Higher.  
Doctor of Law  
**Has no share of the Company's capital.**

**Egor V. PROKHOROV**  
*Non-executive Director*

Deputy General Director for finance of PJSC Rosseti  
**Born in 1982**  
**Education:** Higher.  
Candidate of Economic Sciences.  
**Has no share of the Company's capital.**

**Pavel N. SNIKKARS**  
*Non-executive Director*

Director of Electric Power Development Department of the Ministry of Energy of Russia  
**Born in 1978**  
**Education:** Higher. Candidate of Economic Sciences  
**Has no share of the Company's capital.**

## COMMITTEES OF THE BOARD OF DIRECTORS

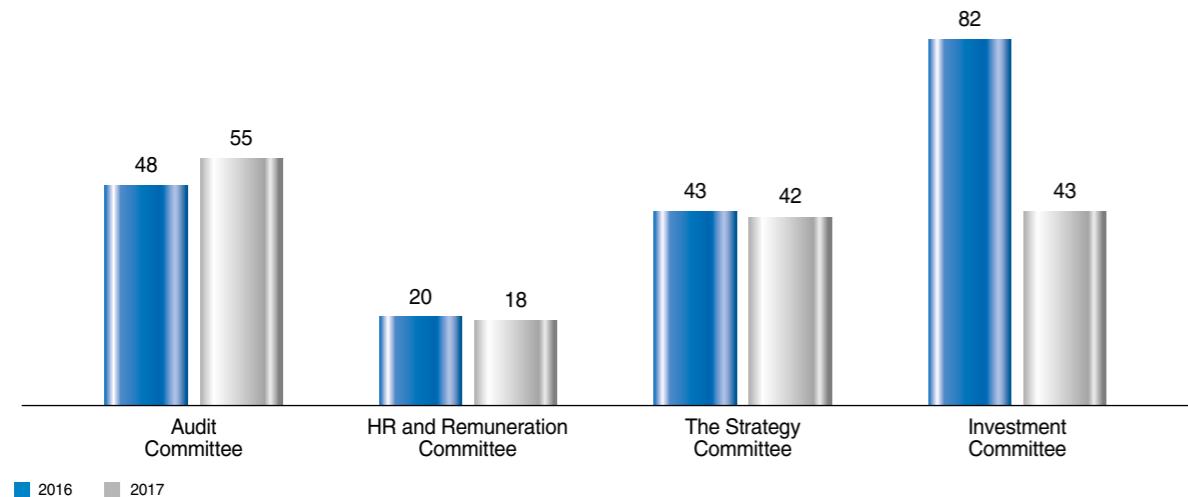
Committees of the Board of Directors are consultative and advisory bodies of the Board of Directors of PJSC FGC UES.

To improve the effectiveness of the decisions taken by the Board of Directors, and to facilitate more detailed preliminary consideration of the most important issues and preparation of relevant recommendations under the Board of Directors, four Committees were active in 2017:

- The Audit Committee;
- The Strategy Committee;
- The Human Resources and Remuneration Committee;
- The Investment Committee.

The key task of each committee is to preliminarily consider the most important issues of the subjects assigned to the competence of the Company Board of Directors and to develop recommendations to guide the Board of Directors in making decisions on relevant issues.

### Total number of issues considered by the Committees



### Total number of meetings held

Committee	2016		2017	
	In-person meetings	Remote meetings	In-person meetings	Remote meetings
Audit Committee	4	5	1	14
HR and Remuneration Committee	1	10	0	10
Strategy Committee	8	4	9	8
Investment Committee	12	4	7	6

Committees in their activities are fully accountable to the Board of Directors of the Company.

The composition of Committees is formed from members of the Board of Directors and persons proposed by members of the Board of Directors, whose competencies and experience are necessary in the work of Committees.

In accordance with the best practices and requirements of the Moscow Stock Exchange Listing Rules, only the independent directors are members of the Audit Committee and the HR and Remuneration Committee. This contributes to the development of objective, well-thought-out recommendations.

Since 2016, the Company has followed the practice of engaging independent experts to contribute to the work of the Audit Committee and the Investment Committee of the Board of Directors of the Company. In 2017, one independent expert was added to each of these Committees.

The Board of Directors of PJSC UES FGC considered and approved the reports of the Audit Committee, the Strategy Committee, the HR and Remuneration Committee, and the Investment Committee for 2016–2017<sup>59</sup>.

In accordance with the reports, each Committee for the period of its work reviewed all issues provided for by its work plan for the 2016–2017 corporate year, with the exception of the Audit Committee. The Audit Committee did not consider the issue Consideration of the Policy on External Auditor's Non-Audit Services, which had lost its relevance.



For information on decisions taken by the Board of Directors Committees on key areas of activity see Appendix 1.

<sup>59</sup> Minutes No. 379 dated 9 October 2017.

### Audit Committee

The role of the Audit Committee is to contribute to the effective performance of the functions of the Board of Directors in monitoring the financial and economic activities of the Company.

- Key functions of the Committee:
  - control over the completeness, accuracy and reliability of accounting (financial) reporting;
  - control over the reliability and effectiveness of the risk management and internal control system and the corporate governance system, including assessment of their effectiveness and preparation of proposals for their improvement;
  - ensuring the independence and objectivity of the internal audit function;

<sup>60</sup> Minutes No. 291 dated 29 November 2015.

#### (102-22) Composition of the Audit Committee

	Elected by the decision of the Board of Directors dated 12 July 2016	Elected by the decision of the Board of Directors dated 27 September 2017
I.A. Kamenskoy – Chairman, Independent Director*	+	+
P.S. Grachev – independent Director	+	+
E. Ferlengi – independent Director*	+	+

\* They have experience and knowledge in the field of preparation, analysis, evaluation and audit of accounting (financial) reporting.

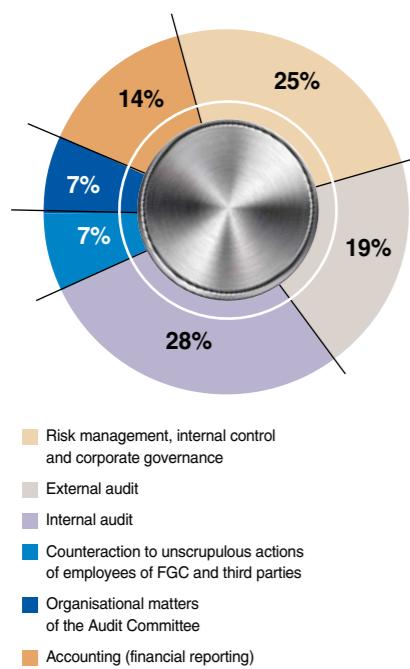
Taking into account the nature of their duties, members of the Audit Committee have sufficient up-to-date financial experience and skills necessary to work

with financial reports, business analysis and financial management. The Audit Committee does not include any of the top management of the Company.

## Activities in 2017

In 2017, the Audit Committee held 15 meetings (one of which was held in the form of an in-person meeting), and examined 55 issues.

**Structure of issues considered by the Audit Committee in 2017**



At the beginning of 2018, the independent consultant Topcompetence LLC, in evaluating the activities of the Board of Directors and its Committees following the results of 2016, assessed the activities of the Audit Committee, including the evaluation of the activities of its members. Overall score of the Audit Committee is 3.23 points out of 4 possible. In the opinion of the evaluation participants, the composition of the Committee is well balanced, its members have the necessary competences, professional knowledge and experience to implement the functions and tasks assigned to the Committee. Attendance of meetings by members of the Committee was 100%.



Information on the evaluation by the Audit Committee of the Board of Directors of the external audit is given in the [Corporate Governance Report / External Auditor section](#).

## Strategy Committee

The role of the Strategy Committee is to assist the Board of Directors of PJSC FGC UES in enhancing the efficiency of PJSC FGC UES in the long term.

The key functions of the Strategy Committee include preliminary consideration, analysis and development of recommendations to the Board of Directors of PJSC FGC UES on the following issues:

- evaluation of the performance of PJSC FGC UES in the long term;
- approval of the long-term development programme of PJSC FGC UES, amendments and additions to it and consideration of the implementation report;
- definition of strategic objectives of the activity, control of the implementation of the strategy of PJSC FGC UES, adjustment of the existing development strategy;
- determination of priority activities for PJSC FGC UES;
- development of recommendations for determining the dividend policy of PJSC FGC UES;
- business planning;
- preliminary approval of major transactions and other transactions that require the conduct of corporate events in accordance with the Company's Articles of Association;
- approval of the programme for elimination of non-core assets of PJSC FGC UES and subsidiaries PJSC FGC UES;
- approval of the credit policy of PJSC FGC UES;
- determination of PJSC FGC UES' policy on transactions with derivative financial instruments.

The activities of the Strategy Committee are governed by the Regulation on the Strategy Committee of the Board of Directors of PJSC FGC UES, as amended by the decision of the Board of Directors of PJSC FGC UES dated 12 July 2016<sup>61</sup>.

<sup>61</sup> Minutes No. 331 dated 15 July 2016.

## (102-22) Composition of the Strategy Committee

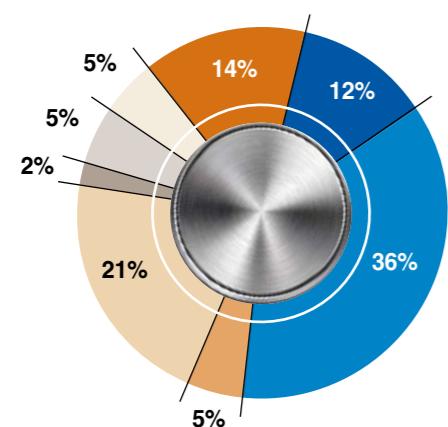
	Elected by the decision of the Board of Directors on 15 July 2016	Elected by the decision of the Board of Directors on 11 December 2017
P.N. Snikkars – Chairman of the Strategy Committee, Member of the Board of Directors of PJSC FGC UES, Director of the Department for Development of the Electric Power Industry of the Ministry of Energy of Russia	+	+
E.V. Belchenko – Senior Manager for Tariff Solutions of UK Polus, LLC	+	
D.S. Bulgakov – Deputy Head of the Directorate Expert Centre in the Fuel and Energy Complex of FSBI Russian Energy Agency (Analytical Centre of the Fuel and Energy Complex)	+	
A.E. Vikhansky – Director of the Department for Interaction with Natural Monopolies of UK Polus, LLC	+	
A.V. Gabov – Acting Deputy Director of the Department of State Tariff Regulation, Infrastructure Reforms and Energy Efficiency of the Ministry of Economic Development of Russia	+	
A.A. Germanovich – Advisor to the General Director of CJSC Investment Management	+	+
A.A. Demin – Member of the Board of Directors of PJSC FGC UES, Member of the Management Board of PJSC Rosseti	+	+
O.Yu. Isaev – General Director of JSC IDGC of the Centre	+	
S.Yu. Lebedev – Director of the Strategic Development Department of PJSC Rosseti	+	
B.A. Livshits – Deputy Head of the Department for Development of Competitive Pricing of the Association NP Market Council	+	
E.A. Olkhovich – Deputy Director of the Department of State Tariff Regulation, Infrastructure Reforms and Energy Efficiency, Ministry of Economic Development of Russia	+	+
E.V. Prokhorov – Member of the Board of Directors of PJSC FGC UES, Deputy General Director for Finance of PJSC Rosseti	+	
M.G. Tikhonova – Deputy Chairman of the Board PJSC FGC UES <sup>62</sup>	+	+
M.V. Rusakov – Member of the Management Board, Head of the Department for Development of Competitive Pricing of the Association of NP Market Council	+	
O.V. Shatokhina – Deputy General Director for Economics of PJSC Rosseti	+	+
A.A. Erdyniyev – Deputy Director of the Department for the Development of the Electric Power Industry of the Ministry of Energy of Russia	+	+
E. Ferlengi – Member of the Board of Directors of PJSC FGC UES, Acting Vice-President for the development of the Russian and Central Asian markets of the representative offices of the Concern ENI S.p.A.	+	+
V.K. Yavorskiy – General Director of Tori Audit, LLC, member of the Presidium NP "OPORA ROSSI"	+	+

<sup>62</sup> Decision of the Board of Directors dated 24 November 2016 (Minutes No. 346 dated 28 November 2016).

## Activities in 2017

In 2017, the Strategy Committee held 17 meetings (nine in the form in-person meetings and eight in absentia); 42 issues were considered.

**Structure of issues considered by the Strategy Committee in 2017**



- Defining a long-term development programme
- Business planning of the Company
- Determination of the Company's policy regarding the conclusion of transactions with derivatives and determination of dividend policy
- Management of non-core assets
- International and other agreements on cooperation not related to the implementation of the Company's normal operating activities
- Preliminary approval of the decision on the performance by the Company of transactions stipulated by the Articles of Association
- Organisational issues of the Strategy Committee
- Determination of priority direction of activities

## HR and Remuneration Committee

The role of the HR and Remuneration Committee is to assist the Board of Directors of PJSC FGC UES in implementing personnel planning (succession planning), assessing the effectiveness of the Company's management bodies and developing effective and transparent remuneration practice.

The key functions of the HR and Remuneration Committee include preliminary consideration, analysis and development of recommendations to the Board of Directors of PJSC FGC UES on the following issues:

- formation of effective and transparent remuneration practice;
- development of personnel policy and policy of continuity;
- implementation of personnel planning (succession planning);
- preliminary assessment of the activities of the executive bodies of the Company;

- carrying out a detailed, formalised procedure for self-assessment or an external evaluation of the effectiveness of the Board of Directors and its members, as well as the Committees of the Board of Directors, and determining priority areas for strengthening the composition of the Board of Directors.

The activity of the HR and Remuneration Committee is regulated by the Regulation on the HR and Remuneration Committee of the Board of Directors of PJSC FGC UES, as amended by decision of the Board of Directors of PJSC FGC UES dated 3 October 2016<sup>63</sup>.

<sup>63</sup> Minutes No. 341 dated 5 October 2016

### (102-22) Composition of the HR and Remuneration Committee

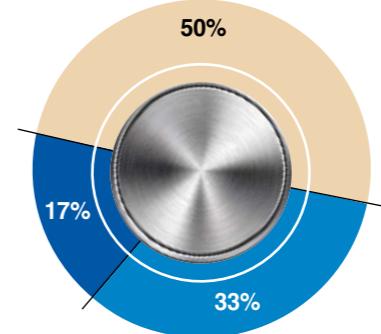
	Elected by the decision of the Board of Directors on 12 July 2016	Elected by the decision of the Board of Directors on 27 September 2017
E. Ferlenji – Chairman of the Committee, independent Director	+	+
P.S. Grachev – independent Director	+	+
I.A. Kamenskoy – independent Director	+	+

The HR and Remuneration Committee does not include any of the top management of the Company, and it consists entirely of independent directors.

## Activities in 2017

In 2017, the HR and Remuneration Committee held 10 meetings in absentia.

**Structure of issues considered by the HR and Remuneration Committee in 2017**



- Remuneration of members of the Company's management and control bodies
- Personnel issues
- Organisational matters of the HR and Remuneration Committee

## Investment Committee

The role of the Investment Committee is to assist the Board of Directors in improving and developing the Company's investment policy.

The key functions of the Committee include preliminary consideration, analysis and development of recommendations to the Board of Directors of FGC on the following issues:

- approval of the investment programme of FGC, including its adjustments;
- consideration of reporting on its implementation;
- review of internal documents on investment activities, including standards for technology and price audit of investment projects;
- review of the implementation of certain Company investment projects;

- approval of the innovative development programme of FGC, including the R&D programme, and consideration of reports on its implementation;
- determination of the Company's purchasing policy;
- consideration of plans and programmes for the development of the UES of Russia;
- consideration of issues related to technological connections to electric grids.

The activities of the Committee are regulated by the Regulation on the Investment Committee of the Board of Directors of PJSC FGC UES in the version approved by the decision of the Board of Directors dated 12 July 2016<sup>64</sup>.

<sup>64</sup> Minutes No. 331 dated 15 July 2016..

### (102-22) Composition of the Investment Committee

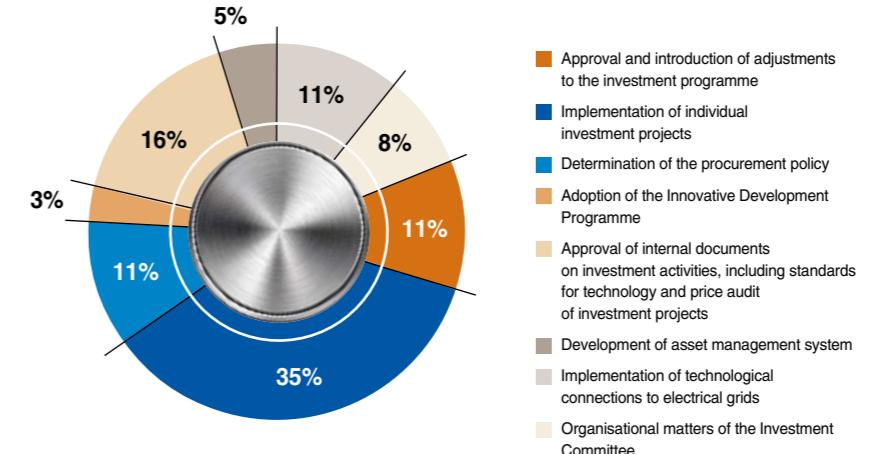
	Elected by the decision of the Board of Directors on 12 July 2016	Elected by the decision of the Board of Directors on 11 December 2017
I.A. Kamenskoy — Chairman of the Investment Committee, Member of the Board of Directors of PJSC FGC UES, Managing Director of Renaissance Broker, LLC	+	+
D.B. Akopyan — Director of the Investment Department of PJSC Rosseti		+
S.A. Balaeva — Deputy General Director for Investments, PJSC Rosseti		+
M.A. Bychko — Director of the Department of Capital Construction of PJSC Rosseti		+
V.F. Gritsenko — Member of the Presidium of NP "OPORA ROSSI"	+	+

## (102-22) Composition of the Investment Committee (continuation of the table from p. 165)

	Elected by the decision of the Board of Directors on 12 July 2016	Elected by the decision of the Board of Directors on 11 December 2017
V.A. Domnich — Head of the Department of State Tariff Regulation, Infrastructure Reforms and Energy Efficiency, Ministry of Economic Development of Russia	+	
Yu.V. Yegoshin — Deputy Director of the Department for Interaction with Natural Monopolies, UK Polus, LLC		+
S.I. Zhuravlev, Vice-President for work with Government Bodies of UK Polus, LLC	+	
A.V. Ilenco — Member of the Management Board, Director for Development Management of the Unified Energy System of JSC SO UES	+	+
V.N. Kiselev — Chairman of the Consumer Council under the Government Commission for Electric Power Industry	+	+
R.R. Magadeyev — Deputy Chief Engineer of PJSC Rosseti	+	
S.N. Mironosetsky — Member of the Board of Directors of PJSC FGC UES	+	
V.L. Pelymsky — Deputy Chief Engineer of PJSC Rosseti		+
I.A. Selivakhin — Financial Director of JSC ATS, Advisor to the Chairman of the Board of the Association NP Market Council	+	+
S.A. Semerikov — Deputy General Director for Development and Realisation of Services of PJSC Rosseti	+	
S.V. Sergeev — Member of the Board of Directors of PJSC FGC UES, Deputy General Director for Capital Construction of PJSC Rosseti	+	+
V.S. Skulkin — Deputy Director of the Department for Development of the Electric Power Industry of the Ministry of Energy of Russia	+	
P.N. Snikkars — Member of the Board of Directors of PJSC FGC UES, Director of the Department of Electric Power Development of the Ministry of Energy of Russia		+
O.P. Tokarev — Deputy Director of the Machine-Building and Investment Engineering Department of the Ministry of Industry and Trade of Russia		+
R.E. Filimonov — Member of the Management Board, First Deputy Chairman of the Management Board of PJSC FGC UES	+	+

In 2017, the Investment Committee held 13 meetings (seven in the form of joint attendance and six in absentia), 43 issues were addressed.

## Structure of issues considered by the Investment Committee in 2017



- Approval and introduction of adjustments to the investment programme
- Implementation of individual investment projects
- Determination of the procurement policy
- Adoption of the Innovative Development Programme
- Approval of internal documents on investment activities, including standards for technology and price audit of investment projects
- Development of asset management system
- Implementation of technological connections to electrical grids
- Organisational matters of the Investment Committee

## CORPORATE SECRETARY

In accordance with the Company Corporate Governance Code, the Corporate Secretary is an important participant in the corporate governance system of the Company.

The activities of the Corporate Secretary are governed by the Regulation on the Corporate Secretary of PJSC FGC UES<sup>65</sup>.

A.A. Ozherelyev functions as Corporate Secretary of the Company.

<sup>65</sup> Approved by the Board of Directors, Minutes No. 279 dated 27 July 2015, Minutes No. 330 dated 8 July 2016.

The Corporate Secretary is functionally subordinated to the Board of Directors, and at the same time administratively to the Chairman of the Management Board, which ensures the necessary degree of independence from the Company's management. In addition, in order to ensure the independence of the Corporate Secretary from the Company's management, the person who holds the position of Corporate Secretary is banned from combining work as a Corporate Secretary with performing other functions in the Company.

**Aleksey A. OZHERELEYEV, Corporate Secretary of PJSC FGC UES**

Born in 1986. In 2006 he graduated from Moscow State University of Statistics and Informatics with a degree in Finance and Credit.

**Experience:**

- 2009–2011 — worked at the Ministry of Energy of Russia and held the positions of Counselor, Deputy Head of Division, Head of the Department of Economic Regulation and Property Relations in the Fuel and Energy Complex.

- 2011–2013 — worked at PJSC FGC UES as the Deputy Head of the Corporate Governance Department.
- 2013–2016 — worked at PJSC Rosseti as Head of the Directorate for the Organisation of the Activities of the Management Bodies.
- Starting from 09.01.2017 to the present — works at PJSC Rosseti as head of the Department for the organisation of the activities of the Management Board, the Board of Directors, and interaction with shareholders and investors of Corporate Governance and IR Department.

## EXECUTIVE MANAGEMENT BODIES

Management of the Company's current operations is exercised by collegial and sole executive bodies – the Management Board and the Chairman of the Management Board of PJSC FGC UES, which ensure effective fulfillment of the tasks facing the Company and implementation of the development strategy.

The Management Board of PJSC FGC UES and the Chairman of the Management Board of PJSC FGC UES are accountable to the General Meeting of Shareholders and the Board of Directors of the Company.

The Chairman of the Management Board of the Company is elected by the General Meeting of Shareholders of the Company, and members of the Management Board of the Company are elected (appointed) by the Board of Directors of the Company at the proposal of the Chairman of the Management Board of the Company.

In accordance with the Company's Articles of Association, the term of office of the Chairman of the Management Board of PJSC FGC UES is 5 years, and the members of the Management Board of PJSC FGC UES – 3 years.

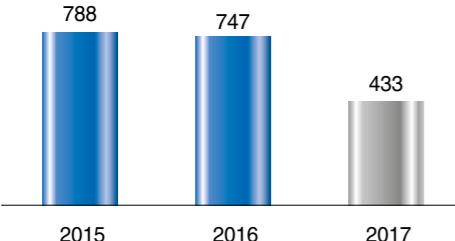
In order to ensure accountability and effective monitoring of the work of the executive bodies of the Company in accordance with the Company's Articles of Association, the competence of the Board of Directors in respect of members of the Management Board and the Chairman of the Management Board is:

- election of members of the Management Board of the Company (with the exception of the Chairman of the Management Board of the Company) and early termination of their powers;
- holding the Chairman of the Management Board of the Company accountable for disciplinary liability and determining incentives in accordance with current legislation;
- determination of the amount of remuneration and compensation paid to the Chairman of the Management Board and members of the Management Board of the Company;
- coordination of the combination of positions in the management bodies of other organisations, as well as other paid positions in other organisations.

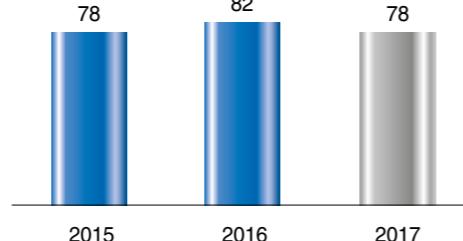
### Results of the Work of the Board in 2017

In 2017, the Management Board of PJSC FGC UES held 78 meetings, 3 meetings in person, 75 in absentia, 433 issues were considered.

**Statistics of the number of issues considered by the Board of PJSC FGC UES**



**Statistics of the number of meetings of the Management Board of JSC FGC UES**



In 2017, the Board of PJSC FGC UES considered the following most important issues

Subject of issues	Issue
Production activity	<ul style="list-style-type: none"> <li>● The annual report on the technological and price audit of investment projects of PJSC FGC UES in 2016 was considered.</li> <li>● Reports on the status and progress of a number of investment projects were reviewed.</li> <li>● The consolidated five-year work plan and the budget for the maintenance and repair expenses of PJSC FGC UES for the period 2018–2022 were approved.</li> <li>● The concept of a system of operational and technological management of UNEG facilities in PJSC FGC UES was approved.</li> </ul>
Social and HR Policy	<ul style="list-style-type: none"> <li>● Amendments were made to the Long-Term Corporate Assistance Programme for improving the living conditions of JSC FGC UES employees.</li> <li>● Amendments to the Regulation on Employment Dynasties of PJSC FGC UES were made.</li> <li>● The Programme for the formation of a housing fund for employees of PJSC FGC UES for 2017–2019 was approved.</li> </ul>
Financial and economic activity	<ul style="list-style-type: none"> <li>● Changes have been made to the package of measures that will ensure long-term financial stability and liquidity of PJSC FGC UES.</li> <li>● The report of PJSC FGC UES on the results of work in the capital markets and interaction with rating agencies for 2016 was considered.</li> <li>● The Programme and the Prospectus of exchange bonds of PJSC FGC UES were considered.</li> <li>● The scenario conditions for the formation of the business plan of PJSC FGC UES for 2018 and the forecast indicators for 2019–2022 were considered.</li> <li>● The reports on the execution of the business plan of PJSC FGC UES were considered.</li> </ul>
Internal control and risk management	<ul style="list-style-type: none"> <li>● The plan of measures for management of key operational risks for 2017 was approved.</li> <li>● The report of the Chairman of the Management Board and members of the Management Board of PJSC FGC UES on the functioning of the risk management and internal control system for 2016 was considered.</li> </ul>

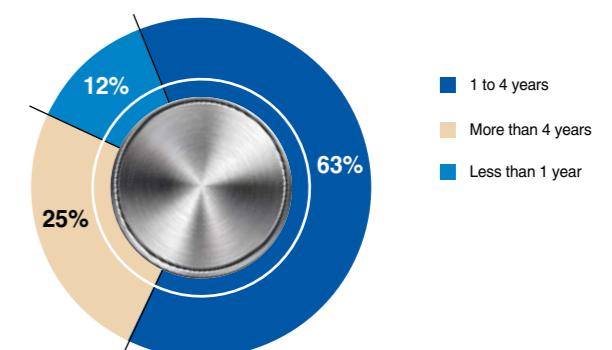
### Composition of the Management Board

In accordance with the Regulation on the Management Board of PJSC FGC UES, the quantitative composition of the Management Board of PJSC FGC UES is determined by the decision of the Board of Directors of PJSC FGC UES.

As of 31 December 2017, the Board of PJSC FGC UES consisted of 8 members.

All persons who are members of the Management Board of PJSC FGC UES have the necessary experience and competence to perform their functions at the highest level.

**Duration of work in the Management Board of PJSC FGC UES**



## Biographies of the Members of the Management Board of PJSC FGC UES



**Andrey E. MUROV**

Chairman of the Board, Member of the Board of Directors

**Area of responsibility:**

Management of current activities of the Company, organisation of the work of the Board

**Member of the Management Board since 2012**

Born in 1970.

**Education:**

Graduated from St. Petersburg State University with a degree in Law; passed professional retraining under the program "Financial Management" in the Interindustry Institute of Advanced Studies and Retraining of Leaders; graduated from the State University of Civil Aviation, specialising in the organisation of transportation and management in transport (air transport).

Doctor of Economic Sciences.

**Experience:**

- 2007–2012 — General Director of JSC Pulkovo Airport.
- 2012–2013 — Acting General Director, Executive Director, Member of the Management Board of OJSC IDGC Holding (from 04.04.2013 - OJSC Rosseti).
- 2012–2013 — First Deputy Chairman of the Management Board of PJSC FGC UES.
- Since 2013 — Chairman of the Management Board of PJSC FGC UES.
- Since 2015 — Chairman of RNC SIGRE Non-commercial Partnership "Russian National Committee of the International Council for Large Electrical Voltage Systems".

**Participation in the management bodies of other organisations:**

Member of the Board of Directors of PJSC Rosseti, PJSC Inter RAO, JSC SO UES; Member of the Board of Trustees of the Federal State Budget Educational Institution of Higher Education NRU MPEI, Federal State Budget Educational institution of Higher Education SPbGU, Federal State Budget Educational institution of Higher Education SPbGEU; Member of the Supervisory Board of the Association for the Development of International Research and Energy Projects "Global Energy"; Member of the Higher Council All-Russian Public Organisation "Sport Federation (Union) Rugby Russia".

**Does not hold shares of PJSC FGC UES.**



**Aleksander A. ZARAGATSKY**

First Deputy Chairman of the Board

**Area of responsibility:**

Block of Personnel Management and Development  
Block of Corporate and Strategic Management

**Functional verticals of management:**

"Legal Provision"  
"Document Management"  
"Administrative and Economic Support"  
"Property Management"  
"Management of Communications, Public Relations and Public Authorities"

**Member of the Management Board since 2014.**

Born in 1976.

**Education:**

Graduated from St. Petersburg Law Institute of the General Prosecutor's Office of the Russian Federation, majoring in "Jurisprudence". He graduated from the St. Petersburg Institute of Management and Economics with a degree in State and Municipal Management. Candidate of Economic Sciences.

**Experience:**

- 2007–2013 — Chief of Staff, Head of Staff of the Chairman of the Legislative Assembly of St. Petersburg.
- 2013–2016 — Deputy Chairman of the Management Board of PJSC FGC UES.
- Since 2016 — First Deputy Chairman of the Management Board of PJSC FGC UES.

**Does not hold shares of PJSC FGC UES.**



**Roman E. FILIMONOV**

First Deputy Chairman of the Board

**Area of responsibility:**

Development Block and Customer Relationships  
Block of Investments and Innovative Development

Functional verticals of management:  
"Operation and Development of IT"  
"Procurement Management"  
"Operational Analysis"

**Member of the Board since 2016.**

Born in 1968.

**Education:**

Graduated from the Military Engineering Red Banner Institute named after A.F. Mozhaisky in engineering. He received additional professional education at the North-West Academy of the State Service, specialising in "State and municipal management".

**Experience:**

- 2009–2012 – Vice-Governor of St. Petersburg.
- 2012–2013 – Deputy Chairman of the Government of the Moscow Region.
- 2013–2015 – Director of the Construction Department of the Ministry of Defense of Russia.
- 2015–2016 – Head of the Central Directorate for the Repair of Tracks of JSC Russian Railways.
- 2016 – Adviser to the Chairman of the Management Board of PJSC FGC UES.
- Since 2016 – First Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES.

**Participation in management bodies of other organisations:**

In 2016–2017 – Chairman of the Board of Directors of JSC TsiUS UES.

**Does not hold shares of PJSC FGC UES.**



**Dmitry A. VODENNIKOV**

Deputy Chairman of the Board – Chief Engineer

**Area of responsibility:**

Block of Operations and Repairs  
**Member of the Management Board since 2017.**

Born in 1974.

**Education:**

Graduated from Kurgan State University with a degree in Automation of Technological Processes and Production.

**Experience:**

- 2011–2015 – First Deputy General Director – Chief Engineer of MPS of Western Siberia of JSC FGC UES Branch of MPS of Western Siberia.
- 2015–2017 – General Director of the branch of PJSC FGC UES MPS of Siberia.
- Since 2017 – Deputy Chairman of the Management Board – Chief Engineer, Member of the Management Board of PJSC FGC UES.

**Participation in management bodies of other organisations:**

Chairman of the Board of Directors of JSC Tomsk Backbone Grids.

**Does not hold shares of PJSC FGC UES.**

**Aleksey V. MOLSKY**

Deputy Chairman of the Management Board

**Area of responsibility:**

Block Development and Customer Relations

**Member of the Board since 2016.**

Born in 1980.

**Education:**

Graduated from Moscow Power Engineering Institute in the specialties "Electric power systems and grids" and "Economics and management in the enterprise".

**Experience:**

- 2010–2012 — Head of the Department of Reconstruction of JSC FGC UES.
- 2012–2012 — Deputy Chief Engineer of PJSC FGC UES.
- Since 2012 — Deputy Chairman of the Management Board of JSC FGC UES.
- Since 2016 — Member of the Management Board of PJSC FGC UES.

**Participation in management bodies of other organisations:**

In 2016–2017 years — Chairman of the Board of Directors of JSC TsiUS UES, JSC APBE, JSC Kuban Trunk Grids, JSC Tomsk Backbone Grids; currently Chairman of the Supervisory Board of JSC Sakrusenergo; Member of the Supervisory Board of the Association NP Market; Member of the Council of SRO UNION ENERGOSTROY; Member of the Board of Directors of JSC TaigaEnergoStroy. **Does not hold shares of PJSC FGC UES.**

**Nikolay I. POZDNYAKOV**

General Director of the subsidiary company of JSC TsiUS UES, which is of significant importance for PJSC FGC UES as of 31 December 2017

**Member of the Management Board since 2014.**

Born in 1979.

**Education:**

Graduated from Moscow State University named after M. Lomonosov with a degree in Physics and State University – Higher School of Economics, specialty "Economist".

**Experience:**

- 2009–2013 — Head of the Department for Monitoring and Support of the Investment Programme of the Investment Planning and Reporting Department, Head of the Investment Planning and Reporting Department of JSC FGC UES.
- 2013–2014 — Deputy General Director for Investments, Rosseti OJSC.
- 2014–2016 — Deputy Chairman of the Management Board of PJSC FGC UES.
- Since 2014 — General Director of JSC TsiUS UES.
- Since 2014 — Member of the Management Board of PJSC FGC UES.

**Participation in management bodies of other organisations:**

General Director, Member of the Board of Directors of JSC TsiUS UES.

**The proportion of ordinary shares of PJSC FGC UES owned is 0.0000938%.****Sergey S. TEREBULIN**

Deputy Chairman of the Management Board

**Area of responsibility:**

Block of Economics, Finance and Subsidiaries

**Member of the Board since 2016.**

Was born in 1978.

**Education:**

Graduated from the Finance Academy under the Government of the Russian Federation with a degree in Finance and Credit. Candidate of Economic Sciences.

**Experience:**

- 2007–2014 — Head of the Corporate Finance Department of JSC RusHydro.
- 2014–2016 — Director of the Corporate Finance Department of PJSC RusHydro.
- 2016–2016 — Adviser to the Chairman of the Management Board of PJSC FGC UES.
- Since 2016 — Deputy Chairman of the Management Board, member of the Management Board of PJSC FGC UES.

**Participation in management bodies of other organisations:**

In 2016–2017 years — Member of the Board of Directors of PJSC RAO Energy Systems of the East, JSC RusHydro's Energy Retail Company; is currently a member of the Board of Trustees of the charity fund for helping children with organic lesions of the central nervous system, "GALCHONOK".

**Does not hold shares of PJSC FGC UES.****Maria G. TIKHONOVA**

Deputy Chairman of the Management Board

**Area of responsibility:**

Block of Corporate and Strategic Management

**Member of the Board since 2013.**

Born in 1980.

**Education:**

Graduated from the Volgo-Vyatka Academy of Public Administration with a degree in State and Municipal Management, followed by the Higher School of Economics with a degree in MBA – Finance. Candidate of Economic Sciences.

**Experience:**

- 2008–2012 — Head of the Department of Corporate Governance and Economic Expertise of the Department of Economic Regulation and Property Relations, Deputy Director of the Department, Director of the Department for Economic Regulation and Property Relations in the Fuel and Energy Complex of the Ministry of Energy of Russia.
- Since 2013 — Deputy Chairman of the Management Board, member of the Management Board of PJSC FGC UES.

**Does not hold shares of PJSC FGC UES.**

During 2017, none of the members of the Management Board carried out transactions with shares of PJSC FGC UES.

During 2017, the members of the Management Board were not given loans.

## Changes in the Composition of the Board in 2017

By the decision of the Board of Directors of 28 June 2017, the authorities of the member of the Management Board – Chief Engineer of PJSC FGC UES Vladimir Savik – were terminated prematurely.

By the decision of the Board of Directors of 28 June 2017, Dmitry Vodennikov, Chief Engineer of PJSC FGC UES, was elected a member of the Management Board.

According to the decision of the Board of Directors dated 25 October 2017, members of the Management

Board of PJSC FGC UES Aleksander Zaragatsky and Nikolay Pozdnyakov concluded employment contracts for a new term.

Due to the expiration of the term of the employment contract in October 2017, the authorities of the member of the Management Board of PJSC FGC UES Aleksander Vasiliev were terminated.

<sup>66</sup> Minutes No. 374, dated 3 July 2017.

<sup>67</sup> Minutes No. 374, dated 3 July 2017.

<sup>68</sup> Minutes No. 381, dated 27 October 2017.

## SYSTEM OF REMUNERATION OF MEMBERS OF THE BOARD OF DIRECTORS AND THE MANAGEMENT BODIES

### Remuneration of Members of the Board of Directors

(102-35, 102-36) The procedure for determining remuneration and compensation to members of the Board of Directors, as well as the procedure for their payment, are stipulated in the Regulation on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES<sup>69</sup>.

The Remuneration Policy is developed on the basis of the principles and recommendations of the Bank of Russia Corporate Governance Code, taking into account the practice of calculating remuneration and compensation in the Company.

The Company's practices in the area of determining remuneration and compensation to the members of the Board of Directors meet the principles of transparency and accountability and take into account the role of these persons in the Company's activities.

The work of the HR and Remuneration Committee in this area contributes to the efficiency and transparency of the current Policy.

The Company doesn't involve consultants to determine remuneration and compensation to members of the Board of Directors.

Key aspects of the remuneration system for members of the Board of Directors:

- remuneration is carried out as a lump sum payment based on the job performance of the members of the Board of Directors of the Company for the corporate year from the moment of election until the moment of termination of powers;
- the decision on payment of remuneration is made at the Annual General Meeting of Shareholders of the Company.

The Regulation on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES also provide for a number of conditions under which remuneration is not paid:

- a member of the Board of Directors of the Company missed more than half of the meetings of the Board of Directors held during his membership in the Board of Directors;
- absence of net profit for the fiscal year preceding the year of payment of remuneration to the member of the Board of Directors;

- a member of the Board of Directors of the Company is simultaneously a member of the Management Board of the Company, and / or the Chairman of the Management Board of the Company;
- a member of the Board of Directors of the Company is a person in respect of whom the legislation of the Russian Federation provides for restrictions and prohibitions on receiving any payments from commercial organisations.

In accordance with the Regulation on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES Board of Directors in the event of early termination of powers of the member of the Board of Directors, as well as in the event of the election of the member of the Board of Directors at the Extraordinary General Meeting of Shareholders, calculation of remuneration of such persons shall be based on the actual time of their performance of duties of a member of the Board of Directors of the Company.

The Company does not provide any additional payment or compensation in the event of early termination of powers of members of the Board of Directors due to the transfer of control over the company or other circumstances.

Internal documents and policies of PJSC FGC UES on the remuneration of the Board members also do not envisage providing shares to members of the Board of Directors.

<sup>69</sup> Approved by the the Annual General Meeting of Shareholders of PJSC FGC UES dated 26 June 2015 (Minutes No. 16 dated 30 June 2015).

## Calculation of Remuneration

In order to increase the involvement of the members of the Board of Directors in the work of the Company and the interest in achieving high financial indicators by the Company, the remuneration of a member of the Board of Directors is tied to the financial results of the Company. The remuneration

is calculated on the basis of the basic part of the remuneration ( $R_{BASE}$ ), which is determined depending on the volume of the Company's revenue<sup>70</sup> for the fiscal year preceding the year of payment of remuneration to a member of the Board of Directors of the Company.

Revenues for the financial year	The amount of the basic part of the remuneration
Over RUB 200 billion	RUB 1,000,000
Over RUB 30 billion	RUB 900,000
Over RUB 10 billion	RUB 800,000
Over RUB 1 billion	RUB 700,000
Over RUB 600 million	RUB 600,000

The actual amount of remuneration of a member of the Board of Directors of the Company based on the results of work for the corporate year is calculated by the formula:

$$R_{ACTUAL} = R_{BASE} \times 100/130 \times (a / b),$$

where:  
 $R_{ACTUAL}$  – actual remuneration;  
 $R_{BASE}$  – base remuneration;

$a$  – the number of meetings of the Board of Directors (regardless of the form of their conduct), in which

a member of the Board of Directors participated and which were held for the corporate year;  
 $b$  – total number of meetings of the Board of Directors held for the corporate year.

The basic remuneration of members of the Board of Directors in the 2016-2017 corporate year was:  $R_{BASE} = \text{RUB } 900,000$ .

<sup>70</sup> Calculated according to RAS.

## Additions

The remuneration of the Chairman of the Board of Directors is increased by 30%. For work on Committees, the members of the Board of Directors also receive additions: the chairman of the Committee – 20%,

a member of the Committee – 10%. The maximum amount of remuneration of each member of the Board of Directors, taking into account various allowances, is set at RUB 900,000.

## Remuneration of members of the Board of Directors in 2017 for participation in the work of the Board of Directors and Committees of the Board of Directors, RUB thousand\*

O.M. Budargin	821.7
P.S. Grachev	794.6
A.A. Demin	745.0
I.A. Kamenskoy	900.0
S.N. Mironosetsky	645.7
A.E. Murov **	0
E.V. Prokhorov	662.2
N.P. Roshchenko	571.9
S.V. Sergeev	745.0
P.N. Snikkars***	0
E. Ferlenga	900.0
<b>TOTAL</b>	<b>6,786.1</b>

\* Other types of remuneration, including compensation of expenses, were not paid.

\*\* Remuneration is not paid due to the fact that a member of the Board of Directors of the Company is simultaneously the Chairman of the Management Board of the Company.

\*\*\* Remuneration is not paid due to the fact that a member of the Board of Directors is a civil servant.

## The aggregate amount of remuneration of members of the Board of Directors, RUB thousand

Kind (element) of remuneration	2015	2016	2017
<b>Fixed part of remuneration</b>			
Remuneration for participation in the work of the management body	5,828.0	5,498.5	5,764.2
Additional remuneration to the Chairman of the Board of Directors	192.6	0	189.6
Additional remuneration for participation in Committees of the Board of Directors	519.8	818.8	832.3
Other fixed remuneration	0	0	0
<b>The total amount of the fixed part of the remuneration</b>	<b>6,540.4</b>	<b>6,317.3</b>	<b>6,786.1</b>
<b>Variable portion of remuneration</b>			
Accrued bonuses	0	0	0
Accrued interest paid on the basis of shares	The internal document (s) – the policy (policies) for the remuneration of members of the Board of Directors does not provide for the provision of Company shares to members of the Board of Directors.		
Other variable remuneration (non-monetary remuneration and compensation), including:	0	0	0
Expenses for travel to the place of meetings of the Board of Directors and Committees and back	0	0	0
Cost of living	0	0	0
Other expenses related to the Company's activities	0	0	0
<b>The total accrued amount of the variable part of remuneration</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Termination benefits, compensations and other payments in connection with early termination of powers</b>			

In accordance with the Regulation on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES, approved by the decision of the Annual General Meeting of Shareholders of JSC FGC UES dated 26 June 2015, in the event of early termination of the powers of a member of the Board of Directors, as well as in case of election of a member, the Board of Directors at an Extraordinary General Meeting of Shareholders of the Company shall calculate the remuneration of such persons taking into account the actual time of their performance of the duties of a member of the Board of Directors of the Company.

The Company does not provide for any additional payments or compensation in the event of early termination of the powers of members of the Board of Directors in connection with the transfer of control over the Company or other circumstances.

In connection with the receipt of net profit in 2016 in the amount of RUB 106,070,911, at the General Meeting of Shareholders of PJSC FGC UES, conducted following the results of 2016–2017 of the corporate year, a decision was taken to pay rewards

to members of the Board of Directors. The fixed annual remuneration was the only monetary form of remuneration for members of the Board of Directors for their work in the Board of Directors during the reporting period.

## Compensation

The Regulation on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES provides for the payment of actual expenses to the members of the Board of Directors,

including expenses for travel to the place of holding a meeting of the Board of Directors and Committees, living expenses, as well as other expenses related to the Company's activities.

## The Remuneration System of the Chairman of the Management Board and Members of the Management Board

In accordance with best practice, the system of remuneration for members of the executive bodies of the Company consists of fixed and variable parts, linked to the performance of KPIs of top managers. This approach allows us to motivate the members of the Management Board to achieve strategic goals and, as a result, help to increase the value of the Company.

The system of remuneration of the Company's executive bodies is regulated by the Regulation on the Conditions of Employment Contracts and the Determination of the Amount of Remuneration and Compensation to the Top Managers of JSC FGC UES<sup>71</sup>.

The Company does not involve consultants to determine remuneration for members and the Chairman of the Management Board.

The remuneration of top managers consists of a fixed part (salary) and a variable (bonus). The size of the bonus mainly depends on the performance of key performance indicators (KPIs) of senior managers. The variable part consists of a quarterly and annual bonus (based on the results of quarterly and annual KPIs, respectively). In the event of failure to fulfill any KPI, the amount of the bonus of all members of the Management Board, including the Chairman of the Management Board, is reduced by a certain percentage, depending on the degree of significance of the indicator.

The Board of Directors approves the target values (adjusted values) of the Company's key performance indicators (KPIs) and reports on their implementation, on the basis of which the Chairman of the Management Board and members of the Management Board receive bonuses. In 2017, the Board of Directors adopted decisions on the approval of reports on the implementation of quarterly KPIs: the report on the implementation of KPIs for PJSC FGC UES for the 1st quarter of 2017 was approved by the decision of the Board of Directors dated 6 October 2017<sup>72</sup>, the report on the fulfillment of KPIs of JSC FGC UES for the 2nd quarter of 2017 was approved by the decision of the Board of Directors dated 25 October 2017<sup>73</sup>, the report on the implementation of KPIs of PJSC FGC UES for the 3rd quarter of 2017 was approved by the decision of the Board of Directors dated 29 December 2017<sup>74</sup>.

Conditions of the employment contract with the Chairman of the Management Board on behalf of the Company are determined by a person authorised by the Board of Directors. The conditions of the employment contract with members of the Management Board are determined on behalf of the Company by the Chairman of the Management Board on behalf of the Board of Directors.

Information on the remuneration of the members of the Management Board and the Chairman of the Management Board is disclosed on the website of PJSC FGC UES in the annual report.

<sup>71</sup> Approved by the Board of Directors on 17 June 2010 (Minutes No. 105 of 17 June 2010).

<sup>72</sup> Minutes of the meeting of the Board of Directors No. 379 of 9 October 2017.

<sup>73</sup> Minutes of the meeting of the Board of Directors No. 381 of 27 October 2017.

<sup>74</sup> Minutes of the meeting of the Board of Directors No. 386 of 9 January 2013.

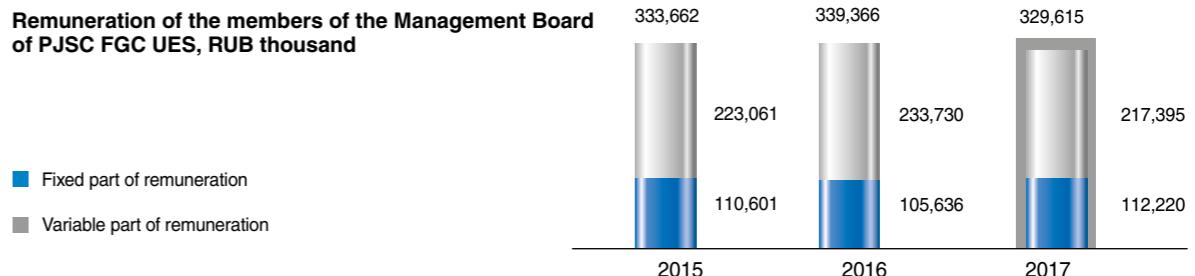


Detailed information on the KPI system, implementation of KPI in the reporting year, and goals for 2018 is provided in the *Strategic Report / Market Overview, Strategy and KPI / Key Performance Indicators* section.

### Total (aggregated) amount of remuneration of members of the Management Board, Chairman of the Management Board, RUB thousand

Kind (element) of remuneration	2015	2016	2017
<b>Fixed part of remuneration</b>			
Wages (official salary)	110,601	105,636	112,220
<b>Total amount of fixed part of remuneration</b>			
	<b>110,601</b>	<b>105,636</b>	<b>112,220</b>
<b>Variable portion of remuneration</b>			
Accrued bonuses in accordance with the employment contract	194,291	180,385	195,979
Other types of remuneration	28,770	53,345	21,352
Accrued severance allowances, compensations and other payments in connection with early termination of powers			64
<b>Total amount of the variable part of the reward</b>			
	<b>223,061</b>	<b>233,730</b>	<b>217,395</b>
<b>Total</b>			
<b>Total remuneration</b>	<b>333,662</b>	<b>339,366</b>	<b>329,615</b>

### Remuneration of the members of the Management Board of PJSC FGC UES, RUB thousand



### Remuneration of the Chairman of the Management Board, RUB thousand

Kind (element) of remuneration	2015	2016	2017
<b>Fixed part of remuneration</b>			
Wages (official salary)	29,143	27,200	25,324
<b>Total amount of fixed part of remuneration</b>			
	<b>29,143</b>	<b>27,200</b>	<b>25,324</b>
<b>Variable portion of remuneration</b>			
Accrued bonuses in accordance with the employment contract	51,693	46,014	39,272
Other types of remuneration	18	4,039	12,023
<b>Total amount of the variable part of the remuneration</b>			
	<b>51,711</b>	<b>50,053</b>	<b>51,295</b>
<b>Total</b>			
<b>Total remuneration</b>	<b>80,854</b>	<b>77,253</b>	<b>76,619</b>

Compensation in the form of non-monetary benefits (a social package), other fixed remuneration, remuneration of shares (or accrual of remuneration paid on the basis of shares)

or options to purchase shares, other variable compensation, in 2015–2017 was not paid to members of the Management Board and the Chairman of the Management Board.

## INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

### Internal Control System

The internal control system (hereinafter – "ICS") is an element of the general management system of the Company aimed at providing reasonable guarantees for achieving our objectives in the following areas:

- the efficiency and effectiveness of the Company's operations, including reaching financial and operational indicators, the safety of the Company's assets;
- compliance with the requirements of the legislation applicable to the Company and the Company's local regulatory acts, including when doing business and keeping records;

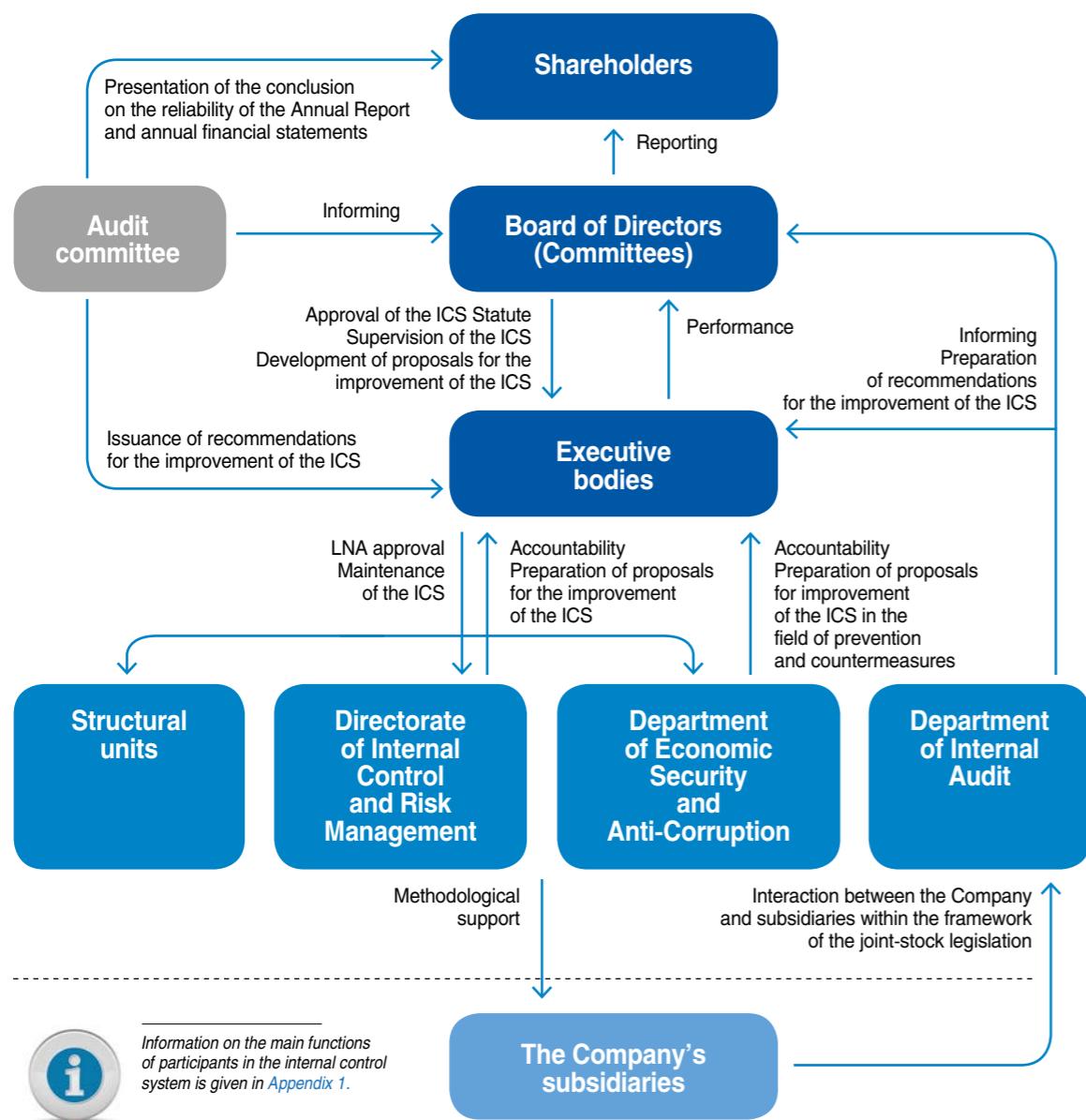
- ensuring the reliability and timeliness of accounting (financial) and other reporting.

The ICS covers all areas of the Company's activities. Control procedures are performed continuously in all Company processes (lines of business) at all levels of management.

FGC UES has a Regulation on the Internal Control System of PJSC FGC UES<sup>75</sup>. It defines the objectives, operating principles and elements of the Company's internal control system, the main functions and responsibilities of participants in the internal control system, and the procedure for assessing the effectiveness of the internal control system.

<sup>75</sup> Approved by the decision of the Board of Directors dated 31 May 2017 (Minutes No. 369 dated 2 June 2017).

### Interaction between participants of the internal control system



The internal auditor of the Company made an assessment of the effectiveness of the internal control and risk management system and its compliance with its target state and maturity level. The Company has 6 maturity levels of the internal control system (from 1 – "zero" to 6 – "high").

Based on the evaluation results of the effectiveness of the internal control and risk management system, in 2017, the maturity level of the ICS & RM was determined at 4.7 points (between moderate and optimal). Compared with assessment for 2016 (4.3 points), the maturity level increased by 0.4 points.

The report of the internal auditor of PJSC FGC UES on the effectiveness of the assessment of the internal control and risk management system in PJSC FGC UES following the results of 2017 was reviewed by the Management Board of PJSC FGC UES on 30 March 2018 (Minutes No. 1537 of 2 April 2018) and the Audit Committee of the Board of Directors of PJSC FGC UES on 19 April 2018 (minutes No. 74 of 19 April 2018).

### Directions of Development of the Internal Control System

In 2017, the following key measures were taken to improve the internal control system:

- developed and implemented a Road Map for the organisation of risk management and internal control processes in the field of preventing and combating corruption<sup>76</sup>;
- approved and implemented corrective action plans based on the audits of the internal control and risk management system in 2016<sup>77</sup>, and of the current internal control and risk management system in terms of "Prevention and Counteraction to Corruption"<sup>78</sup>;
- developed and adapted standard control matrices for PJSC Rosseti taking into account the specifics of the activity of PJSC FGC UES;
- arranged monitoring of the financial stability of counterparties and support of bankruptcy and liquidation procedures.

In 2018, the Company will continue to improve the internal control system. In particular, a number of self-assessments are planned:

- the effectiveness of the design of process control procedures;
- actual implementation of process control procedures;
- the effectiveness of the internal control system processes.

If necessary, the risk and control matrices will be updated.

### Risk Management System

PJSC FGC UES has an active risk management system. The Board of Directors approved the Regulation on the Risk Management System<sup>79</sup>. The current Regulation on the Risk Management System is available on the Company's website [www.fsk-ees.ru](http://www.fsk-ees.ru) in the "Founding and internal documents" section.

The objective of the RMS is to ensure the Company's sustainable continuous

operation and development through timely identification, assessment and effective management of risks which threaten the effective implementation of the Company's economic activities and reputation, employees' health, the environment, and the property interests of shareholders and investors.



Information on the organisation of the risk management process is given in Appendix 1.



**Igor Feoktistov,**  
Director for Internal Control of PJSC FGC UES

**– What do you consider to be the main achievements of 2017 in the field of risk management?**

The main achievements I would like to emphasise are the fact that the list of typical operational risks of the branches was approved. On the basis of the list, the operational risk registers of the branches were approved. The risks of the branches have been identified, evaluated, and in accordance with the current methodology, measures for managing operational risks have been developed.

The List of Corruption Risks and the Corruption Risk Map were also approved. The top management of the Company has been deemed the "owners" of the risks. At the same time, similar lists of corruption risks have been approved by orders for the branches, and owners of the corruption risks for each branch have also been appointed.

## Main Risks

The risk management system in FGC UES allows for the timely identification and assessment of risks and the effective management of risks.

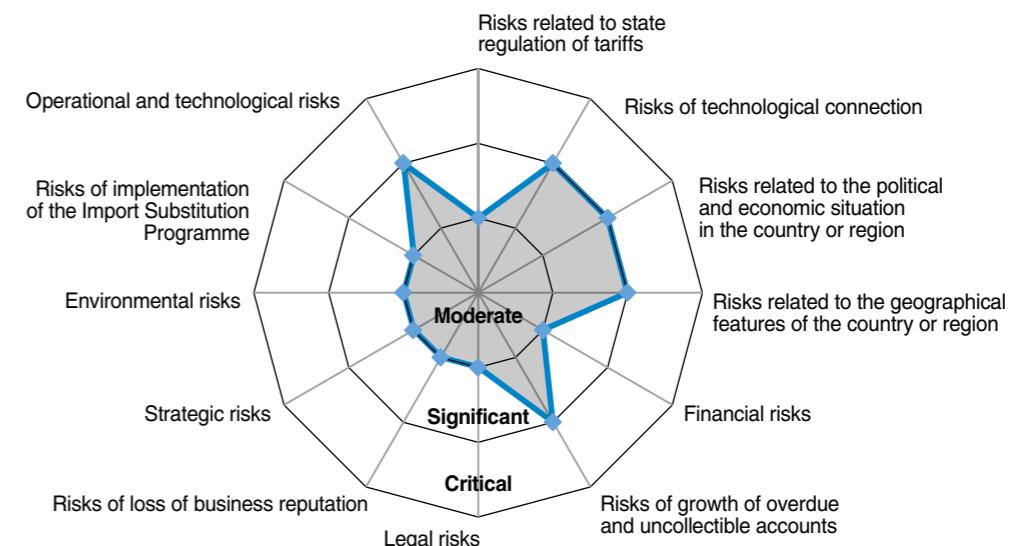
(102-15) Every year, FGC UES determines the risks that have a significant impact on the Company's operations and are subject to priority management. In the reporting year, 12 main risks were identified; five of them were assessed as significant, seven as moderate.

Estimates of the significance of risks that most significantly affect Company operations in 2017 remained unchanged from the estimates for 2016.

In 2017, the significance of risks related to state regulation of tariffs decreased. This is due to the fact that tariffs have been approved for PJSC FGC UES with growth that compensates for a phased transition to settlements with territorial grid organisations at actual capacity.

Also in 2017, the materiality of legal risks continued to decrease, which was affected by the Company's regulatory work and positive court practice that would protect the legitimate rights and interests of PJSC FGC UES.

### Assessment of the significance of risks of PJSC FGC UES



At the level of higher courts, the Company's position was supported on a number of fundamental issues.

For example, this means that load losses in grids should be calculated based on the report of the administrator of the trading system, and not on the actual connection of the consumer. Also, this applies to the unjustified exclusion by a number of subjects of the Russian Federation from the tariff for the transfer of electricity costs for depreciation of fixed assets.

With regard to investment activities, we managed to form a practice that allowed the Company to unilaterally set off in its favor the full enforcement of contractual agreements, when contracts were terminated as a result of unfair acts by the contractor.

All this has allowed us to prevent billions of rubles of damage to the Company.

### Aleksander Zaragatsky,

First Deputy Chairman of the Management Board, Member of the Management Board

**Risks most significantly affecting the Company's operations in 2017 and their dynamics**

Dynamics of risk significance in the reporting year: ↓ – decrease in significance of risk, → – no change in risk significance.

No	Risk	Description	Measures for managing and minimising the risk	Interrelation with strategic priorities
<b>Industry risks</b>				
	Risks associated with a possible decrease in the quality of services for technological connection	<ul style="list-style-type: none"> <li>● Untimely fulfillment of obligations under technological connection agreements.</li> <li>● Discrepancy between the quality of services for technological connection and regulatory requirements.</li> </ul>	<ul style="list-style-type: none"> <li>● Implementation of a Programme for increasing the efficiency of technological connection, including measures aimed at increasing the capacity utilisation.</li> <li>● Regulation of terms and increase of control over the terms of execution of all stages of the business process for technological connection.</li> <li>● Monitoring and updating of free capacity values for all power centres.</li> </ul>	<ul style="list-style-type: none"> <li>● Development of the UNEG infrastructure</li> <li>● Customer Satisfaction</li> </ul>
<b>Country and regional risks</b>				
Significant risks	Risks related to the economic situation in Russia	<ul style="list-style-type: none"> <li>● Possible decrease in the solvency of the main users of the Company's services (territorial grid organisations) in case of an increase in the level of budget deficit and unemployment, as well as a fall in the exchange rate of the Russian ruble under the influence of external factors.</li> </ul>	<ul style="list-style-type: none"> <li>● Planning activities based on the forecast indicators of social and economic development, developed by the Ministry of Economic Development and Trade of Russia and agreed with the System Operator of the EEC and the Ministry of Energy of Russia of the backbone grid.</li> <li>● Implementation of programmes aimed at reducing costs and increasing the efficiency of activities in PJSC FGC UES, including a Program for import substitution of equipment, technologies, materials and systems for the period 2015–2019.</li> <li>● Use of accounts receivable management tools: claims and lawsuits, analysis of the financial condition of counterparties, inclusion in standard forms of contracts of obligations to provide financial security.</li> </ul>	<ul style="list-style-type: none"> <li>● Financial stability</li> <li>● Cost-effectiveness</li> </ul>
	Risks related to the geographical features of the country or region	The impact of climatic, seismic and other natural conditions, as well as natural disasters on the reliability of energy supply to consumers.	<ul style="list-style-type: none"> <li>● At the design stage, the possibility of natural phenomena impacting electric grid facilities, factors of remoteness and / or inaccessibility are taken into account.</li> <li>● Placement of repair bases and emergency reserve is carried out taking into account the remoteness of electric grid facilities.</li> </ul>	<ul style="list-style-type: none"> <li>● Reliability of energy supply to consumers</li> <li>● Customer Satisfaction</li> </ul>

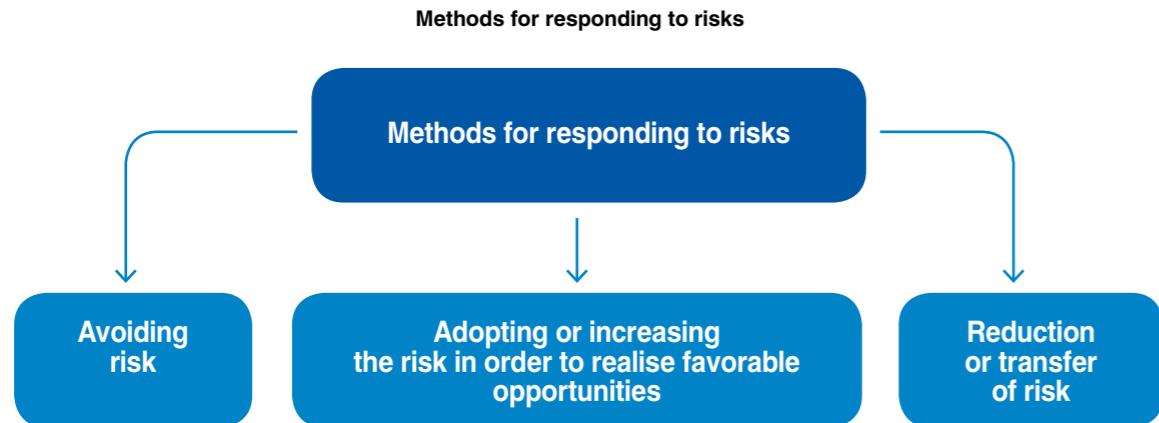
**Risks most significantly affecting the Company's operations in 2017 and their dynamics**

No	Risk	Description	Measures for managing and minimising the risk	Interrelation with strategic priorities
<b>Risks related to the Company's activities</b>				
Significant risks	Operational and technological risks	<ul style="list-style-type: none"> <li>● Decrease in reliability of equipment operation due to high physical wear and age / outdatedness.</li> <li>● Violation of operating conditions and operational modes of electric grid equipment.</li> <li>● Damage to the equipment, improper operation of the relay protection of the automation and emergency automatics.</li> <li>● The use of inefficient and obsolete technologies.</li> <li>● Failure to complete the repair programme to the required degree.</li> </ul>	<ul style="list-style-type: none"> <li>● Implementation of a Regulation on the Uniform Technical Policy in the Electric Grid Complex.</li> <li>● Implementation of an investment programme in terms of asset modernisation.</li> <li>● Training, monitoring and certification of personnel operating technological equipment.</li> <li>● Emergency response training and on-site inspections at FGC UES branches.</li> <li>● Realisation of an insurance programme for protection of property.</li> <li>● Maintaining the equipment of the UNEG substations in working condition.</li> <li>● Creation of emergency equipment reserves.</li> </ul>	<ul style="list-style-type: none"> <li>● Reliability of energy supply to consumers</li> <li>● Customer Satisfaction</li> </ul>
	Risks related to the growth of overdue and uncollectible accounts receivable	<ul style="list-style-type: none"> <li>● Possible deterioration of the financial position of the Company due to:</li> <li>● overdue accounts receivable in case of deviation from the value established in the business plan;</li> <li>● doubtful and uncollectible accounts receivable.</li> </ul>	<ul style="list-style-type: none"> <li>● Implementation of the approved Procedure for managing receivables and payables.</li> <li>● The activities of the Budget Committee, one of the objectives of which is to improve the efficiency of cash management of the Company, manage the risks of overdue accounts receivable and payable, and increase the turnover of funds.</li> <li>● Submission of claims for counterparties to provide financial security in the form of independent (bank) guarantees.</li> </ul>	<ul style="list-style-type: none"> <li>● Cost-effectiveness</li> <li>● Financial stability</li> </ul>

Information on risk factors is provided in [Appendix 1](#).

The Company does not have investments with an expected level of income of over 10% per year. The total amount of claims against unfinished litigation, in which FGC UES acts as a plaintiff, is RUB 17.55 billion as of 31 December 2017, including RUB 8.99 billion for the executive office of FGC UES.

The total amount of claims against unfinished litigation in which FGC UES acts as a defendant is RUB 16.87 billion as of 31 December 2017, including RUB 2.13 billion for the executive office of FGC UES.



The choice of the method for responding to risks depends on the significance of the risk, the probability and negative impact of the risk, the costs of implementation, and the possible benefits obtained.

#### Key principles of RMS:

- continuity and complexity;
- orientation towards the goal;
- integration into management;
- balance between risks and returns;
- uncertainty;
- systematicity;
- quality of information;

- interest and leadership;
- assigning responsibility for risk management;
- effectiveness;
- cross-functional interaction;
- reasonable assurance;
- adaptability;
- continuous improvement.

#### Main participants of RMS:

- Board of Directors;
- Audit Committee of the Board of Directors;
- Executive bodies (Chairman of the Management Board, Management Board);
- Directorate of internal control and risk management;

- Internal Audit Department;
- owners of risks;
- implementers of risk management activities.



For information on the main functions of the RMS participants see Appendix 1.

#### Areas of RMS Development

Results of 2017	Plans for the further development of RMS
<ul style="list-style-type: none"> <li>● The list of standard operational risks of branches and registers<sup>80</sup> of operational risks of branches has been approved. The risks of the branches have been identified, evaluated in accordance with the current methodology, and measures for their management have been developed.</li> <li>● The List of Corruption Risks and the Corruption Risk Map<sup>81</sup> have been approved. All corruption risks are assessed as critical.</li> <li>● Owners of corruption risks have been appointed.<sup>82</sup> These are the Company's top managers.</li> <li>● The orders of the branches approved similar lists of corruption risks and appointed owners of corruption risks of the branches.</li> </ul>	<ul style="list-style-type: none"> <li>● Improve the quality of assessment, identification and management of key and operational risks.</li> <li>● Introduce a procedure for identifying risks in the Company.</li> <li>● Automate the process of risk management in the Company.</li> <li>● Improve the efforts to eliminate the risks of Company financial losses while controlling the financial stability of our counterparties, accompanying liquidation and bankruptcy procedures.</li> </ul>

<sup>80</sup> Order of PJSC FGC UES No. 149 dated 24 April 2017.

<sup>81</sup> Minutes of the Board of Directors No. 354 dated 9 February 2017.

<sup>82</sup> Order of PJSC FGC UES No. 227 dated 23 June 2017.

## Internal Audit

Internal audit provides independent and objective guarantees and consultations to the Board of Directors and executive bodies of PJSC FGC UES aimed at improving and increasing the Company's management efficiency. Internal audit is designed to systematically assess the reliability and effectiveness of the risk management system and internal control and corporate governance practices.

The Internal Audit Department is responsible for the implementation of the internal audit function in the Company. The Internal Audit Department is functionally subordinated to the Board of Directors of the Company, and administratively to the Chairman of the Management Board of the Company<sup>83</sup>.

PJSC FGC UES' Articles of Association<sup>84</sup> specifies the following competencies in terms of internal audit for the Board of Directors of the Company:

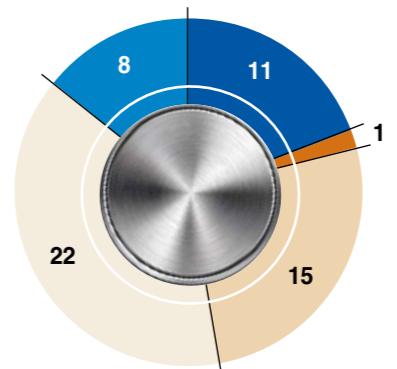
- approval of the internal audit provision;
- approval of the activity plan and budget of the internal audit department;

- approval of the candidate for the position of the head of the internal audit department of the Company and termination of his or her powers;
- determination of terms of remuneration for the head of the internal audit department, as well as consideration of significant restrictions on the powers of the internal audit unit or other restrictions that could adversely affect the implementation of internal audit;
- review of assessment of the quality of the internal audit.



The list of basic documents regulating the activity of internal audit is given in Appendix 1.

#### Activities carried out by internal audit in 2017



- Operational audit
- Compliance audit
- Revisions
- Others
- Unplanned events

In 2017, the internal audit conducted 57 events, according to which 935 corrective actions were prescribed for execution, aimed at eliminating and preventing further violations and deficiencies

identified by internal audit. Out of 523 events, the deadline for implementation of which came in the reporting year, 481 corrective measures were performed.

<sup>83</sup> In accordance with the Regulation on Internal Audit of the Company (approved by the decision of the Board of Directors dated 16 November 2015, Minutes No. 291 dated 19 November 2015).

<sup>84</sup> Decision of the AGM dated 29 June 2017, Minutes No. 18 dated 3 July 2017.

**Svetlana Kovaleva,**

Director for Internal Audit – Head of the Internal Audit Department of PJSC FGC UES

### – What work was carried out in 2017 to improve the management of the Company? What are the results of this work?

The Company's internal audit priorities in the reporting year were determined in accordance with the Company's objectives on the basis of management proposals and PJSC FGC UES' Board of Directors.

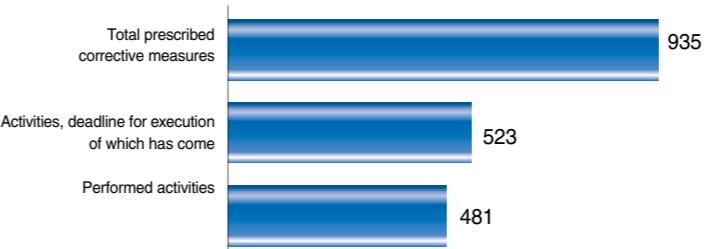
All the works planned for the year have been fully implemented: 49 events, of which 27 have been carried out. In addition, on the instructions of the management bodies of PJSC FGC UES, eight unplanned events were also held.

In total in 2017, 12 direct audits were conducted, according to the results of which, corrective action plans were approved. Based on the audit results, the Internal Audit Department issued 416 recommendations aimed at eliminating the identified shortcomings and preventing the possibility of such violations in the future. I want to note that the managers of the audited facilities have taken a constructive and sympathetic attitude to the results of the audits and recommendations presented by the internal audit. Based on the results of each of the audits conducted, plans of corrective measures were developed, which are aimed at eliminating the identified shortcomings in the most rational and economically feasible way.

In addition, employees of the Internal Audit Department participated in the audit of subsidiaries, which resulted in 197 recommendations aimed at improving their activities.

One of the positive moments in the development of the internal audit function in 2017 is the fact that the local regulatory and legal framework for the internal audit activity, based on model regulations, manuals, instructions and methods recommended for approval in the SDCs of PJSC Rosseti, has been completed almost in full.

### Corrective actions



Information on the instructions of the Board of Directors of the Company aimed at improving the internal audit system is provided in Appendix 1.

## Audit Committee

The Audit Committee is a permanent body, annually elected by the General Meeting of Shareholders and carrying out control over the financial and economic activities of PJSC FGC UES, its management bodies, and separate structural divisions.

The activity of the Audit Committee is regulated by the Articles of Association and the Regulation on the Audit Committee of PJSC FGC UES<sup>85</sup>.

Main functions of the Audit Committee:

- confirmation of the reliability of data contained in the annual report, balance sheet, and report on financial results;
- analysis of the Company's financial condition, identification of reserves for its improvement, and development of recommendations for management bodies;
- organisation and implementation of audits of the Company's financial and business activities.

### Members of the Audit Committee<sup>86</sup>, formed by the decision of the Extraordinary General Meeting of Shareholders of PJSC FGC UES dated 15 September 2017<sup>87</sup>

Full name	Year of birth	Education	Position
M.A. Lelekova Chairperson of the Audit Committee	1961	Higher education	Director of the Control and Audit Department of PJSC Rosseti
T.V. Zobkova	1976	Higher education	Leading Advisor, Deputy Head of Department, Head of Corporate Governance Department, Price Conjecture and Control and Audit Work in the Fuel and Energy Sector of the Ministry of Energy of Russia
A.G. Batalov Secretary of the Audit Committee	1973	Higher education	Director of the Department of Economic Security and Anti-Corruption of PJSC Rosseti
D.I. Simochkin	1992	Higher education	Deputy Head of the Department of the Federal Agency for State Property Management
V.V. Khvorov	1947	Higher education	Leading Expert of the Department of State Tariff Regulation in the Electricity Industry of the Department for State Tariff Regulation, Infrastructure Reforms and Energy Efficiency of the Ministry of Economic Development of Russia

<sup>85</sup>Approved by the decision of the Annual General Meeting of Shareholders of JSC FGC UES dated 26 June 2015 (Minutes No. 16 dated 30 June 2015).

<sup>86</sup>The positions of the members of the Audit Committee are indicated at the time of nomination. None of these members of the Audit Committee owns shares of PJSC FGC UES and they do not hold any posts in its management bodies.

<sup>87</sup>Minutes No. 19 dated 20 September 2017.

**Composition of the Audit Committee<sup>88</sup>, formed by the decision of the Annual General Meeting of Shareholders of PJSC FGC UES dated 29 June 2016<sup>89</sup>**

Full name	Year of birth	Education	Position
N.N. Pronin	1952	Higher education	Head of the Department for Ensuring the Security of Economic Activities of the Department for Economic Security and Counteracting Corruption of the PJSC Rosseti
T.V. Zobkova	1976	Higher education	Leading Advisor, Deputy Head of Department, Head of Corporate Governance Department, Price Conjunction and Control and Audit Work in the Fuel and Energy Sector of the Ministry of Energy of Russia
I.I. Karpov	1988	Higher education	Deputy Head of Property Relations and Privatisation of the largest organisations of the Federal Agency for State Property Management
I.V. Shmakov	1974	Higher education	Deputy General Director for Controlling PJSC Kubanenergo
V.V. Khvorov	1947	Higher education	Leading Expert of the Department of State Tariff Regulation in the Electricity Industry of the Department for State Tariff Regulation, Infrastructure Reforms and Energy Efficiency of the Ministry of Economic Development of Russia

**Amount of Remuneration Paid to Members of the Audit Committee in 2017, RUB**

Full name	Amount
N.N. Pronin	227,430
I.V. Shmakov	151,620
V.V. Khvorov	151,620
<b>TOTAL</b>	<b>530,670</b>

<sup>88</sup> The positions of the members of the Audit Committee are indicated at the time of nomination. None of these members of the Audit Committee owns shares of PJSC FGC UES and they do not hold any posts in its management bodies.

<sup>89</sup> Minutes No. 17 dated 4 July 2016.

## EXTERNAL AUDITOR

To independently assess the reliability of the financial statements, the Company annually hires an external auditor to conduct an audit of the financial statements prepared in accordance with IFRS and Russian Accounting Standards.

External auditors are engaged on the basis of tenders providing objective selection. In accordance with the decision of the Board of Directors of FGC UES

on the issue "Determining the process for conducting a competitive procedure for the selection of audit organisations for the implementation of the mandatory external audit of JSC FGC UES for 2015–2017", PJSC Rosseti conducted a competitive procedure for selecting an audit firm to perform the mandatory audit reports on PJSC FGC UES for the years 2015–2017 in the form of centralised procurement for PJSC FGC UES.

### Auditor of the reporting of FGC UES

Full company name: Limited Liability Company RSM RUS (RSM RUS, LLC)  
Location: 4 Pudovkina str., 119285, Moscow,  
Taxpayer Identification Number: 7722020834  
Principal State Registration Number: 1027700257540  
Phone: (495) 363-2848  
Fax: (495) 981-4121  
E-mail address: mail@rsmrus.ru

At the Annual General Meetings of Shareholders of the Company dated 27 June 2014, 26 June 2015, 29 June 2016 and 29 June 2017, it was decided to approve Limited Liability Company RSM RUS as the auditor of PJSC FGC UES.

The Board of Directors of the Company decided to determine the amount of payment for the services of auditing PJSC FGC UES for 2017 in the amount of RUB 24,682,983, 68 kopecks, including VAT.

Data on the auditor's membership in self-regulating auditor organisations: Non-profit partnership Audit Association Sodruzhestvo (address: 21 Michurinsky Ave., building 4, 119192 Moscow).

The Audit Committee of the Board of Directors held on 27 April 2018<sup>90</sup> considered the issue of evaluating the effectiveness of the external audit of the accounting

(financial) statements of PJSC FGC UES for 2017. Taking into account the assessment of the effectiveness of the external audit process of the Company's accounting (financial) reporting by the Audit Committee of the Board of Directors of PJSC FGC UES, the internal auditor noted the compliance of the external audit of PJSC UES FGC reports for 2017 with the main terms of the concluded contracts. Taking into account the opinion of the Audit Committee of the Board of Directors of PJSC FGC UES in general, the process of conducting an external audit in the Company can be characterized as meeting the basic requirements.

RSM RUS LLC did not provide any services in 2017 other than auditing.

<sup>90</sup> Minutes of the meeting of the Audit Committee of the Board of Directors No. 75 dated 8 April 2018.

Company Auditor (IFRS)  
Closed Joint-Stock Company KPMG (CJSC KPMG)  
Legal address: 18/1 Olympic Ave., office 3035, 119192, Moscow, Russia  
Postal Address: Tower Complex Block, 10 Presnenskaya Emb., 123317, Moscow, Russia  
Phone: +7 495 937 4477; Fax: +7 495 937 4499;  
E-mail: moscow@kpmg.ru  
INN: 7702019950; OGRN: 1027700125628  
SRO Membership:  
Full name: Non-for-Profit Partnership "Audit Chamber of Russia"  
Address: 3/9 3rd Syromyatnichesky pereulok, building 3, 105120, Moscow, Russia

## CONFFLICT OF INTEREST REGULATION

The Company pays special attention to the prevention and minimisation of the consequences of possible conflicts of interests among the members of the Company's management bodies. The Company has a system of comprehensive regulation of conflicts of

interests of members of the executive bodies, designed to prevent possible situations of conflict of interest and to minimise negative consequences for the interests of PJSC FGC UES.

The Company has introduced the practice of complex regulation of conflicts of interests of members

FGC UES approved the Corporate Ethics Code, which regulates situations in which a conflict of interest may arise.

In accordance with the Code, when making decisions on business matters and performing work duties, FGC UES staff should:

- follow the interests of the Company;
- avoid situations and circumstances that could lead to a conflict of interest;

- disclose a real or potential conflict of interest;
- facilitate the settlement of a conflict of interest.

In the event of a conflict of interest, employees should inform their immediate supervisor and the Central Commission for Compliance with the Standards of Corporate Ethics and Conflict of Interest.

of the Company's management bodies, which provides reasonable assurance that conflict of interest situations will be resolved at the initial stage, and the interests of the Company will not be infringed.

Regulation of conflicts of interest of members of the Company's management bodies is carried out on the basis of the Corporate Ethics Code, the Corporate Governance Code of the Company, the Regulation on the Board of Directors of the Company, and the Regulation on the Management Board of the Company.

Reasonable and conscientious actions by members of the Company's management bodies

involve taking decisions which take into account all available information. In the absence of a conflict of interest, their decisions should take into account equal treatment of the Company's shareholders, within the usual level of risk.

In connection with the above, on a quarterly basis, the Company verifies information on the participation of members of the Management Board and the Board of Directors of the Company in other companies, and also regularly analyses information received from members of the Company's management bodies for potential conflicts of interest.

## Prevention of Conflicts of Interests of Members of the Board of Directors

**(102-25)** The Corporate Governance Code stipulates that members of the Board of Directors are obliged to refrain from actions that will or could potentially lead to a conflict between their interests and the interests of the Company.

In accordance with this Code and the Regulation on the Board of Directors of the Company, Board members must inform the Company Board of Directors and the Corporate Secretary about the existence of a conflict of interests and the grounds for its occurrence in a timely manner.

A member of the Board of Directors shall disclose information on the ownership of securities of the Company, subsidiaries and controlling persons of the Company, on their sale or acquisition, on any positions in other legal entities, on accepting an invitation to become a candidate for membership in the Board of Directors of another legal entity, and on changing his or her main place of work, in a timely manner.

All members of the Board of Directors meet the requirements of art. 82 of the Federal Law "On

"On Joint-Stock Companies" on sending notifications to the Company about the existence of a possible vested interest in the Company's transactions.

To identify conflicts of interest in a timely manner, the Company has developed a questionnaire for the members of the Board of Directors, which considers the requirements of the legislation for completeness of information disclosure and the requirements of the Federal Law "On Joint-Stock Companies". Members of the Board of Directors fill out the questionnaire on a quarterly basis and indicate all the necessary information that may indicate a conflict of interest.

Information on the positions of members of the Board of Directors held in the management bodies of other organisations and on the ownership of the Company's securities is disclosed:  
on the website [www.fsk-ees.ru](http://www.fsk-ees.ru) in the *About the Company / Management bodies / Board of Directors* section;

in the Issuer's Quarterly Reports and Annual Reports posted on the website [www.fsk-ees.ru](http://www.fsk-ees.ru) under *Shareholders and Investors / Disclosures*.

## Prevention of Conflicts of Interests of Members of Executive Bodies

The Regulation on the Management Board of PJSC FGC UES provide for the obligation of the members of the Management Board to notify the Board of Directors, the Audit Commission, the Auditor and the Executive Secretary of the Management Board of the facts:

- affiliation;
- a possible conflict of interest, including interest in a transaction by the Company;
- ownership of Company securities, as well as their sale or acquisition.

All members of the Company's Management Board meet the requirements of art. 82 of the Federal Law

"On Joint-Stock Companies" on sending notifications to the Company about the existence of a possible vested interest in Company transactions.

In order to minimise the occurrence of conflicts of interests, members of the Management Board can combine positions in other organisations only with the consent of the Board of Directors of the Company.

To identify conflicts of interest in a timely manner, the Company has developed a questionnaire for the members of the Management Board, which they provide on a quarterly basis and wherein they indicate all the necessary information that may indicate a conflict of interest.

## ANTI-CORRUPTION AND ECONOMIC SECURITY

### Anti-Corruption Activities

Anticorruption activities in PJSC FGC UES are aimed at reducing the risks of material and reputational damage to the Company as a result of corruption.

Since 2012, the Company has had an Anti-Corruption Policy. In 2015, the Policy was updated<sup>91</sup> due to a change in anti-corruption legislation<sup>92</sup>. In 2017, a new version of PJSC FGC UES' Anti-Corruption Policy was approved, which corresponds to the Methodological Recommendations of the Federal Agency for State Property Management

for the organisation of risk management and internal control in the field of preventing and combating corruption<sup>93</sup>.



The main objectives and principles of the Anti-Corruption Policy are provided in Appendix 1.

<sup>91</sup> Minutes of the meeting of the Board of Directors of PJSC FGC UES No. 357 dated 13 March 2017.

<sup>92</sup> Minutes of the meeting of the Board of Directors of PJSC FGC UES No. 280 dated 24 August 2015.

<sup>93</sup> Order of the Federal Agency for State Property Management No. 80 dated 2 March 2016.

## Main results of anti-corruption activities in 2017

Category	Key achievements
Corruption risk management	<p>The List of Corruption Risks<sup>94</sup> and the Corruption Risk Map were approved. The List contains 17 corruption risks, including the following significant risks:</p> <ul style="list-style-type: none"> <li>● risk of possible corruption manifestations in the course of procurement activities;</li> <li>● risk of possible corruption manifestations when concluding contracts and fulfilling contractual obligations;</li> <li>● risk of possible corruption manifestations in the process of technological connection and in the provision of electricity transmission services.</li> </ul> <p>“Owners” of corruption risks were appointed from among the Deputy Chairmen of the Management Board of PJSC FGC UES and directors. Corruption risks were assessed; corruption risk owners were presented with corruption risk passports containing an assessment of the probability and consequences of the implementation of corruption risks, as well as a list of measures to minimise them.</p> <p>In 2017, the assessment of corruption risks was carried out in relation to 21 units of the executive office (57% of the total number of units).</p> <p>(205-1)</p>
Improvement of the regulatory framework	<p>Updated:</p> <ul style="list-style-type: none"> <li>● Corporate Ethics Codes of PJSC FGC UES;</li> <li>● Regulation on the Conflict of Interest Settlement<sup>95</sup>;</li> <li>● Order on Organising Anti-Corruption Control of the Stages of Procurement and Anti-Corruption Expertise of Drafts of PJSC FGC UES’ Organisational and Administrative Documents;</li> <li>● Regulation on the Central Commission of PJSC FGC UES on Compliance with the Standards of Corporate Ethics and Conflict of Interest<sup>97</sup>.</li> </ul> <p>Approved:</p> <ul style="list-style-type: none"> <li>● Anti-Corruption Policy of PJSC FGC UES in a new edition;</li> <li>● Procedures for handling claims from PJSC FGC UES employees, contractors and other parties (individuals and legal entities) about possible corruption, violations that show signs of corruption, the emergence of a conflict of interest, or cases of employees being tempted to commit corrupt practices, verifying such claims, and protecting workers who sent claims<sup>98</sup>;</li> <li>● Regulations for conducting surveys aimed at preventing, detecting and combating corruption and other offenses<sup>99</sup>.</li> </ul>
Identifying and resolving conflicts of interest	<p>Defined conflicts of interest of the Company’s employees in accordance with the Regulation on Conflict of Interest<sup>100</sup>. Eight pre-conflict situations were identified, which were considered by the Central Commission of PJSC FGC UES for compliance with the norms of corporate ethics and conflict of interest settlement. According to the decision of the commission, there are no risks of conflict of interest<sup>101</sup>. The report on the decisions taken to prevent and resolve conflicts of interest as part of the Anti-corruption monitoring was reviewed by the Board of Directors of PJSC FGC UES.</p> <p>A new anti-corruption procedure aimed at preventing conflicts of interest and possible corruption has been introduced – conducting a polygraph interviewing with candidates for employment, as well as employees carrying out official checks, in accordance with the Regulations for conducting surveys aimed at preventing, identifying and countering corruption and other offenses.</p>
Counteraction and prevention of corruption in cooperation with partners and contractors	<p>Purchases were monitored for conflicts of interest, timely information receiving about changes in the chain of owners of contractors was ensured, and anti-corruption clauses and other mandatory conditions were included in contracts.</p> <p>In order to implement anti-corruption control of purchases, a Director of Internal Control was introduced into the Central Procurement Agency (Central Tender Commission).</p>

Category	Key achievements
Identification of possible corruption as a result of abuse of official authority	<p>The executive apparatus conducted an anti-corruption examination of 140 organisational and administrative documents, which approve or introduce changes in acts, methods, regulations, procedures, etc. In MPS [main power systems] branches, an anti-corruption expert examination of 1,434 organisational and administrative documents was carried out. No violations were detected.</p> <p>We collected and analysed information on incomes, expenditures, property and real estate liabilities of employees whose positions fall under these procedures.</p>
Interaction with government bodies	<p>The following were sent to the Government of the Russian Federation:</p> <ul style="list-style-type: none"> <li>● reports on the implementation of the items of the “National Plan for Combating Corruption for 2016–2017”;</li> <li>● proposals for a draft regulatory legal act that approves a list of organisational and legal measures aimed at improving the efficiency of the state anti-corruption policy.</li> </ul> <p>A monthly report was provided on concluded contracts, indicating the entire chain of contractor owners to the Ministry of Energy of the Russian Federation, the Federal Service for Financial Monitoring, and the Federal Tax Service.</p>
Participation in collective initiatives to counteract and prevent corruption	<p>PJSC FGC UES confirmed compliance with the requirements of the Charter of Russian Business. A Declaration on compliance with the provisions of the Anti-Corruption Charter of Russian Business was prepared (information is available on the website of the Chamber of Commerce and Industry of the Russian Federation).</p>
Informing and training employees on anti-corruption topics, forming a culture of anti-corruption among employees	<p>Anonymous questioning of employees was conducted.</p> <p>Two training seminars were held for the staff of the executive apparatus and MPS branches.</p> <p>Employees of the Company participated in the seminar “Current Issues of Application of Legislation and Legal Education in the Sphere of Counteracting Corruption”, organised by the General Prosecutor’s Office of the Russian Federation.</p>
Evaluation of the effectiveness of anti-corruption activities	<p>An audit was conducted of the internal control and risk management system, in particular, of the functional area (process) “Prevention and Counteraction of Corruption” at PJSC FGC UES. Based on the results of the audit, a corrective action plan was approved.</p> <p>In accordance with the “Methodology for assessing the effectiveness of the internal control system and the risk management system of the Rosseti Group of Companies”, a self-assessment of the effectiveness of the implementation of the Anti-Corruption Policy of PJSC FGC UES was completed in 2016. The self-assessment was reviewed and adopted by the Board of PJSC FGC UES.</p>

<sup>94</sup> Decision of the Board of Directors of PJSC FGC UES, Minutes No. 354 dated 9 February 2017.

<sup>95</sup> Order of PJSC FGC UES No. 467 dated 8 October 2017.

<sup>96</sup> Order of PJSC FGC UES No. 550 dated 29 December 2017.

<sup>97</sup> Order of PJSC FGC UES No. 235 dated 26 June 2017.

<sup>98</sup> Order of PJSC FGC UES No. 196 dated 26 May 2017.

<sup>99</sup> Order of PJSC FGC UES No. 512 dated 7 December 2017.

<sup>100</sup> Approved the order of PJSC FGC UES No. 207 dated 25 April 2014.

<sup>101</sup> Minutes No. 1 dated 26 June 2017.

- The results of anonymous questioning of employees on the perception of corruption:
- a 6% increase in employees' assessment of the effectiveness of the Company's Anti-Corruption Policy;
  - a 4% increase in the number of employees who are ready to report on corruption that has become known to them;

- a 3% decrease in the number of employees who believe that reporting of corruption facts is not their business;
- a 3% decrease in the number of employees who fear for their position in the team if they report corruption;
- a 6% increase in awareness of where and how to report corruption.

## Security Management

### Economic Security

Economic security is based on the timely identification and suppression (localisation) of threats and risks that can inflict very serious material and reputational damage to the Company.

In the reporting year:

- checks were conducted to identify cases of overstating the value of goods / services / works supplied to the Company, the results of which prevented economic damage amounting to RUB 2.5 billion;
- in order to ensure control of competitive procedures and contractual work, 2,014 verification activities

As a result of inspections to identify cases of overstating the cost of goods / services / works supplied to the Company, damage in the amount of RUB 2.5 billion was prevented.

of legal entities and individuals were carried out before the conclusion of contracts; 485 sets of documents of the procedures themselves were analysed;

- work was carried out to ensure the protection of the Company's interests in recovering debts in the framework of the enforcement proceedings: in 2017, 271 enforcement orders were received to recover debts for a total of RUB 4.3 billion. Based on the results of the Company's work, RUB 2.6 billion were paid back.

### Anti-Terrorist and Anti-Criminal Protection

PJSC FGC UES antiterrorist policy complies with the requirements of the legislation of the Russian Federation<sup>102</sup> and carries out

activities aimed at strengthening the engineering and technical strength and antiterrorist protection of the Company's facilities.

#### Antiterrorist security

In 2017, the number of facilities of PJSC FGC UES in various danger categories whose anti-terrorist security fully meets the requirements increased by 4.3%.

During the reporting period, within the framework of interaction with representatives of territorial security agencies and the Federal Service of Russian National Guard troops, tactical-special exercises and object trainings were conducted at the facilities of FGC UES. The main efforts were aimed at increasing the antiterrorist protection of the power facilities of PJSC FGC UES, which were involved in providing reliable

power supply to the infrastructure in ongoing events of national importance: the International Arctic Forum, the Confederations Cup 2017, the Eastern Economic Forum, the International Forum on Energy Efficiency and Energy Development "Russian Energy Week" and the XIX World Festival of Youth and Students, as well as those that will be involved in the ongoing event of the 2018 FIFA World Cup.

<sup>102</sup> Federal Law 256-FZ dated 21 July 2011 "On the Safety of Fuel and Energy Complex Facilities" and the requirements of the Resolution of the Government of the Russian Federation No. 993 dated 19 October 2015 "On Approval of Requirements for Ensuring the Security of Line Facilities of the Fuel and Energy Complex".

## SHARE CAPITAL, CIRCULATION OF SECURITIES

PJSC FGC UES' authorised capital as of December 31, 2017 was RUB 637,332,661,531 50 kopecks and consisted of 1,274,665,323,063 ordinary registered non-documentary shares with a par value of 50 kopecks each. At that date, preferred shares were not placed by the Company.

PJSC FGC UES' Articles of Association provides for the existence of authorised shares in the amount of 72,140,500,768 ordinary registered shares with

a nominal value of 50 kopecks each, with a total nominal value of RUB 36,070,250,384. The authorised ordinary shares provide for the same rights for their owners as the placed ordinary shares.

In 2017, no issuing or placement of additional shares of PJSC FGC UES took place.



For information on the history of changes in share capital, see [www.fsk-ees.ru](http://www.fsk-ees.ru) under *Shareholders and Investors / Information on shares / Share Capital History*.



Information on the placed issues of shares is provided in *Appendix 1*.

### Structure of Shareholders' Capital

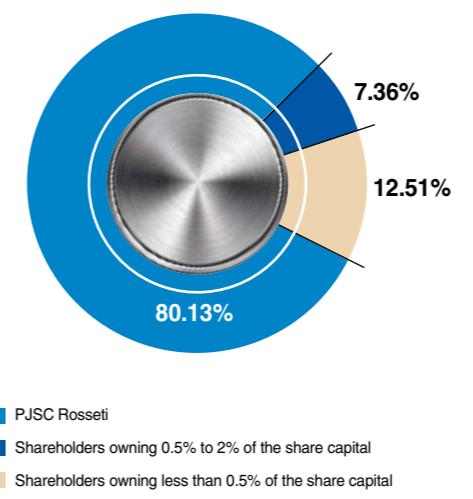
The total number of the Company's shareholders exceeds 400 thousand. As of 31 December 2017 the register of shareholders records the following:

- 406,045 individuals;
- 1,431 legal entities, including 37 nominee holders and two trustees.

In 2017 there were no significant changes in the structure of the Company's share capital.

THE TOTAL NUMBER  
OF SHAREHOLDERS OF THE COMPANY IS  
**OVER 400 THOUSAND.**

#### Structure of PJSC FGC UES shareholders' capital as of 31 December 2017



PJSC Rosseti is the largest shareholder of PJSC FGC UES (80.13% of the authorised capital). The Russian Federation, represented by the Federal Agency for State Property Management (Rosimushchestvo), owns 0.59% of the Company's share capital. There is no special right to participate in the management of the Company ("golden share").

**Shareholder agreement**

In June 2013, PJSC Rosseti and Rosimushchestvo signed a shareholder agreement on the management and voting procedure for the shares of PJSC FGC UES. The agreement was concluded by the parties with respect to all voting shares of PJSC FGC UES owned by them and those that will be acquired by them in the future.

**Free-float**

The percent of free float shares of PJSC FGC UES as of 31 December 2017 is 18.2%<sup>103</sup>.

As of 31 December 2017 1.077% of PJSC FGC UES shares were in cross ownership, owned by FGC – Asset Management, LLC.

The company annually conducts an analysis of the register of shareholders, during which the main groups of holders of ordinary shares and depository receipts are identified.

<sup>103</sup> Free-float is calculated as the number of FGC's shares that are in free float as of 31 December 2017, less shares held by PJSC Rosseti, the state, municipal entities, and quasi-treasury shares.

**Information on Minority Shareholders**

Among the minority shareholders of the Company, institutional investors are key; the percent of retail investors is ~ 4%.

The largest foreign shareholders of FGC at the end of 2017 were funds and investment mandates under the management of Prosperity Capital Management (2.7%)<sup>104</sup>.

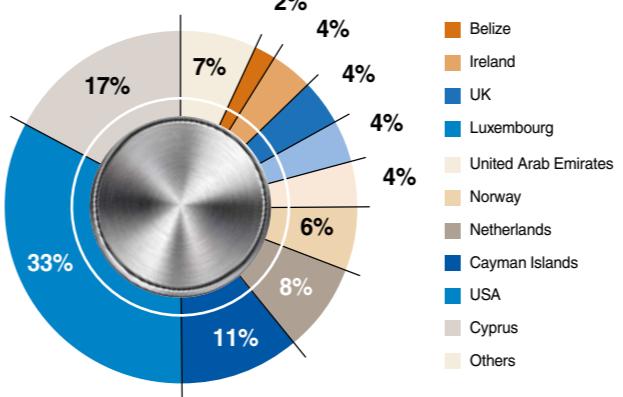
The percent of foreign institutional investors, including the largest global funds with over USD1 billion in assets under management such as the Kopernik Global All-Cap Fund and the Vanguard International Equity Index Fund, and public investment funds, such as Norway and the United Arab Emirates, is 59% of the free-float.

**List of foreign shareholders (in alphabetical order), in aggregate owning about 5% of the placed shares of PJSC FGC UES\***

Name	Country	Type of investor
ABU DHABI INVESTMENT AUTHORITY	UAE	Sovereign funds
Kopernik Global All-Cap Fund	USA	Funds and MC
Morgan Stanley	USA	Banks and trusts
Norges Bank	Norway	Sovereign funds
Prosperity Capital Management	Cayman Islands	Funds and MC
State Street Bank and Trust Company	USA	Banks and trusts
Vanguard International Equity Index Funds	USA	Funds and MC

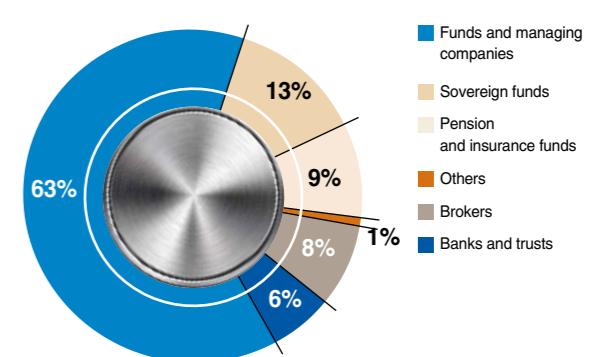
\* Source: Bloomberg data, Company data.

**Distribution of foreign investors in FGC UES by region**



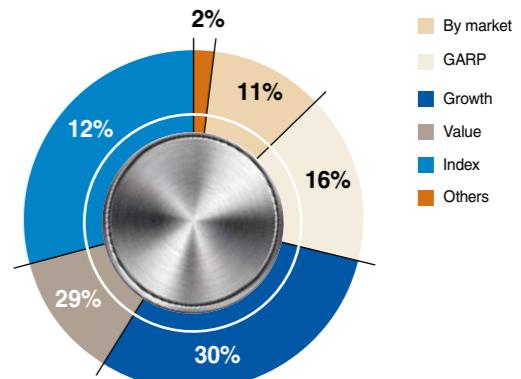
The largest share of FGC UES shares held by foreign investors belongs to USA companies – 33%.

**Distribution of foreign investors in FGC UES by type of investment**



More than 60% of FGC UES shares owned by non-residents are concentrated in funds and management companies.

**Distribution of foreign investors in FGC UES by investment styles**



**Exchange Information on the Company's Securities**

FGC UES shares are included in the Quotation List of the First Level of the Moscow Stock Exchange.

FGC UES' shares are included in the Quotation List of the First Level of the Moscow Stock Exchange, as well as in the list of securities admitted to trading at PJSC St. Petersburg Stock Exchange.

Outside the Russian Federation, the Company's shares are traded in the form of GDRs on the London

Stock Exchange. The depositary bank of the GDR program is THE BANK OF NEW YORK MELLON (BNY Mellon). As of 31 December 2017 the GDR programme amounted to 0.033% of the authorized capital of FGC.

The Company's shares are included in the calculation base of key domestic and a number of foreign indices.

<sup>104</sup> Consent to disclosure of information received.

**General information about the shares of PJSC FGC UES**

Category of shares	Ordinary nominal uncertificated share
Nominal cost	50 kopecks
Ticker on the MICEX	FEES
Ticker on SPB	FEES
Ticker on LSE	FEES
ISIN	RU000A0JPNN9
Bloomberg code	FEES RX

**The weight of shares in PJSC FGC UES in the stock indices as of 31 December 2017, %**

MICEX index	0.4
Index of broad market shares (MICEX BMI)	0.38
The RTS Index (RTSI)	0.4
Sectoral index of the MICEX energy (MICEX PWR)	15.03
The RTX Energy (Vienna Stock Exchange)	15.77

**Results of trading in shares and depositary receipts on exchanges**

	2015	2016	2017
<b>Shares of PJSC FGC UES on the Moscow Stock Exchange</b>			
Trading volume, RUB billion	28.9	90.4	145.8
Minimum price, RUB	0.044	0.0539	0.15
Maximum price, RUB	0.0804	0.2097	0.261
End of year price, RUB	0.0594	0.2032	0.16205
<b>Depositary receipts of PJSC FGC UES on the London Stock Exchange</b>			
Trading volume, USD million	0.7	7.0	6.1
Minimum price, USD	0.36	0.3	1.275
Maximum price, USD	0.8	1.65	2.3
End of year price, USD	0.36	1.64	1.35



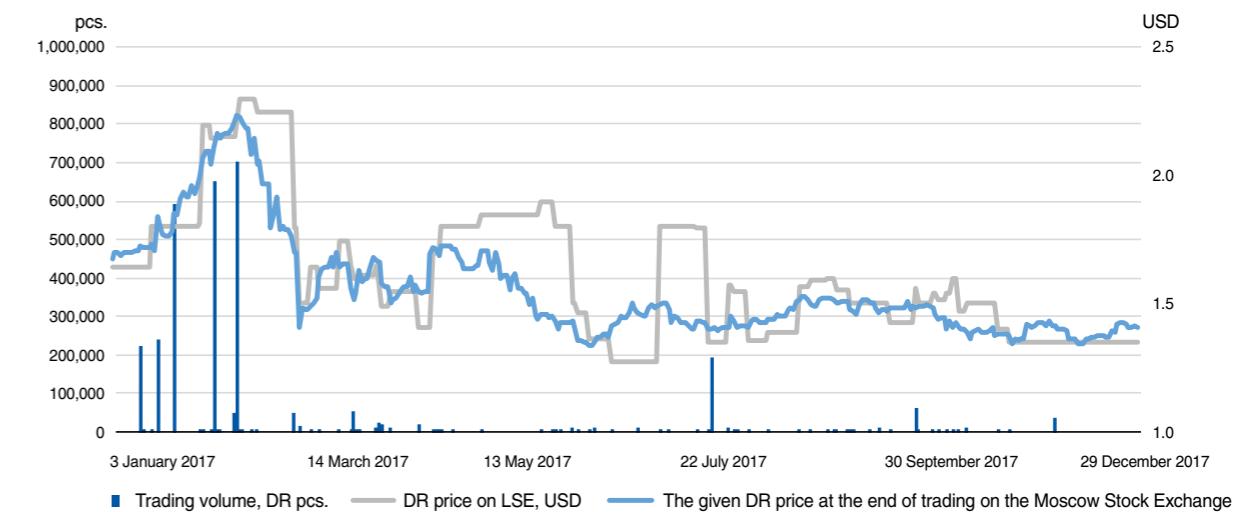
Information on trading in FGC shares is available on the website [www.fsk-ees.ru](http://www.fsk-ees.ru) in the Shareholders and Investors / Information on shares / Share schedule section.

Information on trades with depositary receipts is available on the website [www.fsk-ees.ru](http://www.fsk-ees.ru) in the Shareholders and Investors / Information on shares / Global Depositary Receipts section.

Up-to-date information on the GDR program is also available on the official website of the London Stock Exchange [www.londonstockexchange.com](http://www.londonstockexchange.com) if you specify the company's ticker – FEES.

Shares of FGC UES in 2017 showed a lagging dynamic in comparison with the index of the Moscow Stock Exchange and the MICEX PWR industry index. Over the year, the value of the Company's shares decreased by 20.3% (from 20.3 kopecks at the end

of 2016 to 16.2 kopecks at the end of 2017), while the declines in the Moscow Stock Exchange and MICEX PWR index were 5.5% and 8.5% respectively. Market capitalisation of the Company as of 31 December 2017 amounted to RUB 206.9 billion.

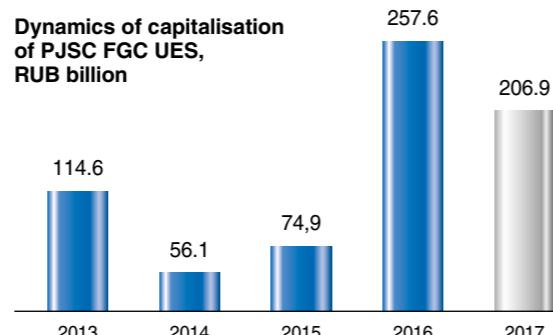
**Dynamics of the value of ordinary shares of PJSC FGC UES in comparison with the index of the Moscow Stock Exchange and the MICEX PWR industry index in 2017****Dynamics of the value and trading volumes of depositary receipts of PJSC FGC UES on the London Stock Exchange<sup>105</sup>**

<sup>105</sup> The presented price DR is an estimate of the value of 1 GDR through the value of shares following the results of trades on the Moscow Stock Exchange (arbitration of the value of receipts). Calculation: the price of 1 share on the Moscow Stock Exchange / rate of the Central Bank of the Russian Federation USD in RUB x 500 (number of shares in 1 GDR).

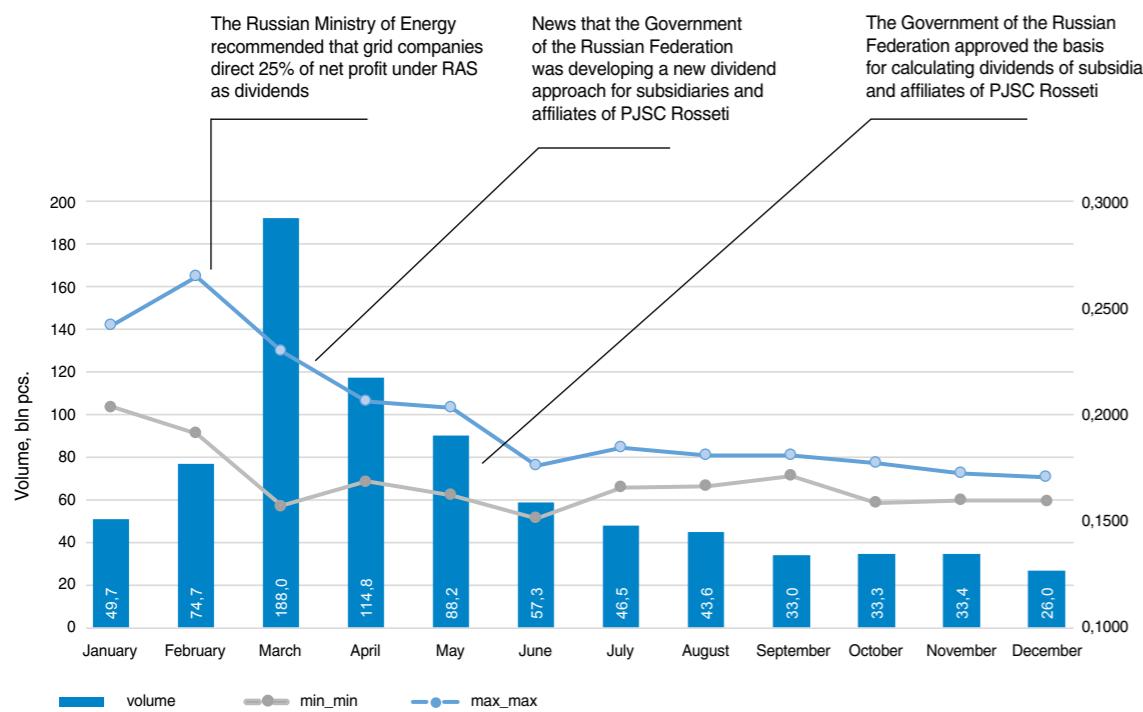
The lagging dynamic of FGC UES's shares in comparison with the indices of the Moscow Exchange and MicexPWR index was due to disappointment of investors regarding the size of dividend payments following the results of 2016 and deterioration of dividend prospects, which neutralised the positive strong financial statements published by the Company throughout 2017.



For more details on the dividend policy and changes in the approaches of the Government of the Russian Federation to the calculation of dividends for the subsidiaries and affiliates of PJSC Rosseti, see the [Dividend Policy and Profit Distribution section](#).

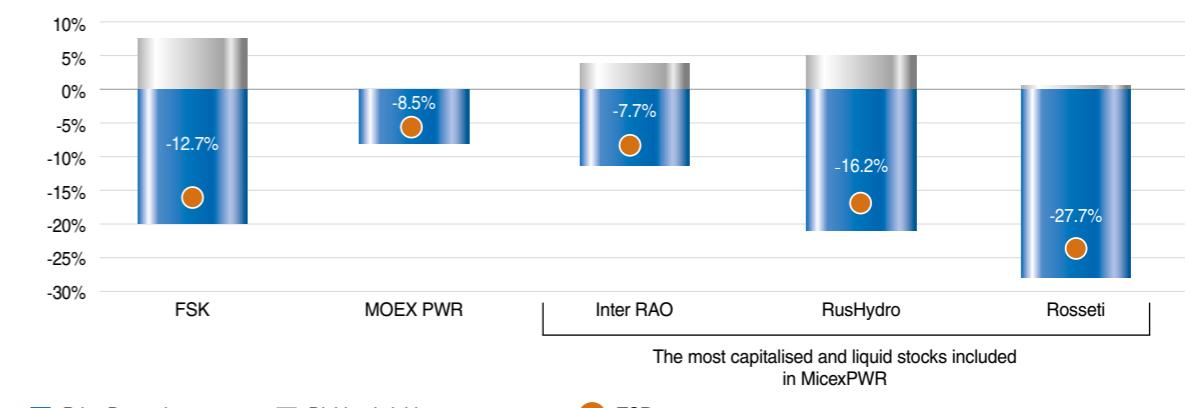


#### Trading volume, minimum and maximum value of the share price of PJSC FGC UES on a monthly basis, the main event-drivers in the growth in the share value in 2017



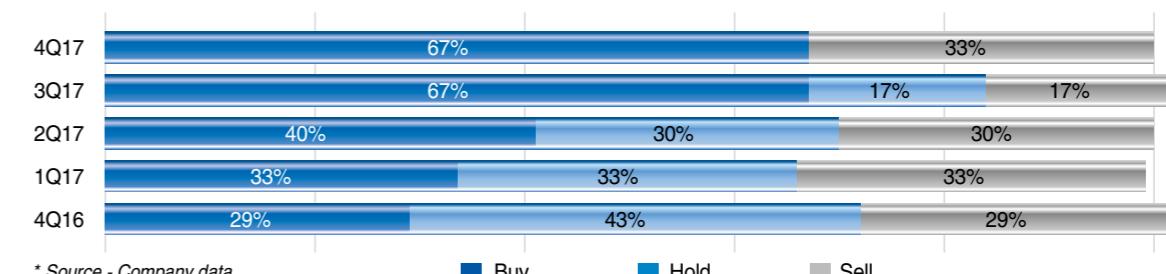
Total shareholder return (TSR) on investment of FGC UES's shares in 2017 was in line with the average value of the most capitalised companies of the Russian electric power industry.

#### TSR of Russian power sector companies in 2017



Reducing the value of FGC UES's shares in 2017 is viewed by a number of analysts as a good opportunity to acquire an undervalued asset – the number of "buy" recommendations at the end of 2017 increased to 67% against 29% a year earlier.

#### Analyst recommendations on the shares of PJSC FGC UES\*



At the end of the year, six leading Russian and international banks provided analytical coverage of PJSC FGC UES. The recommendations of analysts are confirmed.

#### Dynamics of the value and trading volumes of shares of PJSC FGC UES on the Moscow Exchange



# FINANCIAL STATEMENTS

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218 Consolidated financial statements of PJSC FGC UES for 2017 under IFRS

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No. RSM-1318 of 20.02.2018



## Independent auditor's Report

To the Shareholders of Federal Grid Company of Unified Energy System,  
Public Joint-Stock Company (PJSC FGC UES)

### Opinion

We audited the accounting statements of PJSC FGC UES (the "Company"), comprising the Balance Sheet as of December 31, 2017, the Profit and Loss Statement, the Statement of Changes in Equity, and the Cash Flow Statement for the year then ended, as well as notes to the Balance Sheet and the Profit and Loss Statement, including an overview of the key provisions of accounting policy.

In our opinion, the accounting statements appended hereto fairly represent, in all material respects, the financial standing of the Company as of December 31, 2017, its financial performance and its cash flows for the year then ended in accordance with the applicable accounting rules of the Russian Federation.

### Basis for our audit opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Accounting Statements section hereof. We are independent of the Company in accordance with the Code of Ethics for Professional Accountants of the International Ethics Standards Board for Accountants (IESBA Code) and the ethical requirements that are relevant to our audit of the accounting statements in the Russian Federation, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key audit matters

Key audit matters are the matters that, in our professional judgment, were of most significance in our audit of the accounting statements for the current period. These matters were addressed in the context of our audit of the accounting statements as a whole, and in forming the auditor's opinion thereon, and we do not provide a separate opinion on these matters.

### Fixed asset revaluation

In our opinion, this matter was one of the most significant in our audit due to a considerable share of fixed assets in the Company's total asset value, a high subjectivity level of the assumptions used in determining the current/replacement value, as well as the significance of judgments and estimates management makes when determining the current/replacement value of fixed assets.

The Company's fixed assets primarily include special-purpose assets which are rarely sold in the open market, except as part of the existing business, thus preventing the use of market-based approaches in determining their current/replacement value. Accordingly, the current/replacement value of such assets is determined by the Company primarily using cost method net of all types of wear and tear.

We also analyzed significant controls in respect of calculations, the regard given by management to estimation uncertainty, and changes in approaches as compared to the previous period. We analyzed the actual results of application of this approach to obtain sufficient appropriate audit evidence proving that management when preparing calculations complied with the requirements of Russian Accounting Standards (RAS), that the approaches used in such calculations are suitable and applied consistently, and changes in calculations are reasonable based on the information available as at the statements date.

We engaged an expert to test the calculation model and the underlying assumptions in the manner set forth in ISAs.

We assessed the correctness and adequacy of information disclosure in the accounting statements in respect of the current/replacement value of fixed assets, including information about the uncertainty factors for which the calculations are adjusted.

Information about the procedure for determining the revalued cost of fixed assets of the Company is disclosed in Note 3.3 Fixed Assets to the accounting statements.

### Impairment of accounts receivable

In our opinion, this matter was one of the most significant in our audit due to significant accounts receivable balances as of December 31, 2017. The management estimate of the possibility of recovering these receivables is sophisticated, to a great extent subjective and based on the assumptions, including, but not limited to, solvency forecast in respect of the Company's counterparties.

We performed the procedures for assessing the adequacy of the Company's policy for considering accounts receivable as to establishing the impairment reserve, as well as the procedure for confirming the suitability of the Company's management estimates, including special characteristics of specific customers, their solvency, debt repayment trends, payments, and post-balance sheet arrangements, as well as the analysis of expected future cash flows.

Information on the accrued accounts receivable impairment reserve is disclosed by the Company in Notes 3.9 and 3.15 to the accounting statements.

### Recognition of financial investment revaluation income and expense

In our opinion, this matter was one of the most significant in the audit of the accounting statements since the accounting statements carry a significant amount of expenses in connection with the revaluation of financial investment, namely: as sum of RUB 7,496 m. The above-mentioned expense results from a considerable reduction in the quotations of the Company's financial investment in the ordinary shares in PJSC Russian Grids and the shares in PJSC Inter RAO.

We performed the procedures for assessing the recognition of expenses in connection with the revaluation of financial investment, the ordinary shares in PJSC Russian Grids, and the shares in PJSC Inter RAO in the accounting statements as to completeness and correctness, as well as the analysis of information disclosure in the accounting statements as to completeness.

Information about changes in share quotations is disclosed by the Company in Notes 3.7 and 3.15 to the accounting statements.

### Other information

Management is fully liable for all other information. Other information includes all information contained in the 2017 Annual Report of PJSC FGC UES and the issuer's quarterly report of PJSC FGC UES for quarter one of 2018, yet excludes the accounting statements and our auditor's report on the same. The 2017 Annual Report of PJSC FGC UES and the issuer's quarterly report of PJSC FGC UES for quarter one of 2018 are expected to be submitted to us after the date of this auditor's report.

Our opinion on the accounting statements shall not cover any other information, and we do not draw any conclusion to ensure certainty in respect of such information in any form whatsoever.

If when reviewing the 2017 Annual Report of PJSC FGC UES and the issuer's quarterly report of PJSC FGC UES for quarter one of 2018 we conclude that the same contain any material misstatement, we are required to communicate this circumstance with those charged with corporate governance.

## Responsibility of management and the Audit Committee of the Board of Directors for accounting statements

Management is responsible for the preparation and fair presentation of the above-mentioned accounting statements in accordance with the applicable accounting rules of the Russian Federation and the internal control systems which management considers to be necessary for the preparation of accounting statements which are free from material misstatement, whether due to fraud or error.

When preparing the accounting statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Audit Committee of the Board of Directors is responsible for overseeing the preparation of the Company's accounting statements.

## Auditor's responsibility for the audit of the accounting statements

Our objectives are to obtain reasonable assurance about whether the accounting statements are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes the auditor's opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these accounting statements.

As part of an audit in accordance with ISAs, the auditor exercises professional judgment and maintains professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the accounting statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the accounting statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- evaluate the overall presentation, structure and content of the accounting statements, including the disclosures, and whether the accounting statements represent the underlying transactions and events in a manner that achieves fair presentation (i.e. gives a true and fair view).

We communicate with the Audit Committee of the Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during the audit.

We also provide the Audit Committee of the Board of Directors with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on the auditor's independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee of the Board of Directors, we determine those matters that were of most significance in the audit of the accounting statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our auditor's report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

### Chairman of the Management Board

Auditor qualification certificate No. 05-000015 issued pursuant to resolution No. 24 of the Self-Regulatory Organization of Auditors Non-Commercial Partnership "Russian Collegium of Auditors" (dated November 15, 2011) for an indefinite period of time.

PREN in the register of auditors and audit organizations – 21706004215.

N.A. Dantser



### Head of the audit assignment resulting in the Independent Auditor's Report

Auditor qualification certificate No. 05-000030 is issued pursuant to the resolution (minutes No. 25) of the Self-Regulatory Organization of Auditors Non-Commercial Partnership "Russian Collegium of Auditors" (dated November 30, 2011) for an indefinite period of time.

PREN in the register of auditors and audit organizations – 21706004441.

N.N. Usanova

### Audited entity:

Federal Grid Company of Unified Energy System, PUBLIC JOINT-STOCK COMPANY (short name – PJSC FGC UES).

Place of business: 5a Akademika Chelomeya St., Moscow, Russia, 117630

Principal State Registration Number – 102470189336.

### Auditor:

Limited Liability Company RSM RUS.

Place of business: 4 Pudovkina St., Moscow, Russia, 119285

Telephone: (495) 363-28-48; fax: (495) 981-41-21;

Principal State Registration Number – 1027700257540.

Limited Liability Company RSM RUS is a member of the Self-Regulatory Organization of Auditors "Association Sodruzhestvo" (membership certificate No. 6938, Principal Number of Registration Entry (PREN) – 11306030308), place of business: 21 Michurinsky Avenue, Bldg. 4, Moscow, Russia, 119192



## BALANCE SHEET as of December 31 2017

Annex to Decree of the Russian Ministry of Finance No. 66n dated July 2, 2010 (as revised by Decree of the Russian Ministry of Finance No. 124n dated October 5, 2011)

CODES					
OKUD Form No. 1 0710001					
Organization Public Joint-Stock Company "Federal Grid Company of Unified Energy System"					
Taxpayer Identification Number (INN)					
Activity power transmission					
Form of corporate entity's incorporation / form of ownership public joint-stock company / mixed Russian assets with a federal share					
Unit of measurement: RUB, in thousands					
Location (address) 5A Akademika Chelomeya Street, Moscow, Russia, 117630					
Approval date					
Mailing (acceptance) date					
Notes	ASSET	Indicator code	As of December 31, 2017	As of December 31, 2016	As of December 31, 2015
1	2	3	4	5	
<b>I. NON-CURRENT ASSETS</b>					
S.1 of Notes* S.2 of Annexes**	Intangible assets	1110	2,673,277	3,326,907	3,494,151
S.1 of Notes* S.3 of Annexes**	Research and development results	1120	82,442	163,047	243,651
S.2 of Notes* S.3 of Annexes**	Fixed assets, including:	1130	878,328,073	857,440,111	823,624,985
	land plots and natural resources	1131	1,753,458	1,721,968	1,698,972
	buildings, machinery and equipment, structures	1132	873,401,377	852,356,759	817,957,414
	other fixed assets	1133	3,173,238	3,361,384	3,968,599
S.3 of Notes* S.7 of Annexes**	Income-bearing investments in tangible assets	1140	—	—	—
S.3 of Notes* S.7 of Annexes**	Financial investments	1150	84,064,907	71,824,222	32,339,155
S.2 of Notes*	Deferred tax assets	1160	—	—	—
S.2 of Notes*	Other non-current assets, including:	1170	285,625,335	250,509,851	264,636,543
	equipment for installation	1171	33,460,088	33,328,127	33,850,277
S.3.4 of Annexes**	investments into non-current assets	1172	230,629,349	191,073,182	209,738,793
S.5.1 of Notes* S.3.9 of Annexes**	advances against non-current assets	1173	21,265,668	25,790,087	20,854,723
S.3.11 of Annexes**	other non-current assets	1174	270,230	318,455	192,750
	<b>TOTAL for Section I</b>	<b>1100</b>	<b>1,250,774,034</b>	<b>1,183,264,138</b>	<b>1,124,338,485</b>
<b>II. CURRENT ASSETS</b>					
S.4 of Notes* S.3.10 of Annexes**	Inventory, including:	1210	9,749,040	9,108,558	12,632,339
	raw materials, materials and other similar assets	1211	9,749,040	9,108,558	12,632,325
	finished goods and goods for sale	1212	—	—	14
S.5 of Notes* S.3.9 of Annexes**	Value added tax on purchased assets	1220	650,020	493,970	881,583
S.5.1 of Notes* S.3.9 of Annexes**	Accounts receivable, including:	1230	128,379,075	135,201,277	69,491,215
	Accounts receivable (payments due in more than 12 months after the balance sheet date), including:	1231	77,882,865	11,327,562	9,503,739
	customers and consumers	1232	76,393,401	10,485,059	8,654,597
	advance payments made	1233	—	—	—
	other debtors	1234	1,489,464	842,503	849,142
	Accounts receivable (payments due within 12 months after the balance sheet date), including:	1235	50,496,210	123,873,715	59,987,476
	customers and consumers	1236	36,388,248	89,976,088	39,753,400
	amounts owed by members (founders) as payments into the authorized capital	1237	—	—	—
	advance payments made	1238	270,554	515,934	766,050
	other debtors	1239	13,837,408	33,381,693	19,468,026
S.3 of Notes* S.3.8 of Annexes**	Financial investments (except cash equivalents)	1240	2,051,190	2,067,318	38,893,489
S.3.19 of Annexes**	Cash and cash equivalents	1250	33,409,107	36,007,838	21,977,333
S.3.11 of Annexes**	Other current assets	1260	27,568	30,698	87,002
	<b>TOTAL for Section II</b>	<b>1200</b>	<b>174,266,000</b>	<b>182,909,659</b>	<b>143,962,961</b>
	<b>BALANCE</b>	<b>1600</b>	<b>1,425,040,034</b>	<b>1,366,173,797</b>	<b>1,268,301,446</b>

Notes	LIABILITY	Indicator code	As of December 31, 2017	As of December 31, 2016	As of December 31, 2015
	1	2	3	4	5
<b>III. EQUITY AND RESERVES</b>					
S.3.1 of Annexes**	Share capital (contributed capital, authorized fund, contributions of partners)	1310	637,332,662	637,332,662	637,332,662
	Shares repurchased	1320	—	—	—
	Revaluation of non-current assets	1340	285,993,481	258,523,592	246,420,309
S.3.1 of Annexes**	Additional capital (without revaluation)	1350	31,867,163	31,867,163	31,867,163
	Reserve capital	1360	19,492,352	14,188,807	13,295,300
	Undistributed profit (uncovered loss), including:	1370	62,885,484	45,088,345	(43,529,255)
	Uncovered loss of past years	1371	—	—	(43,529,255)
	Undistributed profit of past years	1372	20,523,844	45,088,345	—
	Undistributed profit of the reporting year	1373	42,361,640	—	—
	Uncovered loss of the reporting year	1374	—	—	—
	<b>TOTAL for Section III</b>	<b>1300</b>	<b>1,037,571,142</b>	<b>987,000,569</b>	<b>885,386,179</b>
<b>IV. LONG-TERM LIABILITIES</b>					
S.3.12 of Annexes**	Borrowed assets	1410	233,862,457	236,653,463	249,660,368
	Deferred tax liabilities	1420	55,006,638	49,658,250	44,035,756
	Estimated liabilities	1430	—	—	—
	Other liabilities	1450	17,242,803	512,667	462,788
	<b>TOTAL for Section IV</b>	<b>1400</b>	<b>306,111,898</b>	<b>286,824,380</b>	<b>294,158,912</b>
<b>V. SHORT-TERM LIABILITIES</b>					
S.5.3 of Notes* S.3.13 of Annexes**	Borrowed assets	1510	23,687,193	29,195,354	31,361,933
S.5.3 of Notes* S.3.13 of Annexes**	Accounts payable, including:	1520	54,484,828	60,031,744	54,748,132
	suppliers and contractors	1521	30,383,436	31,047,890	42,279,852
	amounts owed to the personnel	1522	19,407	21,370	18,486
	amounts owed to state non-budgetary funds	1523	533,822	555	310,101
	taxes and fees payable	1524	7,278,959	16,731,083	4,062,955
	advances received	1525	12,501,008	8,171,878	6,129,644
	other creditors	1526	3,621,211	3,984,504	1,939,360
	payables to members (founders)	1527	146,985	74,464	7,734
S.7 of Notes*	Deferred income	1530	668,204	694,921	740,903
S.7 of Notes*	Estimated liabilities	1540	2,516,769	2,426,829	1,905,387
	Other liabilities	1550	—	—	—
	<b>TOTAL for Section V</b>	<b>1500</b>	<b>81,356,994</b>	<b>92,348,848</b>	<b>88,756,355</b>
	<b>BALANCE</b>	<b>1700</b>	<b>1,425,040,034</b>	<b>1,366,173,797</b>	<b>1,268,301,446</b>

\* — Notes to the Balance Sheet and Profit and Loss Statement for 2017.

\*\* — Annexes to the annual 2017 Financial Statements.

Chief Executive   
 (signature) A.E. Murov  
 (print full name)

Chief Accountant   
 (signature) A.P. Noskov  
 (print full name)

“20” February 2018


**STATEMENT  
OF FINANCIAL RESULTS  
for 2017**

Annex to Decree of the Russian Ministry of Finance No. 66n  
dated July 2, 2010 (as revised by Decree of the Russian Ministry  
of Finance No. 124n dated October 5, 2011)

**Organization Public Joint-Stock Company**  
**"Federal Grid Company of Unified Energy System"**  
 Taxpayer Identification Number (INN)  
**Activity power transmission**  
 Form of corporate entity's incorporation / form of ownership  
**public joint-stock company / mixed Russian assets with a federal share**

Unit of measurement: **RUB, in thousands**

CODES	
OKUD Form No.2	0710002
Date (year, month, day)	31.12.2017
as per OKPO	56947007
INN	<b>4716016979</b>
as per OKVED	35.12
as per OKOPF/OKFS	47/41
as per OKEI	384
Approval date	
Mailing (acceptance) date	

Notes	Indicator Description	Code	For	For the same period of the last year
			the reporting period	
<b>Income and expenses for common activities</b>				
	Net proceeds from sale of goods, products and services (net of VAT, excise duties and other similar mandatory payments), including:	2110	215,999,310	218,366,451
	electric power transmission services	2111	192,560,137	171,133,002
	services for technological connection	2112	21,411,649	45,479,097
	other activity	2119	2,027,524	1,754,352
S.6 of Notes*	Production cost of goods, products and services sold, including:	2120	(152,383,316)	(140,037,974)
	electric power transmission services	2121	(151,051,798)	(138,756,529)
	services for technological connection	2122	(97,474)	(96,514)
	other activity	2129	(1,234,044)	(1,184,931)
	Gross profit (2110 + 2120)	2100	63,615,994	78,328,477
	Commercial expenses	2210	–	–
S.6 of Notes*	Administrative expenses	2220	(8,253,906)	(8,032,766)
	Profit (loss) from sales (2100 + 2210 + 2220)	2200	55,362,088	70,295,711
	Participation capital	2310	1,912,559	260,824
	Interest receivable	2320	8,613,322	7,807,492
	Interest payable	2330	(3,941,486)	(6,230,558)
S.3.15 of Annexes**	Other income	2340	23,532,350	72,954,542
S.3.15 of Annexes**	Miscellaneous expenses	2350	(24,885,537)	(20,767,964)
	<b>Profit (loss) before tax (2200 + 2310 + 2320 + 2330 + 2340 + 2350)</b>	<b>2300</b>	<b>60,593,296</b>	<b>124,320,047</b>
S.3.5 of Annexes**	Current profit tax, including:	2410	(12,880,041)	(12,568,840)
	constant tax liabilities	2421	6,109,770	(6,672,675)
S.3.5 of Annexes**	Deferred tax liabilities changes	2430	(5,278,564)	(5,851,047)
S.3.5 of Annexes**	Deferred tax assets changes	2450	(69,824)	228,553
	Other, including:	2460	(3,227)	(57,802)
	Other similar mandatory payments	2461	(3,227)	(6,843)
	Profit tax adjustment for the previous periods	2462	–	(50,959)
	<b>Net profit (loss) for the reporting period</b>	<b>2400</b>	<b>42,361,640</b>	<b>106,070,911</b>

Notes	Indicator	of December 31, 2017	As of December 31, 2016
<b>FOR REFERENCE</b>			
S.3.3 of Annexes**	Result of the fixed assets revaluation, not included in the net profit (loss) for the period	27,816,547	12,520,106
S.3.16 of Annexes**	Result of the other transactions, not included in the net profit (loss) for the period		
	Total profit or loss for the period	70,178,187	118,591,017
	Base profit (loss) per share	0.0332	0.0832
	Diluted earning (loss) per share		

\* — Notes to the Balance Sheet and the Profit and Loss Statement for 2017

\*\* — Annexes to the annual 2017 Financial Statements

Chief Executive   
 (signature) A.E. Murov  
 (print full name)



Chief Accountant   
 (signature) A.P. Noskov  
 (print full name)

“20” February 2018


**STATEMENT  
OF CHANGES IN EQUITY  
for 2017**

Annex No. 2 to Decree of the Russian Ministry of Finance No. 66n dated July 2, 2010 (as revised by Decree of the Russian Ministry of Finance No. 124n dated October 5, 2011)						
<b>Organization Public Joint-Stock Company “Federal Grid Company of Unified Energy System”</b>						
Taxpayer Identification Number (INN)						
Activity <b>power transmission</b>						
Form of legal entity's incorporation / form of ownership <b>public joint-stock company / mixed Russian assets with a federal share</b>						
Unit of measurement: <b>RUB, in thousands (million RUB)</b>						
<b>CODES</b>						
OKUD Form No. 1 0710003						
Date (day, month, year) 31.12.2017						
as per OKPO 56947007						
INN 4716016979						
as per OKVED 35.12						
as per OKOPF/OKFS 47/41						
as per OKEI 384						
Approval date						
Mailing (acceptance) date						
<b>1. Changes in equity</b>						
Indicator	Code	Authorized capital	Treasury shares repurchased from shareholders	Additional capital	Reserve capital	Undistributed profits (uncovered loss)
Capital value as of December 31, 2015 <sup>1</sup>	3100	637,332,662	–	278,287,472	13,295,300	(43,529,255)
						885,386,179
<b>For 2016<sup>2</sup></b>						
Increase in capital value – total:	3210	–	–	12,520,106	–	106,070,911
including:						118,591,017
net profit	3211	x	x	x	x	106,070,911
property revaluation	3212	x	x	12,520,106	x	–
income relating directly to the increase in capital value	3213	x	x	–	x	–
additional issue of shares	3214	–	–	–	x	x
increase of share denomination	3215	–	–	–	x	–
reorganization of legal entity	3216	–	–	–	–	–
other	3217	–	–	–	–	–
Form 0710023 p. 2						
Indicator	Code	Authorized capital	Treasury shares repurchased from shareholders	Additional capital	Reserve capital	Undistributed profits (uncovered loss)
Reduction of capital value – total:	3220	–	–	–	–	(16,976,627)
including:						(16,976,627)
loss	3221	x	x	x	x	–
property revaluation	3222	x	x	–	x	–
expenses relating directly to the reduction of capital value	3223	x	x	–	x	–
decrease of share denomination	3224	–	–	–	x	–
reduction of shares quantity	3225	–	–	–	x	–
reorganization of legal entity	3226	–	–	–	–	–
dividends	3227	x	x	x	x	(16,976,627)
Changes in the additional capital	3230	x	x	(416,823)	–	416,823
Changes in the reserve capital	3240	x	x	x	893,507	(893,507)
Capital value as of December 31, 2016 <sup>2</sup>	3200	637,332,662	–	290,390,755	14,188,807	45,088,345
						987,000,569

Indicator	Code	Authorized capital	Treasury shares repurchased from shareholders	Additional capital	Reserve capital	Undistributed profits (uncovered loss)	Total
<b>For 2017<sup>3</sup></b>							
Increase in capital value – total:	3310	–	–	27,816,547	–	42,361,640	70,178,187
including:							
net profit	3311	x	x	x	x	42,361,640	42,361,640
property revaluation	3312	x	x	27,816,547	x	–	27,816,547
income relating directly to the increase in capital value	3313	x	x	–	x	–	–
additional issue of shares	3314	–	–	–	x	x	–
increase of share denomination	3315	–	–	–	x	–	x
reorganization of legal entity	3316	–	–	–	–	–	–
Reduction of capital value - total:	3320	–	–	–	–	(19,607,614)	(19,607,614)
including:							
loss	3321	x	x	x	x	–	–
property revaluation	3322	x	x	–	x	–	–
expenses relating directly to the reduction of capital value	3323	x	x	–	x	–	–
decrease of share denomination	3324	–	–	–	x	–	–
reduction of shares quantity	3325	–	–	–	x	–	–
reorganization of legal entity	3326	–	–	–	–	–	–
dividends	3327	x	x	x	x	(19,607,614)	(19,607,614)
other	3328	–	–	–	–	–	–
Changes in the additional capital	3330	x	x	(346,658)	–	346,658	x
Changes in the reserve capital	3340	x	x	x	5,303,545	(5,303,545)	x
Capital value as of December 31, 2017 <sup>3</sup>	3300	637,332,662	–	317,860,644	19,492,352	62,885,484	1,037,571,142

**2. Corrections due to changes in the accounting policy and errors elimination**

Form 0710023 p. 3

Indicator	Code	As of December 31, 2015 <sup>1</sup>	Changes in equity for 2016 <sup>2</sup>	As of December 31, 2016 <sup>2</sup>
			due to net profit (loss)	due to other factors
<b>Equity – total</b>				
before corrections				
correction due to:				
changes in the accounting policy	3410	–	–	–
errors elimination	3420	–	–	–
after corrections	3500	–	–	–
including:				
undistributed profits (uncovered loss)				
before corrections	3401	–	–	–
correction due to:				
changes in the accounting policy	3411	–	–	–
errors elimination	3421	–	–	–
after corrections	3501	–	–	–
other capital items subject to corrections: (per items)				
before corrections	3402	–	–	–
correction due to:				
changes in the accounting policy	3412	–	–	–
errors elimination	3422	–	–	–
after corrections	3502	–	–	–

**3. Net assets**

Indicator	Code	As of December 31, 2017 <sup>3</sup>	As of December 31, 2016 <sup>2</sup>	As of December 31, 2015 <sup>1</sup>
Net assets	3600	1,038,239,346	987,695,490	886,127,082

Chief Executive


  
A.E. Murov  
(signature)

Chief Accountant


**CASH FLOW  
STATEMENT  
for 2017**

Annex to Decree of the Russian Ministry of Finance No. 66n dated July 2, 2010 (as revised by Decree of the Russian Ministry of Finance No. 124n dated October 5, 2011)

**Organization Public Joint-Stock Company "Federal Grid Company of Unified Energy System"**  
**Taxpayer Identification Number (INN)**  
**Activity power transmission**  
**Form of legal entity's incorporation / form of ownership public joint-stock company / mixed Russian assets with a federal share**  
**Unit of measurement: thousand RUB**

CODES
OKUD Form 0710004
Date (day, month, year) 31.12.2017
as per OKPO 56947007
INN 4716016979
as per OKVED 35.12
as per OKOPF/OKFS 47/41
as per OKEI 384
Approval date _____
Mailing (acceptance) date _____

Indicator	Code	For 2017	For 2016
1	2	3	4
<b>Cash flows from current transactions</b>			
Receipts - total, including:			
from sale of products, goods, work and services	4110	229,247,960	188,696,320
lease payments, license fees, royalties, commission charges and other similar payments	4111	210,773,286	177,950,601
from resale of financial investments	4112	935,257	866,454
other receipts	4113	-	-
Payments – total, including:	4119	17,539,417	9,879,265
to suppliers (contractors) for raw materials, materials, work and services	4120	(108,558,349)	(87,611,024)
remuneration of labor	4121	(41,146,101)	(33,971,675)
debenture interest	4122	(16,514,357)	(16,006,034)
corporate tax	4123	(4,846,346)	(8,395,873)
other payments	4124	(16,877,846)	(5,032,447)
Balance of cash flows from current transactions	4100	120,689,611	101,085,296
<b>Cash flows from investment transactions</b>			
Receipts – total, including:			
from sale of fixed assets (except financial investments)	4210	20,035,317	51,822,911
from sale of other companies' shares (participatory interest)	4211	164,670	1,135,169
from repayment of granted loans, from sale of debt securities (claims for cash against third parties)	4212	-	8,625
dividends, interest on debt financial investments and other similar income from participatory interest in other companies	4213	17,107,160	47,478,220
other receipts	4214	2,763,487	3,200,897
Payments – total, including:	4219	-	-
payments associated with the acquisition, establishment, upgrading, reconstruction and preparation for the use of fixed assets	4220	(116,343,971)	(108,892,895)
from purchase of other companies' shares (participatory interest)	4221	(86,148,749)	(79,203,529)
from purchase of debt securities (claims for cash against third parties), granting loans to third parties	4222	(816,831)	-
debenture interest included in the investment asset value	4223	(16,091,032)	(10,355,719)
other payments	4224	(13,287,354)	(19,333,517)
Balance of cash flows from investment transactions	4200	(96,308,654)	(57,069,984)

Indicator	Code	For 2017	For 2016
1	2	3	4
<b>Cash flows from financial transactions</b>			
Receipts - total, including:			
obtaining of credits and loans	4310	16,020,390	10,163,523
monetary contributions of owners (members)	4311	22,050	164,771
from issue of shares, participatory interest increase	4312	-	-
from issue of bonds, promissory notes and other debt securities	4313	-	-
other receipts	4314	15,998,000	9,998,750
Payments - total, including:	4319	340	2
to owners (members) due to repurchase of shares (participatory interest) of their organization or their cessation of membership	4320	(43,000,078)	(40,148,306)
for payment of dividends and other distribution payments profit to owners (members)	4322	(19,607,954)	(16,976,630)
due to the payment of promissory notes and other debt securities, repayment of credits and loans	4323	(23,392,124)	(23,171,676)
other payments	4329	-	-
Cash flow balance from financial operations	4300	(26,979,688)	(29,984,783)
<b>Cash flow balance for the reporting period</b>	4400	<b>(2,598,731)</b>	<b>14,030,529</b>
<b>Cash and cash equivalents balance as of the beginning of the reporting year</b>	4450	<b>36,007,838</b>	<b>21,977,309</b>
<b>Cash and cash equivalents balance as of the end of the reporting year</b>	4500	<b>33,409,107</b>	<b>36,007,838</b>
Influence of foreign currency change versus RUR	4490		

Chief Executive


 A.E. Murov  
 (signature)
A.E. Murov  
 (print full name)

 PJSC FGC UES  
 ОГРН 1024701893301  
 Г. МОСКВА


 A.P. Noskov  
 (signature)

(print full name)

"20" February 2018



**PJSC "FGC UES"**  
Independent Auditors' Report  
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## Independent Auditors' Report

### To the Shareholders and the Board of Directors of the Public Joint-Stock Company "Federal Grid Company of Unified Energy System"

#### Opinion

We have audited the consolidated financial statements of PJSC "FGC UES" (the "Company") and its subsidiaries (the "Group"), which comprise the consolidated statement of financial position as at 31 December 2017, the consolidated statements of profit or loss and other comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2017, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

#### Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the independence requirements that are relevant to our audit of the consolidated financial statements in the Russian Federation and with the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants* (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with the requirements in the Russian Federation and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Audited entity: PJSC "Federal Grid Company of Unified Energy System"

Registration No. in the Unified State Register of Legal Entities  
1024701893336

Moscow, Russia

Independent auditor: JSC "KPMG", a company incorporated under the Laws of the Russian Federation, a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Registration No. in the Unified State Register of Legal Entities 1027700125628.

Member of the Self-regulated organization of auditors "Russian Union of auditors" (Association). The Principal Registration Number of the Entry in the Register of Auditors and Audit Organisations: No. 11603053203.

#### Revaluation of property, plant and equipment

Please refer to Note 6 in the consolidated financial statements.

The key audit matter	How the matter was addressed in our audit
<p>The Group uses revaluation model for accounting for property, plant and equipment.</p> <p>As at 31 December 2017 the Group performed revaluation of its property, plant and equipment. The fair value of property, plant and equipment was primarily determined using depreciated replacement cost.</p> <p>The management engaged an independent appraiser to determine the depreciated replacement cost.</p> <p>This cost was then adjusted for physical, functional or economical depreciation and obsolescence using discounted cash flow model.</p> <p>This model uses several key assumptions, including estimates of future sales volumes and tariffs, operating costs, terminal value growth rates and the weighted-average cost of capital (discount rate).</p> <p>The revaluation process requires using significant judgment in determining those assumptions and the amount of property, plant and equipment is significant. Hence, this is a key audit matters that our audit was concentrated on.</p>	<p>We involved our own valuation specialists to assist us in evaluating the assumptions and methodologies used by the Group to determine the depreciated replacement cost. Since the determination of the depreciated replacement cost was based on previous revaluation results, the procedures included the following:</p> <ul style="list-style-type: none"> <li>— comparing the indexes applied and useful lives with the available market information and our own knowledge of the client and the industry.</li> </ul> <p>The procedures in relation to the discounted cash flows have been performed by involving our own valuation specialists and included the following:</p> <ul style="list-style-type: none"> <li>— evaluating the appropriateness of the discount rate applied, which included comparing the weighted average cost of capital with sector averages for the relevant markets in which the Group operates;</li> <li>— evaluating the appropriateness of the assumptions applied to key inputs such as sales volumes and tariffs, operating costs, inflation and long-term growth rates, which included comparing these inputs with externally derived data as well as our own assessments based on our knowledge of the client and the industry;</li> <li>— performing our own sensitivity analysis which included assessing the effect of reasonably possible changes in discount rate, terminal growth rate and revenue to evaluate the impact on the recoverable amount of property, plant and equipment, and comparing the disclosures given in Note 6 to our calculations.</li> </ul> <p>We evaluated the adequacy of the financial statement disclosures, including disclosures of key assumptions, judgments and sensitivities.</p> <p>We recalculated the allocation of the revaluation effects to individual items of property, plant and equipment. We also recalculated the allocation of revaluation results between other comprehensive income and profit or loss.</p>



### Valuation of accounts receivable

Please refer to Note 13 in the consolidated financial statements.

The key audit matter	How the matter was addressed in our audit
<p>Management determines the provision for doubtful debtors based on specific customer analysis, customer payment history, subsequent receipts and settlements and analyses of expected future cash flows.</p> <p>An impairment loss is measured as the difference between the carrying amount of accounts receivable and the present value of estimated cash flows discounted at the original effective interest rate.</p> <p>The receivables impairment assessment process requires using significant judgment and the amount of accounts receivable is significant. Hence, this is a key audit matters that our audit was concentrated on.</p>	<p>Our audit procedures in relation to the management's assessment of trade receivables impairment included the following:</p> <ul style="list-style-type: none"> <li>— assessing the management's expectation of future cash flows by comparing it to the counterparties payment history;</li> <li>— analyzing subsequent payments after the end of the reporting period;</li> <li>— assessing the financial position of the counterparties by analyzing the external information available;</li> <li>— analysing the terms and conditions of restructuring agreements concluded with counterparties;</li> <li>— involving our own valuation specialist to assist in evaluating the appropriateness of the discount rate applied;</li> <li>— testing the inputs in the ageing analysis used by the management in assessing the impairment by inspecting the underlying primary documents;</li> </ul> <p>We also evaluated the adequacy of disclosures in Notes 13 and 27 to the consolidated financial statements.</p>

### Other information

Management is responsible for the other information. The other information comprises the information included in the Annual Financial Report in accordance with the UK Disclosure and Transparency Rules but does not include the consolidated financial statements and our auditors' report thereon. The Annual Financial Report in accordance with the UK Disclosure and Transparency Rules is expected to be made available to us after the date of this auditors' report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

### Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS as adopted by the EU, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

### Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the



**PJSC "FGC UES"**  
Independent Auditors' Report  
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consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditors' report is:

L.R. Kisseleva  
JSC "KPMG"  
Moscow, Russia  
23 March 2018



**financial statements**

CONSOLIDATED FINANCIAL STATEMENTS OF PJSC FGC UES FOR 2017 UNDER IFRS

**PJSC "FGC UES"**  
**Consolidated Statement  
of Financial Position**  
(in millions of Russian Rouble unless otherwise stated)

	Notes.	31 December 2017	31 December 2016
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment	6	934,417	846,695
Intangible assets	7	6,303	7,320
Investments in associates and joint ventures	8	1,136	1,160
Available-for-sale investments	9	67,403	76,537
Deferred income tax assets	16	55	14
Long-term accounts receivable	10	69,350	45,145
Other non-current assets	10	960	1,853
<b>Total non-current assets</b>		1,079,624	978,724
<b>Current assets</b>			
Cash and cash equivalents	11	42,535	44,404
Bank deposits	12	-	450
Accounts receivable and prepayments	13	45,437	58,187
Income tax prepayments		211	305
Inventories	14	15,907	14,900
Other current assets		111	140
<b>Total current assets</b>		104,201	118,386
<b>TOTAL ASSETS</b>		1,183,825	1,097,110
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Share capital: Ordinary shares	15	637,333	637,333
Treasury shares	15	(4,719)	(4,719)
Share premium		10,501	10,501
Reserves	15	302,099	281,759
Accumulated deficit		(144,118)	(198,273)
<b>Equity attributable to shareholders of FGC UES</b>		801,096	726,601
Non-controlling interest		672	1,816
<b>Total equity</b>		801,768	728,417
<b>Non-current liabilities</b>			
Deferred income tax liabilities	16	36,030	25,433
Non-current debt	17	233,862	236,954
Long-term accounts payable	20	14,864	-
Deferred income		966	919
Retirement benefit obligations	18	7,617	5,959
<b>Total non-current liabilities</b>		293,339	269,265
<b>Current liabilities</b>			
Accounts payable to shareholders of FGC UES		146	73
Current debt and current portion of non-current debt	17, 19	23,988	29,660
Accounts payable and accrued charges	20	60,925	62,059
Income tax payable		3,659	7,636
<b>Total current liabilities</b>		88,718	99,428
<b>Total liabilities</b>		382,057	368,693
<b>TOTAL EQUITY AND LIABILITIES</b>		1,183,825	1,097,110

Authorised for issue and signed on behalf of the Management Board:

22 March 2018

Chairman of the Management Board

Head of Accounting and Financial Reporting – Chief Accountant



A.E. Murov

A.P. Noskov

The accompanying notes are an integral part of these Consolidated Financial Statements  
For full version of consolidated financial statements of FGC UES Group for 2017 see Appendix 13.

**financial statements**

CONSOLIDATED FINANCIAL STATEMENTS OF PJSC FGC UES FOR 2017 UNDER IFRS

**PJSC "FGC UES"**  
**Consolidated Statement of Profit or Loss  
and Other Comprehensive Income**  
(in millions of Russian Rouble unless otherwise stated)

	Notes	Year ended 31 December 2017	Year ended 31 December 2016
<b>Revenues</b>			
Other operating income	21	242,186	255,603
Operating expenses	22	(151,656)	(155,508)
(Loss)/gain on derecognition of subsidiary	30	(52)	11,868
Impairment and revaluation loss on property, plant and equipment, net	6	(13,862)	(38,155)
<b>Operating profit</b>		83,021	79,847
Finance income	23	12,587	6,974
Finance costs	24	(4,501)	(8,010)
Share of profit / (loss) of associates and joint ventures	8	28	(327)
<b>Profit before income tax</b>	16	91,135	78,484
Income tax expense		(18,485)	(10,102)
<b>Profit for the year</b>		72,650	68,382
<b>Other comprehensive income/(loss)</b>			
<i>Items that will not be reclassified subsequently to profit or loss</i>			
Change in revaluation reserve for property, plant and equipment	6	36,969	14,280
Remeasurements of retirement benefit obligations	18	(1,395)	1,500
Income tax relating to items that will not be reclassified	16	(7,251)	(2,948)
<b>Total items that will not be reclassified to profit or loss</b>		28,323	12,832
<i>Items that are or may be reclassified subsequently to profit or loss</i>			
Change in fair value of available-for-sale investments	9	(9,134)	54,266
Foreign currency translation difference	8	(52)	(204)
Income tax relating to items that may be reclassified	16	1,826	(10,853)
<b>Total items that are or may be reclassified to profit or loss</b>		(7,360)	43,209
<b>Other comprehensive income for the period, net of income tax</b>		20,963	56,041
<b>Total comprehensive income for the year</b>		93,613	124,423
<b>Profit attributable to:</b>			
Shareholders of FGC UES	25	72,832	68,159
Non-controlling interest		(182)	223
<b>Total comprehensive income attributable to:</b>			
Shareholders of FGC UES		93,571	123,705
Non-controlling interest		42	718
<b>Earnings per ordinary share for profit attributable to shareholders of FGC UES – basic and diluted (in Russian Rouble)</b>	25	0.058	0.054

The accompanying notes are an integral part of these Consolidated Financial Statements  
For full version of consolidated financial statements of FGC UES Group for 2017 see Appendix 13.


**PJSC "FGC UES"**  
**Consolidated Statement of Cash Flows**  
(in millions of Russian Rouble unless otherwise stated)

Notes	Year ended 31 December 2017	Year ended 31 December 2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
<b>Profit before income tax</b>	<b>91,135</b>	<b>78,484</b>
Adjustments to reconcile profit before income tax to net cash provided by operations		
Depreciation of property, plant and equipment	22 44,752	39,397
Loss/(gain) on disposal of property, plant and equipment	22 920	(72)
Amortisation of intangible assets	22 1,220	1,330
Impairment and revaluation loss of property, plant and equipment, net	6 13,862	38,155
Loss/(gain) on derecognition of subsidiary	30 52	(11,868)
Share of result of associates	8 (28)	327
(Reversal)/accrual of allowance for doubtful debtors	22 (3,813)	2,666
(Reversal)/accrual of other provision for liabilities and charges	20 (1,320)	2,502
Finance income	23 (12,587)	(6,974)
Finance costs	24 4,501	8,010
Other non-cash operating income	(241)	(39)
<b>Operating cash flows before working capital changes and income tax paid</b>	<b>138,453</b>	<b>151,918</b>
Working capital changes:		
Increase in accounts receivable and prepayments	(3,959)	(43,73)
(Increase)/decrease in inventories	(1,007)	1,144
Decrease/(increase) in other non-current assets	719	(69)
Increase in accounts payable and accrued charges	3,844	7,375
Decrease in retirement benefit obligations	(48)	(511)
Income tax paid	(17,235)	(5,108)
<b>Net cash generated by operating activities</b>	<b>120,767</b>	<b>111,476</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchase of property, plant and equipment	(86,970)	(78,872)
Proceeds from disposal of property, plant and equipment	1,446	4,864
Purchase of intangible assets	(1,011)	(898)
Redemption of promissory notes	10	206
Investment in bank deposits	(9,566)	(5,257)
Redemption of bank deposits	10,016	35,085
Dividends received	2,579	353
Loans given	(1)	(18)
Repayment of loans given	1,002	-
Purchase of subsidiary	-	(4)
Sale of subsidiary	-	14
Interest received	5,959	6,569
<b>Net cash used in investing activities</b>	<b>(76,536)</b>	<b>(37,958)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from current and non-current borrowings	16,074	10,516
Repayment of current and non-current borrowings	(23,795)	(23,172)
Repayment of lease	(149)	(150)
Dividends paid	(19,354)	(16,751)
Interest paid	(18,164)	(27,733)
Increase in ownership in subsidiary	(817)	-
Government grants	105	-
<b>Net cash used in financing activities</b>	<b>(46,100)</b>	<b>(57,290)</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>	<b>(1,869)</b>	<b>16,228</b>
<b>Cash and cash equivalents at the beginning of the period</b>	<b>11 44,404</b>	<b>28,176</b>
<b>Cash and cash equivalents at the end of the period</b>	<b>11 42,535</b>	<b>44,404</b>


**PJSC "FGC UES"**  
**Consolidated Statement of Changes in Equity**  
(in millions of Russian Rouble unless otherwise stated)

Indicator name	Notes	Attributable to shareholders of FGC UES							
		Share capital	Share premium	Treasury shares	Reserves	Accumulated deficit	Total	Non-controlling interest	Total equity
<b>As at 1 January 2017</b>		<b>637,333</b>	<b>10,501</b>	<b>(4,719)</b>	<b>281,759 (198,273)</b>	<b>726,601</b>	<b>1,816</b>	<b>728,417</b>	
<b>Total comprehensive income for the year</b>									
Profit for the year		-	-	-	-	72,832	<b>72,832</b>	(182) <b>72,650</b>	
<i>Other comprehensive income/(loss), net of related income tax</i>									
Derecognition of revaluation reserve on disposed property, plant and equipment	15	-	-	-	(631)	631	-	-	
Change in revaluation reserve for property, plant and equipment	6, 15	-	-	-	29,353	-	<b>29,353</b>	224 <b>29,577</b>	
Change in fair value of available-for-sale investments	9, 15	-	-	-	(7,308)	-	(7,308)	-	
Remeasurements of retirement benefit obligations	15, 18	-	-	-	(1,254)	-	(1,254)	-	
Foreign currency translation difference	8, 15	-	-	-	(52)	-	(52)	-	
<b>Total other comprehensive income</b>		-	-	-	<b>20,108</b>	<b>631</b>	<b>20,739</b>	<b>224</b>	<b>20,963</b>
<b>Total comprehensive income for the year</b>									
<b>Transactions with shareholders of FGC UES recorded directly in equity</b>									
Dividends declared		-	-	-	-	(19,424)	(19,424)	(3) (19,427)	
<b>Total transactions with shareholders of FGC UES</b>									
<b>Changes in ownership</b>									
Increase in ownership in subsidiary	30	-	-	-	232	116	348	(1,167) (819)	
Derecognition of subsidiary	-	-	-	-	-	-	-	(16) (16)	
<b>Total changes in ownership</b>		-	-	-	232	116	348	(1,183) (835)	
<b>As at 31 December 2017</b>		<b>637,333</b>	<b>10,501</b>	<b>(4,719)</b>	<b>302,099 (144,118)</b>	<b>801,096</b>	<b>672</b>	<b>801,768</b>	



PJSC "FGC UES"

**Consolidated Statement of Changes in Equity**

(in millions of Russian Rouble unless otherwise stated)

Indicator name	Notes	Attributable to shareholders of FGC UES							
		Share capital	Share premium	Treasury shares	Reserves	Accumulated deficit	Total	Non-controlling interest	Total equity
<b>As at 1 January 2016</b>		<b>637,333</b>	<b>10,501</b>	<b>(4,719)</b>	<b>229,578 (252,980)</b>	<b>619,713</b>	<b>(75)</b>	<b>619,638</b>	
<b>Total comprehensive income for the year</b>									
Profit for the year		—	—	—	—	68,159	<b>68,159</b>	223	<b>68,382</b>
<i>Other comprehensive income/(loss), net of related income tax</i>									
Derecognition of revaluation reserve on disposed property, plant and equipment	15	—	—	—	(3,365)	3,365	—	—	—
Change in revaluation reserve for property, plant and equipment	6, 15	—	—	—	10,929	—	<b>10,929</b>	495	<b>11,424</b>
Change in fair value of available-for-sale investments	9, 15	—	—	—	43,413	—	<b>43,413</b>	—	<b>43,413</b>
Remeasurements of retirement benefit obligations	15, 18	—	—	—	1,408	—	<b>1,408</b>	—	<b>1,408</b>
Foreign currency translation difference	8, 15	—	—	—	(204)	—	<b>(204)</b>	—	<b>(204)</b>
<i>Total other comprehensive income</i>		—	—	—	<b>52,181</b>	<b>3,365</b>	<b>55,546</b>	<b>495</b>	<b>56,041</b>
<b>Total comprehensive income for the year</b>		—	—	—	52,181	71,524	123,705	718	124,423
<b>Transactions with shareholders of FGC UES recorded directly in equity</b>									
Dividends declared		—	—	—	—	(16,817)	(16,817)	(1)	(16,818)
<b>Total transactions with shareholders of FGC UES</b>		—	—	—	—	(16,817)	(16,817)	(1)	(16,818)
<b>Changes in ownership</b>									
Derecognition of subsidiary	30	—	—	—	—	—	—	1,174	1,174
<b>Total changes in ownership</b>		—	—	—	—	—	—	1,174	1,174
<b>As at 31 December 2016</b>		<b>637,333</b>	<b>10,501</b>	<b>(4,719)</b>	<b>281,759 (198,273)</b>	<b>726,701</b>	<b>1,816</b>	<b>728,417</b>	

# ADDITIONAL INFORMATION

## About Report

Reporting cycle	Annual, for the period from 1 January 2017 to 31 December 2017 <b>(102-50, 52)</b>
Format of the Report	Annual integrated report of PJSC FGC UES
Priority topics of the Report	<ul style="list-style-type: none"> <li>● Contribution of PJSC FGC UES in ensuring the energy security of the Russian Federation</li> <li>● Contribution of PJSC FGC UES to the digital transition in the electric power industry of the Russian Federation</li> </ul>
International Reporting Standards	<p>GRI Sustainability Reporting Standards <b>(102-54)</b> (in accordance with Core option, Content Index is given in <a href="#">Appendix 11</a>)</p> <p>GRI G4 Electric Utilities Sector Disclosures</p> <p>International Integrated Reporting Framework (Compliance table is given in <a href="#">Appendix 11</a>)</p> <p>AA1000 Stakeholder Engagement Standard (2015)</p>
Russian Reporting standards	<p>Regulation on the disclosure of information by issuers of equity securities, approved by the Central Bank of the Russian Federation No. 454-P of 30 December 2014</p> <p>The Corporate Governance Code recommended by the Bank of Russia (Letter No. 06-52 / 2463 of 10 April 2014)</p> <p>Decree of the Government of the Russian Federation No. 1214 of 31 December 2012 “On improving the management of open joint-stock companies, whose shares are in federal ownership, and federal state unitary enterprises”</p>
Date of publication of the previous Report	July 2017 <b>(102-51)</b>
Report Boundaries	<p>PJSC FGC UES, including all branches (MPS and EMPS).</p> <p>Performance indicators and financial and economic indicators of PJSC FGC UES contained in the Report are presented on the basis of the indicators of the financial statements of PJSC FGC UES prepared in accordance with Russian Accounting Standards. Number of financial and economic indicators are given in accordance with the consolidated financial statements under IFRS and are accompanied by relevant notes. <b>(102-45)</b></p> <p><b>(102-48)</b> In comparison with the previous year, the following indicators were restated: the number of accidents at the facilities of PJSC FGC UES, the volume of emissions of pollutants into the atmosphere and volume of water disposal.</p>
Verification of reporting information	<p>The reported information is confirmed by the conclusions of:</p> <ul style="list-style-type: none"> <li>● an independent audit organisation LLC RSM RUS, confirming the reliability of the financial statements under RAS (for Conclusion on the financial statements for 2017 see the <a href="#">Financial Reporting section</a>) and the reliability of the consolidated financial statements under IFRS (for Conclusions of the independent auditor see the <a href="#">Financial Reporting section</a>);</li> <li>● an independent audit organisation LLC FBK, confirming the reliability of the nonfinancial information as well as the compliance of the Report with the GRI Standards and the International Integrated Reporting Framework (for Conclusions of the independent auditor see <a href="#">Additional information section</a>): <b>(102-56)</b></li> <li>● representatives of key stakeholders in the process of public assurance of the Report (for Stakeholder assurance see the <a href="#">Additional information section</a>).</li> </ul>

## Defining Report Content

The purpose of the Report is to inform stakeholders about the Company's performance: strategy and mission, social responsibility and sustainability of business development policies, key events and results, impact on the economy, society, environment, and interaction with stakeholders.

An important change in comparison with the previous year is the transition to the issue of a single integrated annual report instead of an annual report and a report on sustainable development.

### Materiality determination process **(102-46)**

In accordance with the GRI Standards and the International Integrated Reporting Framework, material topics were identified. Representatives of the main stakeholder groups (65 respondents in total) were surveyed, including top management of the Company and employees. Respondents rated relevant topics by two parameters:

- influence on the assessments and decisions of stakeholders;
- significance of economic, environmental, and social impacts (within the topic).

Based on the results of the questionnaire, a materiality matrix was formed. In accordance with the GRI Standards, the topic is material if it is highly valued at least one parameter. Based on this principle, the topics are divided into three groups according to their materiality:

Also, in order to improve the quality of public reporting, it was decided to use the International Integrated Reporting Framework and AA1000 Stakeholder Engagement Standard.

The report is prepared in accordance with the GRI Standards Reporting Principles for defining report content and Reporting Principles for defining report quality.

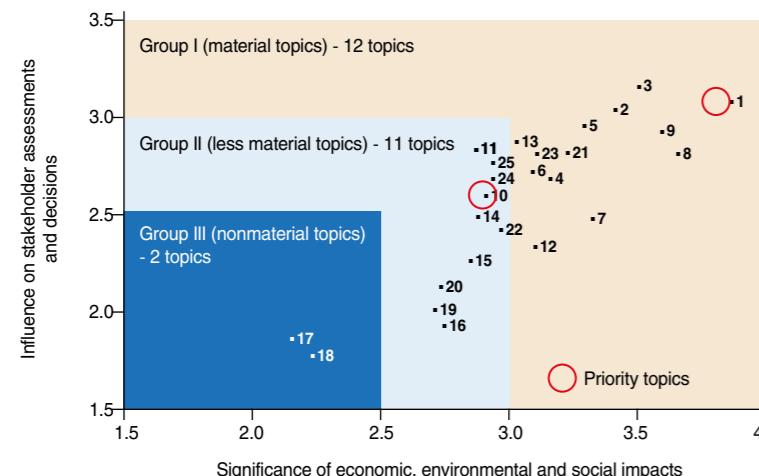
- Group I - material topics that scored more than 3 points at least one parameter;
- Group II - less material topics, from 2.5 to 3 points, at least one parameter;
- Group III - nonmaterial topics that scored less than 2.5 points for both parameters.

The boundaries of the topics: JSC FGC UES, including all branches (MPS and EMPS). **(103-1)** There are no significant changes in coverage and boundaries of the disclosed topics in comparison with previous reports.

**(102-49)**

By the decision of the Working Group on the preparation of the Report, the priority topics of the Report were identified: topic No. 1 “The contribution of PJSC FGC UES in ensuring the energy security of the Russian Federation” and topic No. 10 “The contribution of PJSC FGC UES to the digital transition in the electric power industry of the Russian Federation”.

# Materiality Matrix (102-47)



## **Material Topics of the Report**

## Group I

- 1 The contribution of PJSC FGC UES in ensuring the energy security of the Russian Federation.
  - 2 Growth of economic efficiency and financial stability of PJSC FGC UES.
  - 3 Implementation of the Long-term Development Program of PJSC FGC UES for the period 2015–2019 with a perspective up to 2030.
  - 4 Increase of investment attractiveness.
  - 5 Implementation of infrastructure projects.
  - 6 Management of procurement activities and combating unfair competition.
  - 7 Reduction of transmission losses.
  - 8 Increase of reliability of power supply of regions.
  - 9 Development of the Unified National Electrical Grid.
  - 12 Labor protection, workplace safety.
  - 21 Anti-corruption.
  - 23 Sustainability Management in the Company.

## Group II

- 10 Contribution of JSC FGC UES to the digital transition in the electric power industry of the Russian Federation.
  - 11 Innovative activity.
  - 13 Staff development.
  - 14 Ensuring decent working conditions and respect for the rights of employees.
  - 15 Energy efficiency and internal energy consumption.
  - 16 Conservation of biodiversity, including the preservation of natural habitats along power lines.
  - 19 Environmental requirements for suppliers and contractors.
  - 20 Implementation of the Environmental Policy of PJSC FGC UES.
  - 22 Influence of PJSC FGC UES on social and economic development of regions of presence.
  - 24 The international cooperation.
  - 25 Scientific and technical partnership.

### Group III

- 17 Emissions of air pollutants.  
18 Discharges and wastes generated as a result of the activities of PJSC FGC UES.

On 17 April 2018, as part of the preparation of the Report a public hearing was held on the draft report, which was attended by representatives of major stakeholder groups. The requests and recommendations made at the hearings are taken into account in this Report ([Social and Relationship](#)

**Capital / Interaction with Stakeholders / Interaction with Stakeholders in the Preparation of the Report).** Also, the stakeholders' requests received in the previous reporting campaign and the reviews of the previous report received from Russian and international annual report contests were considered.

## **Responsibility for the Preparation of the Report** (102-32)

The report is approved by the decisions of the Board of Directors (tentatively) and the Annual General Meeting of Shareholders of PJSC FGC UES.

This Report is the first integrated report of PJSC FGC UES.

The Report was prepared by the collective mind of the Company.

Representatives of the main stakeholders were also involved in the process of its preparation.

We are responsible for the integrity of the Report. We believe that the Report is prepared in accordance with the fundamental concepts and principles of the International Integrated Reporting Framework. The report includes all content elements of the <IR>.

**Maria Tikhonova**, Deputy Chairman of the Management Board,  
Member of the Management Board of PJSC FGC UES

## **Disclaimer**

The report contains forward-looking statements regarding production, financial, economic and social indicators characterising the Company's further development. The implementation of plans and intentions is directly related to the political,

economic, social and legal situation in Russia and the world. In this regard, the actual results of the Company's activities in the future may differ from the projected.

# AUDITOR'S REPORT ON NON-FINANCIAL REPORTING

## INDEPENDENT ASSURANCE REPORT ON THE INTEGRATED ANNUAL REPORT OF PUBLIC JOINT-STOCK COMPANY "FEDERAL GRID COMPANY OF UNIFIED ENERGY" FOR 2017

### Introduction

The Independent Assurance Report is addressed to the management of Public Joint-Stock Company "Federal Grid Company of Unified Energy System" (hereinafter referred to as PJSC FGC UES). The subject of assurance is PJSC FGC UES stakeholder engagement in sustainability activities and integrated annual report of PJSC FGC UES for 2017 including information on PJSC FGC UES (hereinafter referred to as the Report).

### Responsibilities

PJSC FGC UES bears responsibility for the preparation of the Report. We are responsible for the conclusions based on the results of independent assurance of the Report only to PJSC FGC UES within the engagement and do not assume any responsibility to any third party.

### Scope, criteria and level of assurance

PJSC FGC UES stakeholder engagement in sustainability activities was evaluated considering the following criterion:

- nature and level of PJSC FGC UES compliance with the principles of the AA1000 Accountability Principle Standard 2008 – inclusivity, materiality, responsiveness.

The Report was evaluated considering the following criteria:

- compliance with the requirements of GRI Sustainability Reporting Standards (Core option);
- compliance with the requirements of the International Integrated Reporting Framework.

The engagement was planned and performed in accordance with AA1000 Assurance Standard 2008 (moderate level of assurance) and International Standard on Assurance Engagement 3000 (revised) "Assurance engagements other than audits or reviews of historical financial information" (limited level of assurance). The statement corresponds to type 2, as defined by AA1000AS 2008, in accordance with the limitations specified in section «Limitations of the engagement» of the present statement. The limited level of assurance obtained through the selective verification of information in

the Report is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. The work was based on the supporting materials provided by the management of the entity and its employees, publicly available information and analytical methods of confirmation. In relation to the quantitative information contained in the Report the work performed cannot be considered sufficient for identification of all possible deficiencies and misstatements. However, the collected evidence is sufficient for expressing our conclusion in accordance with the above levels of assurance.

### Methodology of assurance

In our engagement, we have performed the following procedures:

- study and selective testing of systems and processes implemented by PJSC FGC UES to ensure and analyze the compliance of the activities with AA1000APS 2008 principles; collection of evidence continuing practical implementation of these principles;
- study of minutes of public consultations on the Report draft;
- interviewing the management and employees of head office of PJSC FGC UES and obtaining documentary evidence;
- study of information available on the website of PJSC FGC UES related to its activities in the context of sustainable development;
- study of public statements of third parties concerning economic, environmental and social aspects of the PJSC FGC UES activities, in order to check validity of the declarations made in the Report;
- analysis of non-financial reports of companies working in the similar market segment for benchmarking purposes;
- selective review of documents and data on the efficiency of the management systems of economic, environmental and social aspects of sustainable development in PJSC FGC UES;
- study of the existing processes of collection, processing, documenting, verification, analysis and selection of data to be included into the Report;

- analysis of information in the Report for compliance with the aforementioned criteria.

### Limitations of the engagement

The engagement was performed only in relation to data for the year ended 31 December 2017.

The evaluation of reliability of the information on performance in the Report was conducted in relation to compliance with the criteria to be applied to prepare sustainability report in accordance with the GRI Standards and non-financial information on material topics referred to in the GRI Content Index, as well as in relation to compliance with requirements of the International Integrated Reporting Framework. In respect to the quantitative performance indicators the conformity assessment to external and internal reporting documents provided to us was performed.

Assurance was not performed in relation to forward-looking statements; statements expressing the opinions, beliefs and intentions of PJSC FGC UES to take any action relating to the future; as well as statements based on expert opinion.

Assurance was performed only in relation to the version of the report approved by the Management Board of PJSC FGC UES on 20 April 2018. Assurance was performed in relation to the Russian version of the Report, which includes information to be published in a hard-copy form as well as in digital form on the PJSC FGC UES website.

This statement is the translation of the Russian original. The Russian version prevails.

### Conclusions

The following conclusions are based on the assurance work performed within the limitations of the engagement specified above.

### Nature and extent of compliance of PJSC FGC UES with AA1000 APS 2008 principles

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that PJSC FGC UES stakeholder engagement in sustainability activities has not complied, in all material aspects, with the criteria of AA1000APS 2008 in respect to the principles of inclusivity, materiality and responsiveness.

### Compliance of the Report with the GRI Sustainability Reporting Standards (Core option)

#### *Analysis of compliance to the GRI Standards requirements*

In order to form a position on this issue, we have performed analysis of compliance to the GRI Standards requirements concerning

principles and disclosures for the chosen 'in accordance' option.

- General disclosures are reported in compliance with the requirements of standard GRI 102 (2016) for the chosen 'in accordance' option.
- Management approach disclosures are reported mainly in compliance with the requirements of the standard GRI 103 (2016): explanations of why the topic is material and of how the organization manages the topics are reported for material topics as well as explanations of how the organization evaluates the management approach for some material topics.
- Topic-specific disclosures required for the Core option are reported in compliance with requirements of GRI Standards. If it is not possible to disclose required information, the Report identifies the omitted information.

#### *Overall assessment of the Report*

- Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Report has not complied, in all material aspects, with requirements to the report prepared 'In accordance' with the Core option of the GRI Standards. The conclusion is stated taking into account abovementioned analysis of compliance to the GRI Standards requirements.

### Compliance of the Report with the requirements of the International Integrated Reporting Framework

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Report has not complied, in all material aspects, with the guiding principles of the international Integrated Reporting Framework and with requirements to the structure of content elements of integrated reports.

### Recommendations

1. It is reasonable to disclose GRI indicators in relation to target values and plans for the future.
2. Increase the extent of disclosure of indicators in relation to which requirements of GRI Standards is not fully taken into account (disclosures with omissions).
3. Explain reason of omission in accordance with GRI requirements for every case of disclosure with omissions.
4. Extend disclosure of information on purpose of the management approach and on evaluation of the management approach to all material topics.

### Statement of competence and independence

FBK LLC, an independent audit firm, professionally rendering assurance services, is a member of Self-regulatory organization of auditors Association "Sodruzhestvo" and complies with the Rules of independence of auditors and audit organizations and Code of Professional Ethics for Auditors which corresponds to the Code of Ethics for Professional Accountants prepared by the International Standard Board for Accountants. We have fulfilled other duties in accordance with these requirements of professional ethics. FBK LLC applies international Standard on Quality Control 1 'Quality Control for Firms that Perform Audits and Reviews of Financial Statements and Other

Assurance and Related Services Engagements' and, accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements. Professional standards and applicable legal and regulatory requirements. FBK LLC employs a system of quality control of audit services, including control of compliance to ethical norms.

FBK LLC states that the present assurance report is position of the independent audit firm on the Report.

FBK LLC and its staff have no relations with PJSC FGC UES that could result in the conflict of interest related to the independent assurance of the Report.



V.Y. Skobarev



FBK LLC

Partner  
acting under Power of Attorney No. 101/17 of 2 October 2017  
The Russian Federation, Moscow, May 21, 2018

## STAKEHOLDER ASSURANCE OF THE REPORT

### Introduction

The management of PJSC FGC UES offered us to assess the 2017 Annual Integrated Report (hereinafter referred to as the Report) in terms of the completeness and materiality of information disclosed therein, as well as to assess the management's response to the requests and comments of stakeholders. To this end, the Company provided us an opportunity to participate in:

- materiality determination process (via survey);

### Report Assessment

Our statement is based on a comparative analysis of the two versions of the Report (the Draft Report for the Public Hearings and the final version of the Report) and the materials provided to us based on the results of the Public Hearings (the minutes of the event, including a table of response to the stakeholders' comments), as well as on the comments given by the management and employees of the Company in the course of the public assurance of the Report. In the process of the public

- Public Hearings on the Draft Report, held on 17 April 2018.  
and comment during the Public Hearings held on 20 April 2017 to discuss the Draft Report. At these events, we were free to express our opinion on the issues discussed. We reaffirm our independence and the objectivity of the assessments. We did not receive remuneration from the Company for participating in the public assurance.

assurance of the Report, we did not set the task of verifying the reliability of the information. Confirming the Report's compliance to any reporting standards, both Russian and international, was not the goal of this conclusion either.

The results of our work are formalized in this Conclusion on stakeholder assurance, containing judgments about which we have reached a general agreement.

### Assessments, Comments and Recommendations

We agree in the positive assessment of the Report concerning its format and the scope of disclosed information.

It is extremely important that this is a 16th Report in a raw, prepared by the Company is prepared on a voluntary basis

It is extremely important that the Report has been prepared by the Company for the sixteenth consecutive year and is a good example of increasing transparency and openness of the Company. In 2018, PJSC FGC UES prepared an integrated annual report for the first time, combining in a single document a traditional annual report and a social responsibility and corporate sustainability report, which corresponds to the best practice of preparing

### Materiality

The Report includes materiality matrix, which was determined with the common effort of the Company and stakeholder representatives. In our opinion, all material topics presented on the materiality matrix were disclosed in the Report. We should note that, for the forth year, the Company has been using the procedure for assessing the topic's materiality developed in compliance with the relevant international standards, which allows the Company to take the stakeholders' opinions into account. By material topics we mean topics relevant to the actual or potential impacts on the stakeholder

### Balance and Completeness

In our opinion, all material topics are disclosed in full in the Report. We do not know the facts of concealing material information. The information in the Report is presented in a balanced way: it describes both the positive results of the Company's activities and the problems that the Company faces

### Interaction with Stakeholders During the Preparation of the Report

During the preparation of the Report, the Company demonstrated a high level of willingness to conduct an open dialogue with stakeholders in various areas of its activities. We see that the management of the Company is aware of the constructiveness and prospects for stakeholders engagement.

The Company recorded all the recommendations of the stakeholders in the minutes of the Public Hearings, conducted a thorough analysis, took them into account in the final version of the Report, and also assumed obligations for future reporting periods.

corporate reporting. The integrated nature of the Report allowed FGC UES to comprehensively disclose information on the implementation of the strategy, the Company's performance, the financial and economic results of the year, the results in sustainable development and plans for the future.

Another undoubted advantage of the Report is the use of international standards (GRI Standards, a series of standards of the AA1000 Institute for Social and Ethical Accountability, The International Integrated Reporting Framework).

Our recommendations for improving the quality of public reporting of PJSC FGC UES are listed in the minutes of the Public Hearings (see Appendix 1 to the minutes).

activities or topics which could affect stakeholder assessments and decisions about the Company.

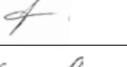
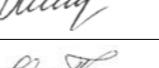
Priority topics of the Report "The contribution of PJSC FGC UES in ensuring the energy security of the Russian Federation" and "The contribution of PJSC FGC UES to the digital transition in the electricity industry of the Russian Federation" are disclosed both in special sections of the Report, and throughout the text of the Report, interviews with representatives of the Company's management and its stakeholders. In our opinion, all significant information on priority topics was disclosed.

and solves them. In order to more accurately adhere to the principle of completeness, the Report contains references to regulatory documents and additional public sources of information, including the ones posted on the corporate website.

We also consider it necessary to note that our proposals for the reports of future periods, expressed in the discussion of the social responsibility and corporate sustainability report for 2016, were taken into account in the preparation of the Report for 2017.

We hope that the Company will continue to consistently introduce principles of responsible corporate behavior into its operations through improving the quality of annual reports and interaction with stakeholders.

**Signatures of the Approving Parties**

Full name	Entity	Signature
Mikhail S. Andronov	President of LLC Rusenergosbyt	
Eugene V. Basov	Deputy Head of the Department "World Electric Power Engineering" of the International Institute of Energy Policy and Diplomacy of the Moscow State Institute of International Relations, MFA of Russia, Ph.D.	
Lyudmila Y. Gribinyuchenko	Head of Department, Moscow Exchange	
Arkady V. Zamoskovny	CEO of the All-Russian branch association of employers of electric power industry (RaEl)	
Elena V. Zubakina	Director for Development of the Bird Protection Union of Russia	
Aleksander Y. Ignatov	Acting President of the Association "Global Energy"	
Tatyana M. Mamanova	CEO CJSC NTF Energoprogress	
Nikita A. Remnev	The head of the headquarters of student construction brigades of the Moscow Power Engineering Institute	

**GLOSSARY AND ABBREVIATIONS****Abbreviations**

<b>DECT</b>	Digital European Cordless Telecommunications
<b>EBITDA</b>	Earnings Before Interest, Taxes, Depreciation and Amortization
<b>ISIN</b>	International Securities Identification Number
<b>IT</b>	Information Technology
<b>RAB</b>	Regulatory Asset Base
<b>APCS</b>	Automated Process Control System
<b>ACS</b>	Automated control system
<b>ATS</b>	Automatic telephone station
<b>NPP</b>	Nuclear power plant
<b>BAM</b>	The Baikal-Amur Mainline
<b>GDP</b>	Gross domestic product
<b>OHL</b>	Overhead line
<b>FOCL</b>	Fiber-optic communication line
<b>ESPO</b>	The oil pipeline system "Eastern Siberia - Pacific Ocean"
<b>GDR</b>	Global Depository Receipts
<b>HPP</b>	Hydro Power Plant
<b>SSA</b>	Subsidiaries and Affiliates
<b>UNEG</b>	Unified national (all-Russian) electric grid
<b>ESUPCN</b>	Energy System's Unified Process Communications Network

<b>UES of Russia</b>	Unified Energy System of Russia
<b>CIMS</b>	Corporate Information Management System
<b>KPI</b>	Key Performance Indicator
<b>PL</b>	Power Line
<b>ISPL</b>	Interstate power line
<b>MEDRF</b>	Ministry of Economic Development of the Russian Federation
<b>MERF</b>	Ministry of Energy of the Russian Federation
<b>IFRS</b>	International Financial Reporting Standards
<b>MPS</b>	Main power system
<b>RGR</b>	Required gross revenue
<b>VAT</b>	Value added tax
<b>R&amp;D</b>	Research and development
<b>OSG</b>	Outdoor switchgear
<b>WECM</b>	Wholesale electricity and capacity market
<b>UES</b>	United Energy System
<b>EMPS</b>	Enterprise of main power system
<b>SS</b>	Substation
<b>RAS</b>	Russian Accounting Standards
<b>DC</b>	Distribution company
<b>ICS</b>	Internal control system
<b>MM</b>	Mass media
<b>Transsib</b>	The Trans-Siberian Railway
<b>FEC</b>	Fuel and energy complex
<b>TPP</b>	Thermal power plant
<b>FL</b>	The federal law
<b>FTS of Russia</b>	Federal Tariff Service of the Russian Federation
<b>FTP</b>	Federal Targeted Programme

**Units of measure**

<b>GW</b>	gigawatt	<b>mln</b>	million
<b>kV</b>	kilovolt	<b>bn</b>	billion
<b>kW</b>	kilowatt	<b>PP</b>	percentage point
<b>sq. km</b>	square kilometer	<b>RUB</b>	Russian rouble
<b>kWh</b>	kilowatt-hour	<b>t</b>	ton
<b>km</b>	kilometer	<b>t.f.e.</b>	tonnes of fuel equivalent
<b>cub. m</b>	cubic metre	<b>thous.</b>	thousand
<b>MVA</b>	megavolt-ampere	<b>h</b>	hour
<b>MVar</b>	megavolt-ampere reactive	<b>pcs</b>	pieces
<b>MWh</b>	megawatt-hour		

## CONTACTS

<b>Full company name</b>	Public Joint Stock Company Federal Grid Company of the Unified Energy System
<b>Abbreviated name</b>	PJSC FGC UES
<b>Form of ownership (102-5)</b>	Mixed Russian property with a share of federal property
<b>Location of headquarters (head office) (102-3)</b>	Russian Federation, Moscow
<b>Postal address (102-3)</b>	5A Academician Chelomey Str., 117630, Moscow
<b>Phone fax</b>	Unified information center: 8-800-200-18-81  For calls from the countries of near and far abroad: +7 (495) 710-93-33 Fax: +7 (495) 710-95-67
<b>E-mail</b>	info@fsk-ees.ru
<b>Primary State Registration Number of Legal Entity</b>	1024701893336
<b>Taxpayer Identification Number</b>	4716016979
<b>Main activity</b>	Transmission of electricity through main grids and power supply to consumers throughout the Russian Federation
<b>Website address</b>	<a href="http://www.fsk-ees.ru">http://www.fsk-ees.ru</a>
<b>Information about the registrar</b>	Joint Stock Company Registrar society STATUS 32 Novorogozhskaya Str., building 1, 109544, Moscow, Russia <a href="http://www.rostatus.ru">http://www.rostatus.ru</a>

### Additional contacts (102-53)

#### Contact information for institutional investors and analysts

**phone:** 8 (800) 200-18-81  
**fax:** +7 (495) 710-96-41

**Yegor Toropov**  
**phone:** 8 (800) 200-18-81  
**add.** 22-75  
**e-mail:** toropov-ev@fsk-ees.ru

**Aleksey Novikov**  
**phone:** 8 (800) 200-18-81  
**add.** 21-43  
**e-mail:** novikov-as@fsk-ees.ru

#### Department of External Communications and Interaction with Authorities:

**Yulia Ratnikova**  
**phone:** 8 (800) 200 18 81  
**add.** 2097  
**e-mail:** ratnikova-yd@fsk-ees.ru

#### Department of Corporate and Strategic Management

**Oksana Verstakova**  
**phone:** +7 495 710 9028  
**e-mail:** verstakova-op@fsk-ees.ru

### Information on state registration

**Data on primary state registration:**  
state registration number: 00/03124  
date of state registration: 25 June 2002

**Name of the body that carried out the state registration:**  
the Leningrad Regional Registration Chamber

**Data on the registration of a legal entity:** the main state registration number of a legal entity: 1024701893336

**Date of entry of a record of a legal entity registered before 1 July 2002 into the unified state register of legal entities:** 20 August 2002

**Name of the registering authority:** Inspection of the Ministry of Taxation of the Tosno District of the Leningrad Region

### Registrar

**Organisation that maintains the register of holders of registered securities - registrar:**  
Joint-stock company Registrar company STATUS (JSC STATUS)

**Address:** 32 Novorogozhskaya Str., building 1, 109544, Moscow, Russia

**Phone:** +7 (495) 974-83-50

**Fax:** +7 495 678 7110

**Hot line for shareholders of PJSC FGC UES:** 8 (800) 500-05-52

**E-mail address:** info@rostatus.ru

**License number:** 10-000-1-00304

**Date of issue of the license:** 12 March 2004.

**Validity of the license:** no expiration date

**Issuing authority:** FFMS of Russia

### Depository

**Information on the depository, which performs centralised storage of securities:**

Non-bank credit organisation Closed Joint-Stock Company National Settlement Depository (NCO CJSC NRD)

**Address:** 12 Spartakovskaya Str., 105066, Moscow

**Phone:** +7 (495) 234-99-60

**Email Address:** sales@nsd.ru

**License number:** 177-12042-000100

**Date of issue of the license:** 19 February 2009.

**Validity of the license:** no expiration date

**Issuing authority:** FFMS of Russia

## List of Appendices

The following appendices are available on the Company's official website at [http://www.fsk-ees.ru/shareholders\\_and\\_investors/disclosure\\_of\\_information/annual\\_reports/](http://www.fsk-ees.ru/shareholders_and_investors/disclosure_of_information/annual_reports/) and in the electronic version of the 2017 Annual Report of PJSC FGC UES:

- Appendix 1.** Additional Information on the Sections of the Annual Report **(102-7, 102-13, 102-30, 302-4)**
- Appendix 2.** Minutes of the Public Hearings on the Draft Report
- Appendix 3.** Report on Compliance with the Russian Corporate Governance Code
- Appendix 4.** Information on Major Transactions and on Transactions carried out by PJSC FGC UES in 2017, classified under the legislation of the Russian Federation as Related Party Transactions Subject
- Appendix 5.** Information on the Actual Execution of Instructions of the President and the Government of the Russian Federation
- Appendix 6.** Information on the Participation of PJSC FGC UES in Commercial and Non-commercial Organisations in 2017 **(102-13)**
- Appendix 7.** Information on Concluded Purchase Agreements of Shares, Stocks, Equity Interest of Business Partnership and Business Entities Including Information on Parties, Subject, Price and other Terms of Agreements
- Appendix 8.** Information on the Disposal of Non-core Assets in 2017
- Appendix 9.** Species listed in the IUCN Red List
- Appendix 10.** Register of Specially Protected Natural Territories **(304-1)**
- Appendix 11.** GRI Content Index and <IR> Table of Compliance
- Appendix 12.** Annual accounting statements of PJSC FGC UES for 2017 under RAS
- Appendix 13.** Consolidated Financial Statements of PJSC FGC UES for 2017 under IFRS

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## Appendix 1

### ADDITIONAL INFORMATION ON THE CHAPTERS OF THE ANNUAL REPORT

#### Strategic Report

##### International activity

**(102-13)** The Russian National Committee of International Council on Large Electric Systems (RNC CIGRE)

Chairman of the Management Board of PJSC FGC UES Andrey Murov has been the Chairman of the RNC CIGRE since 2015. In 2017, Russia first came in first place in Europe and the fifth in the world in terms of the number of members of CIGRE (after China, Brazil, USA and Japan).

In 2017, with the support of PJSC FGC UES and RNC CIGRE, a number of major events of international scientific and technical exchange took place:

- International Conference "Relay Protection and Automation - 2017",
- Round table «New specialties in the electric power industry in the era of the digital economy» in the framework of the Moscow International Salon of Education,
- International Colloquium of the Research Committee (SC) D2 CIGRE in the area of Information Systems and Telecommunications,
- International conference-exhibition "Digital substation. Standard IEC 61850".

In October 2017, an agreement on cooperation between Vnesheconombank and RNC SIGRE was signed. Subjects of the agreement: search of projects in the branches of energy infrastructure, engineering and electrical engineering; support innovative development of domestic technology; exchange of technical and economic information, as well as interaction on the functioning of the wholesale and retail electricity and capacity markets.

PJSC FGC UES is an organisation for the management of the unified national (all-Russian) electric grid (UNEG)<sup>1</sup>. Since 2004, FGC UES has acted as a carrier of electricity across the border of the Russian Federation and is a technical executor under commercial contracts of export / import participants at the Wholesale Electric Energy Market.

PJSC FGC UES renders services for the transmission of electric power in the territory of the Russian Federation to the state border of the Russian Federation in accordance with the terms of the contract with PJSC Inter RAO through grid facilities belonging to the UNEG and owned or otherwise legally owned by PJSC FGC UES.

<sup>1</sup>On the basis of the Federal Law of March 26, 2003 No. 35-FZ  
«On Electric Power Industry».



### Export and import of electricity under contracts of PJSC Inter RAO

#### Actual electricity exports, million kWh

Country	2013	2014	2015	2016	2017
Azerbaijan	57	53	55	60	63.4
Belarus	3,597	1,425	2,815	3,181	2,733
Georgia, South Ossetia	594	767	657	557	653.3
Kazakhstan	1,668	1,644	1,542	1,164	1,294
China	3,495	3,376	3,299	3,320	3,319
Latvia	0	0	0	0	0
Lithuania	3,568	3,215	2,995	3,018	3,131
Estonia	0	0	0	0	0
Mongolia	414	390	284	300	371.2
Ukraine	39	178	2,462	120	94
Finland	4,107	2,995	3,383	5,282	5,040
<b>Total:</b>	<b>17,539</b>	<b>14,043</b>	<b>17,492</b>	<b>17,002</b>	<b>16,699</b>

#### Actual electricity imports, million kWh

Country	2013	2014	2015	2016	2017
Azerbaijan	129	134.2	108	120	117.3
Belarus	1.935	0.260	0.058	0.058	0
Georgia, South Ossetia	371	160	170	147.6	262
Kazakhstan	3,931	3,084.4	990	2,726	5,736
China	0	0	0	0	0
Latvia	0	0	0	0	0
Lithuania	99	43.2	115	115.6	85.3
Estonia	0	0	0	0	6.3
Mongolia	23	30.4	54	34	23
Ukraine	6	0	4	0	0
Finland	3	0.234	23	0	0
<b>Total:</b>	<b>4,564</b>	<b>3,453</b>	<b>1,464</b>	<b>3,143</b>	<b>6,230</b>

Power transmission lines crossing the state border of the Russian Federation comply with the criteria for assigning electric grid facilities to the UNEG<sup>2</sup>.

<sup>2</sup>According to the resolution of the Government of the Russian Federation No. 41, of 26.01.2006.

PJSC FGC UES collects and processes information on the movement of electricity through 133 interstate power lines (IPL) based on data of commercial electricity metering devices.

Currently, there are agreements on the parallel operation of the Unified Energy System of the Russian Federation with the electric power systems of foreign countries, the parties to which are PJSC FGC UES and

economic entities of countries – Georgia, Azerbaijan, Kazakhstan, the Baltic and the Republic of Belarus. In addition, agreements on the technical maintenance of parallel work have been signed with Ukraine and the Republic of Belarus, as well as with Mongolia. The Intersystem Agreement with Finland and the Inter-system Agreement with the People's Republic of China.

#### The main directions of international cooperation of PJSC FGC UES:

- exchange of experience in the field of investment planning, construction, operation, maintenance and management of the main power system, as well as quality control;
- staff development and training;
- consulting services;
- organisation of procedures and facilities for testing, repair and maintenance of equipment;
- development of new technologies, technological exchange and supply of electrical equipment and supply of electrical equipment.

#### The results of 2017. The signed contracts and agreements in 2017

##### Vietnam

Within the framework of the working trip of A.E. Murov, Chairman of the Management Board of PJSC UES FGC to the Socialist Republic of Vietnam, a Memorandum of Understanding was signed on 02.08.2017 between PJSC FGC UES and EVNNPT.

On 08.09.2017, PJSC FGC UES took part in the 20th meeting of the Intergovernmental Russian-Vietnamese Commission for Trade, Economic, Scientific and Technical Cooperation chaired by I.I.

Shuvalov in the Socialist Republic of Vietnam (Ho Chi Minh City).

The final protocol of the Commission noted the signing of the Memorandum of Understanding between PJSC FGC UES and EVNNPT, and also stressed the need to accelerate its implementation.

##### India

The cooperation with one of the largest electric grid companies in the world - the Power Grid Corporation of India Limited (PGCIL) has continued.

#### Plans for 2018 and medium term

In these areas of cooperation, PJSC FGC UES plans to maintain and develop ongoing initiatives in Vietnam and India, as well as the consistent

diversification of international cooperation by the countries of West and East Asia.

#### Activities of FGC UES representatives in the ER BRELL Committee and the CIS Electric Power Council

**(102-13)** In 2017 representatives of PJSC FGC UES took part in meetings of the ER BRELL Committee (Belarus, Russia, Estonia, Latvia, Lithuania energy ring), meetings of the Working Groups of the ER BRELL Committee on Planning and Operational Management (WG POC), a meeting of the heads of the parties of the Agreement on the parallel operation of the ER BRELL.

At the committee meetings, the WG POC considered a number of issues ensuring reliable operation of the BRELL energy ring.

The following documents were approved at the meeting of the heads of the parties: Regulations on the procedure and conditions for the organisation of safe performance of repair work on interstate power transmission lines of the ER BRELL; changes in the Instruction for preventing the development and elimination of violations of the normal regime in the ER BRELL; changes in the Regulations on the organisation of the operational and dispatching management of the synchronous operation of the UES of Belarus, UES of Russia, ES of Estonian, ES of Latvia and ES of Lithuania.

In 2017 representatives of PJSC FGC UES took part in the meetings of working groups and coordination councils of the CIS Electric Power Council. The following documents were developed and agreed upon: Safety regulations for the operation of gas-insulated equipment,

Recommendations for the qualification of instructors and instructors engaged in the professional training of personnel of energy companies of the CIS member states using hardware and software, Instruction for investigating and recording technological irregularities in the work of interstate Electric power facilities, Conceptual approaches of technical regulation and standard The methodology for monitoring the quality of electricity transferred across interstate transmission lines and determining the source of violations (distortions) in the quality of electricity, Analytical review of the Roadmap for priority areas of RES development for the CIS member states, etc.

In November 2017, PJSC FGC UES took part in the 51st meeting of the CIS Electric Power Council chaired by the President of the CIS EPC - Minister of Energy of the Russian Federation A.V. Novak, which was held in Tashkent.

During the meeting, the documents developed in the working groups and coordination councils were approved and reports were heard on the implementation of action plans for the implementation of the concept of cooperation of the CIS member states in the energy sector, on the report of the CIS EPC for 2016, on the implementation of the strategy for interaction and cooperation of the CIS member states in the field of electric power engineering, etc.

### List of other programmes within the framework of strategic development plans

Company's programmes within strategic development plans and the Long-term programme for the development	Decision on approval
Long-term development programme	The long-term development programme was approved by the decision of the Board of Directors (Minutes No. 243, of 22.12.2014).
Investment programme	The investment programme of PJSC FGC UES for the period 2016-2020 approved in 2016 (Order of the Ministry of Energy of the Russian Federation No. 1432 of 28.12.2016 and adjusted in 2017 – Order of the Ministry of Energy of the Russian Federation No. 312, of 27.12.2017).
Innovative Development Programme	The programme of innovative development of PJSC FGC UES for 2016-2020 with a perspective up to 2025, approved by the decision of the Board of Directors of PJSC FGC UES (Minutes No. 328, of 28.06.2016). The adjusted programme of innovation development was approved by the decision of the Board of Directors of PJSC FGC UES (Minutes No. 370, of 07.06.2017).
Unified Technical Policy	The Regulation on the Unified Technical Policy in the power grid complex was approved by the Board of Directors of PJSC Rosseti (Minutes No. 138, of 23.10.2013) and put into effect as an internal document of PJSC FGC UES by the decision of the Board of Directors of PJSC FGC UES (Minutes No. 208 of 27.12.2013).
Programme of import substitution of equipment, technologies, materials and systems	Approved by the Order of PJSC FGC UES No. 455 of 10.10.2014. No approval is required from the Board of Directors.
Corporate plan of import substitution of PJSC FGC UES	Approved by the order of PJSC FGC UES No. 494 of 28.11.2017 "On the implementation of the corporate plan of import substitution".
The programme of energy saving and energy efficiency improvement for the period 2015-2019.	Approved by the decision of the Board (excerpts No. 1326/2 of 04.08.2015). Updated in accordance with the new requirements of the order of the Federal Tariff Service of Russia No. 525-e of 26.03.2015 and the order of the Ministry of Energy of Russia No. 398 of 30.06.2014.
The programme to increase investment and operational efficiency and cut costs of PJSC FGC UES	Approved by the Board of Directors as part of the Business Plan for 2017-2021 (Minutes No. 365 of 05.05.2017).
Environmental policy	Approved by the Board of Directors of PJSC FGC UES (Minutes No. 230 of 30.09.2014).

### Strategic priorities and tasks

In accordance with paragraph 2 of Art. 7 of the Federal Law No. 35-FZ of March 26, 2003 (FZ-35) "On Electric Power Industry", owners or other legal owners of electric grid facilities included in the UNEG are limited in exercising their rights in part:

- the right to conclude contracts for the provision of services for the transmission of electrical energy using the grid facilities included in the UNEG and to determine the terms of these contracts;
- use (decommissioning) of these facilities without agreement with the organisation for the management of UNEG.

PJSC FGC UES is an organisation for the management of UNEG.

In order to ensure the unity of the economic space in the sphere of circulation of electric power in accordance with the provisions of FZ-35, PJSC FGC UES concludes agreements with third parties on its behalf for the

provision of services for electric power transmission using owned by other owners or other legal owners of electric grid facilities included in the UNEG, agrees their use (decommissioning), as well as provides return to owners or other lawful owners of the income received as a result of their rights.

In the event that economic feasibility is available for PJSC FGC UES with owners and / or other legal owners of UNEG facilities, lease and purchase and sale agreements may be concluded in accordance with which PJSC FGC UES acquires the rights of possession and use of property on a reimbursable basis, and as well as property rights to UNEG facilities.

As of December 31, 2017, between the PJSC FGC UES and the owners / other legal owners of the UNEG facilities, 10 contracts have been concluded that define the use of the facilities and 11 lease agreements.

### Monitoring of the volumes of consolidation of electric grid assets

	2015			2016			2017		
	The volume of consolidation of electric grid assets for the period			The volume of consolidation of electric grid assets for the period			The volume of consolidation of electric grid assets for the period		
	MVA	Km	C.u.	MVA	Km	C.u.	MVA	Km	C.u.
TOTAL PJSC FGC UES	6,738.08	3,814.91	30,741.47	6,738.08	3,785.22	31,890.79	6,897.45	4,429.86	35,620.80
Acquisition of electric grid facilities*	-	-	-	-	-	-	500.00	725.16	3,730.00
Rent of electric grid facilities**	6,512.98	3,585.03	26,422.65	6,512.98	3,555.34	27,571.96	6,172.35	3,474.82	27,571.96
Other (permanent tenure rights)	-	-	-	-	-	-	-	-	-
Other (temporary possession and use rights)***	225.10	229.88	4,318.83	225.10	229.88	4,318.83	225.10	229.88	4,318.83

\* As part of the investment programme of PJSC FGC UES, the Company purchased the grid facilities included in the register of UNEG facilities and built within the framework of joint infrastructure projects with PJSC Polyus and PJSC GMK Norilsk Nickel in order to develop the electric grid infrastructure of the Irkutsk region, Krasnoyarsk Territory and the Trans-Baikal Territory.

\*\* The consolidation of the Company's grid assets includes the lease of the objects of subsidiaries - OJSC Kuban backbone grids and OJSC Tomsk backbone grids.

\*\*\* Pursuant to point 4 of the order of the Government of the Russian Federation No. 2243-r dated 02.12.2013, between the local office of the Federal Property Management Agency in Krasnodar Krai and the Company, agreements were concluded for the uncompensated use of property constituting the property of the state treasury of the Russian Federation, the object of which is the electric grid real estate of the distribution grid complex located in Adler district of Sochi, Krasnodar Territory, built for the purpose of organising and conducting the XXII Olympic Winter Games and the XI Paralympic Winter Games in Sochi 2014

## Key Performance Indicators

There have been a number of changes in the KPI system of top managers in 2017 compared to the previous year.

In terms of quarterly KPI:

- the indicator of financial stability and liquidity is excluded from the composition of quarterly KPIs;
- as agreed with the Ministry of Energy of the Russian Federation, the following indicators were included in the quarterly KPI indicators: "Consolidated operating profit (EBITDA)", "Consolidated net debt / EBITDA", "Implementation of an action plan to reduce receivables";
- in agreement with the Ministry of Energy of Russia, the indicators "Absence of growth in major accidents" and "Absence of Increase in the Number Injured in Accidents" were transferred to the condition of quarterly award: if both parameters are not met, the quarterly premium is not paid, if one of them fails to perform, the bonus fund is reduced by 25%.

In terms of annual KPI:

- the following indicators are excluded from the composition of the annual KPI: "Return on investment of shareholders (TSR, Total Shareholder Return)", "Return on invested capital (ROIC)".

- the indicator "Proportion of purchases from small and medium-sized enterprises" is excluded from the composition of the annual KPIs. In 2016, the indicator was indicative and did not participate in the bonus system of the Company's top managers;
- the annual bonus condition is excluded – the performance of the indicator "Reduction of specific operating costs". This indicator is included in the annual KPI of the Company;
- in order to increase the awareness of the participants in the planning process for the development of the distribution grid complex and new applicants for technological connection about the current load of capacity, the annual indicator «Increase in the load of capacity of the electric grid equipment» is included;
- in agreement with the Ministry of Energy of Russia, with the goal of a step-by-step increase in the net cash flow of the Rosseti Group, the annual indicator "Consolidated net cash flow" is included;
- the target values of the annual indicators have been changed: "Reduction of specific operating costs", "Level of energy losses", "Increase in labor productivity" and "Implementation of the commissioning schedule".

## Performance Results of Year 2017

### Manufactured capital

#### Quality Management System (QMS)

QMS is a part of the Company's management system. It is designed to ensure the high quality of the services provided in accordance with the requirements of regulatory documents, the needs and expectations of consumers and to satisfy of all stakeholders, including employees, shareholders, investors and partners of the Company.

The Company has developed and approved by the decision of the Board of Directors<sup>3</sup> the Regulation on the Quality Management System of PJSC FGC UES.

The Regulations contain a description of the main elements of the quality management system of

PJSC FGC UES, including the executive office and branches, regarding activities of the Company.

The Regulation is the main document regulating the quality management system of the Company.

The Regulation is used as a means of forming and achieving the Company's objectives for providing services for the long-term provision of the energy integrity (security) of the Russian Federation and for reliable, qualitative and affordable power supply to consumers of the Russian Federation.

PJSC FGC UES plans for 2018-2019 is to implement the QMS and certify it in accordance with the international standard ISO 9001: 2015.

#### Environmental Management System (EMS)

EMS – is a part of the Company's management system. It includes organisational structure, activity planning, responsibility allocation, practical work, as well as procedures, processes and resources for the development, implementation, evaluation of the achieved results of implementation and improvement of the Environmental Policy.

The main objective of the implementation and operation of EMS is the application of new management methods that enable to strengthen the influence on the environmental aspects of the Company's production and economic activities.

Effective functioning of EMS allows to establish unified approaches to environmental management in PJSC FGC UES, to minimise the negative impact of production factors on the environment, while addressing both economic and environmental objectives.

In accordance with the Directive of the Russian Federation Government on the implementation of

voluntary environmental liability mechanisms<sup>4</sup> and for the implementation of the tasks defined in the Environmental Policy of PJSC FGC UES, and in pursuance of the decision of the Board of Directors of PJSC FGC UES<sup>5</sup>, the Company implemented a project for the introduction and certification of a unified system environmental management for compliance with the requirements of the international standard ISO 14001.

In 2017, the approach to the environmental management system was improved and new requirements for managing the risks associated with the impact on the environment were established due to the transition of EMS to the new version of the ISO 14001: 2015 standard. Recertification audit confirmed the full compliance of the EMS with the requirements of ISO 14001: 2015. The certificate issued on the basis of an independent verification and it is valid until 2020.

#### Power Management System (PMS)

PMS – is a part of the Company's management system. It provides constant monitoring, that allows us to have knowledge about the distribution and levels of energy consumption in the enterprise, as well as on the optimal use of energy resources for both production and non-production needs.

In 2017, the corporate power management system of PJSC FGC UES (across the Company) was certified for compliance with the requirements of the international

standard ISO 50001: 2011 «Energy management systems. Requirements and guidance on the application» (National Standard RF GOST R ISO 50001-2012) with the scope of certification «Provision of services for the transmission and distribution of electricity».

The results of the audit by an independent organization did not reveal any inconsistencies with the requirements of the international standard.

<sup>3</sup>Minutes No. 291/3 of 19.11.2015.

<sup>4</sup>No. 1710p-P13 of 30.03.2012.

<sup>5</sup>Minutes No. 230/15 of 03.10.2014.

## Industrial and Occupational Safety Management System (IOSMS)

There is a Regulation on the Occupational Safety Management System in the PJSC FGC UES.

### Certificates of the executive office and branches of the Company\*

	Management Systems / Certificate validity period			Certification body
	ISO 9001	ISO 50001	ISO 14001	
Executive office and all branches		20.12.2020		Test-St. Petersburg LLC (IQNet Certificate No. RU-13CK03.00757 of the compliance with the standard ISO 50001: 2011 of 21.12.2017)
Executive office		ISO 14001: 2015 until 06.12.2020 Certification Association Russian Register		
MPS Center				
MPS Siberia				
MPS East				
MPS Ural				
MPS South				
MPS Volga				
MPS North-West				
MPS Western Siberia				

\* ISO 9001 - quality management system,  
ISO 14001 - Environmental Management System,  
ISO 50001 - energy management system,  
OHSAS 18001 - the system of management of industrial safety and labor protection.

### The main participants of management systems are:

- Board of Directors of the Company;
- the executive bodies of the Company - the CEO and the Management Board;
- representative of the Company's management for the relevant management system;
- a structural unit that carries out functions to organize the functioning of management systems;
- structural units of the Company and SDCs participating in the process of functioning of management systems.

## Main Results of the Functioning of Management Systems

- Growth of reliability and quality of power supply.  
For information, see "Manufactured Capital / Increased reliability of the power supply in the Russian regions" section, page 54, and "Appendix 1 / Manufactured capital" section, page 255.
- Growth of the power supply safety.  
For information, see "Manufactured capital / Results of industrial safety" section, page 56, and "Appendix 1 / Manufactured capital" section, page 256.
- Ensuring occupational health and safety during the production activities, including a reduction in the total number of accidents, while respecting the requirements of legislation in the field of labor protection and environmental protection. For information, see "Human Capital / Occupational Safety and Health" section, page 114, and "Appendix 1 / Human Capital", page 289.
- Energy efficiency growth.  
For information, see "Natural Capital / Energy Efficiency and Internal Energy Consumption" section, page 104, and "Appendix 1 / Natural Capital" section, page 287.
- Ensuring environmental safety.  
For information, see "Natural Capital" section, page 94, and "Appendix 1 / Natural Capital" section, page 288.
- Improving the quality of technological connection services.  
For information, see "Manufactured Capital / Technological connection" section, page 53, and "Appendix 1 / Natural Capital" section, page 260.

**Corporate standards of PJSC FGC UES (normative and technical documents), developed in 2017**

No	Area	Title	Registration number
<b>Documents approved in 2017</b>			
1.	Relay Protection and Automatic Equipment, Automated Process Control System	Technical requirements for microprocessor-based relay protection and automation devices	SO 56947007-29.120.70.241-2017
2.	OTL, CL	Spacers interfacial isolating for OTL 110-500 kV. Typical technical requirements	SO 56947007-29.120.10.242-2017
3.	OTL, CL	Monitoring systems for 110 kV and higher CL with XLPE insulation. Typical technical requirements	SO 56947007-29.060.20.243-2017
4.	Metrology	Norms of measurement accuracy of regime and technological parameters measured at the facilities of PJSC FGC UES. Methodological instructions for determining the metrological characteristics of measuring channels and complexes	SO 56947007-29.240.01.244-2017
5.	Digital technologies	Central receiving and transmitting station (CRTS). Typical technical requirements	SO 56947007-25.040.20.245-2017
6.	Relay Protection and Automatic Equipment, Automated Process Control System	Typical control schemes for power equipment of SS by means of automated process control system	SO 56947007-25.040.40.246-2017
7.	OTL, CL, SS	Reinforced concrete poles of 35-750 kV OTL on the basis of centrifuged sectional racks. Technical requirements	SO 56947007-29.120.90.247-2017
8.	OTL, CL, SS	Standards for technological design of AC substations with a higher voltage of 35-750 kV (STD SS)	SO 56947007-29.240.10.248-2017
9.	OTL, CL, SS	Rules for representation of principal electrical circuits of substations	SO 56947007-29.240.10.249-2017
10.	OTL, CL, SS	Composition of documentation for checking the quality of equipment, materials and systems. Typical technical requirements	SO 56947007-29.240.01.251-2017

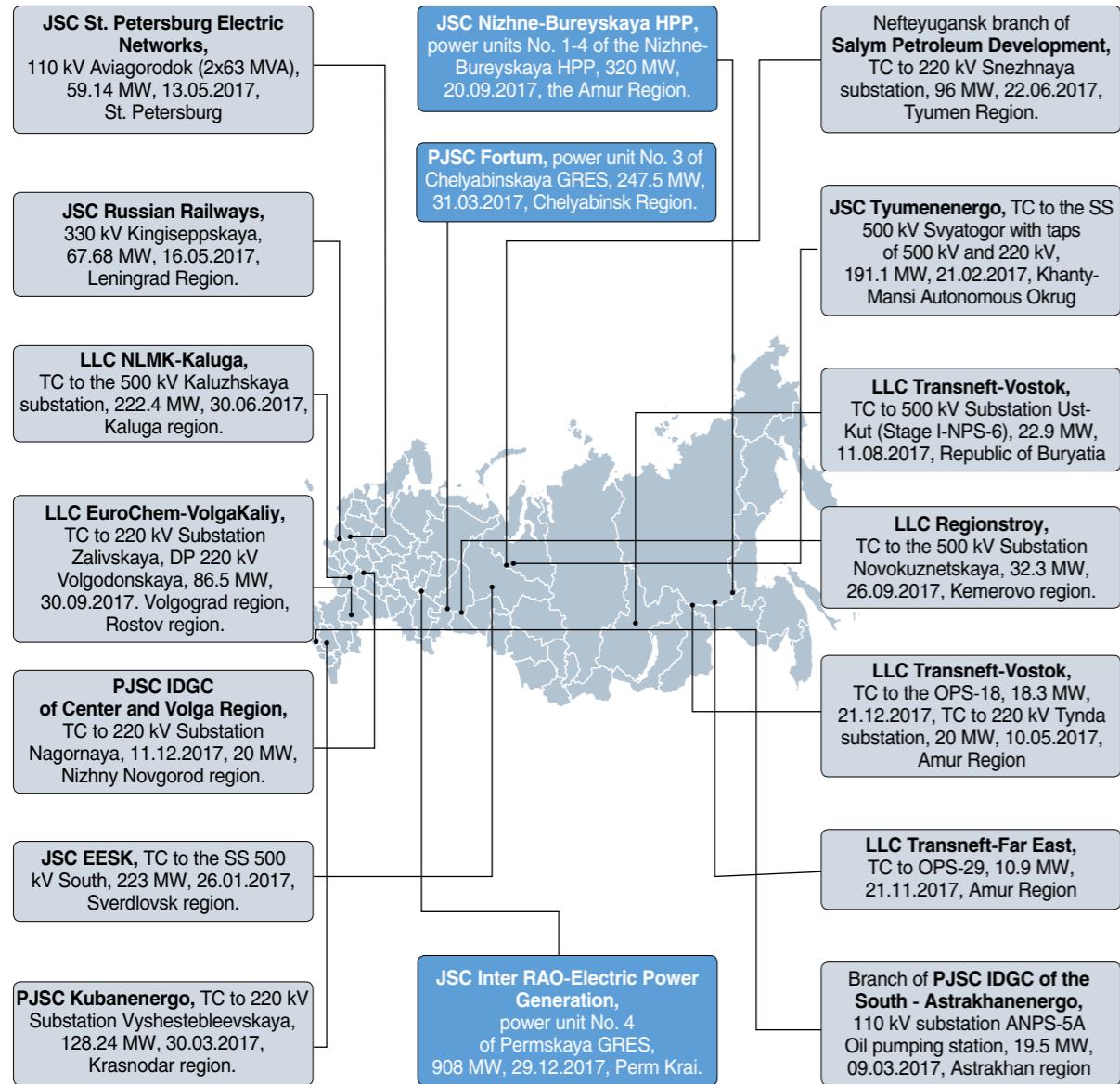
**Plans to develop normative and technical documents**

1.	Digital technologies	Grids and communication systems in substations (based on the IEC 61850 group of standards)
2.	Digital technologies	Industrial communication networks. Networks with high availability for automatic processing. Part 3.IEC 62439-3
3.	Digital technologies	Synchronization of the exact time of the network protocol for measuring and control systems. IEC 61588 ed. 2.0.
4.	Digital technologies	Measuring transformers IEC 61869 (parts 7, 8, 9, 13)
5.	Digital technologies	Methodical instructions for designing the DSS
6.	Digital technologies	Technical requirements for the hardware and software and electrical equipment of the DSS.
7.	Digital technologies	Guidelines for the operation of DSS equipment
8.	Digital technologies	Current transformers, electronic, measuring with digital output according to IEC 61850. Test methods
9.	Digital technologies	Electronic voltage measuring transformers with digital output according to IEC 61850. Test methods
10.	Digital technologies	Analog-to-digital couplers. Test methods

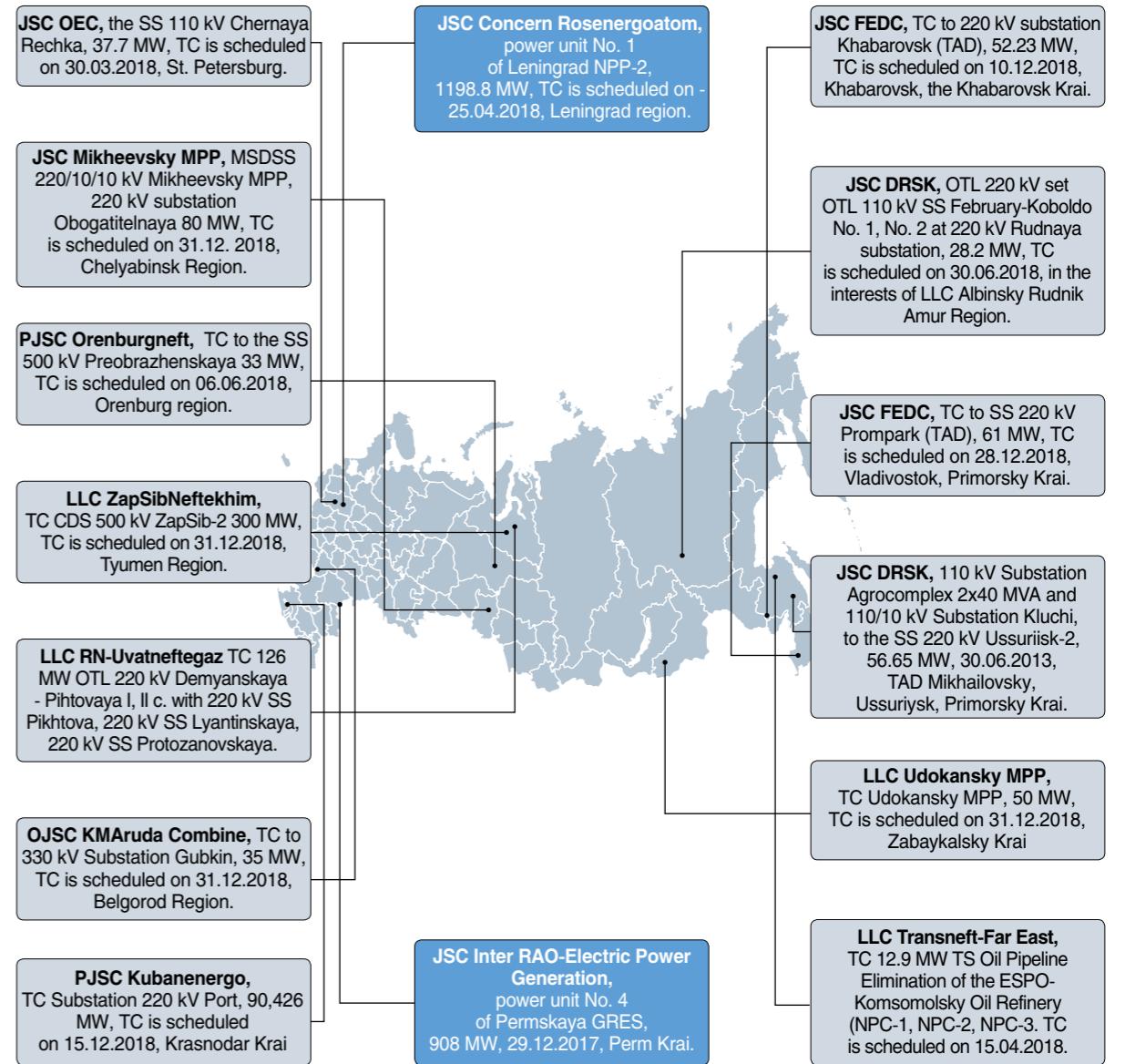
No	Area	Title
11.	Digital technologies	Electricity meters with digital inputs and digital outputs in accordance with IEC 61850. Test and verification methods
12.	OTL, CL, SS	Methodical recommendations for the estimation of the cost of the life cycle of products
13.	OTL, CL, SS	Classification of energy efficiency of power grid facilities / equipment
14.	OTL, CL, SS	Methodical instructions for the feasibility study of electric grid facilities. Standards of justification
15.	OTL, CL, SS	The method of substantiation and selection of innovative technologies for the power grid complex, taking into account the trends of scientific and technological development, technical and economic effects from the introduction
16.	OTL, CL, SS	Method of normative calculation of electric power consumption at SN
17.	OTL, CL, SS	Non-insulated wires with improved characteristics for OTL 220 kV and above. Design instructions
18.	OTL, CL, SS	Methodological guidelines for the selection of power (A) T 110-750 kV, taking into account the redundancy of power over the grids of medium (lower) voltage and seasonal ambient temperatures
19.	OTL, CL, SS	Methodical instructions for the preparation of the project for the production of works for the repair of the main equipment of substations. Requirements for composition, content and design
20.	OTL, CL, SS	Automated system of monitoring and technical diagnostics of gas-insulated switchgear. General technical requirements
21.	OTL, CL, SS	The design documentation for the construction of the substation (switching station) 35 - 750 kV. Requirements for composition, content and design. Reference design documentation
22.	OTL, CL, SS	Project documentation for the construction and reconstruction of 35-750 kV OTL. Requirements for composition, content and design. Reference design documentation

## Technological connection

### Large technological connections in 2017



### Large technological connections planned for 2018



■ Objects of TC of power plants

■ Objects of technological connection of consumers to electric energy, incl. DGC

■ Objects of TC of power plants

■ Objects of technological connection of consumers to electric energy, incl. DGC

In 2018, 15 large technological connections are expected: two connections of power plant facilities and 13 connections of power consumers' facilities.

Information on interaction with consumers of the service for technological connection is presented in the section «Interaction with Stakeholders».

## Repair programme

Formation of the repair programme in 2017, was carried out taking into account:

- measures aimed at ensuring the uninterrupted operation of the power grid complex in the conditions of the autumn-winter period (AWP), fire-dangerous, thunderstorm and flood periods, additional preventive measures that increase the security of electric grid facilities from the effects of natural phenomenon, as well as additional measures aimed at improving the reliability of the facilities power grid complex of PJSC FGC UES based on the results of the readiness check for the AWP, agreed with JSC SO UES;
- measures aimed at fulfilling the requirements of Rostechnadzor, elimination of comments revealed by external and internal supervisory control bodies (Ministry of Energy of Russia with the participation of JSC Technical Inspection of the Unified Energy System, branch PJSC Rosseti - the Center for Technical Supervision), affecting the provision of reliable power supply to consumers, as well as obtaining passports of readiness for the passing the AWP 2017-2018;
- measures for the preparation and organisation of operation of power grid facilities of PJSC FGC UES for the holding of the Eastern Economic Forum and the Confederations Cup of 2017.

Carrying out 2017 repair campaign was influenced by the following factors:

- the need to complete the main works affecting the obtaining of passports of readiness for the AWP until 01.10.2017;
- liquidation of consequences of emergency outages in the power grid complex, including elimination of the consequences of «icy rain» on OTL 220-500 KV MPS Volga;
- organisation of works on operational and technical maintenance of the facilities of the Foundation «Talent and Success»;
- organisation of inspections and thermal imaging control of overhead lines and equipment of the substation in the area

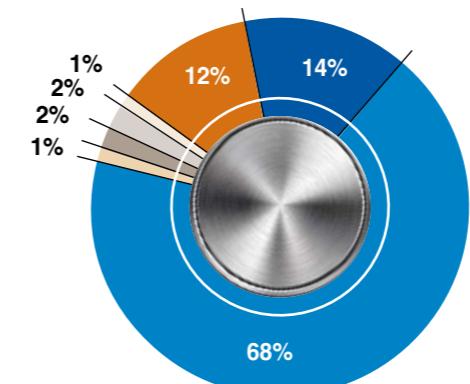
of responsibility of the branch of PJSC FGC UES - MPS of the South, affecting the reliable power supply of the Crimean peninsula.

Conducting timely repairs, as well as a reliable assessment of the technical condition of the main equipment by technical specialists of enterprises operating UNEG facilities, is the guarantee of reliable and uninterrupted power supply to consumers.

In accordance with the Long-Term Development Programme of PJSC FGC UES in 2017, the full load of its own repair personnel is provided, taking into account the balance and uniformity of its employment during the year, including by performing additional works outside the repair campaign for investment and unregulated activities, which together led to an increase in the coefficient of efficiency of loading<sup>6</sup> of repair personnel by 1.3% in the reporting period compared to 2016 (from 112.8% in 2016 to 114.1% in 2017) with unconditional compliance with requirements of the Russian Federation Labor Code. At the same time, the main factor in increasing the load of own repair personnel in 2017 is an increase in the amount of maintenance and repair (TMR) work carried out in an economic way by 6.5% or 0.5 billion rubles (from 7.5 billion rubles in 2016 to 8.0 billion rubles in 2017). This also allowed to fulfill the tasks of optimising operational costs and increasing the efficiency of using available human resources.

In addition, in 2017 the Company is provided with an anticipatory growth in the labor productivity of repair personnel by 15% in 2014 with a target value of 8.1%<sup>7</sup>, established by the Programme No. 4 of the project «40/40» approved by the protocol of the Budget Committee of PJSC FGC UES from December 25, 2017, which was mainly achieved due to the revision of the time standards for the implementation of maintenance operations and the release of a new estimate and regulatory base of PJSC FGC UES in the wording of 2016.

## Evaluation of the main factors of the increase in labor productivity in the application of DUUP and DUOC in the edition of 2016, %.



- Reduced the standards of time and prices for clearing the routes of OTL from tree and shrubby vegetation as a result of changes in the technology of the use of chainsaws and brush cutters
- Standards of time and prices have been developed for mechanized clearing the routes of OTL from tree and shrubby vegetation using mulchers
- The differentiation of technology and the conditions of production of works on OTL is taken into account by limiting the joint application of the condition coefficients
- Developed operational costs of DUOC for work on OTL, the use of which allows us to avoid duplication of preparatory-final general operations when combining works
- The DUUP for TMR of RPA devices based on integrated microcircuits and microprocessor devices
- New and updated DUUP and DUOC for RPA of the SS equipment have been developed and updated, modern vehicles and autospecmechanisms
- The prices for RPA of DPCS, ACS and ACS TP have been revised, taking into account the inclusion of modern types of equipment

Thus, the update of the NSS is an essential factor in improving the efficiency of the Company's repair programme, which made it possible to identify reserves already at the planning stage and redistribute resources

to priority activities, including improving the reliability of electricity supply, within the tariff restrictions of the regulator, while ensuring the transparency and validity of the formation of value maintenance and repair works.

<sup>6</sup> The ratio of the actual labor costs from the implementation of all activities to the available work time fund of repair personnel, reduced by the amount of the normative ratio of unworked time, taking into account holidays, hospital and technological breaks in work.

<sup>7</sup> The ratio of the actual and planned (normative) labor costs of own personnel engaged in repair work.

## Operational-technological and situational management

Operational and technological management in PJSC FGC UES solves the following main tasks:

- ensuring reliable operation of UNEG facilities and fulfillment of technological modes of operation set by the dispatch centers of the System Operator;
- ensuring proper quality and safety in operation of UNEG facilities;
- ensuring the effective functioning of a unified system for the training of operational personnel;
- minimisation of the number of technological violations related to erroneous actions of operational personnel;
- participation in the development and implementation of UNEG development programmes in cooperation with the dispatch centers of the System Operator;
- planning and implementation of measures ensuring the withdrawal to repair, commissioning, modernisation and reconstruction of UNEG facilities;
- liquidation of technological violations in UNEG;
- development of schedules of emergency restriction of a mode of consumption of the electric power and input of emergency restrictions under commands of dispatching centers of the System operator;
- provision of connection of grid facilities and energy-consuming installations of consumers to emergency automatics.

Within the framework of operational and technological management, the following tasks of situational management are solved:

- control of operational situation, implementation of response measures, mobilisation of forces and assets in the event of emergency situations;
- control over the organisation, timing and progress of emergency recovery operations at UNEG facilities;
- operational analysis of hazardous natural phenomena for the presence of risks of violation of ensuring reliable operation of UNEG facilities;
- ensuring of methodology, organisation and control of the work of FGC Headquarters;
- the organisation of the duty of the Company's senior employees on weekends and non-working holidays;
- organisation of information interaction with PJSC Rosseti, subjects of the fuel and energy complex, the System Operator, the Ministry of Energy of Russia, Roshydromet,

the Ministry of Emergency Situations, Russian Railways, telecom operators, etc. in case of emergency situations; forecasting the development of natural, man-made and anthropogenic situations that contribute to the disruption of reliable operation of electric grid facilities.

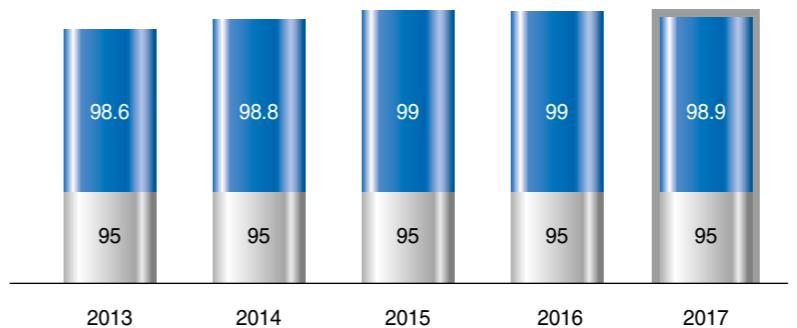
When solving the tasks of operational-technological and situational management, the Company is guided by the following principles of construction and operation of the operational-technological and situational management system:

- unification of the structure of the operational and technological management units of the Company, implementation of a unified technical policy of their technological equipment and information support;
- optimal distribution of non-operational and operational functions and responsibilities between the departments of the operational and technological management of the Company;
- inadmissibility of consolidation of operational functions for units of operational and technological management of the Company that are not directly responsible for the operation of the relevant facilities;
- ensuring the constant readiness of equipment and operational personnel to change the technological mode of operation or the operational state of UNEG facilities by the commands of the System Operator;
- maintenance of technological modes of operation of equipment of UNEG facilities in accordance with the powers entered into by contracts and market rules;
- ensuring effective interaction with the System Operator in the course of its operational dispatch management of UNEG facilities;
- effective use of the potential of the personnel of operational and technological management units for the needs of other divisions of the Company;
- creation in the Company of the required level of competence sufficient to represent and protect the interests of the Company in interaction with electric power entities and consumers of electric power;
- ensuring the constant readiness of the Company's personnel to eliminate the consequences of emergencies and contingencies.

## Results of 2017:

- The concept of the system of operational and technological management of UNEG facilities in PJSC FGC UES was issued, approved by the minutes of the meeting of the Company's Management Board dated June 15, 2017.
- The principles of the distribution of functions between the levels of management in the system of operational and technological management of UNEG facilities in PJSC FGC UES (order of PJSC FGC UES No. 322 of 09.08.2017) were issued.
- The Regulation on the procedure for registration and approval of normal electrical connections for substations of PJSC FGC UES (the order of PJSC FGC UES No. 248r of 23.06.2017) was issued.
- The instruction for switching at 35-750 kV substations of PJSC FGC UES was updated (the order of PJSC FGC UES No. 393r of 01.09.2017).
- The Instruction on prevention of development and liquidation of technological violations at the facilities of PJSC FGC UES (the order of PJSC FGC UES No. 256r of 03.07.2017) was updated.
- Standard instruction for operational staff of PJSC FGC UES to maintain the required voltage levels in UNEG and Methodological instructions for selecting the settings for automation of on-load tap-changers (auto-) transformers at UNEG substations were approved (the order of PJSC FGC UES No. 255p of 30.06.2017).
- A training video on the order of interaction of persons controlling and performing switching operations has been released.
- The work has been completed and the system for monitoring and managing the quality of electric power in the pilot zones of the branches of PJSC FGC UES – MPS of Siberia and MPS of the East.
- In order to optimise the expenses of PJSC FGC UES for payment of cellular communication services by dispatchers and operational duty officers of the Department of Operational and Technological Management of SMS messages on technological violations, deviations from normal modes in the operation of power grid elements, changes in the state of the operational scheme and accidents at facilities PJSC FGC UES, implemented in accordance with the order of PJSC FGC UES from 06.04.2017 No. 135, since August 2017 dispatch and operational duty officers of the Department of Operational and Technological control PJSC FGC UES information to all recipients through messengers Telegram or WhatsApp.
- The transfer of operational information and the participation of FGC in the work of the Headquarters to ensure reliable power supply and antiterrorist protection of electric power facilities during the events of special importance (the Sochi 2017 Investment Forum, the International Arctic Forum, the St. Petersburg International Economic Forum, the Confederations Cup 2017, the Eastern economic forum, etc.).

## Target and actual values of the performance of the outage schedules



Actual value of the completion ratio of the shutdown graphs

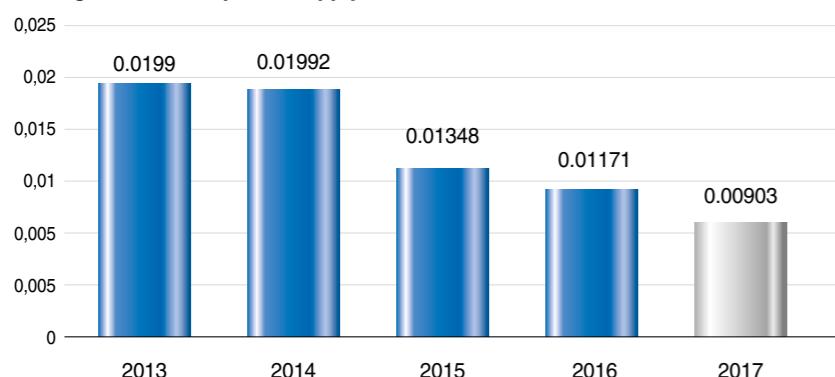
Performance ratio of the outage schedule for 2017 compared to 2016 decreased by 0.1%, which is associated with an increase in the number of applications denied, but significantly ahead of the target values. In 2017:

- applications for outage were submitted – 2,428 pcs.,
- denied in applications for outage – 27 pcs.

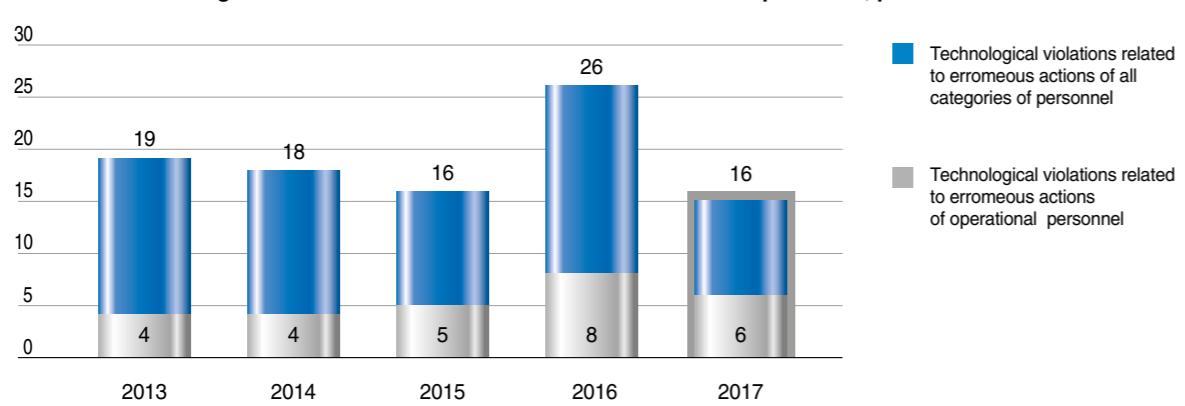
### The number of violations of the standard for exceeding the permissible voltage levels in the UNEG

Violations of the standard for voltage surges in the UNEG for the past five years are absent, thanks to the high-quality joint work of the specialists of PJSC FGC UES and JSC SO UES.

#### Average duration of power supply breaks, hour



#### Number of technological violations associated with erroneous actions of personnel, pcs.



The dynamics of the number of technological violations associated with erroneous actions of operational personnel, corresponds to the dynamics of the number of technological violations associated with the erroneous actions of all categories of personnel.

### Plans for 2018 and medium term

Interregional Competitions of the Operational Staff of PJSC FGC UES it is planned to hold the VI Interregional Competitions of the Operational Staff of PJSC FGC UES.

In the medium term, it is planned to fulfill the tasks specified in the Concept of the operational and

technological management system of UNEG facilities in PJSC FGC UES approved by the minutes of the meeting of the Management Board of the Company dated June 15, 2017.

### Fire safety

#### Number of anti-fire and firefighting training conducted by operational personnel for 2017, pcs.

Branch	Number of control fire training sessions		The number of control fire training combined with emergency response or emergency training		The number of fire training and exercises conducted jointly with the units of the Ministry of Emergency Situations of Russia	
	plan		fact		plan	
	planned	unplanned	planned	unplanned	planned	unplanned
MPS Center	1,144	1,141	43	2,396	2,155	145
MPS of Siberia	427	427	3	1,425	1,425	37
MPS East	204	204	2	1,042	1,003	273
MPS of the Urals	105	105	0	1,133	1,133	35
MPS South	52	52	17	159	159	35
MPS of the Volga	691	691	309	799	799	89
MPS of the North-West	213	213	34	882	882	47
MPS of Western Siberia	125	124	2	1,077	1,077	35
PJSC FGC UES	2,961	2,957	410	8,913	8,633	696
					926	881
						17

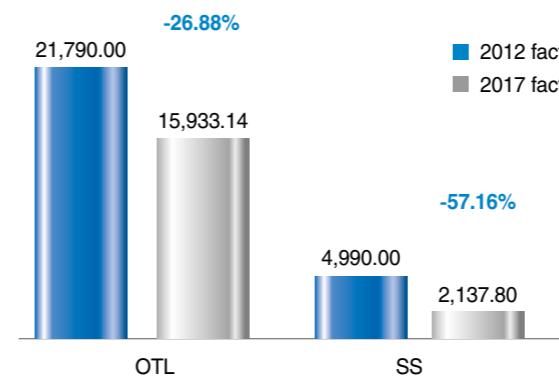
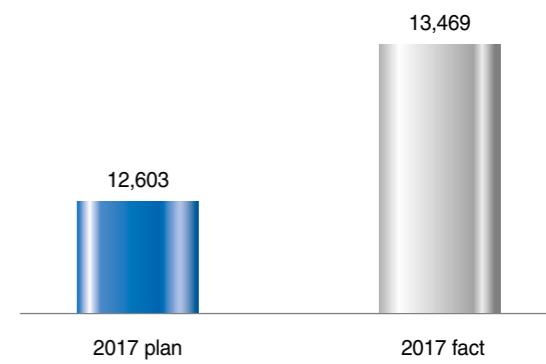
### Investment activities

#### Key parameters of key investment projects

Project	Terms of implementation	Put into operation in 2017	Project capacity	The volume of financing in 2016-2020, billion rubles
Development of energy infrastructure for the oil transport system (ESPO - I, II)	2011-2021	80 MVA 61 km	304 MVA 362 km	11.7
Increase of accessibility of the power grid infrastructure of the Krasnodar Krai	2010-2019	0	954 MVA 53 km	5.6
Provision of power output generation facilities	2009-2021	313 km 1,170 MVAr	8,409 MVA 3,099 km 2,070 MVAr	38.8
Development of energy infrastructure in the BAM and Transsib zone	2010-2024	0	3,998 MVA 4,218 km 1,034 MVAr	75.0
Ensuring the reliable operation of UES of Russia when working separately with the energy systems of the Baltic States (macro project BRELL)	2008-2020	100 MVAr	897 km 1,079 MVAr	35.7
Creation of an electric power infrastructure for the gas transmission system "The Power of Siberia"	2016-2020	0	114 km	5.1

**Decrease in specific indicators of the cost of construction of facilities commissioned in 2017**

Title	Fact 2012, RUB mln / (km / MVA)	Fact 2017				
		Physical parameters, km / MVA	Main assets commis- sioning, RUB mln without VAT	Main as- sets com- missioning, RUB mln without VAT	Relative indicator in the prices of 2012, RUB mln/ (km/MVA) (gr. 10/1, 06/1,049/1,143,1063 /1,044)10/1,06/1,04 9/1,143,1063/1,044)	Decrease in relation to 2012, % (1-gr.11gr.2)
OTL	21.79	927.34	20,840.27	22.47	15,933.14	26.88%
OTL 220 kV	OTL 220	14.72	811.64	17,774.62	21.90	15,526.61
OTL 330 kV	OTL 330	22.38	94.71	1,782.31	18.82	13,342.62
OTL 500 kV	OTL 500	25.90	21.00	1,283.33	61.12	43,331.07
OTL 750 kV	OTL 750					
OTL	CL					
SS	SS	4.99	2,554.00	7,701.02	3.02	2.13780
SS, input voltage 110 kV	SS 110	11.08				
SS, input voltage 220 kV	SS 220	5.43	1,478.00	3,671.44	2.48	1.76
SS, input voltage 330 kV	SS 330	2.86	576.00	3,273.20	5.68	4.03
SS, input voltage 500 kV	SS 500	2.26	500.00	756.38	1.51	1.07
SS, input voltage 750 kV	SS 750	1.76				

**Reducing the unit cost of construction to the level of 2012, thousand rubles without VAT / km (MVA)****Reducing investment costs in 2017, million rubles without VAT**

The effect of reducing the specific investment costs for PJSC FGC UES exceeded the planned target. A 30.0% decrease was planned for the level of 2012, and the actual decline reached the level of 32.14 % compared to 2012, which in absolute terms was 13.5 billion rubles.

**Development of communication systems and IT-systems****Automated system of technological control**

The automated system of technological control (ASTC) is a single distributed hierarchical system allowing to perform operational and non-operational functions by the Network Management Centers, to improve the management efficiency of the UES modes due to a high level of observability, to prevent emergency outages of consumers and to reduce the decision-making period and the probability of erroneous actions of operational personnel in emergency modes.

As a control system of the UNEG operation, ASTC combines the means and subsystems of existing, self-developing automatic and automated control systems (ASC TC, ICTS, ADTCS, RPA, AIMSCEM), providing the necessary interface with the management systems of the System Operator, distribution grid companies.

As a system of management of operation and development of UNEG, ASTC combines facilities and

systems for automation of dispatch and technological and production and technical activities of the FGC staff, MPS and EMPS services.

In 2017, as part of the project «Establishment of ASTC», work continues on the creation of automated systems for operational and technological control of Grid Control Centers (ASOTC GCC).

Measures to improve the reliability and observability of UNEG facilities continued. In 2017, the SSPI was put into commercial operation at 12 MPS Ural facilities, at 12 MPS facilities in the North-West (including 3 facilities under trial operation at the end of 2017). New contracts were concluded for the implementation of the ICTS SHC at the facilities of MPS Siberia (14 SS 220 kV and 2 SS 500 kV) and MPS Volga (26 SS 220 kV and 1 SS 500 kV).

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**PIRO UNEG completion, %**

Until 2017	40.6
In 2017	3.7
Remained at 31.12.2017	55.7

When implementing the project «Establishment of ASTC», a programme of import substitution is implemented, namely preference is given to the use of equipment and software of domestic producers at all levels of the hierarchy of technological management.

## Development of corporate information management system

Corporate Information Management System (CIMS) PJSC FGC UES – a set of information systems, methodologically and technically united among themselves, designed to automate the business processes of the Company in order to improve their efficiency.

The development of CIMS is regulated by the IT strategy of PJSC FGC UES and is implemented within the framework of the consolidated plan for the implementation of the IT strategy of PJSC FGC UES for 2014-2020 (IT strategy), approved by the Board of PJSC FGC UES in 2014.

For 2014-2017 years implemented a number of projects in which the following automated systems were created:

- ACS Treasury,
- ACS Registry,
- Functional modernisation of the Unified Automated Accounting and Reporting System (UAARS),
- ACS ACDS,
- ACS IC.

In CIMS accounting for settlements with consumers of electricity and accounting for actual losses of electricity purchased in the wholesale market were automated, as well as processes for calculating and recording penalties for contracts

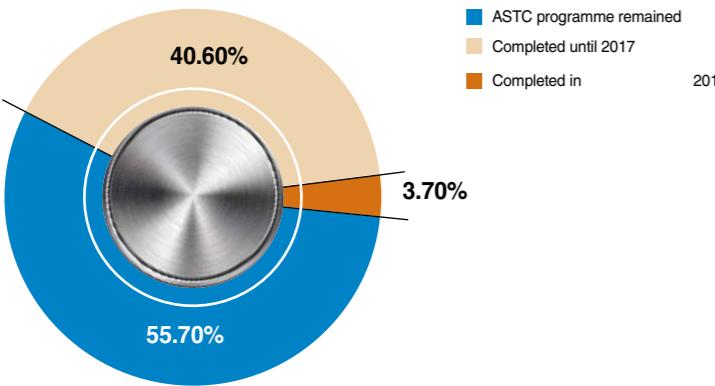
for the provision of electricity transmission services.

As a result, the following performance indicators have been achieved that positively influence the financial results of the company:

- improved the management of investment projects of PJSC FGC UES in terms of reporting and planning / distribution of costs for maintaining the customer-builder;
- the effect of the centralised allocation of funds has been achieved - an increase in income due to an increase in the amounts, terms and rates of placement of funds for deposits of different maturities;
- the reduction in the timing of IFRS reporting;
- the risk of non-compliance with the requirements of the Accounts Chamber of the Russian Federation has been minimized;
- increase in the amount of forfeit due to prompt formation of claims for penalties due to prompt monitoring of debts and payments under contracts for the provision of services for electricity transmission;
- minimisation of errors in calculating the amount of penalties collected.

In 2018, the development of CIMS within the framework of the consolidated plan for the implementation of the IT strategy of PJSC FGC UES for 2014-2020 will be continued.

## Completion of PIRO UNEG for SS automation



## Procurement activities

### Information on changes to the Regulation on the procedure for carrying out regulated purchases of goods, works, services made in 2017

In pursuance of the Decrees of the Government of the Russian Federation, the directives of the Government of the Russian Federation and the Order of the Moscow OFAS, the Regulations for the procurement of goods, works, services for the needs of PJSC FGC UES in 2017 were amended and supplemented:

- regarding the priority of procurement of Russian innovative building materials and the possibility of concluding long-term contracts with Russian manufacturers of innovative building materials for guaranteed volumes of supplies for a long period, as well as with producers who, in the established procedure, issued special investment contracts for the development of this production;
- in terms of making requirements - when purchasing software for electronic computers and databases, the need to submit proposals that provide software, information about which is included in a single register of Russian programmes for electronic computers and databases, created in accordance with Article 12.1 Federal Law No. 149-FZ of 27.07.2006 «On Information, Information Technologies and Information Protection»;
- in terms of cost redistribution, which provides for and obliges procurement from small and medium-sized businesses;
- regarding the establishment of the procedure for the use of the assignment of the right of claim (factoring) in the performance of contracts for the supply of goods (performance of work, rendering services) entered into by the Company with small and medium-sized business

entities, based on the results of purchases in the ways specified in the procurement regulations, provisions of the civil legislation of the Russian Federation;

- in terms of changing the term of conclusion of contracts based on the results of bidding in accordance with Part 4 of Article 18.1 of Federal Law No. 135-FZ of 26.07.2006 «On Protection of Competition». The term of conclusion of contracts is established not earlier than ten days after the summing up of bids for the purpose of granting the participants the right to appeal actions (inaction) of the customer and the organiser.

For the convenience of interaction with suppliers, procurement procedures are carried out through an electronic trading platform that ensures the attraction of a larger number of service providers and a competitive environment conducive to improving the efficiency of procurement activities. PJSC FGC UES meets annually with the largest suppliers on the issues of improving cooperation. On website [www.Fsk-ees.ru](http://www.Fsk-ees.ru) in the «Suppliers» section, an up-to-date procurement plan (planned for announcement, conducted and completed procurement procedures) is published monthly with the possibility of automatic transfer to the trading platform in order to obtain information promptly.

The organisational and administrative documents of the Central Tender Commission have been updated, the scheme and rules of business processes of purchasing activities of PJSC FGC UES have been developed.

**Methods of procurement**

Tender	The tender is the main method of procurement with or without prequalification, without special procedures in the absence of explicitly provided grounds for other procedures (the estimated amount of procurement exceeds 10 million rubles (VAT included)).
Auction	The auction can be only one-stage with or without prequalification. During the auction, there is no provision for post-qualification, the right to submit alternative proposals. The auction is carried out with the purchase of products for which there is a competitive market for producers of products and with which the requisitioner has formulated detailed requirements in the form of a technical task. CPB PJSC FGC UES has the right to determine the list of products purchased only by the results of the auction.
Request for proposals	The request for proposals can be with or without prequalification. Performed if at least one of the following conditions is fulfilled: a) the initial (maximum) price of the contract does not exceed 10 million rubles (including VAT), b) short deadlines - from the date of announcement of the procurement procedure to the commencement of deliveries, works and services for less than 20 calendar days (there is no possibility to hold an open tender), however, circumstances that require immediate procurement from a single source are not available, and the complexity of the products or terms of delivery is not admit an auction, a request for prices.
Request for price proposals	When purchasing simple products for which there is a functioning market, the only criterion is the price, and provided that the price of the contract does not exceed 5 million rubles for a public request for prices (VAT included), can be conducted based on the results of open competitive procedures, among participants, with which are the framework agreements. It is forbidden to purchase complex, unique equipment by asking prices.
Simple purchase	Are carried out in the event that the Customer's revenue for the reporting fiscal year is more than 5 billion rubles. In other cases, this method of procurement is not applied. It is carried out in the presence of unambiguously formulated technical requirements for the purchased product, including when the functional characteristics (consumer properties) of the goods, sizes, packaging, shipment of the goods have been determined, specific requirements for the results of work (services) have been established in the form of a technical task. It is carried out at the initial (maximum) price of the contract in excess of 100,000 rubles to 500,000 rubles inclusive (VAT included). According to the decision of the Customer, an initial (maximum) price of the contract may be less than 100,000 rubles (including VAT).
Small purchase	It is carried out at the initial (maximum) purchase price to 100,000 rubles (with VAT). It is carried out in the presence of unambiguously formulated technical requirements for the purchased products, including when the functional characteristics (consumer properties) of the goods, sizes, packaging, shipment of the goods, specific requirements for the work (service) have been determined in the form of technical task.
Purchases from a single supplier (contractor)	The decision to choose a supplier shall be made by the Customer's CPB or other permitting authority within its competence in accordance with the Uniform Procurement Standard on the basis of the Customer's information on the conducted market analysis. Subdivided into: a) purchase of unique goods (works, services) from a single supplier (contractor); b) purchase from a single supplier (contractor, contractor) in order to prevent an emergency situation or eliminate its consequences.

**Procurement from local suppliers****The main areas of procurement and the volume of purchases in the regions in 2017****Main areas of procurement**

Main types of purchases	Total thousand roubles, VAT included
Construction and installation work	101,585,823.5
DSW	2,922,159.5
Communications	573,499.8
IT Purchases	2,921,285.6
Equipment	8,480,013.0
Exploitation	3,227,190.9
Maintenance, repairs, materials	2,964,839.9
Insurance (medical, property, civil responsibility)	1,636,216.7
Rent of land / forest and residential / non-residential premises	5,760,896.3
Consulting services	583,066.9
Clearing and expansion of glades	1,795,917.0
Fuels and lubricants	605,439.9
Special machinery	1,009,916.8
R & D	1,435,453.5
Other purchases	7,456,405.1
<b>Total</b>	<b>142,958,124.3</b>

**Volumes of purchases of PJSC FGC UES in the regions in 2017**

Name of region	Total, thousand roubles, VAT included	Share in total purchases, %
Executive Office	5,570,214.2	3.90
MPS of the Volga	3,639,405.9	2.55
MPS East	15,065,624.6	10.54
MPS of Western Siberia	4,303,390.5	3.01
MPS S.-Zap.	16,585,889.7	11.60
MPS of Siberia	42,855,573.7	29.98
MPS of the Urals	6,595,183.7	4.61
MPS Center	22,005,254.4	15.39
MPS South	26,337,587.6	18.42
<b>Total</b>	<b>142,958,124.3</b>	<b>100.00</b>

## Information on working with suppliers (contractors, executors) who have joined the Partnership Programme between PJSC FGC UES and subjects of SMEs

Procurement is carried out with the inclusion in the procurement plan (goods, works, services, including innovative and high-tech products) of an obligatory share of purchases from small and medium-sized enterprises<sup>8</sup> (SME). Since the Decree of the Government of the Russian Federation of 11.12.2014 No. 1352, which approved the quotas for procurement of specific customers from SMEs in the amount of 10%, within the framework of the main and investment activities of FGC UES, the procurement plan for SMEs in the range of 10% to 30% and higher.

The procurement plan for 2017 was approved by the Federal Corporation for the Development of Small and Medium-sized Entrepreneurship.

## Information on complaints filed with the Federal Antimonopoly Authority against the actions of PJSC FGC UES in the conduct of procurement activities

In 2017, 156 appeals to the FAS were sent, including 118 complaints filed by persons who are not participants in procurement procedures. Based on the results of the FAS commission's examination, 10 complaints were found to be justified, 47 complaints were found unfounded, 99 complaints were partially acknowledged.

The main subjects of complaints are:

- a condition on the possibility of unilateral withdrawal of the contract by sending a notice to the contractor in case of concluding contracts with subcontractors without agreement with the Customer for the performance of work under the contract;
- a condition on the possibility of settling disputes, disagreements and requirements arising in the performance of the contract, in the Arbitration Court at the RUIE;
- an unlawful requirement to provide information on the payment of taxes and the state of settlements on taxes, fees, penalties, fines;
- absence or placement or non-full placement of the design estimates in the composition of the tender documentation, placed on the official website [www.zakupki.gov.ru](http://www.zakupki.gov.ru);
- unauthorised merger into one lot of works that are not related to each other in terms of functional and technical characteristics, including those involving different permitting documents for activities (construction and installation, design and survey, commissioning, provision of material and technical resources);
- an unjustified requirement to the participants of procurement for the existence of work experience, human resources, material and technical resources as criteria for admission to participation in the procurement;
- excessive requirements for the availability of authorisation documents (admission to self-regulatory organisations, licenses of the Ministry of Emergency Situations) for the performance of certain activities within the framework of the

In addition, work is under way to monitor and update the list of goods, works, services, purchases of which are conducted only with the participation of SMEs with the aim of increasing the share of purchases from such SMEs. In accordance with the plan for innovative development of the Company and the needs for innovative and high-tech products, a list of goods, works, and services meeting the criteria for inclusion in innovative and high-tech products was developed and approved by order No. 500r dated 30.11.2016. 27.12.2016 in UIS the plan of purchases of innovative production for 2016-2020 is placed. Amendments to the Innovation Plan for 2018.

- agreement;
- an unlawful requirement to provide a Comfort Letter and an agreement on forfeit as part of the Application;
  - the requirement to provide the participant at the stage of filing an application with information on the subcontracted organisations planned for attraction and their owners;
  - an excessive requirement to provide documents confirming the presence of the Competent Authority from the equipment manufacturers, including the delivery within a certain time, the distribution of all firm warranties for the equipment during the warranty period; documents confirming the compliance of the proposed normative and technical documentation for the supply of equipment;
  - wrongful rejection of purchase participants.

PJSC FGC UES sent to the Arbitration Court of Moscow 122 lawsuits on appealing and recognising illegal decisions of FAS Russia. Based on the results of the consideration by the Arbitration Court of Moscow: FGC UES refused to satisfy the claims – 9 cases, the requirements of PJSC FGC UES were partially met – 2 cases, the requirements of PJSC FGC UES were fully satisfied – 105 cases.

PJSC FGC UES filed 10 appeals to the Ninth Arbitration Court of Appeal in Moscow. Of these, 9 complaints were granted, one complaint was denied. The Arbitration Court of the Moscow District examined the cassation appeal. The requirements of PJSC FGC UES are satisfied, the decisions of the courts of the first and appellate instances were abolished, the case was returned to the Arbitration Court for a new consideration.

FAS Russia sent 26 appeals to the Ninth Arbitration Appeals Court of Moscow. Decisions of the court of first instance are left unchanged, the claims of the FAS are declared - without satisfaction.

## Import substitution policy

### Goals, objectives and main principles for the implementation of the Corporate Import Substitution Plan

The goals of the implementation of the Corporate Import Substitution Plan:

- implementation of the Unified Technical Policy of PJSC FGC UES;
- implementation of the Innovative Development Programme of PJSC FGC UES;
- provision of technological safety of electric grid facilities and increase of energy security of the Russian Federation;
- assistance in the creation and development of domestic electrotechnical equipment and components that meet modern standards and requirements for quality, reliability and cost-effectiveness;
- stimulation of development of the branch innovative infrastructure, assistance to innovative development and modernisation of the enterprises of the domestic electro technical industry;
- increase in the level of localisation of electrical products production in the territory of the Russian Federation.

The objectives of the implementation of the Corporate Import Substitution Plan:

- determination of the composition of measures for leveling and minimising the risks associated with the use of foreign products in production and technological processes;
- improvement of corporate documents defining the rules for accreditation and prequalification of suppliers of goods

(works, services) in order to ensure their admission to trade and procurement procedures;

- creation of organisational mechanisms and tools for information and analytical support of import substitution processes in PJSC FGC UES, including a system for monitoring and evaluating the effectiveness of the results of implementation of activities;
- creation of tools for assessing the risks associated with the procurement of foreign products (works, services) and its use, within the framework of investment projects and the ongoing activities of the organisation.

The basic principles of implementation of measures for import substitution:

- elimination of risks of reducing the security level of electric grid facilities;
- non-deterioration of the main parameters of the investment projects being implemented;
- maintaining the level of competitiveness in the internal and external markets of electrical equipment (works, services), taking into account the parameters (operational, cost, marketing) approved in the project documentation;
- inadmissibility of growth of costs as a result of changing chains of suppliers of certain types of products necessary for the implementation of investment projects, production of goods (works, services).

<sup>8</sup> In accordance with Federal Law No. 223-FZ of 18.07.2011.

## Activities aimed at implementing the policy of import substitution

The main activities aimed at implementing the policy of import substitution in the Company:

1. Changes were made to the design task (typical) of the facilities of PJSC FGC UES, providing for:
  - in the development of basic technical solutions, the feasibility analysis of the possibility of substituting imported products equivalent in terms of technical characteristics and consumer properties of domestic products, including those produced by defense enterprises, and taking into account information on domestic products posted on the portal of the State Information Industry System;
  - priority use of technical solutions, based on the use of equipment, structures, materials and technologies of domestic production;
  - the possibility of using imported products only on the basis of a technical and economic comparison with domestic products;
  - limiting the use of imported products in technical solutions in the presence of domestic analogues, equivalent in technical and economic indicators;
  - the possibility of using foreign equipment only on the basis of technical and economic analysis in comparison with domestic products.

2. Annual planning of financing R&D costs in accordance with the scenario conditions of the Company's business planning aimed, in particular, at the development of import-substituting products.

3. Determination of the Company's forecast demand for basic electrical equipment and materials within the framework of the annual procurement plans of PJSC FGC UES for the purpose of analysing

the possibility of replacing imported products with domestic counterparts.

4. Amendments to the Provision on Procurement of PJSC FGC UES on the basis of the adjusted Unified Procurement Standard of PJSC Rosseti taking into account the Resolution of the Government of the Russian Federation No. 925 of 16.09.2016 «On the Priority of Goods of Russian Origin, Work, Services Performed by Russian persons, in relation to goods originating from a foreign state, works, services performed by foreign persons».

5. Amendments to the Uniform Standard of Procurement of PJSC FGC UES as regards the possibility of concluding long-term contracts with a Russian supplier under guaranteed volumes of supplies of future periods of equipment, currently unparalleled in the Russian Federation, including in the presence signed special investment contracts .

6. Conclusion of agreements with equipment manufacturers on the organisation of the production of electrical products developed as part of R&D activities of PJSC FGC UES or incorporating components developed within the framework of R&D PJSC FGC UES.

Also, the Order of PJSC FGC UES No. 525 of 18.12.2017 "On the implementation of the programme of innovative development and introduction of innovative equipment and technologies" approved a list of 32 facilities in the areas of responsibility of the branches of PJSC FGC UES – MPS where in the period 2018-2022 it is planned to use innovative domestic elements of a "digital substation".

<sup>9</sup>In pursuance of the directives of the Government of the Russian Federation No. 830p-P13 of 06.02.2017.

## Financial capital

### Analysis of financial results

#### Information on the main sources of cash flow formation

The balance of cash flows from operating activities in the amount of 120.7 billion rubles was formed in 2017 due to:

- proceeds from the sale of electricity transmission services through UNEG in the amount of 198.6 billion rubles;
- proceeds from the sale of services to join UNEG in the amount of 10.1 billion rubles;
- proceeds from the sale of services for other activities in the amount of 2.1 billion rubles;
- proceeds from the leasing of property in the amount of 0.9 billion rubles;
- other proceeds in the amount of 17.5 billion rubles (interest for the use of cash, interest on short-term deposits, interest on a bank account, calculations for fines, penalties, forfeit receivables, etc.);
- payments to suppliers for raw materials, works, services in the amount of 41.1 billion rubles (including payments for the purchase of electricity losses, purchase of raw materials, fuel, tools, payment for works and services of a production nature, other services of outside organisations);
- remuneration of employees in the amount of 16.5 billion rubles;
- expenses in the form of interest in the amount of 4.8 billion rubles, not capitalised in the value of fixed assets;

- payments of profit tax, VAT, insurance premiums and other in the amount of 46.1 billion rubles.

The negative balance of cash flows for investment activities in the amount of 96.3 billion rubles in the reporting year was due to:

- negative balance of interest on debt obligations of PJSC FGC UES included in the value of the investment asset and dividends, interest on debt financial investments in the amount of 10.5 billion rubles;
- payments under the investment programme in the amount of 86.2 billion rubles;
- purchase of shares of other organisations (participation interests) in the amount of 0.8 billion rubles;
- a positive balance of loans provided, which, taking into account their return, amounted to 1 billion rubles;
- proceeds from the sale of non-current assets in the amount of 0.2 billion rubles.

The negative balance of cash flows for financial activities in the amount of 27 billion rubles was due to the proceeds from the placement of infrastructure bonds of PJSC FGC UES in the amount of 16 billion rubles and repayment of borrowed funds of 23.4 billion rubles, as well as through the payment of dividends in the amount of 19.6 billion rubles.

**Key financial and economic indicators, billion rubles**

Index	2015	2016	2017
<b>Proceeds from the sale of products (services), including:</b>	<b>173.3</b>	<b>218.4</b>	<b>216.0</b>
from the transmission of electricity	159.0	171.1	192.6
from technological connection	12.4	45.5	21.4
from the sale of electricity			
from other activities	1.9	1.8	2.0
<b>Cost of goods (services)</b>	<b>-134.9</b>	<b>-140.0</b>	<b>-152.4</b>
Gross profit	38.3	78.3	63.6
Managerial expenses	-7.9	-8.0	-8.3
Commercial expenses			
Profit (loss) from sales	30.5	70.3	55.4
Interest income	8.2	7.8	8.6
Percentage to be paid	-8.5	-6.2	-3.9
Income from participation in other organisations	0.1	0.3	1.9
Other income	23.5	73.0	23.5
Other expenses	-26.0	-20.8	-24.9
<b>Profit (loss) before taxation</b>	<b>27.9</b>	<b>124.3</b>	<b>60.6</b>
Income tax and other payments	-10.0	-18.2	-18.2
<b>Net income (loss)</b>	<b>17.9</b>	<b>106.1</b>	<b>42.4</b>
<b>Adjusted EBITDA*</b>	<b>103.7</b>	<b>119.7</b>	<b>129.3</b>

\* Excluding operations for the accrual and restoration of provisions for doubtful debts, revaluation of financial investments and revenues from technological connection.

**Analysis of changes in accounts receivable, billion rubles**

Index	at 31.12.2015	at 31.12.2016	at 31.12.2017
<b>Accounts receivable, including:</b>	<b>69.5</b>	<b>135.2</b>	<b>128.4</b>
Buyers and customers, incl.	48.4	100.5	112.8
<i>for electricity transmission</i>	33.0	39.5	36.3
<i>for services on technological connection</i>	10.5	57.4	74.8
Promissory notes receivable	7.0	20.6	0.6
Advances issued	0.8	0.5	0.3
Other receivables	13.3	13.6	14.7

**Analysis of changes in accounts payable, billion rubles**

Index	at 31.12.2015	at 31.12.2016	at 31.12.2017
<b>Accounts payable, including:</b>	<b>54.7</b>	<b>60.0</b>	<b>54.5</b>
Suppliers and contractors	42.3	31.0	30.4
Promissory notes payable			
Advances received	6.1	8.2	12.5
<i>including under contracts of TC</i>	5.5	6.4	11.8
Taxes and fees	4.1	16.7	7.3
Other accounts payable	2.2	4.1	4.3

## Debentures

### Issues of the Company's bonds in circulation as of December 31, 2017

Type of bonded loan	Volume in circulation at face value (RUB)	Registration number	Date of placement	Date of repayment / offer	Current coupon rate
Bonds	7,534,586,000	4-06-65018-D	28.09.2010	15.09.2020/-	8.25%
Bonds	1,760,821,000	4-07-65018-D	29.10.2010	16.10.2020/-	7.50%
Bonds	7,314,887,000	4-08-65018-D	28.09.2010	15.09.2020/-	8.25%
Bonds	667,049,000	4-09-65018-D	29.10.2010	16.10.2020/-	0.1%
Bonds	29,151,000	4-10-65018-D	28.09.2010	15.09.2020/-	7.75%
Bonds	520,989,000	4-11-65018-D	29.10.2010	16.10.2020/-	0.1%
Bonds	46,462,000	4-12-65018-D	27.04.2012	19.04.2019/-	8.10%
Bonds	10,000,000,000	4-13-65018-D	05.07.2011	22.06.2021/-	8.50%
Bonds	311,961,000	4-15-65018-D	27.10.2011	12.10.2023/24.10.2018	8.75%
Bonds	109,762,000	4-18-65018-D	12.12.2011	27.11.2023/07.06.2019	8.50%
Bonds	20,000,000,000	4-19-65018-D	21.07.2011	06.07.2023/18.07.2018	7.95%
Bonds	419,838,000	4-21-65018-D	24.10.2012	06.10.2027/16.04.2024	7.4%
Bonds	10,000,000,000	4-22-65018-D	08.08.2012	21.07.2027/03.08.2022	6.9% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 2.5\%$ )
Bonds	10,000,000,000	4-23-65018-D	10.06.2013	27.04.2048/-	3.7% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	10,000,000,000	4-24-65018-D	25.01.2013	07.01.2028/24.01.2020	8.0 %
Bonds	1,781,862,000	4-25-65018-D	02.10.2012	14.09.2027/01.10.2019	9.00%
Bonds	15,000,000,000	4-26-65018-D	13.08.2013	30.06.2048/09.07.2047	4.0% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	11,000,000,000	4-27-65018-D	13.08.2013	30.06.2048/09.07.2047	4.0% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	20,000,000,000	4-28-65018-D	10.06.2013	27.04.2048/-	3.7% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	20,000,000,000	4-29-65018-D	21.10.2013	07.09.2048/17.09.2046	4.3% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	10,000,000,000	4-30-65018-D	13.12.2013	30.10.2048/08.11.2046	3.7% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	14,000,000,000	4-34-65018-D	13.12.2013	30.10.2048/07.11.2047	3.7% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	20,000,000,000	4-37-65018-D	06.05.2015	23.03.2050/05.04.2045	4.0% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Bonds	20,000,000,000	4-38-65018-D	06.05.2015	23.03.2050/05.04.2045	4.0% (coupons are calculated by the formula: $K_i = (CPI - 100\%) + 1\%$ )
Exchange-traded bonds	10,000,000,000	4B02-02-65018-D	29.11.2016	17.10.2051/30.11.2021	9.35%
Exchange-traded bonds	9,000,000,000	4B02-03-65018-D	20.10.2017	06.09.2052/21.10.2022	7.75%
Exchange-traded bonds	7,000,000,000	4B02-04-65018-D	06.12.2017	23.10.2052/06.12.2023	7.6%
Eurobonds	17,500,000,000	XS0863439161	13.12.2012	13.03.2019/-	8.446%

## Credit Ratings

### History of credit ratings of FGC for the period 2013-2017

Agency	Rating	Date
Standard and Poor's	BB+ / Forecast Positive	17.05.2017
	BB+ / Forecast Positive ---- / Withdrawn*	21.03.2017 02.06.2017
	BB+ / Forecast Stable ---- / Withdrawn*	20.09.2016 02.06.2017
	BB+ / Forecast Stable ruAA+	20.09.2016 04.02.2015
	BB+ / Forecast Negative ruAA+	04.02.2015
	BBB- / Rating on revision with the possibility of lowering	30.12.2014
	BBB- / Forecast Negative ruAAA	28.04.2014
	BBB / Forecast Negative ruAAA	27.03.2014
	BBB / Forecast Stable ruAAA	22.12.2009
	Ba1 / Forecast Stable	07.12.2017
Moody's	Ba1 / Forecast Stable ---- / Withdrawn*	21.02.2017 18.03.2016
	Ba1 / Forecast Negative ---- / Withdrawn*	26.04.2016 18.03.2016
	Ba1 / Rating on revision with the possibility of lowering Aa1.ru / Rating on revision with the possibility of lowering	09.03.2016 10.03.2016
	Ba1 / Forecast Stable Aa1.ru	07.12.2015
	Ba1 / Forecast Negative Aa1.ru	25.02.2015
	Ba1 / Rating on revision with the possibility of lowering Aa1.ru / Rating on revision with the possibility of lowering	20.01.2015
	Baa3 / Rating on revision with the possibility of lowering Aaa.ru / Rating on revision with the possibility of lowering	23.12.2014
	Baa3, Forecast Negative Aaa.ru	01.07.2014
	Baa3 / Rating on revision with the possibility of lowering Aaa.ru	03.04.2014
	Baa3 / Forecast Stable Aaa.ru	23.11.2012
Fitch Ratings	BBB- / Forecast Positive	28.09.2017
	BBB- / Forecast Stable Withdrawn*	20.10.2016 06.02.2017
	BBB- / Forecast Negative AAA (rus)	20.10.2016 20.10.2016
	BBB / Forecast Negative AAA (rus)	13.01.2015 26.03.2014
	BBB / Forecast Negative AAA (rus)	26.03.2014
	BBB / Forecast Stable AAA (rus)	25.10.2013
AKPA	AAA (RU) / Forecast Stable	28.11.2017

## Tariff regulation

### Regulation of reliability and quality of services

Tariff regulation implemented by the return on invested capital method on the basis of long-term parameters implies the obligation of FGC to fulfill the reliability and quality of services provided by the FTS of Russia.

Order of the Ministry of Energy of the Russian Federation No. 718 of 14.10.2013 approved Methodological guidelines for calculating the level of reliability and quality of goods supplied and services provided to the organisation for the management of UNEG and territorial grid organisations.

The list includes indicators of the reliability of electricity transmission, characterising the occurrence of technological violations and their consequences

for consumers, as well as indicators of the quality of customer service, characterising, first of all, the timeliness of performance of obligations for technological connection.

The Order of the Federal Tariff Service of Russia No. 254-e / 1 year of 26.10.2010 approved the Methodological Guidelines for calculating and applying decreasing (increasing) coefficients allowing to ensure compliance of the level of tariffs established for organisations performing regulated activity, the level of reliability and quality of goods and services provided. In accordance with these Guidelines, FGC's revenue will be increased or lowered within 3% of the required gross revenue.

### Planned values of indicators of reliability and quality of services provided by FGC, established by the Federal Tariff Service of Russia

	2015	2016	2017	2018	2019
Service reliability level indicator	0.03602	0.03548	0.03495	0.03443	0.03391
Quality of service indicator	1.23908	1.22049	1.20219	1.18415	1.16639

### Tariffs for services on power transmission through distribution electric grids

The activities of FGC in the provision of electricity transmission services are carried out using the distribution grid facilities (DGF) created within the framework of the investment programme of PJSC FGC UES, including grid facilities built for the XXII Olympic Winter Games and the XI Paralympic Winter Games 2014 in Sochi, built by SC Olimpstroy<sup>10</sup> and transferred to gratuitous use of FGC in pursuance of orders of the Government of the Russian Federation, as well as facilities built for electricity the island of Valaam in the Republic of Karelia.

By order of REC-PTD of the Krasnodar Territory No. 82/2014-e of December 26, 2014, for the first time for FGC, tariffs for electricity transmission services for Company-owned RSK facilities located on the territory of the Krasnodar Territory were approved.

The Resolution of the State Committee of the Republic of Karelia on Prices and Tariffs No. 243 of December 27, 2016 for the first time approved for the year 2017 tariffs for electricity transmission services on the objects of the DGC located in the territory of the Republic of Karelia.

As of 2018, tariffs for transmission services through the distribution grid of PJSC FGC UES were established on the basis of long-term regulatory parameters.

The Decree of the REC-DCT of Krasnodar Region on the establishment of unified (boiler) tariffs for the transmission of electricity through the grids of the Krasnodar Krai and the Republic of Adygea from December 28, 2017 No. 63/2017-e for 2018 for PJSC FGC UES approved the

necessary gross revenue for the maintenance of DGC facilities located in the territory of the Krasnodar Territory in the amount of 1.8 billion rubles including costs for depreciation charges of 1 billion rubles, which will be used to finance construction of electric grid facilities in the region. This will improve the reliability of energy supply in the region, and also contributes to the creation of conditions for technological connection of new consumers.

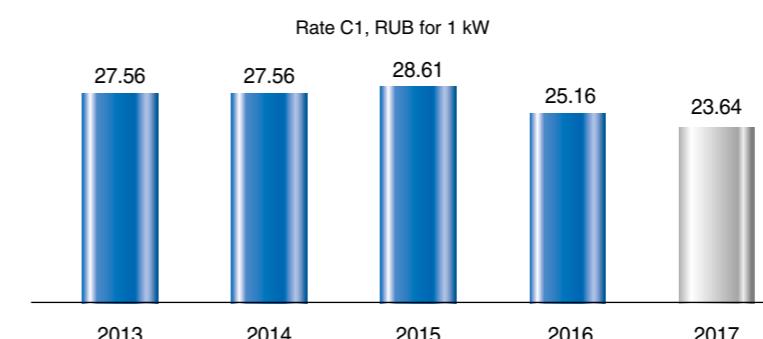
The Resolution of the State Committee of the Republic of Karelia on Prices and Tariffs No. 221 of December 29, 2017 «On Establishing Unified Boiler Tariffs for Electricity Transmission Services through the Networks of the Republic of Karelia for 2018» for PJSC FGC UES approved the necessary gross proceeds for the maintenance of DGC facilities, located on the territory of the Republic of Karelia, in the amount of 30 772 thousand rubles.

### Tariffs for services on technological connection to UNEG

FAS of Russia defined two methods of payment for technological connection to UNEG facilities: the approval of an individual payment for a particular applicant (in case of the need for construction of electric grid facilities) and the approval of a fee in the form of a formula using the standardised tariff rate C1.

In 2013-2017 years The Federal Tariff Service of Russia and FAS Russia approved a standardised tariff rate C1 for PJSC FGC UES in the amount of 23.64 to 28.61 rubles for 1 kW (without VAT).

#### Dynamics of the standardised rate C1, rubles / kW (without VAT)



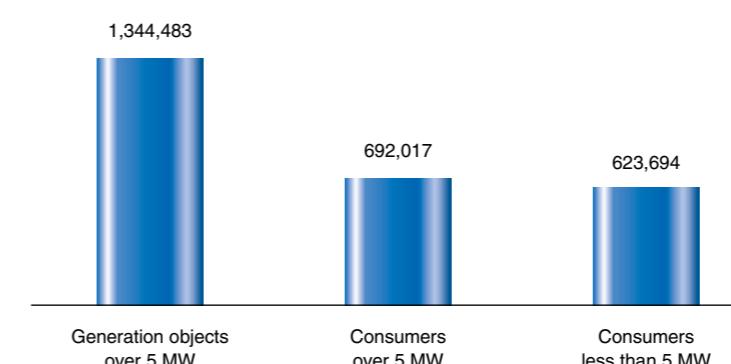
The FAS Russia Order No. 1135/17 of August 29, 2017 «On Approving Methodological Guidelines for Determining the Amount of Fees for Technological Connection to Electric Grids» establishes a new procedure for calculating a fee for the standardised tariff rate C1 for technological connection to UNEG at the rate of 1 connection (1 TC contract), differentiated into three categories of applicants.

Order of the Federal Antimonopoly Service of Russia of December 28, 2017 No. 1836/17 «On approval of payment for technological connection of power receiving devices of electric power consumers, electric power production facilities, as well as electric grid facilities owned by grid

organisations and other persons, to the facilities of the unified national (all-Russian) electric grid in the form of a formula for 2018» approved a standardised tariff rate C1 for three categories of applicants in the amount of:

- 1,344,483 rubles without VAT, for technological connection of power generation facilities, the connected capacity of which exceeds 5 MW;
- 692,017 rubles without VAT for technological connection of power receiving devices, as well as electric grid facilities, the connected capacity of which exceeds 5 MW;
- 623,694 rubles without VAT for technological connection of power receivers and power facilities, the connected capacity of which does not exceed 5 MW.

#### Differentiation rate C1, RUB without VAT, for 1 connection



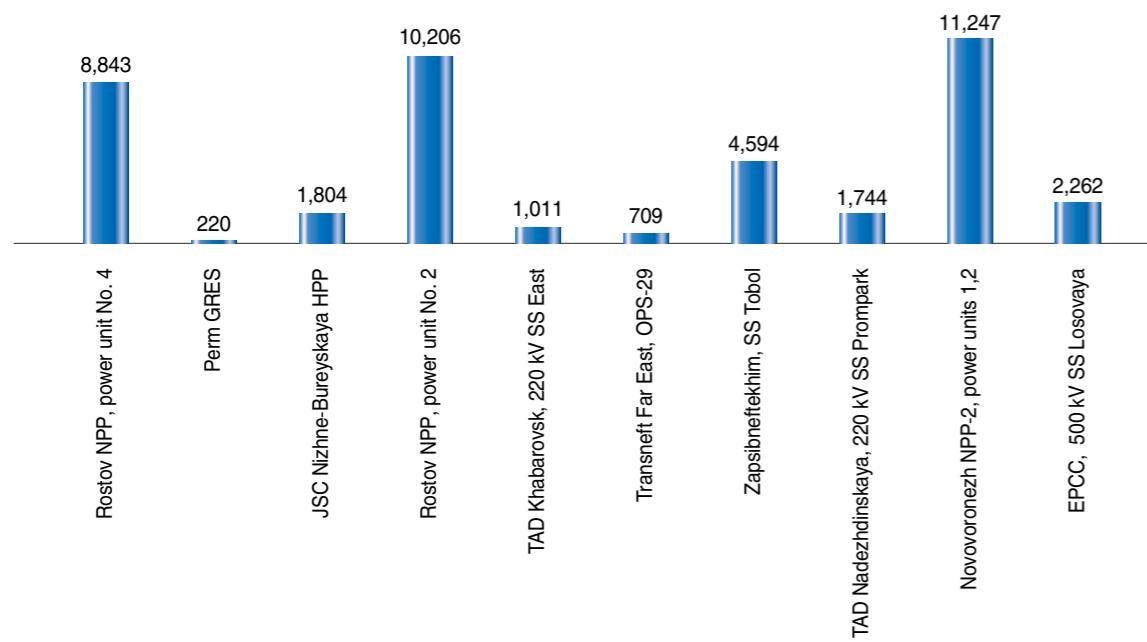
<sup>10</sup> By order of the Government of the Russian Federation No. 2243-r dated 02.12.2013, electric grid facilities of the state treasury, built by SC Olimpstroy, were transferred to the gratuitous use of PJSC FGC UES.

Starting from 06.11.2013, for technological connection of generation facilities to the UNEG in addition to expenses for the new construction of the «last mile» power grid facilities, investment costs for the development of the existing grid infrastructure are included to ensure the issuance of generating

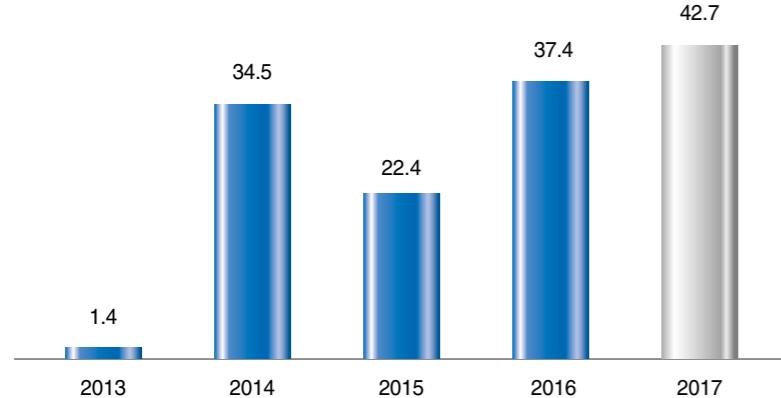
capacity (regardless of the type of generation - HPP, TPP).

In 2017, a payment for technological connection under an individual project was established for 12 consumers for a total of 42.7 billion rubles (without VAT). Among the applicants with the largest amount of fees are:

#### Payments for TC, RUB mln. without VAT



Amount of payment, billion rubles



Starting from 2015, in accordance with the adopted programmes of the state on optimisation of technological connection processes, acceleration of the terms of technological connection of applicants, PJSC FGC UES, work is carried out to optimise internal business processes in the company, which leads to a decrease in the C1 rate. Thus, the reduction in the C1 rate in 2016 by 2015 was 12.05%, and in 2017 by 2016, it is 6.04%.

The decrease in the C1 rate is due to the decrease in the number of FGC personnel by type of activity «Technological connection».

The reduction in the C1 rate leads to an increase in the accessibility of technological connection of consumers to the UNEG, in the case when capital expenditures are not included in the payment for TC in accordance with the legislative one.

#### The list of basic normative legal acts regulating the issues of tariff formation and activities on the transmission of electric power through the UNEG

The list of the main regulatory legal acts regulating the issues of tariff formation and activities related to the transmission of electric power through the UNEG:

- Federal Law of March 26, 2003 No. 35-FZ "On Electric Power Industry";
- Resolution of the Government of the Russian Federation No. 1178 of 29.12.2011 "On pricing in the field of regulated prices (tariffs) in the electric power industry";
- Resolution of the Government of the Russian Federation No. 1220 of 31.12.2009 "On the determination of reliability and quality of goods and services provided when establishing long-term tariffs";
- Resolution of the Government of the Russian Federation No. 1172 of 27.12.2010 "On Approval of the Rules for the Wholesale Electricity and Capacity Market and on Amending Certain Acts of the Government of the Russian Federation on the Organisation of the Wholesale Electricity and Capacity Market";
- Resolution of the Government of the Russian Federation No. 861 of 27.12.2004 "On approval of the Rules for non-discriminatory access to electricity transmission services and the provision of these services, the Rules for non-discriminatory access to services for operational dispatch management in the electric power industry and the provision of these services, the Rules for non-discriminatory access to services administrator of the trading system of the wholesale market and the provision of these services and the Rules for technological connection

of power receiving devices of electric power consumers, production electric energy and transmission facilities owned grid companies and other persons to electric grids";

- Resolution of the Government of the Russian Federation No. 977 of 01.12.2009 "On Investment Programmes of Electric Power Subjects";
- Order of the Federal Tariff Service of Russia No. 56-e / 1 of 21.03.2006 "On approval of methodological guidelines for the calculation of tariffs for electricity transmission services through the Unified National (All-Russian) Electric Network";
- Order of the Federal Tariff Service of Russia No. 28-e of 30.03.2012 "On approval of the Methodological Guidelines for Tariff Regulation with the Use of the Return on Investment Method";
- Order of the Federal Tariff Service of Russia No. 53-e / 1 of 12.04.2012 "On the approval of the Procedure for Forming the Consolidated Forecast Balance of Production and Supply of Electric Power (Capacity) within the Unified Energy System of Russia for the Subjects of the Russian Federation and the Procedure for Determining the Ratio of the Total Forecasted Volume of Consumption for the Year electric power by the population and equated to it by the categories of consumers to the volume of electric energy corresponding to the average for the year value of the forecast capacity volume determined in relation to the decree categories of consumers".

#### Intellectual capital

##### Results of innovation activities

In 2017, the Federal Service for Intellectual Property registered nine objects of intellectual property:

- one patent for an invention,
- four patents for the utility model,
- four certificates for computer programmes.

**The main results of the implementation of the R&D Programme for 2017**

<b>Results of development</b>	<b>Use of developments</b>
Design documentation for double-chain intermediate and double-chain anchor-angled steel lattice supports for OTL 500 kV has been developed.	These supports have been introduced in the implementation of the title "Construction of 500 kV SS Tobol with OTL 500 kV".
The main stage of testing of the first in Russia and the world's largest high-temperature superconducting cable line has been completed. At the end of 2017, project documentation for the implementation of the line was approved by the Glavgosexpertiza of the Russian Federation.	The Ministry of Energy of the Russian Federation included FGC development in the field of superconductivity as part of the national project. Tested with a full simulation of the operating mode, a prototype HTSC of a 2.5 km long cable line of DC in 2020 will be put into operation in the power system of St. Petersburg and will connect two substations - 330 kV «Central» and «RP-9» which will increase the reliability of the city's electricity supply.
The prototype of the software and hardware complex (SHC) of cybernetic protection is developed. It is installed at the 220 kV Skolkovo substation for pilot production.	The use of the SHC will ensure the availability of cybernetic protection of automated control systems for electric grid facilities, which will lead to a reduction in the risks of developing emergency situations and reducing the functional reliability of power grid facilities, caused by the vulnerability of the systems and automation used to cyber attacks.
A prototype SHC for continuous diagnostics of output electromechanical devices of relays of relay protection and automation devices was developed. Experimental-industrial operation is carried out at the 220 kV Kanash substation (MPS of the Volga).	<ul style="list-style-type: none"> <li>● Extension of the lifetime of the Relay Protection and Automatic Equipment complexes performed on the basis of electromechanical relays in operation at FGC facilities.</li> <li>● Increase of operational reliability and readiness of complexes of electromechanical RPA in operation through continuous automated monitoring of the status and recording of the operation of individual protection relays and measuring devices.</li> <li>● Ensuring the observability of electromechanical devices of relay protection and automation devices and organization of data transmission to the grid control centers.</li> </ul>
Standard project documentation for RPA cabinets for three groups of voltage classes (6-35 kV, 110-220 kV, 330-750 kV) has been developed; typical project documentation for ACS TC cabinets for three groups of voltage classes (6-35 kV, 110-220 kV, 330-750 kV); standard project documentation for the DTAC cabinets for two groups of voltage classes (110-220 kV, 330-750 kV); typical basic technical requirements for devices of relay protection and automation devices and automated process control systems; technical description of electronic databases of typical solutions 6-35 kV, 110-220 kV, 330-750 kV; technical project on SHC «EC RPA and ACS TC»; operational documentation; the act of manufacturing the prototype of SHC «EC RPA and ACS TC».	<ul style="list-style-type: none"> <li>● Reduce the time and cost of developing project documentation by increasing the level of typification of technical solutions.</li> <li>● Improving the quality of project documentation through the use of approved units / blocks of technical solutions for reuse.</li> <li>● Reduction of the Company's time and resource costs for review and approval of project documentation by increasing the degree of typification of technical solutions.</li> <li>● Increase the degree of commercialization of project documentation and standard project solutions by creating an electronic platform containing such documentation in electronic editable form.</li> </ul>
A prototype of a system of selective automatic re-inclusion for cable and overhead power lines with a voltage of 110 kV and above (SAR COL) is developed.	The creation of a system of selective automatic reclosing will allow to: <ul style="list-style-type: none"> <li>● reduce operating costs by reducing the number of circuit breaker repairs caused by short-circuit trips;</li> <li>● exclude an unjustified reduction of the switching resource of circuit breakers when unsuccessful SAR are disconnected;</li> <li>● reduce the likelihood of damage to cable screens from short-circuit currents;</li> <li>● exclude the possibility of switching a single-phase short circuit in the cable part of the line to two- and three-phase;</li> <li>● eliminate the need to replace the cable damaged when the line is switched on again.</li> </ul>
The design documentation for the equipment of the block of thyristor valves of valves with an independent cooling system for the SS 400 kV Vyborgskaya has been developed.	The development of a thyristor valve block will allow to: <ul style="list-style-type: none"> <li>● modernize and reconstruct the DC insertion of the Vyborg transformer complex to ensure the export of electricity from Russia to Finland and in the opposite direction;</li> <li>● ensure increased reliability of electricity supply;</li> <li>● use domestic developments in the creation of similar perspective transmissions and DC inserts in other regions, including the implementation of the construction project of the CRCD No. 5, 6.</li> </ul>
The following databases were developed and registered:	Creation of an industry catalog of electronic standard projects will allow: <ul style="list-style-type: none"> <li>● develop an electronic catalog of standard technical solutions recommended for use at the facilities of JSC FGC UES (improving the quality of project documentation);</li> <li>● reduce labor costs for verification and approval of design solutions by means of partial automation of production processes;</li> <li>● create conditions for the introduction of information modeling and asset management technologies for JSC FGC UES.</li> </ul>

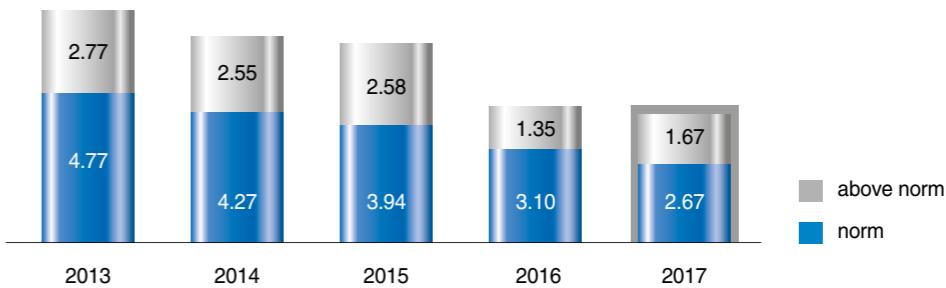
**Natural capital****Environmental policy**

The main directions of the implementation of the Environmental Policy:

- compliance with the requirements and norms established by the environmental legislation of the Russian Federation and international legal acts in the field of environmental protection;
- compliance with the standards of permissible environmental impact, established by the environmental legislation of the Russian Federation;
- priority of taking precautionary measures on measures to eliminate environmental damage;
- use of the best available technologies in the production process, ensuring compliance with environmental

requirements and minimizing the negative impact on the environment;

- limiting the management of production and construction activities in areas of special conservation importance;
- ensuring the conservation of biological diversity;
- phased decommissioning of equipment containing polychlorinated biphenyls and its replacement by environmentally safe;
- management of generated waste products and their environmentally safe handling;
- improvement of environmental management system.

**Volum of payments for negative impact on the enviroment, million rubles**

Reduction of payments for negative impact on the environment is associated with the abolition of charges for emissions of pollutants from mobile sources of emissions, as well as for discharging pollutants into the relief.

The main reasons for the presence of excess fees:

- absence of permits for emissions, discharge of pollutants and waste disposal,
- removal of generated waste to landfills that are not included in the state register of waste disposal facilities due to their absence in the area of the substation location.

The main tasks in the field of environmental protection in 2018 are:

- implementation of planned environmental measures aimed at minimizing the negative impact on the environment and achieving specified quantitative environmental targets;
- updating of the base of trichlorodiphenyl-containing equipment, development of plans for its further

decommissioning and performance of works aimed at minimizing the negative impact on the environment during its operation and storage;

- carrying out of measures on biodiversity conservation during construction / reconstruction / operation of electric grid facilities;
- improvement of the environmental management system in accordance with the requirements of ISO 14001:2015;
- improvement of the system of internal environmental audits in the branches of FGC UES in order to further improve the effectiveness of environmental protection activities;
- organization of environmental education and training of managers and specialists in order to improve the environmental literacy and competence of the Company's personnel;
- interaction with international and Russian governmental and non-governmental organizations, scientific and educational institutions that work effectively in the field of environmental protection and environmental management.

## Energy efficiency and internal energy consumption

### The volume of energy resources used in FGC in 2017

Types of resources	Unit. amend.	Plan 2017	Fact 2017	Deviation in %
Atomic Energy*	In physical terms	-	-	-
	In monetary terms	-	-	-
Thermal energy in administrative buildings	In physical terms	37.3 thousand Gcal	39.4 thousand Gcal	-5.5
	In monetary terms**	43,481.9 thousand rubles without VAT	69,698.69 thousand rubles without VAT	-60.3
Electric Energy in administrative buildings, powered from third-party sources	In physical terms	31,064.9 thousand kWh	31,392.8 thousand kWh	-1.1
	In monetary terms**	124,259.8 thousand rubles without VAT	129,024.5 thousand rubles without VAT	-3.8
Electromagnetic energy*	In physical terms	-	-	-
	In monetary terms	-	-	-
Oil*	In physical terms	-	-	-
	In monetary terms	-	-	-
Gasoline for cars	In physical terms	6,042.6 thousand l.	6,034.2 thousand l.	0.1
	In monetary terms**	196,987.8 thousand rubles without VAT	198,888.2 thousand rubles without VAT	2.8
Diesel fuel	In physical terms	5,910.4 thousand l.	5,745.2 thousand l.	2.8
	In monetary terms**	192,502.4 thousand rubles without VAT	191,370.9 thousand rubles without VAT	0.6
Heating oil *	In physical terms	-	-	-
	In monetary terms	-	-	-
Gas natural *	In physical terms	-	-	-
	In monetary terms	-	-	-
Coal*	In physical terms	-	-	-
	In monetary terms	-	-	-
Oil shale*	In physical terms	-	-	-
	In monetary terms	-	-	-
Peat*	In physical terms	-	-	-
	In monetary terms	-	-	-
Other*	In physical terms	-	-	-
	In monetary terms	-	-	-

\* The resource is not used in FGC and in accordance with the order of FAS of Russia No. 508-e of 26.03.2014 is not a resource in respect of which the target indicators.

\*\* The value in money terms is indicated from the calculation of the average cost of an energy resource per year.

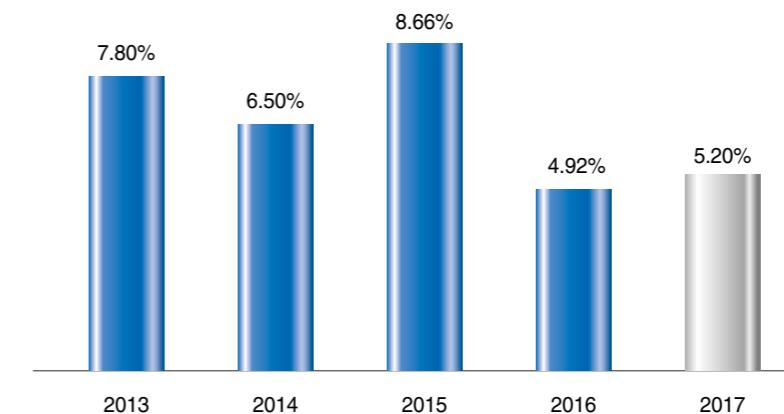
The base year is the previous year from the reporting year in accordance with the order of the Federal Tariff Service of Russia No. 508-e of 26 March 2014 «On Establishing Requirements for the Programme for Energy Saving and Improving the Energy Efficiency of PJSC FGC UES for 2015-2017». The base year for 2017 is 2016.

## Human capital

### Personnel Management

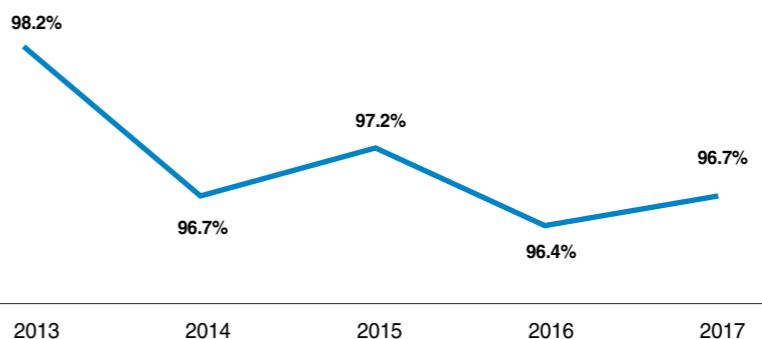
In 2017, the index of active staff turnover remained at the level of the previous year and amounted to 5.2%.

#### Active staff turnover



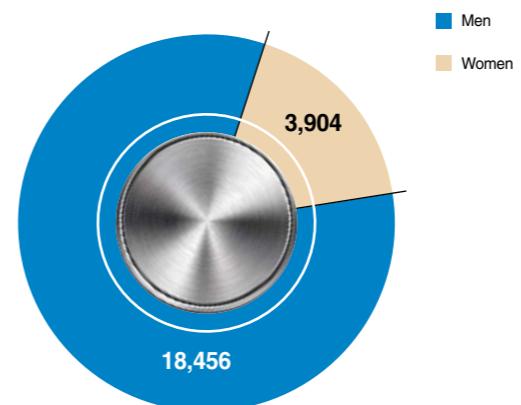
The staffing indicator has traditionally remained at a high level and as of 31.12.2017 it was 96.7%, which indicates the high efficiency of the HR corporate function.

#### The level of provision of PJSC FGC UES with personnel



(102-7, 102-8) In PJSC FGC UES the share of activities performed at the expense of workers who are not employees is insignificant. Seasonal variations in the personnel indicators are absent. Information on the number of employees was provided on the basis of data on the Company's payroll number as of 31.12.2017.

#### Number of staff by sex



**Total number of employees by employment contract and by gender, persons**

Employment contract	Number of employees	
	Men	Women
Permanent	18,225	3,618
Temporary	231	286

**Total number of employees by employment contract and by region, persons**

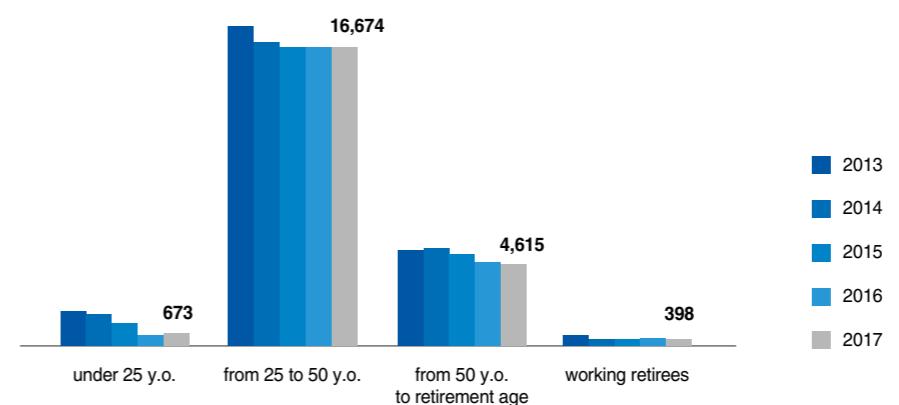
Region	Permanent	Temporary
Executive Office	799	55
MPS Centre	4,677	117
MPS North-West	2,275	85
MPS Volga	1,966	33
MPS South	2,423	20
MPS Ural	2,466	53
MPS Siberia	3,290	48
MPS West Siberia	2,003	61
MPS East	1,944	45
<b>Total:</b>	<b>21,843</b>	<b>517</b>

**Total number of employees by employment type and by gender, persons**

Employment type	Number of employees	
	Men	Women
Full-time	18,368	3,873
Part-time	68	51

**Number of staff by level of education as of December 31, persons**

The level of education	2013	2014	2015	2016	2017
Scientific degree of Doctor of Science	24	28	26	24	3
Scientific degree of Candidate of Science	97	94	98	96	72
Higher vocational education	15,256	14,935	14,770	14,100	14,094
Secondary vocational and secondary general education	10,364	9,461	8,535	8,157	8,191
<b>Total:</b>	<b>25,741</b>	<b>24,518</b>	<b>23,429</b>	<b>22,377</b>	<b>22,360</b>

**Personnel structure by age, persons****Allocation of injured employees by branches of PJSC FGC UES – MPS for 2017, persons**

Branch	total	light	severe	deadly
MPS Center	1			1
MPS North-West	1	1		
MPS Volga	1		1	
<b>Total for PJSC FGC UES</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>

**Occupational injuries****403-2 Injury frequency rate (IR) by region**

Branch	Injury frequency rate (IR), (N1/Np)·1000*
MPS Centre	0.21
MPS North-West	0.429
MPS South	-
MPS Volga	0.51**
MPS Ural	-
MPS West Siberia	-
MPS Siberia	-
MPS East	0.137
<b>Total for PJSC FGC UES</b>	<b>45.5</b>

\*Injury frequency rate (IR) is the number of injured employees relative to the average headcount and divided by:  
 $IR = (N1/Np) \times 1000$ , where N1 is the number of injured employees, who was disabled for more than three working days, and fatalities; Np – is a number of employees for a certain time period (average headcount).

\*\*Issue of the accident being connected to the production is in the adjudication

## Injury to third parties

### Injury of third parties Programme of measures to reduce the risks of injuries of third parties at the facilities of FGC UES

As part of the Programme in 2017, the following activities were carried out:

Category of citizens	Events
Gardeners and citizens who are fond of fishing	<p>Preparation and placement in regional and district media of information materials on the prevention of electro-injury.</p> <p>Production and installation of warning signs.</p> <p>Conducting joint preventive actions with the participation of regional government in the field of education, territorial bodies of the Ministry of Internal Affairs, the Ministry of Emergency Measures, Rostekhnadzor.</p> <p>Production and placement of preventive audio and video clips on regional radio stations and TV channels.</p> <p>Production and distribution of prophylactic printing products for various target audiences, including among rural settlements, residents of private households, horticultural associations about the deadly danger of unauthorised connection to electrical grids, the danger of approaching electrical installations and unauthorised work in the guard zones of overhead lines.</p> <p>Equipment of intersections of power transmission lines with reservoirs, warning signs on prohibition and danger of fishing in the guard zone of the overhead line.</p> <p>Conducted preventive meetings, discussions with members of public associations of anglers.</p>
Children and teens	<p>Carrying out of preventive exit actions in children's improving and school camps, excursions for schoolboys on power objects.</p> <p>Conducting electrical safety lessons for schoolchildren.</p> <p>Production and distribution in educational institutions of memos, bookmarks, stickers on the topic of child electrical safety.</p> <p>Writing articles in regional and interregional mass media about the work done to prevent electrotraumatic among children and adolescents.</p>
Employees of third-party and contract organisations	<p>Carrying out classes according to the rules of operation in the guard zones of power lines in driving schools that train drivers of cargo and load special equipment.</p> <p>Distribution of preventive printing products on safety measures during loading and unloading operations in the guard zones of power transmission lines in traffic police units, at the points of instrumental control and inspection.</p>

## Corporate Governance Report

Information about meetings of the Board of Directors, information on decisions taken, numbers and dates of minutes are available on the Company's official website at:

[http://www.fsk-ees.ru/shareholders\\_and\\_investors/corporate\\_governance/decisions\\_of\\_the\\_board/2017/](http://www.fsk-ees.ru/shareholders_and_investors/corporate_governance/decisions_of_the_board/2017/).

### Information on the minutes of meetings of committees of the Board of Directors of the Company in 2017.

#### Audit Committee:

- Date of the meeting on January 31, 2017 (Minutes No. 54 of 03 February 2017)
- Date of the meeting on February 3, 2017 (Minutes No. 55 of February 3, 2017)
- Date of the meeting on February 10, 2017 (Minutes No. 56 of February 10, 2017)
- Date of the meeting on March 3, 2017 (Minutes of March 03, 2017 No. 57)
- Date of the meeting on April 7, 2017 (Minutes No. 58 of April 7, 2017)
- Date of the meeting on April 7, 2017 (Minutes No. 59 of April 07, 2017)
- Date of the meeting on April 26, 2017 (Minutes No. 60 of April 27, 2017)
- Date of the meeting on May 11, 2017 (Minutes No. 61 of May 11, 2017)
- Date of the meeting on May 26, 2017 (Minutes No. 62 of May 30, 2017)
- Date of the meeting on June 15, 2017 (Minutes No. 63 of June 16, 2017)
- Date of the meeting on June 28, 2017 (Minutes No. 64 of June 30, 2017)
- Date of the meeting on August 10, 2017 (Minutes No. 65 of August 10, 2017)
- Date of the meeting on September 25, 2017 (Minutes No. 66 of September 26, 2017)
- Date of the meeting on November 17, 2017 (Minutes No. 67 of November 17, 2017)
- Date of the meeting on December 13, 2017 (Minutes No. 68 of December 13, 2017)

#### Committee on Investments:

- Date of the meeting on January 27, 2017 (Minutes No. 68 of 01 February 2017)
- Date of the meeting on January 31, 2017 (Minutes No. 69 of February 6, 2017)
- Date of the meeting on February 16, 2017 (Minutes No. 70 of February 21, 2017)
- Date of the meeting on March 23, 2017 (Minutes No. 71 of March 28, 2017)
- Date of the meeting on March 30, 2017 (Minutes No. 72 of April 4, 2017)
- Date of the meeting on April 13, 2017 (Minutes No. 73 of April 14, 2017)
- Date of the meeting on April 26, 2017 (Minutes No. 74 of May 2, 2017)
- Date of the meeting on May 23, 2017 2016 (Minutes No. 75 of May 29, 2017)
- Date of the meeting on June 21, 2017 (Minutes of June 23, 2017 No. 76)
- Date of the meeting on June 21, 2017 (Minutes of June 26, 2017 No. 77)
- Date of the meeting on August 4, 2017 (Minutes No. 78 of August 9, 2017)
- Date of the meeting on September 13, 2017 (minutes from September 14, 2017 No. 79)
- Date of the meeting on December 21, 2017 (Minutes No. 80 of December 25, 2017)

**Committee for Personnel and Remuneration:**

- Date of the meeting on March 23, 2017 (Minutes No. 37 of March 27, 2017)
- Date of the meeting on April 13, 2017 (Minutes No. 38 of April 13, 2017)
- Date of the meeting on May 11, 2017 (Minutes No. 39 of May 11, 2017)
- Date of the meeting on June 21, 2017 (Minutes No. 40 of June 22, 2017)
- Date of the meeting on September 1, 2017 (minutes from September 1, 2017 No. 41)
- Date of the meeting on October 11, 2017 (minutes of October 11, 2017 No. 42)
- Date of the meeting on November 3, 2017 (Minutes No. 43 of November 3, 2017)
- Date of the meeting of December 7, 2017 (Minutes No. 44 of December 7, 2017)
- Date of the meeting on December 21, 2017 (Minutes No. 45 of December 21, 2017)
- Date of the meeting on December 28, 2017 (Minutes No. 46 of December 28, 2017)

**The Strategy Committee:**

- Date of the meeting on January 20, 2017 (Minutes of January 23, 2017 No. 42)
- Date of the meeting on January 27, 2017 (Minutes No. 43 of January 27, 2017)
- Date of the meeting on February 13, 2017 (Minutes No. 44 of February 17, 2017)
- Date of the meeting on February 21, 2017 (Minutes No. 45 of March 10, 2017)
- Date of the meeting on April 12, 2017 (minutes of April 21, 2017 No. 46)
- Date of the meeting on May 22, 2017 (Minutes No. 47 of May 22, 2017)
- Date of the meeting on June 14, 2017 (Minutes No. 48 of June 15, 2017)
- Date of the meeting on June 20, 2017 (Minutes No. 49 of June 22, 2017)
- Date of the meeting on July 6, 2017 (Minutes No. 50 of July 7, 2017)
- Date of the meeting on August 3, 2017 (Minutes No. 51 of August 08, 2017)
- Date of the meeting on August 31, 2017 (Minutes No. 52 of September 4, 2017)
- Date of the meeting on September 5, 2017 (Minutes No. 53 of September 8, 2017)
- Date of the meeting on September 14, 2017 (Minutes No. 54 of September 25, 2017)
- Date of the meeting on September 21, 2017 (Minutes No. 55 of September 22, 2017)
- Date of the meeting on December 25, 2017 (Minutes No. 56 of December 27, 2017)
- Date of the meeting on December 27, 2017 (Minutes No. 57 of December 29, 2017)
- Date of the meeting on December 29, 2017 (Minutes No. 58 of January 9, 2018)

**Information on decisions taken by Committees of the Board of Directors on key areas of activity in 2017****Audit Committee****Decisions taken on key areas of activity**

Direction of activity	Results of activity
Accounting (financial reporting)	<ul style="list-style-type: none"> <li>● The annual accounting (financial) statements of PJSC FGC UES for 2016 were preliminarily considered and recommended for approval.</li> <li>● Considered and taken note of the schedule of measures to implement the concept of a monitoring and financial stability system of counterparties of PJSC FGC UES and information on non-standard transactions and events that occurred in 2016, as well as the procedure for forming a reserve of doubtful debts and estimated liabilities in 2016.</li> </ul>
Risk management, internal control and corporate governance	<ul style="list-style-type: none"> <li>● The revised version of the Roadmap for the organisation of risk management and internal control processes in the field of preventing and countering corruption was considered and recommended for approval.</li> <li>● Recommendations on the approval of the List of Corruption Risks of PJSC FGC UES and the Corruption Risk Map of PJSC FGC UES are given.</li> <li>● The annual report of PJSC FGC UES for 2016 was preliminarily reviewed and recommended for approval.</li> <li>● The Methodology for evaluating the effectiveness of corporate governance of PJSC FGC UES was approved. The Board of Directors of PJSC FGC UES is recommended to approve the Corporate Governance Self-Assessment Methodology of PJSC FGC UES and the minimum acceptable quality of corporate governance not less than 80%.</li> </ul>
External audit	<ul style="list-style-type: none"> <li>● The issue «On recommendations to the Annual General Meeting of Shareholders on the candidacy of the auditor of PJSC FGC UES» was considered.</li> <li>● The effectiveness of the external audit of the accounting (financial) statements of PJSC FGC UES for 2016 was evaluated, according to which the compliance of the external audit of PJSC FGC UES reporting for 2016 with the terms of the concluded contracts was noted.</li> </ul>
Internal audit	<ul style="list-style-type: none"> <li>● The results of the audit of the business process in the direction of «Investment activity» are considered.</li> <li>● The Report on the implementation of corrective action plans aimed at eliminating the causes of deficiencies identified by the results of audits of the functional activities (processes) of PJSC FGC UES was considered: <ul style="list-style-type: none"> <li>- Capital construction,</li> <li>- Management of projects financed by charges for technological connection,</li> <li>- Procurement activities.</li> </ul> </li> <li>● Approved the Code of Ethics for Internal Auditors of PJSC FGC UES, Guidelines for conducting internal audits PJSC FGC UES and the Methodology for evaluating the effectiveness of corporate governance of PJSC FGC UES. The Audit Committee also recommended to the Board of Directors of the Company to approve the Programme of Guarantees and Improvement of Internal Audit Quality of PJSC FGC UES.</li> </ul>
Counteraction to dishonest actions of employees of PJSC FGC UES and third parties	<ul style="list-style-type: none"> <li>● The new version of the anti-corruption policy of PJSC FGC UES was recommended for approval.</li> <li>● The Code of corporate ethics and official conduct of employees of PJSC FGC UES was reviewed and recommended for approval.</li> <li>● The results of Anticorruption monitoring of PJSC FGC UES for 2016 and for the first half of 2017.</li> </ul>

**The Strategy Committee****Decisions taken on key areas of activity**

Direction of activity	Results of activity
Determination of priority activities	<ul style="list-style-type: none"> <li>● The report for 2016 on the implementation of a set of measures aimed at reducing operating expenses was reviewed.</li> <li>● The Regulations for increasing investment and operational efficiency and reducing the Company's expenses were considered.</li> <li>● The technical tasks for conducting an external independent audit of the financial and economic and investment activities of PJSC FGC UES.</li> </ul>
Definition of Long-term development programme	<ul style="list-style-type: none"> <li>● The report of the independent auditor on the implementation of measures envisaged by the DPS of PJSC FGC UES for the period 2015-2019 was considered. and the forecast until 2030.</li> <li>● A decision was made on the expediency of developing the Long-term development programme for PJSC FGC UES in a new edition.</li> </ul>
Business planning of the Company's activities	<ul style="list-style-type: none"> <li>● Consolidated business plan on the basis of RAS and consolidated business plan on the principles of IFRS for the Group of companies FGC UES for 2016 and 2017 and projected indicators for 2017-2020 are considered.</li> <li>● The reports on the execution of the business plan of PJSC FGC UES and the reports on the implementation of the consolidated business plan on the basis of RAS for the Group of companies FGC UES for the 1st quarter of 2016 for 9 months of 2016 were considered.</li> <li>● The Scenario conditions for the formation of the business plan of PJSC FGC UES for 2017 and the forecast indicators for 2018-2021.</li> </ul>
Determination of the Company's policy with respect to transactions with derivatives and determination of dividend policy	<ul style="list-style-type: none"> <li>● The report on the results of work in the capital markets and interaction with rating agencies for 2016 was considered.</li> <li>● The report of PJSC FGC UES on actual use of hedging instruments for currency and interest risks for 2016 and the achieved economic effect.</li> </ul>
Management of non-core assets	<ul style="list-style-type: none"> <li>● Reports on the progress and results of the implementation of the activities for the Disposal of the non-core assets of PJSC FGC UES and PJSC FGC UES for 2016, 1 - 3 quarters of 2017 are considered.</li> <li>● The Programme for alienating non-core assets of PJSC FGC UES and PJSC FGC UES was considered and recommended for approval.</li> </ul>
International and other agreements on cooperation not related to the implementation by the Company of ordinary operating activities	<ul style="list-style-type: none"> <li>● The updated report on the international benchmarking of PJSC FGC UES.</li> </ul>

**Committee for Personnel and Remuneration****Decisions taken on key areas of activity**

Direction of activity	Results of activity
Remuneration of members of the Company's management and control bodies	<ul style="list-style-type: none"> <li>● Reports on the implementation of the KPI of the top managers of PJSC FGC UES for various periods of financial and economic activities were reviewed.</li> <li>● Recommended for approval of the methodology for calculating and evaluating the performance of key performance indicators of the top managers of PJSC FGC UES, as well as the target KPI values of the top managers of PJSC FGC UES for 2018.</li> <li>● The results of the assessment of the effectiveness of the work of the Board of Directors of PJSC FGC UES and the main directions for improving the practice of corporate management of PJSC FGC UES.</li> </ul>
Personnel issues	<ul style="list-style-type: none"> <li>● The plan of measures for the implementation of professional standards in the activities of PJSC FGC UES was considered, and take note of information on the implementation of measures for their implementation.</li> <li>● Issues affecting the conditions for the performance of the work of the Chairman of the Management Board of PJSC FGC UES and certain members of the Management Board of PJSC FGC UES were considered.</li> </ul>

**Committee on Investments****Decisions taken on key areas of activity**

Direction of activity	Results of activity
Approval and introduction of adjustments to the investment programme	<ul style="list-style-type: none"> <li>● The adjustment of the investment programme of PJSC FGC UES for 2016-2020 was recommended for approval.</li> <li>● The proposals of PJSC FGC UES on improving the process of formation, coordination, approval and adjustment of the investment programme in terms of determining and forming the marginal cost of construction of investment projects and further automating the preparation and filling in the forms of the Company's investment programme.</li> </ul>
Implementation of individual investment projects	<ul style="list-style-type: none"> <li>● Information and reports on the status of implementation of a number of investment projects of PJSC FGC UES were considered.</li> <li>● The results of field inspections of the Ministry of Energy of Russia on the progress of implementation of a number of investment projects of PJSC FGC UES and plans of measures to eliminate the identified remarks are considered.</li> <li>● The reports of the management of PJSC FGC UES on the implementation of action plans for the elimination of comments revealed during inspections of the Ministry of Energy of Russia.</li> </ul>
Determination of the procurement policy	<ul style="list-style-type: none"> <li>● The Single Procurement Standard (Procurement Regulations) of PJSC FGC UES was recommended for approval.</li> <li>● Considered changes and additions to the Regulations on the procurement of goods, works, services for the needs of PJSC FGC UES.</li> </ul>
Adoption of the Innovative Development Programme	<ul style="list-style-type: none"> <li>● The annual report for 2016 on the implementation of the Innovative Development Programme of PJSC FGC UES for 2016-2020 is recommended for approval with a perspective up to 2025.</li> </ul>
Approval of internal documents on investment activities, including standards for technology and price audit of investment projects	<ul style="list-style-type: none"> <li>● The investment policy of PJSC FGC UES was recommended for approval.</li> <li>● The list of investment projects of PJSC FGC UES, subject to public technological and price audit in 2017, is recommended for approval.</li> <li>● The annual report on the technological and price audit of the priority investment projects of PJSC FGC UES in 2016 was considered.</li> </ul>
Development of asset management system	<ul style="list-style-type: none"> <li>● The plan for the development of the production assets management system of PJSC FGC UES for 2016-2020 was recommended for approval.</li> </ul>
Implementation of technological connections to electrical grids	<ul style="list-style-type: none"> <li>● The report on the results of improving the quality of services and customer satisfaction for 2016 was considered.</li> <li>● Reports on consideration of applications for technological connection and execution of contracts for technological connection to the grid facilities of PJSC FGC UES for 2016 and the first half of 2017 were considered.</li> </ul>

## Internal control and risk management system

### Internal control system

The Company's internal control system operates in accordance with the «three lines of defense» model. This model means the implementation of internal control in the Company at three levels:

- the level of the management bodies (single and collegial executive bodies), units and divisions of the Company that perform control procedures due to their functions and duties - the first line of defense;
- the level of control units of the Company - the second line of defense;
- level of the Internal Audit Department - third line of defense.

Internal control system participants	Main functions in the field of internal control system
<b>First line of defense</b>	
Board of Directors	<ul style="list-style-type: none"> <li>● Defines the principles and approaches to the organisation of the Company's internal control system, including approves internal documents of the Company that define the organisation of the internal control system, criteria for evaluating the effectiveness of the internal control system;</li> <li>● carries out control over the activities of the executive bodies of the Company in the main (priority) areas;</li> <li>● annually reviews the report of the Chairman of the Management Board and members of the Management Board on the functioning of the Company's internal control system;</li> <li>● annually reviews reports of the internal auditor on the effectiveness of the internal control system;</li> <li>● reviews the results of an external independent evaluation of the effectiveness of the internal control system.</li> </ul>
Audit Committee of the Board of Directors	<ul style="list-style-type: none"> <li>● Preliminary consideration, before approval by the Board of Directors of the Company, of internal documents determining the organisation of the internal control system, criteria for the effectiveness of the internal control system;</li> <li>● preliminary consideration, before consideration by the Board of Directors of the Company: report of the Chairman of the Management Board and members of the Management Board on the functioning of the internal control system; report of the internal auditor on the effectiveness of the internal control system, as well as information on the results of the external independent evaluation of the effectiveness of the internal control system;</li> <li>● reviews issues related to the control over the reliability of the Company's financial statements, the selection of an external auditor and the conduct of an external audit, the enforcement of regulatory legal requirements, and the consideration of issues related to the analysis and evaluation of the implementation of the Regulation on the Internal System control.</li> </ul>
Other committees of the Board of Directors (the Personnel and Remuneration Committee, Committee on Strategy, Committee on Investments)	<ul style="list-style-type: none"> <li>● Monitor the implementation of established financial and operational indicators, monitor compliance with applicable laws, regulations and procedures established by local regulatory acts, and monitor the accuracy and timeliness of the Company's reporting.</li> </ul>
Audit committee	<ul style="list-style-type: none"> <li>● Verify the accuracy of the data contained in the annual report, the annual accounting (financial) statements of the Company;</li> <li>● conducts an analysis of the financial condition of the Company, identifies reserves to improve the financial condition, develops recommendations for management bodies;</li> <li>● carries out inspections (audits) of the Company's financial and economic activities.</li> </ul>
The executive bodies of the Company (the Management Board, the Chairman of the Management Board)	<ul style="list-style-type: none"> <li>● Ensure the creation and effective functioning of the internal control system;</li> <li>● ensure the implementation of decisions of the Board of Directors in the field of internal control organisation.</li> </ul>

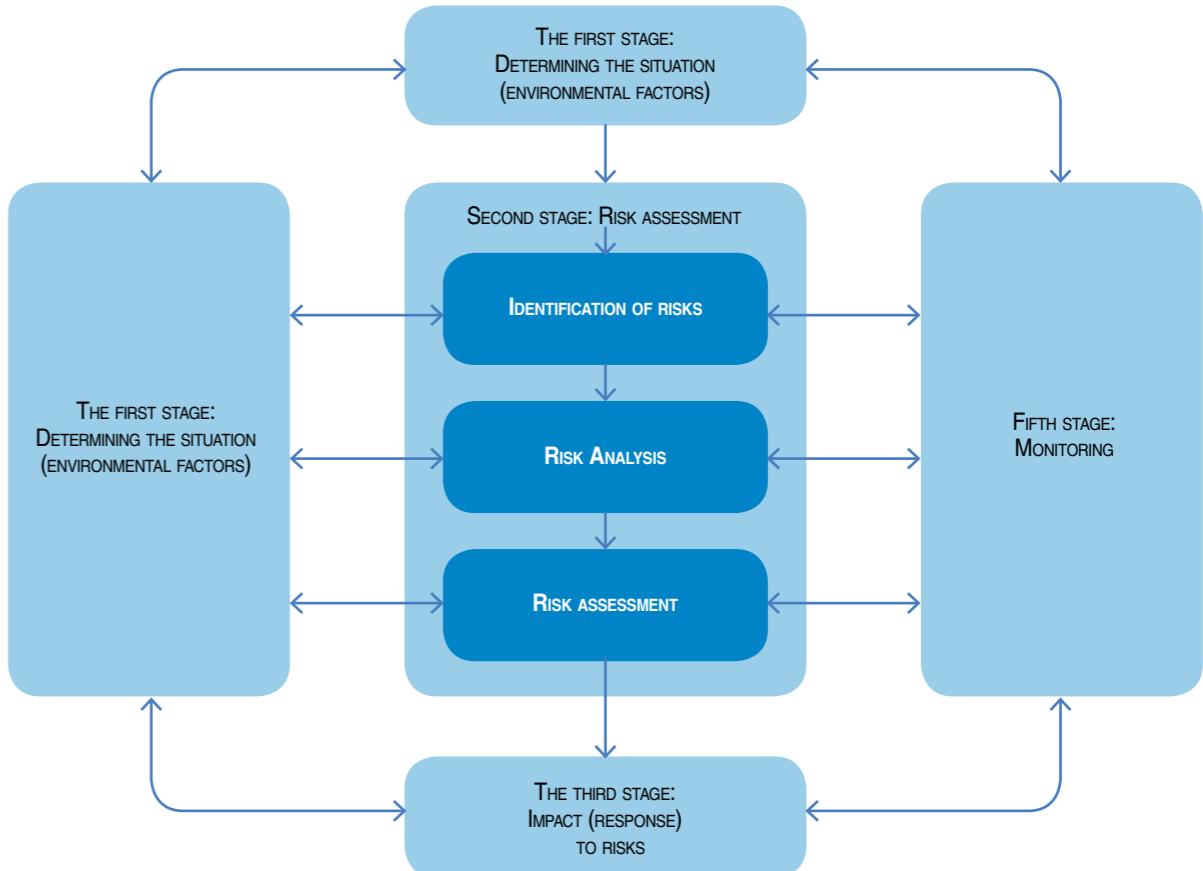
Internal control system participants	Main functions in the field of internal control system
The Management Board of the Company	<ul style="list-style-type: none"> <li>● Provides for the submission to the meeting of the Board of Directors of the Company with the preliminary consideration by the Audit Committee of the Board of Directors of the Company of the reports of the Chairman of the Management Board and members of the Management Board on the functioning of the internal control system;</li> <li>● considers the results of external independent and internal evaluation of the effectiveness of the internal control system, measures to develop and improve the internal control system.</li> </ul>
Chairman of the Management Board of the Company	<ul style="list-style-type: none"> <li>● Approves the regulatory and methodological documents of the Company on the organisation and operation of the internal control system, with the exception of documents whose approval is attributed to the competence of the Board of Directors of the Company;</li> <li>● ensures the implementation of the Company's business plans necessary for the solution of its tasks;</li> <li>● organises accounting and management accounting, preparation of accounting (financial) and other reporting;</li> <li>● submits for consideration by the Board of Directors of the Company reports on the financial and economic activities of the Company, on the organisation and functioning of the Company's internal control system.</li> </ul>
Heads of blocks and structural divisions of the Company	<ul style="list-style-type: none"> <li>● Carry out the functions of developing, documenting, implementing, monitoring and developing the internal control system in the Company's functional areas, the responsibility for the organisation and coordination / implementation of which is assigned to them by the Company's regulatory documents / regulations on structural divisions, including:           <ul style="list-style-type: none"> <li>● ensure the implementation of the principles of internal control;</li> <li>● organise the construction of effective processes (activities), including the development and implementation, taking into account the identified risks, new or changing existing control procedures;</li> <li>● assess the supervised processes (activities) for the need to optimise them to improve efficiency and compliance with the changing conditions of the external and internal environment, ensure their regulation, organise the development of proposals for improving control procedures;</li> <li>● organise execution of control procedures;</li> <li>● assess (monitor) the implementation of control procedures;</li> <li>● ensure the elimination of identified shortcomings of control procedures and processes (activities).</li> </ul> </li> </ul>
Employees of the Company's structural divisions that perform audit procedures due to their job responsibilities	<ul style="list-style-type: none"> <li>● Perform control procedures;</li> <li>● ensure timely informing of immediate managers about cases when the execution of control procedures for any reasons became impossible and / or the design of control procedures needs to be changed due to changes in internal and / or external operating conditions of the Company;</li> <li>● submit proposals for the implementation of control procedures in the relevant areas of activity to the direct management.</li> </ul>
<b>Second line of defense</b>	
Legal Department	<ul style="list-style-type: none"> <li>● Monitors compliance with the requirements of the legislation of the Company by conducting legal expertise and approval in the order established by the organisational and administrative documents of the Company, draft agreements and agreements, drafts of organisational and administrative documents, draft decisions of the Company's management bodies, drafts of powers of attorney to represent the Company's interests to third parties, draft statements, letters, appeals, complaints sent on behalf of the Company to the legislative and national authorities, courts, law enforcement agencies, as well as monitors and informs the Company's management on the adopted normative legal acts of the Russian Federation, significantly affect the Company's operations, minimising the risks of non-compliance with legal requirements and the Company's interests.</li> </ul>
Department of Corporate and Strategic Management	<ul style="list-style-type: none"> <li>● Carries out control over the compliance of decisions made by the executive bodies of the Company's management to the legislation of the Russian Federation, the Company's standards, organisational and administrative documents of the Company, and the interests of the Company, minimising the risks of non-compliance with the requirements of the joint-stock legislation and internal regulatory documents.</li> </ul>

Internal control system participants	Main functions in the field of internal control system
Department of Economic Security and Anti-Corruption	Organises and conducts verification activities to establish the reasons for causing economic and reputational damage to the interests of the Company and its subsidiaries and dependent companies, service checks on information on possible abuses by officials of the Company and SDCs, including those received by the hotline.
Department of Business Management	Performs control over the execution of orders contained in the minutes of the Company's Management Board, the Company's orders, minutes of meetings and instructions of the Chairman of the Management Board of the Company, minimising the risks associated with late fulfillment of important orders.
Center for Technical Supervision of PJSC Rosseti	Carries out under the agreement with PJSC FGC UES: <ul style="list-style-type: none"> <li>● selective technical supervision of the state and operating level of the existing facilities of the power grid complex;</li> <li>● selective technical supervision at the sites of reconstruction, technical re-equipment and new construction;</li> <li>● control of the organisation of operational and technological management;</li> <li>● control of the level of production safety (labor protection, fire, industrial and environmental safety);</li> <li>● control over the implementation of operational and systemic measures for the prevention of fires, accidents and accidents;</li> <li>● control over the completeness and timeliness of the execution of anti-accident documents and organisational and administrative documents of the Company, minimising the risks of non-compliance with the requirements of the legislation and the Regulation on the Unified Technical Policy in the power grid complex, as well as the risks associated with the violation of production safety, the emergence of fires, accidents and accidents.</li> </ul>
Direktorate of Internal Control and Risk Management	<ul style="list-style-type: none"> <li>● Provides overall coordination of internal control processes;</li> <li>● ensures the development of basic methodological documents in the field of internal control;</li> <li>● organises training of the Company's employees in the field of internal control;</li> <li>● provides assistance to the management of the Company and the controlled companies in the development of control procedures, monitors the implementation of control procedures in the Company;</li> <li>● monitors the effectiveness of the internal control system in functional areas, including through the implementation of self-assessment tools;</li> <li>● prepares reports for management bodies and other interested parties on the functioning of an effective internal control system, improving the quality of the Company's internal control system and controlled companies;</li> <li>● forms and ensures the implementation of the Anti-Corruption Policy of the Company;</li> <li>● organises and conducts corporate and anti-corruption compliance procedures in the Company;</li> <li>● carries out compliance control of compliance with the requirements of the legislation of the Russian Federation, orders of the Government and the supervisory bodies of the Russian Federation in the field of preventing and combating corruption;</li> <li>● organises and conducts activities for the legal education of the Company's employees on the issues of combating corruption and forming the basis for law-abiding behavior;</li> <li>● implements and improves a set of measures to identify affiliation and conflict of interest;</li> <li>● organises and exercises effective control over the implementation by the Company's employees of the legislation of the Russian Federation in the field of combating corruption, applicable norms of international law, local regulations and organisational and administrative documents of the Company, decisions of collegial bodies of the Company's management;</li> <li>● submits reports to the federal executive authorities in accordance with the requirements of the regulatory and legal acts of the Russian Federation regarding disclosure of information about the entire chain of counterparty owners.</li> </ul>
<b>Third line of protection</b>	
Department of Internal Audit	<ul style="list-style-type: none"> <li>● Develops, based on the results of the internal audit, recommendations for improving control procedures, separate components (elements) of internal control and internal control system;</li> <li>● carries out an internal independent evaluation of the effectiveness of the internal control system and issuing recommendations on improving the efficiency and effectiveness of the internal control system.</li> </ul>

## Risk Management System

### Organisation of the risk management process

#### The main stages of the risk management process



**Risk management system (RMS) participants**

Member of RMS	Main functions in the field of RMS
Board of Directors	<p>(102-30)</p> <ul style="list-style-type: none"> <li>● Defines the principles and approaches to the organisation of RMS;</li> <li>● Approves the approaches to establishing the preferred risk, its values and the frequency of their revision;</li> <li>● considers the issues related to the functioning of the RMS, including the results of the reports: on the functioning of the RMS of the Chairman of the Management Board and members of the Management Board; on the results of the assessment of the actual condition, reliability and effectiveness of the RMS of the Internal Audit Department.</li> </ul>
Audit Committee of the Board of Directors	<ul style="list-style-type: none"> <li>● Carries out a preliminary consideration of the issues of the operation of the RMS before they are submitted to the meeting of the Board of Directors.</li> </ul>
Chairman of the Management Board, Management Board	<ul style="list-style-type: none"> <li>● Ensure the creation and maintenance of the functioning of an effective RMS,</li> <li>● are responsible for the implementation of decisions of the Board of Directors in the field of RMS;</li> <li>● submit reports on the functioning of RMS to the Board of Directors with preliminary consideration by the Audit Committee;</li> <li>● distribute powers, duties and responsibilities for specific risk management procedures between the heads of the Company's divisions.</li> </ul>
Directorate of Internal Control and Risk Management	<ul style="list-style-type: none"> <li>● Carries out general coordination and operative control of risk management processes;</li> <li>● develops methodological documents, organises training of FGC employees in the field of risk management;</li> <li>● conducts an analysis of the Company's risk portfolio;</li> <li>● forms consolidated risk reporting and informs the Board of Directors and executive bodies of the Company;</li> <li>● coordinates risk management for preventing and countering corruption;</li> <li>● advises the executive bodies, heads of structural divisions, employees of the Company on the issues of risk management and anti-corruption;</li> <li>● assists the owners of risks in the development of internal regulatory documents and activities aimed at preventing and combating corruption;</li> <li>● organises training of FGC employees in the field of risk management and compliance with anti-corruption legislation.</li> </ul>
Department of Internal Audit	<ul style="list-style-type: none"> <li>● Carries out a systematic and independent evaluation of the reliability and effectiveness of RMS.</li> </ul>
Owners of risks (managers, structural units)	<ul style="list-style-type: none"> <li>● Develop, document, implement, monitor and develop RMS, including identification, risk assessment, development and application of risk response measures;</li> <li>● provide through the Directorate of Internal Control and Risk Management reporting on the functioning of the RMS to the Chairman of the Management Board and the Management Board.</li> </ul>
Implementers of risk management activities (managers, structural units)	<ul style="list-style-type: none"> <li>● Carry out risk management activities in coordination with risk owners in the functional areas entrusted to them.</li> </ul>

**Key risk factors for PJSC FGC UES, the significance and dynamics of risks and information on the implementation of risk management activities**

Level of significance of risk	Dynamics of risk significance in the reporting year	None of these risks occurred in 2017.		
Critical	● increase in the significance of risk ↑			
Name of risk (The unit providing information on risk)	Description (factors) of risk	Risk management activities	Assessment and dynamics of changes in the significance of risk 2016	Assessment and dynamics of changes in the significance of risk 2017
<b>Industry risks</b>				
1. Risks related to state regulation of tariffs	<ul style="list-style-type: none"> <li>● Untimely and substandard formation of materials to justify the necessary gross proceeds for inclusion in the tariff for transmission.</li> <li>● Decrease in revenue due to a decrease in tariffs during the tariff regulation period.</li> <li>● Non-fulfillment of RAB-regulation parameters. Deviation of the actual average tariff for transmission of electricity from the planned value in the business plan.</li> </ul>	<ul style="list-style-type: none"> <li>● Regulation of the process of formation of expenses, as well as preparation and presentation of their economic justification for inclusion in the tariff application.</li> <li>● Timely and qualitative formation of justification of expenses for inclusion in the tariff application for the forthcoming period of regulation.</li> <li>● Timely sending a tariff application to the FAS Russia.</li> <li>● Timely preparation of conclusions and proposals on changing the NAP in the field of tariff formation and determining the indicators used to establish tariffs.</li> <li>● Evaluation of the tariff consequences of the adoption of draft changes to the NPA and their impact on the performance of the Company's obligations.</li> <li>● Qualitative planning and calculation of reliability and quality indicators when approving long-term parameters of RAB-regulation.</li> <li>● Control of the level of reliability and quality of services of PJSC FGC UES;</li> <li>● Timely submission to FAS Russia of a report on the performance of indicators of reliability and quality of services.</li> </ul>	→	● ↓
2. Risks of technological connection	<p>Risks associated with late fulfillment of contractual obligations taken on technological connection agreements, including deviation of the actual quality indicator of services on technological connection from the value established under tariff regulation. The quality index is determined in accordance with section 3 of the Order of the Ministry of Energy of Russia dated November 29, 2016 No. 1256, taking into account the influence of quality indicators for consideration of applications for technological connection, the performance of technological connection agreements, compliance with antimonopoly legislation, and the level of quality of service to consumers of services.</p>	<p>The Company has approved a programme to increase the efficiency of technological connection to electric grids, increase the load of transformer capacities, including measures aimed at initiating changes in the legislation of the Russian Federation (normative activities), and organisational measures. Organisational activities within the framework of the Programme are aimed at increasing the efficiency of the Company's activities in the implementation of technological connection services, including in conditions of shortage of tariff sources of financing:</p> <ul style="list-style-type: none"> <li>● measures aimed at increasing the capacity utilisation, including through the identification and withdrawal of inefficient capacities,</li> <li>● the regulation of the timing of the implementation of procedures, the implementation of a set of measures to increase control over the timing of implementation of all phases of the business process, starting from the registration of the application for technological connection until the full fulfillment of obligations under concluded contracts.</li> </ul> <p>The Company monitors and updates the values of the free for technological connection consumers and power generation facilities of transformer capacity in all power centers, ensuring the availability of this information by disclosing it on the Company's website</p>	→	→
<b>Country and regional risks</b>				
3. Risks related to the political and economic situation in the country and the region <sup>1</sup>	<p>1) Despite the high ratings by rating agencies of the overall level of political risk in Russia, these risks should be recognised as insignificant in relation to the Company. The company is a large company with an established share of state participation.</p> <p>In some regions of the country there is a high risk of terrorist acts, therefore the Company takes measures on antiterrorist protection .</p>	<p>1) The antiterrorist policy of the Company is conducted in accordance with Federal Law 256-FZ of 21.07.2011 «On the Safety of Fuel and Energy Complex Facilities» and the requirements of Resolution of the Government of the Russian Federation No. 993 of 19.09.2015 «On Approval of Requirements for Ensuring Security linear objects of the fuel and energy complex» and is to organise and conduct activities aimed at strengthening the engineering and technical strength and anti-terrorist protection of the Company's facilities. Organisational and planned measures carried out in 2017 made it possible to increase by 4.3% the number of the Company's objects of various hazard categories, whose antiterrorist security fully complies with the requirements of the said resolution of the Government of the Russian Federation. Within the framework of cooperation with representatives of territorial security agencies and Rosgvardia, tactical and special exercises and object training are planned and conducted at the Company's facilities. In 2017, the Company's main efforts are aimed at increasing the antiterrorist protection of the Company's power facilities that were involved in providing reliable power supply to the infrastructure in the implementation of the Company's investment programme, in ongoing state events such as the International Arctic Forum (IAF-2017), the Confederations Cup 2017, The Eastern Economic Forum (VEF-2017), the International Forum on Energy Efficiency and Development of the Energy Sector «Russian Energy Week» (REN-2017), XIX World Festival of Youth and Students (Festival-2017) and World Cup 2018.</p>	Political factors	Political factors

## Appendix 1

ADDITIONAL INFORMATION ON THE CHAPTERS OF THE ANNUAL REPORT

## Appendix 1

ADDITIONAL INFORMATION ON THE CHAPTERS OF THE ANNUAL REPORT

Name of risk (The unit providing information on risk)	Description (factors) of risk	Risk management activities	Assessment and dynamics of changes in the significance of risk 2016	Assessment and dynamics of changes in the significance of risk 2017
	2) With an insignificant share of budgetary consumers and the absence of consumers of individuals (population), the Company is not directly affected by the budget deficit and the unemployment rate. However, these factors may reduce the solvency of the main users of the Company's services - territorial grid organisations. There remains a significant risk of a depreciation of the Russian ruble, caused by various external factors.	2) The Company carries out planning of its activities based on the forecast indicators of social and economic development being developed by the Ministry of Economic Development of Russia and the directions of development of the grid agreed with the System Operator of the EEC and the Ministry of Energy of Russia. In order to limit the impact of country and regional risks, as well as the impact of macroeconomic risk factors, the Company adopted the Programme of import substitution of equipment, technologies, materials and systems in the Company for the period 2015-2019. In addition, other programmes aimed at reducing costs and improving the efficiency of operational and investment activities have been approved. The Company is partially protected from the impact of economic risks by the provision of legislation providing for increased financial responsibility in case of violation of payment terms provided for in the contract for the provision of electricity transmission services. In addition, the Company uses various instruments for managing accounts receivable, including claims and lawsuits, analysis of the financial condition of counterparties, and the inclusion in the standard forms of contracts of obligations to provide financial security.	Economic forces → 	Economic forces → 
4. Risks related to the geographical features of the country or region, incl. increased risk of natural disasters, possible termination of transport communication	The Company manages the unified national electric grid, provides reliable power supply to consumers in 77 regions of Russia, serving an area of about 15.1 million km <sup>2</sup> , and has a distributed network of structural units with the deployment of production assets in a large part of the territory of the Russian Federation. The possibility of natural phenomena impact on electric grid facilities, as well as factors of remoteness and / or inaccessibility, are taken into account at the planning and design stages and in determining the composition of protective equipment.	When constructing electric grid facilities, design solutions are used that provide for the protection of objects from negative effects of natural factors, the location of repair bases and emergency reserve is carried out taking into account the remoteness of power grid facilities.	→ 	→ 
<b>Financial risks</b>				
5. Financial risks	1) The risk of changing interest rates. The Company uses to finance its investment activities funds attracted by issuing bonds with a floating coupon rate linked to the level of inflation (150 billion rubles, or more than 50% of the total debt, attracted at the rate of «inflation + 1 ... 2.5% per annum»). The level of this risk is considered by the Company as acceptable taking into account the tendency to reduce inflation (the level of 2017 by 2016 is 3.7%), as well as the Company's right to early redemption of bonds at its discretion in case the coupon rate exceeds 10% per annum, which corresponds to the rate of return on invested capital approved for the Company by the regulator in the framework of tariff decisions. Thus, fluctuations in interest rates should not have a long-term and significant impact on the Company's operations.  2) The risk of changing exchange rates (currency risk). The main source of currency risks are expenses under electricity transit agreements (the Baltic States, Belarus, Kazakhstan) denominated in euros, US dollars, Kazakh tenge, which in the structure of total annual operating expenses of the Company is no more than 5% on the horizon since 2014. In addition, foreign exchange risks are indirectly related to the need to provide imported equipment with high-tech equipment. The Company's debt portfolio is fully denominated in rubles, which excludes the significant impact of currency risks on the Company's financial condition, liquidity and performance.  3) Inflationary risk. The rate of inflation in 2017 showed a downward trend and at the end of the reporting period it reached 2.51%. Against the background of the achieved financial stability and the economy's exit to the growth trajectory, inflation stabilisation in the medium term near the target value of 4% per annum, indicated by the Bank of Russia, seems very likely. The policy of the Government of the Russian Federation and the Bank of Russia aimed at reducing inflationary risks makes it possible to assess this risk as low. Critical, according to the Company, the value of inflation, which may pose a significant threat to its economic activity, is above 19% per annum on the horizon of one year. The key threat is expressed by the possible growth of the debt service coverage ratio, whose value to maintain the quality of a highly reliable borrower should not exceed 0.25.  4) Risks of other expenses growth. The main risk factor is the revaluation of financial investments for which the market value is not determined, the Company forms a provision for impairment by the amount of the difference between their estimated and estimated value.	1) and 2) The Company's actions in the event of a negative impact of changes in the exchange rate and interest rates : ● early repayment, at the Company's option, of bonds serviced at a floating rate and refinancing at fixed rates; ● outstripping acquisition of foreign currency within the limits of the currency obligations planned for the next year, within the limits established by the Board of Directors; ● Expansion and acceleration of the implementation of the import substitution programme; ● Limitation of the annual volumes of the Company's Investment Programme due to the revision of the priorities and timing of the implementation of investment projects; ● establishment of «solid» procurement prices in tender documentation and standard forms of investment contracts; ● Hedging activities depending on market conditions and within the framework of the Credit Policy of the Company and decisions made by the Board of Directors.  The Company does not hedge interest rate risks, however, does not exclude the possibility of their hedging in the future, for which it regularly monitors market conditions and available instruments; ● implementation by the Company of the Programme of import substitution of equipment, technologies, materials and systems for the period 2015-2019; ● The Company does not hedge currency risks. For the purposes of currency risk management, the Issuer's Board of Directors establishes a limit on the execution of transactions that may entail the emergence of liabilities denominated in foreign currency (effective value of the limit as of December 31, 2017 is 2.5% of the Company's annual revenue).  3) For the purposes of managing inflation risk for payments of debt securities tied to the value of the CPI, the Company determines an excess of the inflation rate at 9% as an event in the event of which early repayment of such securities is possible. In addition, the Company conducts measures to reduce internal costs.	→ 	→ 
<b>Legal risks</b>				
6. Legal risks	1) Risks related to changes in legislation and regulation of the Company's areas of activity, including those relating to : ● relations with other owners of UNEG facilities; ● definitions of the reasonable value of the maximum capacity at technological connection of applicants; ● procedure for determining the amount of declared capacity used to establish tariffs for transmission services and when calculating the cost of services rendered; ● technological connection to the Company facilities with a voltage level below 110 kV; ● responsibility of consumers of services for their untimely payment; ● relations with third parties during technological connection.  2) Risks of public legal relations related to: changing judicial practice on the issues of the Company's activities; ● balance of interests with other subjects of electric power industry.	The Company permanently participates in normative and legal work at the level of federal bodies of state power, including participation in the activities of interdepartmental working groups on the regulation of the electric power industry, interaction with the profile committees of the chambers of the Federal Assembly of the Russian Federation. As part of this work in 2017, the Company sent a number of proposals to the Federal Penitentiary Service for the introduction of changes in legislative and regulatory acts.	→ 	→ 
<b>Reputational risk</b>				
7. Risk of loss of business reputation (reputation risk)	1) Decrease in the reliability of the Unified National Electrical Network and the occurrence of systemic violations of power supply to consumers and accidents.  2) The level of awareness of consumers, the public, other stakeholders about the activities of the Company.	1) Measures taken: ● measures aimed at leveling operational and technological risks; ● timely and complete informing of interested parties, including consumers and the media, in accordance with the regulations adopted by the Company.  2) The mechanisms of interaction with stakeholders and the procedure for implementing external communications are defined by the Regulation on the implementation of the communication policy of PJSC FGC UES approved by the decision of the Board of Directors on February 6, 2017 (Minutes No. 354 of 09.02.2017). The company is guided by the principles of promptness and completeness of the provision of information. The Regulation on Information Policy defines the rules and approaches to information disclosure, the goals and principles of disclosure of mandatory and additional information that contributes to the increase of information openness and transparency of relations between the Company and shareholders, government bodies, as well as other interested parties.	→ 	→ 

Name of risk (The unit providing information on risk)	Description (factors) of risk	Risk management activities	Assessment and dynamics of changes in the significance of risk 2016	Assessment and dynamics of changes in the significance of risk 2017
	5) Risks of growth of overdue and bad debts. The main risk is the risk of overdue accounts receivable in case of deviation from the value established in the business plan, as well as the emergence of doubtful and bad receivables.	5) In order to reduce the risks of growth of overdue and bad debts receivable, the Company approved the procedure for managing receivables. This procedure determines the procedures for making decisions in respect of receivables by treaty curators. In addition, the Budget Committee has been established and is functioning, one of its objectives is to improve the efficiency of cash management of the Company, manage the risks of overdue accounts receivable and increase cash turnover. The competence of the Committee in the area of receivables management refers to: ● consideration of consolidated reports on the status of receivables and explanatory materials of contract curators; ● Decision-making on how to claim debts with a delay of more than three months and arrears for consideration by the Committee at the initiative of the curators of contracts; ● deciding on writing off bad debts; ● selective evaluation of the performance of participants in the management of receivables; ● making decisions on submitting to the Chairman of the Management Board proposals on bringing to trial participants of the process in cases of violations of the procedure for dealing with accounts receivable. In order to reduce the risks of doubtful and bad debts, financial stability criteria that are mandatory for compliance by the participants in procurement procedures are established, as well as claims for counterparties to provide financial security in the form of independent (bank) guarantees, security payments, guarantees and other forms of security fulfillment of obligations.	→ 	→ 
<b>Legal risks</b>				
6. Legal risks	1) Risks related to changes in legislation and regulation of the Company's areas of activity, including those relating to : ● relations with other owners of UNEG facilities; ● definitions of the reasonable value of the maximum capacity at technological connection of applicants; ● procedure for determining the amount of declared capacity used to establish tariffs for transmission services and when calculating the cost of services rendered; ● technological connection to the Company facilities with a voltage level below 110 kV; ● responsibility of consumers of services for their untimely payment; ● relations with third parties during technological connection.  2) Risks of public legal relations related to: changing judicial practice on the issues of the Company's activities; ● balance of interests with other subjects of electric power industry.	The Company permanently participates in normative and legal work at the level of federal bodies of state power, including participation in the activities of interdepartmental working groups on the regulation of the electric power industry, interaction with the profile committees of the chambers of the Federal Assembly of the Russian Federation. As part of this work in 2017, the Company sent a number of proposals to the Federal Penitentiary Service for the introduction of changes in legislative and regulatory acts.	→ 	→ 

Name of risk (The unit providing information on risk)	Description (factors) of risk	Risk management activities	Assessment and dynamics of changes in the significance of risk 2016	Assessment and dynamics of changes in the significance of risk 2017
<b>Strategic risk</b>				
8. Strategic risk	Factors of strategic risk are associated with the emergence of losses of the Company from errors made in making decisions that determine the strategy of the Company's activities and development.	The goals and objectives of strategic development of PJSC FGC UES are established by the Company's Long-term Development Programme (DDA) for 2015-2019, approved by the Board of Directors on December 19, 2014 (Minutes No. 243 of December 22, 2014). DPR contains a set of programme activities aimed at implementing the main provisions of the DWP, including improving the management of the Company, investment policy priorities and improving the efficiency of investment activities, operating efficiency, asset management, and others. In order to monitor the implementation of the DWP and minimise the strategic risk factors associated with potential changes in the internal and external environment of the Company and SDCs operation, the Company monitors the implementation of activities provided for by the DWP, and annually prepares a report on the implementation of the DWP and regularly conducts an external audit of the DWP implementation in accordance with The standard for auditing the implementation of the DWP (approved by the decision of the Board of Directors of 30.12.2014, Minutes No. 245 of December 31, 2014). The DPR sets targets for the results of activities and functional areas that the Issuer needs to achieve. Prospective directions of development of electric power industry as a whole as a branch of industrial infrastructure and transmission of electricity through trunk power grids are determined with participation and under the control of state authorities. The Company together with the System Operator annually develops the Plan and Development Programme of the Unified Energy System of Russia (CIP), which defines the main directions of the UNEG development for the next seven years based on the medium-term forecast of the demand for electricity and capacity. The CIP is approved by the Ministry of Energy of Russia. The company, taking into account the CIP, develops an investment programme. The practice of the last three years is public discussion of the investment programme by interested stakeholders, which include large consumers and the Open Government. The Company is involved in discussions with public authorities and public organisations on issues of energy policy, reliability of energy supply. There is a Strategy Committee of the Board of Directors, which carries out preliminary consideration, analysis and development of recommendations to the Board of Directors of the Company on issues: <ul style="list-style-type: none"><li>● evaluation of the Company's performance in the long term;</li><li>● approval of the Company's long-term development programme, amendments and additions to it and consideration of the implementation report;</li><li>● definition of strategic goals of the Company's activities, control of the implementation of the Company's strategy, adjustment of the existing development strategy of the Company;</li><li>● determination of priority directions of the Company's activities.</li></ul>	→ 	→ 

Name of risk (The unit providing information on risk)	Description (factors) of risk	Risk management activities	Assessment and dynamics of changes in the significance of risk 2016	Assessment and dynamics of changes in the significance of risk 2017
<b>Risks related to the Company's activities</b>				
9. Environmental risks	The likelihood of significant negative impact on the environment is associated with the risk of emergencies caused by physical deterioration of equipment and violation of the operating conditions of electric grid equipment (pollution of water bodies and soil with oil products, emergency emissions of pollutants into the atmosphere, etc.). Also, in the event of non-compliance with the requirements of environmental legislation of the Russian Federation, the Company may be sanctioned by state environmental oversight bodies. The main risks associated with non-compliance with the requirements of environmental legislation of the Russian Federation include: <ul style="list-style-type: none"><li>● lack of necessary environmental permits;</li><li>● lack of licenses for subsoil use in the part of groundwater production and non-compliance with licensing conditions;</li><li>● non-observance of sanitary and hygienic norms and rules with the accumulation of waste generated at the Company's production facilities, including equipment containing trichlorodiphenyl (TCD).</li></ul> The Company's 32 production facilities operate static capacitors, in which the dielectric is a persistent organic pollutant - TCD. In accordance with the requirements of the Stockholm Convention on Persistent Organic Pollutants (ratified by Federal Law No. 164-FZ of 27.06.2011), the Company is obliged to completely remove equipment from TCD from operation by 2025, and by 2028 to ensure its environmentally safe disposal. In the case of storage of decommissioned TCD-containing equipment in violation of sanitary and hygienic standards, there are risks of imposing fines on the part of state control bodies under Art. 8.2. CAO «Non-compliance with environmental and sanitary-epidemiological requirements in the collection, accumulation, use, disposal, transportation, placement and other handling of production and consumption wastes or other dangerous substances».	The Company's Environmental policy approved by the Board of Directors of PJSC FGC UES on 30.09.2014 follows the principles established by the state policy in the field of environmental development of the Russian Federation and the energy strategy of Russia for the period until 2030. The aim of the Company's Environmental policy is to minimise the negative impact on the environment in the transmission and distribution of electricity. As part of the implementation of the programme for the implementation of the Company's Environmental policy for 2016-2019, approved in 2015, technical and organisational measures are being implemented aimed at minimising the negative impact of the Company's production activities on the environment. In 2017, the Company carried out work to introduce the requirements of the new version of the ISO 14001:2015 standard into the existing environmental management system (EMS). The new version of the standard changes the approach to the environmental management system and establishes new requirements, including the definition and management of risks associated with the impact on the environment. Based on the results of the recertification audit of the EMS, the Company was recognised as fully compliant with the requirements of ISO 14001: 2015 and issued a certificate of compliance for a period of up to 2020. In order to timely meet the requirements of the Stockholm Convention on Persistent Organic Pollutants ratified by the Russian Federation and optimise the handling of equipment containing TCD, a Regulation for the handling of TCD-containing equipment was developed and is in effect in PJSC FGC UES in 2016. In 2017, 10.6 thousand units of condensers containing TCD were transferred from the territory of 10 substations of five branches of FGC UES - Volga, Center, North-West, South and Siberia. The total mass of the transferred equipment was more than 382 tons, which exceeded the volumes of 2016 by almost 100 times. In order to implement the provisions of Environmental policy and establish documented environmental goals and objectives, the Target Quantitative Environmental Indicators of PJSC FGC UES for 2017-2019 are in effect. Also corporate standards of PJSC FGC UES on environmental safety at all stages of the life cycle of power grid facilities are in place, establishing uniform requirements for ensuring environmental safety and rational use of natural resources at power grid facilities. To improve the system of environmental control and reporting, the Company has approved and is implementing the Internal Auditing Regulations for the branches of PJSC FGC UES - MPS, EMPS, which forms a unified approach to the internal audit of EMS and industrial environmental control at production facilities.	→ 	→ 
10. The risk of implementation of the import substitution programme	The implementation of risk may affect the Company's activities in terms of ensuring the required level of quality and reliability of the operation of UNEG facilities : <ul style="list-style-type: none"><li>● Restriction or inability to purchase electrical products (introduction of legislative restrictions or prohibition of imports in Russia, both from foreign countries and from the Russian Federation, refusal by foreign manufacturers to cooperate with Russian companies, lack of necessary technology, equipment and competences for the production of electrical equipment that meets modern requirements);</li><li>● Increase in the cost of electrical products due to unfavorable external economic factors (weakening of the ruble in relation to major world currencies, the conduct of foreign producers discriminatory policy towards consumers from Russia, the lack of domestic analogues of foreign equipment or the strong dependence of their production on imported equipment, raw materials, components ).</li></ul> The duration of the factors involved in ensuring the required level of quality and reliability of the operation of UNEG facilities is not limited in time .	By the order of the Company No. 455 dated October 10, 2014, the Programme of import substitution of equipment, technologies, materials and systems in PJSC FGC UES for the period 2015-2019 was approved, and the decree of December 29, 2014 No. 820 approved measures for managing the risks associated with the sale import substitution programmes. Actions taken by the Company to minimise the risk: <ul style="list-style-type: none"><li>● establishment of priorities for the implementation of the projects of the investment programme of PJSC FGC UES;</li><li>● amendments to tender documentation, standard supply contracts to fix prices when determining the cost of electrical products, as well as to include provisions for mandatory insurance of currency risks for the delivery period;</li><li>● adjustment of technical policy, basic technical solutions, design solutions with the aim of expanding the use of electrical products at the Company's facilities, the production of which has been mastered by domestic enterprises;</li><li>● transition to centralised procurement for the main groups of import-substituting electrical equipment;</li><li>● conclusion of long-term contracts for the supply of products with domestic enterprises and foreign enterprises localising production in the territory of the Russian Federation;</li><li>● centralisation of purchases of basic electrical equipment, an increase in the share of purchases of domestic electrical equipment for the needs of the Company, taking into account the requirements of the current legislation;</li><li>● stimulation of innovative development of domestic manufacturers of electrical equipment, incl. transfer of technologies in the field of production of electrical equipment, as well as the development and implementation of innovations in production;</li><li>● Interaction with federal, regional and local authorities in order to provide support to domestic producers of electrical equipment, incl. provision of preferences in the conduct of procurement activities of companies with state participation.</li></ul>	↓ 	→ 

Name of risk (The unit providing information on risk)	Description (factors) of risk	Risk management activities	Assessment and dynamics of changes in the significance of risk 2016	Assessment and dynamics of changes in the significance of risk 2017
11. Operational and technological risk	<p>These risks are associated with high physical and moral deterioration of power grid assets, violation of operating conditions and operating modes of electric grid equipment, equipment damage, improper operation of relay protection of automation and emergency automation, as well as inefficient and obsolete technologies and failure to complete the repair programme in the required volume.</p> <p>Systemic disruptions in the operation of the power grid complex and failures in the electricity supply to consumers, caused by both equipment malfunctioning and the consequences of natural disasters, can ultimately lead to significant economic and reputation losses for the Company.</p> <p>In addition, it can affect the amount of losses in grids.</p>	<p>In order to minimise operational and technological risks, the Company operates in accordance with the Regulation on the Unified Technical Policy in the Electric Grid Complex, the purpose of which is to increase the reliability and efficiency of the electric grid complex operation in the short and medium term, with proper industrial and environmental safety based on innovative principles development.</p> <p>The Company's investment programme provides for the implementation of projects aimed at the following tasks:</p> <ul style="list-style-type: none"> <li>● reduction of depreciation of fixed assets;</li> <li>● reconstruction of electric grid facilities;</li> <li>● provision of power output of power plants and reliability of inter-system electricity flows;</li> <li>● modernisation of switching equipment, modernisation and creation of automated systems of technological control;</li> <li>● improved controllability and observability of the grid;</li> <li>● clearing the routes of overhead power lines;</li> <li>● improving energy efficiency;</li> <li>● expansion of the reserve power supply grid with electricity, auto and special equipment for emergency recovery;</li> <li>● implementation of a programme of measures aimed at preventing the growth of accident rates for high-voltage lines and substations.</li> </ul> <p>In addition, the Company carries out the following measures aimed at minimising operational and technological risks:</p> <ul style="list-style-type: none"> <li>● preservation of the existing number of repair personnel engaged in maintenance and repair of substations and high-voltage lines;</li> <li>● conclusion of contracts with the manufacturers of electrical equipment for the performance of works on the maintenance of substation equipment;</li> <li>● training, monitoring and attestation of personnel operating technological equipment;</li> <li>● carrying out anti-emergency training and on-site inspections at the Company's branches;</li> <li>● implementation of the property insurance protection programme;</li> <li>● maintenance of the main (primary) equipment of substations and power lines of UNEG and auxiliary (secondary) equipment of UNEG substations in accordance with normative requirements of technical documentation for maintenance;</li> <li>● functioning in the branches of PJSC FGC UES on permanent basis of staffs to ensure readiness for emergency recovery operations at power grid facilities, and creation of emergency equipment reserves in order to ensure reliable operation of UNEG power facilities in case of violations in the operation of the power grid complex caused by a malfunction equipment, and the consequences of natural disasters or other emergencies.</li> </ul>		

## Internal audit

### Basic documents regulating the activity of internal audit:

- Regulations on the Internal Audit Department of PJSC FGC UES<sup>11</sup>,
- Guidelines for conducting internal audits of PJSC FGC UES<sup>12</sup>
- The programme for guaranteeing and improving the quality of internal audit of PJSC FGC UES<sup>13</sup>,
- Regulation of interaction of the Internal Audit Department with structural divisions and branches of PJSC FGC UES in the course of inspections and monitoring of the implementation of corrective action plans<sup>14</sup>,
- Guidelines for monitoring the implementation of corrective action plans to address violations and deficiencies identified by internal audit results<sup>15</sup>,
- Instruction on the formation and use of the Single Classifier of violations and deficiencies<sup>16</sup>,
- Planning Guide for the Internal Audit Department<sup>17</sup>,
- Guidelines for the preparation of reports on the implementation of the work plan and the results of the activities of the Internal Audit Department of PJSC FGC UES<sup>18</sup>,
- Code of Ethics for Internal Auditors of PJSC FGC UES<sup>19</sup>,
- The standard for evaluating the effectiveness of the internal control and risk management system of PJSC FGC UES<sup>20</sup>,
- The procedure for interaction of the Internal Audit Department of PJSC FGC UES with the subjects of the internal control system and other interested parties that monitor and evaluate the internal control system in certain areas of activity, and the formation of a guarantee scheme (guarantee cards)<sup>21</sup>,
- The procedure for accounting for the audits of PJSC FGC UES, carried out by external control bodies (supervision)<sup>22</sup>.

### Information on the instructions of the Board of Directors of the Company aimed at improving the internal audit system

The Board of Directors of the Company in 2017 gave the following instructions aimed at improving the internal audit system:

- internal audit of PJSC FGC UES to finalise the plan of measures for the development and improvement of internal audit activities, taking into account the comments<sup>23</sup>.
- The finalised plan of measures for the development and improvement of internal audit activities, taking into account the comments, was prepared and submitted to the Board of Directors for consideration, with preliminary consideration by the Audit Committee of the Board of Directors of the Company<sup>24</sup> as part of the Work Plan of the Internal Audit Department for 2018;
- Director of Internal Audit – Head of the Internal Audit Department Provision of development and approval in accordance with the established procedure in PJSC FGC UES<sup>25</sup>. As part of the execution of the instructions of the Audit Committee of the Board of Directors of PJSC FGC UES<sup>26</sup> the Corporate Governance Assessment Methodology for PJSC FGC UES<sup>27</sup> was approved.

The Board of Directors of PJSC FGC UES approved the work plan and budget of the Internal Audit

Department of PJSC FGC UES for 2017<sup>28</sup> on 17.02.2017. By the decision of the Board of Directors of PJSC FGC UES of 06.10.2017, the work plan of the Internal Audit Department of PJSC FGC UES for 2017 was approved in a new version<sup>29</sup>.

Receiving feedback from the Audit Committee of the Board of Directors of PJSC FGC UES is carried out by the head of internal audit in various forms in the course of interaction with the Audit Committee, including an analysis of the decisions / recommendations of the Audit Committee on matters within the competence of the internal audit, as well as through questionnaires of members Audit Committee.

The indicator of satisfaction of the Audit Committee of the Board of Directors of the Company with the results of the work of the internal audit department (the average weighted score on the questionnaires of the members of the Audit Committee who voted to the number of members who voted) according to the results of 2017 corresponds to the assessment «corresponds» in accordance with the Programme of Guarantee and Improvement of the Internal Audit Quality of the Company<sup>30</sup>.

<sup>11</sup> Approved by the Chairman of the Management Board of PJSC FGC UES 04.10.2016.

<sup>12</sup> Approved by the order of PJSC FGC UES dated 06.07.2017 No. 261, approved by the Audit Committee of the Board of Directors of PJSC FGC UES (Minutes No. 62 of 30.05.2017).

<sup>13</sup> Approved by the Board of Directors of PJSC FGC UES on 11.12.2017 (Appendix 3 to Minutes No. 383 dated 14.12.2017).

<sup>14</sup> Approved by the order of PJSC FGC UES dated 22.03.2017 No. 120.

<sup>15</sup> Approved by the order of PJSC FGC UES dated 13.03.2017 No. 97.

<sup>16</sup> Approved by the order of PJSC FGC UES dated 13.03.2017 No. 97.

<sup>17</sup> Approved by the order of PJSC FGC UES dated 13.03.2017 No. 98.

<sup>18</sup> Approved by the Order of PJSC FGC UES<sup>1</sup> dated 22.11.2017 No. 488.

<sup>19</sup> Approved by the order of PJSC FGC UES dated 06.07.2017 No. 261, approved by the Audit Committee of the Board of Directors of PJSC FGC UES (Minutes No. 62 of 30.05.2017).

<sup>20</sup> Approved by the Board of Directors of PJSC FGC UES (Minutes No. 309 of 29.02.2016).

<sup>21</sup> Approved by the order of PJSC FGC UES dated 07.12.2017 No. 510.

<sup>22</sup> Approved by the order of PJSC FGC UES dated 15.03.2017 No. 104.

<sup>23</sup> Minutes of the Board of Directors of PJSC FGC UES dated 29.06.2017 No. 372.

<sup>24</sup> Minutes of 26.01.2018 No. 70.

<sup>25</sup> Minutes of the Board of Directors of PJSC FGC UES dated 09.07.2017 No. 374..

<sup>26</sup> Minutes dated 13.12.2017 № 68.

<sup>27</sup> The order of PJSC FGC UES dated 27.12.2017 No. 544.

<sup>28</sup> Minutes dated 20.02.2017 No. 355.

<sup>29</sup> Minutes dated 09.10.2017 No. 379.

<sup>30</sup> Approved by the decision of the Board of Directors of the Company on 11.12.2017 (Minutes No. 383 of December 14, 2017).

## Anti-corruption and security of economic activities

### Anti-Corruption Activities

Objectives of the Anti-Corruption Policy:

- Implementation of the requirements of Federal Law No. 273-FZ of 25.12.2008 «On Combating Corruption»;
- creation of an effective legal mechanism for the prevention and combating of corruption;
- creation of an effective practical mechanism for implementing measures to prevent and combat corruption (including the approval of an anti-corruption programme);
- Improvement of the regulatory and legal framework in the field of combating corruption and interaction with government agencies, whose competence includes anti-corruption issues;
- Prevention of corruption offenses, ensuring responsibility for corruption and other offenses;
- formation of shareholders, partners, counterparties, members of management and control bodies, employees of uniform understanding of the Company's position on non-acceptance of corruption in all forms and manifestations;
- minimisation of the risk of involvement of the Company in corrupt activities;
- formation of anti-corruption corporate consciousness.

### Share capital, circulation of securities

#### Information on securities:

**20.10.2017** The company placed BO-03 exchange bonds worth 9 billion rubles, with a 5-year term to the offer and a coupon of 7.75% per annum.

For the Company, this placement has become the most profitable since 2010. The coupon rate was a record low among the market placements of all Russian issuers in the modern post-crisis period. This transaction was recognised as the best deal for the initial placement of corporate bonds at the congress held in December 2017 by the information and analytical agency Cbonds.

**06.12.2017** The company placed BO-04 series bonds for the amount of 7 billion rubles, with a 6-year period to the offer and a coupon of 7.6% per annum.

Basic principles of anti-corruption policy:

- compliance with applicable laws and generally accepted standards;
- rejection of corruption in all its forms and manifestations;
- A personal example of leadership;
- Observance of the legitimate rights and interests of employees, partners, counterparties and other persons;
- Involvement of employees, their regular information about the provisions of anti-corruption legislation;
- openness of business and training, clarification of the principles and requirements of its anti-corruption activities among employees, intermediaries and contractors;
- Responsibility for the implementation of corrupt activities, the inevitable and visible suppression of corruption, bringing the perpetrators to justice;
- effectiveness of anti-corruption procedures;
- identification and assessment of corruption risks;
- availability of anti-corruption control procedures;
- checking counterparties to minimise reputational, financial and operational risks caused by interaction with them;
- monitoring and control of compliance by managers and employees of anti-corruption procedures.

## Appendix 2

### MINUTES OF THE PUBLIC HEARINGS ON THE DRAFT REPORT

#### MINUTES

#### of the Public Hearings on the draft of Integrated Annual Report 2017 of PJSC FGC UES

#### Venue:

PJSC FGC UES office, Moscow, B. Nikolovorobinsky per., 9/11

#### Date and time of the public hearings:

17.04.2018, 15:00 - 17:00

#### Agenda:

1. PJSC FGC UES Annual report 2017 draft: targets, standards, priority topics, main changes.
2. Contribution of PJSC FGC UES in ensuring the energy security of the Russian Federation.
3. Contribution of PJSC FGC UES to the digital transformation in the electric power industry of the Russian Federation.
4. Stakeholders' recommendations and suggestions on the draft of annual report, response from the Company representatives.
5. Results of Public Hearings.

#### Attendees:

##### Moderator:

- |                      |   |
|----------------------|---|
| 1. Marina Galushkina | Head of the Russian Regional Integrated Reporting Network |
|----------------------|---|

##### Representatives of PJSC FGC UES:

- |                       |   |
|-----------------------|---|
| 2. Maria Tikhonova    | Deputy Chairman of the Management Board   |
| 3. Natalia Ozhegina   | Deputy Chairman of the Management Board   |
| 4. Andrei Koltsov     | Deputy Chief Engineer   |
| 5. Madina Kaloyeva    | Corporate and Strategic Management Director - Head of the Corporate and Strategic Management Department         |
| 6. Igor Arkhipov      | Head of the Innovative Development Department   |
| 7. Julia Kuznetsova   | Head of the Personnel Management and Organizational Design Department   |
| 8. Georgy Reshetnikov | Head of the External Communications and Government Relations Department   |
| 9. Nikolay Ivanov     | First Deputy Head of the Customer and Market Relations Department   |
| 10. Tatyana Kovalenko | Deputy Head of the Corporate Governance Department - Head of the Securities and Information Security Department |

11. Olga Frolova	Deputy Head of the External Communications and Government Relations Department
12. Julia Ratnikova	Chief Expert of the External Communications and Government Relations Department
13. Tatiana Buchatskaya	Leading expert of the Corporate and Strategic Management Department
14. Oksana Verstakova	Leading expert of the Corporate and Strategic Management Department
<b>Representatives of stakeholders:</b>	
15. Michael Andronov	President of LLC Rusenergosbyt
16. Eugene Basov	Deputy Head of the Chair «World Electric Power Engineering» of the International Institute of Energy Policy and Diplomacy of the Moscow State Institute of International Relations
17. Dmitriy Golovko	The general director of LLC Metallenergofinans (EVRAZ)
18. Lyudmila Gribinyuchenko	Head of Moscow Exchange unit
19. Evgeny Krotov	Leading expert of the International Cooperation and Protocol Department of JSC SO UES
20. Alexey Moskalev	Head of the Office of the Vice-President for Energy of the NLMK Group
21. Elena Osipova	Executive Director of AIMS E Ltd RTSoft
22. Alexander Pavlov	Deputy Director of the Social Partnership, Analytics and Professional Qualifications Department of the All-Russian Industry Association of Electric Power Industry Employers
23. Nikita Remnev	Head of the Students' Building Groups Headquarters of the Moscow Power Engineering Institute
24. Ilya Toyakov	Assistant to the President for Strategic Planning of the Association Global Energy

## Speech

Moderator explained the tasks and rules of work at the Public Hearings.

### Item 1

**Speech of M.G. Tikhonova, Deputy Chairman of the Board.**

**Speech topic: PJSC FGC UES Annual report 2017 draft: targets, standards, priority topics, main changes.**

The speaker informed that in 2018 PJSC FGC UES for the first time have implemented the practice of preparing an integrated annual report, combining in one document the traditional annual report and the report on social responsibility and corporate sustainability. This corresponds to the best practice of corporate reporting. The main characteristics of the FGC UES report for 2017

were presented. The main changes made to the report in comparison with the previous reporting year were the use of a larger number of international standards, audit certification of non-financial information, etc.

The main results of 2017 were also presented - financial, production and sustainability results.

### Item 2

**Speech of I.L. Arkhipov, Head of the Innovative Development Department.**

**Speech topic: Contribution of PJSC FGC UES in ensuring the energy security of the Russian Federation.**

The speaker said that one of the priority areas of innovative development of PJSC FGC UES is the introduction of digital technologies and platforms, as well as the use of modern materials and robotics. The speaker spoke about the development of infrastructure, in particular, about remote management of objects and digitalization of communication channels of automated dispatching and technological control systems.

He also told about the construction project of the 500 kV switch point «Tobol». SS «Tobol» is the first in the country power facility of ultra-high voltage class, in which the technologies of digital substation are integrated.

In the end, the speaker informed about plans for the introduction of digital technologies in PJSC FGC UES.

Participants asked clarifying questions.

**M.S. Andronov** asked about measures to ensure

the safety of equipment from the actions of unscrupulous producers and contractors, clarified whether the equipment used is standardized or tested.

**I.L. Arkhipov** explained the principles of ensuring the safety of equipment from actions by intruders, including the provision of cyber security. He also noted the features of the import substitution programme.

**M.S. Andronov** asked about the payback of the digitalization programme.

**I.L. Arkhipov** reported on plans to introduce pay-off digital technologies.

**A.V. Moskalev** asked about plans to reduce costs for the introduction and operation of digital equipment.

**I.L. Arkhipov** spoke about the savings achieved through the typification of digital equipment and systems.

### Item 3

**Speech of A.V. Koltsov, Deputy Chief Engineer.**

**Speech topic: Contribution of PJSC FGC UES to the digital transformation in the electric power industry of the Russian Federation.**

The speaker spoke about the management of the security processes in the Company. He noted the examples of increasing the reliability of networks: specific accident rate at the facilities of PJSC FGC UES reduced by 19% in comparison to 2016, dynamics of industrial injuries also dropped, etc. The report presented the tasks for 2018 to improve the level of production safety.

The speaker informed about the environmental management system and the main documents that regulate the implementation of environmental policy. Positive results and environmental projects of 2017 were presented (in the Year of Ecology, the Company reduced pollutant emissions by almost 20%).

Participants asked clarifying questions.

**M.S. Andronov** asked whether contractors' traumatism at FGC UES facilities was taken into account when calculating the level of injuries of PJSC FGC UES.

**A.V. Koltsov** said that injury rates were calculated only for employees of PJSC FGC UES and that the presentation of such claims to contractors will be regarded as an obstacle to competition.

**M.S. Andronov** asked to comment on the dynamics of fires at the Company's facilities.

**A.V. Koltsov** explained that fire statistics include incidents of minor fires and that there were no major fires at the organization's facilities. He spoke about measures to reduce the risk of fire.

### Item 4

Stakeholders made proposals and recommendations to the annual report draft. After the presentation of each representative of the interested parties. For all proposals, the Company's representatives answered about the possibility of taking into account the recommendations.

**M.S. Andronov** specified his understanding of the indicator «Penalty, fines» in the table «Tax deductions to federal, regional and local budgets.» He offered to compare the Company with international analogues in the annual report.

**M.G. Tikhonova** replied that benchmarking is

conducted in the Company and its results are considered at the meetings of the Strategy Committee of the Board of Directors. The possibility of disclosure in the next annual report will be considered.

**E.N. Osipova** proposed to disclose plans for the development of normative and technical documents, she also suggested to disclose the share of purchases from SMEs in the two tables in the sub-section «The main areas of procurement and the volume of purchases in the regions in 2017» in Appendix 1 to the annual report

**M.G. Tikhonova** responded that the possibility of

including information on purchases from SMEs in the annual report in regarding the main procurement areas (in the subject of purchases) and in the regions (branches of PJSC FGC UES) will be considered taking into account the opinion of the responsible department.

**E.V. Basov** expressed a desire to maintain the section on digitalization in subsequent annual reports, also asked for comparable assessments, in particular, on which scale the assessment of the level of customer satisfaction in 9.23 points is given.

**G.O. Reshetnikov** replied that it will be indicated that the evaluation is conducted on a 10-point scale. He confirmed that in the subsequent reports information about the implementation of digital technologies will be preserved in the form of an independent section, or within the section on innovation.

**I.N. Toyakov** proposed to disclose what the Company would like to see from customers, counterparties in terms of a declaration on facilitating the implementation of the Company's goals.

**G.O. Reshetnikov** replied that this kind of information does not correspond to the format of the annual report.

**N.A. Remnev** wished that in the next report the disclosures of the information on the number of students who have been practicing within the Company will be continued.

**N.K. Ozhegina** answered that the information will be disclosed in annual reports.

**A.V. Pavlov** proposed to highlight in the report

#### Item 5

The moderator informed that the minutes of the Public Hearings will be provided to the participants of the event. The minutes will include the table of proposals and recommendations of stakeholders which will record the Company's final answer for each proposal (Appendix 1). Also, all participants of the hearings will receive presentations from speakers of PJSC FSK UES.

The representatives of the Company thanked the

information about the professional standards being implemented in the Company, about the Center for Qualification Assessment, as well as information about the Company's need for human resources whose qualifications are related to digitalization

**N.K. Ozhegina** answered that the topic will be disclosed in the next annual report (for 2018).

**L.Yu. Gribinyuchenko** noted that in the appendix to the annual report «Report of PJSC FGC UES on compliance with the principles and recommendations of the Corporate Governance Code approved by the Board of Directors of the Bank of Russia», the status of the Company's compliance with the principle 6.2.1 of the Code could be changed from «partial» to «full». She also suggested to visually show in the annual report the high involvement of independent directors in the work of the Board of Directors and Committees of the Board of Directors and clarified whether the Company plans to increase the number of meetings of the Board of Directors.

**M.G. Tikhonova** said that the participation of independent directors in the work of the Board of Directors and Committees of the Board of Directors will be presented in the annual report in the form of a chart. It will be noted in the annual report that the «Company plans to improve the corporate governance system» section will include information on the Company's desire to increase the number of meetings of the Board of Directors

participants of the Public Hearings for the work and informed that, if possible, they would take into account the recommendations in the report for 2017 and / or commit themselves to follow recommendations in the subsequent reporting campaigns, and also expressed the hope that joint work would positively affect the quality of the public reporting of PJSC FGC UES.

Appendix 1. A table of suggestions and recommendations of stakeholders.

**Galushkina M.V.**  
Moderator, the head of the Russian  
Regional Network on integrated reporting

**Tikhonova M.G.**  
Deputy Chairman of the Management Board  
of PJSC FGC UES

#### Appendix 1.

##### Table of suggestions and recommendations of stakeholders

No	Proposal	Accounting
1	Compare the Company with international analogues	Will be considered in preparation of the report for 2018
2	Disclose in Appendix 1 to the Annual report the development plans for normative and technical documents	Recorded in Appendix 1 to the Annual Report
3	Add a column showing the share of purchases from small and mid-sized businesses to the two tables in the sub-section "Main purchases and the volume of purchases in the Russian regions in 2017" in Appendix 1 to the annual report	Will not be taken into account due to the fact that in accordance with Russian Federation Government Resolution No. 1352 dated 11.12.2014, there is no obligation for the Customer to generate and provide information on purchases from SME by main procurement areas (in terms of procurement) and the volume of purchases in the regions (branches of PJSC FGC UES).
4	Save the section on digitalisation in subsequent annual reports	Will be taken into account when preparing upcoming reports
5	Give qualitative assessments in a comparative manner; in particular, specify on what scale the assessment of the level of customer satisfaction is equal to 9.23 points	Included in the section "Business model."
6	Include information that the company would like from consumers, counterparties, and customers in terms of a certain declaration, promotion of the company's goals	Will not be included, as this information does not correspond to the format of the annual report
7	Continue to disclose information about the number of students who have been practicing in the company	Will be included when preparing the following reports
8	Include in the Annual report information about professional standards being implemented in the Company, about the Centre for Qualification Assessment and about the Company's need for employees qualified in digitalisation.	Will be included when preparing the report for 2018
9	Review the status of the Company's compliance with the principles of corporate governance as per item 6.2.1. of Appendix 3 to the Annual report "Report of PJSC FGC UES on compliance with the principles and recommendations of the Corporate Governance Code approved by the Board of Directors of the Bank of Russia"	Included in Appendix 3 to the annual report. The status under item 6.2.1. was changed from "partial compliance" to "compliance"
10	Present in the form of diagrams the participation of independent directors in the work of the Board of Directors and Committees of the Board of Directors	Included in the section "Corporate Governance Report" in the subsection "Independent Directors"

## Appendix 3

**REPORT OF JSC FGC UES ON COMPLIANCE  
WITH THE PRINCIPLES AND RECOMMENDATIONS  
OF THE CORPORATE GOVERNANCE CODE  
APPROVED BY THE BANK OF RUSSIA BOARD  
OF DIRECTORS ON MARCH 21, 2014  
AND RECOMMENDED FOR APPLICATION  
BY THE BANK OF RUSSIA (BANK OF RUSSIA  
LETTER No. 06-52 / 2463 DATED APRIL 10, 2014)**

Report date: **30.03.2018**.

This Report has been considered by the Board of Directors of PJSC FGC UES as part of the preliminary consideration of the Company's Annual Report (Minutes № 405 of 24.05.2018).

The board of directors confirms that the data presented in this Report contains complete and accurate information on the Company's compliance with the principles and recommendations of the Corporate Governance Code during the reporting period from 1 January 2017 through 30 March 2018.

This Report is an annex to the annual report of PJSC FGC UES for 2017, which describes the most significant aspects of the model and practice of corporate governance, as well as a description of the methodology by which the Company conducted an assessment of compliance with the principles of corporate governance.

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
<b>1.1</b>	<b>The Company shall ensure equal and fair treatment of all shareholders exercising their right to participate in the governance of the Company.</b>			
1.1.1	<p>The Company should create the most favourable conditions for its shareholders to enable them to participate in the General Meeting and develop sound positions on items on its agenda, as well as to provide them with the opportunity to coordinate their actions and express opinions on items discussed.</p> <p>1. The Company's internal document approved by the General Meeting of Shareholders and regulating the procedures for holding the General Meeting is publicly available.</p> <p>2. The Company provides an accessible way to communicate with the community, such as a hotline, special email or Internet forum that enables shareholders to express their opinions and address questions regarding the agenda when preparing for the General Meeting. The above actions were taken by the Company before each General Meeting held in the reporting period.</p>	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
1.1.2	<p>Procedures for sending notice of the General Meeting and provision of the relevant materials should enable shareholders to get properly prepared for participating therein.</p> <p>1. The Notice of the upcoming General Meeting was posted (published) on the corporate website at least 30 days before the meeting.</p> <p>2. The Notice of the General Meeting specified the exact location of the meeting and documents required for admission to the premises.</p>	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	<p>3. Shareholders had access to the information about who had proposed items on the agenda and nominated candidates to the Board of Directors and the Audit Commission of the Company.</p>	
1.1.3	<p>During the preparation for and holding of the General Meeting, shareholders should be able to receive in a freely and timely manner information about the meeting and materials thereto, put questions to members of the Company's executive bodies and the Board of Directors before and during the Annual General Meeting.</p> <p>2. Position of the Board of Directors (including any dissenting opinions recorded in the minutes) on each item of the General Meetings held within the reporting period was included in the materials for the General Meeting of Shareholders.</p> <p>3. The Company provided shareholders, entitled thereto, with access to the list of persons entitled to participate in the General Meeting, starting from the date of its receipt by the Company, in all cases of holding general meetings in the reporting period.</p>	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
1.1.4	<p>There should be no unjustified difficulties preventing shareholders from exercising their right to request for a General Meeting to be convened, nominate candidates to the Company's governing bodies, and to place proposals on its agenda.</p> <p>1. In the reporting period, shareholders were entitled to propose new items to be included on the agenda of the Annual General Meeting at least 60 days after the end of the respective calendar year.</p> <p>2. In the reporting period, the Company did not refuse to accept proposals for the agenda or candidates to the Company's bodies due to misprints or other insignificant defects in a shareholder's proposal.</p>	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		

## Appendix 3

REPORT ON COMPLIANCE WITH THE RUSSIAN CORPORATE GOVERNANCE CODE

## Appendix 3

REPORT ON COMPLIANCE WITH THE RUSSIAN CORPORATE GOVERNANCE CODE

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
1.1.5	Each shareholder should be able to freely exercise his right to vote in a straightforward and most convenient way.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company's internal document (internal policy) includes provisions whereby any participant of the General Meeting may, until the end of the General Meeting, request a copy of the ballot filled by that participant to be certified by the Company's counting board.  2. In the reporting period the Company did not refuse in accepting proposals in agenda or nominations to the Company's bodies for misprints and other insignificant shortcomings in proposal of the shareholder.	
1.1.6	Procedures for holding a general meeting set by the Company should provide equal opportunity to all persons present at the general meeting to express their opinions and ask questions that might be of interest to them.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In the reporting period, when general meetings of shareholders were held in the form of a meeting (joint presence of shareholders), sufficient time was provided for reports on items and for further discussion thereof.  2. Candidates to the Company's governing and control bodies were available to answer shareholders' questions at the meeting where they were put to the vote.  3. When making decisions related to the preparation and holding of the General Meeting of Shareholders, the Board of Directors considered a matter on the use of telecommunications to provide shareholders with remote access to attend the General Meetings held in the reporting period.	1. Observed. 2. Observed. 3. Not observed.  In 2017, the Board of Directors did not consider the issue of using telecommunications to provide shareholders with remote access to the General Meetings when making decisions related to the preparation and conduct of General Meetings. The reason was the Company's Registrar did not fully elaborate and test such a technical capability, and there were no corresponding provisions in the Company's Articles of Association.  Starting from 2016, the Company has arranged a live broadcast of General Meetings of shareholders via the Internet. In the course of General Meetings of shareholders in 2016-2017, there was an opportunity to participate remotely in the general meeting of shareholders – customers of nominee holders by sending through the National Settlement Depository (NSD) their electronic voting instructions to the Registrar.  In 2017, the Company's Articles of Association was amended to allow voting by electronic bulletins. Thus, in accordance with paragraph 11.10 of the new edition of the Company's Articles of Association approved by the Annual General Meeting of shareholders on 29.06.2017 (Minutes No. 18 of 03.07.2017), shareholders who registered for participation in it, including specified in the message on holding the General Meeting of Shareholders of the site in the information and telecommunication network «Internet» (if such an opportunity was provided for by the decision of the Board of Directors of the Company), and the shareholders whose bulletins are received or the electronic form of the bulletin is filled in on the website specified in this message in the information and telecommunication network «Internet».  In 2018, when the Board of Directors makes decisions related to the preparation and conduct of the annual general meeting of shareholders, it is planned to ensure the possibility of voting at the General Meeting of shareholders following the results of 2017 by sending electronic bulletins to the registrar using the information service of the registrar «STATUS Online. Cabinet of the shareholder», access to which for shareholders of PJSC FGC UES is free.
<b>1.2 Shareholders should have equal and fair opportunity to participate in the Company's profits by means of receiving dividends.</b>				
1.2.1	The Company should develop and put in place a transparent and clear mechanism for determining the amount of dividends and payment thereof.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company's dividend policy has been developed, approved by the Board of Directors and disclosed.  2. If the Company's dividend policy uses criteria from the Company's financial accounts to determine the amount of dividends, the dividend policy shall employ the consolidated financial indicators.	1. Observed. 2. Not observed.  According to the dividend policy approved by the decision of the Board of Directors on 16.12.2010, the recommended amount of dividend payments is determined by the Board of Directors based on the financial performance of the Company's RAS activities. PJSC FGC UES is a company with state participation (more than 80% of the authorised capital is indirectly owned by the state). The decision on the payment of dividends is made in accordance with the directives issued by the Government of the Russian Federation, taking into account separate orders of the Government of the Russian Federation, including No. 774-r of 29.05.2006, No. 1094-r of 29.05.2017, when determining the amount of dividends for 2016. In accordance with this decree of 29.05.2017 No. 1094-r the amount to be paid for dividends is at least 50 percent of the company's net profit determined according to the financial statements, including consolidated, compiled in accordance with International Financial Reporting Standards, calculated taking into account the exclusion of certain components from net profit. In connection with the foregoing, the Company has not identified additional risks associated with the fact that the provisions of the dividend policy do not take into account consolidated financial statements.  In 2018, PJSC FGC UES plans to submit for consideration by the Board of Directors the Regulation on the dividend policy in a new version, developed in accordance with the provisions of RF Government Decree No. 1094-r of 29.05.2017, according to which the amount of dividends will be taken into account indicators on the basis of the consolidated financial statements prepared in accordance with International Financial Reporting Standards (IFRS).

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
1.2.2	The Company should not make a decision on the dividend payment if such decision, without formally violating limits set by law, is economically unjustified and might lead to false assumptions about the Company's activity.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company's dividend policy clearly indicates the financial/economic circumstances under which the Company should not pay dividends.	
1.2.3	The Company should not allow deterioration of dividend rights of its existing shareholders.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In the reporting period, the Company did not take any actions leading to the deterioration of dividend rights of the existing shareholders.	
1.2.4	The Company should strive to rule out any ways through which its shareholders can obtain any profit or gain at the Company's expense other than dividends and liquidation value.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. To eliminate other methods for shareholders to obtain profit (income) at the Company's expense, other than dividends and liquidation value, the Company's internal documents establish controls that ensure the timely identification and procedure for the approval of transactions with persons affiliated (related) with substantial shareholders (persons entitled to dispose of the votes attached to voting shares), where the law does not formally recognise such transactions as related-party transactions.  The Company's substantial shareholders are PJSC Rosseti that holds 80.13% of voting shares, and the Russian Federation represented by the Federal Property Management Agency on the agreement made with PJSC Rosseti. The Russian Federation has no affiliated persons. Currently, the legislation is moving along the path of simplifying the procedure for committing transactions in which there is interest, and reducing their total number. Thus, Federal Law No. 343-FZ of 03.07.2016, from 01.01.2017, introduced a new procedure for making interested-party transactions through notification to members of management bodies, and also expanded the list of transactions that are not recognised as related party transactions, including Transactions with a price threshold have been identified, before the achievement of which the transactions can be concluded without holding corporate events provided for by Chapter XI of the Federal Law No. 208-FZ of 26.12.1995 «On Joint Stock Companies».	1. Partially not observed. The Company's internal documents do not provide for controls that ensure the timely identification and procedure for the approval of transactions with persons affiliated (related) with substantial shareholders (persons entitled to dispose of the votes attached to voting shares), where the law does not formally recognise such transactions as related-party transactions. The Company's substantial shareholders are PJSC Rosseti that holds 80.13% of voting shares, and the Russian Federation represented by the Federal Property Management Agency on the agreement made with PJSC Rosseti. The Russian Federation has no affiliated persons. Currently, the legislation is moving along the path of simplifying the procedure for committing transactions in which there is interest, and reducing their total number. Thus, Federal Law No. 343-FZ of 03.07.2016, from 01.01.2017, introduced a new procedure for making interested-party transactions through notification to members of management bodies, and also expanded the list of transactions that are not recognised as related party transactions, including Transactions with a price threshold have been identified, before the achievement of which the transactions can be concluded without holding corporate events provided for by Chapter XI of the Federal Law No. 208-FZ of 26.12.1995 «On Joint Stock Companies».

## Appendix 3

REPORT ON COMPLIANCE WITH THE RUSSIAN CORPORATE GOVERNANCE CODE

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<b>1.3 The corporate governance system and practices shall guarantee equal conditions for all shareholders owning shares of the same category (type), including minority shareholders and foreign shareholders, as well as their equal treatment by the Company.</b>				
1.3.1	The Company should create conditions that would enable its governing bodies and controlling persons to treat each shareholder fairly, in particular, which would eliminate the possibility of any abuse of minority shareholders by major shareholders.	1. During the reporting period, the procedures for managing potential conflicts of interest among existing shareholders were efficient, and the Board of Directors paid due attention to conflicts among shareholders, if there were any.  <input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	No conflicts of interests were recorded in the reporting period.	
1.3.2	The Company should not take any actions that will or might result in artificial redistribution of corporate control.	1. The Company does not have 'quasi-treasury' shares or they were used in the voting during the reporting period.  <input type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input checked="" type="checkbox"/> not compliant	Criterion 1 not observed. In the reporting period, 'quasi-treasury' shares of Federal Grid Company were involved in the voting at the Annual General Meeting.  Due to objective reasons, first of all, the need to ensure the main objective of the Company's activities under the Articles of Association (long-term maintenance of the energy integrity (security) of the Russian Federation, reliable, high-quality and affordable power supply to consumers of the Russian Federation), and also considering that the agenda day of the General Meeting of Shareholders may include issues aimed at the implementation of instructions of the President of the Russian Federation and / or the Government of the Russian Federation, including aspects of the implementation of the strategy for the development of the power grid complex of the Russian Federation, the possibility of a quasi-equity stake participation in the voting on the AGM is not completely excluded. The risks of artificial redistribution of control were not revealed due to the insignificant size of the package of 'quasi-treasury' shares – 1.077% of the authorized capital. However, striving to comply with the best practices of corporate governance, starting with the annual general meeting of shareholders in 2018, the Company plans to abandon the practice of participation of a quasi-treasury shareholding in the Company in voting on the AGM.	
<b>1.4 The shareholders should be provided with reliable and efficient means of recording their rights in shares as well as with the opportunity to freely dispose of such shares in a non-onerous manner.</b>				
1.4	The shareholders should be provided with reliable and efficient means of recording their rights in shares as well as with the opportunity to freely dispose of such shares in a non-onerous manner.	1. The registrar's quality and reliability in maintaining the shareholder register meet the Company's and its shareholders' needs.  <input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
<b>2.1 The Board of Directors provides strategic governance of the Company, determines the main principles of and approaches to the arrangement of the Company's risk management and internal control systems, supervises the Company's executive bodies, and performs other key functions.</b>				
2.1.1	The Board of Directors should be responsible for making decisions to appoint and remove members of executive bodies, including in connection with their failure to perform their duties properly. The Board of Directors should also ensure that the Company's executive bodies act in accordance with an approved development strategy and the Company's businesses.	1. The Board of Directors has the powers set out in the Articles of Association to appoint and remove members of the executive bodies, as well as determine terms and conditions of contracts to be entered with them. 2. The Board of Directors has considered a report (reports) of the CEO and members of the collective executive board on the implementation of the Company's strategy.  <input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. Partially not observed. According to the Company's Articles of Association, the Board of Directors shall appoint members of the Federal Grid's Management Board, and the General Meeting of Shareholders shall appoint the Chairman of the Management Board. The Company does not plan to amend its Articles of Association with respect to delegating the authority to appoint the Management Board's Chairman to the Board of Directors because of the high risk of financial and economic implications for the Company resulting from the possible demand for redemption of minority stakes. Necessary changes to the Articles of Association may be made in the event of changes in the legislation of the Russian Federation excluding the risks of financial and economic consequences when making a decision to amend the Articles of Association in terms of transferring competence to elect the Chairman of the Management Board to the Board of Directors, or issuing by the Government of the Russian Federation a principal decision on this with the adoption of an appropriate risk, the Company plans to consider making appropriate changes to the and the above conditions. 2. Observed.	
2.1.2	The Board of Directors should establish basic long-term targets of the Company's activity, evaluate and approve its key performance indicators and principal business goals, as well as evaluate and approve its strategy and business plans in respect of its core businesses.	1. During the reporting period, the Board of Directors considered matters related to the progress review and updating of the Company's strategy, the approval of its financial and business plan (budget), and the review of criteria and performance indicators (including intermediate) of the Company's strategy and business plan.  <input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
<b>2.1.3 The Board of Directors should determine principles of and approaches to the establishment of the Company's risk management and internal control systems.</b>				
2.1.3	1. The Board of Directors should determine principles of and approaches to the establishment of the Company's risk management and internal control systems.  2. In the reporting period, the Board of Directors reviewed the Company's internal control and risk management systems.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.1.4	1. The Company has developed and implemented the policy(-ies) approved by the Board of Directors on the remuneration and reimbursement of expenses incurred by the Board members, members of its executive bodies and other key managers.  2. During the reporting period, the Board of Directors considered issues related to the above policy(-ies).	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.1.5	1. The Board of Directors plays a key role in prevention, detection and resolution of internal conflicts between the Company's bodies, shareholders and employees.  2. The Company has established a system for identifying transactions involving conflicts of interest and a system of measures aimed at resolving such conflicts.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.1.6	1. The Board of Directors has approved the regulations on the information policy.  2. The Company has determined persons responsible for implementing the information policy.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.1.7	1. During the reporting period, the Board of Directors considered items on the Company's corporate governance practices and play a key role in its material corporate events.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
<b>2.2 The Board of Directors should be accountable to the Company's shareholders.</b>				
2.2.1	Information on the Board of Directors' activities should be disclosed and provided to the shareholders.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company's annual report for the reporting period includes information on the attendance at meetings of the Board of Directors and its committees.  2. The annual report contains information on the main findings of the Board of Directors' performance evaluation for the reporting period.	
2.2.2	1. The Company has a transparent procedure that enables shareholders to submit their questions and positions thereon to the Chairman of the Board of Directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		

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<b>2.3 The Board of Directors should be an efficient and professional governing body of the Company capable of making objective and independent judgments and taking decisions in the best interests of the Company and its shareholders.</b>				
2.3.1	Only persons with impeccable business and personal reputation should be elected to the Board of Directors; such persons should also have knowledge, skills, and experience required to make decisions that fall within the role and responsibilities of the Board of Directors and to perform its functions efficiently.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The procedure for the Board of Directors' performance evaluation adopted in the Company includes, among other things, evaluation of professional skills and expertise of the Board members.  2. In the reporting period, the Board of Directors (or its Nomination Committee) evaluated candidates to the Board of Directors in terms of their experience, knowledge, business reputation, absence of conflicts of interest, etc.	The issue of the proposals of PJSC FGC UES for candidacies for nomination to the management and control bodies of PJSC FGC UES for the period 2017-2018 corporate year was reviewed by the Personnel and Remuneration Committee in October 2016. When such a decision was adopted, candidates for election as independent directors were identified.
2.3.2	Board members should be elected pursuant to a transparent procedure enabling shareholders to obtain information about the respective candidates that is sufficient to get an idea of the candidates' personal and professional qualities.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In all cases when a General Meeting of Shareholders was held during the reporting period, the agenda of which included the election of the Board of Directors, the Company provided shareholders with biographical data of all candidates to the Board of Directors, results of the evaluation of such candidates performed by the Board of Directors (Nomination Committee), as well as information on the candidates' compliance with the independence criteria according to the recommendations in paragraphs 102 to 107 of the Code, and the candidates' written consent to be elected to the Board of Directors..	1. Partially not observed. When holding an extraordinary meeting of shareholders on September 15, 2017, on the agenda of which the issue of electing members of the Board of Directors was included, no information was provided on the results of the evaluation of such candidates by the Board of Directors or the Remuneration Committee. The procedure for nominating candidates to the Board of Directors of the Company is regulated by the Decree of the Government of the Russian Federation No. 738 of 03.12.2004. In 2017, candidates for election to the Board of Directors of PJSC FGC UES as representatives of the Russian Federation and independent directors were nominated by the order of the Government of the Russian Federation No. 602-r of 31.03.2017. Also see the note to paragraph 2.31. The Company does not plan to implement this recommendation in the next reporting periods.  Other information about the candidate (biographical data, the consent, the status of an independent director) was presented to the shareholders as part of the materials to the EGM.
2.3.3	The composition of the Board of Directors should be balanced, in particular, in terms of qualifications, expertise, knowledge and business qualities of its members. The Board of Directors should enjoy the confidence of shareholders.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. As part of the Board performance evaluation carried out in the reporting period, the Board of Directors reviewed its own needs in professional expertise, experience and business skills.	
2.3.4	The number of members of the Company's Board of Directors must enable the Board to organise its activities in the most efficient way, in particular, to create Board committees, as well as to enable the Company's substantial minority shareholders to elect a candidate to the Board of Directors for whom they would vote.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. As part of the Board performance evaluation carried out in the reporting period, the Board of Directors considered whether the size of the Board was appropriate in terms of the Company's needs and shareholder interests.	

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
<b>2.4 The Board of Directors should include a sufficient number of independent directors.</b>				
2.4.1	An independent director should mean any individual who has required professional skills and expertise and is sufficiently able to have his/her own position and make objective and fair judgments, free from the influence of the Company's executive bodies, certain groups of shareholders or other stakeholders. It should be noted that, in normal conditions, a candidate (or an elected director) should not be deemed independent, if he/she is associated with the company, any of its substantial shareholders, material trading partners or competitors, or the government.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. During the reporting period, all independent members of the Board of Directors met the independence criteria specified in recommendations 102 to 107 of the Code or were recognised as such by the decision of the Board of Directors.	
2.4.2	It is recommended to evaluate whether candidates nominated to the Board of Directors meet independence criteria as well as to review, on a regular basis, whether independent Board members meet the independence criteria. When carrying out such evaluation, substance should take precedence over form.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In the reporting period, the Board of Directors (or the Nomination Committee) evaluated the independence of each candidate to the Board and submitted the relevant opinion to shareholders.  2. In the reporting period, the Board of Directors (or the Nomination Committee) reviewed, at least once, the independence of the existing Board members, indicated by the company in the annual report as independent directors.  3. The Company has developed procedures that determine actions to be taken by a member of the Board of Directors if he/she loses his/her independence, including the obligation to notify the Board of Directors thereof in a timely manner.	
2.4.3	At least one third of the Board of Directors shall be independent directors.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. Partially not observed.  The number of independent members of the Board of Directors during the reporting period was (less than 1/3 of the composition of the Board of Directors in the number of 11 members). To comply with this recommendation of the Code, the number of independent directors in the Company must be more than three (at least four). The annual general meeting of shareholders in 2016 elected the Board of Directors with 3 directors meeting the criteria of independence, which corresponds to the rules of listing the Moscow stock exchange, according to which the need for at least 1/5, but not less than three independent directors. The process of forming proposals and nominating candidates to the management bodies of the Company is regulated by Decree of the Government of the Russian Federation No. 738 of 03.12.2004 «On the management of shares of joint-stock companies in federal ownership and the use of the special right to participate in the management of joint-stock companies («golden share»)». Candidates for the Board of Directors of the Company are elected on the basis of the corresponding order of the Government of the Russian Federation. In 2017, candidates for election to the Board of Directors of PJSC FGC UES as representatives of the Russian Federation and independent directors were nominated by the order of the Government of the Russian Federation No. 602-r of 31.03.2017. Thus, the Company can not influence the election of members of the board of directors. Risks associated with the incomplete implementation of the Code's recommendations are offset by the effective organization of the activities of independent directors in the Company. Information on the planned increase in the number of nominated independent directors is not available, therefore, an increase in their number is not currently planned.	

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Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
2.4.4 Independent directors should play a key role in the prevention of internal conflicts in the Company and in material corporate actions taken by the latter.	1. Independent directors (who do not have any conflicts of interest) perform a preliminary evaluation of material corporate actions related to a potential conflict of interest, and the findings of such evaluation are submitted to the Board of Directors.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	<p>1. Partially not observed. Independent directors (who do not have any conflicts of interest) do not perform a preliminary evaluation of material corporate actions related to a potential conflict of interest. The Company's Articles of Association do not define a concept of material corporate actions. However, the issues specified in the Corporate Governance Code relating to significant actions:</p> <ul style="list-style-type: none"> <li>● Reorganisation of the company,</li> <li>● Acquisition of 30 percent or more of the company's voting shares (takeover),</li> <li>● Commitment by the company of material transactions,</li> <li>● Increase or decrease of the authorised capital of the company,</li> <li>● Realisation of listing and delisting of shares of the company.</li> </ul> <p>In accordance with the current legislation and the Articles of Association, the Company is referred to the competence of the Board of Directors or the General Meeting of Shareholders. Most of these issues (except for listing and delisting of shares and reduction of authorised capital) fall within the competence of the Strategy Committee of the Board of Directors. Thus, the evaluation of significant corporate actions related to a possible conflict of interest is conducted as part of the analysis of the materials of the Strategy Committee of the Board of Directors, as well as in the consideration of materials sent to members of the Board of Directors.</p> <p>During the reporting period, several major transactions were carried out by the entities controlled by the Company from the list of significant corporate actions specified in the Code. In all these cases, the Strategy Committee made a preliminary assessment of corporate actions and made appropriate recommendations to the Board of Directors. In this regard, the risks associated with the incomplete implementation of this recommendation of the Code, have not been identified.</p> <p>Under the current reform of corporate legislation and the lack of a unified approach to understanding «significant corporate actions» no changes are planned to be made to the internal documents of the Company.</p>	
2.5 The Chairman of the Board of Directors should contribute to the most effective implementation of functions imposed on the Board.	1. The Chairman of the Board of Directors is an independent director; or a senior independent director has been appointed among the Company's independent directors.  2. The function, rights and duties of the chairman of the Board of Directors (and, if applicable, the senior independent director) are properly specified in the Company's internal documents.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	<p>1. Not observed. The Chairman of the Board of Directors is not an independent director.</p> <p>In accordance with par. «D» item 1 of the list of instructions of the President of the Russian Federation No. Pr-846 of 02.04.2011, as well as the order of the Government of the Russian Federation No. ISH-P13-26pr dated 08.04.2011, professional attorneys are elected chairmen of the board of directors of companies with state participation.</p> <p>On the issue of the election of the Chairman of the Board of Directors in accordance with the Decree of the Government of the Russian Federation of December 3, 2004 No. 738, a directive is issued.</p> <p>The practice of determining in the Board of Directors a senior independent director in the reporting period is absent. At the same time, independent directors actively participate in the work of the Board of Directors and have the opportunity to communicate directly with both the Chairman of the Board of Directors, the internal auditor, and with the Company's management. In addition, the Committees of the Board of Directors have been created in the Company, two of which (the Audit Committee and the Personnel and Remuneration Committee) consist exclusively of independent directors. The activities of independent directors in the Company are organised efficiently and the introduction of an additional position of the Senior Independent Director will not entail improvements in the corporate governance system of the Company. Thus, the absence of a Senior Independent Director does not entail additional risks for the Company and its stakeholders. The Company does not plan to appoint a Senior Independent Director.</p> <p>The election of the Chairman of the Board of Directors will be decided in accordance with the directive of the Government of the Russian Federation.</p> <p>2. Observed.</p>	

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
2.5.2	The Board Chairman should ensure that Board meetings are held in a constructive atmosphere and that all items on the meeting agenda are discussed freely. The chairman should also monitor execution of decisions made by the Board of Directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The performance of the Board Chairman was evaluated as part of the Board performance evaluation in the reporting period.	
2.5.3	1. The duty of the Chairman of the Board of Directors must take all the required measures to provide the Board members in a timely manner with information required to make decisions on items on the agenda.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
<b>2.6 Board members must act reasonably and in good faith in the best interests of the company and its shareholders, being sufficiently informed, with due care and diligence.</b>				
2.6.1	1. The Company's internal documents establish that a member of the Board of Directors is obliged to inform the Board if he/she has a conflict of interest with respect to any item for a meeting of the Board of Directors or a Board committee, prior to the discussion of the respective item.  2. The Company's internal documents provide that a member of the Board of Directors should refrain from voting on any item where he/she has a conflict of interest.  3. The Company has established a procedure that enables the Board of Directors to obtain professional advice on items falling within its remit, at the Company's expense.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.6.2	1. The Company has adopted and disclosed an internal document that clearly defines the right and duties of members of the Board of Directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.6.3	1. Individual attendance of the Board of Directors and its committee meetings, as well as the time devoted to the preparation for meetings was taken into account in the course of the Board performance evaluation in the reporting period.  2. According to the Company's internal documents, members of the Board of Directors are obliged to notify the Board of their intention to join governing bodies of other companies (except for the Company's affiliates and dependent companies) and of such actual appointments.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
2.6.4	1. According to the Company's internal documents, members of the Board of Directors are entitled to get access to the documents and to make requests related to the Company and its affiliates, and the Company's executive bodies are obliged to provide the relevant information and documents.  2. The Company has a formalised induction programme for newly elected members of the Board of Directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
<b>2.7 Meetings of the Board of Directors, preparation for them, and participation of the Board members therein should ensure the effective performance of the Board.</b>				
2.7.1	1. The Board of Directors held at least six meetings in the reporting period.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.7.2	1. The Company has adopted an internal document that governs the procedure for preparing and holding Board meetings and specifies, among other things, that a notice of the meeting should normally be made at least five days prior to the meeting.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
2.7.3	1. The Company's Articles of Association or internal document provide that the most important items (according to the list in Recommendation 168 of the Code) should be considered at the Board meetings held in person.  Thus, a number of items that, according to the Code, require face-to-face consideration by the Board of Directors involve tight deadlines which does not allow to ensure holding a Board meeting in person within the time specified by law due to a possible lack of quorum. At the same time, the Board's action plan determines priority items to be considered at the meeting held in person, including the approval of the business plan (consolidated business plan that includes key performance indicators of subsidiaries and associates) and the Company's investment programme, the Long-Term Development Programme. The Company plans in 2018 to amend the internal document – the Corporate Governance Code of PJSC FGC UES in terms of determining the issues to be considered at the Board of Directors' in-person meetings.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. Partially not observed. The Company's Articles of Association and internal documents do not determine what items should be considered at the Board meetings held in person. According to the recommendations of the Corporate Governance Code, items to be considered at meetings held in person include the following:  <ul style="list-style-type: none"><li>● items relating to holding an Annual General Meeting of Shareholders;</li><li>● items to be resolved in accordance with the directives of the Government of the Russian Federation;</li><li>● approval of the Company's material transactions;</li><li>● consideration of material aspects of business of any legal entity controlled by the Company;</li><li>● items relating the Company's business (including business plans);</li><li>● other items, including the results of the Board performance assessment, consideration of a risk management policy, etc.</li></ul> Thus, a number of items that, according to the Code, require face-to-face consideration by the Board of Directors involve tight deadlines which does not allow to ensure holding a Board meeting in person within the time specified by law due to a possible lack of quorum. At the same time, the Board's action plan determines priority items to be considered at the meeting held in person, including the approval of the business plan (consolidated business plan that includes key performance indicators of subsidiaries and associates) and the Company's investment programme, the Long-Term Development Programme. The Company plans in 2018 to amend the internal document – the Corporate Governance Code of PJSC FGC UES in terms of determining the issues to be considered at the Board of Directors' in-person meetings.	

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
2.7.4	Decisions on the most important items relating to the Company's business should be made at a meeting of the Board of Directors by a qualified majority vote or by a majority vote of all elected Board members.	<input type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input checked="" type="checkbox"/> not compliant	1. The Company's Articles of Association provide that decisions on the most critical items outlined in Recommendation 170 of the Code shall be made at a meeting of the Board of Directors by a qualified majority of at least three quarters of votes or by a majority of votes of all elected members of the Board of Directors.	1. Not observed. The Articles of Association of the Company does not stipulate that decisions on the issues set forth in Recommendation 170 of the Code should be taken at a meeting of the Board of Directors by a qualified majority of at least three quarters of votes or by a majority of all elected members of the Board of Directors.  In accordance with clause 18.6 of the Articles of Association, resolutions at a meeting of the Board of Directors of the Company shall be adopted by a majority vote of the members of the Board of Directors participating in the meeting, with the exception of cases provided for by the legislation of the Russian Federation and this Articles of Association. Clause 18.8 of the Company's Articles of Association specifies a list of issues the decision on which is adopted by a two-thirds majority of the members of the Board of Directors who took part in the meeting. In particular, issues referred to in clauses 4 and 8 of Recommendation 170 of the Code include: approval of material transactions of the Company and consideration of significant issues related to the activities of entities controlled by the Company. In addition, in accordance with the Articles of Association, a two-thirds majority of the members of the Board of Directors who took part in the meeting take decisions on the Company's participation in other organisations and on the definition of credit policy. In practice, this recommendation of the Code is implemented, since in 2017 at least 10 out of 11 elected members of the Board of Directors participated in 80% of the meetings of the Board of Directors. Accordingly, in most cases, the simple majority of the votes of the members of the Board of Directors participating in the meeting is comparable to the majority of votes of all elected members of the Board of Directors. It should also be noted that in 2017, only one of the issues at all meetings of the Board of Directors was taken by 5 votes (Minutes of the Board of Directors No. 353 of 06.02.2017, Issue No. 2), i.e. less than half of all elected 11 members of the Board of Directors. In other cases, decisions were taken by at least 6 votes. Risks associated with incomplete implementation of the Code's recommendations are offset by the traditionally high attendance of Board members, as well as decision-making procedures adopted by the Company: decisions taken by the Board of Directors are built on the consensus of all members of the Board of Directors, and key decisions are preliminarily worked out in the work of the Committees of the Board of Directors. Amendments to the Company's Articles of Association are currently not planned.
<b>2.8 The Board of Directors should establish committees for preliminary consideration of the most important items of the Company's business.</b>				
2.8.1	For the purpose of preliminary consideration of any matters relating to oversight of the Company's business, it is recommended to establish an audit committee composed of independent directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Board of Directors established an Audit Committee composed of independent directors only.  2. The Company's internal documents determine the objectives for the Audit Committee, including those set out by Recommendation 172 of the Code.  3. At least one Audit Committee member, being an independent director, has an experience and knowledge in preparing, analysing, evaluating, and auditing accounting (financial) statements.  4. The Audit Committee meetings were held at least quarterly during the reporting period.	
2.8.2	For the purpose of preliminary consideration of matters relating to the development of efficient and transparent remuneration practices, it is recommended to establish a remuneration committee composed of independent directors and chaired by an independent director who should not be the Board Chairman.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Board of Directors established a Remuneration Committee composed entirely of independent directors.  2. The Remuneration Committee is chaired by an independent director who is not the Chairman of the Board of Directors.  3. The Company's internal documents determine the objectives for the Remuneration Committee, including those set out by Recommendation 180 of the Code.	

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2.8.3	For the purpose of preliminary consideration of matters relating to HR planning (succession planning), professional composition and efficiency of the Board of Directors, it is recommended to establish a nomination committee (nominating committee, HR committee) with the majority of its members being independent directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Board of Directors established a Nomination Committee (or its objectives, set out in Recommendation 186 of the Code, are delivered by another committee), and the majority of its members are independent directors.  2. The Company's internal documents determine the objectives for the nomination committee (or another committee with the relevant functions), including those set out by Recommendation 186 of the Code.	
2.8.4	Taking account of the Company's scope of activities and a risk level, the Board of Directors has ascertained that the composition of its committees meets the objectives of the Company. Additional committees were either established, or were not considered necessary (a strategy committee, a corporate governance committee, an ethics committee, a risk management committee, a budget committee, a committee on health, safety and environment, etc.).	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In the reporting period, the Company's Board of Directors reviewed the conformity of the membership in its committees to the objectives assigned to the Board and to the Company's business goals. Additional committees were either established or were not recognised as necessary.	
2.8.5	The composition of the committees should be determined in such a way that it would allow a comprehensive discussion of issues being considered on a preliminary basis with due account of the variety of opinions.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. Committees of the Board of Directors are headed by independent directors.  2. The Company's internal documents (policies) contain provisions whereby individuals not included on the audit committee, the nomination committee and the remuneration committee may attend meetings of these committees only upon the invitation of the chairman of the respective committee.	1. Partially not observed. Three of the four Committees - Human Resources and Remuneration Committees, on audit and investment, are headed by independent directors.  The Strategy Committee is headed by a member of the Board of Directors who is not an independent director - Snikars Pavel Nikolayevich - Director of the Department for the Development of the Electricity Industry of the Ministry of Energy of Russia PJSC FGC UES is a company with tariff regulation with state participation, is included in the list of strategic organisations of Russia, of strategic importance, is a subject of natural monopoly. Thus, taking into account the competence of the Strategy Committee, the election of a representative of the sectoral ministry as its chairman appears to be justified. It should also be noted that in accordance with the Regulation on the Strategy Committee, taking into account selected decisions of the Government of the Russian Federation, it is elected mainly to persons who are not members of the Board of Directors, ensuring independent and comprehensive discussion of issues and the formation of preliminary recommendations to the Board of Directors. In this regard, there are no risks associated with incomplete implementation of the Code's recommendation.
2.8.6	The chairmen of the committees should inform the Board of Directors and its chairman of the work of their committees on a regular basis.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. During the reporting period, the Chairmen of the Committees reported on the Committees' work to the Board of Directors on a regular basis.	

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
2.9	<b>The Board of Directors should ensure evaluation of its own performance, and that of its Committees and members of the Board.</b>			
2.9.1	The Board of Directors' performance evaluation should be aimed at determining how efficiently the Board of Directors, its Committees and Board members work and whether their work meets the Company's needs, as well as at making their work more active and identifying areas for improvement.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The self-evaluation or external evaluation of the Board performance conducted in the reporting period included the performance evaluation of the committees, individual directors and the Board as a whole.  2. The results of the self-evaluation or external evaluation of the Board performance, conducted in the reporting period, were considered at the Board meeting held in presence.	1. Observed. 2. Not observed. The results of the evaluation of the effectiveness of the work of the Board of Directors held during the reporting period were considered at a meeting of the Board of Directors on 29.12.2017, held in the form of absentee voting (Minutes No. 387 of 09.01.2018). The Company's internal document on the Regulation on the evaluation of the activities of the Board of Directors of PJSC FGC UES, approved by the decision of the Board of Directors (Minutes No. 355 of 20.02.2017) provides that The results of the evaluation should be considered at the internal meeting of the Board of Directors. The decision on the form of holding a meeting of the Board of Directors is made by the Chairman of the Board of Directors in accordance with the Regulations on the Board of Directors.  In assessing the effectiveness of the Board of Directors in 2018 following the results of 2017, the Company plans to review the results of the evaluation at a full meeting of the Board of Directors.
2.9.2	Performance evaluation of the Board of Directors, its Committees and Board members should be conducted on a regular basis, at least once every three years.  To conduct an independent performance evaluation, it is recommended to involve an outside party (consultant) on a regular basis, at least once every three years.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
3.1	<b>The Company's Corporate Secretary shall be responsible for efficient shareholder engagement, coordination of the company's actions aimed at protecting the shareholder rights and interests, and support of efficient work of the Board of Directors.</b>			
3.1.1	The Corporate Secretary should have knowledge, experience, and qualifications sufficient for the discharge of his/her responsibilities, as well as an impeccable reputation and should enjoy the trust of shareholders.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company adopted and disclosed an internal document – the Regulations on the Corporate Secretary.  2. The Company's website and annual report provide background information on the corporate secretary with the same level of detail as for members of the Board of Directors and the executive management of the Company.	
3.1.2	The Corporate Secretary should be independent enough of the Company's executive bodies and be vested with powers and resources required to carry out his/her tasks.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Board of Directors approves the appointment, dismissal and additional remuneration of the corporate secretary.	

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<b>4.1 The level of remuneration paid by the Company should be sufficient to attract, motivate, and retain individuals having required skills and qualifications. Remuneration to Board members, members of the executive bodies, and other key managers of the Company should be paid in accordance with a remuneration policy approved by the Company.</b>				
4.1.1 It is recommended that the level of remuneration paid by the company to its Board members, executive bodies, and other key managers should be sufficient to motivate them to work efficiently and enable the Company to attract and retain competent and qualified professionals. The Company should avoid setting the level of remuneration any higher than necessary, as well as an excessively large gap between the level of remuneration of any of the above individuals and that of the Company's employees.	1. The Company has adopted internal remuneration document(s) - policy(-ies) for members of the Board of Directors, executive bodies and other key managers that clearly define the approaches to the remuneration of the above individuals.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	The term 'other key managers of the Company' is not applied according to the Action Plan (roadmap) on introducing the Corporate Governance Code provisions in the Company's practice approved by the Board of Directors on 12.03.2015 (Minutes No. 255).	
4.1.2 The Company's remuneration policy should be developed by its remuneration committee and approved by the Board of Directors. With the assistance of its remuneration committee, the Board of Directors should monitor the implementation of and compliance with the remuneration policy by the Company and review and amend the same, if necessary.	1. In the reporting period, the remuneration committee reviewed the remuneration policy(-ies) and the practice of its/their implementation and, if necessary, submitted the relevant recommendations to the Board of Directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
4.1.3 The Company's remuneration policy should provide for transparent mechanisms to be used to determine the amount of remuneration due to members of the Board of Directors, the executive bodies, and other key managers of the company, as well as regulate(-s) all types of payments, benefits, and privileges provided to the above individuals.	1. The Company's remuneration policy(-ies) provide(-s) for transparent mechanisms to be used to determine the amount of remuneration due to members of the Board of Directors, the executive bodies, and other key managers of the company, as well as regulate(-s) all types of payments, benefits, and privileges provided to the above individuals.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	The term 'other key managers of the Company' is not applied according to the Action Plan (roadmap) on introducing the Corporate Governance Code provisions in the Company's practice approved by the Board of Directors on 12.03.2015 (minutes No. 255).	
4.1.4 The Company is recommended to develop a policy on reimbursement of expenses, which would contain a list of reimbursable expenses and specify service levels provided to members of the Board of Directors, the executive bodies, and other key managers of the Company. Such policy can be a part of the company's remuneration policy.	1. The Company's remuneration policy(-ies) or other internal documents establish(-es) the rules on the reimbursement of expenses to members of the Board of Directors, executive bodies and other key managers of the Company.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	The term 'other key managers of the Company' is not applied according to the Action Plan (roadmap) on introducing the Corporate Governance Code provisions in the Company's practice approved by the Board of Directors on 12.03.2015 (minutes No. 255).	

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<b>4.2 The remuneration system of the Board members should ensure aligning of the directors' financial interests with the long-term financial interests of shareholders.</b>				
4.2.1	1. Fixed annual fee shall be a preferred form of monetary remuneration for members of the Board of Directors for their work within the Board during the reporting period.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
4.2.2	1. If the Company's internal document(s) - remuneration policy(-ies) provide(s) for granting shares to members of the Board of Directors, clear rules for holding shares by members of the Board of Directors, aimed at encouraging long-term ownership of such shares, should be available and disclosed.	<input type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	This criterion is not applicable because the Company's remuneration policy does not provide for granting the Company shares to members of the Board of Directors.	
4.2.3	1. The Company does not have any additional benefits or compensation in case of the early termination of members of the Board of Directors in connection with a change in control over the Company or other circumstances.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant		
4.3	<b>The system of remuneration due to members of the executive bodies and other key managers of the Company should provide that their remuneration is dependent on the Company's performance and their personal contributions to the achievement thereof.</b>			
4.3.1	1. During the reporting period, the annual performance indicators approved by the Board of Directors were used to determine the amount of variable remuneration of members of executive bodies and other key managers of the Company. 2. During the most recent evaluation of the remuneration system for members of the executive bodies and other key managers, the Board of Directors (the remuneration committee) made sure the Company applied an efficient ratio of the fixed portion of remuneration to the variable portion. 3. The Company has a procedure for repaying bonuses unlawfully obtained by members of the executive bodies and other key managers.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	The remuneration system for members of the Company's executive bodies is based on the achievement of the approved target values of key performance indicators (KPIs). The Board of Directors reviews the results of target achievement, and payment of remuneration according to the results achieved is possible only upon the decision made by the Board of Directors to approve the relevant report. Thus, the possibility to get remuneration unlawfully is eliminated. In addition, the results of the Company's KPI achievement are reviewed by an independent auditor, who evaluates the achievement of indicators of the Company's long-term development programme and submits all findings to the Board of Directors, thus mitigating the risk of manipulating the report data or other unethical practices.	

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4.3.2	The Company has put in place a long-term incentive programme for members of the Company's executive bodies and other key managers involving the company's shares (options or other derivative financial instruments the underlying assets for which are the Company's shares).	<input type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input checked="" type="checkbox"/> not compliant	1. Not observed. 2. Not observed. The Company does not have a long-term incentive programme for members of its executive bodies involving the Company's shares (financial instruments based on the Company's shares). At the same time, the Company uses other tools to motivate management based on the achievement of the KPIs established by the Board of Directors. It should be noted that the performance of a number of indicators affects the increase in capitalisation and the long-term growth of the Company's shareholder value. The Company is considering the possibility of introducing a long-term motivation program for members of the executive bodies using the company's shares (financial instruments based on the shares of the company) based on market conditions and state regulation.	
4.3.3	The amount of compensation (a so-called 'golden parachute') payable by the Company in the event of early termination of a member of an executive body or other key manager at the initiative of the Company, provided that there have been no unfair practices on the part of such person, should not exceed two times the fixed portion of his/her annual remuneration.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The amount of compensation ('golden parachute') paid by the company in the event of early termination of a member of an executive body or other key managers at the initiative of the company, provided that there have been no unfair practices on the part of such person, did not exceed two times the fixed portion of his/her annual remuneration in the reporting period.	
<b>5.1 The company has a sound risk management and internal control system aimed at providing reasonable assurance that the company's goals will be achieved.</b>				
5.1.1	The Board of Directors should determine principles of and approaches to the establishment of the Company's risk management and internal control system.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. Functions of various governing bodies and business units at the company in the risk management and internal control system are clearly defined in the Company's internal documents/ relevant policy approved by the Board of Directors.	
5.1.2	The Company's executive bodies should create and maintain an efficient risk management and internal control system in the Company.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	The Company's executive bodies ensured the distribution of functions and powers related to risk management and internal control among managers (heads) of business units and divisions accountable thereto.	
5.1.3	The Company's risk management and internal control system should enable one to obtain an objective, fair and clear view of the current position and prospects of the company, integrity and transparency of its accounts and reports, and reasonableness and acceptability of risks taken by the company.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company has approved an anti-corruption policy. 2. The Company has organised an affordable method of informing the Board of Directors or its audit committee of any violations of legislation, internal procedures and the ethics code of the Company.	

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5.1.4	The Board of Directors takes sufficient measures to ensure that the existing risk management and internal control system of the company is consistent with the principles of and approaches to its creation as set forth by the Board of Directors and that it operates efficiently.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In the reporting year, the Board of Directors or the audit committee evaluated the efficiency of the Company's risk management and internal control system. Information on the key findings of such evaluation is included in the Company's annual report.	
<b>5.2 For regular independent review of reliability and effectiveness of the risk management and internal control system and corporate governance practices, the Company arranges for internal audits.</b>				
5.2.1	Internal audits are carried out by a separate structural unit created by the Company or through engaging an independent outside party. To ensure the independence of the internal audit department, it should have separate lines of functional and administrative reporting. Functionally, the internal audit department should report to the Board of Directors.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. To perform internal audits, the company has established a separate structural unit that performs internal audit functions and reports functionally to the Board of Directors, or has engaged an independent external organisation subject to the same reporting principle.	
5.2.2	Internal Audit Department evaluates effectiveness of the internal control system and the risk management system, as well as to review corporate. The Company applies generally accepted approaches to internal control and risk management.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In the reporting period, as part of an internal audit, the effectiveness of the internal control and risk management system was reviewed. 2. The Company applies the generally accepted approaches to internal control and risk management.	
<b>6.1 The Company and its activities should be transparent for its shareholders, investors and other stakeholders.</b>				
6.1.1	The Company should develop and implement an information policy enabling the Company to efficiently exchange information with its shareholders, investors and other stakeholders.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company has approved an information policy developed in compliance with the Corporate Governance Code recommendations. 2. The Board of Directors (or one of its committees) considered matters related to the Company's compliance with its information policy at least once in the reporting period.	
6.1.2	The Company should disclose information on its corporate governance system and the general corporate governance principles applied thereby, including detailed information on compliance with the principles and recommendations of the Code.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company discloses information on its corporate governance system and the general corporate governance principles applied thereby, including detailed information on compliance with the principles and recommendations of the Code. 2. The Company discloses information on the composition of its executive bodies and the Board of Directors, the independence of Board members and their membership in committees of the Board of Directors (as defined in the Code). 3. If there is a person who controls the Company, the Company discloses a memorandum from the controlling person concerning that person's plans for corporate governance at the Company.	The Company has no information on the availability of its majority shareholder's memorandum concerning its plans for corporate governance in PJSC FGC UES. As soon as the Company has such a document available, the latter will be disclosed in accordance with the Corporate Governance Code recommendations.

## Appendix 3

REPORT ON COMPLIANCE WITH THE RUSSIAN CORPORATE GOVERNANCE CODE

## Appendix 3

REPORT ON COMPLIANCE WITH THE RUSSIAN CORPORATE GOVERNANCE CODE

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
<b>6.2 The Company should disclose, on a timely basis, full, updated and reliable information about itself so as to enable its shareholders and investors to make informed decisions.</b>				
6.2.1	1. The Company should disclose information in accordance with the principles of regularity, consistency and timeliness, as well as accessibility, reliability, completeness and comparability of data disclosed.  2. The Company should disclose information in accordance with the principles of regularity, consistency and timeliness, as well as accessibility, reliability, completeness and comparability of data disclosed.  3. The Company should disclose information in accordance with the principle of regularity, consistency and timeliness, as well as accessibility, reliability, completeness and comparability of data disclosed.	<input checked="" type="checkbox"/> compliant  <input type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant	The Company ensures the disclosure of information in accordance with the requirements of the Office of Financial Regulation and Supervision of the United Kingdom.  Disclosure of information that the Company considers significant in the Russian Federation and in the UK is synchronous and equivalent.	
6.2.2	1. In the reporting period, the Company disclosed annual and interim IFRS financial statements. The Company's annual report for the reporting period includes the annual IFRS financial statements with the auditor's opinion.  2. The Company discloses complete information on the Company's capital structure, according to Recommendation 290 of the Code, in the annual report and on the Company's website.	<input checked="" type="checkbox"/> compliant  <input type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant		
6.2.3	1. The company's annual report contains the Company's operating and financial highlights.  2. The Company's annual report contains information on environmental and social aspects of the Company's business.	<input checked="" type="checkbox"/> compliant  <input type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant		
<b>6.3 The company should provide information and documents requested by its shareholders in accordance with the principle of equal and easy access.</b>				
6.3.1	1. The exercise by the shareholders of their right to access the company's documents and information should not be unreasonably burdensome.  1. The Company's information policy specifies an easy procedure for providing access to shareholders to information, including information on the legal entities controlled by the Company, upon the request of a shareholder.	<input type="checkbox"/> compliant  <input checked="" type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant	1. Partially not observed. Currently, the information policy of the Company does not provide declarative obligations of the Company regarding provision of information on legal entities controlled by the Company upon request of shareholders. At the same time, information on legal entities controlled by the Company (their businesses, contacts, composition of the governing and control bodies, annual financial indicators) is disclosed on the website of the Company and in the Company's annual report. Information on material transactions of legal entities controlled by the Company are also disclosed in the Company's annual report and on the website of the Company. The Company does not currently plan to amend its information policy in this regard. If a relevant request is made, information will be submitted in accordance with the legislation of the Russian Federation and internal documents of the Company.	
6.3.2	When providing information to its shareholders, the company should maintain a reasonable balance between the interests of individual shareholders and its own interests related to the fact that the company is interested in keeping confidentiality of sensitive business information that might have a material impact on its competitiveness.	<input checked="" type="checkbox"/> compliant  <input type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant	1. In the reporting period, the company did not deny shareholders' requests for information, or such denials were justified.  2. In cases specified in the company's information policy, shareholders are informed of the confidential nature of information and undertake to keep it confidential.	

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
<b>7.1 Any actions which have or may have a material effect on the Company's share capital structure and its financial position and, accordingly, on the position of its shareholders ('material corporate actions') should be taken on fair terms and conditions ensuring that the rights and interests of shareholders as well as other stakeholders are observed.</b>				
7.1.1	Material corporate actions shall be deemed to include reorganisation of the company, acquisition of 30 or more percent of its voting shares (takeover), entering by the company into any material transactions, increasing or decreasing its share capital, listing and delisting of its shares, as well as other actions which might result in significant changes in rights of its shareholders or violation of their interests. The Company's Articles of Association determine the list of (criteria for identifying) transactions or other actions falling within the category of material corporate actions and provide therein that decisions on any such actions should fall within the matters reserved for the Company's Board of Directors.	<input type="checkbox"/> compliant  <input checked="" type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant	1. The Company's Articles of Association specify a list of actions and other efforts that constitute material corporate actions, and their determination criteria. Decision-making on material corporate actions falls within the remit of the Board of Directors. Where the taking of these corporate actions is directly referred by law to the remit of the general meeting of shareholders, the Board of Directors makes the relevant recommendations to shareholders.  2. The Company's Articles of Association classify as material corporate actions, at least: re-organisation of the Company, acquisition of 30 or more percent of its voting shares (takeover), entering into material transactions, increase or decrease of its share capital, listing and delisting of the Company's shares.	1. Partially not observed. 2. Partially not observed.  The Company's Articles of Association do not define a concept of material corporate actions.  However, the adoption of decisions on issues related to the significant actions specified in Recommendation 303 of the Code (for example: reorganization of the Company, increase / decrease of the Company's authorized capital, adoption of decisions on the Company's participation in other organizations, decision-making on application of delisting of the Company's shares and (or) equity securities convertible into shares, for the commission or subsequent approval of major transactions, approval of other transactions of the Company and its controlled entities) in accordance with the current legislation and the Articles of Association of the Company is attributed to the competence of the Board of Directors or the General Meeting of Shareholders. When submitting any issues to the shareholders' meeting, including significant corporate actions, the Board of Directors provides the shareholders with appropriate recommendations.  In addition, taking into account the inclusion of PJSC FGC UES in a special liver approved by the decree of the Government of the Russian Federation of 23.01.2003 No. 91-r, as well as the list of strategic organisations approved by the Decree of the President of the Russian Federation No. 1009 of 04.08.2004, the most important material corporate actions are committed by the Company in accordance with the directives of the Government of the Russian Federation, and certain issues (for example, related to changes in the Company's authorized capital) – in accordance with the Decrees of the President of the Russian Federation.
7.1.2	The Board of Directors should play a key role in making decisions or developing recommendations relating to significant corporate actions; for that purpose, it should rely on opinions of the Company's independent directors.	<input checked="" type="checkbox"/> compliant  <input type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant	1. The Company has a procedure whereby independent directors declare their position on material corporate actions prior their approval.	
7.1.3	When taking any material corporate actions which would affect rights or legitimate interests of the company's shareholders, equal terms and conditions should be ensured for all of shareholders; if statutory mechanisms designed to protect the shareholder rights prove to be insufficient for that purpose, additional measures should be taken with a view to protecting the rights and legitimate interests of the Company's shareholders. In such instances, the company should not only seek to comply with the formal requirements of law but should also be guided by the principles of corporate governance set out in the Code.	<input checked="" type="checkbox"/> compliant  <input type="checkbox"/> partially compliant  <input type="checkbox"/> not compliant	1. The Company's Articles of Association, taking into account the particular features of its business, established lower minimum criteria for classifying the Company's transactions as significant corporate actions than stipulated by law.  2. During the reporting period all material corporate actions were approved before their implementation.	

Corporate Governance Principles	Corporate Governance Principle Compliance Criteria	Compliance Status	Explanations of Deviation from Corporate Governance Principles Compliance Criteria	Comments
<b>7.2</b> <b>The Company should have in place such a procedure for taking any material corporate actions that would enable its shareholders to receive full information about such actions in time and influence them, and that would also guarantee that the shareholder rights are observed and duly protected in the course of taking such actions.</b>				
7.2.1	Information about material corporate actions is disclosed with explanations concerning reasons for, conditions and consequences of such actions.	<input checked="" type="checkbox"/> compliant <input type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. In the reporting period, the Company disclosed information on the Company's material significant corporate actions in a timely manner and in detail, including the reasons and time frame for taking of such actions.	
7.2.2	Rules and procedures in relation to material corporate actions taken by the Company should be set out in its internal documents.	<input type="checkbox"/> compliant <input checked="" type="checkbox"/> partially compliant <input type="checkbox"/> not compliant	1. The Company's internal documents provide for the procedure for engaging an independent appraiser when determining the value of property to be acquired or disposed of under a major transaction or a related-party transaction.  2. The Company's internal documents provide for the procedure for engaging an independent appraiser for determining a price of the company's shares, repurchased or redeemed.  3. The Company's internal documents do not provide for an extended list of grounds on which members of the Board of Directors, as well as other persons referred to in the legislation, are deemed to be interested in the Company's transactions.	<p>1. Observed. 2. Observed. 3. Not observed.</p> <p>The Company's internal documents do not provide for an extended list of grounds on which members of the Board of Directors, as well as other persons referred to in the legislation, are deemed to be interested in the Company's transactions. Given the special aspects of activities of the holding structure PJSC Rosseti, which includes PJSC FGC UES, transactions with legal entities controlled by PJSC FGC UES, PJSC Rosseti, and other entities controlled by PJSC Rosseti are deemed to be related-party transactions. Currently, the legislation is moving along the path of simplifying the procedure for committing transactions in which there is interest, and reducing their total number. Thus, Federal Law No. 343-FZ of 03.07.2016, from 01.01.2017, introduced a new procedure for making interested-party transactions through notification to members of management bodies, and also expanded the list of transactions that are not recognised as related party transactions, including Transactions with a price threshold have been identified, before the achievement of which the transactions can be concluded without holding corporate events provided for by Chapter XI of the Federal Law No. 208-FZ of 26.12.1995 «On Joint Stock Companies». Expansion of the grounds on which members of the Board of Directors of the Company and other persons stipulated by the legislation are recognised as interested in transactions could complicate the Company's activities due to the increase in the number of interested party transactions. Based on the above, the Company does not see the need to expand the list of grounds on which members of the Board of Directors of the company and other persons stipulated by the legislation are recognised as interested in the transactions of the company.       </p>

**Appendix 4**

## INFORMATION ON MAJOR TRANSACTIONS AND TRANSACTIONS MADE BY FEDERAL GRID COMPANY IN 2017, RECOGNISED UNDER THE LAWS OF THE RUSSIAN FEDERATION AS RELATED PARTY TRANSACTIONS

### Information on transactions made by Federal Grid Company in 2017, recognised under the laws of the Russian Federation as major transactions

In the Company in 2017, there are no enter any transactions recognised by the Federal Law On Joint Stock Companies as major transactions, or other transactions to which major transaction approval procedure applies pursuant to the Federal Grid's Articles of Association.

**Information on transactions made by Federal Grid Company in 2017, recognised under the laws of the Russian Federation as related party transactions and approved by the Company's authorised governing bodies**

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
1.	Supplementary agreement No. 1 to the agreement No. 529 / ID of 19.10.2016 for performance of works related to the 2 construction stage under the title: Construction of 500 kV Beloberezhskaya SS with approaches Novobryanskaya – Elektkskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV	16.01.2017	<b>Parties to the Supplementary Agreement 1:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Amendment of the contract No. 529 / ID dated October 19, 2016 for performance of works related to the 2 construction stage under the title: Construction of 500 kV Beloberezhskaya SS with approaches Novobryanskaya – Elektkskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV (hereinafter – Agreement). Due to the fact that the Supplementary Agreement 1, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account Additional Agreement 1, is no more than 2,005,000,000 (Two billion five million) rubles 00 kopecks, including 18% VAT in the amount of 305,847,457 (Three hundred and five million eight hundred forty seven thousand four hundred and fifty-seven) rubles 63 kopecks. <b>Validity of the Supplementary Agreement 1:</b> Supplementary agreement 1 enters into force from the moment of its signing.	PJSC Rosseti Pozdnyakov N.I.		
2.	Supplementary agreement No. 13 to the agreement No. 06/13 of 18.02.2013 for performance of works on repair, diagnostics of equipment and target programs on substations and overhead lines of MPS Western Siberia	07.02.2017	<b>Parties to the Supplementary Agreement 13:</b> PJSC FGC UES (Customer); JSC Electroservice UNEG (Contractor). <b>Subject and price:</b> Amendments to the agreement No. 06/13 dated 18.02.2013 for performance of works on repair, diagnostics of equipment and target programs for substations and overhead lines of MPS Western Siberia (hereinafter – the Agreement). The price of works determined by the Supplementary Agreement 13 is not more than 1,400,237,058 (One billion four hundred million two hundred and thirty-seven thousand and fifty-eight) rubles 13 kopecks, including VAT (18%) in the amount of not more than 213,595,483 (Two hundred and thirteen million five hundred and ninety-five thousand four hundred and eighty-three) rubles 44 kopecks. <b>Validity of the Supplementary Agreement 13:</b> Supplementary agreement 13 comes into force from the date of its signing by both parties, valid during the term of the Agreement.	PJSC Rosseti	Since 13.02.2017 № AM-786	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
3.	Supplementary agreement No. 1 to the loan agreement No. w/n of 13.01.2016	01.03.2017	<b>Parties to the Supplementary Agreement 1:</b> PJSC FGC UES (Lender); JSC Mobile GTES (Borrower). <b>Subject and price:</b> Amendments to the loan agreement No. w/n dated 13.01.2016 (hereinafter - the Agreement). Due to the fact that the Supplementary agreement 1, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total amount of the debt under the Agreement, taking into account Supplementary Agreement 1, is no more than 1,271,000,000 (One billion two hundred seventy-one million) rubles 00 kopecks, including VAT (18%) not exceeding 193,881,355 (One hundred and ninety-three million eight hundred eighty-one thousand three hundred and fifty-five) rubles 93 kopecks. <b>Validity of the Supplementary Agreement 1:</b> Supplementary agreement 1 comes into force from the date of its signing by the Parties, valid during the term of the Agreement.	PJSC Rosseti	Since 16.01.2017 № AM-100	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
4.	Supplementary agreement No. 1 to the loan agreement No. w/n of 28.01.2016	01.03.2017	<b>Parties to the Supplementary Agreement 1:</b> PJSC FGC UES (Lender); JSC Mobile GTES (Borrower). <b>Subject and price:</b> Amendments to the loan agreement No. w/n of 28.01.2016 (hereinafter - the Agreement). Due to the fact that the Supplementary agreement 1, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total amount of the debt under the Agreement, taking into account Supplementary Agreement 1, is no more than 2,200,000,000 (Two billion two hundred million) rubles 00 kopecks, including VAT (18%) in the amount not exceeding 335,593,220 (Three hundred thirty five million five hundred ninety three thousand two hundred and twenty) rubles 34 kopecks. <b>Validity of the Supplementary Agreement 1:</b> Supplementary agreement 1 comes into force from the date of its signing by the Parties, valid during the term of the Agreement.	PJSC Rosseti	Since 16.01.2017 № AM-100	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
5.	Agreement of intent	01.03.2017	<b>Parties to the Agreement:</b> PJSC FGC UES; PJSC Polys. <b>Subject of the Agreement:</b> The intention of the Parties to ensure the conclusion of a contract of sale and purchase in respect of the immovable property - Peleduy – Polys OHL 110 kV (a section from Peleduy SS to support No. 809). <b>Price of the Agreement:</b> Due to the fact that the Agreement, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. <b>Validity of agreement:</b> The agreement comes into force from the date of its signing and is valid until the Parties realize their intentions.	PJSC Rosseti Grachev P.S.	Since 03.02.2017 № AM-589	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request
6.	Supplementary agreement No. 19 to the agreement No. C/01 of 01.04.2008 to perform the functions of the Customer-developer	31.03.2017	<b>Parties to the Supplementary Agreement 19:</b> PJSC FGC UES (Company); JSC CIUS UES (Customer-developer). <b>Subject and price:</b> Amendments to the agreement No. C / 01 of 01.04.2008 for the functions of Customer-developer (hereinafter - the Agreement). The price of services determined by the Supplementary Agreement 19 for the period from 01.01.2017 to 31.12.2017 is not more than 1,746,400,000 (One billion seven hundred forty six million four hundred thousand) rubles 00 kopecks, including VAT (18%) in the amount of more than 266,400,000 (two hundred and sixty six million four hundred thousand) rubles 00 kopecks. The total price of services under the Agreement for the period from 01.04.2008 to 31.12.2017 is not more than 23,665,313,000 (Twenty three billion six hundred and six million three hundred and thirteen thousand) rubles 00 kopecks, including VAT (18%) in the amount of no more than 3,609,963,000 (Three billion six hundred and nine million nine hundred and sixty-three thousand) rubles 00 kopecks. <b>Validity of the Supplementary Agreement 19:</b> Supplementary agreement 19 comes into force from the moment of signing and is valid until the parties fully fulfill their obligations. The terms of Supplementary Agreement 19 apply to the relations of the parties occurred from 01.01.2017.	PJSC Rosseti Pozdnyakov N.I.	Since 15.03.2017 № AM-1372	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request
7.	Supplementary agreement No. 2 to the agreement No. 487/ID of 21.12.2015 for the performance of unfinished work on the development of working documentation, construction and installation, commissioning works and supply of material and equipment related to the 1 construction stage under the title: Construction of Beloberezhskaya SS 500 kV with approaches Novobryanskaya – Elektkskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV for the needs of PJSC FGC UES branch - MPS North-West (hereinafter - the Agreement).	03.04.2017	<b>Parties to the Supplementary Agreement 2:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Amendments to the agreement No. 487/ID of 21.12.2015 for the performance of unfinished work on the development of working documentation, construction and installation, commissioning works and supply of material and equipment related to the 1 construction stage under the title: Construction of Beloberezhskaya SS 500 kV with approaches Novobryanskaya – Elektkskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV for the needs of PJSC FGC UES branch - MPS North-West (hereinafter - the Agreement). Due to the fact that Supplementary agreement 2, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account Supplementary agreements 1-2, is no more than 3,297,566,756 (Three billion two hundred ninety seven hundred and fifty six thousand seven hundred and fifty six) rubles 73 kopecks, including VAT (18%) in the amount not exceeding 503,018,657 (Five hundred and three million eighteen thousand six hundred and fifty-seven) rubles 81 kopecks. <b>Validity of the Supplementary Agreement 2:</b> Supplementary agreement 2 comes into force from the moment of its signing by both parties and is valid until the parties fully fulfill their obligations.	PJSC Rosseti Pozdnyakov N.I.		

## Appendix 4

INFORMATION ON MAJOR TRANSACTIONS

## Appendix 4

INFORMATION ON MAJOR TRANSACTIONS

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
8.	Independent Guarantee Agreement	10.05.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Guarantor); JSC Mobile GTES (Principal). <b>Subject of the Agreement:</b> The Guarantor assumes the obligation to provide the Principal with separate independent guarantees of performance by the Principal of obligations for payment of oil products supplied under the contract for the supply of petroleum products No. 100017 / 01278D of 20.03.2017. <b>Price of the Agreement:</b> The transaction price under the Agreement is not more than 1,150,000,000 (One billion one hundred and fifty million) rubles 00 kopecks, including 18% VAT (175%) in the amount of 175,423,728 (one hundred seventy five million four hundred twenty three thousand seven hundred twenty eight) 81 kopecks. <b>Validity of the Limit:</b> From the date of conclusion of the Agreement to 30.07.2018. <b>Validity of the Agreement:</b> The contract comes into force from the date of its signing by the Parties and is valid until the termination of obligations.	PJSC Rosseti		
9.	Supplementary agreement No. 6 to the agreement No. 01/13 of 15.02.2013 for repair, maintenance and diagnostic inspection of power grid facilities of MPS Center	29.05.2017	<b>Parties to the Supplementary Agreement 6:</b> PJSC FGC UES (Customer); JSC Electroservice UNEG (Executor). <b>Subject and price:</b> Amendments to the agreement No. 01/13 of 15.02.2013 for repair, maintenance and diagnostic inspection of power grid facilities of MPS Center (hereinafter - the Agreement). Due to the fact that Supplementary agreement 6, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account additional agreements 1-6, is no more than 1,943,304,303 (One billion nine hundred forty three million three hundred four thousand three hundred and three) rubles 79 kopecks, including VAT (18%) in the amount not exceeding 296,436 249 (Two hundred and ninety-six million four hundred and thirty-six thousand two hundred and forty-nine) rubles 73 kopecks. <b>Validity of the Supplementary Agreement 6:</b> Supplementary agreement 6 is an integral part of the Agreement, comes into force from the moment of its conclusion by the Parties. The terms of Supplementary Agreement 6 shall apply to the relations of the Parties arising from 01.01.2017.	PJSC Rosseti	Since 14.04.2017 № AM-2064	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
10.	Agreement on the repayment of the debts of PJSC IDGC of South for the services of electric power transmission through the UNEG	27.06.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); PJSC IDGC of South (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 4,110,466,911 (Four billion one hundred ten million four hundred sixty six thousand nine hundred eleven) rubles 42 kopecks (including VAT) (hereinafter - Debt). For the use of funds, the Debtor undertakes to pay to the Creditor the interest accrued on the amount of Debt. The interest rate is set at 11% per annum, with the amount of interest calculated in respect of outstanding debt as of the beginning of each day, from 01.12.2015 to the date of the actual repayment of the Debt. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (Appendix No. 5 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 373 of 29.06.2017). <b>Validity of agreement:</b> The Agreement comes into force from the date of its signing by the Parties and is valid until the Debtor fully discharges its obligations under the Agreement. The agreement is valid from 01.12.2015.	PJSC Rosseti	Since 08.06.2017 № AM-3163	PJSC FGC UES Board of Directors (Minutes No. 373 of 29.06.2017, issue 5)
11.	Agreement on repayment of bill of exchange	30.06.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); JSC IGDS of North Caucasus (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 705,172,526 (Seven hundred and five million one hundred and seventy-six thousand five hundred and twenty-six) rubles 31 kopecks (including VAT). In connection with the provision of installments of debt repayment, the Debtor pays interest on the amount of debt, at a rate of 11% per annum, with the amount of interest calculated for the outstanding part of the debt, from 02.05.2016 to the date of actual final repayment of this debt and taking into account the actual repayment schedule. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (Appendix No. 1 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 373 of 29.06.2017). <b>Validity of agreement:</b> The Agreement comes into force from the date of its conclusion by the Parties and is valid until the Debtor fully repays the debt specified in cl. 2.1 of the Agreement and payment of interest specified in cl. 2.5 of the Agreement and the sanctions specified in cl. 2.7, 2.8 of the Agreement (if applicable). Terms of the Agreement are applied from 05.02.2016.	PJSC Rosseti	Since 08.06.2017 № AM-3163	PJSC FGC UES Board of Directors (Minutes No. 373 of 29.06.2017, issue 1)

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
12.	Agreement on debt repayment JSC IGDS of North Caucasus for the services of electric power transmission through the UNEG	30.06.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); JSC IGDS of North Caucasus (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 1,624,175,303 (One billion six hundred twenty four million one hundred seventy five thousand three hundred and three) rubles 69 kopecks (in view of VAT) (hereinafter - the Debt). For the use of funds, the Debtor undertakes to pay to the Lender the interest accrued on the amount of Debt. The interest rate is set at 11% per annum, with the amount of interest calculated in respect of the outstanding debt as of the beginning of each day from 01.05.2016 to the date of the actual final repayment of the Debt, inclusive, and taking into account the actual repayment schedule. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (appendix No. 3 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 373 of 29.06.2017). <b>Validity of agreement:</b> The Agreement enters into force on the date of its signing by the Parties and valid until the Obligor discharges its obligations under the Agreement. The terms of the Agreement apply to the relations of the Parties since 01.05.2016.	PJSC Rosseti	Since 08.06.2017 № AM-3163	PJSC FGC UES Board of Directors (Minutes No. 373 of 29.06.2017, issue 3)
13.	Agreement on debt repayment JSC Tyvaenergo for the services of electric power transmission through the UNEG	30.06.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); JSC Tyvaenergo (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 1,126,946,673 (One billion one hundred and twenty-six million nine hundred and forty-six thousand six hundred and seventy-three) rubles 55 kopecks (in view of VAT) (hereinafter - the Debt). For the use of funds, the Debtor undertakes to pay to the Lender the interest accrued on the amount of Debt. The interest rate is set at 11% per annum, with the amount of interest calculated in respect of the outstanding debt as of the beginning of each day from 01.05.2016 to the date of the actual final repayment of the Debt, inclusive, and taking into account the actual repayment schedule. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (appendix No. 4 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 373 of 29.06.2017). <b>Validity of agreement:</b> The Agreement enters into force on the date of its signing by the Parties and valid until the Obligor discharges its obligations under the Agreement. The terms of the Agreement apply to the relations of the Parties since 01.05.2016.	PJSC Rosseti	Since 08.06.2017 № AM-3163	PJSC FGC UES Board of Directors (Minutes No. 373 of 29.06.2017, issue 4)
14.	Supplementary agreement to the agreement for the use of grid facilities as No. DI-73/107 / 30-49 of 30.12.2005	30.06.2017	<b>Parties to the Supplementary Agreement:</b> PJSC FGC UES (Executor); JSC Kuban Trunk Grids (Customer). <b>Subject and price:</b> Amendments to the contract for the use of grid facilities No. DI-73/107 / 30-49 of 30.12.2005 (hereinafter - the Agreement). Due to the fact that Supplementary agreement, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The book value of property under the Agreement is 5,444,908,519 (Five billion four hundred forty four million nine hundred eight thousand five hundred nineteen) rubles 99 kopecks. <b>Validity of the Supplementary Agreement:</b> Supplementary agreement enters into force from the moment of signing, is valid until the expiration of the term of the Agreement and extends to the relations of the Parties arising since 01.01.2017.	PJSC Rosseti Solod A.V.	Since 14.04.2017 № AM-2064	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

## Appendix 4

INFORMATION ON MAJOR TRANSACTIONS

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No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
15.	Supplementary agreement No. 18 to the agency agreement No. 69 dated 29.05.2006 on the implementation of the investment program of JSC Kuban trunk grids for the reconstruction and technical re-equipment of grid facilities	03.07.2017	<b>Parties to the Supplementary Agreement 18:</b> PJSC FGC UES (Executor); JSC Kuban trunk grids (Customer). <b>Subject and price:</b> Amendments to the agency agreement No. 69 of 29.05.2006 for the implementation of the investment program JSC Kuban trunk grids on reconstruction and technical re-equipment of grid facilities (hereinafter – the Agreement). The price of services determined by the Supplementary Agreement 18, for 2016 is not more than 85,300,000 (Eighty-five million three hundred thousand) rubles 00 kopecks, including VAT (18%) in the amount of not more than 13,011,864 (Thirteen million eleven thousand eight hundred and sixty-four) rubles 41 kopecks. The total price of services under the Agreement, taking into account additional agreements 1-18 for the period from 29.05.2006 to 31.12.2016 is not more than 1,281,746,518 (One billion two hundred and eighty-one million seven hundred and forty-six thousand five hundred and eighteen rubles 32 kopecks, including VAT (18%) in the amount not exceeding 195,520,655 (One hundred and ninety-five million five hundred twenty thousand six hundred and fifty-five) rubles 34 kopecks. <b>Validity of the Supplementary Agreement 18:</b> Supplementary agreement 18 enters into force from the moment of its signing by the Parties and extends its effect to the relations that have arisen since 01.06.2016.	PJSC Rosseti Solod A.V.	Since 16.01.2017 No. AM-100	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
16.	Supplementary agreement to the agreement for the use of grid facilities No. DI-8 of 28.03.2005	03.07.2017	<b>Parties to the Supplementary Agreement:</b> PJSC FGC UES; JSC Tomsk Trunk Grids (Owner). <b>Subject and price:</b> Amendments to the contract for the use of grid facilities No. DI -8 of 28.03.2005 (hereinafter – the Agreement). Due to the fact that Supplementary agreement, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The residual value of the property under the Contract is 1,007,901,827 (One billion seven million nine hundred one thousand eight hundred twenty seven) rubles 99 kopecks. <b>Validity of the Supplementary Agreement:</b> Supplementary agreement comes into force from the moment of its signing.	PJSC Rosseti Vodennikov D.A.	Since 03.02.2017 No. AM-589	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
17.	Supplementary agreement No. 14 to the agency agreement No. 29/08-AD of 21.11.2008 on the implementation of the investment program of OJSC The Tomsk trunk grids for the construction, reconstruction and technical re-equipment of grid facilities	03.07.2017	<b>Parties to the Supplementary Agreement 14:</b> PJSC FGC UES (Executor); JSC Tomsk Trunk Grids (Customer). <b>Subject and price:</b> Amendments to the agency agreement No. 29/08-AD of 21.11.2008 for the implementation of the investment program JSC Tomsk Trunk Grids on construction, reconstruction and technical re-equipment of grid facilities (hereinafter - the Agreement). The price of services determined by the Supplementary Agreement 14, for 2017 is not more than 170,627,240 (One hundred seventy million six hundred and twenty seven thousand two hundred forty) rubles 00 kopecks, including VAT (18%) in the amount of not more than 26,027,884 (twenty six million twenty seven thousand eight hundred eighty four) rubles 07 kopecks for 2017. The total price of services under the Agreement, taking into account additional agreements 1-14 is not more than 1,824,792,794 (One billion eight hundred twenty-four million seven hundred and ninety-two thousand seven hundred ninety-four) rubles 86 kopecks, including VAT (18%) in the amount not exceeding 278,358,222 (two hundred seventy-eight million three hundred fifty-eight thousand two hundred and twenty-two) rubles 94 kopecks. <b>Validity of the Supplementary Agreement 14:</b> Supplementary agreement 14 comes into force from the moment of signing, is valid until the Parties fulfill their obligations and is an integral part of the Contract.	PJSC Rosseti Vodennikov D.A.	Since 05.04.2017 No. AM-1866	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
18.	Supplementary agreement No. 19 to the agency agreement No. 69 of 29.05.2006 on the implementation of the investment program of JSC Kuban trunk grids for the reconstruction and technical re-equipment of grid facilities	03.07.2017	<b>Parties to the Supplementary Agreement 19:</b> PJSC FGC UES (Executor); JSC Kuban trunk grids (Customer). <b>Subject and price:</b> Amendments to the agency agreement No. 69 of 29.05.2006 for the implementation of the investment program JSC Kuban trunk grids on reconstruction and technical re-equipment of grid facilities (hereinafter – Agreement). The price of services determined by the Supplementary Agreement 19, for 2017 is not more than 278,540,000 (Two hundred and seventy-eight million five hundred forty thousand) rubles 00 kopecks, including VAT (18%) in the amount of not more than 42,489,152 (forty-two million four hundred eighty-nine thousand one hundred fifty-two) rubles 54 kopecks. The total price of services under the Agreement, taking into account additional agreements 1-19 is not more than 1,560,286,518 (One billion five hundred and sixty million two hundred and eighty-six thousand five hundred and eighteen) rubles 32 kopecks, including VAT (18%) in the amount of not more than 238,009,807 (Two hundred and thirty-eight million nine thousand eight hundred and seven) rubles 88 kopecks. <b>Validity of the Supplementary Agreement 19:</b> Supplementary agreement 19 comes into force from the moment of its signing, valid until the Parties fulfill their obligations and is the integral part of the Agreement.	PJSC Rosseti Solod A.V.	Since 27.04.2017 No. AM-2264	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
19.	Agreement on debt repayment PJSC IDGC of Siberia for the services of electric power transmission through the UNEG	03.07.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); PJSC IDGC of Siberia (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 3,739,524,030 (Three billion seven hundred thirty nine million five hundred twenty four thousand and thirty) rubles 12 kopecks (in view of VAT) (hereinafter – the Debt). For the use of funds, the Debtor undertakes to pay to the Lender interest accrued on the amount of Debt. The interest rate is set at 11% per annum, with the amount of interest calculated in relation to the Debt, from 01.07.2016 to the date of the actual final repayment of the Debt, and taking into account the actual repayment schedule. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (appendix No. 2 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 373 of 29.06.2017). <b>Validity of agreement:</b> The Agreement enters into force on the date of its signing by the Parties and valid until the Obligor discharges its obligations under the Agreement. The terms of the Agreement apply to the relations of the Parties since 01.07.2016.	PJSC Rosseti	Since 08.06.2017 No. AM-3163	PJSC FGC UES Board of Directors (Minutes No. 373 of 29.06.2017, issue 2)
20.	Supplementary agreement No. 4 to the agreement No. w/h of 27.03.2015	12.07.2017	<b>Parties to the Supplementary Agreement 4:</b> PJSC FGC UES (Lender); JSC CIUS UES (Borrower). <b>Subject and price:</b> Amendments to the loan agreement No. w/h of 27.03.2015 (hereinafter – the Agreement). Due to the fact that Supplementary agreement 4, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total amount of the debt under the Contract, taking into account supplementary agreements 1-4 is not more than 12,000,000,000 (Twelve billion) rubles 00 kopecks, including VAT (18%) in the amount of not more than 1,830,508,474 (One billion eight hundred thirty million five hundred eight thousand four hundred seventy-four) rubles 57 kopecks. <b>Validity of the Supplementary Agreement 4:</b> Supplementary agreement 4 comes into force from the date of its signing and is valid until the expiry of the Agreement. The change in the interest rate for previously issued loans is effective from the end of the current interest period valid as of the date of signing of the Supplementary Agreement 4, in accordance with the terms of the supplementary agreement No. 3 of 13.02.2017 to the Contract and is valid until the expiration of the Agreement.	PJSC Rosseti Pozdnyakov N.I.	Since 27.04.2017 No. AM-2264	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

## Appendix 4

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No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
21.	Trust Loan Agreement	14.07.2017	<b>Parties to the Treaty:</b> PJSC FGC UES (Lender); JSC Mobile GTES (Borrower). <b>Subject, price and other material conditions:</b> The subject, price and other material terms of the transaction are established by the Agreement (appendix No. 1 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 374 of 03.07.2017). The price (monetary valuation) of property alienated (acquired) under the Contract consists of: <ul style="list-style-type: none"> <li>● the amount of money provided to the loan in the amount of not more than 1,600,000,000 (One billion six hundred million) rubles 00 kopecks;</li> <li>● the interest amount determined at the interest rate which for each loan is established in accordance with the interest rate specified in the Borrower's Application agreed by the Lender and is equal to the effective interest rate on borrowed funds raised by the Lender to provide a loan to Borrower plus 0,1 (zero whole one-tenth) percent per annum. In the event that Lender does not borrow to finance the loan to Borrower, the interest rate is set equal to the weighted average interest rate on the external borrowings of the Lender effective on the first day of the month in which the relevant loan is granted plus 0.1 (one-tenth) percent per annum. The value of the effective interest rate on borrowed financing and / or the weighted average interest rate on external borrowing is determined by the Lender.</li> </ul> The term of the targeted loan: not more than 3 (Three) years. <b>Validity of the Agreement:</b> Agreement comes into force from the moment of its signing and is valid until the Parties fulfill their obligations.	PJSC Rosseti	Since 03.05.2017 No. AM-2359	PJSC FGC UES Board of Directors (Minutes No. 374 of 03.07.2017, issue 3)
22.	Supplementary agreement to the agreement on the repayment of arrears arising under a contract for the provision of services for the transmission of electricity through a unified national (all-Russian) grid	17.07.2017	<b>Parties to the Supplementary Agreement:</b> PJSC FGC UES; JSC Yantarenergo. <b>Subject and price:</b> Making changes to the Agreement on debt repayment, which arose under a contract for the provision of services for the transmission of electricity through a single national (all-Russian) grid No. 544/P of 25.01.2012, No. w/n of 07.12.2015 (hereinafter - Agreement). The price determined by the Supplemental Agreement consists of: <ul style="list-style-type: none"> <li>● amounts of debts in the amount of 1,761,360,927 (One billion seven hundred sixty one million three hundred sixty nine thousand nine hundred twenty seven) rubles 47 kopecks, including VAT (18%);</li> <li>● amount of interest for the use of funds of JSC Yantarenergo in the amount of 14,215% per annum accrued for the principal amount from 01.01.2015 to the date of actual final repayment of this debt and taking into account the actual schedule for its repayment.</li> </ul> <b>Validity of the Supplementary Agreement:</b> Supplementary agreement enters into force from the date of its conclusion by the Parties and is valid until the expiration of the Agreement. The terms of the Supplementary Agreement shall apply to the relations of the Parties from 07.12.2015.	PJSC Rosseti Prokhorov E.V.	Since 03.05.2017 No. AM-2359	PJSC FGC UES Board of Directors (Minutes No. 373 of 29.06.2017, issue 6)
23.	Supplementary agreement No. 2 to a loan agreement No. w/n of 13.01.2016	10.08.2017	<b>Parties to the Supplementary Agreement 2:</b> PJSC FGC UES (Lender); JSC Mobile GTES (Borrower). <b>Subject and price:</b> Amendments to the loan agreement No. w/n of 13.01.2016 (hereinafter – the Agreement). Due to the fact that Supplementary agreement 2, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total amount of the debt under the Contract, taking into account supplementary agreements 1-2 is not more than 1,271,000,000 (One billion two hundred and seventy-one million) rubles 00 kopecks, including VAT (18%) in the amount not exceeding 193,881,355 (one hundred and ninety-three million eight hundred and eighty-one thousand three hundred and fifty-five) rubles 93 kopecks. <b>Validity of the Supplementary Agreement 2:</b> Supplementary agreement 2 comes into force from the date of its signing and is valid until the expiry of the Agreement.	PJSC Rosseti	Since 24.05.2017 No. AM-2782	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
24.	Supplementary agreement No. 3 to the agreement of 01.08.2014 purchase and sale of real estate that will be created in the future	10.08.2017	<b>Parties to the Supplementary Agreement 3:</b> PJSC FGC UES (Purchaser); JSC TaigaEnergoStroy (Seller). <b>Subject and price:</b> 1. Clarification of the Seller's costs agreed to be included in the Seller's Costs and payable by the Buyer as part of the Price of the Facilities under the Contract, constructed by the Seller and transferred to the Buyer's property (clause 1.1 Terms of the Contract); in particular, the transfer from 01.11.2016 to 13.02.2017 as of the end date of the period within which the Object Price includes interest on the loans and borrowings attracted by the Seller, while retaining the restrictions on the interest rate previously determined by the Contract, as well as reducing the amount of such interest on the amount received. The seller of income from the temporary use of funds received loans as long-term and (or) short-term financial investments. 2. Formation of lists of movable and immovable property that has become part of the Facilities after the completion of construction transferred to the ownership of the Buyer (clause 2.1 of the Agreement). 3. Determination of the moment when the Buyer's right of ownership arises for movable property. The right of ownership to the said property passes to the Buyer from the date of signing the acceptance certificate, which is signed by the parties simultaneously with the signing of the act of transfer and acceptance of immovable property that is part of the Facilities (clause 4.2 of the Treaty). 4. Determination of the Prices of Objects Subject to Payment by the Buyer to the Seller and the establishment of a payment schedule under the Agreement with payment by installments of the Object Prices for a period of 10 (Ten) years from the date of registration of the transfer of ownership of the Buyer to the immovable property included in the Facilities (paragraph 5.2 of the Agreement). 5. Clarification of the procedure and terms of payment by the Buyer to the Seller of interest for using the installment plan for payment of the Object Prices for the period from the date following the date of transfer of ownership of the immovable property included in the Facilities to the Buyer (clause 5.4 of the Agreement), while retaining the limitations previously provided by the Treaty by interest rate. 6. Provision by the Seller of an independent guarantee of JSC Polyus Krasnoyarsk to ensure the fulfillment of obligations stipulated by the Agreement (clause 7.2 of the Agreement). The price of the Facilities is determined in accordance with the procedure provided by the Agreement and is set at a rate not exceeding 7,807,538,813 (seven billion eight hundred seven million five hundred and thirty eight thousand eight hundred and thirteen) rubles 80 kopecks, including VAT. <b>Validity of the Supplementary Agreement 3:</b> Supplementary agreement 3 enters into force from the date of signing.	Molskiy A.V.	Since 16.06.2017 No. AM-3333	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
25.	Supplementary agreement No. 3 to the agreement No. 487/ID of 21.12.2015 for the performance of unfinished work on the development of working documentation, construction and installation, commissioning works and supply of material and equipment related to the 1 construction stage under the title: Construction of Beloberezhskaya SS 500 kV with approaches Novobryanskaya – Elektkskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV for the needs of PJSC FGC UES branch - MPS North-West (hereinafter - the Agreement).	08.09.2017	<b>Parties to the Supplementary Agreement 3:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Amendments to the agreement No. 487/ID of 21.12.2015 for the performance of unfinished work on the development of working documentation, construction and installation, commissioning works and supply of material and equipment related to the 1 construction stage under the title: Construction of Beloberezhskaya SS 500 kV with approaches Novobryanskaya – Elektkskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV for the needs of PJSC FGC UES branch - MPS North-West (hereinafter - the Agreement). Due to the fact that Supplementary agreement 3, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account additional agreements 1-3 is not more than 3,297,566,756 (three billion two hundred ninety seven million five hundred sixty six thousand seven hundred and fifty six) rubles 73 kopecks, including VAT (18%) more than 503,018,657 (Five hundred and three million eighteen thousand six hundred and fifty-seven) rubles 81 kopecks. <b>Validity of the Supplementary Agreement 3:</b> Supplementary agreement 3 comes into force from the moment of its signing by both parties and is valid until the parties fully fulfill their obligations.	PJSC Rosseti Pozdnyakov N.I.	Since 03.05.2017 No. AM-2359	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

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No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
26.	Supplementary agreement No. 4 to the agreement No. 487/ID of 21.12.2015 for the performance of unfinished work on the development of working documentation, construction and installation, commissioning works and supply of material and equipment related to the 1 construction stage under the title: Construction of Beloberezhskaya SS 500 kV with approaches Novobryanskaya – Elektorskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV for the needs of PJSC FGC UES branch - MPS North-West	11.09.2017	<b>Parties to the Supplementary Agreement 4:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Amendments to the agreement No. 487/ID of 21.12.2015 for the performance of unfinished work on the development of working documentation, construction and installation, commissioning works and supply of material and equipment related to the 1 construction stage under the title: Construction of Beloberezhskaya SS 500 kV with approaches Novobryanskaya – Elektorskaya OHL 500 kV, Beloberezhskaya – Cementnaya OHL 220 kV, Beloberezhskaya – Mashzavod OHL 220 kV and Beloberezhskaya – Bryanskaya OHL 220 kV for the needs of PJSC FGC UES branch - MPS North-West (hereinafter - the Agreement). Due to the fact that Supplementary agreement 4, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of works under the Agreement, taking into account supplementary agreements 1-4 is not more than 3,297,566,756 (Three billion two hundred ninety seven million five hundred sixty six thousand seven hundred and fifty six) rubles 73 kopecks, including VAT (18%) in the amount of more than 503,018,657 (Five hundred and three million eighteen thousand six hundred and fifty-seven) rubles 81 kopecks. <b>Validity of the Supplementary Agreement 4:</b> Supplementary agreement 4 comes into force from the moment of its signing by both parties and is valid until the parties fully fulfill their obligations.	PJSC Rosseti Pozdnyakov N.I.	Since 24.05.2017 No. AM-2782	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
27.	Supplementary agreement No. 10 to the agreement No. 04/13 of 11.03.2013 for repair, maintenance and diagnostic inspection of power grid facilities	31.10.2017	<b>Parties to the Supplementary Agreement 10:</b> PJSC FGC UES (Customer); JSC Electrosetservice UNEG (Executor). <b>Subject and price:</b> Amendments to the agreement No. 04/13 of 11.03.2013 for repair, maintenance and diagnostic inspection of power grid facilities (hereinafter - Agreement). Due to the fact that Supplementary agreement 10, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account additional agreements 1-10 is not more than 1,118,209,094 (One billion one hundred and eighteen million two hundred nine thousand and ninety four) rubles 16 kopecks, including VAT (18%) in the amount of not more than 170,574,268 (One hundred and seventy million five hundred and seventy-four thousand two hundred and sixty-eight) rubles 60 kopecks. <b>Validity of the Supplementary Agreement 10:</b> Supplementary agreement 10 comes into force from the date of its conclusion by the Parties, is applied to the relations of the Parties that arose from 01.01.2017 and is valid until the parties fully fulfill their obligations.	PJSC Rosseti	Since 09.10.2017 No. AM-5799	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
28.	Supplementary agreement No. 20 to the agreement of No. C/01 01.04.2008 to perform the functions of the Customer-developer	17.11.2017	<b>Parties to the Supplementary Agreement 20:</b> PJSC FGC UES (Company); JSC CIUS UES (Customer-developer). <b>Subject and price:</b> Amendments to the agreement No. C/01 of 01.04.2008 to perform the functions of the Customer-developer (hereinafter - the Agreement). The price of services determined by the Supplementary Agreement 20, for the period from 01.01.2017 to 31.12.2017 is not more than 1,923,400,000 (One billion nine hundred twenty-three million four hundred thousand) rubles 00 kopecks, including VAT (18%) in the amount of not more than 293,400,000 (two hundred and ninety-three million four hundred thousand) rubles 00 kopecks. The total price of services under the Agreement, taking into account additional agreements 1-20 for the period from 01.04.2008 to 31.12.2017 is not more than 23,842,313,000 (Twenty-three billion eight hundred and forty-two million three hundred and thirteen thousand) rubles 00 kopecks, including VAT (18%) in the amount of not more than 3,636,963,000 (Three billion six hundred and thirty-six million nine hundred and sixty-three thousand) rubles 00 kopecks. <b>Validity of the Supplementary Agreement 20:</b> Supplementary agreement 20 comes into force from the moment of signing and is valid until the parties fully fulfill their obligations. The terms of the Supplementary Agreement 20 with regard to amending clause 7.1.1 of the Agreement shall apply to the relations of the parties arising from 01.01.2017. The terms of Supplementary agreement 20 with regard to amending annexes 1,4,5 of the Agreement are applied to the relations of the Parties arising from 01.10.2017.	PJSC Rosseti Pozdnyakov N.I.	Since 22.09.2017 No. AM-5448	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
29.	Supplementary agreement No. 1 to the agreement No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: «Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage » (hereinafter - the Agreement).	20.11.2017	<b>Parties to the Supplementary Agreement 1:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Making changes to the contract of work No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: «Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage » (hereinafter - the Agreement). Due to the fact that the Supplementary agreement 1, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, subject to Supplementary Agreement No. 1, is no more than 10,351,987,437 (Ten billion three hundred and fifty one million nine hundred and eighty-seven thousand four hundred and thirty-seven) rubles 73 kopecks, including VAT (18%) of not more than 1,579,116,727 (One billion five hundred seventy-nine million one hundred and sixteen thousand seven hundred twenty-seven) rubles 79 kopecks. <b>Validity of the Supplementary Agreement 1:</b> Supplementary agreement 1 enters into force and becomes an integral part of the contract from the date of its signing by the Parties.	PJSC Rosseti Pozdnyakov N.I.	Since 22.09.2017 No. AM-5448	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
30.	Supplementary agreement No. 2 to the agreement No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: «Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage » (hereinafter - the Agreement).	23.11.2017	<b>Parties to the Supplementary Agreement 2:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Amendments to the agreement No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: «Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage » (hereinafter - the Agreement). Due to the fact that Supplementary agreement 2, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, subject to additional agreements 1-2 is not more than 10,351,987,437 (Ten billion three hundred fifty one million nine hundred and eighty-seven thousand four hundred and thirty-seven) rubles 73 kopecks, including VAT (18%) more than 1,579,116,727 (One billion five hundred seventy-nine million one hundred and sixteen thousand seven hundred twenty-seven) rubles 79 kopecks. <b>Validity of the Supplementary Agreement 2:</b> Supplementary agreement 2 enters into force and becomes an integral part of the Contract from the date of its signing by the Parties.	PJSC Rosseti Pozdnyakov N.I.	Since 23.10.2017 No. AM-6121	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
31.	Supplementary agreement No. 4 to the agreement of 01.08.2014 purchase and sale of real estate that will be created in the future	28.11.2017	<b>Parties to the Supplementary Agreement 4:</b> PJSC FGC UES (Purchaser); JSC TaigaEnergoStroy (Seller). <b>Subject and price:</b> 1. Approval in a new version: (a) The list of real estate objects that are part of the Facilities (Appendix No. 2 to the Treaty); (b) List of movable property objects forming part of the Facilities (Appendix No. 3 to the Agreement); (c) Schedule of payments (Appendix No. 5 to the Agreement); (d) Calculation of the Prices of Facilities (Appendix No. 6 to the Agreement). 2. The addition of subparagraph "d)" of the term "Seller costs" of clause 1.1. "Terms" of the Treaty by subparagraph "(d7)" as follows: «(d7) acquisition and (or) receipt of land (forest) plots (rights to land (forest) plots) occupied by the Facilities and necessary for their operation, including expenses for the formation of land (forest) plots and preparation of land plans, land (forest) sites for state cadastral registration, conclusion of contracts for the right to own / use land (forest) sites, preparation of forest development projects and obtaining a positive conclusion of state expertise, state registration of contracts and Buyer's rights to land (forest) plots, receipt of extracts from the Unified State Real Estate Register; for the transfer of land plots occupied by the Facilities and necessary for their operation, into the category of "industrial, energy, transport, communications, radio broadcasting, television, informatics, lands for space activities, defense, security and other special purpose lands"; coordination of the boundaries of the guard zones of the Facilities and their setting on the state cadastral registration». 3. The obligation on the Seller to fulfill the obligations at the time of putting the Facilities into operation (obtaining a permit to commission Facilities into operation) ensure the performance of inventory and cadastral work, as a result of which the preparation of documents (technical plans, inspection certificates) containing information necessary for conducting state cadastral registration of objects real estate belonging to the Facilities, as well as the production of documentation in the form of a technical passport for buildings and structures not related to the housing stock needed to enter information about real estate objects that are part of the objects in the Unified State Real Estate Register. 4. Laying on the Seller additional responsibilities for the registration of the Buyer's rights to land for the operation of real estate objects that are part of the Facilities: 4.1. From the date of putting the Facilities into operation (obtaining permission to commission the Facilities in operation) in the part of: ● putting on record of real estate that are part of the Facilities, on the state cadastral registration and receipt of extracts from the Unified State Real Estate Register; ● state registration of the Seller's ownership right to real estate objects included in the Facilities, and receipt of extracts from the Unified State Real Estate Register.	Molskiy A.V.	Since 08.11.2017 No. AM-6420	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

## Appendix 4

INFORMATION ON MAJOR TRANSACTIONS

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No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
4.2.	Within 180 (One hundred and eighty) working days from the date of state registration of the transfer to the Buyer of title to real estate objects included in the Facilities in the part of: <ul style="list-style-type: none"> <li>● entering information about the boundaries of the security zones into the state cadastral of real estate and receiving extracts from the Unified State Real Estate Register;</li> <li>● the formation of land (forest) plots necessary for the operation of the Facilities, the preparation of land surveying plans, the establishment of land (forest) plots for state cadastral registration;</li> <li>● registration of the Buyer's rights in full to land (forest) plots occupied by the Facilities and necessary for their operation (possession / use rights) for more than 1 (One) year, state registration of contracts and Buyer's rights, and receipt of extracts from the Unified State Register real estate. Terms of contracts are subject to mandatory written approval from the Buyer;</li> <li>● the transfer of land plots, with the exception of forest plots occupied by the Facilities and required for their operation, into the category of "land of industry, energy, transport, communications, broadcasting, television, informatics, lands for space activities, defense, security and other special lands destination".</li> </ul> 5. Provision by the Seller of financial security of performance of obligations under the Agreement in the form of independent guarantees of JSC Polysus Krasnoyarsk (OGRN (primary state registration number) 1022401504740, TIN 2434000335): 5.1. To ensure the fulfillment of Seller's obligations under the Agreement in the amount of 16,000,000 (Sixteen million) rubles 00 kopecks with a validity of at least 4 (Four) months from the date of transfer of the Objects from the Seller to the Buyer under the acceptance certificate. 5.2. To ensure the proper performance of the Seller's obligations by: <ul style="list-style-type: none"> <li>● Entering information about the boundaries of the protected zones of the Objects into the state cadastral of real estate and receiving extracts from the Unified State Real Estate Register;</li> <li>● Formation of land (forest) plots necessary for the operation of the Facilities, preparation of land surveying plans, setting land (forest) plots for state cadastral registration;</li> <li>● Registration of the Buyer's rights to the land (forest) plots occupied by the Facilities and necessary for their operation (tenure rights) for a period of more than 1 (One) year, the state registration of contracts and the rights of the Buyer, and receipt of extracts from the Unified State Register real estate. Terms of contracts are subject to mandatory written approval from the Buyer;</li> <li>● Transfer of land, with the exception of forest land occupied by the object and necessary for their operation, in the category of "land for industry, energy, transport, communications, broadcasting, television, computer, land for space activities, land defense, security and other special purposes in the amount of 2,223,000 (two million two hundred twenty three thousand) rubles 00 kopecks with a validity of 240 (two hundred forty) working days from the date of state registration of transition to the buyer ownership of the real estate assets that are part of the objects.</li> </ul> Object price determined in the manner prescribed by the Agreement, and is set at a maximum of 7,778,557,862 (seven billion seven hundred and seventy-eight million five hundred and fifty seven thousand eight hundred and sixty-two) rubles 36 kopecks, including VAT. <b>Validity of the Supplementary Agreement 4:</b> Supplementary agreement 4 comes into force from the date of signing.					

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
32.	Agreement for the development of working documentation, construction and installation, commissioning works and supply of material and equipment in the volume of all work in progress under the title: Two 220 KV Przejskaya - Elgaugol OHL with 220 KV Elgaugol Substation, 220 KV substation A, 220 KV substation B; Expansion of outdoor switchgear 220 KV of 220 KV Przejskaya substation for the needs of the branch PJSC FGC UES - MPS of the East	30.11.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject of the Agreement:</b> Contractor undertakes to perform a set of works on: <ul style="list-style-type: none"> <li>● development (adjustment) of working documentation;</li> <li>● supply of materials and equipment;</li> <li>● equipment of previously supplied equipment with missing / damaged components, extension of the factory warranty;</li> <li>● performance of construction and installation works;</li> <li>● commissioning;</li> <li>● verification of compliance with Electromagnetic compatibility requirements;</li> <li>● providing author's supervision of construction;</li> <li>● technical inventory, production of technical passports, plans and cadastral passports for real estate;</li> <li>● the implementation of a set of works on the registration of land and legal relations for land plots for the location of the facility, including works necessary for establishing security zones, and work on the transfer of land from one category to another;</li> <li>● manufacturing of Executor's survey for completed objects;</li> <li>● the implementation of works on the reclamation of land (forest) plots and ensure compliance with the requirements of forest legislation on fire management of forests and provision of means for preventing and extinguishing forest fires to persons using forests;</li> <li>● registration of all necessary documents for obtaining construction permits and permission to put the facility into operation and receive permission to build and commission the facility in the authorized state authorities, in accordance with the current legislation of the Russian Federation;</li> <li>● commissioning;</li> <li>● providing warranty service for the whole warranty period (providing at least 36 months of warranty service, from the time the facility is put into operation (KS-14)).</li> </ul> And hand over the result of works to Customer, and Customer undertakes to accept the result of works and pay the stipulated price in the order stipulated by the Contract. <b>Price of the Agreement:</b> The price of the work under the Contract is not more than 4,188,072,690 (Four billion one hundred eighty-eight million seventy-two thousand six hundred ninety) rubles 00 kopecks, including VAT (18%) not exceeding 638,858,545 (Six hundred and thirty-eight million eight hundred fifty-eight thousand five hundred and forty-five) rubles 93 kopecks. Term of performance of works under the Contract: Commencement of works: from the moment of signing the Contract. Completion of work: 31.12.2017. <b>Validity of the Agreement:</b> The contract comes into force from the moment of its signing and is valid until the Parties fully fulfill their obligations.	PJSC Rosseti Pozdnyakov N.I.	Since 16.10.2017 No. AM-5973	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
33.	Supplementary agreement No. 3 to the agreement No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: «Creation of an intelligent distribution grid of 20 / 0.4 KV on the territory of the innovation center Skolkovo II stage» (hereinafter – the Agreement). Due to the fact that Supplementary agreement 3, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account supplementary agreements 1-3 is not more than 10,351,987,437 (Ten billion three hundred fifty one million nine hundred and eighty-seven thousand four hundred and thirty-seven) rubles 73 kopecks, including VAT (18%) more than 1,579,116,727 (One billion five hundred ninety-nine million one hundred and sixteen thousand seven hundred twenty-seven) rubles 79 kopecks. <b>Validity of the Supplementary Agreement 3:</b> Supplementary agreement 3 enters into force from the moment of its signing by the Parties and extends to the relations of the Parties arising from September 30, 2017 in accordance with cl. 425 of the Civil Code of the Russian Federation.	06.12.2017	<b>Parties to the Supplementary Agreement 3:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Amendments to the contract No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: «Creation of an intelligent distribution grid of 20 / 0.4 KV on the territory of the innovation center Skolkovo II stage» (hereinafter – the Agreement). Due to the fact that Supplementary agreement 3, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account supplementary agreements 1-3 is not more than 10,351,987,437 (Ten billion three hundred fifty one million nine hundred and eighty-seven thousand four hundred and thirty-seven) rubles 73 kopecks, including VAT (18%) more than 1,579,116,727 (One billion five hundred ninety-nine million one hundred and sixteen thousand seven hundred twenty-seven) rubles 79 kopecks. <b>Validity of the Supplementary Agreement 3:</b> Supplementary agreement 3 enters into force from the moment of its signing by the Parties and extends to the relations of the Parties arising from September 30, 2017 in accordance with cl. 425 of the Civil Code of the Russian Federation.	PJSC Rosseti Pozdnyakov N.I.	Since 03.11.2017 No. AM-6356	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
34.	Supplementary agreement No. 2 to the agreement No. w/n of 28.01.2016 on granting of the loan	11.12.2017	<b>Parties to the Supplementary Agreement 2:</b> PJSC FGC UES (Lender); JSC Mobile GTES (Borrower). <b>Subject and price:</b> Amendments to the agreement No. w/n of 28.01.2016 granting of loans (hereinafter – the Agreement). Due to the fact that Supplementary agreement 2, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total amount of the debt under the Contract, taking into account supplementary agreements 1-2 is not more than 2,200,000,000 (Two billion two hundred million) rubles 00 kopecks, including VAT (18%) in the amount of not more than 335,593,220 (Three hundred thirty five million five hundred ninety three thousand two hundred and twenty) rubles 34 kopecks. <b>Validity of the Supplementary Agreement 2:</b> Supplementary agreement 2 comes into force from the date of its signing and is valid until the expiry of the Agreement.	PJSC Rosseti	Since 23.10.2017 No. AM-6100	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

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No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
35.	Supplementary agreement No. 1 to the agreement No. w/n of 10.05.2017 on the provision of independent guarantees	11.12.2017	<b>Parties to the Supplementary Agreement 1:</b> PJSC FGC UES (Guarantor); JSC Mobile GTES (Principal). <b>Subject and price:</b> Amendments to the agreement No. w/n of 10.05.2017 on the provision of independent guarantees (hereinafter - the Agreement). Due to the fact that the Supplementary agreement 1, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the transaction under the Agreement, subject to the Supplementary Agreement, 1 is not more than 2,500,000,000 (Two billion five hundred million) rubles 00 kopecks, including VAT (18%) in the amount not exceeding 381,355,932 (Three hundred and eighty-one million three hundred and fifty five thousand nine hundred and thirty-two) rubles 20 kopecks. <b>Validity of the Supplementary Agreement 1:</b> Supplementary agreement 1 comes into force from the date of its signing by the Parties, valid during the term of the Agreement.	PJSC Rosseti	Since 23.10.2017 No. AM-6100	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
36.	Supplementary agreement No. 1 to the agreement No. 2315 of 30.09.2014 provision of services for the organization of operation and development of the power grid complex	12.12.2017	<b>Parties to the Supplementary Agreement 1:</b> PJSC FGC UES (Customer); PJSC Rosseti (Executor). <b>Subject and price:</b> Amendments to the agreement No. 2315 of 30.09.2014 provision of services for the organization of operation and development of the power grid complex (hereinafter - Agreement). Due to the fact that the Supplementary agreement 1, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of services under the Agreement, subject to the Supplementary Agreement 1 for the period from 01.01.2014 to 31.12.2017, is 2,275,040,018 (Two billion two hundred seventy five million forty thousand eighteen) RUB 88 kopecks, including VAT (18%) in amount to 347,040,002 (Three hundred and forty-seven million forty thousand and two) rubles 88 kopecks. <b>Validity of the Supplementary Agreement 1:</b> Supplementary agreement 1 enters into force from the moment of its conclusion and is applied to the relations of the Parties from 01.01.2017.	PJSC Rosseti Poluboyarinov M.I. PJSC Rosseti (Executor) Murov A.E. Demin A.A.	Since 24.11.2017 No. AM-6888	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
37.	The agreement on compensation (transfer of shares to LLC FGC-Asset Management)	20.12.2017	<b>Parties of the Agreement:</b> PJSC FGC UES (Creditor); LLC Index of Energy - FGC UES (Debtor). <b>Subject of the Agreement:</b> 1. The debtor, in the account of partial fulfillment of obligations for payment of bills, grants the Lender compensation in the manner and under the conditions specified in the Agreement. 2. Information about the obligation, in the account of partial execution of which the compensation is granted: - an obligation to pay the amount of the principal promissory note in the amount of 40,420,645,179 (Forty billion four hundred twenty million six hundred and forty five thousand one hundred and seventy nine) rubles 15 kopecks; - date of drafting of promissory notes - 23.04.2012; - maturity of promissory notes - upon presentation. 3. As a compensation, the Obligor is granted 99.99% of shares in the authorized capital of LLC FGC-Asset Management. <b>Price of the Agreement:</b> On the basis of the report of the appraiser of LLC EsArGy-Valuation No. 29-AA-YA / 17 dated 01.03.2017, the value of the transferred compensation is 2,740,194,592 (Two billion seven hundred forty million one hundred ninety four thousand five hundred ninety-two) rubles 00 kopecks. <b>Validity of agreement:</b> The agreement comes into force from the date of its notarization. The agreement is valid until the Parties fulfill their obligations under the Agreement.	PJSC Rosseti	Since 30.03.2017 No. AM-1721	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
38.	The agreement on compensation (assets)	28.12.2017	<b>Parties of the Agreement:</b> PJSC FGC UES (Creditor); LLC Index of Energy - FGC UES (Debtor). <b>Subject of the Agreement:</b> 1. The debtor, in the account of partial fulfillment of obligations for payment of bills, grants the Lender compensation in the manner and under the conditions specified in the Agreement. 2. Information about the obligation, in the account of partial execution of which the compensation is granted: ● the obligation to pay the principal promissory note amount of 37,680,450,587 (thirty seven billion six hundred eighty million four hundred fifty thousand five hundred and eighty seven) rubles 15 kopecks; ● date of drafting of promissory notes - 23.04.2012; ● maturity of promissory notes - upon presentation. 3. As a compensation, the Obligor shall be granted: ● 4,691,861,642.96 (Four billion six hundred and ninety one million eight hundred sixty one thousand six hundred and forty two and ninety six hundredths) pieces of ordinary shares of PJSC Inter RAO; ● 1,080,646,965 (One billion eighty million six hundred and forty-six thousand nine hundred and sixty-five) ordinary shares of PJSC Rosseti; ● 303,259,010 (Three hundred three million two hundred fifty nine thousand ten) pieces of PJSC Rosseti preferred shares; <b>Price of the Agreement:</b> The price (monetary value) of the compensation given under the Agreement consists of: ● prices (monetary value) 4,691,861,642.96 (Four billion six hundred and ninety one million eight hundred sixty one thousand six hundred and forty two and ninety six hundredths) pieces of ordinary shares of PJSC Inter RAO; ● price (monetary value) 1,080,646,965 (One billion eighty million six hundred and forty-six thousand nine hundred and sixty-five) ordinary shares of PJSC Rosseti; ● price (monetary value) 303,259,010 (Three hundred three million two hundred fifty nine thousand ten) pieces of PJSC Rosseti preferred shares. The price of one share of PJSC Inter RAO and PJSC Rosseti is determined on the date of the Agreement conclusion as the weighted average price of one ordinary share of PJSC Inter RAO, one ordinary share of PJSC Rosseti, one preferred share of PJSC Rosseti on the Moscow Stock Exchange for the period of 30 trading days before the date conclusion of the Agreement and must be no less than the market value determined on the basis of the reports of the appraisers. <b>Validity of agreement:</b> The Agreement comes into force from the date of its signing by the Parties. The agreement is valid until the Parties fulfill their obligations under the Agreement.	PJSC Rosseti	Since 30.03.2017 No. AM-1721	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
39.	Supplementary agreement No. 4 to the agreement No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage (hereinafter – the Agreement).	28.12.2017	<b>Parties to the Supplementary Agreement 4:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Making changes to the contract of work No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage (hereinafter – the Agreement). Due to the fact that Supplementary agreement 4, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of the work under the Agreement, taking into account supplementary agreements 1-4, is no more than 10,351,987,437 (Ten billion three hundred fifty one million nine hundred and eighty-seven thousand four hundred and thirty-seven) rubles 73 kopecks, including VAT (18%) in the amount not exceeding 1,579,116,727 (One billion five hundred seventy-nine million one hundred and sixteen thousand seven hundred twenty-seven) rubles 79 kopecks. <b>Validity of the Supplementary Agreement 4:</b> Supplementary agreement 4 enters into force and becomes an integral part of the Contract from the date of its signing by the Parties.	PJSC Rosseti Pozdnyakov N.I.	Since 03.11.2017 No. AM-6356	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.
40.	Supplementary agreement No. 5 to the agreement No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: "Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage"	29.12.2017	<b>Parties to the Supplementary Agreement 5:</b> PJSC FGC UES (Customer); JSC CIUS UES (Contractor). <b>Subject and price:</b> Making changes to the contract of work No. 214-2016 of 13.12.2016 for the execution of a set of works under the title: "Creation of an intelligent distribution grid of 20 / 0.4 kV on the territory of the innovation center Skolkovo II stage" (hereinafter – the Agreement). Due to the fact that Supplementary agreement 5, which is an interested party transaction, does not and can not entail obligations of a monetary nature for the parties, the price is not determined. The total price of work under the Agreement, taking into account additional agreements 1-5 is not more than 10,351,987,437 (Ten billion three hundred fifty one million nine hundred and eighty-seven thousand four hundred and thirty-seven) rubles 73 kopecks, including VAT (18%) more than 1,579,116,727 (One billion five hundred seventy-nine million one hundred and sixteen thousand seven hundred twenty-seven) rubles 79 kopecks. <b>Validity of the Supplementary Agreement 5:</b> Supplementary agreement 5 comes into force from the moment of its signing by the Parties and extends to the relations of the Parties arising from 01.10.2017 in accordance with cl. 425 of the Civil Code of the Russian Federation.	PJSC Rosseti N.I. Pozdnyakov	Since 11.12.2017 No. AM-7416	The issue of consent to conclude a transaction to be concluded on the terms specified in the Notice was not submitted to the Board of Directors for consideration because the Company did not receive a corresponding request.

## Appendix 4

INFORMATION ON MAJOR TRANSACTIONS

## Appendix 4

INFORMATION ON MAJOR TRANSACTIONS

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
41.	Agreement on debt repayment PJSC MOESK for services in the transmission of electrical energy through a unified national (all-Russian) grid	30.12.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); PJSC MOESK (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 3,584,002,078 (Three billion five hundred and eighty four million two thousand and seventy eight) rubles 59 kopecks (in view of VAT) (hereinafter – the Debt). For the use of funds, the Debtor undertakes to pay to the Lender interest accrued on the amount of Debt. The interest rate is set in the amount of the key rate of the Bank of Russia effective for each day of interest calculation, with the amount of interest calculated in respect of the outstanding part of the Debt as of the beginning of each day (0:00 Moscow time) from 01.09.2017 to the date of the actual repayment of the Debt. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (appendix No. 10 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 387 of 09.01.2018). <b>Validity of agreement:</b> The Agreement enters into force on the date of its signing by the Parties and valid until the Obligor discharges its obligations under the Agreement. The terms of the Agreement shall apply to the relations of the Parties arising from 01.09.2017.	PJSC Rosseti Demin A.A.	Since 11.12.2017 No. AM-7425	PJSC FGC UES Board of Directors (Minutes No. 387 of 09.01.2018, issue 10)
42.	Agreement on debt repayment JSC IGDS of North Caucasus for the services of electric power transmission through the UNEG	30.12.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); JSC IGDS of North Caucasus (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 1,280,267,993 (One billion two hundred and eighty million two hundred and sixty-seven thousand nine hundred and ninety-three) rubles 25 kopecks (in view of VAT) (hereinafter - the Debt). The debtor undertakes to pay to the Lender the interest accrued on the amount of the Debt. The interest rate is set at 11% per annum, with the amount of interest calculated in respect of the outstanding part of the Debt (0:00 Moscow time) as of the beginning of each day from 01.05.2017 to the date of the actual final repayment of the Debt, inclusive, and taking into account the actual schedule of its repayment. The debtor pays the amount of the interest due until 31.12.2022. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (appendix No. 1 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 388 of 09.01.2018). <b>Validity of agreement:</b> The Agreement enters into force on the date of its signing by the Parties and valid until the Obligor discharges its obligations under the Agreement. The terms of the Agreement apply to the relations of the Parties since 01.05.2017.	PJSC Rosseti	Since 15.12.2017 No. AM-7583	Board of Directors PJSC FGC UES (Minutes No. 388 of 09.01.2018, issue 1)
43.	Agreement on debt repayment JSC Dagestan Grid Company for the services of electric power transmission through the UNEG	30.12.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); JSC Dagestan Grid Company (Debtor). <b>Price of the Agreement:</b> The amount of indebtedness subject to settlement under the Agreement is 1,570,226,447 (One billion five hundred seventy million two hundred twenty six thousand four hundred forty seven) rubles 75 kopecks (in view of VAT) (hereinafter - the Debt). For the use of funds, the Debtor undertakes to pay to the Lender the interest accrued on the amount of Debt. The interest rate is set at 11% per annum, with the amount of interest calculated in respect of the outstanding debt as of the beginning of each day of the part of the Debt from 01.05.2017 to the date of the actual final repayment of the Debt, inclusive, and taking into account the actual repayment schedule. The debtor pays the amounts of interest due, calculated in accordance with this clause of the Agreement, until 31.12.2022. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (appendix No. 2 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 388 of 09.01.2018). <b>Validity of agreement:</b> The Agreement enters into force on the date of its signing by the Parties and valid until the Obligor discharges its obligations under the Agreement. The terms of the Agreement apply to the relations of the Parties since 01.05.2017.	PJSC Rosseti	Since 15.12.2017 No. AM-7584	Board of Directors PJSC FGC UES (Minutes No. 388 of 09.01.2018, issue 2)

No.	Transaction name	Trans- action date	Material terms of the transaction (subject, price*, parties to the transaction, validity period)	Related party (-ies) to the transaction	Notice of an interest-ed-party transaction (the details of the letter)	Governing body that resolved to approve the transaction or its subsequent approval (if there is such a decision - the details of the protocol)
44.	Agreement on debt repayment PJSC IDGC of South for the services of electric power transmission through the UNEG	31.12.2017	<b>Parties to the Agreement:</b> PJSC FGC UES (Creditor); PJSC IDGC of South (Debtor). <b>Price of the Agreement:</b> The amount of debt to be settled under the Agreement (hereinafter - the Debt) consists of: ● principal amount of 1,477,965,779 (One billion four hundred seventy seven million nine hundred sixty five thousand seven hundred seventy nine) rubles 94 kopecks for the period from 01.12.2015 to 31.12.2016; ● the amount of debt for payment of a penalty calculated for the period from 01.12.2015 to 27.06.2017, in the amount determined by the court decision, for the amount of the debt specified in paragraph 22.1.1. minutes of the meeting of the Board of Directors of PJSC FGC UES No. 374 of July 03.07.2017 (hereinafter – the Protocol). For the use of funds, the Debtor undertakes to pay to the Lender interest accrued on the amount of Debt since 28.06.2017. The interest rate is set at 11% per annum, with the amount of interest calculated in respect of the outstanding part as of the beginning of each day specified in clauses 22.1.1-22.1.2. of the Protocol. The total price of the Agreement for the whole period of validity shall not exceed 10 (ten) percent of the book value of the assets of PJSC FGC UES according to its financial statements as of the last reporting date. <b>Subject and other material terms of the Agreement:</b> The subject and other material terms of the transaction are established by the Agreement (appendix No. 5 to the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 374 of 03.07.2017). <b>Validity of agreement:</b> The Agreement enters into force on the date of its signing by the Parties and valid until the Obligor discharges its obligations under the Agreement. The terms of the Agreement apply to the relations of the Parties since 28.06.2017.	PJSC Rosseti	Since 15.12.2017 No. AM-7583	Board of Directors PJSC FGC UES (Minutes No. 374 of 03.07.2017)

\* The price of the property or services to be alienated or acquired is determined by the Board of Directors of the Company on the basis of market value, in accordance with Article 77 of the Federal Law On Joint Stock Companies.

**Appendix 5**

# INFORMATION ON THE ACTUAL PERFORMANCE OF INSTRUCTIONS OF THE PRESIDENT AND GOVERNMENT OF THE RUSSIAN FEDERATION BY FEDERAL GRID COMPANY IN 2017

No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders
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**Disposal of non-core assets**

1.	Instruction of the Government of the Russian Federation	From 07.07.2016 No. ISH-P13-4065 (clause 1)	On ensuring the development and maintenance of programmes for the disposal of non-core assets	<p>Since 2012, the Company has been carrying out activities to identify and dispose of non-core assets. The Board of Directors of JSC FGC UES (extract from the minutes of the meeting of the Board of Directors of JSC FGC UES No. 178 of 16.11.2012) approved the Program for the Management of Non-core Assets of JSC FGC UES (hereinafter referred to as the Management Program for the NA), and by the decision of the Board of Directors of PJSC FGC UES (extract from the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 311 of 14.03.2016) The management program for the HA was approved in a new version.</p> <p>Based on the directives of the Government of the Russian Federation No. 4863p-P13 of 07.07.2016, and in accordance with the Guidelines for identifying and disposing of non-core assets developed by the Ministry of Economic Development and Trade of the Russian Federation in conjunction with the Federal Property Management Agency, PJSC FGC UES (the actualized) FGC UES and PJSC FGC UES (hereinafter referred to as the "Alienation Program for the Unified Energy System") and the Register (implementation plan) of the non-core assets of PJSC FGC UES, approved by the decision of the Board of Directors of PJSC FGC UES (an excerpt from pr of the meeting of the Board of Directors of PJSC FGC UES No. 350/12 of 28.12.2016).</p> <p>The register of non-core assets, updated in accordance with the Management Program for the AN, was approved by the Board of Directors of PJSC UES FGC in June 2017 (extract from the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 374 of 03.07.2017).</p> <p>The Regulation on the organization (order) of disposal of non-core assets of PJSC FGC UES (hereinafter - the Regulations) was approved by the decision of the Board of Directors of PJSC FGC UES on 28.06.2017 (Minutes No. 374/7 of 03.07.2017).</p> <p>In addition, in order to improve the effectiveness of the implementation of the Exclusion Alienation Program, PJSC FGC UES approved:</p> <ul style="list-style-type: none"> <li>- Order No. 163 of 04.05.2017 "On further measures to increase the efficiency of activities for the sale of non-core assets of PJSC FGC UES and PJSC FGC UES";</li> <li>- Order No. 530 of 20.12.2017 "On Approval of the Procedure for Conducting Competitive Procedures (Trades) for Sale of Non-core Assets of PJSC FGC UES".</li> </ul> <p>On the basis of directives of the Government of the Russian Federation dated 18.09.2017 No. 6604p-P13 of PJSC FGC UES in accordance with the decision of the Board of Directors of PJSC FGC UES dated 27.12.2017 (Minutes No. 385 of 09.01.2018) to the Chairman of the Management Board of PJSC FGC UES in the period until 01.01.2018 is entrusted to ensure:</p> <ol style="list-style-type: none"> <li>1. analysis of the Program for the disposition of non-core assets of PJSC FGC UES and PJSC FGC UES and the Register (plan for the sale) of non-core assets of PJSC FGC UES (hereinafter referred to as the program and the register) for compliance with the Methodological Recommendations for Identification and Implementation of Non-core assets approved by the decree of the Government of the Russian Federation No. 894-r of 10.05.2017, (hereinafter referred to as the Methodological Recommendations);</li> <li>2. making the necessary changes to the program and the register and approving them at a meeting of the Board of Directors of PJSC FGC UES if there is a discrepancy between the contents of the current versions of the program and the register with the requirements of the Methodological Recommendations.</li> </ol> <p>Pursuant to the above instruction from PJSC FGC UES, the analysis of the Separation Program for non-core assets of PJSC FGC UES and PJSC FGC UES (hereinafter referred to as the Program) approved by the Board of Directors of PJSC FGC UES (extract from the minutes of the meeting of the Board of Directors of PJSC" from 28.12.2016 number 350/12), which showed that the structure of the current Program, approaches, principles, mechanisms for identifying and ways of selling non-core assets comply with the provisions of the Guidelines.</p> <p>However, in pursuance of the Directives and instructions of the Board of Directors of PJSC FGC UES, the Management Board of PJSC FGC UES (Minutes No. 1521/1 dated 29.12.2017), preliminary consideration was given to materials on the issue of recommendations to the Board of Directors of PJSC FGC UES on the issue "On the introduction of changes in the Program of alienation of non-core assets of PJSC FGC UES and PJSC FGC UES".</p> <p>Information on the sale of non-core assets is quarterly posted on the Interdepartmental Portal for the Management of State Property (Federal Property Management Agency). Information on the results of 2017 is reflected in full, taking into account the objects sold, which are the property of the subsidiaries of PJSC FGC UES.</p>
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Information on the sale of non-core assets in 2017  
is given in Appendix 8 to the Annual Report.

No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders
<b>Purchase of goods, works, services</b>				
1.	Instruction of the President of the Russian Federation (paragraphs 4, 5, paragraph 1)  Instruction of the Government of the Russian Federation	Dd. 05.12.2014 No. Pr-2821  From 08.12.2014 No. AD-P9-9176	About step-by-step replacement of the purchase of foreign products (works, services) with purchase equivalent of technical characteristics and consumer properties of the Russian production (works, services)	<p>The activities of PJSC FGC UES in the field of import substitution are carried out in accordance with the Corporate plan of import substitution for 2017-2020 (the order of PJSC FGC UES dated 28.11.2017 No. 494).</p> <p>The corporate plan for import substitution of PJSC FGC UES was developed in accordance with the Methodological recommendations on the preparation of corporate import substitution plans by state corporations, state companies, joint-stock companies, in which the share of the Russian Federation exceeds 50 percent, organizations implementing investment projects included in the register of investment projects in accordance with the decision of the Government Commission on Import Substitution, approved by the Ministry 11.08.2016 No. 219R-AU, taking into account the Analytical report "Assessment of the potential of import substitution, the main directions of import substitution and the conditions for their implementation in the SDCs of PJSC Rosseti until 2019", considered by the Board of PJSC Rosseti (Minutes dated 14.10.2015 No. 386pr).</p> <p>The goals and objectives of the corporate plan for import substitution of PJSC FGC UES are aimed at ensuring technological safety of the power grid complex of the Russian Federation and reducing dependence on foreign products, equipment, technical devices, as well as services / works of foreign companies and the use of foreign software.</p> <p>By the end of 2017, the share of purchases of domestic electrical equipment in the total volume of purchases of PJSC FGC UES was 85% (the share of purchases of domestic electrical equipment increased by 15% compared to 2016).</p> <p>In 2017, continued implementation of long-term contracts with manufacturers of electrical equipment, providing for the localization of its production in the territory of the Russian Federation.</p> <p>OOO Siemens Transformers has mastered the production of power autotransformers with a voltage of 330 kV and a capacity of 200 MVA. The first copy of this transformer successfully passed factory tests and in 2017 it was delivered to the 330 kV Severnaya substation of the branch of PJSC FGC UES - MPS of the North-West.</p> <p>LLC Power Machines – Toshiba. High-voltage transformers mastered production of 750 kV autotransformers with a capacity of 417 MVA (SMTT LLC became the second enterprise in Russia to master the production of this type of transformer).</p>
2.	Instruction of the Government of the Russian Federation	From 04.01.2016 No. ISH-P13-1872	About purchases of the domestic software necessary for activity of joint-stock companies with the state participation	<p>By the decision of the Board of Directors of PJSC FGC UES (Minutes No. 342 of 13.10.2016), amendments were made to the Regulation on Procurement concerning the purchase of domestic competitive software required to support the Company's operations.</p> <p>As part of the implementation, amendments were made to the Regulation on the purchase of goods, works, services for the needs of PJSC FGC UES (as amended on 13.10.2016 No. 342).</p> <p>The Customer's right to establish priorities for products of Russian origin in procurement is stipulated in Section 4.5 of the Unified Procurement Standard of PJSC FGC UES (Procurement Regulations) (decision of the Board of Directors dated 07.06.2017, Minutes No. 370).</p> <p>As part of the execution of the assignment, a letter from PJSC FGC UES No. FR-5925 of 14.10.2017 was sent to SDCs.</p> <p>In addition, in accordance with the procurement regulations, not later than 7 calendar days from the date of placement in the unified information system in the procurement (<a href="http://www.zakupki.gov.ru">www.zakupki.gov.ru</a>) and on specialised Internet sites, notices and procurement documentation software publishes information about these purchases, not included in the software registry.</p> <p>The Chairman of the Management Board was instructed to ensure the introduction of amendments and additions to the provisions on procurement of goods, works, services of subsidiaries, the total share of direct and / or indirect participation of PJSC FGC UES in the authorized capitals of which exceeds 50%.</p> <p>As part of the implementation, relevant changes were made to the internal documents regulating the procurement procedures for goods, works and services of the following subsidiaries and affiliates of PJSC FGC UES, which carry out procurement activities: JSC TsiUS UES, JSC Mobile GTES, JSC MUS Energetiki, JSC NTC FGC UES, JSC ChitaTechEnergo, JSC Electroservice UNEG, JSC ESSK UES, LLC IT Energy Service.</p>



For information on the Company's procurement activities,  
see «Strategic Report / Results of Sustainable Development / Procurement».

## Appendix 5

INFORMATION ON THE ACTUAL EXECUTION OF INSTRUCTIONS OF THE PRESIDENT  
AND THE GOVERNMENT OF THE RUSSIAN FEDERATION

## Appendix 5

INFORMATION ON THE ACTUAL EXECUTION OF INSTRUCTIONS OF THE PRESIDENT  
AND THE GOVERNMENT OF THE RUSSIAN FEDERATION

No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders
3.	Minutes of the meeting with the Chairman of the Government of the Russian Federation	From 14.06.2016 No. DM-P9-38pr (clause 7)	On introducing changes in the procurement policy of the company in terms of innovative building materials	<p>By the decision of the Management Board of PJSC FGC UES (Minutes No. 1422 of 02.11.2016), it was recommended that the Board of Directors amend the procurement regulations regarding the priority setting for purchases of Russian innovative building materials.</p> <p>As part of the implementation, amendments were made to the Regulation on the purchase of goods, works, services for the needs of PJSC FGC UES (in edition No. 352 of 09.01.2017).</p> <p>The priority of purchases of Russian innovative building materials is set by clause 4.5.10 of the Unified Procurement Standard of PJSC FGC UES (Procurement Regulations) (decision of the Board of Directors dated 07.06.2017 Minutes No. 370).</p> <p>The Chairman of the Management Board was instructed to ensure the introduction of amendments and additions to the provisions on procurement of goods, works, services of subsidiaries.</p> <p>As part of the implementation, amendments and additions were made to the internal documents regulating the procurement procedures for goods, works and services of the following subsidiaries of PJSC FGC UES, which carry out procurement activities: JSC TsiUS UES, JSC Mobile GTES, JSC MUS Energetika JSC NTC FGC UES, JSC Electrosetservice UNEG, JSC ESSK UES, LLC IT Energy Service, JSC Tomsk backbone grids.</p>  <p>For information on the Company's procurement activities, see «Strategic Report / Results of Sustainable Development / Procurement».</p>
4.	Instruction of the Government of the Russian Federation	From 12.12.2015 No. DM-P9-8413 (item 2)	On regulation of procurement activities	<p>As part of the execution, the order of PJSC FGC UES dated 04.08.2016 No. 278 "On the standardization of purchases of certain types of goods, works, services for the needs of PJSC FGC UES" (as amended on 09.11.2017 No. 472) was approved.</p> <p>By Order No. 278 PJSC FGC UES, being initiators of procurement, is recommended to ensure the approval of organizational and administrative documents on the establishment of procurement standards.</p>

### Strategy development and updating, long-term planning

1.	Instruction of the President of the Russian Federation	From 27.12.2014 No. Pr-3013	About development and the approval of the list of the internal regulatory documents regulating activity of JSC and also ensuring submission of reports on performance of long-term development programs and on achievement of the approved key performance indicators	<p>Pursuant to paragraph 2 of Pr-3013, the following documents were developed and approved by the Company:</p> <ul style="list-style-type: none"> <li>● Regulation on increasing investment and operational efficiency and cutting expenses of PJSC FGC UES (approved by the decision of the Board of Directors, Minutes No. 312 of 28.03.2013);</li> <li>● Regulation on internal audit (approved by the decision of the Board of Directors, Minutes No. 291 of 19.11.2015);</li> <li>● Regulations on the risk management system (approved by the decision of the Board of Directors, Minutes No. 291 of 19.11.2015, updated by the resolution of the Board of Directors, Minutes No. 347 of 13.12.2016);</li> <li>● Regulation on the quality management system (approved by the decision of the Board of Directors, Minutes No. 291 of 19.11.2015);</li> <li>● Regulations on the procedure for the development and implementation of innovative development programs (approved by the order of PJSC FGC UES No. 445 of 16.11.2015).</li> </ul> <p>Pursuant to clause 3 of Pr-3013 regarding the provision of reports on the implementation of long-term development programs, Minutes No. 267 of the Board of Directors dated 25.05.2015, the Chairman of the Management Board of the Company was instructed to ensure submission of materials mandatory for the preparation and holding of annual General Meetings of Shareholders of PJSC FGC UES, reports on the implementation of the Long-Term Development Program of PJSC FGC UES and on the achievement of the approved key performance indicators within the time limits established by the Federal Law No. 208-FZ of 26.12.1995 "On Joint Stock Companies".</p> <p>In pursuance of paragraph 3 of the instructions of the Deputy Prime Minister A.V. Dvorkovich from 20.07.2016 No. AD-P36-4992 by the decision of the Board of Directors of PJSC FGC UES dated 25.10.2017 (extract from the minutes No. 381/2 of 27.10.2017) approved the plan for consideration at the meetings of the Board of Directors of PJSC FGC UES quarterly reports on the implementation of the Long-Term Development Program of PJSC FGC UES and the achievement of KPI.</p> <p>Currently, reports are being prepared on the achievement of approved KPIs by PJSC FGC UES in 2017 for making in the materials at the AGM in 2018.</p>  <p>For more details on the key performance indicators of the Company, see «Strategic Report / Market Review, Strategy and KPI / KPIs».</p>
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No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders
2.	Instruction of the President of the Russian Federation	From 27.12.2013 No. Pr-3086	About development and the approval of the long-term program of development of society, and also carrying out audit of implementation of the long-term program of development and the approval of the standard of carrying out such audit	<p>On 19.12.2014, the Board of Directors of JSC FGC UES (Minutes No. 243 of 22.12.2014) approved the Long-term Development Program of PJSC FGC UES for the period 2015-2019 and the forecast until 2030.</p> <p>The Board of Directors of JSC FGC UES (Minutes No. 245 of 31.12.2014) approved the standard for conducting an annual independent audit of the implementation of the program, the results of which, no later than July 10 of the year following the reporting year, are sent to the Ministry of Energy of Russia as proposals for appropriate adjustment of the program.</p> <p>The audit of the Long-term Development Program implementation is carried out annually: in 2015 according to the results of 2014, in 2016 according to the results of 2015, in 2017 according to the results of 2016, in 2018 according to the results of 2017. In August 2017, the decision of the Strategy Committee of the Board of Directors of PJSC FGC UES (Minutes No. 51 of 03.08.2017) took note of the report of the independent auditor on the results of the audit of the report for 2016 on the implementation of the Long-Term Development Program and, on the desirability of developing a new version of the program.</p>  <p>For more details on the Long-term Development Program of PJSC FGC UES, see the section "Strategic Report / Market Overview, Strategy and KPI / Development Strategy".</p>
3.	Instruction of the Government of the Russian Federation	From 15.09.2015 No. AD-P36-6296 (clause 5) From 07.11.2015 No. DM-P36-7563 From 10.12.2015 No. AD-P36-8381 (clause 1)	About innovative development and about offers on development of indicators of innovative activity of the state companies	<p>By the decision of the Board of Directors of PJSC FGC UES (Minutes No. 352 dated 09.01.2017), changes were made to the Long-term Development Program of PJSC FGC UES approved by the decision of the Board of Directors of PJSC FGC UES dated 19.12.2014 (Minutes of the Board of Directors JSC FGC UES of 22.12.2014 No. 243), by including, starting from 2016, an integral key indicator "Efficiency of Innovation Activity" in the list of key performance indicators of the Long-Term Development Program of PJSC FGC UES.</p> <p>The indicator "Efficiency of Innovation Activity" is included in the Methodology for Calculating and Evaluating the Performance of Key Performance Indicators of the Higher Managers of PJSC FGC UES for 2016, approved by the decision of the Board of Directors of PJSC FGC UES (Minutes No. 354 dated 09.02.2017), with a weight of 20%.</p>  <p>For more information on the Company's innovation activities, see the «Strategic Report / Innovative Development» section.</p>  <p>For more details on the key performance indicators of the Company, see «Strategic Report / Market Review, Strategy and KPI / KPIs».</p>  <p>For more information on the remuneration of the Chairman of the Management Board and members of the Management Board, see «Corporate Governance Report / Remuneration System for Members of the Board of Directors and Management Bodies / Remuneration System of the Chairman of the Management Board and Members of the Management Board».</p>
4.	Decree of the Government of the Russian Federation	From 16.02.2015 No. 132	About carrying out technological and price audit of projects of investment programs and reports on implementation of investment programs	<p>In accordance with the decision of the Board of Directors (Minutes No. 380 of 16.10.2017), adopted in accordance with the directive of the Government of the Russian Federation No. 1752p-P13 dated 16.03.2017, starting from 2017, the technological and price audit of investment program projects is being conducted in PJSC FGC UES projects of changes introduced into investment programs and reports on their implementation (hereinafter - TCAs). The conclusions of the expert organization on TCAs of the reports for the 1st, 2nd and 3rd quarters of 2017 are disclosed on the website of the Federal State Information System invest.gosuslugi.ru as part of the information on the implementation of the IP of PJSC FGC UES for the 4th quarter of 2017.</p>
5.	Instruction of the Government of the Russian Federation	From 30.09.2015 No. DM-P16-6658 (clause 6) Instruction of the President of the Russian Federation	About ensuring priority character of financing of tasks of social and economic development of the Far East within implementation of the state programs of the Russian Federation and activity of joint-stock companies with the state participation, including at implementation of their investment programs	<p>In pursuance of the directive of the Government of the Russian Federation No. 3538p-P13 of 25.05.2017 within the framework of the investment program materials sent to the Ministry of Energy of Russia and published in the information and telecommunication network Internet, in accordance with the Decree of the Government of the Russian Federation No. 977 of 01.12.2009 "On investment programs subjects of electric power industry, PJSC FGC UES is allocated a separate annex containing a list of projects that ensure the priority nature of financing the tasks of social and economic development The Far East.</p>

## Appendix 5

INFORMATION ON THE ACTUAL EXECUTION OF INSTRUCTIONS OF THE PRESIDENT  
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No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders	
<b>Personnel management</b>					
1.	Instruction of the President of the Russian Federation	From 05.07.2013 № PR-1474	About application of key performance indicators for the assessment of work of management which shall be considered when making decisions on compensation and personnel decisions	The methodology for calculating and evaluating the performance of the key performance indicators of the top managers of PJSC FGC UES was prepared taking into account the requirements of the Guidelines for the application of key performance indicators by state corporations, state companies, state unitary enterprises, and business entities in whose authorized capital the share of the Russian Federation, the subject of the Russian Federation in aggregate exceeds fifty percent. The Board of Directors approved the methodology for calculating and evaluating the performance of key performance indicators of the top managers of JSC FGC UES for 2014 (Minutes No. 217 of 15.04.2014), for 2015 (Minutes No. 243 of 22.12.2014), PJSC FGC UES for 2016 (Minutes dated 09.02.2017 No. 354). In 2017, FGC UES operates a quarterly and annual bonus system based on the methodology approved by the Board of Directors of PJSC FGC UES for calculating and evaluating the performance of key performance indicators of the top managers of PJSC FGC UES (Minutes No. 370 of 13.06.2017). In 2017, for consideration by the Board of Directors of the Company, quarterly reports were issued on the implementation of the KPI of the top managers of PJSC FGC UES for the relevant period: ● Report on the implementation of key performance indicators of the top managers of PJSC FGC UES for the 1st quarter of 2017 is approved by the decision of the Board of Directors of 06.10.2017 (Minutes No. 379 of 09.10.2017); ● The report on the implementation of key performance indicators of the top managers of PJSC FGC UES for the 2nd quarter of 2017 was approved by the decision of the Board of Directors on 25.10.2017 (Minutes No. 381 of 27.10.2017); ● Report on the implementation of key performance indicators of the top managers of PJSC FGC UES for the 3rd quarter of 2017 is recommended for approval by the Board of Directors of the Company (meeting of the Board of 17.11.2017).	
	Instruction of the Government of the Russian Federation	From 27.03.2014 № ИШ-Р13-2043			



For more details on the key performance indicators of the Company, see «Strategic Report / Market Review, Strategy and KPI / KPIs».

No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders
2.	Instruction of the Government of the Russian Federation	From 09.07.2014 № 1250-р	About increase of labor productivity according to point 6 of section 2 of the action plan for ensuring increase in labor productivity, creation and modernization of high-performance workplaces approved by the order of the Government of the Russian Federation of 09.07.2014 № 1250-р	<p>By the decision of the Board of Directors of JSC FGC UES (Minutes No. 242 of 19.12.2014), the Chairman of the Management Board was instructed to ensure appropriate measures to increase labor productivity in the Company.</p> <p>Measures to increase labor productivity and measures to improve the efficiency of operational activities are defined in the Long-term Development Program of PJSC FGC UES. The list of measures to improve the operational efficiency of the Long-term Development Program of PJSC FGC UES includes measures to increase labor productivity, identify reserves and reduce the losses of working hours of industrial and production personnel (hereinafter – the SPP). In accordance with the order of PJSC FGC UES of 10.05.2016 No. 152, since 2016 the Project on increasing the productivity of the SPP is being implemented, aimed at implementing the main provisions of the Long-Term Development Program:</p> <ol style="list-style-type: none"> <li>Phase 1 "Mobilization and deployment of the RFP Project". The methodology of the integrated benchmarking in the areas of the SPP activity is developed. The results were adopted by the managing committee (Minutes No. 4 of 17.06.2016);</li> <li>Phase 2 "Analysis of the current situation (diagnosis) of the RFP Project". The data in the pilot Verkhne-Don EMPS were collected and analysed. The results were adopted by the managing committee (Minutes No. 6 of 10.10.2016);</li> <li>Phase 3. Development and coordination of activities / initiatives to increase the productivity of the SPP. The results were adopted by the managing committee (Minutes No. 7 of 12.01.2017).</li> </ol> <p>In 2017, the following activities of the Project to increase labor productivity were implemented:</p> <ul style="list-style-type: none"> <li>Implemented the developed initiatives to increase productivity in the working processes of the functional groups of the RFP in the first "pilot" Verkhne-Don EMPS;</li> <li>Express diagnostics and adaptation of the initiatives received at the first "pilot" Verkhne-Don EMPS to the specifics of the second "pilot" Northern EMPS were carried out, a list of initiatives for implementation was determined;</li> <li>an assessment of the current effects of the "pilot" implementation;</li> <li>the developed initiatives are directed to the MPS branches to assess the feasibility and clarify the potential effect of their implementation in the period up to 01.04.2018, including:</li> <li>from "replicating" to all branches of PJSC FGC UES initiatives recommended for implementation based on the results of approbation in pilot EMPS. The predicted effect is 174.83 conventional units / year, including:</li> <li>the possibility to reduce the time losses of teams for waiting for the admission of specialists RZIA to work due to the combination of the duties of the Permit and the manufacturer of works by the personnel of the RZIA – 8.3 conventional units / year,</li> <li>the possibility of reducing the time losses of teams for waiting for the admittance of masters to work by changing the internal rules of operational switching – 9.2 conventional / year,</li> <li>compliance with the volumes and periodicity of maintenance of gas-insulated circuit breakers, busbar supports and bus systems - 16.18 conventional units / year,</li> <li>exclusion from the maintenance plan of works on diagnostics of RV and ARF, the performance of which does not lead to an increase in reliability and safety, and also to a decrease in costs – 31.75 conventional units / year,</li> <li>the possibility of reducing the labor costs of teams of PS services and diagnostics due to the priority dismantling of HPP and CS, not participating in the communication scheme - 19.4 conventional / year,</li> <li>reduction of ATP labor costs due to the application of a new type of enamel – 68.4 conventional units / year,</li> <li>Reduction of ATP labor costs due to the use of impact wrenches, USM – 8.9 cond. / year,</li> <li>the use of electronic inspection sheets on the tablets in order to reduce the labor costs of the power line brigade to inspect the line from the ground - 12.7 conventional persons / year;</li> <li>from "replicating" to all branches of PJSC FGC UES initiatives rejected according to the results of approbation in pilot EMPS.</li> </ul> <p>Based on the results of activities carried out in the Company since 2014 and aimed at increasing labor productivity, the growth in labor productivity in value terms for 2017 in relation to 2012 is 55.6% with a target of 30%.</p> <p>labor productivity index is included in the calculation method and evaluation of key performance indicators of top managers of PJSC FGC UES for 2015, approved by the Board of Directors dated 19.12.2014 №.243, in the procedure of calculation and assessment of key performance indicators of top managers of PJSC FGC UES For 2016, approved by the decision of the Board of Directors of PJSC FGC UES (Minutes No. 354 of 09.02.2017), as well as in the Methodology for Calculating and Evaluating the Performance of Key Performance Indicators of the Higher Managers of PJSC FGC UES for 2017, the Board of Directors of PJSC FGC UES (Minutes No. 370 of 13.06.2017).</p>



For more details on the dynamics of labor productivity in the Company, see the section «Strategic Report / Results of Activities in the Field of Sustainable Development».



For more details on the key performance indicators of the Company, see «Strategic Report / Market Review, Strategy and KPI / KPIs».

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No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders
3.	Instruction of the Government of the Russian Federation	From 14.07.2016 No. 51193p-P13	On the implementation of professional standards	<p>On 24.10.2016, at a meeting of the Board of Directors of PJSC FGC UES, the issue «On the introduction of professional standards in the activities of PJSC FGC UES» was considered and the instruction was given to the Chairman of the Management Board of PJSC FGC UES to provide preparation of materials for initiating the meetings at least once every six months. Of the Board of Directors of PJSC FGC UES with inclusion of the issue on the introduction of professional standards in the activities of the Company in the agenda, taking into account the provisions of Federal Law No. 122-FZ of 02.05.2015 «On Amending the Labor Code of Russia and articles 11 and 73 of the Federal Law «On Education in the Russian Federation» on the basis of approving and implementing the corresponding plans and recording the work on the implementation of professional standards in the assessment and promotion of management in the field of personnel management of PJSC FGC UES.</p> <p>31.05.2017 at the meeting of the Board of Directors of PJSC FGC UES considered the issue «On the introduction of professional standards in the activities of PJSC FGC UES and took note of the Report on the implementation of professional standards in the activities of PJSC FGC UES, according to which in the Company implemented the following activities aimed at the introduction of professional standards in activities:</p> <ul style="list-style-type: none"> <li>● an organizational and administrative document regulating the introduction of professional standards in the activities of PJSC FGC UES (the order of PJSC FGC UES No. 222 dated 01.07.2016 «On the establishment of a working group for the introduction of professional standards») was developed and approved;</li> <li>● an analysis of staff schedules of PJSC FGC UES for the identification of professions and positions for which professional standards should be applied.</li> </ul> <p>31.01.2018 at the meeting of the Board of Directors of PJSC FGC UES considered the issue «On the introduction of professional standards in the activities of PJSC FGC UES for the second half of 2017» and took note of the Report on the implementation of measures to implement professional standards in the activities of PJSC FGC EEC, in accordance with which the Company implemented the following measures aimed at the introduction of professional standards in the activities of the Company:</p> <ul style="list-style-type: none"> <li>● in accordance with the requirements of professional standards, and in compliance with the order of PJSC Rosseti No. 66 of 27.04.2017, a standard list of positions in the branches of PJSC FGC UES – MPS, EMPS (order of PJSC FGC UES No. 460 of 02.11.2017);</li> <li>● staff schedules of branches of PJSC FGC UES – MPS, EMPS are brought in line with the approved standard list of positions. Changes in the staffing of the Executive Office of PJSC FGC UES were not made due to the fact that the names of the positions of employees meet the requirements of professional standards;</li> <li>● a training event was conducted for the employees of PJSC FGC UES, taking part in the implementation and implementation of professional standards;</li> <li>● changes were made in the educational programs implemented by the Personnel Training Center, in accordance with the provisions of professional standards (the order of PJSC FGC UES No. 259r of 05.06.2017);</li> <li>● the conformity assessment of the employees of the executive office of PJSC FGC UES was checked to the requirements of professional standards that are mandatory for implementation (educational level, work experience, tolerances);</li> <li>● Participation in the methodological examination of the evaluation kit (CBS) for its use in the framework of an independent assessment of professional qualifications in the electric power industry.</li> </ul>

No.	Instruction	Registration data	Summary of the incoming document	Information about the performance of JSC FGC UES of the relevant instructions and orders
<b>Control of the Company's activities</b>				
1.	Instruction of the Government of the Russian Federation	No. ISH-P13-321 from 26.01.2015	About carrying out the annual analysis of results of creation of unified Treasury of joint-stock company, its subsidiaries and dependent organizations	<p>In 2017, the analysis of the current financial management system of PJSC FGC UES, including analysis:</p> <ul style="list-style-type: none"> <li>● mechanism for planning and monitoring the implementation of budgets;</li> <li>● the procedure for selecting credit institutions, banks, instruments for financing the activities of structural units;</li> <li>● documents regulating the organization of settlement and cash services.</li> </ul> <p>Based on the results of the analysis of the current financial management system for PJSC FGC UES, its subsidiaries and affiliates for the period from 15.09.2016 to 15.09.2017, a report was prepared "Schedule-creation report in state corporations and companies, the share of the Russian Federation in authorized capital which is more than 50 percent (hereinafter referred to as joint-stock companies), single treasuries for parent, subsidiaries and affiliated organizations", which is submitted to the Federal Financial Monitoring Service (letter No. TS-5276 of 15.09.2017) and to Interregional the operational management of the Federal Treasury (letter No. TC-5277 of 15.09.2017). In the reporting information, the Company notes a decrease in operating expenses, including expenses for servicing the "external debt" due to effective use of intra-group financing.</p> <p>In the period from 15.09.2016 to 15.09.2017 the volume of provided domestic financing amounted to 10.09 billion rubles. With an average difference in market rates for attracting external financing (for SDCs with better financial indicators) and domestic financing rates of 0.5%, the estimated amount of savings from using SDCs of domestic financing instead of external lending, according to the Company's estimates, was at least 50 million rubles. In year. In 2016, an inventory and optimization of settlement accounts of branches and SDCs was carried out, as well as work with banks to review the level of commissions. As a result, 34 settlement accounts were closed, which, together with the revision of the level of commissions for the salary project and currency operations, ensured a reduction in the cost of settlement and cash services of about 22 million rubles. per year (savings from the reduction of settlement accounts per year, savings due to the cancellation of the commission for servicing the "salary" project in the Company's branches, saving on conversion operations by canceling bank commissions and performing exchange-rate transactions).</p> <p>In March 2017, the Company approved a new Regulation on the placement of free liquidity and established updated limits on credit institutions. The Company has standardized the requirements for banks, in which it is possible to place money, principles and methodology for establishing and reviewing limits on banks.</p> <p>The list of banks where SDCs can be placed is limited and approved by the Boards of Directors of SDCs on the basis of rules approved by the Company. At the same time, more than 98% of liquidity is concentrated on PJSC FGC UES. In addition, the Company has developed and approved a standard form of payment and cash planning for SDCs. On the basis of the approved standard form, each of the SDCs has drawn up and approved its own regulations by the Board of Directors.</p>

## Appendix 6

# INFORMATION ON THE PARTICIPATION OF PJSC FGC UES IN COMMERCIAL AND NON-COMMERCIAL ORGANIZATIONS IN 2017

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## Regulatory documents and policies in the management of subsidiaries and dependent companies

Management of subsidiaries, as well as other business entities in which PJSC FGC UES participates, is governed by the following internal documents of the Company:

- Regulations on the management of subsidiaries and affiliates of PJSC FGC UES, as well as other business entities in which PJSC FGC UES participates;
- Standard for the Formation and Submission of Final Instructions to Representatives of PJSC FGC UES on the agendas of the General Meetings of Shareholders (Participants) and Meetings of Boards of Directors (Supervisory Boards) of the companies in which PJSC FGC UES participates;
- The methodology for calculating and assessing the performance of KPI by the subsidiaries and affiliates of PJSC FGC UES;
- The order of business planning of subsidiaries and affiliates PJSC FGC UES;
- Provision on ensuring financial stability of the subsidiaries of PJSC FGC UES, as well as other companies in which PJSC FGC UES participates;

- The order of interaction between the departments of the executive office of PJSC FGC UES and the subsidiaries and affiliated companies of PJSC FGC UES regarding the collection of information and verification of the data received for the calculation and evaluation of the performance of KPIs;
- by the order of PJSC FGC UES «On approval of standards and model provisions for management of subsidiaries and dependent companies»;
- by the order of PJSC FGC UES «On the organization of the work of the representatives of PJSC FGC UES in the Boards of Directors and committees of organizations that are not subsidiaries PJSC FGC UES», as well as other organizational and administrative documents of PJSC FGC UES. The key document regulating the management of subsidiaries and dependent companies is the Regulation on the Management of Subsidiary and Associated Companies PJSC FGC UES, as well as other business entities in which PJSC FGC UES participates.

## The management system of subsidiaries and affiliated companies PJSC FGC UES, the division of responsibilities and powers between the management bodies of the Company and its subsidiaries and dependent companies

The main forms of interaction between the Company and its subsidiaries and affiliates are:

- consideration by the Board of Directors of the PJSC FGC UES of issues on determining the position of the Company's representatives on draft resolutions of the agendas of the General Meetings of Shareholders (participants) and meetings of the Boards (Supervisory Boards) of directors of subsidiaries and affiliates;
- participation in the preparation of proposals and the adoption of decisions by the management bodies of

- subsidiaries and dependent companies through the Company's representatives at the General Meeting of Shareholders (participants) and at meetings of the Boards of Directors (Supervisory Boards) of subsidiaries and affiliates;
- consideration by the Management Board of the PJSC FGC UES of the issues of interaction of the Company with its subsidiaries and dependent companies in accordance with its competence, as defined by the Charter PJSC FGC UES.

## Information on the participation of PJSC FGC UES in commercial organizations as of 31.12.2017

No.	Abbreviated name of the company (1)	Main activity	Purpose of participation	Form of participation	Share of PJSC FGC UES in the authorized capital of the Company of 31.12.2017	Financial parameters of participation (book value of a share) as of December 31, 2017, thousand RUB	Financial indicators for 2017	The amount of dividends received in 2017 for the PJSC FGC UES shares of the Company, thousand RUB	The Company's expenses for charity and sponsorship in 2017, thousand RUB	
						Revenue, thousand RUB	Net profit, thousand RUB			
<b>1. Information on subsidiaries with a share in the authorized capital of PJSC FGC UES from 50 percent + 1 share to 100 percent</b>										
<b>1.1. Subsidiary companies</b>										
1	JSC MUS Energetiki	Organization, development and operation of grids in the fuel and energy sector	Support for the core business of PJSC FGC UES	Ownership of the Company's shares	100.00%	19,997	1,044,327	59,921	12,283	0
2	JSC Scientific and Technical Center of FGC UES	Conducting research, development, design and survey work and providing expert services in the field of electricity	Support for the core business of PJSC FGC UES	Ownership of the Company's shares	100.00%	2,249,322	3,219,004	62,609	1,418	0
3	JSC CIUS EES	Project management in the field of construction (including the implementation of the functions of the customer-builder, the provision of engineering services for the construction, reconstruction and technical re-equipment of technologically complex facilities)	Support for the core business of PJSC FGC UES	Ownership of the Company's shares	100.00%	833,000	25,078,908	286,229	0	0
4	JSC ESSK UES	Activities on the organization and conduct of procurement procedures for the selection of suppliers, contractors and executors	Support for the core business of PJSC FGC UES	Ownership of the Company's shares	100.00%	162,290	176,121	15,956	69,150 (2)	0
5	JSC Electroservice	Diagnostics, maintenance, repair and emergency repair works of grids and other objects of the electric grid economy of the UNEG	Support for the core business of PJSC FGC UES	Ownership of the Company's shares	100.00%	953,804	2,306,110	65,088	0	0
6	Index Energetiki - FGC UES LLC	Operations with securities	The share in the authorized capital of the Company was obtained in accordance with the separation balance sheet of the JSC RAO UES of Russia upon the merger of JSC RAO UES of Russia with JSC FGC UES during the reorganization of the companies 01.07.2008	Ownership of shares in the authorized capital of the Company	100.00%	0	21,521,994	1,015,776	0	0
7	FGC – Asset Management LLC	Operations with securities	Accumulation of assets (securities, stakes in the authorized capitals of business entities) for PJSC FGC UES	Ownership of shares in the authorized capital of the Company	100%	2,577,411	184,057	-359,504	0	0
8	JSC Tomsk Trunk Grids	Provision of services for transmission and distribution of electrical energy	Consolidation and management of UNEG facilities	Ownership of the Company's shares	77.9%	1,367,627	191,119	2,497	2,758	0
9	JSC Kuban Trunk Grids	Provision of services for transmission and distribution of electrical energy	Consolidation and management of UNEG facilities	Ownership of the Company's shares	75.258%	449,767	459,845	11,015	0	0

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INFORMATION ON THE PARTICIPATION OF PJSC FGC UES IN COMMERCIAL AND NON-COMMERCIAL ORGANISATIONS IN 2017

## Appendix 6

INFORMATION ON THE PARTICIPATION OF PJSC FGC UES IN COMMERCIAL AND NON-COMMERCIAL ORGANISATIONS IN 2017

No.	Abbreviated name of the company (1)	Main activity	Purpose of participation	Form of participation	Share of PJSC FGC UES in the authorized capital of the Company as of 31.12.2017	Financial parameters of participation (book value of a share) as of December 31, 2017, thousand RUB	Financial indicators for 2017		The amount of dividends received in 2017 for the PJSC FGC UES shares of the Company, thousand RUB	The Company's expenses for charity and sponsorship in 2017, thousand RUB
							Revenue, thousand RUB	Net profit, thousand RUB		
<b>1.2. Non-core subsidiaries</b>										
10	JSC Mobile Gas Turbine Electric Power Plants	Production of electrical energy	The shares were received in accordance with the separation balance sheet of JSC RAO UES of Russia upon the merger of JSC RAO UES of Russia to JSC FGC UES during the reorganization of companies 01.07.2008	Ownership of the Company's shares	100.00%	7,767,203	8,347,284	365,797	0	0
11	JSC Chitatekhn-ergo	Communication services, design and operation of communication lines	The shares were acquired through the reorganization of JSC "Chita Trunk Grids" - the owner of 100% of the Company's shares - by merging with JSC FGC UES 01.07.2008	Ownership of the Company's shares	100.00%	4,092	518,727	95,590	0	0
12	JSC APBE	Development of forecasts in the electric power industry	The shares were received in accordance with the separation balance sheet upon the merger of JSC RAO UES of Russia to JSC FGC UES during the reorganization of companies 01.07.2008	Ownership of the Company's shares	100.00%	0	3,390	-333,716	0	0
13	IT Energy Service LLC	Software development, consulting on computer hardware, activities on the creation and use of databases and information resources	The shares were received in accordance with the separation balance sheet of JSC RAO UES of Russia upon the merger of JSC RAO UES of Russia with JSC FGC UES during the reorganization of companies 01.07.2008	Ownership of shares in the authorized capital of the Company	79.999%	378,540	691,030	1,151	0	0
14	JSC Nurenergo	Supply (sale) of electricity and heat at the set tariffs in accordance with the dispatch schedules of electrical and thermal loads	Shares of the additional issue were received on account of repayment of loans previously issued to the Company. Decision of the Board of Directors of JSC FGC UES of 20.05.2004 (Minutes No. 15)	Ownership of the Company's shares	76.9996%	0	(3)	(3)	0	0
<b>2. Information on affiliated companies with a share of PJSC FGC UES in the authorized capital from 20 to 50 percent</b>										
<b>2.1. Specialized affiliated companies</b>										
15	JSIPS SakRusenergo	Electricity transmission services	Ensuring the development of the core business of PJSC FGC UES	Ownership of the Company's shares	50.00%	763,227	460,752	63,563	0	(4)
<b>2.2. Non-core affiliated companies</b>										
16	CJSC Severostokenergo	Production and sale of electric and heat energy	The shares were received in accordance with the separation balance sheet of JSC RAO UES of Russia upon the merger of JSC RAO UES of Russia to JSC FGC UES during the reorganization of companies 01.07.2008	Ownership of the Company's shares	49.00%	0	0	-95	0	0

No.	Abbreviated name of the company (1)	Main activity	Purpose of participation	Form of participation	Share of PJSC FGC UES in the authorized capital of the Company as of 31.12.2017	Financial parameters of participation (book value of a share) as of December 31, 2017, thousand RUB	Financial indicators for 2017		The amount of dividends received in 2017 for the PJSC FGC UES shares of the Company, thousand RUB	The Company's expenses for charity and sponsorship in 2017, thousand RUB								
							Revenue, thousand RUB	Net profit, thousand RUB										
<b>3. Information on business entities with a share of PJSC FGC UES in the authorized capital of 2 to 20 percent</b>																		
<b>3.1. Specialised companies</b>																		
18	PJSC Inter RAO	Producing of electrical and heat energy, activities related to the supply (sale) of electricity and heat energy	Financial investments	Ownership of the Company's shares	18.569%	65,049,904	40,975,442	15,668,766	1,876,951	(4)								
19	JSC ACRA	Rating activity	Financial investments	Ownership of the Company's shares	3.704%	109,668	(3)	(3)	0	(4)								
<b>3.1. Non-core companies</b>																		
20	CJSC EnergoRynok	Publishing	Financial investments	Ownership of the Company's shares	8.50%	1	(3)	(3)	0	(4)								
<b>4. Information on economic entities with a share of PJSC FGC UES in the authorized capital of less than 2 percent</b>																		
<b>4.1. Specialized companies</b>																		
21	JSC Stend	Installation, commissioning of gas turbine engines GTD-110 and their modifications. Production and sale of electrical energy	Financial investments	Ownership of the Company's shares	0.826%	1,519	(3)	(3)	0	(4)								
22	PJSC Rosseti	Management activities of holding companies	Financial investments	Ownership of the Company's shares	0.689%	1,377,403	26,510,403	-13,242,593	0	(4)								
<b>4.2. Non-core companies</b>																		
23	JSC Stend	Installation, commissioning of gas turbine engines GTD-110 and their modifications. Production and sale of electrical energy	Financial investments	Ownership of the Company's shares	0.826%	1,519	(3)	(3)	0	(4)								
24	JSC DESP	Complex designing in power engineering, execution of architectural supervision over construction	Support for the core business of PJSC FGC UES	Ownership of the Company's shares	0.0048% (1 share) (5)	0	8,827	-122,051	0	0								
25	JSC NonGovernmental Pension Fund NPF Elektroenergetiki	Non-state pension provision, compulsory pension insurance	Financial investments	Ownership of the Company's shares	0.109862%	132	(3)	(3)	0	(4)								

(1) - Information on the names of companies are given as of December 31, 2017.

(2) - Including dividends on the results of the past years 50 000 thousand rub.

(3) - The financial (accounting) statements of the economic entity are not presented in PJSC FGC UES.

(4) - Data of the Company in PJSC FGC UES as of March 12, 2013 is not presented.

(5) - The remaining shares are held by JSC SCIENTIFIC AND TECHNICAL CENTER OF FGC UES, 100% affiliated company PJSC FGC UES.

## Appendix 6

INFORMATION ON THE PARTICIPATION OF PJSC FGC UES IN COMMERCIAL AND NON-COMMERCIAL ORGANISATIONS IN 2017

## Appendix 6

INFORMATION ON THE PARTICIPATION OF PJSC FGC UES IN COMMERCIAL AND NON-COMMERCIAL ORGANISATIONS IN 2017

### Information on the participation of PJSC FGC UES in non-profit organizations as of 31.12.2017

No	Name of NPO	Basic information about the organization (types of activity)	Term of participation	Purpose of participation	Financial parameters of participation (types of payments / amount, thousand RUB)
1.	Russian National Association of Electricity Sector Employers (RaEl)	Representation of the interests of employers in the electric power industry, protection of their rights public authorities, local self-government bodies, in relations with trade unions. Representing the interests of employers in the electric power industry in negotiating and concluding sectoral tariff agreements (STA) and other agreements regulating social and labor and related relations. Implementation of activities aimed at providing comprehensive assistance to energy veterans.	Since 2004 to the present	Participation in the preparation of STA and its use in the preparation of regulatory documents PJSC FGC UES. Guaranteed right to use STA in tariff regulation. Receiving from RaEl information-consultative and other assistance in matters of social and labor and related relations. Implementation of activities aimed at providing comprehensive assistance to energy veterans.	Membership fee per year – 2,450.00.
2.	Non-profit partnership Council of Energy Veterans	Implementation of activities aimed at providing comprehensive assistance to energy veterans.	Since 2008 to the present	Preservation of historical memory and traditions in the electric power industry. Use of professional knowledge and experience of veterans in developing solutions to ensure reliable operation and development of the power grid complex. Material support of veterans.	Membership fee per year – 20,000.00.
3.	Non-profit partnership Corporate Educational and Scientific Center of Unified Energy System	Educational and research activities	Since 2007 to the present	Development of public-private partnership in the field of personnel training in the electric power industry.	Membership fee per year – 950.00.
4.	Association of construction organizations Self-regulating organization Inzhspetsstroy-Elektrosetstroy	Association of construction Self-regulating organization Inzhspetsstroy-Elektrosetstroy is a non-profit corporate organization established to coordinate business activities, to represent and protect common, including professional interests, for the achievement of socially useful purposes, as well as other purposes that are not contrary to law and having non-profit nature, and uniting legal entities and individual entrepreneurs, carrying out their activities in the field of construction, reconstruction, overhaul objects of capital construction.	Since 01.01.2017 to 30.06.2017	Compliance with the requirements of the legislation of the Russian Federation. As part of the Company's investment activity, the branches of PJSC FGC UES – MPS perform construction and installation operations in-house. These activities are regulated by federal statutes – Town-Planning Code of the Russian Federation No. 190-FZ of 29 December 2004.	Membership fee for I and II qr. of 2017 – 96.00.
4.1.	Self-regulating organization Associations of construction organizations Supporting organizations of the construction industry (SRO ACO SOCI)*	Association of Construction Self-regulating organization Inzhspetsstroy-Elektrosetstroy is a non-profit corporate organization established to coordinate business activities, to represent and protect common, including professional interests, for the achievement of socially useful purposes, as well as other purposes that are not contrary to law and having non-profit nature, and uniting legal entities and individual entrepreneurs, carrying out their activities in the field of construction, reconstruction, overhaul objects of capital construction.	Since 30.06.2017 to the present	Compliance with the requirements of the legislation of the Russian Federation. As part of the Company's investment activity, the branches of PJSC FGC UES – MPS perform construction and installation operations in-house. These activities are regulated by federal statutes – Town-Planning Code of the Russian Federation No. 190-FL of 29.12.2004.	Since 30.06.2017 to 31.12.2017 – 555.00 including: <ul style="list-style-type: none"><li>● compensation fund for compensation of damage - 480.0 (transfer when transferring from one SRO to another SRO on a territorial basis, according to clause 13 of Article 6 of the Federal Law of July 3, 2016 No. 372-FL);</li><li>● additional payment to the Compensation Fund for compensation of damage - 20.00;</li><li>● Membership fee for III and IV qr. of 2017 - 50.00;</li><li>● target membership fee for payment of the mandatory annual membership fee SRO ASO SOCI to the National Association of Builders - 5.00.</li></ul>
5.	Non-profit Partnership Market Council	In accordance with clause 1, article 33 of the Federal Law On electric power industry No. 35-FZ of 26 March 2003, Market Council is created to maintain the functioning of a commercial infrastructure of the market, provide effective interconnection of wholesale and retail markets, creation of favourable conditions for attracting investments to power industry and availability of a common position of wholesale and retail markets' participants in the course of development of regulatory documents for power industry, organization on the basis of self-regulation of the effective wholesale and retail trade of electricity, power, and other products allowed for circulation on the wholesale and retail markets, in order to ensure the energy security of the Russian Federation, unity of economic area, freedom of economic activities and competition on the wholesale and retail markets, strike a balance of producers and buyers of electricity and power, meeting public needs for reliable and sustainable electricity supply.	Since 2008 to the present	Provision of electricity and power in order to compensate losses in UNEG grids in accordance with the Federal Law On electric power industry No. 35-FL of 26 March 2003.	Membership fees in the property of Association NP Market Council: 2017 – 1,709.00.

\* - transition on a territorial basis in accordance with the Federal Law of 03.07.2016 No. 372-FL «On Amendments to the Urban Development Code of the Russian Federation and certain legislative acts of the Russian Federation»

No	Name of NPO	Basic information about the organization (types of activity)	Term of participation	Purpose of participation	Financial parameters of participation (types of payments / amount, thousand RUB)
6.	Non-Profit Partnership Association of Land and Real Estate Owners and Investors (NP LROI)	LROI is an association that unites companies that own land and real estate, as well as investing in real estate in Russia. The members of the Association are institutional investors operating in the real estate market and other enterprises owning and managing profitable real estate, as well as carrying out financial investments in real estate, and other companies serving the needs of such enterprises.	Since 2004 to the present	Participants of NP LROI are PJSC FGC UES, PJSC Gazprom, PJSC MMC Norilsk Nickel, PJSC Rosneft, PJSC HydroOGK, PJSC RDZ, and others. NP ASIN in the interests of its participants carries out activities to prepare and amend the legislative acts of the Russian Federation in the field of land and property relations, represent the interests of the members of NP ASIN before municipal and federal authorities and responsible persons that determine the state policy in the market land and investment in real estate, together with its members, participates in public events and actions to develop the real estate and land market.	Membership fee per year – 300.00.
7.	The Russian National Committee of the International Council on High-voltage Large Electric Systems	International Council on High-voltage Large Electric Systems – CIGRE (Conseil International des Grands Réseaux Électriques – CIGRE) is the biggest international non-profit non-governmental and non-profit organization in the field of power industry. CIGRE was founded in France in 1921 and today it is one of the most reputable scientific and technical associations that unites scientists and energy specialists from around the world and has a strong influence on the development of the industry's strategy in many countries. CIGRE Central Office is in Paris. At present Klaus Froehlich (Switzerland) is the President of CIGRE. Since May 2014, Philippe Adam (France) has been appointed as the new Secretary General. According to its Articles of Association, the major goal of CIGRE is coordination of research, exchange experience and scientific and research information related functioning of power systems. Design, construction, and maintenance of HV equipment are at the core of CIGRE's mission, as well as planning and operation of power systems, development and implementation of new technology for information collection and processing and management systems. The activities of CIGRE form strategic vision on the power system development for the energy policy and are closely connected with the scientific research and development, defining the key directions in the integration process. At present CIGRE membership in more than 1,000 organisations and 7,000 experts involved with all areas of power industry. The main organizational principle of CIGRE is operating via national committees that unite the industry's companies and institutions of their countries or geographic region. At present CIGRE counts members in 95 countries.	Since 2005 to the present	<ul style="list-style-type: none"><li>● Learning new practices and best technologies for managing power systems and producing electric equipment for the purpose of implementing import substitution programmes adopted at PJSC FGC UES;</li><li>● timely identification of risks and threats based on the international experience, facilitating the identification of ways to mitigate them, which includes attracting world's leading specialists and exchange of experience with partners at the international sites;</li><li>● improving the quality of long-term planning of scientific and technical activities of PJSC FGC UES by means of analysing international experience and developing analytical models and creating favourable conditions for using state-of-the-art international developments and technologies for the benefit of PJSC FGC UES and the power grid complex of the Russian Federation;</li><li>● to increase the efficiency of operating activities PJSC FGC UES, within the framework of CIGRE, interacts with foreign electric grid companies in terms of sharing experience in operation of electrical equipment.</li></ul>	40,000 euro, VAT is not imposed, annually.
8.	SRO Non-profit Partnership PeterburgEnergoAudit	SRO Non-profit Partnership PeterburgEnergoAudit controls the members' activities in relation to compliance with the requirements of Russian legislation, as well as internal documents of SRO by means of scheduled and unscheduled inspections. The Supervisory Committee of SRO Non-profit Partnership PeterburgEnergoAudit is the body that controls the compliance of SRO members with the requirements of current legislation and internal documents of SRO. Scheduled inspections of activities of each member of SRO Non-profit Partnership PeterburgEnergoAudit are performed no less than once a year in accordance with the calendar of scheduled inspections. The bases for unscheduled inspections of activities of a member of SRO Non-profit Partnership PeterburgEnergoAudit are: <ul style="list-style-type: none"><li>● inquiry of the federal bodies of state power, bodies of state power of constituents of the Russian Federation or bodies of local authorities;</li><li>● a person's complaint due to the actions (inactions) of a SRO member, except for anonymous complaints;</li><li>● resolution of management bodies of SRO and (or) SRO special bodies. In case of violation by SRO member of the requirements of SRO standards and rules, conditions for membership in SRO, the inspection materials shall be settled by the Disciplinary Committee of SRO Non-profit Partnership PeterburgEnergoAudit to consider cases of taking disciplinary action against SRO member.</li></ul>	Since 2011 to the present	Possibility of conducting mandatory energy inspections of PJSC FGC UES using its own resources partially or completely. The measuring stage of the mandatory energy inspection of PJSC FGC UES in 2017 is performed using the staff of the branches only, which allowed to reduce the inspection costs.	Membership fee is 18.00 (with VAT), quarterly.

## Appendix 6

INFORMATION ON THE PARTICIPATION OF PJSC FGC UES IN COMMERCIAL AND NON-COMMERCIAL ORGANISATIONS IN 2017

No	Name of NPO	Basic information about the organization (types of activity)	Term of participation	Purpose of participation	Financial parameters of participation (types of payments / amount, thousand RUB)
9.	Non-profit partnership Scientific and Technical Council of Unified Energy System	HNon-profit Partnership Scientific and Technical Council of Unified Energy System was established on 20.05.2008 after winding up of JSC RAO UES of Russia and taking a decision to keep Scientific and Technical Council of Unified Energy System as a separate legal identity (minutes of the Board of Directors of JSC RAO UES of Russia No. 273 of 29.02.2008).  In accordance with the establishing minutes of Non-profit Partnership Scientific and Technical Council of Unified Energy System, PJSC F6C UES is a member of the Supervisory Board of the Partnership, which is a permanently acting collegial management body of the Partnership and performs overall management of the Partnership's activities.  Along with PJSC F6C UES, Non-profit Partnership Scientific and Technical Council of Unified Energy System includes the following key enterprises of the industry: JSC SO UES, PJSC Rosseti, PJSC RusHydro, PJSC Inter RAO.  The areas of the Partnership's activities include review and decision-making on the most significant issues involving operations of UES and its entities: <ul style="list-style-type: none"><li>● expert review of various projects and works,</li><li>● analysis of the UES development concept and strategy,</li><li>● new engineering and technology,</li><li>● priority development areas of the industry,</li><li>● R&amp;D programmes,</li><li>● technical regulation and standardisation,</li><li>● publishing and other activities.</li></ul>	Since 2008 to the present	Participation of PJSC FGC UES in consideration of issues relevant to the industry and the Company regarding engineering (technology) development regulatory and technical documentation and policy documents on development.  Formation of scientifically-grounded technical policy, analytical, expert support of projects, analysis of scientific and technical, innovative activities of PJSC FGC UES, identification of current trends in the development of the power grid complex is necessary for the formation of targeted development programs for the PJSC FGC UES.	Membership fee per year 2,000.00 (not subject to VAT).
10.	Global Energy Association	The Global Energy Association is a highly regarded and renowned organisation. Our key focus support of research and innovations projects in the field of global energy and managing an international award The Global Energy Prize. The Global Energy Association defines the world's leading researchers deserving the award, the most interesting and useful projects, surveys, and inventions, functions with the support from the leading Russian energy companies: PJSC Gazprom, JSC Surgutneftegas, and PJSC FGC UES. The Global Energy Prize was established in 2002 at the initiative of a group of famous Russian scientists and supported by the President of Russia. In November 2002, at Russia-EU summit Vladimir Putin, the President of the Russian Federation, announced on inception of a new scientific award. The new international prize became one of the most famous and prestigious awards of its kind very quickly; sometimes it is unofficially called the "Energy Nobel" in mass media	Since 2002 to the present	Support research and innovation in the energy sector.	Membership fee per year 58,200.00 (not subject to VAT).

## Appendix 7

INFORMATION ON CONCLUDED PURCHASE AGREEMENTS OF SHARES, STOCKS, EQUITY INTEREST OF BUSINESS PARTNERSHIP

## Appendix 7

### INFORMATION ON SIGNED SHARE PURCHASE AGREEMENTS (STOCKS, SHARES, EQUITY INTERESTS) OF BUSINESS PARTNERSHIPS AND BUSINESS ENTITIES INCLUDING INFORMATION ON THE PARTIES, SUBJECT, PRICE, AND OTHER TERMS OF THE AGREEMENTS

In 2017, FGC UES entered into the following alienation agreements for shares/equity interests owned by FGC UES:

**On 25.12.2017, PJSC FGC UES (Buyer) and Neft-Aktiv LLC (Seller) entered into share purchase agreement (hereinafter – Agreement) under the following conditions:**

<b>Subject of the Agreement</b>	The Seller undertakes to transfer to the ownership of the Buyer, and the Buyer undertakes to accept and pay, in the order and under the conditions provided for by the Contract, the following securities
<b>Issuer 1</b>	Open Joint Stock Company «Kuban Trunk Grids» (abbreviated name - JSC «Kuban Trunk Grids») TIN 2312130841 OGRN (Principal State Registration Number) 1062309023611
<b>Issuer's 1 address</b>	Russian Federation, Krasnodar, st. Tramvaynaya, 5
<b>Type, category, form of shares</b>	ordinary registered uncertificated shares
<b>State registration number of the shares issue</b>	1-01-55247-E of 21.11.2006
<b>Amount of shares (pieces)</b>	4,692,191 (four million six hundred ninety-two thousand one hundred and ninety-one)
<b>Nominal value of the Issuer's 1 share</b>	50 (fifty) rubles 00 kopecks
<b>Share fraction in the Issuer's 1 registered capital</b>	26.258193%
<b>Shares value</b>	315,628,000 (three hundred fifteen million six hundred twenty eight thousand) rubles 00 kopecks, free of VAT
<b>Issuer 2</b>	Open joint-stock company Tomsk Trunk Grids (abbreviated name - OJSC Tomsk Trunk Grids) TIN 7017114665 OGRN (Principal State Registration Number) 1057000127898
<b>Issuer's 2 address</b>	634041, Tomsk Region, Tomsk, Kirova Ave., 36
<b>Type, category, form of shares</b>	ordinary registered uncertificated shares and preference registered uncertificated shares of type A
<b>State registration number of the shares issue</b>	1-01-55087-E of 28.06.2005; 2-01-55087-E of 28.06.2005
<b>Amount of shares (pieces)</b>	979,267,684 (nine hundred and seventy-nine million two hundred and sixty-seven thousand six hundred and eighty-four) ordinary registered shares and 158,213,911 (one hundred and fifty-eight million two hundred thirteen thousand nine hundred eleven) of preference registered shares of type A
<b>Nominal value of the Issuer's 1 share</b>	0.27378 (nought point two seven three seven eight) rubles
<b>Share fraction in the Issuer's 2 registered capital</b>	25.875327%
<b>Shares value</b>	501,203,000 (five hundred and one million two hundred three thousand) rubles 00 kopecks, free of VAT

**On 20.12.2017, PJSC FGC UES (Lender) and LLC Index of Energy – FGC UES (Debtor) concluded the compensation Agreement (transfer of shares in the authorised capital of LLC Index of Energy of FGC UES) (hereinafter – Agreement) on the following terms:**

<b>Subject of the Agreement</b>	The debtor in respect of partial performance of obligations for payment of bills, named in Annex 1 to the Agreement, grants the Lender compensation in the order and under the conditions specified in the Agreement
<b>Information on the obligation of the Debtor, on account of partial execution of which is granted compensation</b>	<p>The obligation to pay the principal promissory note amounting to 40,420,645,179.15 (forty billion four hundred twenty million six hundred forty-five thousand one hundred and seventy-nine) rubles 15 kopecks</p> <p>Date of drafting of promissory notes: 23.04.2012</p> <p>Due date on promissory notes: at sight</p> <p>From the moment of granting the compensation, the debt of the Debtor has partially ceased in the part of the amount of the principal promissory note in the amount of 2,740,194,592 (two billion seven hundred forty million one hundred and ninety four thousand five hundred ninety two) rubles</p>
<b>Information on the economic company, the share in the authorised capital of which is transferred under the Agreement</b>	Limited Liability Company FGC-Asset Management (abbreviated name – FGC-Asset Management LLC) TIN 7728320231 OGRN (Principal State Registration Number) 5157746054153
<b>Issuer's address</b>	Moscow, Academician Chelomey street, 5A
<b>The amount of a share in the authorised capital transferred under the Agreement as a compensation</b>	99.99% (ninety-nine point ninety-nine hundredths of a percent)
<b>Nominal value of the Issuer's share</b>	801,983,000 (eight hundred one million nine hundred and eighty-three thousand) rubles
<b>The value of the share transferred as compensation</b>	On the basis of the report of the appraiser of LLC SRG-Ocenka No. 29-AA-YA / 17 dated 01.03.2017, the cost of the transferred compensation is 2,740,194,592 (two billion seven hundred forty million one hundred ninety four thousand five hundred ninety-two) rubles

**On 28.12.2017 PJSC FGC UES (Lender) and LLC Index of Energy – FGC UES (Debtor) entered into an Agreement on compensation (shares) No. 410526 (hereinafter – Agreement) on the following terms:**

<b>Subject of the Agreement</b>	The Debtor in respect of partial performance of obligations for payment of bills, named in Annex 1 to the Agreement, grants the Lender compensation in the manner and under the conditions specified in the Agreement
<b>Information on the obligation of the Debtor, on account of partial execution of which is granted compensation</b>	<p>The obligation to pay the amount of the principal promissory note in the amount of 37,680,450,587.15 (thirty seven billion six hundred and eighty million four hundred and fifty thousand five hundred and eighty seven) rubles 15 kopecks.</p> <p>Date of drafting of promissory notes: 23.04.2012</p> <p>Due date on promissory notes: at sight</p> <p>From the moment of granting the compensation, the Debtor's obligation has partially ceased with respect to the amount of the principal promissory note in the amount of 18,079,452,482 (eighteen billion seventy-nine million four hundred fifty two thousand and four hundred and eighty-two) rubles</p>
<b>Information on the compensation given under the Agreement</b>	Shares of the Issuer-1, the Issuer-2 with a total value of 6,227,268,233.13 (six billion two hundred twenty-seven million sixty-eight thousand two hundred and thirty-three) rubles 13 kopecks
<b>Issuer 1</b>	Public Joint Stock Company Inter RAO UES (abbreviated name - PJSC Inter RAO) OGRN (Principal State Registration Number) 1022302933630 TIN 2320109650
<b>Issuer's 1 address</b>	Russian Federation, 119435, Moscow, st. Big Pirogovskaya, 27, building 2
<b>Type, category (type), form of shares of the Issuer 1, transferred as compensation under the Agreement</b>	ordinary registered uncertificated shares

<b>State registration number of the shares issue of the Issuer 1</b>	1-04-33493-E of 31.12.2014
<b>Nominal value of one share of the Issuer 1</b>	2,8097 (two) rubles 81 kopecks
<b>Number of shares of the Issuer 1, transferred as compensation (pieces)</b>	4,691,861,642.96 (four billion six hundred ninety one million eight hundred sixty-one thousand six hundred and forty-two whole and ninety-six hundredths) 96 kopecks
<b>The value of the Issuer's shares 1, transferred as compensation under the Agreement</b>	5,587,068,844.43 (five billion five hundred eighty seven million sixty eight thousand eight hundred four hundred and forty) rubles 43 kopecks
<b>The amount of a share in the authorised capital of the Issuer 1, transferred under the Agreement as a compensation</b>	4.49 %
<b>Issuer 2</b>	Public Joint Stock Company Russian Networks (abbreviated name - PJSC Rosseti) OGRN (Principal State Registration Number) 1087760000019 TIN 7728662669
<b>Issuer's 2 address</b>	121353, Moscow, st. Belovezhskaya, 4
<b>Type, category (type), form of shares of the Issuer 2, transferred as compensation under the Agreement</b>	<input checked="" type="radio"/> ordinary registered uncertificated shares and <input checked="" type="radio"/> preference registered uncertificated shares
<b>State registration number of the shares issue of the Issuer 2</b>	<input checked="" type="radio"/> 1-01-55385-E or 29.07.2008, 1-01-55385-E-001D or 06.05.2010, 1-01-55385- E-002D or 10.11.2011, 1-01-55385-E-003D or 03.12.2012, 1-01-55385- E or 04.06.2013 and <input checked="" type="radio"/> 2-01-55385-E or 29.07.2008
<b>Nominal value of one share of the Issuer 2</b>	1 (one) ruble
<b>Number of shares of the Issuer 2, transferred as compensation (pieces)</b>	<input checked="" type="radio"/> 1,080,646,965 (one billion eighty million six hundred forty six thousand nine hundred and sixty five) ordinary registered uncertificated shares and <input checked="" type="radio"/> - 303,259,010 (three hundred three million two hundred fifty nine thousand ten) pieces of preference registered uncertificated shares
<b>The value of ordinary and preferred shares of the Issuer 2, transferred as compensation under the Agreement.</b>	640,199,388.69 (six hundred forty million one hundred and ninety-nine thousand three hundred and eighty-eight) rubles 69 kopecks
<b>The amount of the interest in the authorised capital of the Issuer 2, transferred under the Agreement as a compensation</b>	0.69 %

## Appendix 8

### NON-CORE ASSETS DISPOSAL IN 2017

The program of alienation of non-core assets of PJSC FGC UES and PJSC FGC UES (further referred to as the Exclusion Alienation Program) was developed on the basis of directives of the Government of the Russian Federation No. 4863p-P13 of 07.07.2016 and approved by the decision of the Board of Directors of PJSC FGC UES of 26.12.2016<sup>1</sup>.

Within the framework of the development of the Alienation Program, during the reporting year, in order to improve the efficiency of disposing of non-core assets of PJSC FGC UES, the documents:

#### The key corporate principles for Non-Core Assets Disposal Programme implementation shall be as follows:

- **availability** – providing public availability of the information on methods and approaches applied to identify non-core assets from the assets portfolio;
- **consistency** – performing an ongoing analysis of assets portfolio to identify the non-core assets;
- **transparency** – providing open and public procedures for the non-core assets disposal and disclosing information on the sale of non-core assets in the way available to potential buyers;
- **efficiency** – selecting the disposal method for each non-core asset based on, among other things, the sale benefit analysis in an appropriate way;

- Regulations on the organisation (order) of disposal of non-core assets of PJSC FGC UES<sup>2</sup>,
- The procedure for conducting competitive procedures (bidding) for the sale of non-core assets of PJSC FGC UES<sup>3</sup>.

The updated Register (plan of sale) of non-core assets of PJSC FGC UES, approved by the decision of the Board of Directors of PJSC FGC UES of 28.06.2017 .

#### The Company's targets for non-core assets disposal:

- optimizing the composition and structure of assets;
- raising the efficiency of assets utilization;
- reducing the costs for non-core assets maintenance;
- raising the extra sources of funds;

- improving the competitiveness and investment attractiveness of the Company;
- adding the value.

#### The main tasks of the Company in managing non-core assets:

- analysing the assets portfolio to identify the non-core assets;
- developing and keeping the Register of Non-Core Assets (NCA Register);
- identifying the non-core assets subject to alienation and making the resolutions on the appropriate method of disposal per each non-core asset;
- arranging and holding the activities on non-core assets disposal in accordance with the approved Register (disposal plan) of non-core assets;
- supervising the implementation of the resolutions on non-core assets disposal and submitting the progress reports of the Programme implementation.

#### Information on the sale of non-core assets of PJSC FGC UES for 2017

Asset Name (according to the NCA Register)	Identification number (if applicable)	Balance sheet line, where the asset was reflected on the reporting date preceding the date of disposal	Accounting entries (including itemisation) that reflect income and expenditure from disposal of asset	Asset book value, RUB thousand	Actual disposal proceeds, RUB thousand	Difference between actual disposal proceeds and asset book value, RUB thousand	Cause for the difference between actual disposal proceeds and asset book value
1. 220 kV Substation Bezhetsk		1132	9120034102	67.64	-	-67.64	Transfer to municipal ownership
1.1 Off-site water pipe (from a water meter unit at Substation Bezhetsk to the SBTU building with a tap to the residential building)	0211-2-12-09513	1132	9120034102	56.67	-	-56.67	Transfer to municipal ownership
1.2 Plumbing with a water-measuring unit of 220 kV substation (from the water measuring unit of Substation Bezhetsk to the connection point on the territory of the plant "SOM")	0211-2-12-09515	1132	9120034102	10.93	-	-10.93	Transfer to municipal ownership
2. Apartment 1-room No. 125 total. pl. 42.0 square meters. m	0100-1-13-00293	1132	9110021101; 9120031511	2,553.18	3,661.43	1,108.25	Realisation by auction
3. Petrol station - 2 per 300 refueling per shift	0720-2-11-58872	1132	9110021101; 9120031110	632.83	11,528.00	10,895.17	Realisation by auction
4. Production base "Luch"		1132	9110021101; 9120031110	1,386.90	3,813.14	2,426.24	Realisation through public offer
4.1 Non-residential building, with a total area of 510.7 square meters. m, 1-storey. Letter: U.	0500-1-11-04001	1132	9110021101; 9120031110	252.30	450.03	197.73	Realisation through public offer
4.2 Non-residential building, with a total area of 510.7 square meters. m, 1-storey. Letter: T.	0500-1-11-04002	1132	9110021101; 9120031110	239.72	450.03	210.31	Realisation through public offer
4.3 Total equity ownership, share in the right 1/2. A non-residential building with a total area of 1,440.2 square meters. m, 1-storey	0500-1-11-04003	1132	9110021101; 9120031110	0.00	1,015.92	1,015.92	Realisation through public offer
4.4 The platform, with a total area of 201 square meters. m. Letter: H.	0500-1-12-04004	1132	9110021101; 9120031110	148.92	86.95	-61.97	Realisation through public offer
4.5 The fence, the length of 259.1 m. Liter: 1-11.	0500-1-12-04005	1132	9110021101; 9120031110	619.41	665.32	45.91	Realisation through public offer
4.6 Enclosure, 2 m long. Letter: 1,2.	0500-1-12-04006	1132	9110021101; 9120031110	0.00	1.24	1.24	Realisation through public offer
4.7 Venues and thoroughfares, a total area of 2,604 square meters. m.	0500-1-12-04007	1132	9110021101; 9120031110	117.93	1,125.63	1,007.70	Realisation through public offer
4.8 Venues and thoroughfares, a total area of 175 square meters. m.	0500-1-12-04008	1132	9110021101; 9120031110	8.63	18.01	9.38	Realisation through public offer

<sup>1</sup> Extract from the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 350/12 of 28.12.2016.

<sup>2</sup> Approved by the decision of the Board of Directors of PJSC FGC UES on 28.06.2017, an extract from the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 374/7 of 03.07.2017.

<sup>3</sup> Approved by the order of PJSC FGC UES dated 20.12.2017 No. 530 «On approval of the Procedure for holding competitive procedures (auctions) for the sale of non-core assets of PJSC FGC UES».

<sup>4</sup> Extract from the minutes of the meeting of the Board of Directors of PJSC FGC UES No. 374/6 of 03.07.2017.

**Appendix 9****IUCN RED LIST SPECIES**

Status	Animals	Plants	Fungi
Red Book of Russia			
0 — Probably extinct	-	-	-
1 — Endangered	12	3	-
2 — Downsizing	38	5	-
3 — Rare	21	22	-
4 — Status indeterminated	3	-	-
5 — Recovered and recovering	2	-	-
IUCN Red List			
CR — Critically endangered	1	-	-
EN — Endangered	5	-	-
VU — Vulnerable	11	1	-
NT — Near threatened	9	-	-
LC — Least concern	20	21	-

**Appendix 10****THE LIST OF SPECIALLY PROTECTED NATURAL AREAS WHERE PJSC FGC UES OPERATES**

(304-1)

MPS	EMPS	Information on the electric grid facility			Specially protected natural area	
		Name	Location	Length, km – for OHL and aerial cable lines; occupied area, ha – for SS	Name	Level of importance
MPS Centre	Upper-Don EMPS	220 kV dual circuit OHL: Yuzhnaya Usman-Tyagovaya, Kirovskaya POST 474	Voronezh Region, Verkhnehaksky District	12.27	Voronezh State Nature Biosphere Reserve named after V.M. Peskov	Federal
Volga-Don EMPS	OHL 500 kV Balashovskaya-Lipetskaya Vostochnaya (towers No. 894-915) OHL 500 kV Balashovskaya-Lipetskaya Vostochnaya (towers No. 894-915)	Voronezh Region, Novokhopersky District Voronezh Region, Novokhopersky District	8.47 8.47	Hopersky State Nature Reserve	Federal	
Volga-Oka EMPS	ACL 220 kV Vladimirskaya CHPP-2 – Vladimirskaya with branch line to Rayonnaya SS and 220 kV Vladimirskaya – Zarya 2, chain with branch line to Rayonnaya SS 220 kV Vladimirskaya CHPP-2 – Vladimirskaya with branch line to Rayonnaya SS and 220 kV Vladimirskaya CHPP-2 – Zarya	Vladimir Region, Suzdalsky District Vladimir Region, Kameshkovsky District	1.60 2.50	Historic and Landscape Complex Bogolyubovsky Medow – Church of the Intercession on the Nerl Davydov Nature Reserve	Regional Regional	
Moscow EMPS	500 kV Novo-Chagino OHL, tower No. 153 220 kV Kashira-Oka OHL 1, 2 Ochakovo CHPP 26, tower No. 22	Moscow Moscow Region, Serpukhov District Moscow	0.04 4.00 0.03	Kuzminki-Lyublino Historic and Nature Park Prioksk Terrace State Biosphere Reserve Bitsevsky Park	Regional Federal Regional	
Priokskoe EMPS	500 kV Smolenskaya NPP – Kaluzhskaya OHL 220 kV Cherepetskaya GRES – Liteynaya OHL 220 kV Cherepetskaya GRES – Tsemennaya OHL 500 kV Smolenskaya NPP – Mikhaylovskaya OHL	Kaluga Region, Yukhnovskiy District Kaluga Region, Kozielskiy District Kaluga Region, Kozielskiy District Kaluga Region, Ulyanovskiy District	8.00 18.00 18.00 15.00	Ugra National Park Dmitrievsky State Regional Fauna (Hunting) Reserve for Preservation of Elks and European Roe Deers Kaluga Zaseki State Nature Reserve	Federal Regional Federal	
Chernozemnoe EMPS	330 kV Stary Oskol – OEMK 1 OHL 500 kV Stary Oskol – Metallurgicheskaya OHL 500 kV Novobryanskaya – Elets OHL (tower No. 212–308)	Belgorod Region, Starooskolsky District Belgorod Region, Starooskolsky District Orlov Region, Khotynetsky District	1.50 4.00 1.20	Dmitrievsky State Regional Fauna (Hunting) Reserve for Preservation of Elks and European Roe Deers Orlovskoye Polesye National Park	Regional Federal	

## Appendix 10

REGISTER OF SPECIALLY PROTECTED NATURAL TERRITORIES

## Appendix 10

REGISTER OF SPECIALLY PROTECTED NATURAL TERRITORIES

MPS	EMPS	Information on the electric grid facility			Specially protected natural area	
		Name	Location	Length, km – for OHL and aerial cable lines; occupied area, ha – for SS	Name	Level of importance
MPS Siberia	Krasnoyarskoe EMPS	500 kV Sayano-Shushenskaya HPP – Novokuznetskaya No. 1 ACL	Kemerovo Region	78.50	Shorsky National Park	Federal
		500 kV Sayano-Shushenskaya HPP – Novokuznetskaya No. 2 OHL	Kemerovo Region	78.50		
		500 kV Sayano-Shushenskaya HPP – Novokuznetskaya No. 1 ACL	Kemerovo Region	183.23		
		500 kV Sayano-Shushenskaya HPP – Novokuznetskaya No. 2 ACL	Kemerovo Region	182.65		
Khakasskoe EMPS	20 kV Minusinskaya tower – Shushenskaya tower 1, 2 circuit OHL (D-37/38)	Krasnoyarsk Territory	48.70	Shushensky Pine Forest National Park	Federal	
	220 kV Sushenskaya tower-Ergaki OHL (D46)	Krasnoyarsk Territory	125.50			
Transbaikalian EMPS	220 kV Mysovaya – Vydrino OHL (OHL-273)	Republic of Buryatia	3.54	Protective area of the Baikal State Nature Biosphere Reserve	Federal	
	220 kV Mysovaya – Vydrino OHL (OHL-274)	Republic of Buryatia	3.54			
	500 kV Irkutsk – Gusinoozernaya SDPP OHL (IG-582)	Republic of Buryatia	3.54	Baikal State Nature Biosphere Reserve		
	220 kV Goryachinskaya SS	Republic of Buryatia	5.50	Baikal State Nature Biosphere Reserve	Federal	

MPS	EMPS	Information on the electric grid facility			Specially protected natural area	
		Name	Location	Length, km – for OHL and aerial cable lines; occupied area, ha – for SS	Name	Level of importance
MPS Urals	Sverdlovskoye EMPS	500 kV BNPP-2 – Yuzhnaya OHL (500 kV Yuzhnaya – Shagol OHL)	Sverdlovsk region, Sysert urban District	17.30	Bazhov Places Nature Reserve	Regional
		220 kV Belyovarskaya NPP – Mramornaya OHL	Sverdlovsk Region, Sysert Urban District	39.90	Bazhov Places Nature Reserve	Regional
		OHL 500 kV Kozyrevo – Reftinskaya GRES	Sverdlov Region, Bogdanovich Urban District	32.10	Bogdanovich State Zoological Hunting Reserve.	Regional
		220 kV Reftinskaya GRES – Travianskaya 2 circuit OHL	Sverdlov Region, Bogdanovich Urban District	34.90	Bogdanovich State Zoological Hunting Reserve.	Regional
		OHL 220 kV Reftinskaya GRES – Anna OHL (220 kV Reftinskaya GRES – Travianskaya 1 circuit OHL)	Sverdlov Region, Bogdanovich Urban District	10.10	Bogdanovich State Zoological Hunting Reserve.	Regional
		220 kV Anna – Travianskaya OHL (220 kV Reftinskaya GRES – Travianskaya 1 circuit OHL)	Sverdlov region, Bogdanovich Urban District	24.80	Bogdanovich State Zoological Hunting Reserve.	Regional
		220 kV Sredneuralskaya GRES – Pervouralskaya 2 circuit OHL	Sverdlov region, Sredneuralsk Urban District, Verkhnyaya Pyshma Urban District	1.66	Isetskoye lake and Surrounding Forests Landscape Reserve	Regional
		220 kV Sredneuralskaya GRES – Pervouralskaya circuit 1 OHL with a branch line to Trubnaya SS	Sverdlov region, Sredneuralsk Urban District, Verkhnyaya Pyshma Urban District	1.66	Isetskoye lake and Surrounding Forests Landscape Reserve	Regional
MPS East	Khabarovskoye EMPS	220 kV Khekhtsir-Gidroliznaya / Khekhir – Dormidontovka/t OHL L-227/228	Khabarovsk Territory	9.78	Bolshekhetskoye State Nature Reserve	Federal
		220 kV Khekhtsir-Gidroliznaya / Khekhir – Dormidontovka/t OHL L-227/228	Khabarovsk Territory	2.80	Khekhtsirsky State Nature Sanctuary	Federal
		220 kV Khekhtsir CHP-3 – Khekhir-2 OHL L-223/224	Khabarovsk Territory	25.65		
		220 kV Khekhtsir CHP-3 – Khekhir-2 OHL L-225/226	Khabarovsk Territory	24.00		
		500 kV Khabarovskaya – Khekhtsir-2 OHL L-513	Khabarovsk Territory	4.44		
		500 kV PrimGRES – Khekhtsir-2 OHL L-516	Khabarovsk Territory	13.13		
Yuzhno-Uralskoe EMPS	Yuzhno-Uralskoe EMPS	220 kV Salda SS – Koshai SS OHL	Sverdlov region, Verkhnyaya Tura Urban District, Alapaevo Urban District	13.70	Dobrovolsky Tract Landscape Reserve	Regional
		500 kV Reftinskaya GRES – Tagil OHL	Sverdlov Region, Rezhevsk Urban District	16.70	Rezhevsky Nature Mineral Reserve	Regional
		500 kV Zlatoust – Chelyabinsk tower 107-128 OHL	Chelyabinsk Region, Miass Urban District	5.40	Ilmen State Reserve	Federal
		500 kV Zlatoust – Chelyabinsk tower 17-45 OHL	Chelyabinsk Region, Zlatoust Urban District	7.10	Taganai National park	Federal
		500 kV Belyovarskaya NPP-2 – Shagol (500 kV Yuzhnaya – Shagol OHL) tower 440-469 OHL	Chelyabinsk Region, Kunashirsky, Kaslinsky Districts	13.00	East Ural Radiation Reserve	Federal
		500 kV Belyovarskaya NPP-2 – Shagol OHL (500 kV Yuzhnaya – Shagol OHL) towers 498-533		12.00		
		220 kV Shagol – Kashtak OHL, towers 33-41	Chelyabinsk Region, city of Chelyabinsk, Sosnovsky District	2.90	Kashtaksy Pine Forest Botanic Natural Monument of the Regional Significance	Regional

## Appendix 10

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MPS	EMPS	Information on the electric grid facility			Specially protected natural area	
		Name	Location	Length, km – for OHL and aerial cable lines; occupied area, ha – for SS	Name	Level of importance
Permskoye EMPS	500 kV Vyatka – Votkinskaya HPP OHL towers 881-896	Udmurt Republic, Votkinskiy District	5.80	Nechkinsky National Park	Federal	
	220 kV VHPP – Izhevsk 1 c. OHL tow. 7-43		7.69			
	220 kV VHPP – Izhevsk 2 c. OHL tow. 7-48		7.80			
	220 kV branch line to settlement Siva 1 c. OHL tow. 1-22		6.74			
	220 kV branch line to settlement Siva 2 c. OHL tow. 1-22		7.02			
	220 kV Kauchuk – Metallurg OHL tow. 23-42	Udmurt Republic, Sarapulsky District	7.60			
	220 kV Kauchuk – Kama OHL tow. 23-42		7.60			
	220 kV Kauchuk – Metallurg OHL tow. 81-101		7.77			
	220 kV Kauchuk – Kama OHL tow. 81-104		7.18			
	220 kV Kauchuk – Pozim OHL tow. 69-101		10.35			
MPS South	330 kV Yuzhnaya – Rostovskaya OHL	Rostov Region, Kuibyshevsky District	1.03	Lysogorka	Regional	
	220 kV R20 – T10 OHL, 1st circuit	Rostov Region, Myasnitsky District	2.22	Kamennoy Balka	Regional	
	220 kV OHL Rostovskaya – T15	Rostov Region, Myasnitsky District	0.63	Chulekskaya Balka	Regional	
	220 kV Novocherkasskaya GRES – NZB OHL	Rostov Region, Oktyabrsky District	0.50	Persianovskaya preserved area	Regional	
	220 kV Pogorelovo – Donetskaya OHL	Rostov Region, Kamensky District	0.60	Glubokaya River Chalks	Regional	
	500 kV Rostovskay NPP – Shakhty OHL	Rostov Region, Tsimlyansky District	23.64	Donskoy Nature Park	Regional	
	220 kV Tsimlyanskaya HPP – Shakhty OHL		12.24			
	500 kV Rostovskay NPP – Nevinnomysk OHL	Rostov Region, Proletarsky District	20.31	Rostov Oblast Wetlands – Veselovskoe Water Storage Reservoir and Manych-Gudilo Lake	Regional	
Sochi EMPS	110 kV Mzymta SS	Krasnodar Region	0.45	Sochi National Park	Federal	
	110 kV Roza khutor SS	Krasnodar region	0.48			
	110 kV Laura SS	Krasnodar region	0.46			
	110 kV Sportivnaya SS	Krasnodar region	0.33			
Kuban EMPS	220 kV Shepsi SS	Krasnodar region	4.32			
	220 kV Poselkovaya SS	Krasnodar region	1.81			
	220 kV Sochi CHP – Psou ACL	Krasnodar region	34.04			
	220 kV Sochi CHP – Dagomys ACL	Krasnodar region	17.14			
	220 kV Psou – Poselkovaya OHL	Krasnodar region	51.39			
	220 kV Psou – Bzybi OHL	Krasnodar region	2.44			
	110 kV Psou – Leselidze OHL	Krasnodar region	0.81			
	220 kV Shepsi – Dagomys ACL	Krasnodar region	61.59			
	220 kV Chernomorskaya – Poselkovaya ACL	Krasnodar region	50.88			
	220 kV Adler CHP – Psou ACL	Krasnodar region	9.67			
	220 kV Dagomys – Chernomorskaya ACL	Krasnodar region	75.52			
	220 kV Centralnaya – Dagomys ACL	Krasnodar region	61.99			
	220 kV Adler HPP – Chernomorskaya ACL	Krasnodar region	7.52			

MPS	EMPS	Information on the electric grid facility			Specially protected natural area	
		Name	Location	Length, km – for OHL and aerial cable lines; occupied area, ha – for SS	Name	Level of importance
	Stavropol EMPS	330 kV Mashuk SS	Stavropol Territory, Pyatigorsk	5.51	Caucasus Mineralnye Vody (territories of health recreation areas and resorts)	Federal
		330 kV 03 HPP-2 – Mashuk OHL	Stavropol Territory, Zheleznovodsk	0.07		
		330 kV 04 Mashuk – Prokhladnaya OHL	Stavropol Territory, Zheleznovodsk	0.07		
MPS Volga	Low Volga EMPS	220 kV Saratov HPP-Kubra OHL with branch line to Vozrozhdenie SS	Saratov region	11.85	Khvalynsky National Park	Federal
	Nizhegorodskoe EMPS	500 kV Ulyanovskaya Severnaya OHL (new name – Veshkaima-Osinovka)	Republic of Mordovia, Ichalkovsky District	24.47	Smolny National Park	Federal
		500 kV Ulyanovskaya – Yuzhnaya OHL (new name – Veshkaima-Aزانаскская)	Republic of Mordovia, Ichalkovsky District	24.40		
	Samarskoye EMPS	220 kV Syzran-1-2 OHL	Samara region	25.00	Samarskaya luka National Park	Federal
	Middle Volga EMPS	500 kV ZhHPP Veshkaima – Severnaya OHL	Ulyanovsk region	17.00	Samarskaya luka National Park	Federal
		500 kV ZhHPP Veshkaima – Yu-zhnaya OHL	Ulyanovsk region	17.00		
MPS North-West	Karelskoe EMPS	Valaam DPP	located in Sortavala District of Republic of Karelia, in the north of Ladoga lake 22 km away from the coastline	1.33	Valaam archipelago Natural Park	Regional
		35 kV Valaam SS	located in Sortavala District of Republic of Karelia, in the north of Ladoga lake 22 km away from the coastline	0.19		
		PTL-397 330 kV Kolskaya NPP – Monchegorsk OHL, towers NN 91-105 (10 suspension towers and 4 anchor towers) on the territory of the reserve	Murmansk region, Monchegorsk District (western part of Kola peninsula)	2.17	Lapland State Biosphere	Федеральное
		PTL-398 330 kV Kolskaya NPP – Monchegorsk OHL, towers No. 88-102 (10 suspension towers and 4 anchor towers)	Murmansk Region, Monchegorsk District (western part of Kola peninsula)	2.17	Nature Reserve	Federal
	Novgorodskoe EMPS	330 kV Luzhskaya SS	Leningrad Region, Luzhsky District	5.20	Shalov-Perechitsky State Natural Integral Reserve	Regional
		330 kV Gatchinskaya – Luzhskaya OHL		4.83		
		110 kV Nizovaya-1 OHL		0.20		
		110 kV Severnaya-1 OHL		0.20		
		110 kV 531 Tarkovichi SS – 305 Severnaya SS		1.04		
		110 kV OHL to Luga SS		0.20		
		110 kV Syrets-1 OHL		1.51		

## Appendix 11

### STANDARDS COMPLIANCE TABLES (GRI AND <IR>)

#### GRI Content Index

GRI Standard	Disclosure	Section / Appendix	Page number
GRI 102: General Disclosures 2016	102-1	flyleaf	
	102-2	About the Company	13
	102-3	Contacts	240
	102-4	Geography	28
	102-5	flyleaf, Contacts	240
	102-6	Geography	28
	102-7	Geography	28-32, 71, 106, Appendix 1, 289
	102-8	Appendix 1, Personnel Management	Appendix 1, 189
	102-9	Procurement activities	65
	102-10	-	There was no significant changes to the Company's size, structure, ownership, or supply chain in the reporting year
	102-11	Environmental policy	95
	102-12	Sustainable Development Strategy	47
	102-13	Appendix 1, International activity	Appendix 1, p. 247, 251 Appendix 5, Appendix 6
	102-14	Statement of the Chairman of the Management Board	19
	102-15	Business model, Main Risks	33, 182
	102-16	General Information on the Company's Corporate Governance	106, 135
	102-18	General Information on the Company's Corporate Governance	140
	102-22	Composition of the Board of Directors, Committees of the Board of Directors	148, 161-166
	102-23	Composition of the Board of Directors	20, 153
	102-24	Composition of the Board of Directors	148, 153
	102-25	Conflict of Interest Regulation	192
	102-26	The Strategy Committee	144
	102-28	Evaluation of the Board of Directors	147
	102-30	Risk Management System	Appendix 1, p. 302
	102-32	-	Corporate and Strategic Management Department

GRI Standard	Disclosure	Section / Appendix	Page number
	102-35	System of remuneration of members of the Board of Directors and management bodies	175
	102-36	System of remuneration of members of the Board of Directors and management bodies	175
	102-40	Stakeholder Engagement	122
	102-41	-	There is no collective bargains in PJSC FGC UES. PJSC FGC UES is a participant of the Industry Tariff Agreement in the electric power industry of the Russian Federation.
	102-42	Stakeholder Engagement	120
	102-43	Stakeholder Engagement	125, 130
	102-44	Stakeholder Engagement	130-131
	102-45	About Report	78, 230
	102-46	About Report	231
	102-47	About Report	232
	102-48	Increased reliability of the power supply in the Russian regions	54, 99, 100, 230
	102-49	About Report	231
	102-50	About Report	230
	102-51	About Report	230
	102-52	About Report	230
	102-53	Contacts	240
	102-54	About Report	230
	102-55	Appendix 11 Standards compliance tables (GRI and <IR>)	-
	102-56	About Report	230 The external auditor is selected through tender procedures
GRI 103. Management Approach 2016	103-1	About Report	231
	103-2	-	Specified for every material topic
	103-3	-	Specified for every material topic
<b>Group I on materiality matrix (material topics)</b>			
GRI 201: Economic Performance 2016	103-2	Development Strategy, Financial Performance Analysis	41, 78
	103-3	Development Strategy	41
	201-1	Financial Performance Analysis	78
GRI 204: Procurement Practices 2016	103-2	Procurement деятельность	64, 68
	103-3	-	68
	204-1	-	65, 68

GRI Standard	Disclosure	Section / Appendix	Page number
GRI 205: Anti-Corruption 2016	103-2	Anti-Corruption Activities	193
	103-3		194
	205-1		194
GRI 206: Anti-Competitive Behavior 2016	103-2	Procurement activities	67
	103-3		67
	206-1		67
GRI 403: Occupational Health and Safety 2016	103-2	Occupational Safety and Health	114
	103-3		116
	403-1		114
	403-2 <sup>1</sup>		116, Appendix 1, 291
	403-3		115
GRI 413: Local Communities 2016	103-2	Injury to Third Parties	116
	103-3		116
	413-1	There are no special programmes for interaction with local communities. The interaction is carried out during the construction of new UNEG facilities in the form of public hearings, consultations, as well as in the form of responding to requests from representatives of local communities.	
Transmission and Distribution Losses	413-2	Injury to Third Parties	116
	103-2	Transmission of electricity	52
	103-3		52
	EU12		52
Federal Grid Company's contribution in ensuring the energy security of the Russian Federation	103-2	Development Strategy, Manufactured Capital	38, 50
	103-3	Development Strategy	38
Implementation of Long-Term Development Programme of PJSC FGC UES for 2015- 2019 up to 2030	103-2	Development Strategy	38
	103-3		38
Improvement of Investment Attractiveness	103-2	Exchange information on the Company's securities	199
	103-3		199

<sup>1</sup> Information on lost day rate (LDR) and absentee rate (AR) is not disclosed.

GRI Standard	Disclosure	Section / Appendix	Page number
Implementation of Infrastructure Projects	103-2	Manufactured Capital	50
	103-3		50
Increased reliability of the power supply in the Russian regions	103-2	Development Strategy, Manufactured Capital	38, 50
	103-3	Development Strategy	38
UNEF Development	103-2	Development Strategy, Manufactured Capital	38, 50
	103-3	Development Strategy	38
Sustainability Management of the Company	103-2	Sustainable Development Strategy, Increased reliability of the power supply in the Russian regions, Management of Innovative Activities, Natural Capital, Human Capital	46, 54, 84, 94, 106
		Manufactured Capital, Management of Innovative Activities, Natural Capital	50, 84, 94
<b>Group II on materiality matrix (less material topics, partial disclosure)</b>			
GRI 302: Energy 2016	302-4	Energy efficiency and internal energy consumption	104, Appendix 1, 288 The total technological effect of the measures taken to reduce the energy consumption (losses) in UNEG and the resource consumption for economic needs in FGC was 217,757 GJ.
GRI 303: Water 2016	303-1	Use of Water Resources	99
GRI 304: Biodiversity 2016	304-1	Conservation of biodiversity	103, Appendix 10
	304-2		103
	304-4		103
GRI 307: Environmental Compliance 2016	307-1	Results in the field of environmental protection	98
GRI 404: Training and Education 2016	404-1	Training and Development of Personnel	109-110
<b>Group III on materiality matrix (non material topics)</b>			
GRI 305: Emissions 2016	305-1	Emissions of greenhouse gases	99
	305-5		99
GRI 306: Effluents and Waste 2016	306-1	Use of water resources	100
	306-2 <sup>2</sup>	Waste	100

<sup>2</sup> Information on the disposal methods is not given for each hazard class of the waste.

**Material topics in correlation with GRI Standards**

Topic	GRI Standards / aspect of GRI G4 Electric Utility Sector
<b>Group I</b>	
Growth of economic efficiency and financial stability of PJSC FGC UE	201
Management of procurement activities and combating unfair competition	204, 206
Reduction of transmission losses	EU12
Labor protection, workplace safety	403, 413
Anti-corruption	205
<b>Group II</b>	
Staff development	404
Energy efficiency and internal energy consumption	302
Conservation of biodiversity, including the preservation of natural habitats along power lines	304
Implementation of the Environmental Policy of PJSC FGC UES	303, 305, 306, 307
Influence of PJSC FGC UES on social and economic development of regions of presence	413
<b>Group III</b>	
Emissions of air pollutants	305
Discharges and wastes generated as a result of the activities of PJSC FGC UES	306

**Compliance with International Integrated Reporting Framework****Implementation of Fundamental Concepts**

Fundamental Concepts	Compliant / not compliant
Value creation for the organization and for others	Compliant
The capitals	Compliant
The value creation process	Compliant

**Implementation of Guiding Principles**

Guiding Principles	Implementation of
Strategic focus and future orientation	Compliant
Connectivity of information	Compliant
Stakeholder relationships	Compliant
Materiality	Compliant
Conciseness	Partly compliant*
Reliability and completeness	Compliant
Consistency and comparability	Partly compliant**

\* Number of pages in the Report reduced comparing to the combined amount of pages in Annual report 2016 and in Sustainability report 2016.

\*\* The Company has started to use GRI Standards and <IR> in 2018.

**Disclosure of Content Elements**

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