



# SPACE FOR DEVELOPMENT





### **ABOUT THE REPORT**



For detailed information on

the Report, its development

procedure, determination of

key topics, and responsibility

information/About the Report.

An interactive version of the

Report is available on the

at www.fsk-ees.ru/eng in

section Investors/Financial

Disclosure/Annual Reports.

Company's website

for information provided,

see section Additional

The Integrated Annual Report of the Public Joint Stock Company "Federal Grid Company of the Unified Energy System" for 2018 (the Report, the Annual Report) is aimed at informing stakeholders about the strategy and mission of PJSC FGC UES, policy in the field of social responsibility and sustainable development, key events and results of work, impact on the economy, society, and the environment, as well as about interaction with stakeholders.

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 (AA1000SES).

The Report is meant for a wide range of stakeholders.

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 7 July 2015), FGC, FGC UES or the Company.

In May 2018, the President of the Russian Federation signed a Decree on National Goals and Strategic Development Objectives of the Russian Federation until 2024. Implementation of the spatial development strategy plays an important role, including lifting infrastructural restrictions and ensuring maximum use of potential in regions and cities.

The instruction execution mechanism The Company's Investment Programme provides for integrated modernisation and expansion of the backbone electric grid infrastructure, including development of centralised power systems and implementation of digital smart control systems.

As one of the key subjects of the infrastructure projects, PJSC FGC UES solves complex tasks for providing access to electric power in cooperation with representatives of all stakeholder groups.

covers electric grid complex facilities throughout the Russian Federation. In 2018 alone, the Company put into operation 1,880 km of power lines and 3,160 MVA of transformer capacity.

The Company focuses on the introduction and implementation of digital technologies and the use of modern equipment mainly produced in Russia, both in modernisation projects and in new construction.

Our Annual Report provides information about the key implemented projects to improve power supply reliability, provide connection to isolated energy districts, provide connection to advanced development zones, carry out electrification of transport corridors and large ports, as well as about the Company's plans for further development of infrastructure.

<sup>1</sup> An integrated report is a concise communication about how an organisation'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.

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and on our corporate website

# **WORK FOR**



and investors





## NAVIGATION IN THE REPORT

For ease of navigation in the Report, we have included typical designations of the types of capital used by the Company, stakeholder groups, strategic priorities and information links.

#### Informational

to the website



Cross-link to other sections of the Report or Appendices to the Report



#### **OUR RESOURCES**

#### Types of capital



Manufactured





Human



#### Stakeholder groups



Shareholders



Consumers



Society



EARD (S)

Financial



and relationship

# WHO WE



State



Internal stakeholders



Partners, including non-profit

#### **OUR GOALS**

#### Strategic priorities



Reliability of energy supply



Customer satisfaction



Infrastructure

development

Financial sustainability



Economic efficiency

# An indication of the Company's activities related to fulfilling the UN Sustainable Development Goals.

information on the UN Sustainable Development Goals, see www.un.org/sustainabledevelopment/sustainabledevelopment-goals/













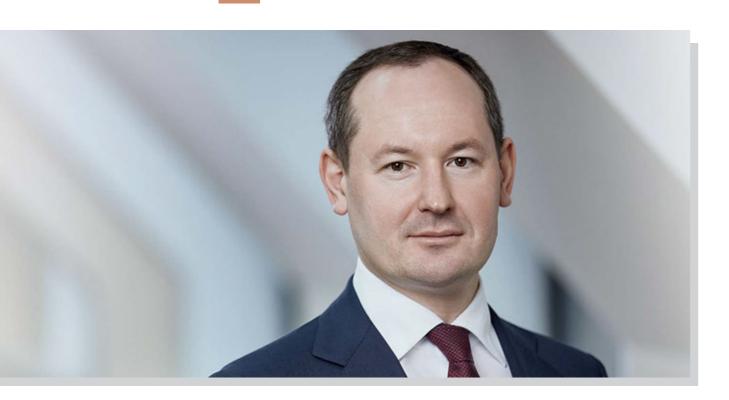






### STATEMENT FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS PAVEL LIVINSKY

GRI 102-14



#### **Dear shareholders and investors!**

Federal Grid Company is the largest subsidiary of PJSC Rosseti and the key element of the Unified National Electric Grid (UNEG), and is systemically important for Russia's entire power sector.

FGC UES is entrusted with the tasks of ensuring the reliable operation and development of the main electric grid complex, which plays a fundamental role in providing electricity transmission to national consumers.

FGC UES projects are of strategic nature and have great importance for the social and economic growth in Russian regions and for energy security. The Company's role as taxpayer, employer, consumer of both innovative products and equipment and services, including those supplied by small and medium-sized enterprises, is significant and extremely important.

#### **EXPANSION OF THE GRID**

In 2018, the geographical reach of FGC UES was expanded and now covers 79 regions

across the country. UNEG facilities were commissioned in the districts of the Republic of Sakha (Yakutia), which was previously isolated from the connection points of the Unified Energy System of Russia. In addition, the Company started supplying electricity to consumers in the Irkutsk Region.

As part of the Investment Programme implementation, construction of significant substations and transit electric power transmission lines was completed, and more than 5,600 MVA of new transformer capacity and nearly 2,000 km of power transmission lines were launched. Meanwhile, the efforts of both the Board of Directors and the management were focused on achieving maximum investment efficiency in order to minimise capital costs, so the total amount of financing was a little more than RUB 100 billion.

The implementation of FGC UES projects is always associated with the involvement of Russian suppliers and contractors.

The share of main equipment produced in Russia accounts for 91 % of the Company's procurements.

The target is to achieve 95 % by 2030 through expansion of comprehensive cooperation with domestic industrial companies.

It is important that a significant portion of the contracts are signed with small and medium-sized enterprises, with more than 100 procurement items being purchased from this category of suppliers alone. In the loyalty rating of the largest SME customers for 2018, put together by the Agency for Strategic Initiatives, FGC UES came in the top 5.

#### ■ FINANCIAL AND ECONOMIC INDICATORS

FGC UES consistently demonstrates high financial and economic indicators for a large volume of its production tasks.

The Company has been making considerable amounts of net profit for more than five years already, including in 2018.

This is the result of well-targeted coordinated work carried out by the Board of Directors, management, and all employees aimed at improving performance. PJSC FGC UES plays an important role in the overall financial result of Rosseti Group.

#### DIGITAL TRANSFORMATION

Digital transformation is one of the priorities for all subjects of the Russian economy.

All companies of Rosseti Group are fully involved in this work. Intermediate results of pilot projects have already shown tremendous positive effects in practice. Digital technologies today are not only a unique tool for solving existing problems, but also a powerful driver for growth in competitiveness and efficiency of production and administrative processes.

FGC UES has made significant progress in this area. In the reporting year, the Tobol 500 kV substation — the first ultra-high voltage facility — with integrated application of digital technologies was put into operation in the country. It will supply electricity to the Tobolsk production site of the company SIBUR, which is Russia's biggest petrochemical complex for deep hydrocarbons processing and is currently under construction. It is planned to create another 30 substations before 2025, in which advanced digital solutions will be widely used.

It should be noted that 100 % of the Company's facilities are equipped with an automated information and measuring system for commercial electricity metering.

The development of the network of fibre-optic communication lines plays an important role. This not

only creates the necessary base for the Company's own innovative solutions, but also makes it possible to provide modern telecommunication services to residents and enterprises located in remote areas of the country in cooperation with the corresponding communications operators.

FGC UES is an industry pioneer in terms of switching power facilities to remote control.

This work is carried out together with JSC SO UES. This experience will be expanded throughout the power sector.

#### ■ CORPORATE GOVERNANCE

The corporate governance system of FGC UES is based on the principles of transparency, data accuracy and a high level of responsibility. Improving the quality of corporate governance contributes to increasing the efficiency and investment attractiveness of our business.

In 2018, key development aspects of the corporate governance system in the Company were changes in the dividend policy and the introduction of electronic voting at the General Meetings of Shareholders.

In October 2018, the Russian Institute of Directors confirmed the corporate governance rating of FGC UES at the level of 7++, which allows the Board of Directors to confirm the Company's compliance with the best corporate governance practices and observation of the recommendations of the Corporate Governance Code.

#### ■ TASKS UNTIL 2020 AND THE NEW INVESTMENT CYCLE

The priorities of FGC UES are to ensure reliable and highquality power supply to consumers, provide efficient technological connection, implement actions for grid development according to schedule, and preserve positive dynamics of financial and economic indicators on the basis of improved internal efficiency.

The current investment cycle is coming to an end, and the Company is preparing to move into a new one. The Board of Directors approved the draft Investment Programme 2020–2024, as well as adjustments to the current document for 2019. The planned measures correspond to the tasks set by Decree No. 204 of the Russian President dated 7 May 2018. In addition, due consideration was given to changes in the composition of production assets resulting from the implemented decision to exchange grid facilities with JSC DVEUK.

The results achieved by the management team have created the necessary base for fulfilling all obligations assigned to the Company and maintain its high investment attractiveness.

Pavel Livinsky
Chairman of PJSC FGC UES
Board of Directors

### STATEMENT FROM THE CHAIRMAN OF THE MANAGEMENT BOARD ANDREY MUROV

GRI 102-14



#### **Dear colleagues!**

2018 was a milestone in the history of our Company. FGC UES completed projects that strengthened national energy security, maintained a positive trend in terms of production and financial indicators, made progress in digitalisation, and confirmed its status as an industry leader in the sphere of environmental protection.

The issue of Decree No. 204 of the President of the Russian Federation dated 7 May 2018 (hereinafter, Decree No. 204), which determined the national goals of the country until 2024, has not only established the frame of reference for further development of the Company, but has also confirmed our previously established long-term priorities.

#### PRODUCTION AND FINANCIAL RESULTS

Our strategic goal is to improve the quality of services provided by FGC UES. The Company reduced the accident rate by 17 %, thus reaching the level of leading power grid organisations around the world. Every year we compete with ourselves by updating the minimum levels from previous years.

At the same time, we have continued in the direction of improving our financial results.

In 2018, profit under IFRS increased by 5.7 % to RUB 92.8 billion, and adjusted EBITDA by 3.2 % to RUB 133.6 billion.

In accordance with the Directive of the Government of the Russian Federation, an urgent task for all companies partially owned by the stat e is to reduce OPEX by 2–3 % annually. Thanks to the actions taken to improve internal efficiency in 2018, FGC UES reduced its unit operating costs in comparable prices by 10.6 % against the previous year.

FGC UES was awarded the prize of the Government of the Russian Federation in the field of quality for high results achieved in the sphere of rendered services, as well as introduction of highly effective management techniques.

#### MAJOR PROJECTS

In 2018, we completed a large-scale project to strengthen interconnections between the Centre and the North-West regions of the country. As a result, the maximum allowable flow between these macroregions increased by 1.5 times.

Construction of the transit line with a length of more than 750 kilometres from Neryungrinskaya GRES to the new 220 kV Maya substation was completed in Yakutia. This made it possible to synchronise the isolated central energy district of the republic with the UES of Russia. According to the decision of the Board of Directors, the management team worked on a deal to exchange assets with JSC DVEUK, providing for transfer of transmission networks to FGC UES, which are also located in the region. This was completed at the beginning of 2019. Collectively, this creates opportunities to improve our performance in terms of developing the Far Eastern electric grid complex.

All main construction stages of Voskhod substation, which is the final transit point with a capacity of 500 kV, were completed in the Omsk Region, thus strengthening the connection between the Urals and Siberia. In addition, two power centres were commissioned in Kuban, infrastructure was built for delivery of the new generation power from the Far East, the Urals and the North-West. Power supply was provided to advanced development zones in Khabarovsk and Primorsky Krai.

Finally, we have achieved great results in the implementation of the digitalisation programme. Tobol substation, the first Russian power facility of 500 kV with integrated application of the most advanced digital technologies, was put into operation in the Tyumen Region.

#### ■ PLANS UNTIL 2024

Decree No. 204 pays special attention to the modernisation and expansion of the backbone infrastructure.

We are mainly focused on creating conditions for the development of West – East and North – South transport corridors, and the Northern Sea Route, as well as providing sustainable electricity supply to consumers in all 79 regions of operation, including priority areas of the Far East.

Work is already underway. We are implementing the Action Plan coordinated with JSC Russian Railways for power supply of the Baikal-Amur Mainline and Trans-Siberian Railway, we are building a new feeding centre in Murmansk, which is one of the basic points on the Northern Sea Route. We are creating infrastructure that will provide electricity to the main pipelines, mining and processing enterprises in Siberia and the Far East, and strengthen the power systems in the South, the North Caucasus, the Urals, the North-West, and the Centre.

Digital technologies are rapidly forming the panorama of modern energy, making it possible to reach entirely new levels of work. President Vladimir Putin set the direct objective to introduce smart systems to control the Russian electric grid facilities. Until 2025, we plan to develop more than 30 integrated digital objects in the UNEG and switch

113 existing substations to remote control (24 have already been switched). The coverage of digital communications will reach 100 % and all the Company's facilities will be supervised remotely from the unified control centres.

A new version of the Long-Term Development Programme 2020–2024 of FGC UES is being finalised with due consideration of the tasks of Decree No. 204. In 2019, we plan to submit this document for consideration to the federal executive authorities and have it approved by the Company's Board of Directors.

#### SUSTAINABLE DEVELOPMENT

While remaining committed to the principles of sustainable development, FGC UES continues to implement projects aimed at minimising negative impact on the environment.

In 2018, the Company carried out activities related to the reproduction of flora and fauna. A record amount of equipment containing persistent organic pollutants (POPs) has been sent for deactivation and disposal. The national project Energy-Efficient Substation is currently underway, which makes it possible to drastically reduce the consumption of electricity for own needs.

The results of the compliance audit confirmed the full conformity of the current environmental management system with the requirements of ISO 14001:2015.

#### HR POLICY

It is important to remember that behind each figure of this Report there are people — the highly professional staff at FGC UES. Twenty two thousand people work for the Company, the majority being specialists with higher education and graduates of leading Russian universities.

In 2018, FGC UES continued to implement all its social programmes and adjusted salaries according to the index. This made it possible to maintain competitive positions in the labour market and increase motivation levels among staff.

In helping our employees to fulfil their potential, we create new opportunities for the development of our Company.

Our corporate training centres provide education in the form of 80 professional development programmes. There is a special project named the Chief Engineer School for candidates recommended to the talent pool for senior positions. In order to attract talented young people to the industry, we are expanding our cooperation with universities, working actively through the youth section of the Russian National Committee of CIGRE.

Last year, FGC UES received the grand prize For Development of Personnel Potential at the Leaders of Russian Business: Dynamics and Responsibility contest held by the Russian Union of Industrialists and Entrepreneurs (RSPP). The Company was also recognised as the most socially oriented company in the power industry in the category for Development of Professional and Personal Potential of Employees based on the results of the contest held by the Ministry of Energy of Russia.

The results achieved by FGC UES in 2018 allow the Company to look to the future with confidence. A stable financial position, a strong production base, and a well-consolidated team are the key to successfully achieve all tasks.

Shund

Andrey Murov, Chairman of the Management Board of PJSC FGC UES

### **ABOUT THE COMPANY**

PJSC FGC UES is a Russian energy company providing electricity transmission services through the Unified National Electric Grid. In this type of activity the Company is a subject of natural monopoly. The Company is included in the list of core Russian organisations of strategic importance.

MISSION OF THE COMPANY: TO ENSURE RELIABLE OPERATION AND DEVELOPMENT OF THE UNEG IN LINE WITH ECONOMIC GROWTH, DEMONSTRATING HIGH ECONOMIC EFFICIENCY AND COST MINIMISATION.

#### GRI 102-2

#### **FGC UES activities**

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

#### Core areas of business:

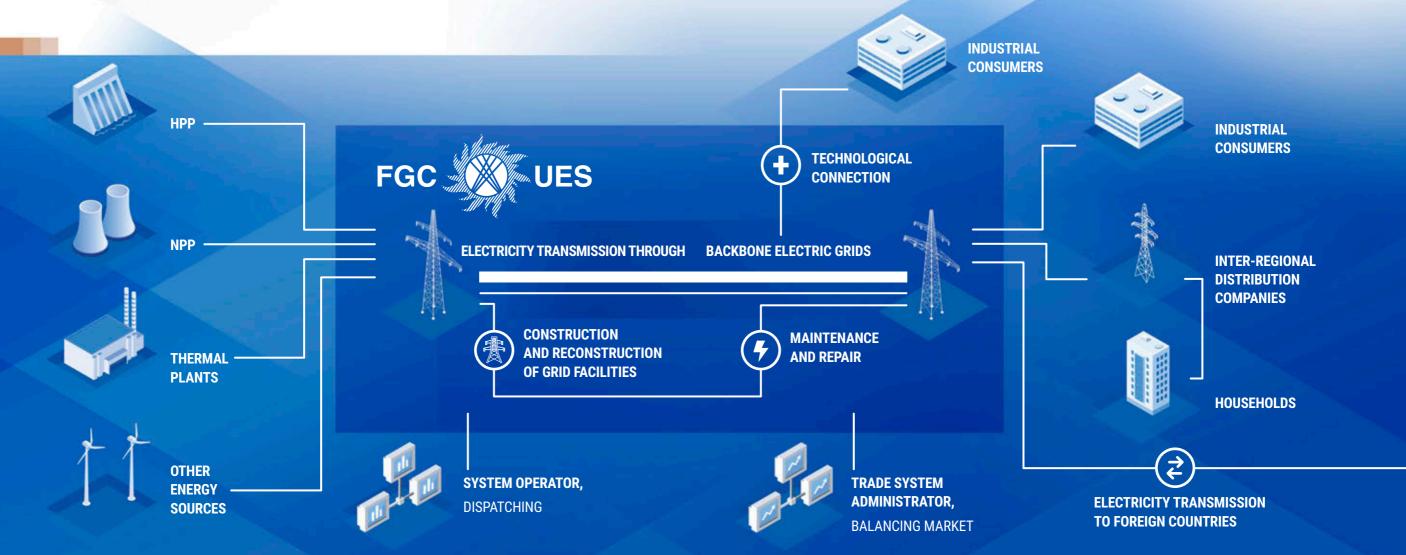
- management of the Unified National Electrical Grid;
- provision to the entities of the wholesale electricity and capacity market of services for electricity transmission and technological connection;
- investment activity for the development of the Unified National Electrical Grid.

#### We facilitate:

- power transmission through the transmission network in 79 regions of Russia, taking part in solving the most important problems of the country's social and economic development;
- movement of electric energy across the borders of 11 foreign countries, collection and processing of information on the electricity flow through 133 interstate transmission lines.

WE OPERATE 958 substations 146,000 km

of HIGH-VOLTAGE
BACKBONE TRANSMISSION



ABOUT THE COMPANY

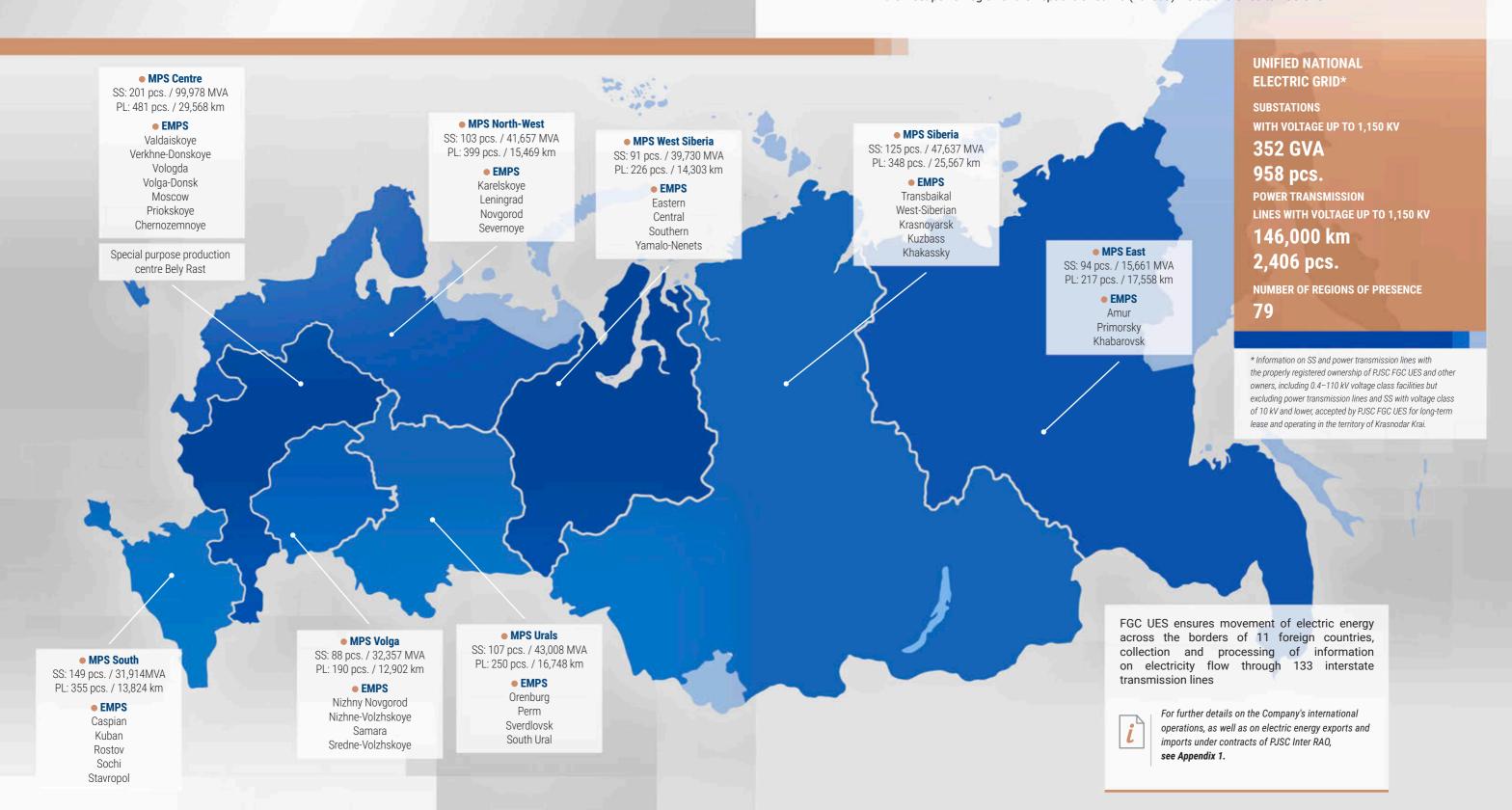
GEOGRAPHIC REACH

### **GEOGRAPHIC REACH**

GRI 102-4, 102-6, 102-7

PJSC FGC UES operates in 79 regions of Russia. The territory in which the Company's facilities are located is divided into zones of responsibility for regional branches – main power systems (MPS), and their regional enterprises (EMPS). Territories with low-density population and no major customers, such as Chukotka, Kamchatka, Magadan Region, Sakhalin, Nenets Autonomous Okrug and Altai Republic, are not integrated into the UNEG because they do not have the economic conditions necessary for laying electricity transmission lines and establishing large substations.

As part of the 2018 agreement on the swap of assets owned by JSC DVEUK, the UNEG facilities located in the west power region of the Republic of Sakha (Yakutia) were transferred to FGC UES.



INTEGRATED ANNUAL REPORT FOR 2018 | PJSC FGC UES |

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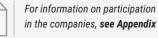
**ABOUT THE COMPANY** COMPANY STRUCTURE

### **COMPANY STRUCTURE**

PJSC FGC UES EXECUTIVE OFFICE

PJSC FGC UES includes 45 regional branches, with 8 branches of the main power systems (MPS) and 36 branches of the enterprises of the main power systems (EMPS), as well as Bely Rast Special Production Plant.

PJSC FGC UES participates in 23 business entities that operate in different industries, including those that ensure the functioning of electric grid facilities.



in the companies, see Appendix 7.

MPS

**EMPS** 

Amur

Primorsky

Khabarovsk

**EAST** 

### MPS **CENTRE EMPS** Valdaiskoye Verkhne-Donskoye Vologda Volga-Donsk Moscow Priokskove Chernozemnoye Special purpose production centre **Bely Rast**

MPS **NORTH-**WEST

**EMPS** 

**BRANCHES OF PJSC FGC UES** 

Karelskoe Leningrad

Novgorod Severnoe

MPS **VOLGA** 

**EMPS** Nizhne-Volzhskoye Sredne-Volzhskoye

Samara Nizhny Novgorod **EMPS** Caspian Kuban Rostov

MPS

SOUTH

Stavropol Sochi

MPS **URALS** 

**EMPS** 

Perm Sverdlovsk

South Ural Orenburg

MPS **WEST SIBERIA** 

**EMPS EMPS** Transbaikal Central

Southern West-Siberian Eastern

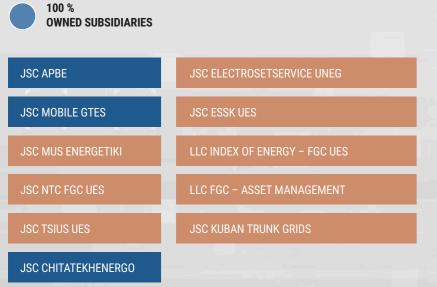
Krasnoyarsk Yamalo-Nenets Kuzbass

Khakassky

MPS

**SIBERIA** 

#### SUBSIDIARIES, ASSOCIATED AND OTHER COMPANIES, IN WHICH PJSC FGC UES PARTICIPATES



75-99 % **OWNED SUBSIDIARIES** 

LLC IT ENERGY SERVICE (79.999 %)

JSC NURENERGO (76.999 %)

OWNED SUBSIDIARIES

50-74 %

JSC IPS SAKRUSENERGO (50 %)

**ASSOCIATED COMPANIES** 



OTHER **COMPANIES** 

CJSC SEVEROVOSTOKENERGO (49 %)

JSC ENIN (38.239 %)

PJSC INTER RAO (9.239 %)

CJSC ENERGORYNOK (8.5 %)

PJSC ROSSETI (0.151 %)

JSC STEND (0.826 %)

Core

Non-core





**Increased reliability** modernization and expanded backbone infrastructure

The Company continued to invest in the development of the power grid infrastructure and renovation of production assets.

financing of the Investment

A number of major projects were implemented as part of the Investment Programme in 2018.

- of Sakha (Yakutia) to the UES in the South of Russia. of Russia.
- The Voskhod 550 kV put into operation for power Komsomolsk refinery. substation forming part of the output at Nizhne-Bureiskaya power transit Kurgan - Vityaz - HPP, the new power unit of Voskhod was built in Siberia.
- FGC UES completed the Three new power supply FGC UES supplied voltage to construction of the 220 kV centres were put into operation: the power receiving devices at overhead line Neryungrinskaya the Tobol 550 kV substation three oil pumping stations of GRES - Nizhny Kuranakh - in Western Siberia with the Eastern Siberia - Pacific Tommot - Maya in the Far integrated implementation Ocean (ESPO) pipeline system East, which provided for of digital solutions, Novo- in Khabarovsk Krai. Thus, the connection of the previously Labinskaya and Vostochnaya conditions have been created isolated centre of the Republic Promzona 220 kV substations for the electric supply of a
  - Permskaya GRES.
- new branch of the oil pipeline with a length of 293 km, which The infrastructure was will connect the ESPO and the

The Company reduced the accident rate, thus reaching the level of leading power grid organisations around the world.

the specific accident rate dropped due to introduction of new equipment, improved skills and expertise of the maintenance personnel, and other

By means of technological connection services, the Company provides access for consumers to the electric grid infrastructure.

of capacity of new consumers was connected to the Unified National Electric Grid of Russia.

### **FINANCIAL CAPITAL**







московская

Stable growth of cash flow from current operations provides for active use of own resources to finance the Investment Programme without resorting to borrowing major funds on the capital markets.

RUB cash flow from current operations in 2018. This indicator demonstrates steady growth for the third year in a row.

+5.6 % on 2017

PJSC FGC UES performance indicators for 2018 reflect the work of management aimed at ensuring financial stability and improving the efficiency of the Company.

Company revenue

+11.2 % on 2017

Company net profit in the reporting year.

+32.6 % on 2017

Reduction by
10.6
% of unit operating costs for 2018 against 2017 (in comparable prices).

The dividend yield of PJSC FGC UES shares is one of the highest among all enterprises in the industry.

Effective ratio own and

borrowed capital

© 9.14 % dividend yield.

High credit ratings and good financial results provide for debt financing under convenient terms. In 2018, the international rating agency Standard & Poor's upgraded the rating of PJSC FGC UES to BBB-.

RUB 10 bln – the amount of the Company's exchange bonds, which were successfully placed in October 2018. The issue met all the requirements necessary to be included on the Lombard List of the Bank of Russia, as well as the requirements for investment of pension savings and insurance reserves. Investors showed considerable interest in the issue of PJSC FGC UES bonds. Based on the bookbuilding results, the aggregate demand for PJSC FGC UES bonds exceeded the actual placement by more than 2.5 times.

0.094



FGC UES is an industry pioneer in terms of switching power facilities to remote control. Implementing remote control of substations improves the efficiency and safety of industrial operations.

**⊗** At 18 SS

**BOUT THE COMPANY** 

In 2018, the focus was on the priority areas of scientific and technical development associated with digitalisation.

### **⊘** 500 kV Tobol substation

commissioned in 2018 in the Tyumen Region became the first Russian ultra-high voltage facility with integrated application of digital substation technologies, i.e. the construction of power facility automation and control systems on the basis of the IEC 61850-9.2 standard using state-of-the-art information processing and collection devices, such as digital optical current and voltage transformers.

Up to 58 % the number of substations with modern digital information collection and management systems has increased.

Digitalisation of communication channels of automated dispatching and technological control systems improves the monitoring and control quality of the electric grid complex.

Up to 76,500 km the length of the FGC UES digital network was extended.

Use in work

innovation technology

**Environmental safety** and rational use resources

The Company considers environmental protection activities to be an integral and important part of its operations. FGC UES aims to minimise adverse impact on the environment during the course of electricity transmission and distribution.

The significant costs of environmental activities reflect the Company's responsibility to preserve the environment.

**NATURAL CAPITAL** 

Effective environmental management.

in 2018, following the results of the compliance audit, the environmental management system was recognised as fully compliant with its requirements.

+38.8 % on 2017

the Company's current environmental protection costs.

For the second time in a row, FGC UES was recognised as the most environmentally responsible company in the sector and was awarded for best environmental management at the Leader of Environmental **Protection in Russia contest.** 

Large-scale introduction of energy-saving technologies provides not only for economic benefit, but also an environmental one.

operational benefit of measures to reduce energy/fuel consumption for 2018.

FGC UES supports initiatives and programmes aimed at energy, conservation of biodiversity and prevention of environmental pollution.

were saved as a result of events held at 773 Company facilities as part of the worldwide movement

Although PJSC FGC UES operations do not have a significant impact on biodiversity, the Company actively implements measures to protect wildlife at its electric grid facilities.

⊗ About 60,000

bird protection devices were installed on high-voltage lines in 2018. Almost five thousand of them were installed on power transmission lines in the Northern Caucasus in habitats of birds listed in the Red Data Book.



In order to develop the professional potential of young people, FGC UES cooperates with institutions of specialised higher and secondary education.



More than

Russian educational institutions have been involved in various forms of cooperation with the Company. Cooperation agreements have been signed with 52 universities and 13 specialised secondary schools.

A balanced human resources management system provides for optimal use of human resource potential.

Optimisation of the organisational structure

made it possible to balance the personnel workload and reduce the number of management levels for production operations. **© 15,800** 

FGC UES employees took part in training, retraining and professional development programmes in 2018.

Healthy and safe working conditions for employees are a priority in all of the Company's activities.

Introduction of the Hazard Identification Methods and Employee Injury Risk Assessment

was aimed at continually reducing the accident rate.

### **SOCIAL AND RELATIONSHIP CAPITAL**

**ABOUT THE COMPANY** 



# **Positive image** and reputation of a reliable partner



Support of culture and art is an important part of the Company's charity and sponsorship activities.

The State Hermitage

was the venue for the exhibition by Ilya and Emilia Kabakov entitled "Not Everyone will be Taken to the Future", which was sponsored by PJSC FGC UES. The exhibition was a joint project between the State Hermitage Museum, the Tretyakov Gallery and the Tate Modern (UK).

#### The achievements of FGC UES in 2018 were repeatedly noted at various competitions.

- of the Government of the Russian Federation in the field among 11 winners selected from results of the XIV All-Russian 282 candidate organisations.
- grand prize For Development awards in two categories: "Best of Personnel Potential at the Environmental Management" Leaders of Russian Business: and "Best Environmentally Dynamics and Responsibility Responsible Company in the contest held by the Russian Electric Power Industry".

Entrepreneurs (RSPP).

- Competition Leader Environmental Protection in
- FGC UES won the Prize Union of Industrialists and FGC UES received the grand prize For Development of Professional and Personal of quality. The Company was In 2018, following the Potential of Employees at the contest for Most Socially Oriented Company in the Power Industry, which was organised FGC UES received the Russia 2018, PJSC FGC UES won by the Ministry of Energy of Russia

**Constant interaction with customers allows the Company** to better meet their expectations and continuously develop in this area.

the level of customer satisfaction with the Company's technological connection service based on the survey conducted in 2018.

Interaction with regional authorities is necessary for successful development of the regions of the Company's operations and effective implementation of its Investment Programme.

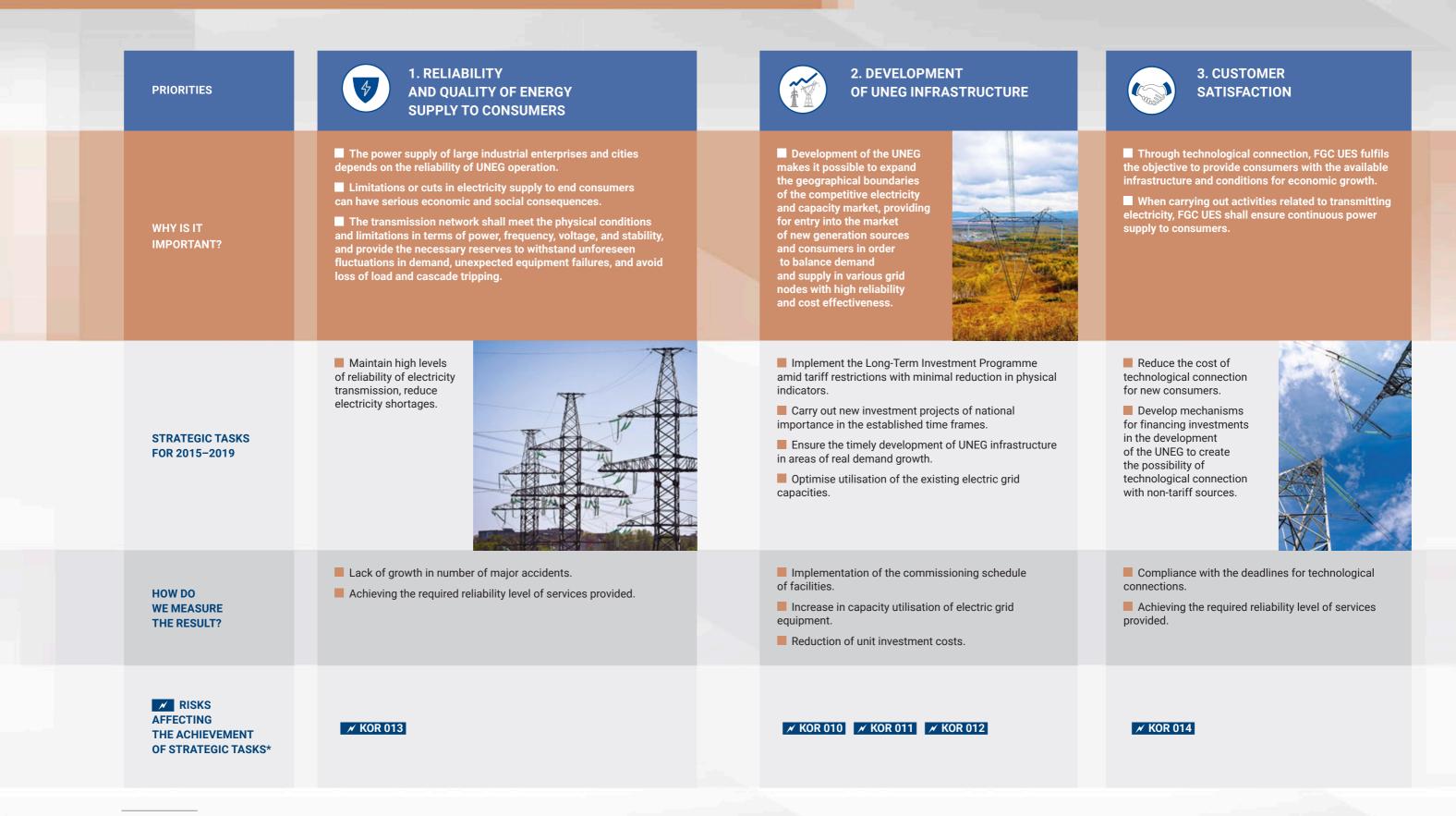
cooperation agreements with the regions

- agreement with the administration of the Sakhalin Region;
- agreement with the administration of Primorsky Krai;
- agreement with the administration of Krasnodar Krai.

ABOUT THE COMPANY

STRATEGIC PRIORITIES AND TASKS

#### STRATEGIC PRIORITIES AND TASKS



<sup>\*</sup> For more information on key operating risks, see section Key Risks.

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STRATEGIC PRIORITIES AND TASKS **ABOUT THE COMPANY** 

#### STRATEGIC PRIORITIES AND TASKS

### 4. ECONOMIC **PRIORITIES EFFICIENCY** Existing limitations of the electricity price (tariff) growth rates impose significant restrictions on the increase in operating costs and the allowable amount of investments in upgrading and renovating electric power grids. ■ In the context of tariff restrictions and stabilisation of WHY IS IT the scope of grid activities, the Company needs to improve its internal efficiency to ensure further technological development and create profit for shareholders, which will also be used to finance **IMPORTANT?** investments, including equipment renovation and modernisation. Reduce unit operating costs. At the same time, measures to reduce costs shall neither have an adverse impact on the level of reliability, nor lead to increased costs in future periods. ■ Use the programme-target principle when developing investment programmes, in accordance with which the activities of investment **STRATEGIC TASKS** programmes aimed at meeting the targets shall be grouped FOR 2015-2019 and united by quantitative indicators that reflect the implementation effect of these activities. Growth of financial and economic indicators (consolidated net cash flow, EBITDA). **HOW DO** Reduction of unit operating costs and specific investment costs. **WE MEASURE** Growth of labour productivity. THE RESULT? Efficiency of innovation activities. **RISKS AFFECTING** THE ACHIEVEMENT **OF STRATEGIC TASKS\***



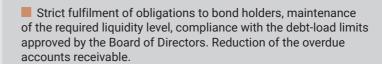
#### 5. FINANCIAL SUSTAINABILITY

- Improvement of the investment efficiency is associated with the optimisation of financing sources. PJSC FGC UES strives to find a balance between financing using the Company's own funds, borrowed funds and other sources.
- The high financial stability indicators of the Company contribute to attracting debt financing under favourable terms.
- In addition, the financial stability of FGC UES guarantees the Company's solvency and its investment and reputation attractiveness for shareholders, investors, and contractors in the long term within the acceptable risk level.





■ Maintain the credit rating of PJSC FGC UES at the sovereign level.





<sup>\*</sup> For more information on key operating risks, see section Key Risks.

#### **CORPORATE GOVERNANCE**

The Company observes the requirements of Russian legislation in the sphere of corporate governance and follows a considerable number of the recommendations of the Russian Corporate Governance Code.

**⊗ 7**++

Well-Developed Corporate Governance Practice. It is the corporate governance rating assigned by the Russian Institute of Directors. Compliance according to the Corporate Governance Quality Self-Assessment Method\*



\* Developed in accordance with the Corporate Governance Quality Self-Assessment Method in Companies Partially Owned by the State approved by Order No. 306 of Rosimushchestvo dated 22 August 2014.

The Board of Directors shall be an efficient and professional governing body of the Company capable of making objective and independent judgements and making resolutions in the best interests of the Company and its shareholders.



3 independent directors

on the Company's Board of Directors provide an independent perspective on operations carried out by the Company and its governing bodies, based on their knowledge, experience and expertise. Only independent directors form part of the Audit Committee and the HR and Remuneration Committee.

The excellent performance of the Board of Directors is confirmed by independent evaluation.



performance evaluation of the Chairman of the Company's Board of Directors based on the assessment results of the Board of Directors and Committees conducted in early 2019 by an independent consultant of JSC VTB Registrar.

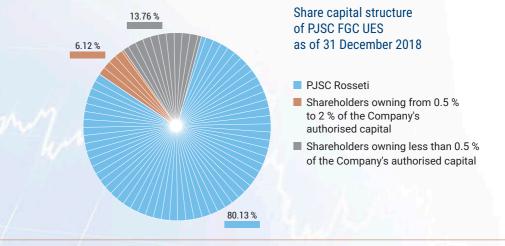
The Company continues to develop its corporate governance system.



- The new version of the Regulations on the Dividend Policy of PJSC FGC UES has been approved, where the dividend amount was fixed to no less than 50 % of the net profit\* calculated according to financial statements as per RAS or IFRS.
- Remote participation of shareholders in the Annual General Meeting of Shareholders was made possible by creating technical conditions for electronic voting.

\* The amount was calculated taking into account the adjustment of net profit in accordance with Regulation No. 1094-r of the Government of the Russian Federation dated 29 May 2017.

The total number of the Company's shareholders exceeds 400,000 persons.

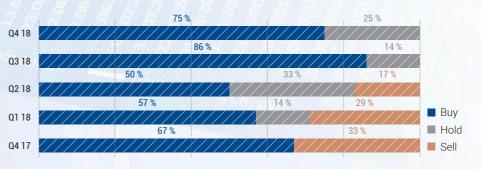




in 2018, total shareholder return (TSR) of FGC UES shares was above the average TSR value of the most capitalised companies in the Russian power sector.

Analysts make an optimistic assessment of the investment attractiveness of FGC UES shares, mainly giving the recommendation to purchase them.

Recommendations of analysts on PJSC FGC UES shares\*\*



\*\* Source: Company data.



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# STRATEGIC REPORT

In 2018, FGC UES completed projects that strengthhened the country's energy security, kept the trend of positive production and financial indicators, made progress in digitalisation and proved to be an industry leader in the environmental sector.

- **36** Business Model
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- **62** Performance Results 2018:
  - **62** Manufactured Capital
  - **86** Financial Capital
  - 96 Intellectual Capital
  - 102 Natural Capital
  - 113 Human Capital
  - **127** Social and Relationship Capital



### **BUSINESS MODEL**

We use capitals to create value for stakeholders

STRATEGIC PRIORITIES:



#### **RELIABILITY AND QUALITY OF ENERGY SUPPLY**



INFRASTRUCTURE **DEVELOPMENT** 



**CUSTOMER SATISFACTION** 



**ECONOMIC EFFICIENCY** 

**RESULTS** 

**STAKEHOLDERS** 

**CONTRIBUTION** 

SUSTAINABLE

**DEVELOPMENT** 

17 PARTNERSHIP FOR THE GOALS

8

TO UN

**GOALS** 

**FOR** 



**FINANCIAL SUSTAINABILITY** 

(+32.5%)

#### RESOURCES



#### **FINANCIAL CAPITAL**

We strive to raise return on financial capital and maintain financial stability. For information on financial capital management, please see page 86.



#### PRODUCTIVE CAPITAL

We invest into power grid infrastructure development and productive assets renovation. For information on the largest power grid infrastructure projects in Russia, please see pages 74-79.



#### **INTELLECTUAL CAPITAL**

We promote scientific and innovative potential development, develop and introduce new technologies.

For digitalisation and use of advanced technologies, please see pages 96–100.



#### **HUMAN CAPITAL**

We highly appreciate experience and professional skills of our staff, provide social support and arrange for **staff development and training**. For information on Company staff, corporate culture development, and safe working conditions, please see pages 114–125.



#### **NATURAL CAPITAL**

We strive to reduce emission of harmful substances into the atmosphere, water consumption and to enhance energy efficiency. For information on environmental safety management and sustainable use of energy, please see pages 102, 111.



#### **SOCIAL GOODWILL**

In our activities, we maintain positive Company image supported by maximum information transparency. For the socially responsible model of Company operation, development of regions of Compony presence and efficient interaction with stakeholders, please see pages 127-133.





**ELECTRICITY TRANSMISSION** 



**TECHNOLOGICAL** CONNECTION



CONSTRUCTION AND RECONSTRUCTION

We ensure continuous

→ PRODUCTS AND SERVICES

and reliable electricity transmission via backbone grids in 79 regions of Russia,

addressing most important issues of social and economic development of our country. We plan and implement development of transmission networks and ensure access for new consumers.



#### Revenue Net profit RUB 240.3 billion. RUB 56.2 billion.

(+11.3%)

#### Investment programme:

RUB 103.3 billion. (+5.2 %)

Dividends paid in 2018:

RUB 18.9 billion

**SUSTAINABILITY RESULTS** 

> **Payments** to all budgets: RUB 46.9 billion

Staff payroll: RUB 21.1 billion

reduced by **12.7** % Labour efficiency increased

**Specific** waste volume

by 10.71 %





**MANAGEMENT** 

SUSTAINABLE DEVELOPMENT MANAGEMENT

### **BUSINESS MODEL**

#### **RESOURCES**

#### AS OF END OF 2017 → AS OF END OF 2018



#### **FINANCIAL CAPITAL**

Efficient ratio of own and borrowed capital

Own capital: RUB 1,037.57 billion → RUB 1,090.3 billion

Borrowed capital (total debt): RUB 257.5 billion → RUB 246.7 billion



#### PRODUCTIVE CAPITAL

Modern capacities meeting customers' requirements

Substations: 944 → 958

Length of power transmission lines: 142.4 thousand km → 146 thousand km

Transformer capacity: 345 GVA → 352 GVA



#### **INTELLECTUAL CAPITAL**

Use of innovative technologies in operations

Cost Of NMA: RUB 2.67 billion → RUB 3.74 billion

Patents and certificates obtained: 9 → 24



#### **HUMAN CAPITAL**

Highly qualified personnel, safe operations, social guarantees, training and professional

Personnel: 21,876 people → 22,052 people



#### NATURAL CAPITAL

Environmental safety and sustainable use of resources

Electric power consumption:\* 939 million kw·h → 946 million kW·h

Water consumption:\* 898.3 thousand m<sup>3</sup> → 799.5 thousand m<sup>3</sup>



#### **SOCIAL GOODWILL**

Positive image and reliable partner reputation

Moody's Ba1 / Stable → Ba1 / Positive

Fitch BBB− / Positive → BBB− / Stable

Standard & Poors BB+ / Positive → BBB- / Positive

Customer satisfaction rate of 9.23 points → 9.3 points (10-point scale)

#### Creation of value for stakeholders

Financial capital	2017	2018
Revenue, RUB bln	216.0	240.3
Cashflow from operating activities, RUB bln	120.7	127.4
Investment programme, RUB bln	95.6	103.3
Dividends paid, RUB bln	19.6	18.9
Capitalisation, RUB bln	206.9	188.9

**Objective:** To maintain financial stability, balance of shareholder interests and Company development needs.

**KPI:** Consolidated revenue from operating activities; Consolidated net cashflow; reduction in specific operating and investment expenses (costs); consolidated net debt/ EBITDA; implementation of the action plan to reduce accounts receivable.

Manufactured capital 3 - 4 11 - 4 5 5	2017	2018
Transformer capacity of substations commissioned, thousand PTL, thousand km	4.93	5.68
PTL, thousand km	1.2	1.82
Service reliability rate*	0.009	0.009
Reduction in specific number of accidents	19 %	17 %

**Objective:** Improvement of service reliability and quality, optimisation of capacity use, UNEG development.

**KPI:** No major accidents; delivery of commissioning schedule; achievement of service reliability level; increase in the use of grid equipment capacity; electric power losses.

Intellectual capital	2017	2018
Dynamics of communication channel digitalisation at power grid facilities of FGC UES	83.7 %	84.9 %
Cost of R&D, RUB bln	0.52	0.6
Partnering establishments of higher education	52	52

**Objective:** Efficient introduction of advanced technologies, business process automation.

KPI: Efficiency of innovation activities.

Human capital	3 min	2017	2018
Average wage growth		6.4 %	6.3 %
Growth of labour produc	ctivity	14.8 %	10.7 %
Active staff turnover		5.2 %	4.6 %

**Objective:** Creation of conditions for safe operations and professional development, increase of labour efficiency.

**KPI:** No increase in the number of injured during accidents, increase of labour efficiency.

Natural capital	2017	2018
Current environmental costs, RUB mln	182.12	252.7
Reduction in generated waste	2 %	13 %

**Objective:** To minimise negative impact over the environment; careful use of natural capital and environmental risks management.

Social and relation-ship capital	17 Harmen 2017	2018
National Pension Fund, RUB mln	327.3	327.3
Cost of insurance, RUB mln	370.9	378.4
Publications	>23 thousand	27 thousand
Charity and sponsorship, RUB mln	256.7	342.1

**Objective:** maintaining the Company's positive image and business reputation.

KPI: Meeting deadlines for technological connection.

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<sup>\*</sup> For in-house needs at substations.

<sup>\*</sup> Reliability level of the Company's services is determined by duration of electricity outage and is calculated as the ratio of the actual total duration of electricity outage in the control period (hour) to the maximal number technological connections for the same period.

STRATEGIC REPORT

INDUSTRY OVERVIEW

#### INDUSTRY OVERVIEW

#### **GLOBAL TRENDS**

The most significant global trends in the electric power industry which could impact the Company's operations are as follows:

- increase in the share of electricity in the total volume of consumed power.
   The universal, manageable and convenient nature of electricity make this type of energy the best for use in modern industrial procedures and transformation of the human environment;
- diversification of electricity sources (decentralisation). With restrictions
  on the extraction of traditional fossils of primary energy carriers, the share
  of renewable energy sources is growing;
- increase in irregular consumption of electricity with growth in the number of consumers and generation sources. This results in the necessity to improve flexibility in grid operations when managing power flows on electricity transmission lines;
- development of digital technologies (digitalisation). Significant growth
  of information flows along with the use of technologies for flexible management
  of transmission capacity, improvement of grid control and management systems,
  the need to increase the speed of data processing and decision making processes
  make it necessary to use digital technologies.

Global trends directly or indirectly affect the development of the electric power industry of Russia, including the electric grid complex. FGC UES not only monitors these trends, but also strives to respond to them in a timely manner, assessing potential risks and opportunities in advance. When constructing new power infrastructure and providing technological connection for users of the transmission network, due consideration is given to electricity demand forecasts, electricity consumption profiles and technological capabilities of the grid for flexible management of transmission capacity. The Company will follow global trends taking into consideration the specific features when implementing the Comprehensive Plan for Modernisation and Expansion of the Main Infrastructure approved by Decree No. 2101-r of the Government of the Russian Federation dated 30 September 2018. This decree provides for implementation of projects related to electric grid development aimed at accelerating social and economic development in Eastern Siberia and the Far East and strengthening the country's raw materials and export potential. In addition, it is planned to overcome the lack of infrastructure integration and develop new territorial production clusters based at the power supply and processing plants under construction.

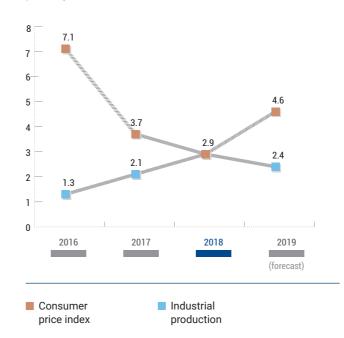
At the same time, innovative and digital technologies will be introduced, which provide a new quality of services both for the population and for business. This ambitious task will require coordinated efforts to be taken by infrastructure sectors, regions, equipment manufacturers and the financial sector.

#### **MACROECONOMIC TRENDS 2018**

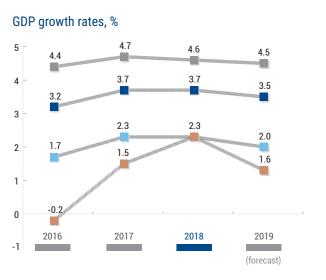
The volume and physical characteristics of the services rendered by FGC UES are highly dependent on the overall economic situation in the country because of the infrastructural nature of the power industry in general and the power grid in particular.

Moderate growth in 2018 and a possible decline in the Russian GDP in the coming years, as well as a slight increase in specific electricity consumption, constrain the growth of the electricity grid load and make it possible to use the existing grid capacity reserves and postpone costly projects aimed at strengthening the network. At the same time, the Company continues to implement investment projects in the grid nodes, where the increase in electricity consumption leads to the need to increase the transmission capacity.

### Industrial production and consumer prices growth rates, %\*



<sup>\*</sup> Sources: Rosstat, IMF, Ministry of Economic Development.



Developing and developed

economies

World economy

According to estimates of the Scheme and Development Programme for the UES of Russia for 2018–20244, the growth rate of electricity consumption is likely to remain low in the coming years, on average about 1 % per year. A notable growth in electricity consumption will take place only in certain regions of intensive industrial growth and development of social infrastructure, especially in the South of Russia, the Far East and the Kaliningrad Region. At the same time, the price ratio of electricity supplied from the grid to that supplied from own sources in centralised systems contributes to consumer transition to their own sources, which may continue to have an adverse impact on the demand for grid services in centralised systems.

Developed

Russia

economies

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#### FGC UFS 1

<sup>&</sup>lt;sup>4</sup> Approved by Order No. 121 of the Ministry of Energy of Russia dated 28 February 2018.

STRATEGIC REPORT INDUSTRY OVERVIEW

#### Electricity consumption in Russia in 2014-2018 and forecast for 2019-2024

	2014	2015	2016	2017	2018	2019 forecast	2020 forecast	2021 forecast	2022 forecast	2023 forecast	2024 forecast
Electricity consumption in the UES of Russia, bln kWh	1,014	1,008	1,027	1,039	1,056	1,071	1,090	1,100	1,111	1,120	1,132

<sup>\*</sup> Sources: reports of the System Operator, the Scheme and Development Programme for the Unified Energy System of Russia for 2018–2024.

electricity export and import volumes, and taking into account (primarily, energy saving factor), PJSC FGC UES does not due to fluctuations in the national inflation level. expect any increase in the paid grid services in 2018–2020.

As an active participant in the debt capital markets (as of PJSC FGC UES was RUB 243.7 billion), the Company is obviously affected by changes in macroeconomic conditions, at least in terms of the proposed market rates and the time periods for attracting new financing.

Due to the presence of bonds in the borrowed funds with a floating coupon rate tied to the inflation rate (RUB 150 billion

Thus, based on the assessment of electricity consumption, or more than 50 % of the total debt, attracted at the annual inflation rate of +1...2.5 %), the Company is also subject the factors that cause a slowdown in electricity consumption to the risk of changing interest costs on existing borrowings

Despite the increase in inflation from the minimum rate of 2.5 % in 2017 to 4.2 % in 2018, the management of 31 December 2018, the total value of circulating bonds of PJSC FGC UES estimates a high probability of stable inflation in the medium term close to the target annual rate of 4% as indicated by the Bank of Russia. Taking into account these circumstances and the Company's right to early bond redemption at its discretion if the coupon rate exceeds 10 % per annum, the risk of changing interest costs is considered to be acceptable.

#### OPPORTUNITIES AND RISKS FOR FGC UES GRI 103-2

#### **WEAKNESSES STRENGTHS** FGC UES is a natural monopoly of strategic importance, Dependence on state regulatory authorities in setting which guarantees constant state control over the tariffs and developing the investment programme. Company's activities. Need for careful investment planning and coordination Low exposure to market fluctuations in the development in the development of generation and electric grids of of grid services. the power system. Extensive experience in the field of management, Lack of economic mechanism for optimising operation and engineering of electric grids. the volume of power declared by consumers Focus on innovative development and advanced for technological connection, which can lead to unreasonably high operating costs. technologies. Highly qualified personnel. Capital intensive infrastructure. Strong financial performance and a balanced loan A clear development strategy with a focus on improving operational efficiency and reducing costs. High level of corporate governance. Solid reputation among partners and investors. **THREATS OPPORTUNITIES** Application of innovative energy-saving technologies. Cancellation by customers of electricity transmission services provided by the UNEG due to decentralised • Improving the efficiency of grid asset management. generation and deterioration of the overall economic Reduction of operating costs. situation. Connection of new consumers to the UNEG. Refusal of applicants to implement their own development projects, which may lead to a reduction in revenue of PJSC FGC UES from technological connection services. Errors in predictions of the grid development, and in the composition and structure of the Investment

Programme.

FGC UES has considerable potential for further development. The Company's weaknesses and threats are estimated on a continual basis as part of the risk management process, while the management team takes actions to reduce possible adverse effects.

Comparison of FGC UES with certain foreign public power grid companies engaged in monopoly activity for electricity transmission through transmission networks

GRI 103-3

No.	Company name	Headcount, persons	Length of power transmission lines, thousand km	Operating costs per 100 km of power transmission lines, EUR mln (2016 data)	Capitalisation, EUR mln
1.	PJSC FGC UES	22,052	146	1.46	2,380
2.	RTE (France)	-	_	1.34	-
3.	Red Eléctrica Cor-poración, S.A. (Spain)	1,799	44	1.27	10,454
4.	Terna Rete Italia SpA (Italy)	4,252	72	1.53	9,909
5.	Fingrid OYJ (Fin-land)	380	14	3.16	-
6.	JSC KEGOC (Ka-zakhstan)	4,797	27	-	947

Comparison of FGC UES with some Russian public power companies with the most capitalised and liquid shares among those listed in the MOEXEU sector index

(figures for all companies are calculated on the basis of consolidated statements as per IFRS)\*

No.	Company name	Capitalisation, RUB bln	Average annual trading volume on the Moscow Exchange, RUB mln	EBITDA,** RUB bln	EBITDA margin, %	Dividend yield, %	EV/ EBITDA, %
1.	PJSC FGC UES	188.9	240.9	140.50	55.3	9.1	2.8
2.	PJSC Rosseti	153.3	133.7	306.3	30.0	1.46	3.2
3.	PJSC Inter RAO	406.2	358.3	121.3	12.6	3.83	0.9
4.	PJSC RusHydro	206.9	340.6	109.7	27.4	3.61	2.8
5.	PJSC Mosenergo	81.7	42.7	43.7	22.0	6.33	1.4
6.	PJSC Unipro	163.4	55.0	27.9	35.9	8.78	5.7

<sup>\*</sup> Source: Moscow Exchange data, Bloomberg data.

<sup>\*\*</sup> Profit for the period before taxes, financial income and costs, and depreciation. EBITDA of FGC UES without adjustments.

All processes related to

economic growth and

social development in

Russia depend on the

is the most important

national power industry.

The electric grid complex

component of this industry,

and is the one closest to

the people, to consumers.

Economic development in

the constituent entities of

the Russian Federation and

improvement of quality of

life directly depends on the

development of the electric

Aleksandr Novak,

Minister of Energy

of the Russian Federation<sup>5</sup>

grid complex.

#### DEVELOPMENT STRATEGY

#### **GRI 103-2**

When determining its strategic development priorities, the Company is guided by the priorities of state policy in the field of the electric grid complex.

The main strategic priorities of the state policy are determined in the Development Strategy of the Russian Electric Grid Complex until 2030:

- long-term reliable, high-quality and affordable energy supply to consumers;
- ensuring reliable and safe operation of the electric grid complex;
- developing the most efficient grid infrastructure in line with global standards;
- maintaining the tariff level, which provides for an acceptable level of electricity costs for the Russian economy and supports the investment attractiveness of the Company.

In addition, the national goals and strategic development objectives of the Russian Federation until 2024 were determined in Decree No. 204 of the President of the Russian Federation dated 7 May 2018. The implementation of the set goals and objectives involves a comprehensive upgrade and expansion of the main infrastructure, including

- electrification of the West East and North South transport corridors in conjunction with the transport infrastructure development;
- development of centralised power systems, including modernisation in line with the needs of social and economic development;
- sustainable energy supply to consumers in the constituent entities of the Russian
- development of distributed generation, including based on renewable energy sources, especially in remote and isolated power regions;
- introduction of intelligent control systems of electric grid facilities based on digital technologies.

In the medium term, there will be some change in the geography of electricity consumption and the scope of electricity transmission services due to the emergence of new economic "growth areas". In particular, the largest growth rate of transmission services is expected in the interconnected power systems of the East and the South.

#### What are Company's policies and plans in terms of consolidating the backbone grid complex of the Russian Federation?

The Company is interested in consolidation of the backbone assets that meet the UNEG classification criteria. This is also in line with the Electric Grid Complex Development Strategy of the Russian Federation

The exchange of assets with JSC DVEUK was the largest transaction in recent years, which provided FGC UES with control over the overhead lines and 220 kV substations in the Republic of Sakha (Yakutia).

As a result, additional economic opportunities for direct consumers have been created and the efficiency of the main electric grid complex of the Far East will increase on the whole.

What are the plans for the acquisition of transmission networks in regions (Tatarstan, Bashkiria, Novosibirsk, Irkutsk)?

Main electric grid assets are of potential interest to FGC UES in the Republic of Tatarstan, Republic of Bashkortostan, Novosibirsk Region and Irkutsk Region.

The Company is ready to discuss options for their acquisition. The main decision-making criterion is the economic feasibility of the transaction.



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

#### LONG-TERM DEVELOPMENT PROGRAMME

The main areas of FGC UES strategic development are presented in the Long-Term Development Programme approved<sup>6</sup> in 2014. In 2018, the new version of the Long-Term Development Programme was developed, which clarified the goals and objectives for the period until 2023, as well as the actions to be taken for their implementation.

The Long-Term Development Programme of PJSC FGC UES has been developed in line with the targets and provisions of the Russian Electric Grid Complex Development Strategy<sup>7</sup> and the Methodological Recommendations for Development of which resulted in, amongst other things, the Long-Term Development Programmes prepared by the Ministry of Economic Development of the Russian Federation, coordinated with the related federal executive authorities and approved by the Government of the Russian Federation. The LDP takes into consideration risks that may affect the achievement of FGC UES strategic objectives and includes measures for risk minimisation.

In the course of implementing the LDP approved in 2014, the global and Russian

economies faced significant changes caused by a drop in oil prices, reduction in the exchange rate of the rouble to leading foreign currencies, and increased tension in the foreign political environment, economic sanctions imposed on the Russian Federation and changes in certain strategic development guidelines of the state and time periods required to achieve them. There have also been changes in expectations regarding the dynamics of some parameters of macroeconomic development and priorities in investment and management of production assets, while the requirements for reducing costs and improving management efficiency became stricter. The Company has taken a

<sup>&</sup>lt;sup>5</sup> Talking points of the Minister of Energy of the Russian Federation in his speech at the Electric Grids International Forum held on 4 December 2018 in Moscow

<sup>&</sup>lt;sup>6</sup> Approved by resolution of the Board of Directors, Minutes No. 243 of 22 December 2014.

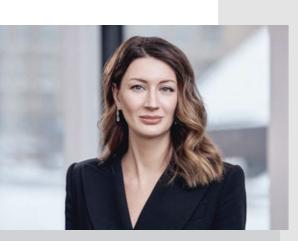
Approved by Directive No. 511-r of the Government of the Russian Federation of 03 April 2013.

STRATEGIC REPORT **DEVELOPMENT STRATEGY** 

impact of macroeconomic factors.

Taking into account these changes, we developed a new version of the programme in 2018. The changes were aimed at contributing to the Company's long-term goals and tasks so they would do their utmost to meet the grid consumers' needs and expectations of shareholders while being realistic and achievable.

number of actions to prevent the negative In 2019, elaboration of the LDP continued to take into consideration the resolutions made by the President and the Government of the Russian Federation,8 including plans to accelerate the growth rate of capital investments and increase their share in the gross domestic product to 25 %.



Maria Tikhonova, Deputy Chairman of the Management Board. Member of PJSC FGC UES Management Board



For more information about the Company's strategic priorities and objectives, see the section Strategic Priorities and Tasks.

#### What are the key prerequisites for elaboration of the updated Long-Term Development Programme?

In developing the new LDP, we took into account the external challenges and internal circumstances that have an objective impact on the Company's operations, including the need to increase labour productivity, reduce operating costs, improve the efficiency of investment activities and the management of production assets, and implement the tasks outlined in the May Decree of the President of the Russian Federation. The goals and objectives of the new LDP are based on the development needs of the Russian economy and the decisions made by the President and Government of the Russian Federation.

Many of the benchmarks set out in the LDP are consistent with the previous programme, but we have also tried to develop new approaches to dealing with the usual challenges. For example, improvement of investment efficiency in the previous LDP was mostly achieved through cost reduction. Since this process cannot be endless, the new version provides for improvement of investment efficiency by increasing the quality of the investment process as a result of introducing a new digital design, repeated use of materials from previously tested design documentation, as well as the results of engineering and geological surveys. Innovative technologies are also used when solving other tasks set by the Long-Term Development Programme. In particular, implementation of the Digital Substations Programme is expected to increase equipment reliability and network monitoring and control, reduce the impact of the human factor, and lower the number of failures and time required to liquidate their consequences.

In order to monitor the implementation of measures and the achieved actual values of FGC UES performance indicators determined in the Long-Term Development Programme, an audit was carried out, the results of which are presented in the Audit Report dated 29 April 2019. The availability of documents confirming the actual values of the Company's key performance indicators, performance of activities, and implementation of planned LDPs within the indicated terms were audited. No violations have been found.

#### Which projects implemented by the Company will contribute to the development of the Far East and Eastern Siberia?

The power industry of the Far East and Eastern Siberia is comprised of several isolated large power units, many small power units and power regions supplying power to consumers on a centralised basis, as well as areas of decentralised electricity supply with small amounts of electricity consumption, which do not have electrical connections to the grid due to their remote location.

For the purpose of social and economic development of the Far East and Eastern Siberia, PJSC FGC UES implements a number of major projects for construction of new facilities and reconstruction of existing electric grid facilities under its investment programme.

For example, the investment project for development of the electric grid infrastructure in Eastern Siberia and the Far East includes an action plan providing for development of the Baikal-Amur Mainline and Trans-Siberian Railway within the boundaries of the Eastern ground of JSC RZD's railway network, as well as reliable electricity supply to the existing and prospective consumers in these regions.

At present, 627 MVA of capacity and 541 km of the power transmission lines have been commissioned as part of the project Eastern Siberia - Pacific Ocean - Power of Siberia. As a result, conditions were created for delivery of up to 30 million tonnes of oil through the pipeline system for further transportation to the markets of the Asia-Pacific Region.

In addition, PJSC FGC UES continues to develop the grids on the territory of the Far Eastern Federal District to increase oil transportation to 80 million tonnes through the ESPO pipeline system. Total growth of maximum capacity will reach 77.9 MW.



Aleksey Molsky, Interim First Deputy Chairman of the Management Board.\* Member of PJSC FGC UES Management Board \* Order of PJSC FGC UES

No. 70 rs of 28 February 2019.

47

#### GRI 102-26

The Company's strategic objectives are achieved through adoption by the governing bodies and implementation of a number of programmes, in particular:

- Long-Term Development Programme;\*
- Investment Programme;\*
- Innovative Development Programme;\*
- Unified Technical Policy;\*
- Import Substitution Programme for Equipment, Technologies, Materials and Systems;
- Energy Saving and Energy Efficiency Programme;
- Programme to Improve Investment and Operating Efficiency and Reduce Costs;
- Environmental Policy Implementation Programme.\*

The consolidation of UNEG facilities is one of the priorities set in the Long-Term Development Programme of PJSC FGC UES.

Order of the President of the Russian Federation No. 204 of 7 May 2018, Instruction of the Russian Government No. 2101-r of 30 September 2019.

<sup>\*</sup> Approved by the Board of Directors.

STRATEGIC REPORT

IMPLEMENTING OUR STRATEGY

#### IMPLEMENTING OUR STRATEGY

## 1. RELIABILITY AND QUALITY OF ENERGY SUPPLY TO CONSUMERS



#### **■ CONTRIBUTION OF 2018 RESULTS TO THE STRATEGY IMPLEMENTATION**

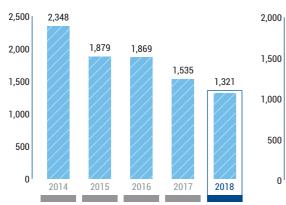
In 2018, due to the introduction of new equipment, improvement of skills and professionalism of maintenance personnel and other efforts,

the specific accident rate at FGC UES facilities declined

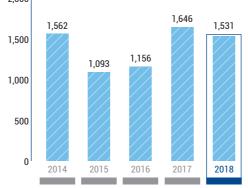
by **17** %

In 2018, the electricity shortage indicator fell by 7 %

Number of accidents at PJSC FGC UES' facilities



to 1,531 MWh



Dynamics of energy undersupply

of PJSC FGC UES, MWh

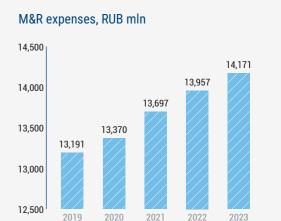
compared to 2017.

#### ■ PLANS AND TARGETS UNTIL 20239

The reliability of electricity transmission services will be maintained at a consistently high level due to:

- timely identification and analysis of factors affecting reliability and industrial safety;
- compliance with the Unified Technical Policy and implementation of the Innovative Development Programme;
- implementation of the technical upgrade and reconstruction programme;
- improvement of the UNEG monitoring and control level;
- development of the production assets management system.

The Maintenance and Repairs Programme (M&R) is one of the main tools for ensuring reliable operation of electric grid facilities.



#### 2. DEVELOPMENT OF UNEG INFRASTRUCTURE



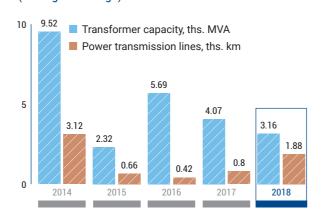
#### ■ CONTRIBUTION OF 2018 RESULTS TO THE STRATEGY IMPLEMENTATION

In 2018, within the framework of the Investment Programme, the Company implemented a number of major projects for construction of overhead lines and substations, including in the Far East and Western Siberia.

Financing of the Investment Programme amounted to

103.3 RUB billion

## Capacities commissioning dynamics (setting for voltage)



### Dynamics of financing investments, RUB bln



#### ■ PLANS AND TARGETS UNTIL 2023

The Company's priority projects for development of the UNEG infrastructure until 2023 include the implementation of actions within the responsibility area of PJSC FGC UES as stipulated by the Comprehensive Plan for Modernisation and Expansion of the Main Infrastructure until 2024, 10 including:

- ensuring synchronised work of individual energy districts of the Republic of Sakha (Yakutia) with the UES of Russia;
- ensuring power output via nuclear, thermal, and hydroelectric power plants and distributed generation;
- power supply of port areas;
- developing energy infrastructure in the area of the Baikal-Amur Mainline and the Trans-Siberian Railway.

/, Q

<sup>9</sup> All target values provided herein and in the tables below are given in compliance with PJSC FGC UES draft Business Plan 2019 and forecasts for 2020–2023.

Developed in line with Decree No. 204 of the President of the Russian Federation dated 7 May 2018 on National Goals and Strategic Development Objectives of the Russian Federation until 2024, and approved by Order No. 2101-r of the Russian Government dated 30 September 2018.

STRATEGIC REPORT IMPLEMENTING OUR STRATEGY

#### 3. CUSTOMER SATISFACTION

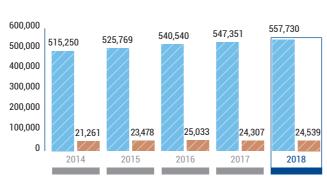


#### **■ CONTRIBUTION OF 2018 RESULTS TO THE STRATEGY IMPLEMENTATION**

According to the participants of the annual customer satisfaction survey in 2018, the quality of documents received from PJSC FGC UES increased, as well as the performance of PJSC FGC UES personnel in terms of providing information on the technological connection process.

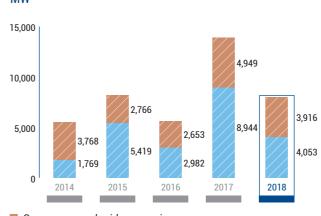
The integrated index of customer satisfaction with the technological connection service increased against 2017

Dynamics of electricity supply and losses in FGC UES' grids, mln kWh



- Electricity supplied to consumers of services
- Electricity losses in UNEG

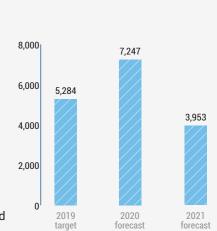
Dynamics of volumes of consumers' capacities and electricity generation facilities connected to FGC,



Consumers and grid companies Electricity generation facilities

- **PLANS AND TARGETS UNTIL 2023**
- Improving the quality of organisation, planning and execution of technological connection activities.
- Compliance with the deadlines for technological connections.
- Developing interactive services in order to improve the quality of services provided to consumers during technological connection.
- Increase in capacity utilisation of electric grid equipment.





\* The indicator is based on the applications for technological connection currently submitted. Since these volumes can be significantly adjusted in future, the long-term forecast is not informative.

#### **GRI 103-2** 4. ECONOMIC EFFICIENCY

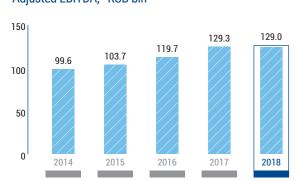


#### **■ CONTRIBUTION OF 2018 RESULTS TO THE STRATEGY IMPLEMENTATION**

At the end of 2018, the adjusted EBITDA amounted

demonstrating only a slight reduction against 2017 (-0.2 %).

#### Adjusted EBITDA,\* RUB bln

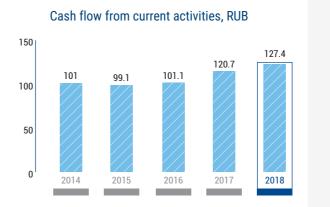


In 2018, the Company's net profit increased, while earnings per share were



to RUB 127.4 billion.

In 2018, cash flow from current activities increased

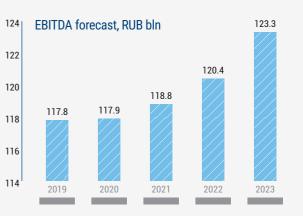


#### ■ PLANS AND TARGETS UNTIL 2023

The annual reduction in controlled operating costs amounted to 2-3 %.

The annual increase in labour productivity amounted to at least 2 %.

Technological and price audits of investment projects and investment programmes.



<sup>\*</sup> Excluding operations for the accrual and restoration of provisions for doubtful debts, financial performance related to the sale of and change in the cost of quoted financial assets, and revenues from technological connection.

STRATEGIC REPORT IMPLEMENTING OUR STRATEGY

#### **GRI 103-2** 5. FINANCIAL STABILITY



#### ■ CONTRIBUTION OF 2018 RESULTS TO THE STRATEGY IMPLEMENTATION

#### **■ PLANS AND TARGETS UNTIL 2023**

In 2018, the Debt/EBITDA ratio decreased

indicating a reduction in the Company's debt burden.

The current liquidity ratio is

and remains within standard values.

The Action Plan of FGC UES for reduction of overdue accounts receivable for the electricity transmission services and dispute settlement was approved.

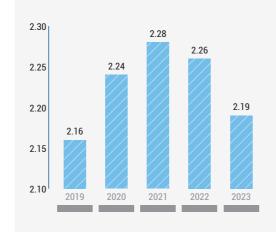
#### FGC UES' financial sustainability indicators



- Debt to EBITDA ratio
- Current liquidity ratio

#### Debt/EBITDA forecast

sovereign level.



FGC UES plans to finance its operating and investment activities in compliance with established debt burden restrictions and maintain the Company's credit ratings at the

The Debt/EBITDA indicator will be maintained below the level of 2.5 during the projected period.

## SUSTAINABLE DEVELOPMENT STRATEGY

PJSC FGC UES understands sustainable development of the Company's business as an activity that not only meets economic and environmental criteria, but also social interests of the society and the state. Proceeding from its special role as operator of the UNEG, a system of technological infrastructure controlled by the state and of strategic importance to Russia's economic and social stability, FGC UES must ensure reliable operation and development of the UNEG in line with economic growth, with a high level of efficiency and maximum cost reduction.

The main principle of FGC UES strategic goal setting in the field of sustainable development and social responsibility is maintaining a balance between the economic efficiency and the solution of industrial, social and environmental problems. Particular attention is paid to those aspects that are of paramount importance to the Company's stakeholders.

#### STRATEGIC PRIORITIES OF PJSC FGC UES IN THE FIELD OF SUSTAINABLE DEVELOPMENT **INCLUDE:**

- improving the energy efficiency and reliability of the power grid infrastructure;
- introduction of new technologies with an assessment of their long-term economic efficiency;
- the fair distribution of the economic value created and the integration of social responsibility practice into all parts of the Company;
- responsible practice of personnel management;
- support of domestic producers;
- implementation of environmental protection activities aimed at minimising impact on the environment:
- constructive interaction with stakeholders.

more accurately determine and adjust the Company's development strategy and achieve its strategic goals more effectively.

The Company's activities in the field of In 2018, the Company decided to develop sustainable development enable it to a document defining the principles, goals, objectives and approaches to sustainable development management in PJSC FGC UES. Work on studying the best practices has begun, including the study of international experience.

Responsibility for making decisions in the field of sustainable development is shared among the Deputy Chairpersons of the Management Board in charge of the economic, environmental and social sectors.

GRI 102-26

### FGC UES COMMITMENT TO UN SUSTAINABLE DEVELOPMENT GOALS\*

GRI 102-12

**UN SUSTAINABLE DEVELOPMENT GOALS** 



**AFFORDABLE AND CLEAN ENERGY** 



**DECENT WORK AND ECONOMIC GROWTH** 



PRIORITY GOALS

INDUSTRY, INNOVATION AND INFRASTRUCTURE

**RESPONSIBLE** CONSUMPTION AND PRODUCTION

Ensuring transition to rational consumption



**GOOD HEALTH** AND WELL-BEING for everyone at all ages



**QUALITY EDUCATION**  Ensuring inclusive and fair quality education and promoting lifelong learning opportunities for all



RELEVANT GOALS

**SUSTAINABLE CITIES** AND POPULATED AREAS

resilient and environmentally sustainable



**CONSERVATION OF TERRESTRIAL COSYSTEMS** 



**PARTNERSHIP FOR SUSTAINABLE** DEVELOPMENT

**SUMMARY OF THE GOALS** 

Ensuring universal access to affordable, reliable, sustainable and modern energy for all

Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Creating a stable infrastructure, promoting inclusive and sustainable industrialisation and innovation

and production patterns

Ensuring healthy lifestyles and promoting well-being

Making cities and populated areas inclusive, safe,

Protecting and restoring terrestrial ecosystems and supporting their rational use, sustainable forest management, combating desertification, halting and reversing land degradation, halting biodiversity loss

Revitalising the global partnership for sustainable development

COMPANY'S CONTRIBUTION TO ACHIEVING THE GOALS

Uninterrupted power supply to consumers

Creating conditions for technological connection of RES generation facilities

Improvement of labour productivity

Ensuring decent pay and working conditions, respecting employee

UNEG preservation and development

Modernisation of the main electric grid infrastructure

■ Innovative activities and implementation of the R&D Programme

Improving energy efficiency and reducing losses

Rational use of natural resources

Minimising the negative impact on the environment

Efficient operation of the environmental management system

Health and life insurance of personnel

Ensuring safe working conditions and occupational safety

Holding corporate sports events

Training, re-training and advanced training of personnel

Improving the quality of training new specialists for the electric grid complex

Cooperation with higher and secondary specialised educational institutions

Improving the reliability of energy supply to consumers in cities and populated areas

Applying technical architectural solutions that promote rational use of land of cities and populated areas, as well as preserve the integrity of their architectural appearance

Taking actions to minimise the impact of the power grid infrastructure on the life of animals

Recreation of natural resources and compensatory planting of seedlings

Effective interaction with stakeholders

Studying and applying the best global practices using mechanisms of international scientific and technical exchange

Supporting small and medium-sized enterprises

\* The remaining UN goals are not directly related to the activities of FGC UES. The Company shares them and makes the best possible contribution to their achievement.



STRATEGIC REPORT KEY PERFORMANCE INDICATORS (KPI)

### **KEY PERFORMANCE INDICATORS (KPI)**



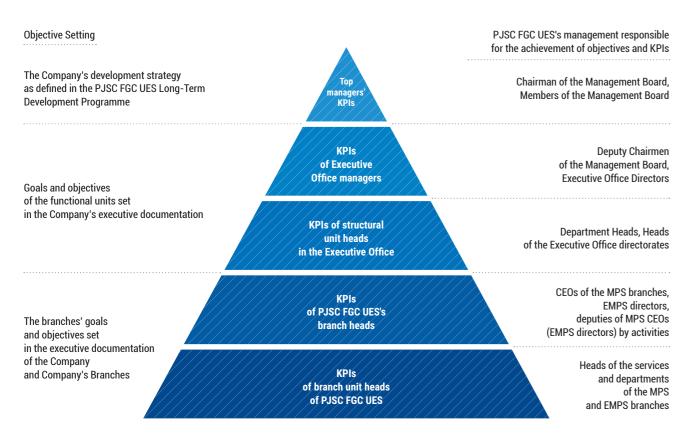
For information on the remuneration system of the Company's Management Board, see section Remuneration System for the Chairman of the Management Board and Members of the Management

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 motivation system is based on KPIs, which are designed to evaluate the effectiveness and bonuses of senior management,11 and also used to assess the established objectives of the Company's activities, as part of the LDP and the Business Plan.

PJSC FGC UES has a multi-level KPI system: The Company level (KPIs of top managers), the level of the Executive Office of the Company,12 and the level of PJSC FGC UES branches - MPS and EMPS.<sup>13</sup>

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



<sup>11</sup> Determined by the Methodology for Calculating And Evaluating the Implementation of KPIs by Top Managers, approved by the Board of Directors, Minutes No. 370 dated 13 June 2017, taking into account the resolution of the Board of Directors, Minutes No. 396 dated 2 April 2018 regarding the agenda item on Approval of Target Key Performance Indicators of PJSC FGC UES

#### CHANGES IN THE KPI SYSTEM IN THE REPORTING YEAR

The methodology for calculating and evaluating the implementation of KPIs by top managers of PJSC FGC UES has not changed compared to 2017. On 30 March 2018, PJSC FGC UES Board of Directors approved the target KPI values for the Company's top managers for 2018.14 The majority of the target KPI values remained unchanged and was set at the level of the previous year.

Changes in the target KPI values of PJSC FGC UES in 2018 against 2017:

- the target EBITDA value was established taking into account the average annual growth rate of regulated tariffs of the network organisations according to the social and economic development forecast of the Russian Federation;
- target increase in labour productivity was set taking into account the scenario conditions of the PJSC FGC UES Business Plan for 2018 and forecast indicators for 2019-2022, approved by the Strategy Committee of the Board of Directors of PJSC FGC UES<sup>15</sup> and the Management Board of PJSC Rosseti;16
- target reduction of unit operating expenses (costs) corresponded to the minimum level established by the Directives of the Government of the Russian Federation No. 2303p-P13 dated 16 April 2015 regarding reduction of operating expenses.

<sup>12</sup> The Regulation on Key Performance Indicators of the Executive Office and Branches of PJSC FGC UES was approved by Order of PUSC FGC No. 519 dated 11 December 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 April 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>13</sup> The KPI system of the heads of the Company's branches was approved by Order No. 143 of PJSC FGC UES dated 26 April 2016 -On Approval of the Methodology for Calculating and Evaluating the Implementation of KPIs by the Heads of the Branches of PJSC FGC UES.

<sup>&</sup>lt;sup>14</sup> Meeting Minutes of the Board of Directors No. 396 of 2 April 2018.

<sup>&</sup>lt;sup>15</sup> Meeting Minutes of the Board of Directors No. 54 of 14 September 2017.

<sup>&</sup>lt;sup>16</sup> Extract from the Meeting Minutes of PJSC Rosseti Management Board No. 623-1pr/1 of 10 July 2017.

STRATEGIC REPORT **KEY RISKS** 

#### **KPI IN THE CONTEXT OF STRATEGIC GOALS**

Strategic		2017	201	18
priorities	КРІ	KPI performance assessment	Target KPI	KPI performance assessment
	Absence of increase in major accidents	No increase in Q1, Q2, Q3, Q4	No increase	No increase in Q1, Q2, Q3, Q4
Reliability of power supply to consumers	Absence of increase in the number injured in accidents	Q1 – achieved Q2 – achieved Q3 – not achieved Q4 – achieved	No increase	Q1 – not achieved Q2 – achieved Q3 – achieved Q4 – not achieved
Development of UNEG infrastructure	Implementation the commissioning schedule	104 %	≥ 90 %	No assessment <sup>17</sup>
	Compliance with the deadlines for technological connections	1.0	≤ 1.1	1.0
Customer satisfaction	Achieving the level of reliability of services provided	0.22	≤ 1.00	0.22
	Consolidated net debt/EBITDA	Achieved	Q1, Q2, Q3, Q4 ≤ 3.0	Achieved
Financial sustainability	Implementation of the Action Plan to reduce accounts receivable	Achieved	≥ 10.0 %	Achieved
	EBITDA	Q1, Q2, Q3 — achieved; Year — achieved.	Q1, H1 and 9 months of the reporting period ≥ 0; Annual value ≥ 3.0 %	Q1, Q2, Q3 — achieved; Year — achieved.
	Consolidated net cash flow	RUB 20.6 bln	≥ the target value of the IFRS Consolidated Business Plan of the FGC UES Group of Companies (RUB bln)	RUB 21.6 bln
Economic efficiency -	Reduction of unit operating expenses (costs)	3.3 %	≥ 2.0 %	10.6 %
cinolency	Increase in capacity utilisation of electric grid equipment	Achieved	Achieved	Achieved
	Level of electricity losses	Achieved	Achieved	Achieved
	Reduction in specific investment costs	0.98	≤ 1.00	0.99
-	Improvement of labour productivity	14.77 %	≥ 2.00 %	10.71 %
	Efficiency of innovation activities	101 %	≥ 90 %	No assessment <sup>18</sup>

### **KEY RISKS**

#### GRI 102-15

FGC UES has approved a Register<sup>19</sup> of Key Operational Risks (KOR) and evaluates their impact on the achievement of the Company's target performance indicators, and annually updates the materiality level and takes measures related to risk management.

Risk assessment is carried out using a scenario and/or expert method. The risk materiality level is determined based on the results of the assessment in accordance with the materiality levels (moderate, significant, critical) determined in the Methodology for Assessing Operational Risks.20

**Critical** risks are unacceptable for the Company and are subject to priority management.

Significant risks are not critical but have a considerable impact on the Company's operations and are subject to management.

Moderate risks do not have a considerable impact on the Company's operations but are subject to regular monitoring.



For information on the risk management system, see section Risk Management System, Internal Control and Internal Audit.

#### **KEY OPERATIONAL RISKS OF FGC UES**

Risk index	Name	Materiality level <sup>21</sup>
✓ KOR-001	Risk of deviation of the actual volume of electricity transmission services from the value set in the Business Plan	critical
<b>⊮</b> KOR-002	Risk of deviation of the actual average tariff for electricity transmission services from the value set in the Business Plan	moderate
<b>⊮</b> KOR-003	Risk of deviation of the actual volumes of technological connection from the value set in the Business Plan	significant
	Risk of deviation of expenditures on purchasing losses from the value set in the Business Plan	significant
<b>⊮</b> KOR-005	Risk of deviation of expenditures beyond control from the value set in the Business Plan, except for the expenditures on purchasing electricity to compensate losses	moderate
	Risk of increase in the operating expenses compared to those established for the target period	moderate
<b>⊮</b> KOR-007	Risk of deviation of the overdue accounts receivable from the amount set in the Business Plan	critical
<b> KOR-008</b>	Risk of deviation of the debt/EBITDA indicator from the value set in the Business Plan	moderate
<b> KOR-009</b>	Risk of deviation of net profit from the value set in the Business Plan	moderate
<b> KOR-010</b>	Risk of failure to fulfil the main parameters of the Investment Programme	moderate
<b>⊮</b> KOR-011	Risk of deviation of the percentage reduction in specific investment costs from the value established for the target period	moderate
<b>✗ KOR-012</b>	Risk of failure to achieve the capacity utilisation rate established for the target period	moderate
<b>⊮</b> KOR-013	Risk of failure to achieve the reliability level of electricity transmission services established under tariff regulation	significant
<b>⊮</b> KOR-014	Risk of failure to achieve the quality level of technological connection services established under tariff regulation	moderate
<b> KOR-015</b>	Risk of accident at the fault of the Company	critical
<b>⊮</b> KOR-016	Risk of deviation of the labour productivity improvement indicator from the value set in the Business Plan	moderate

 $<sup>^{\</sup>rm 19}$  Resolution of the Board of Directors, Minutes No. 248/1 dated 29 January 2015.

<sup>&</sup>lt;sup>17</sup> The actual value and status of the KPI "Implementation of the commissioning schedule" will be determined after the report on the implementation of KPIs by top managers of PJSC FGC UES for 2018 is approved at the meeting of the PJSC FGC UES Board of Directors.

<sup>18</sup> The evaluation of KPIs achievement can be carried out only after consideration of the 2018 Innovation Development Programme implementation report by the Russian authorised federal executive bodies (in accordance with the procedure approved by the Instruction No. DM-P36-7563 of the Russian Government dated 7 November 2015, or any other document regulating the procedure for monitoring and evaluating the quality of development, updating and implementation of innovative development programmes of joint-stock companies partially owned by the state).

<sup>&</sup>lt;sup>20</sup> Approved by Order No. 86 of 21 March 2016.

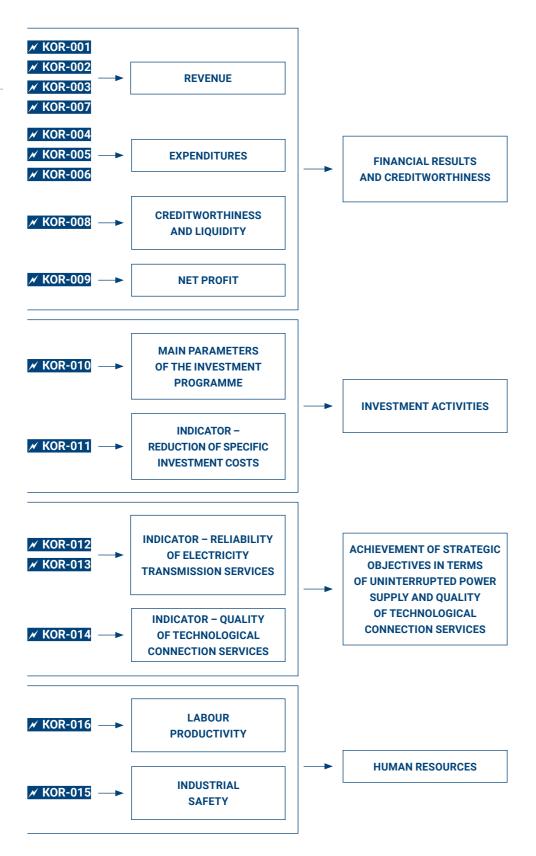
<sup>&</sup>lt;sup>21</sup> Integrated index taking into account the probability and possible consequences of risk realisation.

STRATEGIC REPORT **KEY RISKS** 

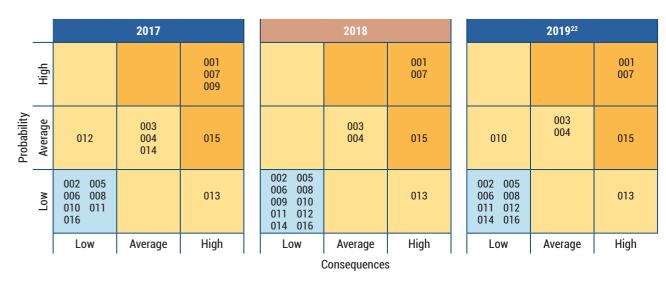
### **IMPACT OF KEY OPERATIONAL RISKS** ON ACHIEVEMENT OF PJSC FGC UES TARGET **PERFORMANCE INDICATORS**



For information on measures for management of key operational risks in 2018, see Appendix 1.



#### MAP OF KEY OPERATIONAL RISKS



Changes in assessment of the risk materiality level in 2018

#### **✗** KOR-009

Risk of deviation of net profit from the value set in the Business Plan

The materiality level has dropped from critical to moderate.

The change in risk materiality level was caused by an increase in net profit due to a decrease in the level of uncontrolled and controlled expenses, positive surplus in fines (RUB 3.4 billion), receipt of dividend payments (RUB 1.9 billion), tax savings on property due to a change in the structure of taxable property and reduced costs for the purchase of losses as a result of a reduction in losses and a reduction in the weighted average tariff for the purchase of losses.

#### **✗ KOR-012**

Risk of failure to achieve the capacity utilisation rate established for the target period The materiality level has dropped

moderate.

The change in risk materiality level was due to the transition to a new from significant to risk assessment method.23

#### 

Risk of failure to achieve the quality level of technological connection services established under tariff regulation

The materiality level has dropped from significant to moderate.

The change in risk materiality level was due to the absence of penalties imposed by external authorities monitoring activities related to technological connection in the reporting period.

<sup>&</sup>lt;sup>22</sup> KOR-009 is not applicable as the net profit is expected to exceed the value set in the Business Plan in 2019.

<sup>&</sup>lt;sup>23</sup> Developed by PJSC Rosseti.

STRATEGIC REPORT PERFORMANCE RESULTS 2018

#### **PERFORMANCE RESULTS 2018**

#### **MANUFACTURED CAPITAL**











For more information on tariff setting, see the section Financial Capital.



For more information on QMS, see Appendix 1.

For more information on EMS and the energy management system. see section Natural Capital.

The Company's manufactured capital is all the production assets available to FGC UES for the provision of services, including equipment and infrastructure.

FGC UES operates the Unified National Electrical Grid (UNEG) and provides consumers with services related to electric power transmission via the UNEG. Such services are considered as monopoly operation and are regulated by the State. Payment for electric power transmission services is the major revenue source for the Company (88.9 % of the revenue).

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

The reliability and safety of UNEG operation is ensured by management systems. In the Company the following system operate:

- quality Management System (QMS);
- environmental Management System (EMS);
- energy Management System.

QMS is a part of the Company's general 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, as well as to satisfy all stakeholders, including employees, shareholders, investors and partners of the Company.

QMS certification for compliance with ISO 9001:2015 is scheduled for 2019.





#### **COMPLIANCE WITH THE TECHNICAL POLICY**

The Unified Technical Policy has been approved and is effective in FGC UES24. The purpose of FGC UES' Unified Technical Policy in the electric grid complex is to determine the main technical areas to ensure the reliability and operating efficiency of the electric grid complex in the short and medium term, with proper industrial and environmental safety, based on innovative development principles providing for non-discriminatory access to electric grids for all market participants.

Control over the implementation of the Unified Technical Policy in the electric grid complex is carried out by the dedicated structural units of the Executive Office of PJSC FGC UES and its branches: MPS (EMPS), on a regular basis.

The document is published

#### **ELECTRICITY TRANSMISSION**





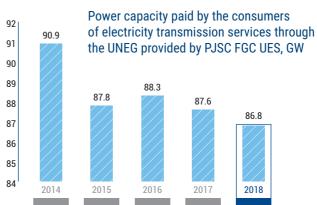
Based on the results of PJSC FGC UES' performance in 2018, the volume of electricity supply from the UNEG to consumers amounted to 557,730 million kWh, which was 10,379 million kWh (1.9 %) more than in 2017.

	2018 target	2018 result	2019 target
Electricity supply from the UNEG to service consumers, mln kWh	546,366	557,730	554,830
Electricity losses in the UNEG, mln kWh	25,415	24,539	25,361

#### **ELECTRICITY TRANSMISSION SERVICES MARKET**

#### GRI 102-6

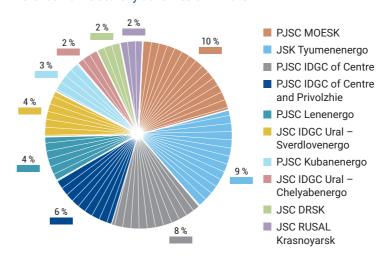
The scope of services provided in the backbone transmission network depends on the general state of the national economy and is determined as power capacity supplied to the consumers of electricity transmission services and capacity of power receivers connected to the network.



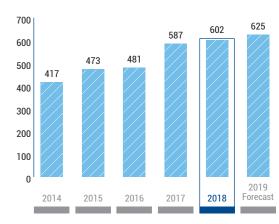
In 2018, the value of paid capacity under the UNEG amounted to an average of 86.8 GW; by the end of 2018, the reduction in paid capacity was 0.8 GW compared to 2017, which was primarily due to the continued implementation of the schedule of phased transition to settlements with SDCs of PJSC Rosseti, approved by the Board of Directors of PJSC Rosseti at the reported actual capacity level.

The main consumers of the FGC UES electric power transmission services are regional distribution companies, retail suppliers and large industrial enterprises.

#### The most major consumers of services in PJSC FGC UES' revenue from electricity transmission in 2018



#### Number of counterparties on contracts for electricity transmission services



Based on the results of 2018, the total number of the Company's counterparts in the electric power transmission service agreements reached 602.

The number of the Company's counterparts in the electric power transmission service agreements grows annually. The result of 2018 was 602 counterparts.

The number of contracts grows due to the activities carried out to ensure new technological connection to the UNEG, as well as the conclusion of contracts with consumers of the Company's services who are technologically connected to facilities of other entities.

on the website http://www.fsk-ees.ru/eng in section About Us/Mission and Strategy

<sup>&</sup>lt;sup>24</sup> Resolution of PJSC FGC UES Board of Directors, Minutes No. 208 of 27 December 2013.

STRATEGIC REPORT PERFORMANCE RESULTS 2018

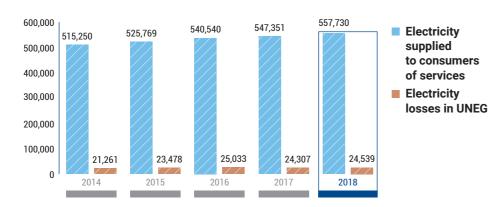


#### REDUCTION OF RELATIVE ELECTRICITY LOSSES

#### GRI EU12, 103-2

In 2018, electricity losses amounted to 24,539 million KWh (4.4 % of electricity supply from the grid to consumers of the electricity transmission services via the UNEG). With an increased electricity supply from the grid, the relative value of losses decreased by 0.04 %, while the electricity losses rose by 231.95 million KWh or 0.95 % in absolute terms. Changes in electricity losses were caused by shifts in the UNEG's operation in 2018 due to changes in loading power plants and redistribution of the consumer load in FGC UES' grids.

#### Dynamics of electricity supply and losses in FGC UES' grids, mln kWh



The Company acquires electricity and capacity on the wholesale electricity and capacity market in order to compensate actual losses in the UNEG. Acquisitions are made in the constituent entities of the Russian Federation united into pricing and non-pricing zones.

The Action Plan to reduce electricity losses was approved as part of the Energy Saving and Energy Efficiency Programme of PJSC FGC UES for 2015-2019 and implemented in several key areas:

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

Based on the results of 2018, the technological effect of actions taken to reduce electricity losses amounted

#### **TECHNOLOGICAL CONNECTION**



Customer



The Company provides consumers with a comprehensive service for technological connection of power receivers of electricity consumers, power generation facilities, and electric grid facilities owned by network organisations and other entities to FGC UES' electric grids.

Technological Connection service:

- receiving application for technological connection;
- development of technical requirements;
- signing the contract;
- obtaining an operation permit from the federal state energy supervision authority for the consumer's facilities;
- issuing the connection report.

In the reporting year, the Company implemented technological connection under 248 contracts, including 17 connections of generation facilities, 111 connections of electricity consumers, 77 connections of DEG facilities owned SDCs of PJSC and 43 connections of TGC facilities.

The Technological Connection Service online portal provides consumers with access to upto-date information on the state of PJSC FGC UES' feeding centres, load level of their equipment, as well as information on the implementation progress of their applications for technological connection to the electric grids of the Company. Website of the portal: http://portaltp.fsk-ees.ru/.

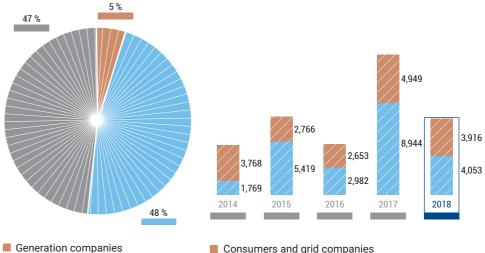
major technological connections were carried out in 2018.

Structure of consumers of the Company's services by technological connection\*

Consumers

■ Grid companies

Dynamics of volumes of consumers' capacities and electricity generation facilities connected to FGC, MW



Consumers and grid companies

Electricity generation facilities

For the assessment of customer satisfaction with the technological connection service see section Social and Relationship Capital/ Interaction with Stakeholders/ Interaction with Service Consumers.

<sup>\*</sup> Estimate according to the number of contracts signed in 2018.

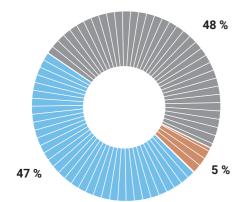
# TECHNOLOGICAL CONNECTION



PJSC FGC UES TRANSMITS ELECTRICITY VIA
THE BACKBONE UNEG TRANSMISSION
NETWORK IN 79 CONSTITUENT ENTITIES
OF THE RUSSIAN FEDERATION AND PROVIDES
SERVICES FOR TECHNOLOGICAL CONNECTION
TO THIS NETWORK. DEVELOPING THE UNEG TO
CREATE THE POSSIBILITY FOR TECHNOLOGICAL
CONNECTION FOR NEW CONSUMERS IS ONE
OF THE STRATEGIC GOALS FOR FGC UFS

### Structure of consumers of the Company's services by technological connection

- Generation companies
- Consumers
- Grid companies



# ACTIONS TAKEN IN PREVIOUS YEARS

In 2013-2017, PJSC FGC UES

executed 1,312 contracts for technological connection with a total capacity of 38,600 MW,

including

84 contracts with a declared capacity of 20,654 MW

for generation facilities,

and 1,228 contracts with a declared capacity of 17,946 MW

for direct consumers, IDGC and TGC facilities.

Dynamics of volumes of consumers' capacities and electricity generation facilities connected to FGC, MW



- Consumers and grid companies
- Electricity generation facilities

#### **ACTIONS TAKEN IN 2018**

#### In 2018

# 248 contracts for technological connection with a total capacity of 7,969 MW

were executed, including 17 contracts with a declared capacity of 4,053 MW for generation facilities and 231 contracts for technological connection of direct consumers, IDGC and TGC facilities with a capacity of 3,916 MW.

To perform technological connection and improve the reliability of power supply to existing consumers, FGC UES completed a number of major projects in 2018:

- Iskonnaya and Yermak 220 kV substations in Yamalo-Nenets Autonomous Okrug (will provide power supply to enterprises in the oil and gas sector);
- Vostochnaya Promzona 220 kV substation and Novo-Labinskaya 220 kV SS in Krasnodar Krai (will improve the power supply reliability and create opportunities for connecting regional electricity consumers);
- Vostok 220 kV substation in Khabarovsk Krai (will provide power supply to Khabarovsk advanced development zone).

In 2018, PJSC FGC UES implemented the following major projects for technological connection of the electricity generation facilities:

For power generation at power unit No. 1 of Leningradskaya NPP-2:

- construction of 330 kV overhead line Koporskaya − Gatchinskaya;
- installation of a 750 kV shunt reactor at Leningradskaya 750 kV SS;
- construction of the transit power transmission line Koporskaya 750 kV SS – Pulkovskaya 330 kV SS – Yuzhnaya 330 kV SS;
- construction of the approach lines of 330 kV overhead line Balti Leningradskaya at Kingiseppskaya 330 kV SS;
- replacement of switches at Gatchinskaya 330 kV SS.

For power generation at power unit No. 4 of Rostovskaya NPP:

■ construction of 550 kV overhead line Rostovskaya NPP - Rostovskaya with extension to Rostovskaya 550 kV SS.

#### **FUTURE PLANS**

The following facilities are scheduled to be commissioned in 2019:

Fevralskaya – Rudnaya 220 kV power transmission line in the Amur Region (will provide power supply to the new gold mining and processing enterprises);

Prompark 220 kV substation in Primorsky Krai (will provide power supply to Nadezhdinskaya advanced development zone).

The following works are planned for technological connection of JSC RZD's power receiving devices:

construction of approach lines for 220 kV overhead line at Shmakovka/t 220 kV SS;

- at Sgibeevo/t 220 kV SS, at Kuragino; Kashurnikovo, Sayanskaya SS;
- at Gostagaevskaya 220 kV SS;
- at Kievskaya 220 kV SS, at Chekon 220 kV SS.

To increase the volume of oil pumping through the ESPO pipeline system to 80 million tonnes, technological connection of the facilities of Transneft Far East LLC is planned (oil pump stations 23, 26, 32).

In order to provide energy supply to the gas transportation system Power of Siberia of PJSC Gazprom, technological connection of CS-3, TC of CS-7a, and Power of Siberia TPP is planned.

The following works are planned to be completed as part of technological connection of the electricity generation facilities:

for power generation at power unit No. 2 of Novovoronezhskaya NPP-2:

- construction of 220 kV overhead line Novovoronezhskaya NPP-2 – Buturlinovka with Buturlinovka 220 kV SS;
- construction of 500 kV overhead line Donskaya NPP – Stary Oskol No. 2.

#### for power generation at Zaramagskaya HPP-1:

- reconstruction of 330 kV overhead line Nalchik Vladikavkaz-2 with development of the 330 kV overhead line Zaramagskaya HPP-1 – Vladikavkaz-2 and the 330 kV overhead line Zaramagskaya HPP-1 – Nalchik;
- reconstruction of Tobol 500 kV SS in the Tyumen Region for technological connection of SIBUR Tobolsk LLC.

STRATEGIC REPORT

PERFORMANCE RESULTS 2018



#### IMPROVING THE RELIABILITY OF POWER SUPPLY



#### **GRI 103-2**

FGC UES activities are aimed at ensuring reliable and uninterrupted operation of the UNEG. The reliability of the Company's grids increases every year.

by 17 %

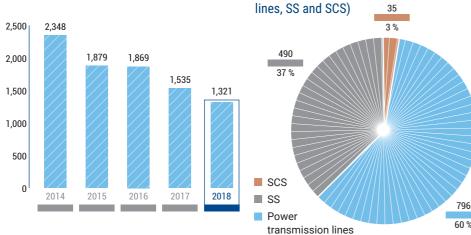
in 2018, the specific accident rate at the facilities of FGC UES decreased

In 2018, the specific accident rate at FGC UES facilities declined by 17 % due to introduction of new equipment, improvement of the servicing personnel's skills and expertise and other activities. The number of staff errors decreased twice compared to 2017 and accounted for less than 0.6 % of the total number of accidents. Decrease in the accident rate was registered in all MPS.

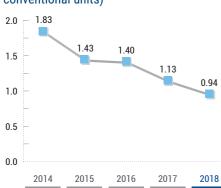
## Number of accidents at PJSC FGC UES' facilities\*



For information on the distribution of the specific number of accidents at MPS of PJSC FGC UES, see Appendix 1.



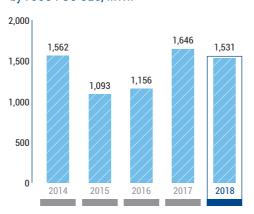
# Specific accident rate at PJSC FGC UES' facilities (number of accidents per 1,000 conventional units)



## Dynamics of electricity undersupply by PJSC FGC UES, MWh

Distribution of accidents by main elements

of the electric grids (power transmission



#### GRI 102-48

\* Starting from 1 January 2017, in accordance with the Production Meeting Minutes of the technical management of PJSC FGC
UES and JSC SO UES, the investigation and accounting of events related to decommissioning SS and OHL equipment upon "urgent"
dispatching orders and disruptions in SCS which do not fall within the scope of paragraph 4 of the Accident Investigation Rules in
Power Industry, was added to the existing accident investigation process. For adequate comparison of the number of accidents,
the information on the accident number for 2014–2016 was supplemented with the above-stated events based on the materials
submitted by JSC SO UES.

### FSC UES demonstrates a steady trend towards improved reliability. What actions are taken by the personnel to improve the reliability of their operation and to minimise errors?

We have been implementing a project related to assessing personnel reliability over the last two years.

A survey was conducted to identify the reasons affecting employee compliance with the safety regulations and occupational safety requirements. The survey covered 4,900 employees of the Company's technical unit.

Based on the results of the survey, we identified risk factors that lead to violations of safety rules by employees and determined relevant development zones.

The next step was a long-term project aimed at improving the reliability of production personnel, which included knowledge testing, psychological diagnostics and training under special programmes. More than 7,000 employees have already participated in the project. The main outcome of the project is a reduction in the number of technological violations due to erroneous actions by FGC UES' personnel. In addition, the implementation of the project indirectly resulted in a decrease in the number of mistakes made by employees who were not yet involved in the project.



Natalia Ozhegina,
Deputy Chairperson
of the Management Board
of PJSC FGC UES

The indicator of electricity shortage to consumers tends to stabilise within the medium-term value. In 2018, it fell by 7 % to 1,531 MWh compared to 2017. The increase in the indicator compared to 2015 and 2016 was due to higher requirements for technological violations taken into account when calculating the reliability indicators in accordance with Order No. 1256 of the Ministry of Energy dated 29 November 2016 and corresponding Order No. 443 of PJSC FGC UES dated 30 November 2018.

#### Reliability level of services provided<sup>25</sup>

2014		2015		2016		2017		2018	
Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	
0.020	0.036	0.013	0.035	0.012	0.035	0.009	0.034	0.009	
	Actual	Actual Target	Actual Target Actual	Actual Target Actual Target	Actual Target Actual Target Actual	Actual Target Actual Target Actual Target	Actual Target Actual Target Actual Target Actual	Actual Target Actual Target Actual Target Actual Target	

In 2019, the Company will pay special attention to personnel actions, operation of transmission lines and automatic reclosing devices of overhead lines in order to maintain a high reliability level.



For information about the reliable power supply for the facilities of the Sochi-2018 Russian Investment Forum, the World Cup 2018 and the Eastern Economic Forum 2018, see Appendix 1.

<sup>&</sup>lt;sup>25</sup> The reliability level of the services provided is determined as the ratio of the actual total duration of electricity outage in the control period (hour) to the maximum number of technological connection points of service consumers for the same period.

#### **RENOVATION OF FIXED ASSETS**

The Fixed Assets Renovation Programme is aimed at ensuring reliable and efficient operation of the electric grid complex.

Investment projects of the programme form part of the adjusted Investment Programme 2016–2020 of FGC UES<sup>26</sup> and are presented in section 0.2 – Reconstruction, Modernisation, and Technical Re-Equipment.

Taking into account the investment projects implemented within the Company's investment budget for 2016–2020, the following scope of investment projects is planned under the Renovation Programme 2016–2020 in accordance with the approved Investment Programme:<sup>27</sup>

- commissioning of facilities with a total capacity of 15,378.9 MVA;
- reconstruction of power transmission lines with a total length of 439.9 km.

The investment project financing under the Renovation Programme 2016–2020 totals RUB 148.4 billion. In 2018, actual financing amounted to RUB 30 billion.<sup>28</sup>

#### **REPAIR PROGRAMME**



The results of the Repair Programme are given in Appendix 1.

For information about operational, technological and situational management in 2018, see Appendix 1.

In 2018, repairs were carried out to ensure the uninterrupted operation of the electric grid complex in autumn and winter, during fire, thunderstorm and flood hazard periods (including implementation of additional preventive measures to increase the protection of the power grid facilities from the impact of natural phenomena), and basic and additional measures were taken to improve the reliability of the PJSC FGC UES electric grid complex in general.

In 2018, the planned repairs were carried out in full.

Actual repair expenses for 2018 amounted to RUB 13.1 billion.

Representing Russia, the FGC UES team came in second place at the International Competition of Forces for Repair and Maintenance of Overhead Lines of 110 kV and higher.

#### **OPERATION DURING SPECIAL PERIODS**

Weather and climatic conditions have a significant impact on the Company's operations. Power grid equipment, buildings and structures are prepared in advance for operation during special periods, such as:

- autumn and winter (low temperatures and maximum loads);
- periods associated with natural anomalies (flood, fire and thunderstorms).

In 2018, the UNEG operated in regular mode during the special periods as well.

Forty-four duty teams operated on a permanent basis in FGC UES, which ensured reliable operation of the facilities in emergency conditions. There were 584 standby power supply sources with a total capacity of 173.4 MW at the Company's disposal.

On 14 November 2018, the Committee of the Ministry of Energy of Russia issued a certificate of the Company's readiness for operation during the heating season 2018–2019.

For more information on activities related to preparation for operation during special periods in 2018, see Appendix 1.

#### **INDUSTRIAL SAFETY MANAGEMENT**

#### GRI 103-2

PJSC FGC UES industrial facilities are operated in compliance with the requirements of Federal Law No. 116-FZ dated 21 July 1997 on Industrial Safety of Hazardous Industrial Facilities, as well as other regulatory acts in the field of industrial safety.

PJSC FGC UES operates 252 hazardous industrial facilities of III and IV hazard classes, which are registered in the State Register of Hazardous Industrial Facilities and identified by the following hazard features:

- use and storage of hazardous substances;
- use of equipment operating under excess pressure above 0.07 MPa;
- use of fixed lifting mechanisms.

The Company organises and implements production control in order to ensure safe operation of PJSC FGC UES hazardous industrial facilities, as well as prevents accidents at such facilities and ensure they are prepared to contain the accident and liquidate its consequences.

In 2005–2018, no accidents were registered at PJSC FGC UES hazardous industrial facilities.

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

 Please, tell us about the results of ensuring the occupational health at FGC UES in 2018.

In 2018, work continued to reduce the occupational injury risks based on the results of hazard identification and risk assessment, as well as in accordance with the set of tasks determined by the decisions of the Occupational Health and Safety Committees and organisational and distribution documents of the Company. Works were carried out to identify and prepare lists of hazardous equipment. Before starting the 2018 Repair Campaign, actions were taken to ensure the readiness of facilities for its implementation, including personnel, protection equipment, tools, rigging, and transport.





For more information on the measures taken by the Company in 2018 in the field of industrial safety, see Appendix 1.

For more information on the organisation of favourable working conditions, see section Human Capital/Occupational Safety.
For information on fire safety measures, see Appendix 1.



Dmitry Vodennikov,
Deputy Chairman
of the Management Board –
Chief Engineer, Member
of the Management Board
of PJSC FGC UES

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<sup>&</sup>lt;sup>26</sup> Approved by Order No. 31@ of the Ministry of Energy of Russia dated 27 December 2017.

<sup>&</sup>lt;sup>27</sup> Actual data were taken into account for 2016–2018

<sup>&</sup>lt;sup>28</sup> Forecast performance indicator for 2018.



#### **DEVELOPMENT OF GRID INFRASTRUCTURE AND INVESTMENT ACTIVITIES**



#### **GRI 103-2**

Investment in developing the electric grid infrastructure is the basis for ensuring reliable power supply and an important factor of economic growth. FGC UES carries out construction of new electrical grid facilities and reconstruction of existing ones.

The Company pays special attention to modernisation and increasing operational reliability of the UNEG to ensure uninterrupted power supply to consumers.

The FGC UES Investment Programme 2016-2020 was approved in 2016<sup>29</sup> and adjusted in 2017.30

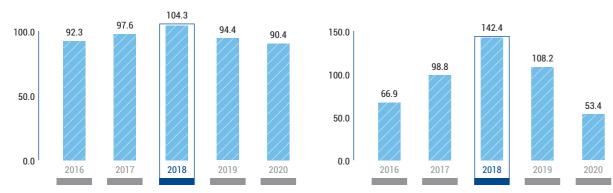
The priority goals for the Company's Investment Programme include:

- maintaining the level of operational reliability of the Unified Energy System required to ensure uninterrupted power supply to consumers;
- providing electricity supply to facilities of national significance;
- ensuring quality and availability of services for electric power transmission and connection of consumers to the electric grids;
- improving the operational efficiency of backbone transmission networks via cost reduction and implementation of energy efficiency programmes;
- synchronising the development programmes with generation facilities and distribution grids;
- developing an effective system for management of UNEG operation, improving the monitoring of electric grid facilities.

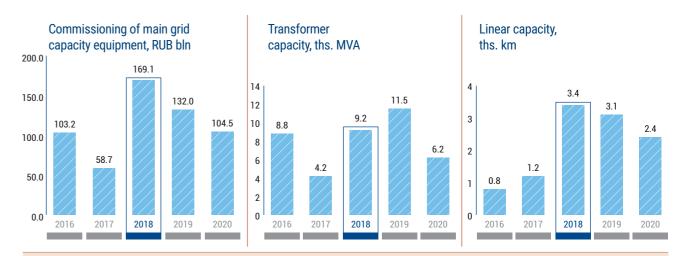
#### MAIN PARAMETERS OF THE APPROVED ADJUSTMENTS TO PJSC FGC UES **INVESTMENT PROGRAMME 2016-2020:**

Volume of capital investments spent (excl. VAT), RUB bln

#### Volume of financing, RUB bln



<sup>&</sup>lt;sup>29</sup> Order No. 1432 of the Ministry of Energy of Russia dated 28 December 2016.

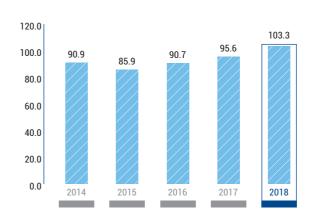


As part of the Company's Investment Programme, it is planned to commission fixed assets with 40,000 MVA of capacity and 10,900 km of electricity transmission lines in 2016-2020.

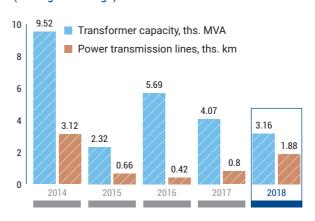
The planned investments for 2016-2020 amount to RUB 479.07 billion. It is planned to finance the Investment Programme 2016-2020 using PJSC FGC UES' own funds, bonds, loans and federal budget resources. The programme provides for even distribution of investment costs over the five-year period, which enables the Company to maintain a balanced structure of its funding sources.

#### **FULFILMENT OF THE INVESTMENT PROGRAMME IN 2018**

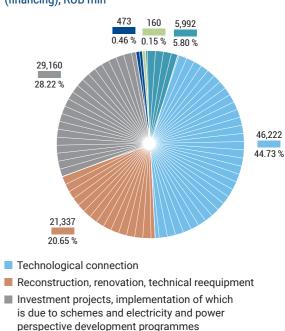
#### Dynamics of financing investments, RUB bln



#### Capacities commissioning dynamics (setting for voltage)



#### 2018 capital investments structure (financing), RUB mln



Other construction of new electric arid facilities

Purchase of land plots for implementation of investment projects

Other investment projects

For more information about key investment projects and their main parameters, see Appendix 1.

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<sup>&</sup>lt;sup>30</sup> Order No. 31@ of the Ministry of Energy of Russia dated 27 December 2017.

# POWER SUPPLY OF PORT AREAS

THERE ARE 67 SEAPORTS OPERATING
IN RUSSIA WITH AN ANNUAL CAPACITY OF SOME
1 BILLION TONNES AND POTENTIAL GROWTH
BY 357 MILLION TONNES IN 2018-2024.
KEY DEVELOPMENT PROJECTS ARE
RELATED TO THE ARCTIC AND THE FAR
EASTERN BASINS (SOME 55 % OF GROWTH).
FGC UES SUPPLIES ELECTRICITY TO ALL
MAJOR SEAPORT AREAS IN RUSSIA.\*

\*Except for the Kaliningrad Region and Sakhalin Region, Chukot and Nenets Autonomous Okrug, and Kamchatka Krai.



#### FAR EASTERN BASIN

# A 500 kV energy ring with the length of 1,042 km

commissioned in the south of Primorsky
Krai made it possible to solve the power shortage
problem in the region and create opportunities
for development of the port infrastructure.
Power supply was provided on a permanent basis
to the Kozmino offshore oil-loading terminal.

# **ACTIONS TAKEN IN 2018**

FAR EASTERN BASIN:

FGC UES

doubled the capacity of Vanino substation (to 250 MVA)

to create development conditions for the Sovgavan power unit.

■ AZOV-BLACK SEA BASIN:

Four linear cells with a capacity of 220 kV were installed at Taman 500 kV SS

to ensure power supply to the Dry Cargo Seaport of Taman.



#### FAR EASTERN BASIN:

In 2019, construction

#### of the 220 kV power transmission line Komsomolskaya — Selikhino — Vanino with a length of about 390 km

will be completed. This facility is included in the macroproject for external power supply of the Baikal-Amur Mainline and the Trans-Siberian Railway. It will also improve the reliability of power supply to consumers in the large port area of Khabarovsk Krai.

In 2020, construction

# of the 220 kV power transmission line Shirokaya — Lozovaya will be completed, with the length of 38 km

and removal of Nakhodka 220 kV switchgear. The project will improve the reliability of power supply to Nakhodka consumers, where one of the largest port areas in Russia is located.

#### **ARCTIC BASIN:**

The first construction

# stage of Murmanskaya 330 kV substation with an installed capacity of 250 MVA

will be completed in 2019. The substation will improve the reliability of power supply to Murmansk and create opportunities for connection of new consumers, including the Lavna Commercial Seaport coal transshipment complex and the Lavna railway substation. Power will be supplied to Kolskaya Verf, the construction yard for large capacity offshore facilities.

#### **AZOV-BLACK SEA BASIN:**

The reconstruction

of Vyshesteblievskaya SS with a capacity of 220 kV will be completed in 2019, resulting in an increase in transformer capacity by 125 MVA

to supply power to railway approach lines to the Dry Cargo Seaport of Taman.



# DEVELOPMENT OF EXTERNAL POWER SUPPLY SYSTEM OF BAIKAL-AMUR MAINLINE AND TRANS-SIBERIAN RAILWAY



THE TOTAL LENGTH OF THE BAIKAL-AMUR
MAINLINE AND THE TRANS-SIBERIAN RAILWAY
EXCEEDS 14,000 KM. BOTH RAILWAYS FORM PART
OF THE INTERNATIONAL WEST – EAST TRANSPORT CORRIDOR AND PROVIDE DELIVERY
OF GOODS BETWEEN EUROPE AND ASIA ON
THE SHORTEST LAND ROUTE.

IN 2018, THE PRESIDENT OF THE RUSSIAN FEDE RATION VLADIMIR PUTIN SET THE OBJECTIVE TO INCREASE THE CAPACITY OF THE BAI-KAL-AMUR MAINLINE AND TRANS-SIBERIAN RAILWAY TO 180 MILLION TONNES BY 2024.

FGC UES PROVIDES EXTERNAL POWER SUPPLY TO THE RAILWAY INFRASTRUCTURE FACILITIES OF THE EASTERN GROUND OF JSC RZD AND APPROACH LINES THERETO.

# ACTIONS TAKEN IN PREVIOUS YEARS

- FGC UES and Russian Railways signed a cooperation agreement for development of the railway and energy infrastructure.
- The construction of facilities for external power supply of the Baikal-Amur Mainline and Trans-Siberian Railway is the largest project of the FGC UES Investment Programme.
- In 2016, FGC UES installed

two capacitor banks with the capacity of 20 MVAr each at Severobaikalskaya 220 kV SS.

#### **ACTIONS TAKEN IN 2018**

■ The Ust-Kut 500 kV SS was commissioned in the North of the Irkutsk Region with an installed transformer capacity of 501 MVA and the 220 kV power transmission line Tira - Nadezhdinskaya with a total

length of 138.6 km
with the expansion of Tira
substation into two linear cells.

The supports of the new structure were used when building the power transmission lines, which made it possible to reduce the installation period by 20 %.

#### FUTURE PLANS

By 2024, the Company plans to complete implementation of the remaining 15 projects for external power supply of

#### the Eastern ground worth RUB 128.2 billion

on the basis of the requests made by Russian Railways, taking into account the increase in annual traffic volumes towards the seaports and border crossings of the Far East.

■ In 2019–2021, the electric grid facilities forming part of the macroproject will be commissioned in

the Irkutsk Region, Primorsky Krai and Krasnoyarsk Krai.

Decree No. 204 of the President of the Russian Federation dated 07 May 2018 provides

for an increase in the capacity of the Baikal-Amur Mainline and the Trans-Siberian Railway to 180 million tonnes per year.

An external power supply scheme is being developed to increase the capacity in order to determine the required scope of construction and reconstruction works of FGC UES power grid facilities.

The scope of additional works will be determined based on calculations of the required capacity and the power supply scheme of Russian Railways.



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# DEVELOPMENT OF CENTRALISED POWER SYSTEMS



THE REPUBLIC OF SAKHA (YAKUTIA)
IS THE LARGEST CONSTITUENT ENTITY OF RUSSIA
IN TERMS OF AREA. THE POWER SYSTEM
OF THE REGION CONSISTS OF THREE ENERGY
DISTRICTS THAT ARE NOT CONNECTED TO EACH
OTHER (THE SOUTH YAKUTIA, CENTRAL
AND WESTERN DISTRICTS), AS WELL AS AN
EXTENSIVE AREA OF DECENTRALISED POWER
SUPPLY (THE NORTHERN POWER DISTRICT).

THE CENTRAL POWER DISTRICT HAS
THE HIGHEST POPULATION DENSITY. THE MAIN
PRIMARY INDUSTRIES ARE LOCATED IN
THE WESTERN POWER DISTRICT, INCLUDING
DIAMOND MINING AND PROCESSING,
AND HYDROCARBON PRODUCTION.

THE ISOLATED OPERATION OF THE REGIONS CREATES HIGH RISKS FOR RELIABLE POWER SUPPLY.

# ACTIONS TAKEN IN PREVIOUS YEARS

Since 2008, FGC UES has been implementing projects aimed

at connecting the Western and Central power districts of Yakutia to the Unified National Electric Grid.

# Nizhny Kuranakh – Tommot – Maya was commissioned. Along with the power transmission line itself, two new 220 kV substations (Tommot and Maya) were also built,

Implementation of the project made it possible to connect the isolated Central power district to the UES of the East. Equipment that meets the requirements of reliable and safe operation in permafrost conditions, including gas insulated switchgear, was installed at the power facilities.

**ACTIONS TAKEN IN 2018** 

■ The power transit line

Neryungrinskaya GRES -

with an aggregate capacity

of 440 MVA.

#### FUTURE PLANS

# ■ The 220 kV power transmission line Peleduy – Sukhoi Log – Mamakan with a length of 396 km

will be commissioned in the Irkutsk Region in 2019. This will make it possible to connect the isolated Western power district of the republic to the UES of Siberia.

The following facilities are scheduled to be commissioned in 2019:

the 330 kV power transmission line Artem - Derbent in the Republic of Dagestan (will improve the reliability of power supply to consumers in Dagestan);

the 330 kV power transmission line Kolskaya NPP – Knyazhegubskaya HPP – SS 330/110/35 kV Loukhi – Putkinskaya HPP – Ondskaya HPP's 330 kV outdoor switchgear in the Republic of Karelia (to improve the reliability of power supply to consumers of Leningrad, Karelia and Murmansk power systems, generation of "blocked" capacity of Kolskaya NPP);

the 500 kV overhead line Nevinnomyssk – Mozdok with expansion of Nevinnomyssk 500 kV SS and Mozdok 500 kV SS

(to increase the capacity of the Terek controlled crosssection, aimed at improving the reliability of power supply to consumers in the North Caucasian Federal District).

The following facilities are scheduled to be commissioned in 2020:

the second 330/110 kV autotransformer with a capacity of 125 MVA at Artem 330 kV SS (to improve the reliability of power supply to consumers of the power system in the Republic of Dagestan and Makhachkala).

The following facilities are scheduled to be commissioned in 2021:

the 330 kV power transmission line of the 330 kV power distribution station Ondsky – Petrozavodsk – Tikhvin – Liteyniy (to improve the reliability of power supply to consumers of the Leningrad, Karelia and Murmansk power systems, to release the "blocked" capacity of Kolskaya NPP); the 220 kV power transmission line Pechorskaya GRES – Ukhta – Mikun in the Komi Republic (to prevent limitations to be imposed on consumers in the winter peak loads in the power system of the Komi Republic and the Kotlas power unit in case of emergency shutdown of 220 kV single-chain overhead lines Pechorskaya GRES – Zelenoborsk – Ukhta).

Northern energy district

West
energy district

South Yakutsk
South Yakut

energy district

Nizhny Kuranakh

ryungrinskaya





# DEVELOPMENT OF COMMUNICATION NETWORKS AND IT SYSTEMS



GRI 103-2

FGC UES actively implements and uses smart control systems based on modern telecommunication and information technologies.

The Company develops its telecommunication infrastructure in accordance with the general scheme for the creation and development of the Unified Technology Communication Network of the Electric Power Industry (UTCNEPI) approved by the Management Board and the Government Committee for Federal Communications.

The Company considers network digitalisation and intelligence to be the development priorities for the UTCNEPI.



For more information on the APCS and CIMS,

see Appendix 1.

Digitalisation of the network means the level of provision of the electric grid facilities with digital communication channels to operate and introduce dispatching, process control and corporate governance systems.

Digitalisation of communication channels of the automated dispatching control systems (ADCS) and automatic process control systems (APCS) improves the monitoring and control quality of the electric grid complex. A corporate information management system (CIMS) has been established and is being developed in the Company to automate business processes.

#### Dynamic of electric grid facilities of FGC, 2016–2018



#### Structure of the Unified Technology Communication Network of the Electric Power Industry and applied technologies

UTCNEPI structural component	2018 results	Share of use of domestic equipment, %
A fibre-optic communication network is the basic technology communication network developed by means of placing fibre-optic cable on overhead lines (FOCL OHL).	Some three thousand km of FOCL were put into operation on electricity transmission lines.  Total length of FOCL, ths. km, 2016–2018  70.5  73.6  76.5  2016  2017  2018	38 %
A high-frequency communication network on overhead lines is a special type of communication means in which the phase conductors and overhead power transmission line cables are used as the signal transmitting medium. Voice, telemechanics, automated energy metering system, RP and EA commands needed for management of technological processes in the power industry under normal and emergency modes are transmitted via high-frequency communication channels.	High-frequency communication system equipment was upgraded and decommissioned due to FOCL commissioning. 143 high-frequency communication half-sets have been installed. A total of 11,576 half-sets are installed at FGC UES facilities.  Dynamics of high-frequency communication systems commissioning, 2016–2018  264  212  143	80 %
The telecommunication network is built on the point-to-point principle and provides interaction with the process network of the System operator and other participants of the wholesale electricity market.	Twenty seven digital private automated branch exchange sets (PABX) were introduced, as well as systems for recording operation personnel communication, DECT wireless communications systems, loudspeaker and radio searching communications systems.  Dynamics of the telephone network switching communication systems commissioning, 2016–2018  47  39  27  2016  2017  2018	<b>51</b> %

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#### **PROCUREMENT ACTIVITIES**





#### GRI 102-9, 103-2

PJSC FGC UES carries out active procurements aimed at acquiring the necessary equipment and services on the competitive market under its Investment Programme, Repairs Programme, as well as annual target programmes in all regions of its presence.

Principles of the Company's procurement activities	Objectives of the Company's procurement activities
	<ul> <li>Optimising the procurement management system on the basis of best practices.</li> </ul>
Openness     Competitiveness     Reasonableness	<ul> <li>Reducing the Company's expenses by cutting the cost of procured goods, works and services, including by minimising intermediary services.</li> </ul>
· readdhapteriedd	<ul> <li>Providing the Company with goods, works and services of high quality at minimum cost and on time.</li> </ul>



For the procurement system

model of PJSC FGC UES,

see Appendix 1.

The Unified Procurement Standard of PJSC FGC UES (Procurement Regulations<sup>31</sup>) is the main document that regulates the Company's procurements.

The following methodology underpins the Company's procurement activities:

- legal acts of the Russian Federation;
- state procurement experience;
- international best practices;
- unified procurement standard of PJSC Rosseti (Regulations on procurement).

For the convenience of interaction with suppliers, procurements are made through an electronic trading platform. The updated procurement plan with the possibility of automatic transition to the trading platform for immediate information is published each month on the website www.fsk-ees.ru in the For Suppliers section.

The Company holds annual meetings with major suppliers to discuss issues related to improving interaction.

According to the results of the 2018 procurement campaign, 17,584 procurements were completed at FGC UES for a total amount of RUB 227.1 billion, with 7,503 suppliers involved in procurement of goods, works and services.



#### GRI 103-3

For more information on procurement methods and statistics, see Appendix 1.

Procurements held on the basis of competitive tenders accounted for RUB 159.9 billion or 70.4 % of total procurements. The economic effect from conducting procurements was RUB 5,734,918.8 thousand.

#### PROCUREMENTS FROM LOCAL SUPPLIERS AND SMALL AND MEDIUM-SIZED ENTERPRISES

#### GRI 204-1

As procurements are made according to the region in which the branches of PJSC FGC UES are located, a large number of local suppliers and contractors are involved in the procurement process, including small and medium-sized enterprises (SME).

Up to 75 % of local suppliers and contractors take part in procurements in each region. To perform highly specialised works, companies completing such works throughout the Russian Federation may be involved to carry out such works. For the construction and commissioning of power facilities, new jobs are created, and workers are attracted from among local residents and related economic sectors.

Annual open meetings are held with SMEs, partners and other related organisations to identify the needs of SMEs, improve the competitive environment and increase the Company's procurement efficiency.



For information about the main areas and the volume of procurements in the regions in 2018, see Appendix 1.

By the Agency for Strategic Initiatives, FGC UES came

the TOP5 in the loyalty rating of the largest SME customers.

In 2014, the Partnership Programme was approved between PJSC FGC UES and small and medium-sized enterprises,<sup>32</sup> and a register is being kept of small and medium-sized enterprises that have joined the Partnership Programme.

Information on the number and total value of contracts concluded with SMEs based on procurement results for 2018

	Number of contracts, units	Cost of contracts, RUB bln incl. VAT
Procurement from SMEs	6,761	65.890



The Road Map for Cooperation with Small and Medium-Sized Enterprises section is presented on the Company's official website: http://www.fsk-ees.ru/suppliers/dorozhnaya\_karta\_po\_sotrudnichestvu\_s\_msp/



For further information on cooperation with SMEs, see Appendix 1.

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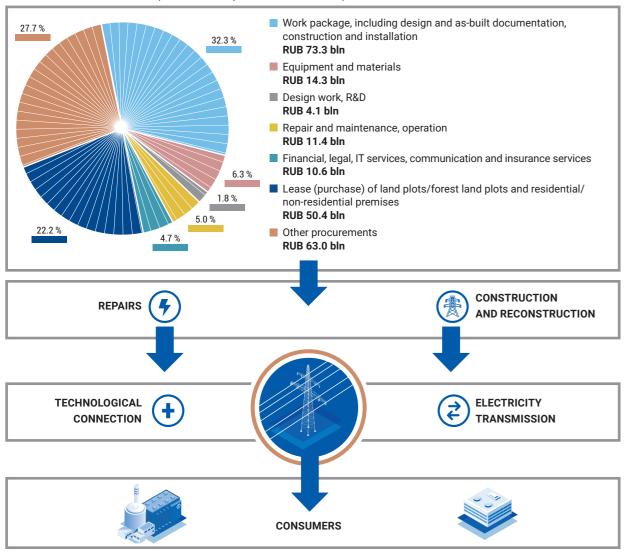
<sup>&</sup>lt;sup>31</sup> In accordance with Part 2 Article 2 of Federal Law No. 223-FZ, Legal Basis for Procurement of Goods, Works, and Services.

<sup>&</sup>lt;sup>32</sup> In the context of implementation of Directive No. 867-r of the Russian Government dated 29 May 2013 on Approval of the Action Plan (Road Map) for "Expansion of Access for Small and Medium-Sized Enterprises to Procurements Conducted by Infrastructure Monopolies and Companies Partially Owned by the State". At present, Directive No. 867-r has been fulfilled (Directive No. 174-r of the Russian Government dated 6 February 2016).

#### **SUPPLY CHAIN**

#### GRI 102-9

Main types of purchased products, works and services in 2018, RUB bln (% of the total procurement amount)



#### TOTAL NUMBER OF LEGAL ACTIONS AGAINST THE COMPANY IN CONNECTION WITH PROCUREMENT ACTIVITIES



For information about

see Appendix 1.

the claims made to the FAS.

**GRI 206-1** 

In 2018, 44 claims were made to the FAS of Russia. Following the results of examination by the FAS Committee, 2 claims were found to be justified, 30 claims were declared unfounded, 6 claims were recognised to be partially substantiated, 3 claims were withdrawn by the applicant, and 3 claims were left undecided by the antimonopoly service.

Following the review of the information submitted by the Company, the FAS decided to add 5 participants of procurement procedures who have avoided signing the contracts to the register of bad-faith suppliers.

#### IMPORT SUBSTITUTION POLICY



PJSC FGC UES<sup>33</sup> developed the Corporate Plan of Import Substitution in accordance with the recommendations of the Ministry of Economic Development of the Russian Federation<sup>34</sup> and taking into consideration the Analytical Report – Assessment of Import Substitution Potential, Main Areas of Import Substitution, and Conditions for their Implementation in SDCs of PJSC Rosseti until 2019, which was reviewed by PJSC Rosseti Management Board.<sup>35</sup>

The main expected result of implementing the Corporate Plan of Import Substitution is to increase the share of the main electrical equipment produced by domestic manufacturers and characterised by a high share of production localisation in the territory of the Russian Federation in the total volume of procurements of electrical equipment for the Company's needs.

## Share of domestic equipment procurements in total procurements of PJSC FGC UES



Main implementation principles of import substitution activities:

- excluding the risks of reducing the security level of the electric grid complex facilities;
- maintaining the quality of the main parameters of the investment projects being implemented;
- maintaining competitiveness in domestic and foreign markets for electrical equipment (works, services), taking into consideration the parameters approved in the design documentation (operating, cost, marketing);
- preventing growth of costs as a result of changes in the chain of suppliers of certain product types required for implementation of the investment projects, production of goods (works, services).

<sup>&</sup>lt;sup>33</sup> Approved by Order No. 494 of PJSC FGC UES dated 28 November 2017 on Execution of the Corporate Plan of Import Substitution.

<sup>&</sup>lt;sup>34</sup> Methodological Recommendations for the development of Corporate Plans of Import Substitution by state corporations, state companies and joint-stock companies in which the share of the Russian Federation exceeds 50 percent, organisations implementing investment projects included in the register of investment projects in accordance with Decision No. 219R-AU of the Government Commission on Import Substitution of 11 August 2016, approved by the Ministry of Economic Development of the Russian Federation.

<sup>35</sup> Minutes No. 386pr dated 14 October 2015.

<sup>0 /.</sup> 



#### **FINANCIAL CAPITAL**



**GRI 102-7** 



The list of organisations included in the outline of the consolidation of financial statements is provided in Appendix 1.

note.

An analysis has been prepared on the basis of the PJSC FGC UES annual accounting

indicators for 2018 according to RAS. Individual indicators are provided in accordance

with IFRS Consolidated Financial Statements and are accompanied with the corresponding



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

How successful was 2018 for the Company from a financial point of view?

In 2018, the Company demonstrated good financial results: revenue grew by 11.2 % to RUB 240.3 billion, and profit grew by 32.6 % to RUB 56.2 billion. Credit ratings assigned by international agencies returned to the investment level with a stable outlook. The financial position of FGC UES ensures Company development in line with the needs of customers and the objectives of state policy. The preservation of positive financial results is the basis for the Company's development and growth of shareholder profitability.

Does the Company plan to raise debt financing or will the debt level remain the same?

The Company will both repay (redeem) the previously issued bonds in accordance with the terms of the issue documents, and raise new debts based on the needs of the Company. At the same time, the debt burden levels will be maintained within the limits established by the annual resolutions made by the Board of Directors, as well as the Credit Policy adopted by the Company.

#### FINANCIAL PERFORMANCE MANAGEMENT



#### GRI 103-2

The Company's financial stability and creditworthiness are ensured by means of the following:

- limiting the debt burden to levels that allow for guaranteed service and repayment of raised debts under the valid tariff solutions;
- implementing a conservative approach to financial risk management, i.e. minimising currency risks, setting strict requirements for partner banks, using a developed system to secure performance of obligations by contractors using bank guarantees and other instruments.
- detailed liquidity planning on different time horizons;
- using various debt financing instruments that allow access to funds of the most conservative investors, maximising the time periods for raising debts and minimising the rates.

# INDICATORS DESCRIBING THE EFFICIENCY OF THE FGC UES FINANCIAL POLICY

#### GRI 103-

In 2018, the actual return on invested capital (ROIC), as the ratio describing the return on the Company's capital taking into account long-term loans, amounted to 3.17 %. ROIC increased by 0.07 p.p. compared to the actual value for 2017 due to growth in the Company's profit which indicates efficient use of the capital.

#### ROIC, 2014-2019, %



In accordance with the Company's Business Plan, the target return on invested capital (ROIC) for 2019 is 2.41 %. The dynamics relative to the actual value for 2018 is associated with the projected increase in uncontrolled costs for the provision of electricity transmission services (including, due to the fulfilment of the Instruction of the Russian Government for Consolidation of JSC DVEUK Energy Assets).

The current liquidity indicators are within the standard values proving the issuer's capability to repay its short-term liabilities using its working assets.

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The interest coverage ratio demonstrates uneven dynamics due to the fact that the majority of the credit portfolio is comprised of floating rate bonds with the 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 payments of the Company decrease.





#### Interest cover ratio 2014–2019



- Debt to equity ratio
- Net debt to EBITDA ratio
- Current liquidity ratio

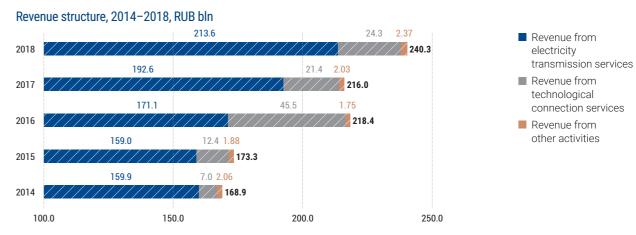
#### **DYNAMICS OF KEY FINANCIAL INDICATORS**

The dynamics of PJSC FGC UES financial indicators describe the financial state and efficiency of the Company.

In RUB bin	2014	2014 2015 2016 2017		2018	2018/2017	2017 2019	Forecast				
	2014	2015	2010	2017	actual	change, %	target	2020	2021	2022	2023
Revenue	168.9	173.3	218.4	216.0	240.3	11.2 %	234.3	239.9	232.9	250.7	246.3
Cost	132.5	134.9	140.0	152.4	170.8	12.1 %	180.1	184.5	192.0	200.8	206.4
Net profit	5.1	17.9	106.1	42.4	56.2	32.6 %	35.3	33.5	19.1	25.5	18.6
Adjusted EBITDA <sup>*</sup>	99.6	103.7	119.7	129.3	129.0	-0.2 %	117.8	117.9	118.8	120.4	123.3
Cash flow from current activities	101.0	99.1	101.1	120.7	127.4	5.6 %	121.6	130.3	133.4	141.1	145.7
Net debt	221.1	220.3	229.9	224.7	209.5	-6.78 %	210.4	219.4	226.8	227.7	225.7

\*Excluding operations for the accrual and restoration of provisions for doubtful debts, financial performance related to the sale of and change in the cost of quoted business assets, and revenues from technological connection.

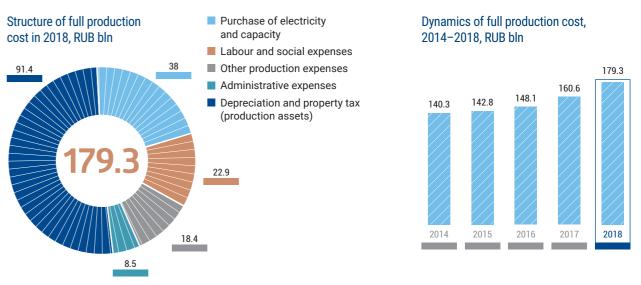
#### **REVENUE**



In 2018, the Company's revenue increased by RUB 24.3 billion (up 11.2 %) against 2017 due to growth in revenue from certain types of activities:

- revenue from electricity transmission services increased due to growth in revenue from compensation of standard technological losses of electricity (due to cancellation of the load loss compensation mechanism as of 1 July 2017 by the Resolution No. 810 of the Russian Government dated 7 July 2017) and increased revenue from electricity transmission caused by tariff growth;
- revenue from technological connection services increased due to changes in the service schedule determined according to consumer applications.

#### COSTS



The main reasons for changes in the cost of sales in 2018 against 2017 are as follows:

- increase in the cost of electricity and capacity acquisition caused by changes in statutory regulation (due to cancellation of the load loss compensation mechanism as of 1 July 2017 by Directive of the Russian Government No. 810 dated 7 July 2017);
- increased costs for electricity transit services;
- increase in real estate property tax costs due to phased cancellation of privileges with respect to the electric grid facilities and cancellation of tax on movable assets privileges;
- the growth in administrative costs amounted to 2.9 % due to the inflation factor.

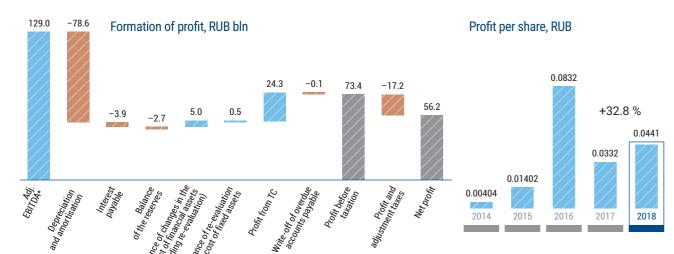
#### **COST MANAGEMENT PROGRAMME**

The Company has developed a programme to improve investment and operating efficiency and reduce costs of PJSC FGC UES, which has been approved as part of its Business Plan 2018–2022

Reduction of unit operating costs for 2018 compared to 2017 was 10.6 % (in comparable prices) and exceeded the target value (2.0 %).

#### **EBITDA AND PROFIT**

Adjusted EBITDA for 2018 decreased by RUB 0.3 billion (-0.2 %) compared to 2017 and amounted to RUB 129.0 billion. This result was caused by a decrease in revenues in the form of penalties recognised on the basis of enforcement orders. Excluding this factor, the increase in adjusted EBITDA was 2.3 % (RUB 2.9 billion).



In 2018, the net profit amounted to RUB 56.2 billion, up 32.6 % against 2017. Non-cash transactions had a great impact on this financial result.

<sup>\*</sup> Excluding operations for the accrual and restoration of provisions for doubtful debts, financial performance related to the sale of and change in the cost of quoted business assets, and revenues from technological connection.

RUB bln	2017	2018	Dynamics 2018/2017
Net profit	42.4	56.2	32.5 %
Reserve balance	1.4	-2.7	-2.90
Balance of changes in the value of financial assets	-7.5	5.0	+1.7x
Write-off of overdue accounts receivable	-0.016	-0.091	-5.7x
Revaluation of fixed assets	1.9	0.5	-72.9 %
Adjusted net profit**	46.6	53.5	14.8 %
Profit from technological connection	19.3	22.8	18.1 %
Adjusted net profit excl. technological connection	27.3	30.7	12.5 %

\*\*Profit secured by cash funds (excluding operations for the accrual and restoration of provisions for doubtful debts, financial performance related to the sale of and change in the cost of quoted business assets, and revaluation of fixed assets).



#### **CAPEX**

For more information on the Company's capital expenditures, see section Investment Activities.

Electricity transmission is a capital-intensive business and many of the Group's production facilities are outdated and require regular maintenance and upgrading. Therefore, the costs on maintaining, expanding and increasing the efficiency and size of the electricity transmission grid represent a priority for the Company and have a significant effect on the cash flows and future operating results.

#### **CASH FLOW**

Cash flow, RUB bin excl. VAT	2014	2015	2016	2017	2018
Cash flow balance	22.1	-17.5	14.0	-2.6	-1.6
Cash flow balance from current operations	101.0	99.1	101.1	120.7	127.4
Cash flow balance from investments	-53.8	-132.6	-57.1	-96.3	-99.8
Cash flow balance from financial operations	-25.0	16.0	-30.0	-27.0	-29.3



For information about the formation of cash flow, see Appendix 1.

In 2018, the Company did not use means of state support in the form of subsidies or budget investments.

#### PROFIT DISTRIBUTION AND DIVIDEND POLICY

When developing its dividend policy, FGC UES is guided not only by strict observance of the legal requirements, but also by the necessity to ensure an optimal balance between shareholder interests, the Company's development needs, and the need to enhance its investment attractiveness and capitalisation.

The principles of the Company's dividend policy are set in the Regulations on Dividend Policy of PJSC FGC UES approved by the Board of Directors.

Before May 2018, the Regulations on Dividend Policy of PJSC FGC UES approved by the PJSC FGC UES Board of Directors

were effective at PJSC FGC UES (Meeting Minutes No. 120 dated 16 December 2010).

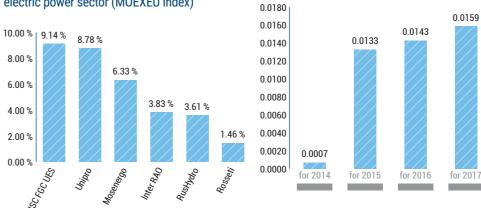
In May 2018, the Company's Board of Directors<sup>36</sup> approved a new version of the Regulations on Dividend Policy taking into account the decision of the Russian Government<sup>37</sup> and certain recommendations of the Corporate Governance Code in terms of determining the size of the dividend accounting for at least 50 % of net profit<sup>38</sup> according to financial statements, including consolidated financial statements, compiled in accordance with International Financial Reporting Standards (IFRS).

Amount of dividend



The Regulation on Dividend Policy of PJSC FGC UES is available on the website at www.fsk-ees.ru/eng in section Investors/Corporate Governance/Corporate Documents, http://www.fsk-ees.ru/eng/investors/corporate\_governance/corporate\_documents/.

# Dividend yield of the most capitalised and liquid shares of companies of the Russian electric power sector (MOEXEU Index)\*



\*Dividend yield was calculated as the ratio of dividends paid in 2018 per share to the value of shares at the beginning of 2018.

In 2018, the dividend yield of PJSC FGC UES shares amounted to 9.14 %. This was one of the highest indicators among all enterprises in the sector.

- <sup>36</sup> Resolution of the Board of Directors, Minutes No. 406 dated 30 May 2018.
- <sup>37</sup> Directive of the Russian Government No. 1094-r dated 29 May 2017.
- <sup>38</sup> The amount was calculated taking into account the adjustment of net profit in accordance with Decree No. 1094-r of the Russian Government dated 29 May 2017.





For more information on the dynamics of PJSC FGC UES shares and total shareholder return (TSR), see section Share Capital, Securities Trading.

#### Dividend History of PJSC FGC UES

	2015 (for 2014)	2016 (for 2015)	2017 (for 2016)	2017 (for Q1 2017)	2018 (for 2017)
Total dividends, RUB mln	847.4	16,976.6	18,184.8	1,423.1	18,884.7(1)
Dividend per share, RUB	0.0006647883	0.0133185	0.0142663525	0.0011164730	0.014815395834
Dividends (% of net profit as per RAS)	25 % <sup>(2)</sup>	95 %	50 % (of the adjusted net profit as per RAS)	-	50 % <sup>(3)</sup> (of the adjusted net profit as per RAS)
Date of declaration	26 June 2015	29 June 2016	29 June 2017	29 June 2017	28 June 2018
Date of actual payment	30 July 2015 <sup>(4)</sup> 20 August 2015 <sup>(5)</sup>	25 July 2016 <sup>(4)</sup> 15 August 2016 <sup>(5)</sup>	2 August 2017 <sup>(4)</sup> 23 June 2017 <sup>(5)</sup>	2 August 2017 <sup>(4)</sup> 23 August 2017 <sup>(5)</sup>	1 August 2018 <sup>(4)</sup> 22 August 2018 <sup>(5)</sup>
Balance of unpaid dividends <sup>6</sup> (as of 31 December 2018), RUB mln	3.2	61.9	66.9	5.3	75.05

- (1) Excluding dividends for Q1 2017.
- (2) Including dividends paid for Q1 2014.
- (3) Including dividends paid for Q1 2017.
- (4) To nominee holders and trustees.
- (5) To other persons registered in the PJSC FGC UES shareholder register.
- (6) Dividends were paid in full to all the persons registered in the Company's shareholder register, except for those who had not promptly informed the register-keeper on changes in their data, and whose dividend payment details were incorrect.

#### **DEBT OBLIGATIONS**

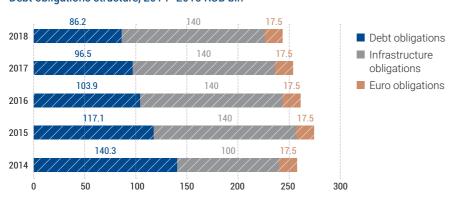


For more information about the Minutes of Annual General Meetings of Shareholders in which decisions to pay dividends were made, see Appendix 1.

As of 31 December 2018, the debt portfolio of PJSC FGC UES amounted to RUB 243.9 billion compared to RUB 254.3 billion as of 31 December 2017.

In 2018, bonds of 19 series (RUB 20 billion) and 15 series (RUB 0.31 billion) were redeemed, while bonds of 001P-01R series were placed in the amount of RUB 10 billion under the Exchange Bond Programme.

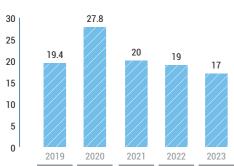
#### Debt obligations structure, 2014-2018 RUB bln\*



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



For more information about the Company's outstanding bond issues, see Appendix 1.



Schedule of payment of debt obligations for the next five years, RUB bln

#### **CREDIT RATINGS**

In 2018, the international rating agency Standard & Poor's upgraded the rating of PJSC FGC UES to BBB- following the upgrade of the rating of the Russian Federation. The Company's credit ratings assigned by international rating agencies Moody's and Fitch Ratings based on their global scales have not changed and remain at the sovereign level. At the same time, Fitch Ratings revised the credit rating outlook of PJSC FGC UES from Positive to Stable due to the change in criteria for assigning ratings to companies partially owned by the state.

Rating agency	International	l scale rating	National scale	rating	Date —— of last rating review	
	Rating	Forecast	Rating	Forecast	—— or last rating review	
Standard & Poor's	BBB-	Stable	Withdrawn	_	12 July 2018	
Moody's	Ba1	Positive	Withdrawn	-	29 January 2018	
Fitch Ratings Ltd	BBB-	Stable	Withdrawn	-	3 August 2018	
ACRA	_	_	AAA (RU)	Stable	27 November 2018	

#### **TARIFF REGULATION**

#### GRI 103-2

PJSC FGC UES 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 through UNEG and services for technological accordance with the tariffs approved by the federal executive authority in the field

of tariff regulation. The functions of state regulation of tariffs for the services rendered by PJSC FGC UES have been delegated to the Federal Antimonopoly Service.

The FAS of Russia has determined two payment methods for technological connection to the UNEG facilities: approval of individual payment for a specific applicant (if construction of electric grid facilities connection to UNEG are carried out in is required) and approval of payment per formula using the standard tariff rate C1.

#### TARIFFS FOR ELECTRICITY TRANSMISSION SERVICES

(RAB regulation).

In order to establish the tariffs for each year of the regulated period, the required gross revenue (RGR) is determined by summing up the return values, the return on invested

Since 2010, the tariffs for the Company's capital, and the expenses required for electricity transmission services via provision of electricity transmission services the UNEG have been set on the basis via the UNEG. To prevent sharp increase of the return on invested capital method in tariffs, the RAB regulation method provides for a smoothing mechanism that redistributes the required gross revenue over the years throughout the entire longterm regulation period.

#### Tariffs for electricity transmission services via the UNEG for 2015-2019, RUB/MW·month<sup>39</sup>

	From 1 January 2015 until 30 June 2015	From 1 July 2015 until 30 June 2016	From 1 July 2016 until 30 June 2017	From 1 July 2017 until 30 June 2018	From 1 July 2018 until 30 June 2019	From 1 July 2019 until 31 December 2019
Tariffs for electric power transmission services via the UNEG	134,589	144,687	155,542	164,096	173,164	182,698
Tariffs for electric power transmission services via the UNEG for the constituent entities of the Russian Federation forming part of the North Caucasian Federal District	52,923	56,869	61,138	64,402	67,955	71,691

#### The main long-term regulatory parameters established by FTS of Russia for the second long-term regulation period 2015-2019

	2015	2016	2017	2018	2019
Rate of return on capital invested, %	10	10	10	10	10
Base level of operating expenditures, RUB mln	35,023	-	-	-	-
Operating expenses efficiency index, %	-	3.0	3.0	3.0	3.0
Net working capital, RUB mln	11,417	11,919	12,432	12,967	13,524
Period of return of capital invested, years	35	35	35	35	35



For information about tariff regulation, control of reliability and quality of services, tariffs for UNEG technological connection services, as well as the list of main regulatory acts governing tariff setting and electricity transmission via the UNEG, see Appendix 1.

#### CONSOLIDATED INFORMATION ON FINANCIAL PERFORMANCE UNDER IFRS

RUB bln, except for the ratios and indicators given in %	2014	2015	2016	2017	2018				
Consolidated statement indicators of profit and loss and other comprehensive income									
Revenues from core activities	176.0	187.0	255.6	242.2	254.0				
Other operating income	5.6	4.0	6.0	6.4	6.5				
Operating expenses	(126.1)	(131.0)	(155.5)	(135.5)	(155.8)				
Profit/(loss) for the year	(20.6)	44.1	68.4	87.8	92.8				
Financial information not regulated by IFRS									
EBITDA <sup>(1)</sup>	25.8	98.1	120.3	131.5	140.5				
Adjusted EBITDA <sup>(2)</sup>	107.7	104.4	116.7	129.5	133.6				
Adjusted profit for the period <sup>(3)</sup>	40.8	46.4	86.6	98.8	91.0				
Coefficients and other indicators									
Return on assets <sup>(4)</sup>	4.4 %	4.8 %	8.4 %	9.0 %	7.8 %				
Return on equity <sup>(5)</sup>	7.3 %	7.8 %	13.2 %	13.6 %	11.4 %				
Current liquidity ratio <sup>(6)</sup>	0.93	1.22	1.19	1.18	1.62				
Total equity/total assets ratio	0.61	0.62	0.66	0.67	0.69				
Total debt	263.0	281.5	266.7	257.9	246.8				
Short-term debt	29.7	31.5	29.7	24.0	22.2				
Long-term debt	233.3	250.0	237.0	233.9	224.6				
Net debt <sup>(7)</sup>	220.1	222.9	221.8	215.4	205.4				
Net debt/adjusted EBITDA	2.0	2.1	1.9	1.7	1.5				
Cash flow from operating activities	93.0	98.0	111.5	120.8	124.1				

<sup>(1)</sup> EBITDA is profit / (loss) for the period before taxes, financial income and expenses, and depreciation.

Adjusted profit for 2013-2014 was calculated as the profit/(loss) for the period after deduction of depreciation of fixed assets, loss from revaluation of fixed assets, devaluation of the financial investments available for sale, reversal of impairment loss from devaluation of the investments into the associated companies, impairment of the short-term notes, including the respective amounts of the deferred income tax.

<sup>39</sup> As of 1 July 2015, the tariff rate for standard technological losses of electricity in the course of electricity transmission via the UNEG is determined by the formula in accordance with Resolution No. 458 of the Russian Government dated 11 May 2015.

<sup>&</sup>lt;sup>(2)</sup> Adjusted EBITDA for 2017–2018 was calculated as EBITDA (profit for the period before income tax expenses, financial income and costs, and depreciation) after deduction of reversal / (accrual) of the net loss from depreciation of fixed assets, revenue from technological connection, costs for creation of provisions for expected credit losses and doubtful debts, loss from derecognition of the subsidiary (only for 2017), changes in the provision for legal claims and taking into account financial income. Adjusted EBITDA for 2015-2016 was calculated as EBITDA after the deduction of net loss from depreciation and revaluation of fixed assets, gain on derecognition of the subsidiary (only until 2016), revenue from technological connection, cost of creating provisions for doubtful debts (excluding the depreciation amount of the accounts receivable calculated as a difference between the book value of the accounts receivable and the present value of the estimated future cash flows), and taking into account financial income. Adjusted EBITDA for 2014 was calculated as EBITDA after deduction of net loss from depreciation and revaluation of fixed assets, devaluation of the financial investments available for sale, devaluation of the short-term notes, reversal of impairment loss from devaluation of investments into associated companies, and taking into account financial

<sup>(3)</sup> Adjusted profit for the period was calculated as the profit for the period after deduction of the net loss from depreciation of fixed assets, loss and gain on derecognition of the subsidiary, revenue from technological connection, including the respective amounts of the deferred income tax (except for the deferred income tax on technological connection). Adjusted profit for 2015–2016 was calculated as the profit for the period after deduction of net loss from depreciation and revaluation of fixed assets, gain on derecognition of the subsidiary (only until 2016), including the respective amounts of the deferred income tax.

<sup>(4)</sup> The return on assets was calculated as the adjusted profit for the period divided by the average of the total assets for the period.

<sup>(5)</sup> The return on equity was calculated as the adjusted profit for the period divided by the average of the total equity for the respective period.

<sup>(6)</sup> The current liquidity ratio was calculated as the total current assets divided by total current liabilities.

<sup>(7)</sup> Net debt represents long-term and short-term debt net of cash and cash equivalents, short-term bank deposits and short-term notes.

PERFORMANCE RESULTS 2018



#### **INTELLECTUAL CAPITAL**



Intellectual capital is made up of the Company's intangible assets, such as knowledge, scientific development, technology and intellectual property. Intellectual capital management involves preserving and enhancing accumulated professional knowledge, developing new technologies and improving existing ones, conducting R&D works and patenting development results.



#### **MANAGEMENT OF INNOVATIVE ACTIVITIES**

#### GRI 103-2

#### **INNOVATIVE DEVELOPMENT PROGRAMME**

The Innovative Development Programme of PJSC FGC UES was adopted for 2016–2020 with an outlook until  $2025^{40}$  (the Programme), the parameters of which correlate with the parameters of the Long-Term Development Programme.

During the Programme development, the current technological and investment condition of FGC UES was analysed; a market and technologies development forecast was prepared for industries in which the Company operates or will operate; and a SWOT analysis was performed. The results were integrated into the Programme.

#### The Company's innovative development strengths:

- demand for innovative products and organisational innovations in the Company;
- availability of production capacities to introduce innovative products;
- tailored innovative development management system;
- long-term experience in implementation of innovative projects;
- availability of a resource base suitable for introduction of modern and energy-efficient equipment taking into account cost minimisation requirements;
- a system of higher professional training and professional development for personnel to ensure the level required for implementation of innovative projects.





#### **KEY OBJECTIVE OF INNOVATIVE DEVELOPMENT**

The Programme stipulates the following objectives achievable using new methods, technologies and practices:

- achievement of worldwide average rates of reliability, safety, quality, efficiency, and availability of electricity for consumers;
- advancement of a customer-oriented approach within FGC UES;
- development, testing and provision for commercial (batch) introduction of innovative equipment and practices;
- transition of the Company to the "adaptor" model of innovative market solutions and technologies;
- improvements in the system of interaction with innovative ecosystem subjects within the industry;
- improvement of the innovation activities management system;
- formation of human resources with prospective competencies;
- creation of good conditions for the development of promising scientific research, technological operations and advanced production in the territory of the Russian Federation.

#### PRIORITY AREAS FOR INNOVATIVE DEVELOPMENT

The Programme defines the priority areas for innovative development of FGC UES, respective projects, deadlines and milestones of their implementation, technologies, and related risks. The priority areas of Programme implementation are:

- "Digital substation";
- "Energy efficiency and loss reduction";
- "Digital designing";
- "Quality of electricity";
- "Reliability and asset management";
- "Composite materials and superconductivity";
- "Remote control and safety".



For more information on the priority areas for innovative development of PJSC FGC UES and Programme participants, please see Appendix 1.

#### **DIGITALISATION PROGRAMME**

THE WORLD ECONOMY IS UNDERGOING A PROFOUND TRANSFORMATION. CHANGES IN THE CONSUMER TECHNOLOGICAL PARADIGM IMPACT REQUIREMENTS FOR THE QUALITY OF SERVICES OFFERED BY POWER COMPANIES. ORIENTED MANAGEMENT BASED ON DIGITAL TECHNOLOGIES AND BIG DATA ANALYSIS.

#### **ACTIONS TAKEN** IN PREVIOUS YEARS

FGC UES has been applying digital solutions in accordance with IEC 61850 for over 10 years at 196 substations. At these facilities,

the scheduled work to prevent relay protection and automation has been reduced from 40 hours to 8 hours.

Digital transformation is undertaken across several areas: implementation of digital substation technology, introduction of telemetering and remote control, development of technological communication network.

# INTEGRATED ANNUAL REPORT FOR 2018 | PJSC FGC UES |

#### **ACTIONS TAKEN IN 2018**

■ The Tobol 500 kV switching was commissioned, which is

#### the first power facility in Russia with a voltage of 500 kV

and a set of digital technologies based on IEC 61850-9.2

- Technical operations were carried out to introduce remote control at 18 substations.
- The length of the digital communication network of FGC UES increased from 74,000 km to 76,500 km.
- The share of substations equipped with modern digital information collection and management systems grew from 55 % to 58 %.
- Automated commercial information and metering systems that collect digital metering information from smart electricity meters are installed at 100 % of FGC UES facilities, including the
- Design and survey works were carried out to create software and hardware for 8 grid control

#### **FUTURE PLANS**

#### BY 2021:

**Ninety-six substations of FGC UES** will have remote control.

#### BY 2025:

More than 30 projects to construct digital substations and separate 6-500 kV connections will be implemented.

The length of the fibre optic communication network of FGC UES will increase to 105,000 km;

all Company facilities will have digital data channels.

Software and hardware will be installed at 7 grid control centres; design and survey work will be completed for 28 grid control centres.





For more information on the Innovative Development Programme of PJSC FGC UES, please see www.fsk-ees.ru, Innovations/
Innovative Development/
Innovative Development
Programme.

The Programme will be financed mainly by the investment programme of PJSC FGC UES. Marketing innovations will be funded within the budget for administrative costs of PJSC FGC UES. In the future, projects within the scope of the Programme may be implemented jointly with venture investment participants.



Pavel Korsunov,
Deputy Chairman
of the Management Board
of PJSC FGC UES

What are the key digitalisation projects that the Company will implement in 2018? What is their progress?

In 2018, the focus was made on priority scientific and development areas related to digitalisation, namely digital substation, digital designing, and remote control and safety.

In April 2018, the Company launched the Tobol 500 kV SS with optic and optoelectronic 500 kV current transformers and RPA systems supporting IEC 61850-9.2 protocol, made in Russia.

In addition, technical work was carried out to implement remote control of switching devices at 18 SS, and design and survey work to develop hardware and software at 8 grid control centres was completed.

Work was initiated to develop template solutions for the acceptance and operation of digital substations using "digital doubles" information models

The project to create low-maintenance highly reliable facilities with remote control at the Company involves installation of hardware and software at 7 grid control centres, design and survey work for creation of hardware and software at 28 grid control centres, and introduction of remote control at 113 substations of FGC UES by 2025.

How would you characterise the level of technological process development in FGC as compared to foreign companies?

In accordance with applicable regulations, FGC occasionally compares its current technological development with similar foreign companies. According to the 2018 comparison results, the current level of the Company's development and areas of innovative development of FGC correspond to the key trends in leading companies in terms of applying innovative technologies and solutions.

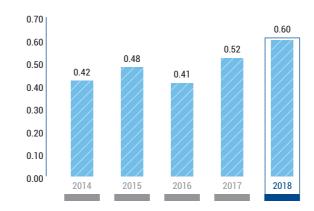
#### **INNOVATION ACTIVITY RESULTS**

One of the tools to implement the Innovative Development Programme of PJSC FGC UES is the Programme for Research, Development and Technological Works (R&D) of PJSC FGC UES.<sup>41</sup>



For key results of the R&D Programme implementation in 2018, see Appendix 1.

#### Dynamics of the volume of R&D financing, 2014-2018, RUB bln



approximately 600 RUB million

were allocated by the Company to the R&D Programme in 2018 pursuant to the investment programme.



For more information on scientific and technical cooperation, the corporate standards of PJSC FGC UES developed in 2018, and planned innovative development, see Appendix 1.

#### BUILDING AN INTELLECTUAL PORTFOLIO AND INTANGIBLE ASSETS OF PJSC FGC UES

Within the scope of the R&D Programme implementation in 2018, 24 intellectual property items were registered with the Federal Service for Intellectual Property (Rospatent), including the following:

- 5 invention patents;
- 4 utility model patents;
- 15 software certificates.

INTEGRATED ANNUAL REPORT FOR 2018 | PJSC FGC UES |

<sup>&</sup>lt;sup>41</sup> Approved by Order No. 95 of 13 March 2017.

STRATEGIC REPORT









#### **NATURAL CAPITAL**

#### **ENVIRONMENTAL SAFETY MANAGEMENT**

#### **GRI 103-2**

The Company considers its environmental activities to be an integral and important part of its activities. FGC UES aims to minimise adverse impact on the environment during the course of electricity transmission and distribution.

Environmental safety management at the Company is governed by the Company's

Environmental Policy<sup>42</sup>. This document has been developed on the basis of principles established by the state environmental development policy of the Russian Federation and the Energy Strategy of Russia for the period until 2030.



The main directions of the Environmental Policy implementation as stipulated in the Environmental Policy Programme of PJSC FGC UES for 2016–2019 (approved in 2015) are presented in Appendix 1.

The main targets for environmental protection and sustainable use of natural resources are as follows:

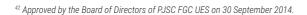
- compliance with the environmental protection law and the reduction of adverse impact on the environment;
- effective functioning of the environmental management system (EMS);
- minimisation of adverse impact on the environment by application of innovative solutions and the introduction of the best available technologies.

Within the programme of the Environmental Policy implementation, PJSC FGC UES conducts technical and organisational initiatives to minimise any adverse environmental impact caused by the Company's production activities.

#### **Key technical activities**

#### Key organisational activities

- replacement of equipment containing hazardous and toxic substances;
- renovation and repair of oil receiver and oil collector systems and devices;
- construction and reconstruction of water supply and sewage systems;
- organisation of temporary waste storage areas.
- development of required regulatory and technical documentation and improvement of documentary support for environmental protection activities;
- effective functioning of the EMS in compliance with the requirements of ISO 14001:2015;
- improving the production and industrial environmental control and the internal environmental audit systems of the EMS;
- environmental training for personnel.





PJSC FGC UES has introduced, certified and successfully operates a unified environmental management system. In 2018, following a compliance audit, PJSC FGC UES's environmental management system was found to be fully compliant with ISO 14001:2015. In the reporting year, 31 employees completed environmental management training; 247 employees were trained in environmental safety.



What measures are being taken to ensure innovative development in environmental safety and the sustainable use of natural resources by using best environmental protection practices and technologies?

In accordance with the Environmental Policy Programme, the Company is undertaking measures to introduce innovative solutions to facilitate the minimisation of negative environmental impact within the scope of the Innovative Development Programme of PJSC FGC UES for 2016–2020 with an outlook for 2025.

This area includes a number of set activities: Introduction of innovative transformer fire-fighting systems; installation of supports with greater hinge height, etc.



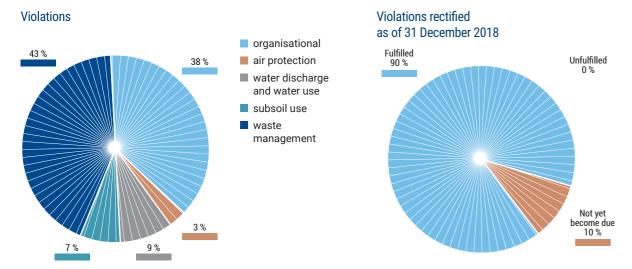
Dmitry Vodennikov,
Deputy Chairman
of the Management Board –
Chief Engineer, Member
of the Management Board
of PJSC FGC UES

#### **ENVIRONMENTAL AUDITS**



For more information on the results of IEA and inspections by Rosprirodnadzor and Rospotrebnadzor, see Appendix 1.

In order to assess compliance with the requirements of environmental legislation of the Russian Federation and the EMS, 394 production facilities were inspected in the framework of internal environmental audits (IEA) in 2018, which is 40.7 % of the total number of facilities operated by PJSC FGC UES. During these audits, 550 violations were issued. The majority of violations found during IEA were rectified by the end of the reporting period.



#### **ENVIRONMENTAL PROTECTION RESULTS**

Reduction in water consumption

Current costs of environmental protection activities in 2018

11 %

252.7<sub>RUB mli</sub>

Due to the implementation of environmental protection activities, FGC managed to significantly reduce negative environmental impact in 2018 when compared to the previous year:

- reduction in atmospheric emission by 6 %;
- reduction in water consumption by 11 %;
- reduction in waste water discharges by 18 %;
- reduction in waste generation by 13 %;
- reduction in waste buried on disposal sites by 6 %.

In 2018, in order to monitor negative environmental impact, the Company carried out 1,341 laboratory analyses of atmospheric air quality, underground water and waste water, and the level of physical impact.

In the reporting year, the following measures were established: 136 standards for permissible discharges were drafted, 153 waste generation standards and waste disposal limits were drafted, 80 standards for permissible emissions were drafted, 11 health protection areas were designated, and 14 sanitary protection zones of drinking water sources were designated.

#### GRI 103-3

To comply with the Environmental Policy and to establish documented environmental objectives and tasks, PJSC FGC UES approved Quantitative Environmental Targets for 2017–2019.

Environmental quantitative target indicators	Number of Absolut		solute value Unit value			Achievement of the quantitative environmental	
	2017	2018	2017	2018	2017	2018	target, %
Reduction in operating equipment containing trichlorodiphenyl by 4 % vs. previous year	-	-	33,137	21,295	-	-	-35.7
A 2 % reduction in the unit volume of waste transferred for environmental burial and disposal was achieved in relation to the total number of industrial facilities of the previous year	960	969	6,745.40	6,338.44	7.02	6.54	-6.8
A 2 % reduction of water consumption unit volume by total number of industrial facilities compared to results from the previous year	960	969	898.32	799.54	0.93	0.82	-11.83
A 2 % reduction in the number of environmental law violations were identified during the internal environmental audit in relation to the annual number of audited facilities from the previous year	379	394	539	550	1.42	1.39	-2.11

In 2018, PJSC FGC UES managed to achieve all set quantitative environmental targets.

On 24 March 2018, PJSC FGC UES took part in the Earth Hour worldwide movement once again. The objective of the annual initiative is to raise public awareness about environmental problems, climate change, the sustainable use of natural resources, deforestation, and the declining numbers of local animal species. During the initiative, lights that did not affect operation and safety in administrative buildings were turned off, as well as emergency lighting at substations and other facilities.

773 of PJSC FGC UES's facilities took part in the Earth Hour initiative; the total savings amounted to almost 11 MWh of electric power.

In 2018, following the results of the XIV All-Russian Competition Leader of Environmental Protection in Russia 2018, PJSC FGC UES won awards in two categories: "Best Environmental Management" and "Best Environmentally Responsible Company in the Electric Power Industry".

GRI 102-12

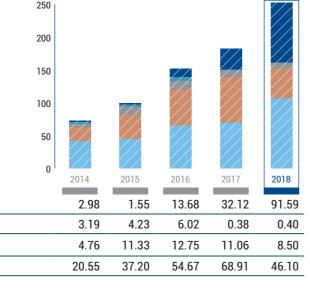
10/

#### **ENVIRONMENTAL PROTECTION COSTS**

The total cost of environmental protection in 2018 amounted to RUB 256.7 million, consisting of:

- capital expenditure of RUB 1.3 million;
- operating expenses of RUB 252.7 million;
- payments made for negative environmental impact of RUB 2.7 million.

Dynamics of changes in current environmental protection costs in 2014-2018, RUB mln





For more information on payments made for negative environmental impact, see Appendix 1.

#### **EFFECTS ON THE ATMOSPHERE**

protection of water facilities

protection of land resources

and consumption waste)

(including management of production

#### **AIR POLLUTANT EMISSIONS**

other costs

■ introduction of EMS

protection of air

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.).

41.58

44.51

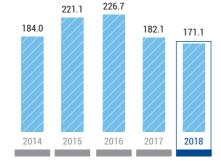
65.29

69.65 106.10

The total volume of emissions is set by calculating the maximum permissible emissions (MPE) produced during the course of project development and are not analytically measured since the operation of this equipment is not constant and the amount of emissions is very small.

#### GRI 305-7

Dynamics of changes in volumes of gross air emissions in 2014-2018, tonnes





For more information on indirect greenhouse gas emissions, see Appendix 1.

A minor reduction in the volume of atmospheric air pollutant emissions in 2018 was the result of taking inventory of the sources of pollutant emissions at the MPS Ural facilities and the receipt of new permits for emissions that exclude previously rated pollutants.

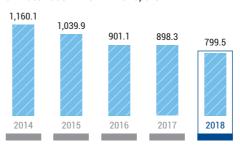
#### **USAGE OF WATER RESOURCES**

#### GRI 303-1

In the branches of PJSC FGC UES, water withdrawal for industrial and other needs is extracted from surface and underground sources, as well as from urban water supply and other sources. This water is subsequently used to meet technical, drinking, fire, and technological needs.

Waste water (industrial, storm water, and technical) from PJSC FGC UES's facilities is discharged through centralised sewerage systems and bodies of surface water.

#### GRI 303-1 Dynamics of changes in the volumes of water use in 2014-2018, ths. m<sup>3</sup>

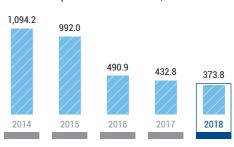


The annual decrease in water consumption is associated with a reduction in losses due to the timely maintenance and repair of water supply systems, as well as actions taken to save water resources.

A significant reduction in the disposal of waste water in 2016-2018 was also

#### GRI 306-1

Dynamics of changes in the volumes of water disposal in 2014-2018, ths. m<sup>3</sup>

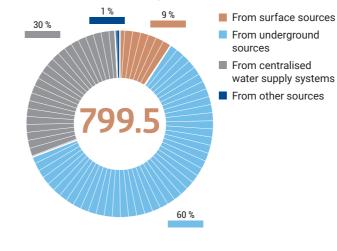


a result of the cessation of accounting for the volume of unorganised discharges into the surrounding landscape, which is excluded from the types of negative environmental impact in accordance with changes to the environmental legislation of the Russian Federation.

For more information on the Company's use of water resources, please see Appendix 1.

#### GRI 303-1

#### Water use by source of water resources in 2018, ths. m3



#### GRI 306-1 Waste water discharge

by receiving facility in 2018, ths. m<sup>3</sup> 14 % 373.84

Water discharge into sewage grids Water discharge into surface water facilities

In order to minimise impact on the natural environment in 2018, the following activities were carried out:

- reconstruction of water supply and sewage systems at 1 production facility;
- repairs and maintenance of water supply and sewage systems were performed at 243 facilities;
- 26 licenses for subsoil use with the purpose of underground water abstraction were received.

#### **WASTE GENERATION AND DISPOSAL**

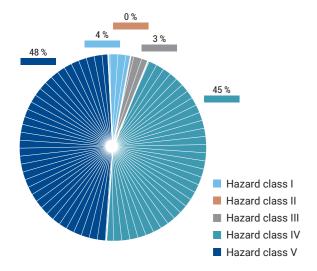
#### GRI 306-2

During the process of production activities in the branches of PJSC FGC UES (EMPS, MPS), more than 80 kinds of hazard class I-V production and consumption wastes are formed. This waste is transferred to special licensed organisations for processing, secondary processing, use and disposal at special sites.

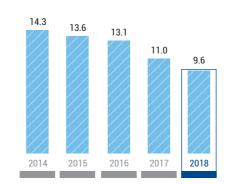
FGC strives to operate in such a way as to ensure a stable reduction in waste generation and to dispose waste in the safest and most sustainable ways.

Waste classification	Most common waste types	2018, ths. t
Total waste generated	l, including:	9.6
Hazard class I	Spent mercury and fluorescent lamps.	0.4
Hazard class II	Spent lead batteries and accumulated sulfuric acid.	0.0
Hazard class III	Spent car filters, transformer, transmission and motor oils, waste paint and varnish products.	0.3
Hazard class IV	Repair and construction waste, sweeping debris from industrial facility territories, absorbent materials contaminated by oils, office equipment waste, worn clothing, used tires.	4.3
Spent porcelain insulators and tires, scraps of ferrous metals, concrete product waste, waste of insulated wires and cables, wood waste, logging waste such as branches, polyethylene waste, paper waster and cardboard.		4.6
Total waste disposed of, including:		
Transferred to specialised organisations for decontamination, secondary treatment and recycling.		
Transferred to specialised organisations for burial at disposal sites.		

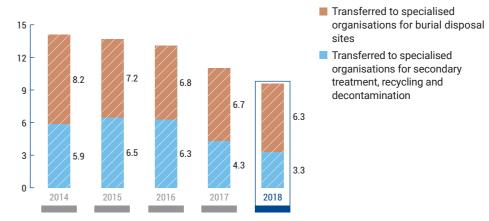
#### Total waste by hazard class in 2018



Dynamics of changes in the volumes of waste generated in 2014–2018, ths. tonnes



### Dynamics of changes in the volumes of waste by means of its management in 2014–2018, ths. tonnes



The annual decrease in the volume of generated waste is primarily a result of a reduction in the scope of reconstruction and technical refurbishment work carried out at electric grid facilities. To achieve more sustainable waste handling, the following activities were carried out in 2018:

- repairs and maintenance of oil receiver and oil collector systems and devices were performed at 245 facilities;
- reconstruction of oil receiver and oil collector systems and devices at 3 facilities;
- sites for temporary waste storage were arranged at 79 facilities;
- 14,333 capacitors containing trichlorobiphenyl, with a total weight of 628.8 tonnes, were handed over to specialised organisations for treatment/disposal.

#### **CONSERVATION OF BIODIVERSITY**

#### **GRI 304-2**

The activities of PJSC FGC UES do not have a significant impact on the biodiversity of protected natural zones or other areas that are significant from the point of view of biodiversity outside of protected natural zones. In the course of PJSC FGC UES's operation, no cases of animal habitat relocation and/or damage were observed.

The impact of the backbone transmission lines of power companies on biodiversity has not been thoroughly studied yet.

In accordance with the Regulation on Uniform Technical Policy in the Electric Grid Complex, PJSC FGC UES has taken necessary measures to reduce the impact that electric grid facilities have on biodiversity:

- restriction of industrial and construction activities in areas of special conservation interest;
- taking management and investment decisions with account of the assessment of environmental impact, and developing measures aimed at mitigating and eliminating negative environmental impact;
- use of innovative materials and technologies that ensure compliance with environmental requirements and minimise negative environmental impact.

In its activities, PJSC FGC UES uses:

• high towers with conductors located above the crowning branches of valuable trees;

• implementation of activities to provide animal protection on electric grids (installing special devices in OTL bars to prevent birds from nesting on the bar elements, usage of bird scarers and bird protection devices to prevent animals from entering the territory of substations and getting into units and devices, etc.).

#### **GRI 304-4**

For more information on the

location of PJSC FGC UES's

territories, please

see Appendix 11.

For more information

on species in the Red List

of the International Union

for the Conservation of Natural

Resources and the Red Book

of the Russian Federation

whose habitats are located

on the territory affected by

the activities of PJSC FGC UES, please see Appendix 10.

production sites on protected

The total number of species in the Red List of the International Union for the Conservation of Natural Resources and the Red Book of the Russian Federation whose habitats are located on the territory affected by the activities of PJSC FGC UES, amount to 258 species, including 121 animal species, 125 plants, and 12 mushrooms.

In 2018, a number of measures were implemented to conserve biodiversity and to recover the population of certain plant/animal species:

- installation of 59,247 bird protection devices on OHL;
- compensatory planting of linden seedlings over an area of 0.5 ha;
- regeneration of natural resources over an area of 6,482.67 ha;
- the number of juvenile fish released: 21,575.

The oriental white stork (Ciconia boyciana Swinhoe) lives in the Far Eastern region of Russia that belongs to the operations area of PJSC FGC UES's branch Eastern MES. It is one of the rarest species of animals in the world and is classified as an endangered species according to International Union for Conservation of Nature and Natural Resources. Since 2007, activities for preserving the habitat of the oriental white stork in the Amur Region and Khabarovsk Region have been conducted by the Company for over 10 years. On the breeding ground areas of birds, bird scare devices were installed on OTL bars, artificial nesting areas for breeding were established, and other approaches were carried out to adjust the stork's habitat. In the reporting year, efforts were continued to preserve the habitat of oriental white storks; protection structures were erected to protect birds from death on HV lines at Amur EMPS in the catchment basin of the Amur and Zea rivers in the Amur Region.

#### **ENERGY SAVING AND ENERGY EFFICIENCY IMPROVEMENT**





GRI 302-4

5.914 t of fuel oil equivalent

operational benefit of measures to reduce energy/fuel consumption for 2018.

In 2018, the Company continued to implement the PJSC FGC UES Energy Saving and Energy Efficiency Programme for 2015-201943 (the Energy Saving and Energy Efficiency Programme).

Energy Saving and Energy Efficiency Programme Goals:

- to ensure savings and rational use of fuel and energy resources and reduce consumption of electricity for corporate needs during electricity transmission via UNEG grids by improving the energy efficiency of the Company's facilities and equipment;
- to put in place a system of electric power management and the certification of operations based on the requirements of ISO 50001:2011 Energy Management Systems. Requirements and Guidelines;
- to improve the energy efficiency of the Company's electric grid facilities and equipment.



For more details on the Energy Saving and Energy Efficiency Programme of PJSC FGC UES for 2015-2019, please see the website www.fsk-ees.ru, section About Company/Innovations/Energy Efficiency.

economic benefit of measures to reduce energy/fuel consumption for 2018.

PJSC FGC UES operates its energy management system in compliance with ISO 50001:2011 Energy Management Systems. Requirements and Guidelines. In December 2017, an independent external audit was conducted, and the energy management system of PJSC FGC UES and all of its branches was certified for compliance with ISO 50001:2011.

In October-November 2018, a successful annual (external) compliance audit of the energy management system was conducted for the first time at the Executive Office of PJSC FGC UES, as well as at the branches of MPS Siberia, MPS Volga and MPS East (ISO 50001:2011). Following the audit, compliance with ISO 50001:2011 was confirmed.





For details on measures taken to reduce the consumption of electricity, thermal energy, resources, and POL, please see Appendix 1.

<sup>&</sup>lt;sup>43</sup> Excerpt from Meeting Minutes No. 1326/2 of the Management Board of 4 August 2015. The energy saving and energy efficiency programme was updated in accordance with Order No. 525-e of the FTS of Russia dated 26 March 2015 on Amendments of Order No. 508-e of the FTS of Russia dated 26 March 2014 on Requirements for the Energy Saving and Energy Efficiency Programme of JSC FGC UES for 2015-2017, and Order No. 398 of the Ministry of Energy of Russia dated 30 June 2014 on Approval of the Requirements to the Form of Energy Saving and Energy Efficiency Programmes of Entities with a Public Share and Municipal Units, Organisations Engaged in Regulated Activities, and Progress Reporting.





For details on measures taken to reduce the consumption of electricity, thermal energy, resources, and POL, please see Appendix 1.

The energy performance certificate of Substation project. This project will result PJSC FGC UES was registered with the Ministry of Energy of Russia under No. 21435/E-010/2017 following the mandatory inspection results for 2017.

PJSC FGC UES implements pilot projects for energy saving and energy efficiency improvement. For instance, the Company has been implementing the Energy Saving

not only in technological and economic benefits, but will also allow a reduction in the consumption of electricity for the company's needs.

The Energy Saving and Energy Efficiency Programme of PJSC FGC UES for 2020-2024 has been prepared and approved.44



For more information on the amount of energy resources consumed by the Company in 2018, please see Appendix 1.

	Technological effect		Economic effect,
,	In physical terms	Tonnes of fuel oil equivalent	RUB min (excl. VAT)
Measures to reduce electricity losses	46,750.3 ths. kWh	5,750.3	55.9
Measures to reduce resource consumption for internal needs	914.3 ths. kWh 1.68 ths. Gcal 45.95 ths. litres of POL	164.0	8.3
Total	-	5,914.3	64.2

#### **HUMAN CAPITAL**





Human capital consists of 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 innovation. Managing human capital consists of:

- 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

#### GRI 103-2

The strategic aim of FGC in personnel management is to achieve a balanced staff management system, to optimise the use of human resources, to satisfy the social and material needs of employees, and to provide continuous development, training and engagement to ensure the efficient achievement of the Company's goals.

The key areas of HR management within the scope of digital transformation:

- efficient management of power grid facilities with high levels of process automation, advanced information and process control systems, modern equipment and next generation communication technologies;
- ensuring the availability of qualified personnel for remote substation control, process automation, and the use of digital technologies and equipment in the electric grid

In addition, the HR policy of PJSC FGC UES includes management of the following three aspects: the efficiency, number and development of personnel.

The Company uses modern methods and tools for the management and development of its staff, including integrated IT solutions.

#### GRI 102-16

PJSC FGC UES has a Code of Corporate Ethics and Employee Conduct in place. The Code promotes the formation of shared positive behaviour as a team, corporate values, reliability consolidation of the shareholders, investors, creditors and other stakeholders in the Company, development of open and trusted relationships between the state, its entities and its citizens with the Company, enhanced efficiency of staff performance, and preservation and development of the process, production and scientific potential of FGC UES.



The Code of Corporate Ethics and Employee Conduct of PJSC FGC UES is a set of general principles, norms and rules of professional ethics and corporate conduct to be adhered to by all Company staff, irrespective of their position in the Company. For details on the Code, please browse http://www.fsk-ees.ru, section Staff/Code of Corporate Ethics.

<sup>&</sup>lt;sup>44</sup> Meeting Minutes No. 1598/2 of the Management Board of PJSC FGC UES of 10 December 2018.

#### RESULTS OF THE IMPLEMENTATION OF THE PERSONNEL **POLICY**

#### **NUMBER AND QUALIFICATION OF EMPLOYEES**



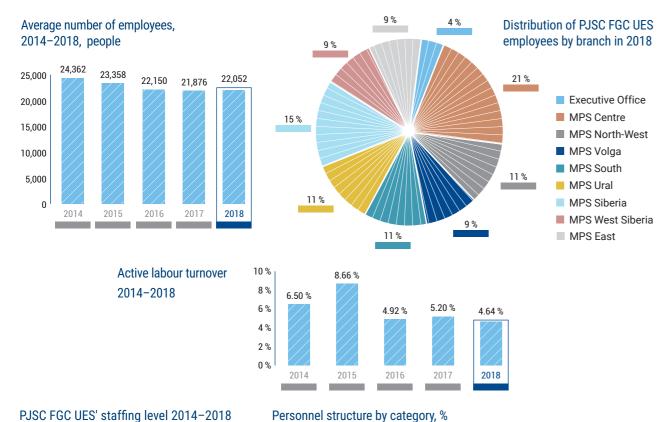
GRI 102-7, 103-2

The average number of personnel at PJSC FGC UES in 2018 was 22,052, which is 1 % more than in the previous year.

For more information on staff strength of the Company as of 31 December 2018, please see Appendix 1.

GRI 103-3, 401-1

Active employee turnover in 2018 was 4.64 %. The staffing indicator has traditionally remained at a high level and, as of 31 December 2018, was 96.7 %.



120

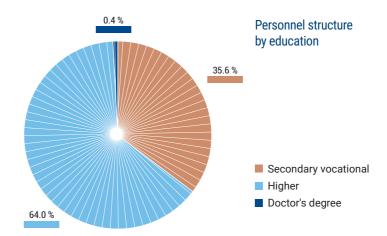
#### PJSC FGC UES' staffing level 2014-2018





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

At FGC UES, we have high standards for the education level and qualifications of employees. The structure of employees by education classification has remained unchanged over the past few years. Employees with higher education prevail.





For details on staff education structure. please see Appendix 1.

115

The average employee age is 40.7 years. At the same time, the majority of staff (50 %) are employees who are at the most economically and socially active age — up to 41 years. Thus, FGC UES has an optimal combination of young, enterprising employees and experienced, highly professional workers, ensuring that the transfer of their professional skills and experience is achieved and mutually shared.

#### Personnel structure by gender in 2018 Personnel structure by age in 2018 17 % 83 % 75 % Women Men From 50 years Under 25 years to retirement age From 25 Working pensioners to 50 years

PJSC FGC UES has a minor share of outsourced activities. There are no seasonal variations in the staff.

INTEGRATED ANNUAL REPORT FOR 2018 | PJSC FGC UES | \_

GRI 102-8

#### STAFF TRAINING AND DEVELOPMENT

Following a competition organised by the Ministry of Energy in 2018, PJSC FGC UES was named the best socially orientated power company in the nomination of "Development of career and personal potential of employees."

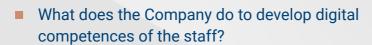


#### TRAINING, RE-TRAINING AND ADVANCED TRAINING OF PERSONNEL

GRI 103-2, 404-2

The electric grid complex digitalisation project was an important prerequisite for the formation and implementation of the staff training and development strategy.

Current trends of higher research intensity and production complexity require that staff have new knowledge and skills, which results in the need to train highly professional specialists to combine interdisciplinary knowledge and practical experience, in addition to specialised education.



Thanks to the support of FGC UES, the National Research University's Moscow Power Engineering Institute now has a new master's programme in the specialisation of "Smart power system protection, automation and control systems." The programme has been designed to train specialists with the ability to introduce new technologies into grid control process based on digitalisation, robotics, the industrial Internet, and data load management. The Company also helped Moscow Power Engineering Institute to modernise its laboratory unit, which now provides students and young scientists with the opportunity to use the devices and software actually used at UNEG and in the digital power sector. Re-training employees already working at the Company is held. Special attention in training programmes is paid to cyber security during the introduction of digital technologies and the remote control of power facilities.



Natalia Ozhegina. Deputy Chairman of the Management Board of PJSC FGC UES

For details on HR management during digital transformation, please **see Appendix 1**. and high quality standards for personnel training. The training system is adaptive in character. The corporate training programmes used by Personnel Training Centres take into account the requirements of federal acts, industry standards, amendments in normative and organisational documents, and the

PJSC FGC UES has a unified methodology composition and types of equipment serviced.

> Personnel Training Centres implement 80 advanced training programmes in compliance with industry standards and 17 training programmes for nonprofessionals.

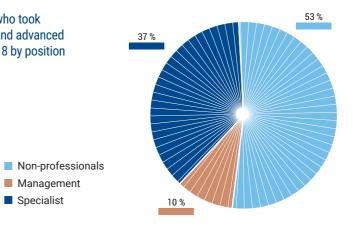
Among them

of the Company's employees took part in various training, re-training and advanced training programmes.

employees were trained at PJSC FGC UES's Personnel Training Centres.

The share of personnel trained off-site in 2018 amounted to 72 % of the Company's total staff.

Distribution of employees who took part in training, re-training and advanced training programmes in 2018 by position



GRI 404-1 Average training duration in 2018

	Management	Specialists	Non-professionals
Men	34 hours/person	26 hours/person	40 hours/person
Women	22 hours/person	20 hours/person	32 hours/person

Management Specialist

training programmes by the Company's Personnel Training Centres contain theoretical and practical relay protection and automation (RPA) laboratories and at simulators, as well as a discussion of process failures and accidents at the company facilities that may result from errors made by staff.

PJSC FGC UES pays special attention to simulated safety drill training and controlled emergency response drills training at training power grid sites, at for dispatchers and operators using simulator units developed and adjusted to mimic real working conditions. In 2018, 408 controlled emergency response drills were organised for EMPS and MPS dispatchers.



For more information on the programmes implemented by the Company's Personnel Training Centres, the share of employees who participated in these trainings, and the ratio of training costs and payroll, please see Appendix 1.

#### PERSONNEL ASSESSMENT

#### GRI 103-3

For more information on the assessment

of compliance with industry standards and on the Qualification Assessment Centre, please **see Appendix 1**.

For details on the functional

objectives of each personnel

reserve programme,

please see Appendix 1.

The personnel assessment system of PJSC FGC UES has three key aspects:

- 1. assessment of personnel reliability;
- 2. assessment of personnel qualification;
- 3. assessment of staff reserve and employees with the potential to develop.

Annually, categories of employees who participate in the assessment are identified in accordance with the objectives and aims of the Company. The priority category for personnel is that of Chief Engineer.

The assessment results are used to determine the qualification compliance of personnel and a forecast is made to recognise employees with the potential to develop and to recognise the development zones of employees.

In 2018, 1,394 employees took part in assessments.

#### Assessment participants in 2018

	Management	Specialists
Men	45	1,335
Women	-	14

#### STAFF RESERVE

PJSC FGC UES has personnel reserve programmes, the implementation of which reduces the likelihood of a shortage of qualified job candidates, increases the level of professional competence of employees, and allows us to discover exceptionally talented young employees.

Production staff reserve of PJSC FGC UES

The Chief Engineering School, a long-term multi-level project for prospective specialists

Youth personnel reserve

26/ employees **50** employees

emplovees

## Appointments to higher positions from the number of reserve staff as of 31 December 2018, persons

Type of succession pool	Targeted posts	Other posts
Production staff reserve	51 (19.1 %)	18 (6.8 %)
Youth personnel reserve	18 (42.9 %)	_

#### **YOUTH POLICY**

The Youth Policy of FGC UES aims to create an integral system to attract youth to work at the Company, as well as to create conditions and opportunities for the successful adaptation and efficient self-actualisation of young specialists, and their potential development for the benefit of the Company.

Support for youth and the facilitation of professional development for young employees are one of the priorities of the Company's HR policy, which aims to meet the internal need for highly qualified specialists.

FGC has a comprehensive approach to attracting and retaining young employees. The key areas of youth relations are set forth in the Youth Policy of PJSC FGC UES. <sup>45</sup> Pursuant to the Policy, the Company identifies three strategic areas of youth relations:

- increasing the attractiveness of FGC UES for students of higher and secondary
  establishments of professional education when selecting their future professions;
  the development of mutually beneficial cooperation with specialised higher
  and secondary establishments of professional education;
- labour socialisation and the adaptation of young specialists to the Company's corporate
  environment; the facilitation of advanced training, professional advancement of young
  specialists, and the formation and development of professional leadership qualities,
  a proactive attitude, and a professional initiative;
- popularising the profession of a power engineer, attracting scholars' interest in the activities of FGC UES.

Since 2015, PJSC FGC UES has been actively developing the Youth Section at RNC CIGRE. How do you assess the contribution of this work to the potential of personnel in the industry?

Every year the Youth Section organises over 20 events (conferences, forums, competitions, etc.) which allow the engagement of more than 5,000 students, young specialists and young scientists in innovative and R&D activities. They may use the CIGRE infrastructure in order to develop their professional expertise and to present their scientific achievements and results. The best participants of the Youth Section's events are offered employment at FGC and as well as at other power companies that participate in the Youth Section's operation. In 2018, the RNC CIGRE Youth Section programme, which was supervised by PJSC FGC UES, was distinguished for its contribution for engaging students in international scientific activities at the 47th Session of CIGRE in Paris, and was appointed as General Coordinator for arranging all youth events at the 48th Session of CIGRE.



Natalia Ozhegina, Deputy Chairman of the Management Board of PJSC FGC UES

The Company has a Young Specialist regulation describing a set of social programmes and professional development programmes aimed at PJSC FGC UES's young specialists. They are:

- the adaptation of young employees;
- inclusion into the Company's youth staff reserve;
- training and development for young specialists;
- social welfare of young specialists;
- engagement of young specialists in physical training and sports.



For more information on cooperation with specialised educational establishments, please see Appendix 1.

<sup>&</sup>lt;sup>45</sup> Approved on 28 September 2017 by the Chairman of the Management Board, Order No. 391.



#### LABOUR PRODUCTIVITY

The Company organises a series of measures for optimal use of human resources and enhancement of labour productivity.46

The key procedure for increasing productivity in 2018 is the implementation of the Project for Construction of Standard Functional Structures of Production Subdivisions at the EMPS Branches of PJSC FGC UES (in terms of RMPS, FMS, and SS). Implementation of the project made it possible to reduce the number of management levels, increase the rate of manageability, level out the staff workload and increase operations manageability.

> In 2018, labour productivity was 5,419 RUB/person-hour, which is 10.71 % higher than in 2017.

#### REMUNERATION

categories, the performance of branches of PJSC FGC UES. and structural units, and specific features 
The compensation system for employees of regional labour markets, as well as the individual contribution of each employee. Performance of the Company's senior management is assessed against key performance indicators which are approved by the Board of Directors.

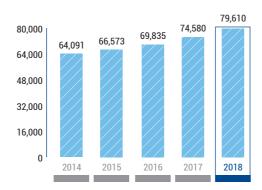
The differentiation in wages and salaries is determined by the level of complexity and importance of the work performed, Agreement.

At PJSC FGC UES, a wage system has the employee's qualification and his/ been created that takes into account job her impact on the overall performance

> is based on invested time and 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

In 2018, the average salary was RUB 79,610, which is 6.3 % higher than in 2017.

Average salary of PJSC FGC UES employees, 2014-2018, RUB



<sup>46</sup> In pursuance of the Directives of the Government of the Russian Federation No. 2454p-P13 dated 23 April 2014, No. 7389p-P13 dated 31 October 2014, No. 2303p-P13 dated 16 April 2015, and No. 4750p-P13 dated 4 July 2016.

#### **SOCIAL SECURITY**

#### GRI 401-2

The Company's social package is an additional tool for motivating and social protection of employees. It includes voluntary medical insurance, accident insurance, a non-state pension, payment of material assistance on various aspects of social orientation, and advance payment of wages.

#### **VOLUNTARY HEALTH INSURANCE AND PERSONNEL HEALTH MAINTENANCE**

the Company spent RUB 362.4 on the VHI Programme.

#### GRI 403-6

In PJSC FGC UES, there is a corporate voluntary health insurance (VHI) system for employees, which guarantees timely and quality provision of additional medical and other services, in addition to the mandatory health insurance.

The voluntary health 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 institutions in Russia



#### **GRI 403-6**

The Company actively supports initiatives related to sports and healthy living.

For more information on healthy lifestyle initiatives, see Appendix 1.

#### **ACCIDENT INSURANCE**

In 2018, the Company spent RUB 16 million on accident insurance.

Accident and health insurance guarantees the payment of extra compensation to employees (or their relatives) in case of death, urgent hospitalisation and partial or complete disability of the insured person resulting from an accident or illness.

#### **AWARD POLICY**

PJSC 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 Electric Power Industry Association, PJSC Russian Grids, and corporate awards.

Employees of PJSC FGC UES subsidiaries receive awards from Russian entities and subsidiaries for their contribution to the development of the regional electric grid complex.

In 2018, upon the recommendation of PJSC FGC UES, 1,456 Company employees, subsidiaries and contractors were awarded, including two employees who received state awards and awards from the President of the Russian Federation.



For more information on the corporate awards of PJSC FGC UES, see Appendix 1.

#### **IMPROVEMENT OF HOUSING CONDITIONS FOR EMPLOYEES**

In order to attract qualified personnel to key facilities, facilities under construction, and remote power facilities, FGC UES implements a programme to provide workers with accommodation in the service housing fund, as well as a programme to compensate for the cost of renting housing.

#### **NON-STATE PENSION PROVISION**

The non-state pension programme for employees of PJSC FGC UES has been in effect since 2004. Key principles of the programme:

- a unified approach to the organisation of non-state 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 2018, RUB 327.3 million were allocated to the non-state pension scheme.

#### **VETERAN SUPPORT**

PJSC FGC UES is one of the founders the Council of Energy Veterans and veterans in organising celebratory and cultural to celebrate Day of the Power Engineer. events.

In May 2018, FGC UES traditionally organised ceremonial events for

of the Council of Energy Veterans (non-profit of PJSC FGC UES to commemorate partnership) and pays annual membership the 73rd anniversary of Victory Day fees that are used to provide material of the Great Patriotic War (WWII). assistance to veterans of the energy In December 2018, the Executive Office sector. The Company provides support and branches of the Company organised to the Council of Energy Veterans ceremonial events for power sector veterans

#### OCCUPATIONAL HEALTH AND SAFETY

#### **OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT**

#### **GRI 103-2**

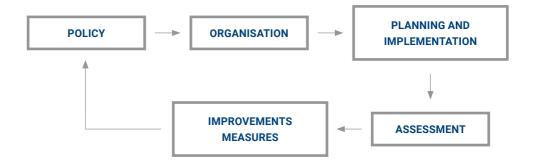
In all aspects of its businesses, the Company is committed to prioritising the life and health of its employees over operating performance.

The Company has approved the Regulations on the Occupational Health and Safety Management System, 47 which define the OHS Policy and operation procedure for the Occupational Health and Safety Management System.

#### GRI 403-1

The Occupational Health and Safety Management System at FGC UES is aimed at eliminating workplace injuries and occupational diseases, promoting safe conduct and development of accident-prevention skills among employees, and constantly improving working conditions. The Occupational Health and Safety Management System has been developed to ensure continuous improvement in workplace safety for Company employees, as well as for employees of contractors and third party entities.

#### Continuous cycle of the Occupational Health and Safety Management System



#### GRI 403-8

The Occupational Safety Management System covers all employees of FGC UES and FGC's contractors, provided that their operation processes or workplaces are controlled by the Company.

A list has been approved at the Company of normative acts of the Russian Federation containing OHS provisions and executive documents of PJSC FGC UES that are mandatory for efficient operation of the Occupational Health and Safety Management System.<sup>48</sup>

The Company's main objectives in the field of Occupational Health and Safety are:

- creation of healthy and safe working conditions;
- consistent and continuous reduction of occupational injuries and diseases;
- creation and maintenance of a positive employer image on the labour market; strengthening trust of shareholders, investors, creditors and other stakeholders;
- developing safe behaviour and accident-prevention skills among Company employees;
- ensuring a high level of corporate safety culture;
- continuous improvement of working conditions.

The list of norms and standards followed by the Company in its Occupational Safety Management System is given in Appendix 1. For more information on the commitments of the Company in the field of Occupational Health and Safety, please see Appendix 1.

#### PROCESS OF HAZARD IDENTIFICATION, ASSESSMENT OF RELEVANT RISKS, **COMPETENCE OF PERSONS-IN-CHARGE**

The Company has developed the Method for Hazard Identification and Injury Risk a systematic method to gradually eliminate the sources of injuries and to create prerequisites for consistent reduction in the number of traumas until they are completely eliminated.

Occupational risks are assessed for

separate employee groups with similar working conditions. Hazard identification Assessment for PJSC FGC UES' facilities, and assessment are conducted at EMPS the main objective being to create and MPS facilities at least once a year. The results are recorded in the Hazard and Risk Assessment Map. On the basis of hazard identification and risk assessment. suggestions are made with regard to hazard response.



For more information on the main response measure categories, see Appendix 1.

<sup>&</sup>lt;sup>47</sup> Order of PJSC FGC UES No. 470 dated 14 December 2018

<sup>&</sup>lt;sup>48</sup> Instruction of PJSC FGC UES No. 551r dated 12 November 2018.



For information on the operation of units in charge of accident prevention, on the industrial safety projects implemented by the Company in 2018, and on the normative framework for occupational accident investigation, see Appendix 1.

#### GRI 403-4

Employees of FGC UES can communicate (in person, by phone, in a memo or by any other means) to their immediate supervisor and to the occupational health and safety unit about any hazardous production factors and safety violations affecting their right to safe working conditions.

#### **GRI 403-2**

Occupational accidents at the Company are investigated in strict compliance with the law.

#### **WORKPLACE SAFETY INSTRUCTIONS SYSTEM FOR EMPLOYEES**

#### GRI 403-5

The Company has developed and continuously operates the OHS briefing process. Briefing takes into account the employee category. All types of briefing are conducted on a timely basis:

- induction briefings;
- initial workplace induction;
- repeated briefings;
- unscheduled briefings;
- targeted briefings.

#### **EMPLOYEE CERTIFICATION**

In order to set forth the uniform requirements for staff relations, the Company has developed the Regulations on Staff Relations at PJSC FGC UES, which stipulate the procedure for safety certification of employees, knowledge check of normative documents, electric unit installation and operations manuals, occupational health and safety, fire safety and other rules and instructions issued by state supervisory authorities.

#### TRAININGS AND OTHER EDUCATIONAL EVENTS

#### GRI 403-5

All Company employees are trained in occupational safety and health and are briefings, workshops, simulation exercises checked for knowledge of occupational safety provisions in accordance with the Regulations on OHS Training and Checks,49 including at specialised training centres and FGC personnel training centres.

Professional competitions (contests), safety on occupational health and safety, first aid drills and other activities are organised.



#### ARRANGEMENT OF FAVOURABLE WORKING CONDITIONS FOR EMPLOYEES

#### GRI 403-2

underway to implement the Comprehensive Programme to Improve Working Conditions at MPS Branches. Measures to further improve sanitary utilities were included in action plans to improve conditions and occupational safety and minimise occupational risks.

FGC UES pays great attention to working In order to reduce (prevent) exposure conditions for its employees. In order to hazardous production factors, hazards to provide employees with the necessary are identified, and injury risks are assessed; sanitary utilities and to create favourable annual in-process monitoring of sanitary and healthy working conditions to reduce regulations is performed; and working the risk of health deterioration, work is conditions are analysed. The results are used to develop and approve corrective action plans.

Based on the results of special OHS assessment, 113 out of 17,647 jobs in the Company are considered hazardous ones (labour category 3.1. or higher), which is equal to 0.64 %.



For details on personnel protection from exposure to harmful production factors, see Appendix 1.

<sup>&</sup>lt;sup>49</sup> Approved by Regulation of the Ministry of Labour of Russia and the Ministry of Education of Russia No. 1/29 dated 13 January

#### **WORKPLACE INJURIES AND OCCUPATIONAL DISEASES**

#### GRI 403-9

In 2018, 3 production accidents involving Company employees took place. 3 people were injured, including 2 deaths and 1 severe injury with disability for more than 6 months. All those injured were men.

#### **GRI 103-3**

According to the Federal State Statistics Service for 2017, the overall injury rate by type of economic activity under the category "Transmission of electricity" was Kr=0.74. The overall injury rate in PJSC FGC UES is 5.4 times lower the industry average value and is equal to 0.136.50

#### GRI 403-9

No accidents involving the Company's contractors whose business processes are controlled by the Company took place in 2018.

#### Overall injury rate in 2018

Branch name	Overall injury rate (N1/Np)x1,000	
MPS Centre		0.21 (1 severe accident)
MPS Urals		0.4 (1 lethal accident)
MPS West Siberia		0.48 (1 lethal accident)
Total for PJSC FGC UES		0.136 (3 accidents)

Main causes and factors of accidents in 2018:

- process violations by personnel;
- inadequate monitoring by persons in charge of safe operations;
- inadequate work organisation;
- violations by workers of labour routine and discipline.



For the list of production safety projects implemented by the Company in 2018, see Appendix 1.

For information on approaches

of occupational and industrial

safety through cooperation

to managing exposures

and impacts in the field

with business partners

and consumers.

see Appendix 1.

risk of injury to employees in the Company are work involving existing electrical installations and operation of vehicles. The accidents which took place in 2018 are directly related to activities associated with a high risk of staff injury.

Measures to prevent injuries, improve occupational health and safety,

The main activities associated with a high and eliminate major and recurrent violations of OHS requirements in 2018 were taken in accordance with the Federal Grid's Action Plan to reduce risk of employee injury and the Programme to monitor compliance with OHS standards at the Company's facilities.

#### GRI 403-10

In 2018, no occupational diseases were recorded in the Company.

#### 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. The process of managing social and relationship capital means creating a company image with a spotless reputation through socially responsible conduct, participating in development of the regions where the Company operates, implementing efficient mutually beneficial cooperation with stakeholders, and carrying out active work with the Company brand.

In addition to efficient use of production assets, financial, personnel, and intellectual resources, PJSC FGC UES' reputation as a socially responsible, successful in mass media) in order to assess company also contributes significantly to the achievement of the Company's strategic goals. This affects not only growth in capitalisation, but also increased public significance of the Company's activities.

In order to create a positive business reputation and positive image, the Company operates the Regulations on Implementation of the Communication Policy of PJSC FGC UES, its Branches and Subsidiaries.

#### Number of publications (SCAN-Interfax) 2017-2018



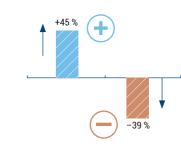
#### THE FGC UES BRAND

Company is implementing a comprehensive system for visual identification of the Company, promoting the reputation and image formation, and establishing efficiency of interaction with customers, investors and shareholders. For more than 15 years, the Company management has been working consistently to increase the brand capitalisation. The current brand is well recognised and is associated with an efficient organisation which is one of the industry

a qualitative and quantitative study of the information realm (mentioning the dynamics and interpretation of the Company's activities. Studies are conducted by independent experts based on SCAN-Interfax data. In 2018, the Company was mentioned in mass media 27,500 times, which is 18 % more than in the previous year. The number of publications with positive content grew by 45 %. The number of moderately negative publications reduced by one third.

On an annual basis, the Company undertakes

#### Dynamics of the tone of publications (SCAN-Interfax)



leaders in terms of production and financial/ economic indicators.

FGC UES has developed guidelines for management of corporate style as approved by the resolution of the Management Board of PJSC FGC UES.51 This document is used for the purpose of centralised coordination of the use of branding elements in order to ensure compliance with uniform visual standards.





<sup>50</sup> The overall injury frequency rate is the number of injured employees relative to the average employee headcount in the reporting period per 1,000 employees: Kr=(N<sub>1</sub>/N<sub>p</sub>)x1000, where

N<sub>1</sub> is the number of injured employees with disability for more than three business days and deaths;

 $N_P$  is the headcount in a certain period of time (average employee headcount).

<sup>51</sup> Complies with the Regulations on Corporate Style Management of Rosseti Group approved by the Board of Directors of PJSC

#### INFORMATION DISCLOSURE

Transparency is one of the corporate governance principles in FGC UES ensuring timely, regular, complete and accurate disclosure of information on the Company's activities.

FGC UES publishes information to be disclosed pursuant to the Federal Law on Securities Market and the Regulation on Disclosure of Information by Issuers<sup>52</sup> in the Internet.

The Company uses the following web addresses for the purposes of information disclosure:

- web site address provided by Interfax-TSRKI: http://www.edisclosure.ru/portal/company. aspx?id=379;
- official web site of FGC UES: http://www.fsk-ees.ru/eng



The full text of the Regulations on the Information Policy of PJSC FGC UES is available at www.fsk-ees.ru/eng, in section Investors/Corporate Governance/ Corporate Documents.



For details on the Company's compliance with the Information Policy, please see paragraphs 6.2 and 6.3 of the Report on the Company's compliance with principles and recommendations of the Corporate Governance Code in Appendix 3.

Also, for information disclosure the Company adheres to the principles of the Corporate Governance Code of the Bank of Russia; it meets all mandatory requirements of stock exchanges in Russia and the UK and applicable regulations of the Financial Services Authority (FSA).

Pursuant to clause 6.1.1 of the Corporate Governance Code of the Bank of Russia, FGC UES has developed and introduced its Information Policy, ensuring efficient information relations of the Company, shareholders, investors and other stakeholders.

The Information Policy sets forth the aims and principles of disclosure by

the list of information in addition to the information stated in the laws of the Russian Federation, which the Company is obliged to disclose; and information disclosure procedure (including information channels for disclosure and forms of disclosure), deadlines for making disclosed information available, the procedure of communication between Company executives, officers and employees with shareholders and investors, as well as mass media and other stakeholders; and the measures to ensure monitoring of Information Policy observance.

The Company's Information Policy has the objectives to ensure:

- timely and complete disclosure of reliable and unbiased information about the Company, sufficient for shareholders, prospective investors and other stakeholders, to make investment and managerial decisions associated with their participation in the Company;
- compliance with the laws of the Russian Federation and the rules set forth by bid initiators for Company securities trading;
- protection of right and legal interests of the Company.

#### PARTICIPATION IN CONGRESS AND EXHIBITION ACTIVITIES

In order to promote brand recognition of FGC UES, the Company actively participates in congresses and exhibitions. This facilitates implementation of the Company's communication policy, strengthening the Company's reputation, and promotes corporate values and development of the industry, as well as politically and economically important cooperation.

In 2018, representatives of FGC UES took part in the Russian Investment Forum, St. Petersburg International Economic Forum, 47th CIGRE Session, the Eastern Economic Forum, Russian Energy Week, and other significant events.



For details on congress and exhibition activities, please **see Appendix 1**.

#### **RISK OF LOSS OF BUSINESS REPUTATION**

The Company identifies two possible sources of risks for losing its business reputation: production activities of the Company, and external communications by the Company.

The most significant reputation risk factors are reduced reliability of the functioning of the Unified National Electric Grid (UNEG), systemic disturbances in power supply to consumers, and accidents. The Company takes exhaustive measures to balance operations and process risks.

As part of external communications, a significant risk factor is the level of awareness of consumers, public and other stakeholders of the Company's

activities. In order to minimise this reputation risk, the Company has formalised the mechanisms for interaction with stakeholders and the procedure for external communications.53 In addition. the Information Policy regulation sets the rules and approaches for disclosure, and the purposes and principles of disclosure of mandatory and supplementary information, which contributes to increasing the information openness and transparency of relations between the Company and shareholders, creditors, potential investors of the Company, professional members of the securities market, public authorities, and other stakeholders.



For more information on the risk of reduced reliability of UNEG functioning, please see section Key Risks.

The risk of losses resulting from loss of business reputation in the Company is minimal.

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<sup>52</sup> Approved by the Bank of Russia under No. 454-P on 30 December 2014.

<sup>&</sup>lt;sup>53</sup> Regulation on communications policy implementation in PJSC FGC UES approved by the Resolution of the Board of Directors of 6 February 2017, Minutes No. 354 of 9 February 2017.



#### **SOCIAL AND ECONOMIC IMPACTS**





#### CONTRIBUTION TO THE DEVELOPMENT OF THE REGIONS OF THE COMPANY'S PRESENCE

to build and modernise an electric grid infrastructure aimed at the social and to consumers. economic development of 79 regions Pursuant to the Comprehensive Plan where the Company operates, and reliable of Infrastructure Modernisation and electricity supply to consumers.

North-South transport corridors including the Company's regions of presence. the Baikal and Amur and Trans-Siberian

PJSC FGC UES is implementing projects Railways, development of centralised power systems, and ensuring stable power supply

Extension up to 2024 approved by Decree of The largest projects of PJSC FGC UES the Government of the Russian Federation are associated with implementation No. 2101-r of 30 September 2018, of Order of the President of the Russian PJSC FGC UES implements 35 measures to Federation No. 204 of 7 May 2018 ensure external power supply of railways on the National Targets and Strategic and pipeline systems, process connection Objectives of Development of the Russian of large industrial consumers, and coverage Federation up to 2024. The top priority areas of the current and perspective demand are electrification of the West-East and for electric power and capacity in



For more information on reconstruction and building of trunk lines, please see section Production Capital.

Investments in grid infrastructure development are the foundation of reliable power supply and one of the important factors of economic growth.

investments in 2018 (5.2 % more than in 2017).

#### **COOPERATION AGREEMENTS WITH THE REGIONS**

In September 2018, PJSC FGC UES, the administration of the Sakhalin Region and Primorsky Krai signed bilateral agreements on joint efforts on power grid infrastructure development in order to facilitate economic growth in the regions.

In November 2018, PJSC FGC UES and the administration of the Krasnodar Kari signed an agreement to build the 220kV substation Novaya which will cover increasing demand for electric capacity in Krasnodar.

#### **TAX DEDUCTIONS**

Being a large taxpayer, 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 ths.

Taxes (contributions to extrabudgetary funds)	Amount of taxes transferred	Tax	Penalties, fines GRI 419-1
Federal taxes and levies		'	
VAT	14,080,804	14,078,540	2,264
PIT	2,784,421	2,784,369	52
Profit tax	1,640,517	1,640,517	0
Profit tax on foreign income	1,344	1,344	0
Water tax	351	337	14
State duty	71,656	71,656	0
Payments for emissions of harmful substances into the environment	3,503	3,503	0
Regional taxes			
Profit tax	9,296,279	9,296,262	17
Property tax	13,411,048	13,411,033	15
Transport tax	28,941	28,927	14
Local taxes and levies			
Land tax	56,611	56,561	50
Extrabudgetary funds			
Pension Fund of Russia	4,105,019	4,104,630	389
Social Insurance Fund	278,091	278,048	43
Federal Compulsory Medical Insurance Fund	1,064,594	1,064,589	5
Social Accident Insurance Fund	63,479	63,477	2
Total	46,886,658	46,883,793	2,865

#### **SPONSORSHIP**

The Company pays a lot of attention to providing sponsorship support in its activities. In 2018, sponsorship support amounted to RUB 160 million. The largest project implemented during the reporting year:

- continued cooperation with CSKA Professional Football Club. The Company is a title partner of CSKA Professional Football Club since 2014;
- cooperation with the Roscongress Foundation. The Company sponsored some major business events with the participation of the top state officials: The "Russian Energy Week" International Forum on Energy Efficiency and Energy Development, as well as the Eastern Economic Forum;
- cooperation with the Russian Chess Federation. PJSC FGC UES is a title sponsor
  of the Russian international chess teams. A number of joint measures have been
  implemented to develop and popularise chess in Russia. Cooperation with the State
  Hermitage Museum. The Company is a sponsor of some exhibitions;
- cooperation with the Russian Rugby Federation. FGC UES sponsored many events;
- FGC UES acted as the Official Partner of the Moscow Academic Musical Theatre named after K. Stanislavsky and V. Nemirovich-Danchenko.

#### **CHARITY**

For more information

on sponsorship

by the Company, please **see Appendix 1**.

The main focuses of PJSC FGC UES's charitable activities (both for individuals and legal entities) 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);
- social support and protection of citizens;
- protection and adequate maintenance of buildings, facilities and territories of historic, religious, cultural or environmental importance;
- social rehabilitation of orphaned children and children without parental care, neglected children and children in difficult life circumstances;
- support of activities in the field of health care, healthy lifestyle promotion, and improvement of people's moral and psychological condition;
- assistance for those who have suffered from natural disasters, catastrophes, as well as social, ethnic or religious conflicts, victims of repression, refugees and forced migrants;
- assistance in protection of the environment and animals;
- assistance for individuals requiring treatment for a severe disease or a surgery to preserve their lives and health.

In 2018, the Company allocated over RUB 180 million as charity for individuals and legal entities.

#### APPROACH TO STAKEHOLDER ENGAGEMENT

The concept of sustainable development entails the desire to meet the needs of the present generation without creating threats to meeting the needs of future generations. FGC UES understands that provision for reliable, continuous and quality power supply to consumers in the Russian Federation is possible only when taking into account stakeholders' interests with structural interaction and integration of this practice into all business processes of the Company.

#### GRI 102-42

When identifying and selecting the stakeholder groups to engage with, the Company relies upon assessment of their influence on its current operations and strategic development, as well as on the established stakeholder engagement practice and stakeholder dependence on the Company's performance. The most recent assessment of the rate of mutual interaction between stakeholders and the Company was performed within the scope of the preparation of the 2017 Integrated Annual Report.

PJSC FGC UES strives to provide a high level of openness and transparency of its activities by implementing the principle of active dialogue with stakeholders. Interaction with stakeholders takes place in all regions of FGC UES's presence. Interaction with certain stakeholder groups is the responsibility of individual structural units of the Company.

# i

For more information on the documents governing interaction between the Company and stakeholders, please see Appendix 1.

GRI 102-43

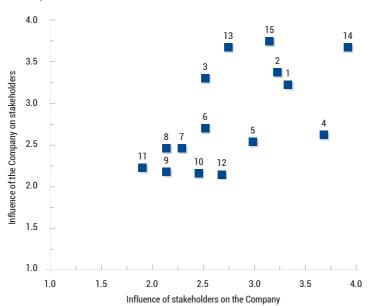
#### GRI 102-43

Principles underlying stakeholders' engagement:

- respect and consideration of the interests of all stakeholders, timely response to their requests;
- open and 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;
- fulfilment of our obligations.

<sup>54</sup> United Nations International Commission on Environment and Development, 1987.

#### The map of mutual influence of stakeholders and PJSC FGC UES



Company stakeholders\* GRI 102-40

No.	Stakeholders	Stakeholder	group
1.	Shareholders, investors		shareholders, investors
3.	Business partners, suppliers and contractors		partners, including non-for-profit
6.	Professional associations and industry organisations	ETT'S	organisations and associations
2.	Customers and consumers		consumers
4.	Government authorities		state
5.	Regional and local authorities		
7.	Population of the regions of presence, local communities		
8.	Scientific community		
9.	Educational institutions		society
10.	Ecological organisations	Timer	
11.	Social and charitable non-government organisations		
12.	Mass media	_	
13.	Subsidiaries	414	internal
14.	Top management of the Company		stakeholders
15.	Company personnel		

<sup>\*</sup> The number in the table is the same as the number on the Stakeholder Map.

#### INTERACTION WITH EXTERNAL STAKEHOLDERS

Shareholders and investors

#### Economic efficiency **KEY INTERESTS** Business sustainability **OF STAKEHOLDERS** Business process transparency Growth in shareholder value Meetings of shareholders and other corporate events ■ IR-presentations and IR-events **MAIN CHANNELS** Obtaining credit ratings from leading international **OF INTERACTION** and national rating agencies Information disclosure Reporting

The Company's priorities in interaction with shareholders and investors are the creation of an investment community and provision for efficient interaction with it in order to improve investor trust and raise demand for the Company's shares. We consider an active dialogue with the investment community to be important for getting feedback from this audience in order to understand how certain decisions may impact the investors' assessment of the Company.



Financial



Key events held in 2018:

- an annual meeting of the management with investment community representatives (Investor's Day);
- a conference call for investment community representatives to present 2017 IFRS financial results of the Company and a session of questions and answers;
- Company executives group meetings with representatives of Russian and foreign investment companies within the framework of VTB Capital Investment Forum "Russia Calling!";
- regular communication of the Corporate and Strategic Management Department with analysts of investment banks to give them information for updating investment models on PJSC FGC UES;
- provision of information when requested by shareholders, investors and analysts;
- regular monitoring of the Company's share capital, which makes it possible to structure the main groups and types of investors for developing an optimal mechanism of interaction with them;
- actions to engage minority shareholders in voting on items in preparing for the Annual General Meeting of Shareholders.

In 2018, analysts and investors were mostly interested in the following areas:

- financial and economic indicators and business forecast;
- PJSC FGC UES' development strategy;
- investment programme;
- dividend policy.

sustainability

Fconomic

PERFORMANCE RESULTS 2018



For more details on the Company's IR events, please see the website www.fsk-ees.ru/eng, Investors/ IR Releases.

The list of investment analysts monitoring the Company's performance is available on the website www.fsk-ees.ru/eng, Investors/
Analyst Coverage.

The Investor Calendar is constantly updated and available at the website www.fsk-ees.ru/eng, Investors/ Investor Calendar. A traditional meeting of FGC management with investment community representatives was held on 18 December in the Moscow Exchange. Andrey Murov, Chairman of the Management Board, spoke about positive dynamics in the key financial and economic and production indicators, the investment programme progress, and announced the management's idea for 2018 dividends.

This form of meetings allows investors to receive first-hand knowledge, and the management gets feedback directly from market experts.

Interaction of the Company with the state as a shareholder has its procedural peculiarities set forth in the normative acts approved by the President and Government of the Russian Federation. In particular, public representatives in management bodies of the Company are obliged to vote for/against a number of aspects in accordance with directives of the Government of the Russian Federation.

Partners, including non-for-profit organisations and associations

	Business partners, suppliers and contractors	Professional associations and industry organisations
KEY INTERESTS OF STAKEHOLDERS	<ul> <li>Fair competition and responsible market conduct in order to create equal conditions for all business partners</li> <li>Transparency of activities, including transparency of procurements</li> <li>The spotless reputation of FGC UES as a business partner</li> </ul>	<ul> <li>Electric power development and modernisation</li> <li>Transparency of activities</li> </ul>
MAIN CHANNELS OF INTERACTION	<ul> <li>Contractual relations and cooperation agreements</li> <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>Promotion of export of hi-tech products</li> <li>Corruption management</li> </ul>	Cooperation with specific Russian and international organisations Participation in professional and business associations Scientific and technical exchange Interaction with industry and scientific and technical mass media



FGC strives to develop long-term mutually beneficial relations with its business partners, including suppliers and contractors, using open, fair and ethical methods of cooperation, mutual respect, and compliance with obligations and commitments.

For more information, please see Production Capital.

In 2018, FGC UES organised tenders for RUB 159.9 billion (70.4 % of overall procurements).

FGC UES supports Russian suppliers and contractors: the share of Russian main electric equipment in Company tenders was 91%. Purchases from small and medium-sized businesses in the reporting year amounted to RUB 65.9 billion.

Interaction with representatives of professional associations and industry organisations is targeted at joint activities for development and modernisation of the electric power sector (scientific and engineering exchange, operation of industry and interdisciplinary working groups, organisation of Russian and international conferences and forums, etc.).

The FGC UES team won a prize in the International Engineer Championship Case-in for its innovative project to solve the issue of power supply to hazardous areas of Russia's Arctic Regions.

#### Consumers

# Reliable power supply Improved quality of services High standards of service Meetings of the Consumer Council Customer surveys Establishment of a practice to build electric power facilities with co-funding from consumers through creation of special project companies for speedy access to UNEG Cooperation under contracts, treaties and cooperation agreements

Having a customer-oriented approach is one of the Company's key principles. While satisfying approximately half of all electricity consumption in Russia, FGC builds long-term mutually beneficial relations with consumers, offering them high-quality services.

PJSC FGC UES provides consumers with a comprehensive service for technological connection of power receivers of electricity consumers, power generation facilities, and electric grid facilities owned by network organisations and other entities to FGC UES' electric grids. There are on-site

service formats for locations of branches of PJSC FGC UES — MPS, and off-site servicing via the portal Technological Connection Service.

The Internet portal Technological Connection Service provides consumers with online access to up-to-date information on the state of PJSC FGC UES' feeding centres, load level of their equipment, as well as information on the implementation progress of their applications for technological connection to the electric grids of FGC UES.



Consumer

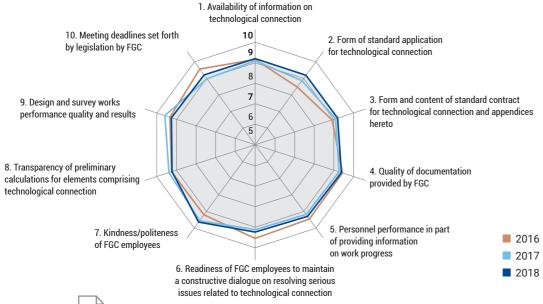


Infrastructure development



For more information on the Technological Connection Service using the online portal, please see http://portaltp.fsk-ees.ru/.

#### Level of customer satisfaction with the technological connection service



i

For information of the Consumer Council of PJSC FGC UES and 2018 results, please see Appendix 1. According to the participants of the customer satisfaction survey in 2018, there was improvement in the quality of documents received (terms of reference, appendices to the contract, contract) from PJSC FGC UES, as well as improvement in the performance of PJSC FGC UES personnel in terms of providing information on the technological connection process. Of most importance was the benevolence and politeness of Company personnel, and the efficiency of interactions during construction and assembly. It should be noted: the overall integral value vs. 2017 increased significantly and reached 9.3.

#### State and local government bodies

	Government authorities	Regional and local authorities
KEY INTERESTS OF STAKEHOLDERS	<ul> <li>Ensuring reliable and stable power supply</li> <li>UNEG development and modernisation</li> <li>Compliance with the requirements of Russian and international laws</li> <li>Payments to budget and extrabudgetary funds</li> </ul>	<ul> <li>Ensuring reliable and stable power supply</li> <li>Promotion of development in the regions of the Company's presence</li> <li>Payments to budget and extrabudgetary funds</li> </ul>
MAIN CHANNELS OF INTERACTION	<ul> <li>Work in joint committees, panels, expert boards.</li> <li>Reporting</li> <li>Development of proposals to improve legislation</li> <li>Fulfilment of obligations stated in the investment programme</li> <li>Corruption management</li> </ul>	<ul> <li>Agreements on social and economic cooperation with constituent units of the Russian Federation</li> <li>Contribution to the development of the regions of the Company's presence</li> <li>Social and charity programmes</li> </ul>

PJSC FGC UES has regular meetings with representatives of the following federal executive authorities:

- Ministry of Energy of the Russian Federation;
- Ministry of Economic Development of the Russian Federation;
- Ministry of Industry and Trade of the Russian Federation;
- Federal Anti-Monopoly Service of the Russian Federation;
- Federal Agency for State Property Management (Rosimushchestvo);
- Federal Service for Environmental, Technological and Nuclear Supervision;
- Federal Service for Supervision of Natural Resources;
- Central Energy Customs of the Federal Customs Service, etc.

FGC UES engages in a constructive way with regional administrations and local authorities in addressing pressing social, economic and environmental issues, and cooperates with non-profit organisations and the expert community at the regional level.

#### SOCIETY

Population of the regions of presence, local communities

KEY INTERESTS	Impro
OF STAKEHOLDERS	of pre
	Contri

Ensuring reliable and stable power supply
 Improving the quality of life in the Company's regions of presence

Reducing the adverse impact on the environment

#### MAIN CHANNELS OF INTERACTION

Contribution to the development of the regions of the Company's presence

Social and charity programmes

Public hearings

Environmental protection programmes

Interaction with the population in the Company's areas of presence is carried out in the form of cooperation with local authorities and public organisations. The key objective of interaction is reliable and uninterrupted power supply to citizens. The reliability of the Company's grids increases every year: in 2018, the specific accident rate at FGC UES facilities declined by 17 % thanks to the introduction of new equipment, improvement of the service personnel's skills, expertise and other activities.

FGC UES has been awarded the honorary badge of the RaEl Association for high social efficiency.

Providing the general population with jobs with a fair salary and social security is also a mutually beneficial objective of cooperation.

FGC UES has about

22,000

employees.

Taking into account their family members, the Company has a direct impact on the quality of life of tens of thousands of people.



Infrastructure development



Economic sustainability



Economic efficiency



Reliable electricity



Infrastrucutre development



For information
on the contribution
of the Company towards
the development of local
communities, please
see Contribution
to the Development
of the Regions of Presence.

#### Scientific community

**KEY INTERESTS OF STAKEHOLDERS** 

■ UNEG development and modernisation Sectoral science development

Development and implementation of innovative technologies International scientific and technical exchange

**MAIN CHANNELS OF INTERACTION** 

Joint projects R&D funding

Scientific and technical partnership with RNC CIGRE

For details on innovations in the Company, please see Intellectual Capital.

Interaction with institutions of innovative development, technology platforms, higher education institutions and research and development organisations is one of the objectives stipulated by the Innovative Development Programme. Interaction mainly takes the form of R&D and D&T activities.

In 2018, R&D funding amounted to almost RUB 600 million.

#### **Educational institutions**

**KEY INTERESTS OF STAKEHOLDERS**  Targeted staff training

Sectoral science development Development of innovative technologies

**MAIN CHANNELS OF INTERACTION**  Cooperation in scientific and research activities Training, re-training and advanced training

R&D funding

For more information on

cooperation with higher

professional education

training schools, please

see Human Capital

and Appendix 1.

establishments and vocational

FGC UES has an active cooperation agreement with 52 establishments of higher education and 13 specialised secondary schools. Cooperation exists in educational events for students of the top power industry educational establishments in Russia, production and pre-degree internships for students, engagement of students and post-graduate students into R&D and innovation activities, construction teams for students, educational basis development, and modernisation, etc.

The Company was awarded a number of prizes for development of student teams: • FGC UES was a nominee for "The best social projects in Russia" in the category "Corporate projects" for organisation of construction teams for students; • FGC UES has an honourable diploma from the RaEL Association for important

achievements in development of student teams in Russia.

In 2018, some 80 establishments of higher professional education and 40 vocational training schools were involved in cooperation.



#### Environmental non-government organisations

**KEY INTERESTS OF STAKEHOLDERS** 

Reduction of the adverse impact on the environment

MAIN CHANNELS **OF INTERACTION** 

Cooperation with environmental organisations

Commitments to comply with social and environmental requirements of EBRD under agreements on funding the Company's projects

Within the scope of implementation of the Environmental Policy, FGC UES cooperates with Russian and international environmental organisations.

During the reporting year, PJSC FGC UES continued cooperation with the World Wildlife Fund (WWF) "Saving Oriental White Storks". Furthermore, in 2018 PJSC FGC UES provided charitable assistance to the Autonomous Non-Profit Organisation "Centre for Study and Preservation of the Amur Tiger Population".

For detailed information on environmental protection. please see Natural Capital.

#### Social and charitable non-government organisations

**KEY INTERESTS** OF STAKEHOLDERS

Social responsibility

**MAIN CHANNELS OF INTERACTION**  Participation in forums, conferences, dialogues, and round tables

Membership in public and expert associations Cooperation agreements

in 2018, the Company spent more than RUB 340 million on charity.



For more information on the Company's charity programmes, please see Charity and Sponsorship.

FGC UES is committed to providing charitable support and sponsorship to public organisations:

#### Mass media

#### **KEY INTERESTS OF STAKEHOLDERS**

Providing prompt access to information about the Company's activities

Obtaining the official opinion and comments from the Company on current and future events, trends, and directions of development

#### MAIN CHANNELS OF INTERACTION

Organisation of events for mass media

Initiation of publications in national, regional and local media Updates of information on the corporate website, official blog and social media resources of the Company

communications are very significant, business and public political Russian mass as they allow informing stakeholders about any and all key aspects of the Company's 
The Company undertakes constant media activities. Mechanisms of interaction with stakeholders and the mass media, and the procedure of external communications, are set forth in the Regulation on Communication Policy Implementation of PJSC FGC UES.55 This document stipulates the key implementation principles of the communication policy of PJSC Rosseti<sup>56</sup> and the Information Policy Regulation of PJSC FGC UES.<sup>57</sup>

FGC UES thinks that regular, open FGC UES interacts with the leading media at the federal and regional level. space monitoring, organises media events, and provides mass media with materials popularising the activities of the electric grid complex. The Company's activities have information support in social networks and the blogosphere.

> In its relations with mass media, FGC UES follows the principles of prompt and complete provision of information.

In 2018, the overall number of publications about the Company in various mass media sources reached approximately 27,500.

#### INTERACTION WITH INTERNAL STAKEHOLDERS

	Key interests of stakeholders	Main forms of interaction
Subsidiaries	<ul><li>Strategy implementation (LDP)</li><li>High quality of corporate governance</li><li>Business plan delivery</li><li>KPI achievement</li></ul>	<ul> <li>Organisational and administrative documents</li> <li>Interaction between companies on routine aspects</li> </ul>
	For more information, please see Subsidiaries Management.	
Top managers	<ul> <li>Strategy implementation (LDP)</li> <li>Gain in all types of capital – financial, HR, intellectual, social, and reputational</li> <li>KPI achievement</li> <li>Uniform corporate values in sustainable development</li> <li>Management of one of the largest infrastructure companies in Russia</li> </ul>	<ul> <li>Organisational and administrative documents</li> <li>Preparation of financial and executive statements</li> <li>Ongoing interaction within the scope of business processes</li> </ul>
	For more information, please see Executive Governing Bodies.	
Personnel	Professional and career development in a large, stable company Safe working conditions Decent remuneration and full social package	Personnel development Social support of employees Information and communication using internal channels
	For details, please see Human Capital.	

#### PARTICIPATION OF STAKEHOLDERS IN SHAPING THE COMPANY'S STRATEGY

#### GRI 102-21, 102-43

The process of reviewing and approval of the Long-Term Development Programme with key stakeholders is governed by the Methodological Recommendations on Preparation of Long-term Development Programmes of the Ministry of Economic Development of the Russian Federation, individual resolutions of the Government of the Russian Federation, and the Company's internal documents. Pursuant to the current procedure, the Company's LDP should be approved by PJSC Rosseti (being the key shareholder), with federal executive authorities (including the Ministry of Energy of Russia, Ministry for Development of Russian Far East, Rosimushchestvo, Ministry of Economic Development of the Russian Federation); and, finally, with the Government of the Russian Federation. The primary site for document discussion

is the Strategy Committee of the Company's Board of Directors, which discusses the LDP prepared by the management, and once approved, it is distributed among stakeholders.

The Company prepares annual reports on LDP progress which are evaluated by an independent auditor and the Company's Board of Directors. Annual reports are sent via the Interdepartmental Portal to Rosimushchestvo and sometimes to the Ministry of Energy of Russia. Representatives of the industry community, and the federal executive bodies are members of the Strategy Committee, and discuss LDP when reviewing guarterly progress reports. During its meeting on 3 August 2017, the Strategy Committee<sup>58</sup> recommended preparing a new LDP.

#### INTERACTION WITH STAKEHOLDERS DURING THE REPORT PREPARATION

In order to ensure transparency and accountability of PJSC FGC UES, representatives of key stakeholders are engaged in preparing the report: they define the topics for disclosure in the Report, take part in Public Hearings of the Report draft, as well as public certification of the Report. Interaction with stakeholders during the public reporting processes is a provision of international standards AA1000SES

of the Institute of Social and Ethical Accountability, Global Reporting Initiative (GRI SRS), and the Integrated Reporting International Framework.

During preparation of the previous report, the Company undertook commitments, the majority of which were taken into account in the 2017 report, while some commitments were met in 2018.



For more information on participation of representatives of stakeholders in defining the relevant Report topics. please see Information on the Report.

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<sup>55</sup> Approved by the resolution of the Board of Directors, Minutes No. 354 of 9 February 2017.

<sup>&</sup>lt;sup>56</sup> Approved by Order No. 152 of PJSC Rosseti dated 21 August 2015.

<sup>&</sup>lt;sup>57</sup> Approved by the resolution of the Company's Board of Directors, Minutes No. 280 of 24 August 2015.

<sup>58</sup> Minutes No. 51 of 8 August 2017.

#### Account of suggestions of stakeholders sounded out during Public Hearings of the 2017 Report, held on 17 April 2018 GRI 102-44

No.	Stakeholder	Suggestion	Taken into account
1.	Business partners,	To compare the Company with similar international companies.	Taken into account in the Industry Review section of the 2018 Annual Report.
2.	suppliers and contractors	To set forth plans to prepare normative and technical documents in Appendix 1 to the Annual Report.	Taken into account in Appendix 1 to the 2017 and 2018 annual reports.
3.		To keep the Digitalisation section in future annual reports.	Taken into account in the 2018 Annual Report.
4.	Scientific community	To provide qualitative comparisons, particularly to clarify the scaling system used in assessment of customer satisfaction of 9.23 points.	Taken into account in the Business Model section of the 2017 and 2018 annual reports.
5.	Professional associations and industry organisations	To disclose information on professional standards implemented in the Company, on the Qualification Assessment Centre and on the Company's need of human resources with qualification in digitalisation.	Taken into account in the Human Capital section of the 2018 Annual Report and Appendix 1 to the 2018 Annual Report.
6.	Educational institutions	To keep disclosing information on the number of students who had practical training in the Company.	Taken into account in Appendix 1 to the 2018 Annual Report.
7.	MOEX	To review the Company's compliance with the corporate governance principles regarding item 6.2.1. of Appendix 3 hereto "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."	Taken into account in Appendix 3 to 2017 and 2018 annual reports. The status in 6.2.1. is changed from "partial compliance" to "full compliance".
8.		To provide a diagram on participation of the independent directors in the Board of Directors and its Committees.	Taken into account in "Report on corporate governance" of the Independent Directors subsection of the 2017 and 2018 annual reports.



For the minutes of the Public Hearings, please see Appendix 2.

FGC UES takes part in Russian and international report contests annually. In 2018, the Company was a laureate and award winner of the respectful international and Russian contests MarCom Awards, MOEX and RCB Media Group, and RAEX Analytics rating agency. The Company's 2017 integrated annual report was rewarded. Our social responsibility and corporate sustainability reports are included in the National Register of corporate non-financial reports of the Russian Union of Industrialists and Entrepreneurs.

#### Account of suggestions from stakeholders sounded out during the Public Hearings of the 2018 Report

**GRI 102-44** 

No.	Stakeholder	Suggestion	Taken into account					
Prof	Professional associations and industry organisations							
1.	Representative from the expert centre of Non- Profit Partnership "Russian Institute of Directors"	To supplement the Annual Report with information on implementation of recommendations, and information on independent annual assessment of activities of the Board of Directors.	Will be taken into account when drafting the 2019 Report.					
2.	Representative of the Russian Bird Conservation Union	To amend the Annual Report stating that the activities of PJSC FGC UES affect biodiversity.	The impact from the activities of PJSC FGC UES on biodiversity is insignificant.  Pursuant to standard GRI 304-2, impact is significant if habitats, valuable populations or separate species cannot be preserved. In the course of PJSC FGC UES's operation, no cases of animal habitat relocation and/or damage were observed.					
3.	-	To supplement Appendix 10 to the Annual Report with a detailed list of RED Book species.	Taken into account in Appendix 10.					
4.	Representative of the association ERA of Russia	To supplement the Annual Report with information on independent assessment results for staff qualification correspondence to professional standards organised by the Centre for Development and Assessment of Qualifications in the Electric Grid Complex (CDA).	Will be taken into account when drafting the 2019 Report.					
MOE	X							
5.	Representative of PJSC MOEX	To state in the Annual Report that dividends are calculated with net revenue adjustment.	Taken into account in section Dividend Policy and Profit Distribution.					

Public hearings on the draft Report were held on 18 April 2019 on the premises of PJSC FGC UES at: 9/11 Bolshoy Nikolovorobinsky Lane, Moscow.

#### GRI 102-43

During the Public Hearings, PJSC FGC participants sounded out 5 suggestions large companies from other industries, nonfor-profit organisations, and educational establishments. During the Public Hearings,

UES was represented by deputy Chairmen and recommendations regarding of the Management Board, discipline additional disclosures in the Report. directors, heads of departments, Two suggestions (40 %) were taken into and specialists. Stakeholders were account; one suggestion (20 %) was denied represented by representatives of power and the decision was justified; during sector companies, industry associations, preparation of future reports, 2 suggestions (40 %) will be taken into account or discussed.



An opinion on the public certification of the Report is presented in Additional Information.

# CORPORATE GOVERNANCE REPORT

The FGC UES Corporate Governance System is grounded on transparency, accountability, fairness and responsibility. Improving the quality of corporate governance, we boost the efficiency and investment attractiveness of our business.

- **149** General Information on the Company's Corporate Governance
- **154** General Meeting of Shareholders
- **155** Company's Board of Directors
- **169** Corporate Secretary
- 170 Committees of the Company's Board of Directors
- 176 Executive Governing Bodies
- **182** Remuneration System for Governing Bodies
- 190 Settlement of Conflict of Interest
- 191 Risk Management System, Internal Control and Internal Audit
- **200** External Auditor
- **201** Anti-Corruption Policy and Economic Security
- **203** Share Capital, Securities Trading



# GENERAL INFORMATION ON THE COMPANY'S CORPORATE GOVERNANCE



#### GRI 102-16

Corporate governance in the Company is based on corporate governance principles set forth in the Corporate Governance Code recommended by the Bank of Russia, as well as on provisions of PJSC FGC UES' Corporate Governance Code.<sup>59</sup>

#### **TRANSPARENCY**

The Company ensures timely disclosure of reliable information about any and all material facts regarding its activities, including its financial status, social and economic indicators, business results, ownership and governance structure, as well as free access to such information for stakeholders.

#### **ACCOUNTABILITY**

The Company's Board of Directors is accountable to all shareholders as set forth by the current laws.

#### **FAIRNESS**

The Company is committed to protecting shareholders' rights and to ensure equal treatment of all shareholders. The Board of Directors provides all shareholders with an opportunity for efficient protection in case their rights are violated.

#### **RESPONSIBILITY**

The Company recognises the rights of all stakeholders stipulated by the current laws and strives to cooperate with such persons in order to ensure its development and financial stability.

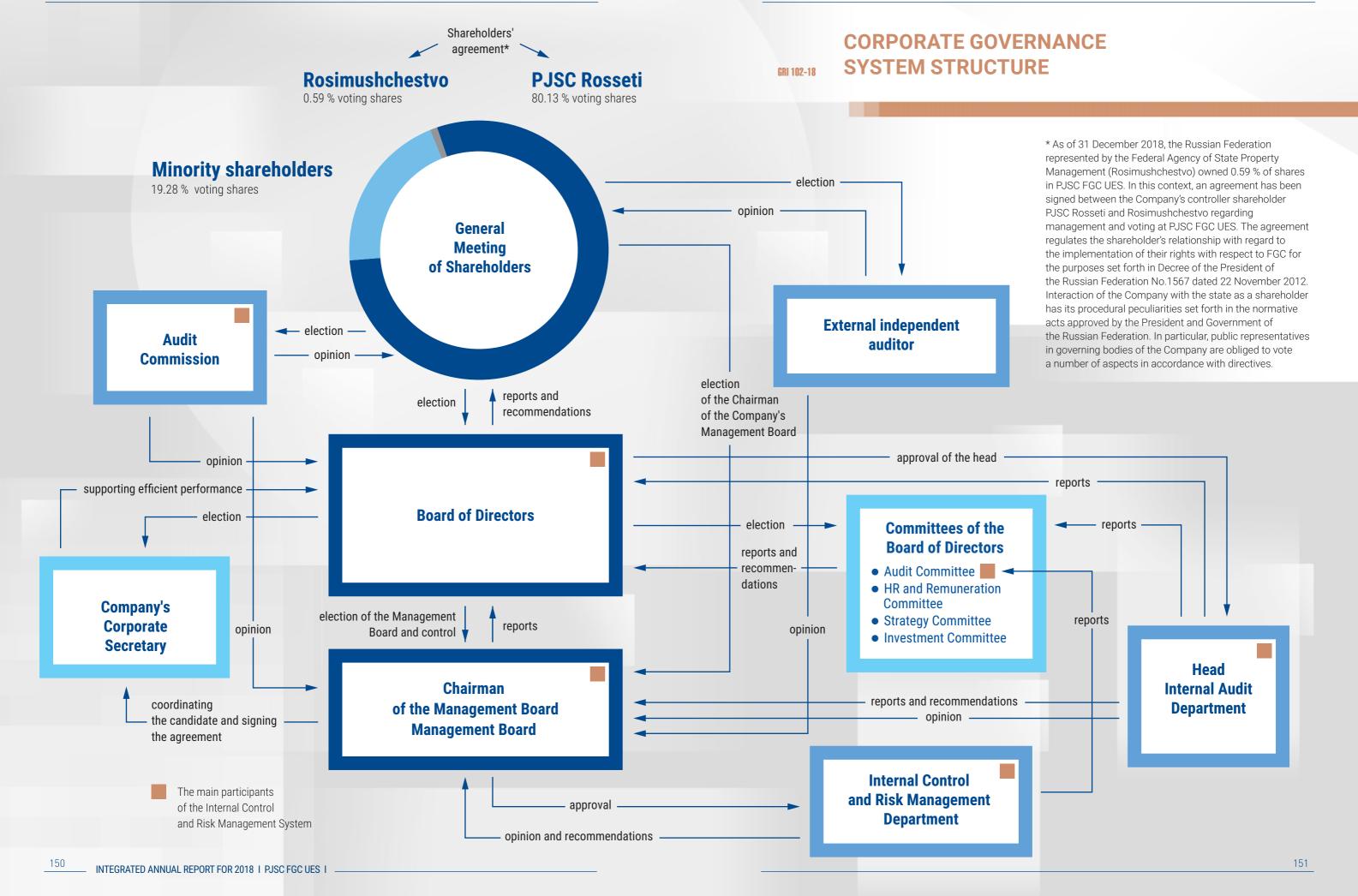
The Board of Directors annually analyses the information on self-assessment of the corporate governance in PJSC FGC UES. The Company meets the requirements of laws and a number of advanced corporate governance standards.



For more information on the elements of the corporate governance system of FGC, please see the Articles of Association and internal documents of PJSC FGC UES at www.fsk-ees.ru/eng, Investors/Corporate Governance/Corporate Documents.



<sup>&</sup>lt;sup>59</sup> Approved by the resolution of the Board of Directors of PJSC FGC UES, Minutes No. 280 of 24 August 2015.



# DEVELOPMENT OF THE CORPORATE GOVERNANCE SYSTEM

For further improvements in corporate governance quality, the Company continues implementing best Russian and international corporate governance practices.

	Area of improvement	Measures and actions
8	Protection of	■ The revised Regulations on the Dividend Policy of PJSC FGC UES were approved. 60 They stipulate the amount of dividends of at least 50 % of the net revenue determined on the basis of RAS or IFRS financial statements (the amount is calculated with a net revenue adjustment in accordance with the Decree of the Government of the Russian Federation No. 1094-r of 29 May 2017).
201	shareholder rights	For details, please see Financial Capital — Dividend Policy.
	J	Remote participation of shareholders in the Annual General Meeting of Shareholders was made possible by creating technical conditions for electronic voting.
		For more information, please see General Meeting of Shareholders.
S	Management efficiency improvement	<ul> <li>To amend PJSC FGC UES' Corporate Governance Code as regards defining the agenda for meetings of the Board of Directors.</li> <li>To increase the number of meetings of the Board of Directors in praesentia.</li> </ul>
2019 and onwards	Information disclosure	<ul> <li>To amend the Information Policy as regards clarification of the procedure and methods of information provision to stakeholders.</li> <li>To implement the Sustainable Development Policy of the Company setting forth the aims, objectives and principles of Company activities in sustainable development, approaches to interaction with stakeholders, and reporting principles.</li> <li>To improve the quality of information disclosure in annual reports and on the Company website.</li> </ul>

#### **ASSESSMENT OF CORPORATE GOVERNANCE QUALITY**

## INDEPENDENT ASSESSMENT MADE BY THE RUSSIAN INSTITUTE OF DIRECTORS

The Russian Institute of Directors confirmed the corporate governance rating at a level of 7++ "Well-Developed Corporate Governance Practice."



The Report on Compliance with the Principles and Recommendations of the Corporate Governance Code is presented in Appendix 3. In October 2018, following assessment of the corporate governance quality of PJSC FGC UES, the Russian Institute of Directors confirmed the rating assigned in 2017 at the level of 7++. This rating confirms that the Company meets the requirements of the Russian legislation on corporate governance and mainly follows the recommendations of the Russian Corporate Governance Code. Owners' risk

of loss related to corporate governance quality is assessed as being quite low.

During the assessment by the Russian Institute of Directors, positive changes were noted in corporate governance, and corporate governance areas of improvement were identified which allow a further increase in the corporate governance rating.

#### Positive changes in 2018

- The new version of the Regulation on the Dividend Policy of PJSC FGC UES has been approved
- Remote participation of shareholders in the Annual General Meeting of Shareholders was made possible.
- Ernst and Young LLC is the external auditor of PJSC FGC UES accounting statements using RAS and IFRS.
- The Company prepared an integrated annual report for 2017 for the first time which complies with GRI Standards and AA1000SES standards. The report was assessed by an independent auditor regarding non-financial statements, and an opinion on public certification was made.

#### **Areas for improvement**

- Increase in the number of meetings in praesentia for the Board of Directors, the Audit Committee and the HR and Remuneration Committee, as well as amendments to the Corporate Governance Code of PJSC FGC UES regarding defining agendas of the meetings of Board of Directors in the form of voting in person.
- Implementation of mechanisms to monitor voting with quasi-treasury shares by the Board of Directors.
- Amendments to the Articles of Association of the Company regarding inclusion of selection of the sole executive body to the competence of the Board of Directors.
- Amendments to the Regulations on Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES regarding dependence of the remuneration amount on long-term results of the Company.

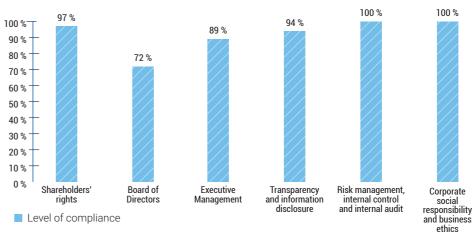
#### SELF-ASSESSMENT OF CORPORATE GOVERNANCE QUALITY

In April 2016 the Company's<sup>61</sup> Board of Directors approved the Guidelines for Self-Assessment of Corporate Governance. This document was developed on the basis of methods approved by Order of Rosimushchestvo No. 306 of 22 August 2014 for self-assessment of corporate governance in companies with state participation in order to ensure comparability of the annual evaluation performed by the Company.

The method comprises assessment of corporate governance quality, and in particular, compliance with principles and recommendations of the Corporate Governance Code approved by the Bank of Russia. This document sets certain assumptions related to the Company's activities.

The Company achieved 87 % compliance with the Guidelines for Self-Assessment of Corporate Governance, which proves the high level of corporate governance quality. The Company achieved high results for its 2016 and 2017 results as well (84 % and 86 %, respectively).

#### Results of the self-assessment of the corporate governance level by component\*



<sup>\*</sup> The Company's self-assessment of the corporate governance level was made in Q1 2019.

Also, FGC assessed compliance with the corporate governance principles set forth in the national Corporate Governance Code, using the methodology recommended by the Bank of Russia in its letter No. IN-06-52/8 dated 17 February 2016 on Disclosure in the Annual Report Prepared by a Public Joint Stock Company of the 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>60</sup> Minutes of the Board of Directors No. 406 of 30 May 2018.

<sup>&</sup>lt;sup>61</sup> Minutes of the Board of Directors No. 318 of 28 April 2016.

#### **GENERAL MEETING OF SHAREHOLDERS**

The General Meeting of Shareholders is the supreme management body of PJSC FGC UES, ensuring that shareholders exercise their rights to manage the Company. PJSC FGC UES defined a list of additional materials to be provided to shareholders when preparing for the general meeting to enable them to make well-founded decisions. Such materials include, among other things, positions of the Board of Directors regarding all items on the meeting agenda, extended information about the candidates to the governing and control bodies, tables comparing amendments

to be made to the Company's Articles

of Association and internal documents with

the existing versions. All materials are

disclosed on the Company's website, in English and Russian languages, not later than 30 days prior to the date of the general meeting of shareholders.

PJSC FGC UES' Regulations on the General Meeting of Shareholders provide clear procedures for holding the GMS, including an opportunity for shareholders to ask questions on agenda items. Shareholders may put questions directly to members of the governing and control bodies, the Chief Accountant and the Company's Auditors, who are in all cases invited to attend the meeting. Since 2016, the live video broadcasting system of the General Meeting of Shareholders was introduced on the Company's website.

General meetings of shareholders in 2018 were held using electronic voting technology. Shareholders were given the opportunity to vote electronically from the moment of sending the message about the meeting to the end of the discussion on the agenda at the meeting.

General Meetings of Shareholders in 2018

Minutes of the General Meetings of Shareholders are available on the website www.fsk-ees.ru in section Investors/Corporate Governance/Shareholders Meetinas.

#### **Resolutions taken:**

#### **Annual General Meeting of Shareholders**

- approval of the 2017 Annual Report of PJSC FGC UES;
- approval of the annual accounting (financial) statements of PJSC FGC UES for 2017;
- approval of the distribution of profit and loss of the Company based on the results of the 2017
- the amount of dividends, terms and form of their payment based on the results of work for 2017 and establishment of the date on which the persons entitled to receive dividends are determined;
- payment of remuneration for work in the Board of Directors to members of the Board of Directors who are not civil servants in the amount established by the internal documents of PJSC FGC UES;
- payment of remuneration for work in the audit committee to members of the audit committee who are not civil servants in the amount established by the internal documents of PJSC FGC UES; election of members of the Board of Directors of PJSC FGC UES;
- election of members of the Audit Commission of PJSC FGC UES;
- approval of the Regulations on Payment of Remuneration and Compensation to Members of the Audit Commission of PJSC FGC UES in the new edition;
- approval of the auditor of PJSC FGC UES;
- participation of PJSC FGC UES in the All-Russian Association of Employers "Russian Union of Industrialists and Entrepreneurs".

#### **Extraordinary General Meeting of Shareholders**

Date:

28 June 2018

19 November 2018

It was decided to elect a Chairman of the Board of PJSC FGC UES.

#### **COMPANY'S BOARD OF DIRECTORS**

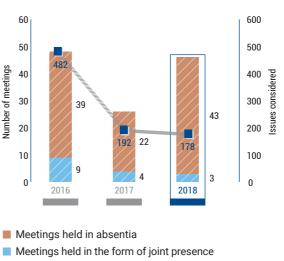
#### **GRI 102-26**

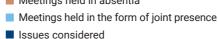
FGC UES' Board of Directors performs general strategic management of the Company and plays a key role in the Company's corporate governance system. The activities of PJSC FGC UES' Board of Directors are governed by the Company's Articles of Association, Regulations on the Board of Directors of PJSC FGC UES,62 and PJSC FGC UES' Corporate Governance Code.

	Board of Directors Collegiate governing body
Functions	Implementation of joint stock control, and general strategic management of the Company.
Accountability	Accountable to the General Meeting of Shareholders.
Appointment/ election procedure	The Board of Directors is elected by the General Meeting of Shareholders of the Company from candidates proposed by shareholders holding at least 2 % of voting shares in the Company.  The Chairman of the Board of Directors is elected by a majority vote of the formed Board of Directors.
Term of office	One year (until the next Annual General Meeting of Shareholders). The Director may be re-elected an unlimited number of times. At the same time, a separate decision of the Board of Directors is required to maintain the status of an independent director who has been elected for seven years in a row to the Board of Directors.

In total, 46 meetings were held in 2018, 3 of them in the form of joint presence. 178 issues were considered, of which a quarter were issues of corporate governance.

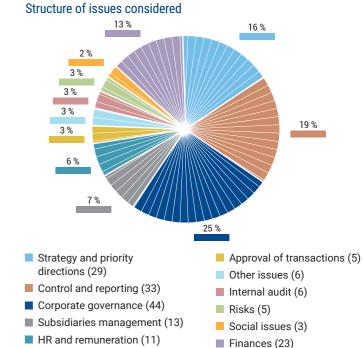
#### Statistics of work of the Board of Directors





(Minutes No. 17 of 4 July 2016).

# 62 In the revision approved by the resolution of the General Meeting of Shareholders of PJSC FGC UES on 29 June 2016



#### THE REPORT OF THE BOARD OF DIRECTORS ON RESULTS OF COMPANY DEVELOPMENT IN PRIORITY BUSINESS DIRECTIONS

#### GRI 102-34

In 2018, the Company's Board of Directors continued its work on developing the Company in the priority areas defined in the Company's Long-term Development Programme.

#### Strategic objective Resolutions taken The report on execution of production programmes in 2017 was taken into account: maintenance 4 and repair, technical upgrading and reconstruction. The results of the implementation of the work plan for M&R and TU&R of PJSC FGC UES for 2017 were considered satisfactory. Reliability and quality ■ The programme of modernisation (renovation) of power grid facilities of PJSC FGC UES for 2018–2026 of energy supply was approved. ■ The reports on reviewing applications for technological connection and performance of contracts on implementation of technological connection to the power grid facilities of FGC UES for 2017 and H1 of 2018 were taken into account. Customer The information on indicators of reliability and quality of services provided by PJSC FGC UES subject satisfaction to tariff regulation was taken into consideration. FGC UES business plan for 2018 and forecast indicators for 2019–2022 were approved. ■ The Action Plan of FGC UES for reduction of overdue accounts receivable for the electricity transmission services and dispute settlement was approved. ■ The consolidated business plan (RAS) and the consolidated business plan (IFRS) for FGC UES Group for 2018 and the forecasts for 2019-2022 were taken into account. The reports on the implementation of the consolidated business plan (RAS) and the consolidated business plan (IFRS) for FGC UES Group for H1 of 2017, 9 months of 2017, 2017, Q1 of 2018, and H1 of 2018 have been taken into account. The reports on the execution of the business plan of PJSC FGC UES for 9 months of 2017, 2017, Q1 Maintaining of 2018, and H1 of 2018 were taken into account. financial sustainability A general limit of the Company's debt to third parties on borrowed funds was established. PJSC FGC UES' Antimonopoly Policy was approved. ■ The report of PJSC FGC UES on results of work on the capital markets and interaction with rating agencies for 2017 was taken into account. ■ The report of PJSC FGC UES on the actual use of currency and interest risk hedging instruments for 2017 and the economic effect achieved was taken into account. ■ The report on the implementation of the Development Plan of the Industrial Assets Management System of PJSC FGC UES and the achievement of expected effects for 2017 was approved. ■ The Non-Core Assets Disposal Programme of PJSC FGC UES and its Subsidiaries and the Procedure for Organising Sales of Non-Core Asset of PJSC FGC UES were taken into account. Efficient The reports on the progress and results of the implementation of measures under the Programme governance for Disposal of Non-Core Assets of PJSC FGC UES and its Subsidiaries for Q3 of 2017, Q4 of 2017, Q1 of 2018, and 02 of 2018 were approved. ■ An adjustment to the investment programme of PJSC FGC UES for 2016-2020 was approved. The list of investment projects of PJSC FGC UES being subject to public technological and price audits in 2018 was approved. ■ The annual report on the technological and price audits of investment projects of PJSC FGC UES in 2017 Development was approved. of the UNEG The report was taken into account on execution of the investment programme of PJSC FGC UES for Q4 infrastructure of 2017 and throughout 2017, including the projects of federal significance and projects implemented with and consolidation application of federal budget resources and other budgetary funds, as well as non-budget funds. of UNEG facilities



The minutes of meetings of the Board of Directors are available on the website www.fsk-ees.ru in section Shareholders and Investors/Corporate Governance/Decisions of the Board of Directors.

The Executive Body has been instructed to strengthen control over the implementation of priority

#### ASSESSMENT OF PERFORMANCE OF THE BOARD OF DIRECTORS

#### GRI 102-28

In accordance with the Regulations on methodology was based on best practices Assessment of Performance of the Board of Directors of PJSC FGC UES, the Company Corporate Governance Code. annually conducts a comprehensive As a result of the assessment, the high assessment of the performance of the individual assessment of the activities of the directors.

and recommendations of the national

role of the Committees in enhancing Board of Directors, its committees, and an the effectiveness of the Board of Directors, as well as the valuable contribution of independent directors to the work At the beginning of 2019, JSC VTB of the Board and committees were noted. Registrator, an independent company, made The work of the Chairman of the Board an assessment of activities of the Board of Directors and the Corporate Secretary of Directors for 2018. The assessment of the Company was highly appreciated.

> assessment of the activities of the Chairman points of the Company's Board of Directors. out of 5

out of 5

average score of the Board of Directors points as a governing body.

Also, based on the results of the assessment, directions for improving the practices of the Board of Directors and Committees were identified, in particular, an independent consultant recommended:

- increasing the number of in-person meetings of the Board of Directors, the Audit Committee and the HR and Remuneration Committee;
- considering the possibility of bringing the issues of risk management and internal audit for internal consideration by the Board of Directors;
- developing a programme for the induction of newly elected members of the Board of Directors;
- considering the possibility of introducing into the practice of working with members of the Board of Directors informing the Board of Directors on issues of interaction with shareholders and investors, environmental and social responsibility, as well as about changes in legislation, local regulatory framework and best corporate governance practices.

investment projects.

#### MEMBERS OF THE BOARD OF DIRECTORS

#### GRI 102-22

In accordance with the Company's Articles of Association, the Board of Directors is elected in the amount of 11 people. Such a number of members makes it possible to form a balanced composition in terms of professional qualifications, experience and business skills of the members of the Board of Directors, to ensure high performance, and fully meets the needs of the Company and the interests of shareholders.

In accordance with the structure of share capital (80.13 % of the total number of ordinary shares owned by PJSC Rosseti), the vast majority of members of the Board of Directors of PJSC FGC UES are elected on the proposal of the controlling shareholder, PJSC Rosseti.

The composition of the Board of Directors is balanced in terms of its members having the core competencies necessary for the effectiveness and duration of their work on the Board. Members of the Board of Directors have skills in the field of strategic management, corporate governance, corporate finance, risk management, accounting, as well as knowledge and experience in the field of the electric power industry.

The Board of Directors of PJSC FGC UES includes three independent directors, and the Audit Committee and the HR and Remuneration Committee are formed exclusively of independent directors, which is consistent with the recommendations of the Bank of Russia Corporate Governance Code and the requirements of the Listing Rules of PJSC Moscow Exchange. In addition, the independent director I. Kamenskoy in 2018 was elected as a Chairman of the Investment Committee.

#### GRI 102-24

Candidates to the Board of Directors are elected based on their personal and professional skills and in accordance with the independence criteria specified by the rules of listing of PJSC Moscow Exchange.

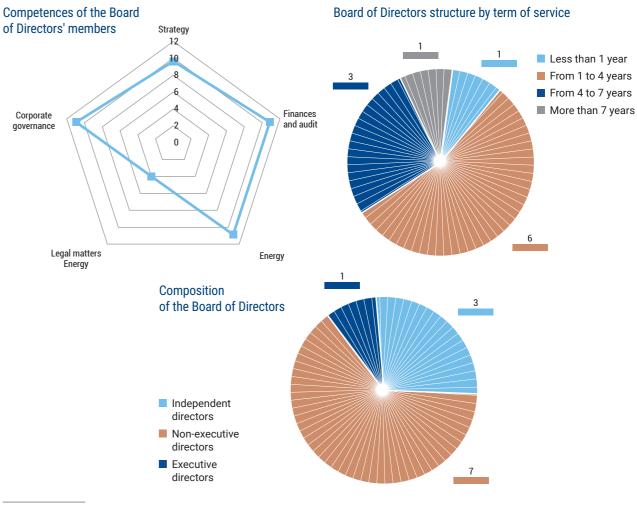
When forming the Company's Board of Directors, the following criteria are taken into account:

- members of the Company's Board of Directors shall meet the requirements with respect to their skills, experience, knowledge and business qualities;
- election to the Company's Board of Directors of at least three independent directors and one representative from the Association NP Market Council;
- executive directors may not constitute more than 25 % of the composition of the Company's Board of Directors.

GRI 102-27

Competences and industry-specific experience of members of PJSC FGC UES' Board of Directors

	Tenure	Years within	Key competences				
Board members	(number of years) <sup>63</sup>	the energy industry	Strategy	Finances and audit	Energy industry	Legal matters	Corporate governance
P. Livinsky	6 months	7 years	√	√	√		√
P. Grachev	4 years 6 months	5 years	√	√	√	√	√
A. Demin	4 years 6 months	20 years	√	√	√		√
I. Kamenskoy	2 years 6 months	2.6 years	√	√	√		√
E. Murov	5 years 6 months	7 years	√	√	√	√	√
N. Roshchenko	2 years 6 months	10 years		√	√	√	√
S. Sergeev	2 years 6 months	10 years	√	√	√		√
P. Snikkars	2 years 6 months	14 years	√	√	√	√	√
E. Prokhorov	2 years 6 months	11 years	√	√	√		√
O. Shatokhina	1 year 3 months	16 years	√	√	√		√
E. Ferlenghi	8 years	10 years	√	√	√		√



<sup>63</sup> As of 31 December 2018.

AS OF ST December 2016

#### Attendance of meetings of the Board of Directors and its Committees during 2018

	Board of	Directors	Investment Committee	Strategy Committee		HR and Remuneration Committee	Audit Committee	
Members of the Board of D	irectors acting du	ring the whole	e year 2018:					
P. Grachev	46/46	100 %				100 %	100 %	
Andrey Demin <sup>64</sup>	46/46	100 %		8/12	67 %			
I. Kamenskoy	46/46	100 %	100 %			100 %	100 %	
A. Murov	46/46	100 %						
E. Prokhorov <sup>65</sup>	42/46	91 %		9/12	75 %			
N. Roshchenko	37/46	80 %						
S. Sergeev	45/46	98 %	89 %					
P. Snikkars	36/46	78 %	78 %		100 %			
E. Ferlenghi	44/46	96 %			90 %	100 %	100 %	
O. Shatokhina <sup>66</sup>	46/46	100 %		12/12	100 %			
Members who left the Board of Directors in 2018:		2018:						
M. Poluboyarinov <sup>67</sup>	22/25	88 %						
Members elected to the Bo	ard of Directors ir	2018:						
P. Livinsky <sup>68</sup>	21/21	100 %						

Independent directors

#### **ROLE OF INDEPENDENT DIRECTORS**

For the effective implementation they demonstrate high professionalism, by the Board of Directors of the Company of its functions and making weighted and informed decisions, ensuring control over directors.

directors to the activities of the Board of Directors is to ensure an independent perception of the Company's activities and its governing bodies based on their knowledge, experience and qualifications. The fairness of independent directors and their constructive criticism are very valuable for the Board of Directors and the whole Company.

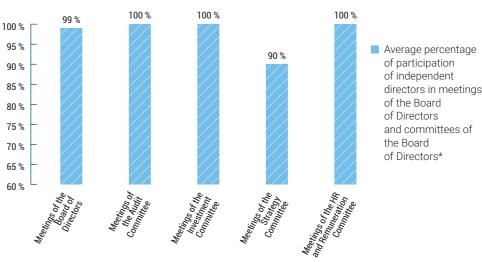
Experience of cooperation with in improving the Board efficiency. the independent directors proves that

independent statements and independent voting on the agenda items. Independent directors contribute to making decisions the management, the Board of Directors in the interests of various groups of PJSC FGC UES includes independent of stakeholders and improving the quality of managerial decisions.

The goal of attracting independent Independent directors play a major role in defining the Company's strategy development and monitoring its execution. evaluation of activities of executive bodies, efficiency assessment of risk management, internal control, internal audit systems, and evaluation of activities of the Board and its Committees.

> The Company highly appreciates the contribution of independent directors

#### Engagement of independent directors in the work of the Board of Directors and its Committees



<sup>\*</sup> Two independent directors out of three are members of the Strategy Committee.

During 2018, the Board of Directors of PJSC FGC UES took decisions on recognising as independent the members of the Board of Directors of PJSC FGC UES E. Ferlenghi by the criterion of relatedness with the issuer<sup>69</sup> and P. Grachev by the criterion of coherence with a significant counterparty.70 In accordance with the decisions taken, the Board of Directors of PJSC FGC UES determined that the connection of E. Ferlenghi with PJSC FGC UES and P. Grachev with significant counterparties of the Company is of a formal nature and does not affect the independence in the formation of E. Ferlenghi's and P. Grachev's position on the agenda of the Board of Directors, on the ability to make objective and fair judgements, independent of the influence of the executive bodies of PJSC FGC UES, certain groups of shareholders, contractors, competitors of PJSC FGC UES and the state.

<sup>&</sup>lt;sup>64</sup> Since the election of A. Demin to the Strategy Committee of PJSC FGC UES Board of Directors (hereinafter, the Committee) by the resolution of the Board of Directors of PJSC FGC UES of 12 December 2017 (Minutes No. 383 dated 14 December 2018) and until the termination of powers due to the election of a new Committee on 26 September 2018 (Minutes No. 421 dated 28 September 2018), 12 meetings of the Committee were held. A. Demin attended 8 Committee meetings. 65 Since the election of E. Prokhorov to the Strategy Committee of PJSC FGC UES Board of Directors (hereinafter, the Committee) by the resolution of the Board of Directors of PJSC FGC UES of 11 December 2017 (Minutes No. 383 dated 14 December 2018) and until the termination of powers due to election of a new Committee on 26 September 2018 (Minutes No. 421 dated 28 September 2018), 12 meetings of the Committee were held. E. Prokhorov attended 8 Committee meetings. 66 Since the election of O. Shatokhina to the Strategy Committee of PJSC FGC UES' Board of Directors (hereinafter, the Committee) by the resolution of the Board of Directors of PJSC FGC UES on 11 December 2017 (Minutes No. 383 dated 14 December 2018) and until the termination of powers due to election of a new Committee on 26 September 2018 (Minutes No. 421 dated 28 September 2018), 12 meetings of the Committee were held. O. Shatokhina attended all Committee meetings. <sup>67</sup> During the participation of M. Polubovarinov on the Board of Directors of PJSC FGC UES in 2018, 25 meetings were held. At the Annual General Meeting of Shareholders of PJSC FGC UES on 25 June 2018 (Minutes of the AGMS No. 20 dated 2 July 2018), the Board of Directors was re-elected, and M. Poluboyarinov was not included in the new composition. 68 In 2018, during the participation of P. Livinsky on the Board of Directors of PJSC FGC UES, 21 meetings were held. P. Livinsky was elected a member of the Board of Directors at the Annual General Meeting of Shareholders of PJSC FGC UES on 28 June 2018 (Minutes of the AGMS No. 20 of 2 July 2018).

<sup>&</sup>lt;sup>69</sup> Clause 5 of Meeting Minutes of PJSC FGC UES' Board of Directors No. 414 of 29 June 2018.

<sup>&</sup>lt;sup>70</sup> Clause 2 of Meeting Minutes of the Board of Directors of PJSC FGC UES No. 396 dated 4 April 2018, clause 5 of Meeting Minutes of PJSC FGC UES' Board of Directors No. 414 of 29 June 2018.

#### BIOGRAPHY OF MEMBERS OF PJSC FGC UES BOARD OF DIRECTORS<sup>71</sup>

As of 31 December 2018, the composition of the Board of Directors of PJSC FGC UES was elected by the Annual General Meeting of Shareholders on 28 June 2018 (information on participation in management bodies of other organisations is listed as of 31 December 2018, the experience of the members of the Board of Directors is indicated for the last five years and at present).

None of the Board members holds shares of PJSC FGC UES.



#### GRI 102-23

#### **PAVEL LIVINSKY**

Chairman of PJSC FGC UES Board of Directors

#### Board member since 28 June 2018.

Born in 1980.

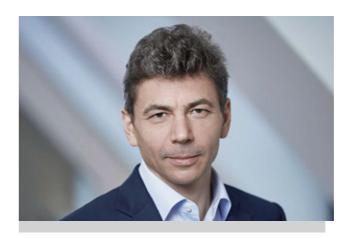
Graduated from Lomonosov Moscow State University, majoring in Economics. In 2003, he was awarded a master's degree in Management.

#### **Experience:**

- 2011–2013 General Director of United Power Company
- 2013–2017 Head of the Department of Fuel and Energy Economy of Moscow;
- 2017–2017 Head of the Department of Housing and Communal Services of Moscow;
- since 2017 General Director, Chairman of the Management Board, Member of the Management Board of PJSC Rosseti.

#### **External appointments:**

Member of the Board of Directors, Chairman of the Board of Directors of PJSC MOESK, Chairman of the Board of Directors of PJSC Lenenergo; Member of the Board of Directors of PJSC RusHydro, JSC SO UES, PJSC Rosseti; Member of the Management Board of OOR RSPP, Member of the Board of Trustees of FSBEI HE NRU MEI, the Foundation of the Cathedral of Christ the Saviour, the all-Russian public sports organisation FSPR; Member of the Presidium of the Association RNC WEC, Association RNC CIGRE; Member of the Supervisory Board of NP NTS UES; President, Member of the Presidium of the RPO Sports Federation of Firefighters and Rescuers.



#### PAVEL GRACHEV

Independent Director Member of the Audit Committee<sup>72</sup> Member of the HR and Remuneration Committee<sup>73</sup>

### Board member from 27 June 2013 to 27 June 2014, re-elected in 2015.

Born in 1973.

Graduated from the Saint Petersburg State University and the University of Trieste (Italy), majoring in Law. J.D.

#### **Experience:**

- 2013 General Director of JSC Far East and Baikal Region Development Fund;
- 2013–2014 Acting Senior Executive Director of Polyus Gold International Limited;
- 2014–2016 President of JSC Polyus Krasnoyarsk (JSC Polyus before renaming);
- 2014–2016 Senior Executive Director of Polyus Gold International Limited;
- since 2014 General Director of PJSC Polyus;
- since 2016 General Director of MC Polyus LLC.

#### **External appointments:**

Member of the Board of Directors of PJSC Polyus, PJSC RusHydro; Member of the Board of Directors, Chairman of the Board of Directors of SL Zoloto LLC.



#### **ANDREY DEMIN**

Non-Executive Director

#### Board member since 2014.

Born in 1974.

Graduated from Zaporozhye State University, major in Applied Mathematics, and Zaporozhye Institute of Economics and Information Technologies, majoring in Finance, Economist qualification.

#### **Experience:**

- 2012–2013 Advisor of the Chairman of the Management Board of JSC FGC UES;
- 2013–2015 First Deputy General Director for Economic Affairs and Finance of PJSC Rosseti;
- since 2013 Member of the Management Board of PJSC Rosseti.

<sup>&</sup>lt;sup>71</sup> Here and elsewhere, personal information about members of the Federal Grid's governing and control bodies is disclosed with their consent

<sup>72</sup> Resolution of the Board of Directors, Minutes No. 414 of 29 June 2018.

<sup>&</sup>lt;sup>73</sup> Resolution of the Board of Directors, Minutes No. 414 of 29 June 2018.



#### **IGOR KAMENSKOY**

Independent Director Chairman of the Audit Committee74 Chairman of the Investment Committee75 Member of the HR and Remuneration Committee<sup>76</sup>

#### **Board member since 2016.**

Born in 1968.

Graduated from Lenin Moscow State Pedagogical Institute, majoring in Russian Language and Literature.

#### **Experience:**

- 2009-2014 Managing Director of Renaissance Capital LLC, Financial Consultant;
- Since 2014 Managing Director of Renaissance Broker LLC.

#### **External appointments:**

Member of the Board of Directors of SC Soglasie LLC, PJSC Aeroflot, PJSC Corporation VSMPO-AVISMA.



#### **ANDREY MUROV**

**Executive Director** Chairman of the Management Board

#### Board member since 2013.

Born in 1970.

Graduated from Saint Petersburg State University, majoring in Jurisprudence; underwent the Financial Management retraining programme at the Interdisciplinary Institute of Executive Staff Refresher Training and Retraining; graduated from the State University of Civil Aviation, majoring in Organisation of Transportations and Management on Transport (Air Transport). Doctor of Economic Science.

- 2012-2013 Acting General Director, Executive Director, Member of the Management Board of JSC IDGC Holding (since 4 April 2013 - JSC 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 the RNC CIGRE.

#### **External appointments:**

Member of the Board of Directors of PJSC Rosseti, PJSC Inter RAO, JSC SO UES; Member of the Board of Trustees of FSBEI HE NIU MEI, FSBEI HE SPbSU, FSBEI HE SPbGEU; Member of the Supervisory Board of the Associationfor the Development of International Energy Research and Projects Global Energy; Non-Profit Partnership Scientific and Technical Council of the Unified Energy System; Member of the Supreme Council of the All-Russian NGO Rugby Union of Russia.



<sup>75</sup> Resolution of the Board of Directors, Minutes No. 421 of 28 September 2018.



#### **EGOR PROKHOROV**

Non-Executive Director

#### Board member since 2016.

Born in 1982.

Graduated from Saint Petersburg State University, majoring in Mathematical Methods in Economics. Ph.D. in Economics.

- 2009–2013 Head of the Department of Corporate Finance, Director of Finance of JSC FGC UES;
- 2011-2013 General Director of Index of Energy -FGC UES LLC (concurrently);
- 2012-2013 Finance Director of JSC IDGC Holding (concurrently);
- 2013 Financial Director of JSC Rosseti;
- since 2013 Deputy General Director for Finance of PJSC Rosseti.

#### **External appointments:**

Board member of JSC DVEUK.



#### **NIKOLAY ROSHCHENKO**

Non-Executive Director

#### Board member since 2016.

Born in 1981.

Graduated from Tax Academy of the Russian Federation, majoring in Jurisprudence.

#### **Experience:**

- From 2008 to the present Head of the Legal Department of the Association NP Market Council;
- Since 2014 Member of the Management Board of the Association NP Market Council;
- since 2017 Deputy Chairman of the Management Board, Member of the Management Board of JSC ATS.

#### **External appointments:**

Member of the Board of Directors of JSC ATS, Chairman of the Board of Directors of JSC FSC.

<sup>&</sup>lt;sup>76</sup> Resolution of the Board of Directors, Minutes No. 414 of 29 June 2018.



#### **SERGEY SERGEEV**

Non-Executive Director Member of the Investment Committee<sup>77</sup>

#### Board member since 2016.

Born in 1976.

Graduated with distinction from the Novocherkassk State Polytechnic University, majoring in Industrial and Civil Construction.

#### **Experience:**

- 2009–2013 Deputy Chairman of the Management Board of JSC FGC UES;
- 2012-2013 General Director of JSC CECM UES;
- since 2013 Deputy General Director for Capital Construction of PJSC Rosseti.

#### **External appointments:**

Member of the Board of Directors of PJSC Lenenergo, PJSC MOESK; Chairman of the Board of Directors of JSC TCC.



#### **PAVEL SNIKKARS**

Non-Executive Director Chairman of the Strategy Committee<sup>78</sup> Member of the Investment Committee<sup>79</sup>

#### Board member since 2016.

Born in 1978.

Graduated from the Siberian Academy of Public Service, majoring in Public and Municipal Administration; the Siberian University of Consumer Cooperation, majoring in Jurisprudence. Ph.D. in Economics.

#### **Experience:**

- 2012–2013 Vice Chairman of the Management Board of NP Market Council;
- since 2013 Director of the Electric Power Industry Development Department of the Ministry of Energy of Russia.

#### **External appointments:**

Member of the Board of Directors, Chairman of the Board of Directors of JSC Institute ENERGOSETPROEKT.



Independent Director
Chairman of the HR and Remuneration Committee<sup>80</sup>
Member of the Audit Committee<sup>81</sup>
Member of the Strategy Committee<sup>82</sup>

### Board member from 2008 to 2014. Elected to the Board again 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 Eni Concern in the Russian Federation and the CIS;
- 2013–2014 Deputy General Director for External Relations of JSC ARKTIKGAZ;
- 2014 Advisor of the Chairman of the Management Board of Renova Group;
- 2014-2017 Senior Advisor for Russia of Eni S.p.A;
- 2014–2015 Advisor for Business Development of Maire Tecnimont S.p.A;
- 2015–2017 Senior Advisor for Business Development of Saipem S.p.A;
- 2015 Consultant of SIIRTEC NIGI S.p.A;
- 2016-2017 Consultant of SIAD RUS LLC;
- 2016-2017 Senior Advisor of Snam S.p.A;
- since 2013 Individual Entrepreneur;
- since 2015 President of the Association of Italian Industrialists "Confederation of Italian Industry";
- since 2017 Executive Vice President of Eni on Market Development in Russia and Central Asia of Eni S.p.A;
- since 2018 Chairman of the Energy Committee of the Association of European Businesses (AEB);
- since 2018 General Director of Eni Energhia LLC.



#### **OKSANA SHATOKHINA**

Non-Executive Director

#### **Board member since 2017.**

Born in 1975.

Graduated from the Financial Academy under the Government of the Russian Federation, majoring in Finance and Credit.

#### **Experience:**

- 2012-2013 Director for Economics of JSC FGC UES;
- 2012–2013 Director for Economics of JSC IDGC Holding (since 4 April 2013 – JSC Rosseti);
- 2013 Deputy General Director for Economic Affairs and Finance of PJSC Rosseti;
- 2013–2018 Deputy General Director for Economic Affairs of PJSC Rosseti;
- 2018 Chief Advisor of PJSC Rosseti.

 $<sup>^{\</sup>it 77}$  Resolution of the Board of Directors, Minutes No. 421 of 28 September 2018.

<sup>78</sup> Resolution of the Board of Directors, Minutes No. 421 of 28 September 2018.

 $<sup>^{79}</sup>$  Resolution of the Board of Directors, Minutes No. 421 of 28 September 2018.

<sup>&</sup>lt;sup>80</sup> Resolution of the Board of Directors, Minutes No. 414 of 29 June 2018.

<sup>81</sup> Resolution of the Board of Directors, Minutes No. 414 of 29 June 2018.

 $<sup>^{\</sup>it 82}$  Resolution of the Board of Directors, Minutes No. 421 of 28 September 2018.

Composition of the Board of Directors valid from 15 September 2017 to 28 June 201883

MIKHAIL POLUBOYARINOV	First Deputy Chairman, Member of the Management Board of the state corporation Bank for Development and Foreign Economic Affairs (Vnesheconombank).
Non-Executive Director	Year of birth: 1966
	Education: Higher. Ph.D. in Economics.
PAVEL GRACHEV	President of PJSC Polyus.
Independent Director	Year of birth: 1973
	Education: Higher. J.D.
ANDREY DEMIN	Member of the Management Board of PJSC Rosseti.
Non-Executive Director	Year of birth: 1974
THE EXCOUNTY DIRECTOR	Education: Higher.
IOOD KAMENOKOV	Managing Director of Renaissance Broker LLC.
IGOR KAMENSKOY Independent Director	Year of birth: 1968
independent bilector	Education: Higher.
FOOD DDOWNOCOV	Deputy General Director for Finance of PJSC Rosseti.
EGOR PROKHOROV Non-Executive Director	Year of birth: 1982
NOII-LXECUTIVE DITECTOR	Education: Higher. Ph.D. in Economics.
	Member of the Management Board, Head of the Legal Department of the Association
NIKOLAY ROSHCHENKO	NP Market Council.
Non-Executive Director	Year of birth: 1981 Education: Higher.
AND DEV MUDOV	Chairman of the Management Board of PJSC FGC UES.
ANDREY MUROV Executive Director	Year of birth: 1970
Executive Birector	Education: Higher. Doctor of Economic Science.
CEDOEV CEDOEFV	Deputy General Director for Capital Construction of PJSC Rosseti.
SERGEY SERGEEV Non-Executive Director	Year of birth: 1976
THOSE EXCOUNTED BILLOOD	Education: Higher.
DAVEL ONIVIA DO	Director of the Department of Electric Power Industry Development of the Ministry of Energy of Russia.
PAVEL SNIKKARS Non-Executive Director	of Energy of Russia.  Year of birth: 1978
HOIT EVECUTIAE DILECTOL	Education: Higher. Ph.D. in Economics.
OVCANA CHATOVIII	Deputy General Director of PJSC Rosseti.
OKSANA SHATOKHINA Non-Executive Director	Year of birth: 1975
TOTI EXCOUNTEDITORO	Education: Higher.
EDNESTO FEDI ENOU	President of Confindustria Russia "Association of Italian Entrepreneurs in Russia".
ERNESTO FERLENGHI	Year of birth: 1968
Independent Director	

<sup>83</sup> The positions are as at the date of election.

# INTRODUCTION TO THE POST OF NEW MEMBERS OF THE BOARD OF DIRECTORS

In order to ensure the effective work of the Board of Directors, familiarise its members with the production and financial-economic activities and incorporate new directors into their work as quickly as possible, the Company provides for a number of events.

The Company strives for the fullest possible provision of members of the Company's Board of Directors with all the information necessary for their duties, including ensuring that the members, especially those elected

for the first time, are able in a short time to get a sufficient idea of the Company's strategy, corporate governance system, risk management and internal control system, distribution of responsibilities between its executive bodies and other relevant information on the Company's activities in the manner determined by the Company's internal documents, including by holding an information and introductory meeting with members of the Company's Management Board.

#### LIABILITY INSURANCE OF DIRECTORS AND OFFICIALS

The cost of liability insurance in 2018 amounted to

RUB 5.76 million.

To protect the property interests of the Company's shareholders, ensure the source of compensation for potential losses to the Company and/or the Insured Persons in the event of certain events, as well as protect the directors and officials from third-party claims, the Company provides liability insurance.

The perimeter of insurance coverage includes members of the Board of Directors of the Company, the Chairman of the Management Board and his deputies, members of the Management Board of the Company, the Chief Accountant of the Company, as well as other officials of the Company with the right to sign contracts and other documents, and/or the right to make any representations and/or statements on behalf of the Company.

#### **CORPORATE SECRETARY**

The Corporate Secretary is an important participant in the Company's corporate governance system. The Corporate Secretary is functionally subordinate to the Board of Directors and administratively subordinate to the Chairman of the Management Board, that ensures his/her sufficient 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 holding this position is prohibited to combine his work as the Corporate Secretary with the performance of other functions in the Company.

The Corporate Secretary's activities are subject to provisions of the Regulations on the Corporate Secretary of PJSC FGC UES<sup>84</sup>.

Aleksey Ozherelyev performs functions of the Company's Corporate Secretary.

#### **ALEKSEY OZHERELYEV**

Corporate Secretary of PJSC FGC UES

Born in 1986. Graduated from the Moscow State University of Economics, Statistics, and Informatics in 2006, majoring in Finance and Credit.

#### **Experience:**

- 2011–2013 worked in PJSC FGC UES in the position of Deputy Head of the Corporate Governance Department;
- 2013–2016 worked in PJSC Rosseti in the position of Head of the Department for Organisation of Operation of the Management Bodies;
- Since 9 January 2017 till present, he has worked in PJSC ROSSETI as Head of the Department for Organisation
  of Operation of the Management Board, Board of Directors and Interaction with Shareholders and Investors
  of the Department of Corporate Governance and Interaction with Shareholders and Investors.

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<sup>84</sup> Approved by the Board of Directors, Minutes No. 279 of 27 July 2015, Minutes No. 330 of 8 July 2016.

CORPORATE GOVERNANCE REPORT

COMMITTEES OF THE COMPANY'S BOARD OF DIRECTORS

# COMMITTEES OF THE COMPANY'S BOARD OF DIRECTORS

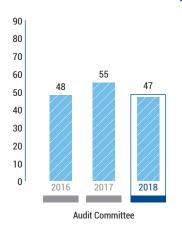
# Formation of Committees and experience are essential in the work of the Committees In accordance with best practice and the requirements of the Listing Rules of the Moscow Exchange, only independent directors can be nominated to the Audit Committee and the HR and Remuneration Committee This contributes to objective and balanced recommendations

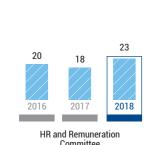
In 2018, four Board Committees worked to increase the effectiveness of the resolutions taken by the Board of Directors by providing preliminary consideration of the most important issues and preparing respective recommendations for the Board, including:

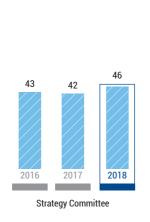
- Audit Committee;
- Strategy Committee;
- HR and Remuneration Committee;
- Investment Committee.

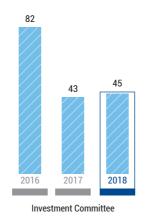
The Company follows the practice of attracting independent experts, introduced in 2016. In 2018, one independent expert was involved in the work of the Audit Committee and the Investment Committee.

#### Total number of issues reviewed by the Committees









#### Total number of meetings held

	2016		20	17	2018	
Committee	In-person meetings	Meetings in absentia	In-person meetings	Meetings in absentia	In-person meetings	Meetings in absentia
Audit Committee	4	5	1	14	1	18
HR and Remuneration Committee	1	10	0	10	0	12
Strategy Committee	8	4	9	8	10	10
Investment Committee	12	4	7	6	10	8



Detailed information on the issues reviewed by the Board of Directors' Committees in key areas of activity is given in Appendix 1.

The Board of Directors of PJSC FGC UES reviewed and approved the reports of the Audit Committee, Strategy Committee, HR and Remuneration Committee, and Investment Committee for the 2017–2018 corporate year<sup>85</sup>.

#### **AUDIT COMMITTEE**

The role of the Audit Committee is to assist the Board of Directors in providing efficient control of the Company's financial and business operations.

The committee performs important functions in the Company's corporate governance system in terms of monitoring the completeness, accuracy and reliability of financial statements, the efficiency and reliability of the risk management, internal control and corporate governance system, as well as ensuring the objectivity and independence of the internal and external audit functions.

The activities and functions of the Audit Committee are governed by the Regulations on the Audit Committee of the Board of Directors of PJSC FGC UES, approved by the resolution of the Board of Directors of 16 November  $2015^{86}$ .

Given the nature of their responsibilities, the members of the Audit Committee have sufficient relevant financial experience and skills necessary to work with financial statements, business analysis and financial management. The Audit Committee does not include any of the top management representatives of the Company, and it consists entirely of independent directors.

At the beginning of 2019, an independent consultant of JSC VTB Registrator, in assessing the performance of the Board of Directors and its Committees in 2018, evaluated the Audit Committee and the activities of its members. The average rating of the Audit Committee was 5 points out of 5 possible.



Information on evaluation of the external audit by the Audit Committee of the Board of Directors is given in the section Corporate Governance Report/External Auditor.

<sup>85</sup> Minutes No. 415 dated 27 July 2018.

<sup>86</sup> Minutes No. 291 dated 19 November 2018.

**GRI 102-22** 

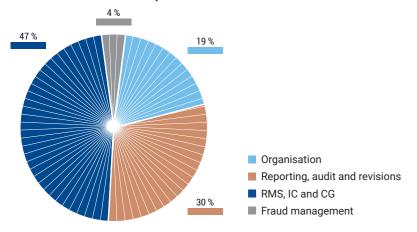
#### Composition of the Audit Committee

	Elected by the resolution of the Board of Directors dated 27 September 2017	Elected by the resolution of the Board of Directors dated 28 June 2018
I. Kamenskoy, Chairman, Independent Director	+	+
P. Grachev, Independent Director	+	+
Ernesto Ferlenghi, Independent Director	+	+

#### **ACTIVITIES IN 2018**

In 2018, the Audit Committee held 19 meetings (of which one meeting was held in the form of joint attendance), 47 issues were considered.

#### Structure of issues reviewed by the Audit Committee in 2018



#### **STRATEGY COMMITTEE**

The role of the Strategy Committee is to assist the PJSC FGC UES Board of Directors in improving PJSC FGC UES performance efficiency in the long term.

#### GRI 102-26

The Strategy Committee preliminarily considers issues related to defining and adjusting the Company's strategic goals, amending and approving the Company's long-term development programme, evaluating the Company's performance in the long term, and conducting business planning.

The activities and functions of the Strategy Committee are governed by the Regulations on the Strategy Committee of the Board of Directors of PJSC FGC UES, a revised version of which was approved by the Board of Directors of PJSC FGC UES on 12 July 2016<sup>87</sup>.

#### GRI 102-22

Composition of the Strategy Committee

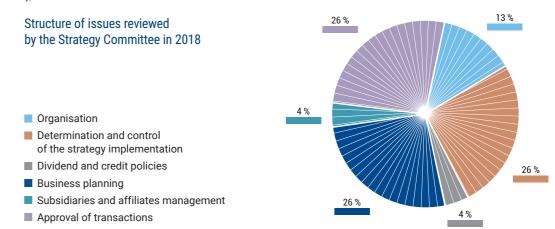
	Elected by the resolution of the Board of Directors dated 11 December 2017	Elected by the resolution of the Board of Directors dated 26 September 2018
P. Snikkars, Chairman of the Strategy Committee, Member of the Board of Directors of PJSC FGC UES, Director of the Department for Development of Electric Power Industry of the Ministry of Energy of Russia	+	+

<sup>&</sup>lt;sup>87</sup> Minutes No. 331 dated 15 July 2016 given the wording of Minutes No. 395 dated 26 March 2018.

	Elected by the resolution of the Board of Directors dated 11 December 2017	Elected by the resolution of the Board of Directors dated 26 September 2018
A. Kaplun, Director of the Department for Natural Monopolies Relations of MC Polyus LLC		+
E. Belchenko, Senior Manager for Tariff Solutions of MC Polyus LLC	+	
A. Gabov, Acting Deputy Director of the Department of State Regulation of Tariffs, Infrastructure Reforms and Energy Efficiency of the Ministry of Economic Development of the Russian Federation	+	+
A. Germanovich, General Director of AG Ventures LLC	+	+
K. Mikhailenko, Chief Advisor of PJSC Rosseti		+
A. Demin, Member of the Board of Directors of PJSC FGC UES, Member of the Management Board of PJSC Rosseti	+	
B. Livshits, Deputy Head of the Competitive Pricing Development Department of the Association NP Market Council	+	+
E. Olkhovich, Deputy General Director for Strategic Development of PJSC Rosseti	+	+
E. Prokhorov, Member of the Board of Directors of PJSC FGC UES, Deputy General Director for Finance of PJSC Rosseti	+	
S. Lebedev, Director of the Strategic Development Department of PJSC Rosseti <sup>88</sup>		+
V. Furgalsky, Deputy General Director for Corporate and Legal Affairs of PJSC Rosseti <sup>89</sup>		+
M. Tikhonova, Deputy Chairman of the Management Board of PJSC FGC UES	+	+
P. Grebtsov, Director of the Tariff Policy Department of PJSC Rosseti		+
O. Shatokhina, Deputy General Director for Economic Affairs of PJSC Rosseti	+	
A. Erdyniev, Deputy Director of the Electric Power Industry Development Department of the Ministry of Energy of Russia	+	+
E. Ferlenghi, Member of the Board of Directors of PJSC FGC UES, President of the Italian Industrialists "Confederation of Italian Industry"	+	+
V. Yavorsky, General Director of Tori - Audit LLC	+	+

#### **ACTIVITIES IN 2018**

In 2018, the Strategy Committee held 20 meetings (10 in the form of joint attendance and 10 in absentia), and 46 issues were considered.



<sup>88</sup> The powers were terminated by the resolution of the Board of Directors of PJSC FGC UES, Minutes No. 426 of 2 November 2018.

<sup>89</sup> Elected by the resolution of the Board of Directors of PJSC FGC UES, Minutes No. 426 of 2 November 2018.

#### HR AND REMUNERATION COMMITTEE

The role of the HR and Remuneration Committee is to assist the Board of Directors of PJSC FGC UES in the execution of personnel planning (succession planning), the formation and implementation of the remuneration policy.

The committee preliminarily considers issues related to the formation of an effective and transparent practice of remuneration, as well as the development of HR policy, the implementation of personnel planning, and the evaluation of the effectiveness of the work of the Board of Directors.

The HR and Remuneration Committee's activities and functions are governed by the Regulations on the HR and Remuneration Committee of the Board of Directors of PJSC FGC UES, a revised version of which was approved by the Board of Directors of PJSC FGC UES on 3 October 2016<sup>90</sup>.

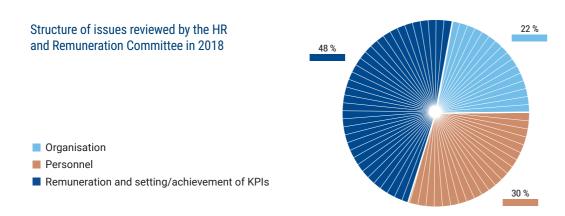
GRI 102-22
Composition of the HR and Remuneration Committee

	Elected by the resolution of the Board of Directors dated 27 September 2017	Elected by the resolution of the Board of Directors dated 28 June 2018
Ernesto Ferlenghi, Chairman, Independent Director	+	+
P. Grachev, Independent Director	+	+
I. Kamenskoy, Independent Director	+	+

The HR and Remuneration Committee does not include any representatives of the Company's top management and consists entirely of independent directors.

#### **ACTIVITIES IN 2018**

In 2018, the HR and Remuneration Committee held 12 meetings in absentia, and 23 issues were considered.



#### **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 committee preliminarily considers issues related to the approval and adjustment of the investment programme, reporting on its execution, and the progress of the implementation of certain investment projects of the Company.

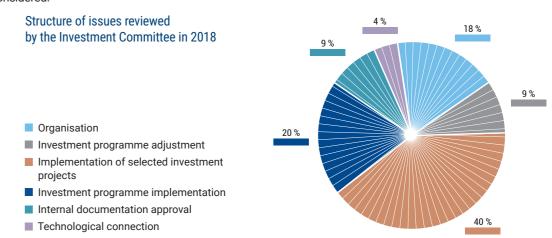
The committee's activities and functions are governed by the Regulations on the Investment Committee of the Board of Directors of PJSC FGC UES, a revised version of which was approved by the Board of Directors on 23 March 2018<sup>91</sup>.

**GRI 102-22**Composition of the Investment Committee

	Elected by the resolution of the Board of Directors dated 11 December 2017	Elected by the resolution of the Board of Directors dated 26 September 2018
I. Kamenskoy, Chairman, Member of the Board of Directors of PJSC FGC UES, Managing Director of Renaissance Broker LLC	+	+
D. Akopyan, Director of the Investment Activity Department of PJSC Rosseti	+	+
M. Bychko, Director of the Capital Construction Department of PJSC Rosseti	+	+
D. Gvozdev, Chief Engineer		+
V. Gritsenko, Member of the Presidium of NP OPORA ROSSII	+	+
Yu. Egoshin, Deputy Director of the Department for Relations with Natural Monopolies of MC Polyus LLC	+	
A. Ilienko, Member of the Management Board, Director for UES Development of JSC SO UES	+	+
A. Kaplun, Director of the Department for Natural Monopolies Relations of MC Polyus LLC		+
V. Kiselev, Chairman of the Consumer Council of the Government Commission for the Electric Power Industry	+	+
V. Pelymsky, Deputy Chief Engineer of PJSC Rosseti	+	
I. Selivakhin, Financial Director of JSC TSA, Advisor of the Chairman of the Management Board of the Association NP Market Council	+	+
S. Sergeev, Member of the Board of Directors of PJSC FGC UES, Deputy General Director for Capital Construction of PJSC Rosseti	+	+
P. Snikkars, 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	+	+
O. Tokarev, Deputy Director of the Machine Tool Building and Investment Machine- Building Department of the Ministry of Industry and Trade of Russia	+	+
R. Filimonov, Member of the Management Board, First Deputy Chairman of the Management Board of PJSC FGC UES (is not a member of the Management Board of PJSC FGC UES and not a member of the Investment Committee since 11 March 2019).	+	+

#### **ACTIVITIES IN 2018**

In 2018, the Investment Committee held 18 meetings (10 in the form of joint attendance and 8 in absentia), and 45 issues were considered.



<sup>90</sup> Minutes No. 341 dated 5 October 2018.

<sup>&</sup>lt;sup>91</sup> Minutes No. 331 dated 15 July 2016 given the wording of Minutes No. 395 dated 26 March 2018.

CORPORATE GOVERNANCE REPORT

EXECUTIVE GOVERNANCE BODIES

#### **EXECUTIVE GOVERNING BODIES**

The governance of the Company's current activities is carried out by the collegial and sole executive bodies, which are the Management Board and the Chairman of the Management Board of PJSC FGC UES.

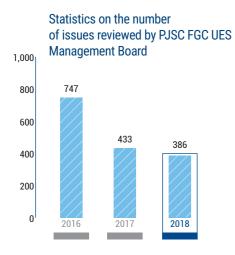
	Management Board Collegial executive body	Chairman of the Management Board Sole executive body	
Functions	Ensure the effective implementation of the tasks facing the Company and the implementation of development strategies		
Accountability	Report to the General Meeting of Shareholders and the Board of Directors		
Appointment/ election procedure	Members of the Management Board of the Company are elected (appointed) by the Board of Directors of the Company at the suggestion of the Chairman of the Management Board of the Company	Elected by the General Meeting of Shareholders	
Term of office	3 years	5 years	

For subordination and efficient monitoring of work of the Company's executive bodies, in accordance with the Company's Articles of Association, the following matters related to members and the Chairman of the Management Board are reserved for the Board of Directors:

- election of members of the Company's Management Board (except the Chairman of the Company's Management Board) and early termination of their powers;
- applying disciplinary measures against the Chairman of the Company's Management Board and incentives in accordance with the applicable law;
- setting the amounts of remunerations and compensations payable to the Chairman and members of the Company's Management Board;
- coordinating holding of positions in management bodies of other companies, as well as other paid positions in other companies.

# REPORT ON ACTIVITIES OF THE COMPANY'S MANAGEMENT BOARD

In 2018, the Management Board of PJSC FGC UES held 82 meetings, including one in-person meeting and 81 in absentia, 386 issues were considered.





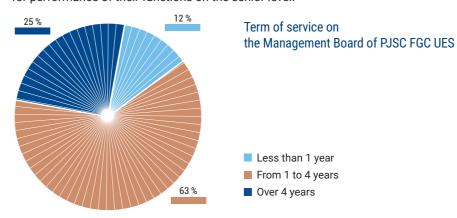
In the reporting year, PJSC FGC UES Management Board considered the following most important issues:

Subject	Issue
Production activity	<ul> <li>The annual report on technological and price audits of investment projects of PJSC FGC UES in 2017 was considered.</li> <li>Reports on the status and progress of a number of investment projects were considered.</li> <li>The consolidated five-year work plan and the budget for the maintenance and repair of PJSC FGC UES for the period 2019–2023 were considered.</li> <li>The concept of development of the operational technological management and situational management system of PJSC FGC UES was considered.</li> <li>The programme of energy saving and energy efficiency improvement of PJSC FGC UES for the period 2020–2024 was considered.</li> <li>The programme of modernisation (renovation) of electric grid facilities of PJSC FGC UES for 2018–2026 was considered.</li> </ul>
Social and HR Policy	<ul> <li>Amendments were made to the Long-Term Corporate Assistance Programme for Improving the Living Conditions of JSC FGC UES employees.</li> <li>Amendments were made to the Regulations on Providing Sponsorship to PJSC FGC UES.</li> <li>The Programme of Insurance Protection of PJSC FGC UES for 2019 was considered.</li> </ul>
Financial and economic activities	<ul> <li>Changes were made to the set of measures allowing for long-term financial stability and liquidity of PJSC FGC UES.</li> <li>The report of PJSC FGC UES on results of work on the capital markets and interaction with rating agencies for 2017 was considered.</li> <li>The Programme and Prospectus of Exchange Bonds of PJSC FGC UES were considered.</li> <li>Reports on the implementation of the business plan of PJSC FGC UES were considered.</li> </ul>
Internal control and risk management	<ul> <li>The report of the internal auditor of PJSC FGC UES on the assessment of efficiency of the internal control and risk management system in PJSC FGC UES based on 2017 results was considered.</li> <li>The report on the implementation of a set of actions intended to improve the risk management and internal control system with regard to the internal auditor's recommendations was considered.</li> <li>The report of the Chairman of the Management Board and members of the Management Board of PJSC FGC UES on the organisation and functioning of the internal control system for 2017 was considered.</li> <li>The report of the Chairman of the Management Board and members of the Management Board of PJSC FGC UES on the organisation, functioning and efficiency of the risk management system for 2017 was considered.</li> <li>The report on PJSC FGC UES key operational risks for 2017 was considered.</li> <li>The report on PJSC FGC UES key operational risks for H1 of 2018 was considered.</li> <li>Quarterly reports on operational risks with a rating of "Critical" were considered.</li> </ul>

#### **COMPOSITION OF THE MANAGEMENT BOARD**

In accordance with the Regulations on the Management Board of PJSC FGC UES, the quantitative composition of the Management Board of PJSC FGC UES is determined by resolution of the Board of Directors of PJSC FGC UES. As of 31 December 2018, the Management Board of PJSC FGC UES included 7 people.

All persons forming part of PJSC FGC UES Management Board have the required experience and competences for performance of their functions on the senior level.



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CORPORATE GOVERNANCE REPORT

EXECUTIVE GOVERNANCE BODIES

#### BIOGRAPHY OF MEMBERS OF PJSC FGC UES MANAGEMENT BOARD92



#### **ANDREY MUROV**

Chairman, Member of the Board of Directors

#### Areas of responsibility:

Management of the Company's day-to-day operations, organisation of work of the Management Board.

#### Management Board member since 2012.

Born in 1970.

Graduated from Saint Petersburg State University, majoring in Jurisprudence. Underwent the retraining programme Financial Management at the Interdisciplinary Institute of Executive Staff Refresher Training and Retraining. Graduated from the State University of Civil Aviation, majoring in Organisation of Transportation and Management on Transport (Air Transport). Doctor of Economic Science.

#### Experience:

- 2012–2013 Acting General Director, Executive Director, Member of the Management Board of JSC IDGC Holding (since 4 April 2013 — JSC 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 the RNC CIGRE.

#### **External appointments:**

Member of the Board of Directors of PJSC Rosseti, PJSC Inter RAO, JSC SO UES; Member of the Board of Trustees of FSBEI HE NIU MEI, FSBEI HE SPbSU, FSBEI HE SPbGEU; Member of the Supervisory Board of the Association for the Development of International Energy Research and Projects Global Energy; Non-Profit Partnership Scientific and Technical Council of the Unified Energy System; Member of the Supreme Council of the All-Russian NGO Rugby Union of Russia.



#### **DMITRY VODENNIKOV**

Deputy Chairman of the Management Board, Chief Engineer

#### Areas of responsibility:

Maintenance and Repairs.

#### **Management Board member since 2017**

Born in 1974.

Graduated from the Kurgan State University, majoring in Automation of Technological Processes and Production.

#### **Experience:**

- 2011–2015 First Deputy General Director, Chief Engineer of JSC FGC UES' branch MPS of West Siberia;
- 2015–2017 General Director of PJSC FGC UES' branch MPS Siberia;
- 2017–2017 Advisor of the Chairman of the Management Board of PJSC FGC UES;
- since 2017 Deputy Chairman of the Management Board, Chief Engineer.

#### **External appointments:**

Since 2017, he has been the Chairman of the Board of Directors of JSC Tomsk Trunk Grids.



#### **ALEKSANDR ZAGARATSKY**

First Deputy Chairman of the Management Board

#### Areas of responsibility:

HR Management and Development.

Corporate and Strategic Management. Functional vertical management.

Legal Support.

Document Management.

Administrative and Economic Support.

Property Management.

Management of Communications, Public Relations and Public Authorities.

#### Management Board member since 2014.

Born in 1976.

Graduated from the St. Petersburg Law Institute of the General Prosecutor Office, majoring in Jurisprudence. Graduated from the St. Petersburg Institute for Management and Economics, majoring in State and Municipal Management. Ph.D. in Economics.

#### **Experience:**

- 20011–2013 Chief of Staff of the Chairman of St. Petersburg Legislative Assembly;
- 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.



#### **ALEKSEY MOLSKY**

Deputy Chairman

(since 28 February 2018, Interim First Deputy Chairman of the Management Board of PJSC FGC UES).

#### Areas of responsibility:

Development and Customer Relations.

#### Management Board member since 2016.

Born in 1980.

Graduated from the Moscow Power Engineering Institute, majoring in Electric Energy Systems and Grids and Economics and Company Management.

#### **Experience:**

- since 2012 Deputy Chairman of the Management Board of JSC FGC UES (since 28 February 2018, Interim First Deputy Chairman of the Management Board of PJSC FGC UES);
- since 2016 Member of the Management Board of PJSC FGC UES.

#### **External appointments:**

Chairman of the Supervisory Board of JSC IPS SakRusenergo; Member of the Supervisory Board of the Association NP Market Council; Member of the Board of Directors of JSC TaigaEnergoStroy.

<sup>92</sup> Information on participation in the governing bodies of other organisations is listed as of 31 December 2018.

CORPORATE GOVERNANCE REPORT

EXECUTIVE GOVERNANCE BODIES



**SERGEY TEREBULIN** 

Deputy Chairman

#### Areas of responsibility:

Economy, finance and subsidiaries.

#### Management Board member since 2016.

Born in 1978.

Graduated from the Financial Academy under the Government of the Russian Federation, majoring in Finance and Credit. Ph.D. in Economics.

#### **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 Advisor of 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.



#### **MARIA TIKHONOVA**

Deputy Chairman

#### Areas of responsibility:

Corporate and Strategic Management.

#### Management Board member since 2013.

Born in 1980.

Graduated from the Volga-Vyatka Academy of Public Service, majoring in Public and Municipal Administration, then the Higher School of Economics with an MBA in Finance. Ph.D. in Economics.

#### **Experience:**

 since 2013 — Deputy Chairman of the Management Board, Member of the Management Board of PJSC FGC UES.

#### **External appointments:**

since 2018, Member of the Board of Directors of JSC DVEUK.



#### ROMAN FILIMONOV

First Deputy Chairman of the Management Board (Mr. Filimonov is not a member of the Management Board since 11 March 2019)<sup>93</sup>

#### Areas of responsibility:

Development and Customer Relations. Investments and Innovative Development. Functional vertical management:

"IT Operation and Development",

"Procurement Management",

"Operational Analysis".

#### Management Board member since 2016.

Born in 1968.

Graduated from the Military Engineering Institute named after A.F. Mozhaysky holding the Order of the Red Banner, majoring in Engineering. From 2006 to 2009 received additional vocational education at the North-Western Academy of State Service, majoring in State and Municipal Management and Jurisprudence.

#### Experience:

- 2013–2015 Director of the Department of Construction of the Ministry of Defense of Russia;
- 2015–2016 Head of the Central Department for Track Maintenance of JSC Russian Railways;
- 2016 Advisor of 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 (Mr. Filimonov is not a member of the Management Board of PJSC FGC UES since 11 March 2019).

#### **External appointments:**

Since 2018, Chairman of the Board of Directors of JSC TsIUS UES<sup>94</sup>.

None of the Management Board members holds shares of PJSC FGC UES.

### CHANGES TO THE MEMBERSHIP OF THE MANAGEMENT BOARD IN 2018

By the resolution of the Board of Directors of 25 June 2018, the powers of Nikolay Pozdnyakov, a member of the Management Board of PJSC FGC UES, were prematurely terminated. $^{95}$ 

<sup>93</sup> Resolution of PJSC FGC UES Board of Directors, Minutes No. 439 of 13 March 2019.

<sup>&</sup>lt;sup>94</sup> Mr. Filimonov is not a member and the Chairman of JSC TsIUS UES Board of Directors since 9 April 2019. Resolution of the Extraordinary General Meeting of Shareholders of JSC TsIUS UES, Meeting Minutes of the Management Board of PJSC FGC UES No. 1626 of 10 April 2019.

 $<sup>^{95}</sup>$  Resolution of the Board of Directors of PJSC FGC UES, Minutes No. 410 of 27 June 2018.

**CORPORATE GOVERNANCE REPORT** REMUNERATION SYSTEM FOR GOVERNING BODIES

#### **REMUNERATION SYSTEM FOR GOVERNING BODIES**

#### **GENERAL INFORMATION ON THE COMPANY'S REMUNERATION POLICY**

#### GRI 102-35

The procedure for determining remuneration and compensation to members of the Board of Directors, as well as the payment procedure, is set forth in the Regulations on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES96.

The remuneration policy was developed on the basis of the principles and recommendations of the Bank of Russia Corporate Governance Code, taking into account the Company's remuneration and compensation practice.

The practices applied in the Company for determining remuneration and compensation payable to members of the Board of Directors comply with the transparency and reporting principles and consider the role of the above-stated persons in performance of the Company.

The procedure for remuneration of the Management Board and members of persons included in committees of the Company's Management Board. of the Board of Directors, but not members 
Operation of the HR and Remuneration of the Board of Directors, is determined by Committee in monitoring and improving of Remuneration and Compensation for increased efficiency and transparency to Members of the Committees of the Board of the existing policy. of Directors of PJSC FGC UES97.

Payable to Senior Management of the Management Board. of JSC FGC UES98 regulate the system In 2018, no amendments were made

Regulations on Payment the remuneration system provides

The Company does not engage consultants The Regulations on the Conditions of Labour to determine the amount of remuneration Contracts and Determination of the Amount and compensation payable to members of Remuneration and Compensation of the Board of Directors and members

of remuneration of the Chairman to the Company's remuneration policies.

#### **REMUNERATION OF MEMBERS** OF THE BOARD OF DIRECTORS

Key aspects of the remuneration system for members of the Board of Directors:

- remuneration is paid as a lump-sum payment following the results of work of the Company's Board members for the corporate year from their election until termination of their powers;
- the decision to pay remuneration is made at the Company's Annual General Meeting of Shareholders.

The Regulations 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 in the following cases:

- a member of the Company's Board of Directors misses more than half of the meetings of the Board of Directors held during their membership in the Board of Directors;
- lack of net profit for the financial year preceding the year of payment of remuneration to a 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 Company's Board of Directors is a person in respect of whom the laws of the Russian Federation provide for restrictions and prohibitions on receiving any payments from commercial organisations.

Internal documents and the policy of PJSC FGC UES on remuneration of members of the Board of Directors do not provide for the provision of shares of the Company to members of the Board of Directors.

In the event of early termination of powers of a member of the Board of Directors, as well as in the event of election of a member of the Board of Directors at the Company's Extraordinary General Meeting of Shareholders, the remuneration of such person is calculated taking into account the actual time they fulfil their duties as a member of the

The Company does not have any additional remuneration or compensation in case of early termination of powers of Board members in connection with a takeover of the Company or in other circumstances.

<sup>96</sup> Approved by the resolution of the Annual General Meeting of Shareholders of PJSC FGC UES of 26 June 2015, Minutes No. 16 of 30 June 2015.

<sup>97</sup> Approved by the Board of Directors, Minutes No. 280 of 24 August 2015.

<sup>98</sup> Approved by the Board of Directors, Minutes No. 105 of 17 June 2010.

#### **CALCULATION OF REMUNERATION**

#### GRI 102-36

To increase involvement of the Board members into the Company's operation and motivation to achieve high financial indicators by the Company, the amount of remuneration payable to members of the Board of Directors depends on the Company's financial results. Remuneration is calculated taking into account the fixed part of remuneration determined depending on the Company's revenue<sup>99</sup> for the financial year previous to the year of remuneration payment.

Revenue for the financial year	Amount of the fixed part of remuneration
Over RUB 200 bln	RUB 1,000,000
Over RUB 30 bln	RUB 900,000
Over RUB 10 bln	RUB 800,000
Over RUB 1 bln	RUB 700,000
Over RUB 600 mln	RUB 600,000
Below RUB 600 mln	Remuneration is not paid

The fixed amount of remuneration of members of the Board of Directors in the 2017–2018 corporate year was RUB 900,000.

The remuneration of a member of the Board of Directors is based on the following components:



RR

The total amount of remuneration of a member of the Company's Board of Directors may not exceed RUB 900 thousand for the corporate year.



Remuneration for participation in meetings of the Board of Directors. Formed taking into account the size of the fixed part of remuneration and the actual attendance of meetings of the Board of Directors.



Increases:

on the formula for calculating remuneration for participation in meetings of the Board +30 %

in the Regulations on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES.

of Directors can be found

More information

for the Chairman of the Board of Directors.

of Vactual

+20 %

for the Chairman of the Board of Directors Committee.

-10 %

for a member of the Board of Directors' Committee.

#### **COMPENSATIONS**

The Regulations on Payment of Remuneration and Compensation to Members of the Board of Directors of PJSC FGC UES provides also for payment of actual expenses to Board members, including travel costs to location of meetings of the Board of Directors and the Committees and back, accommodation costs, as well as other expenses related to the Company's operation.

#### REMUNERATION PAID IN THE REPORTING YEAR

In connection with the receipt of net profit in 2017 in the amount of RUB 42,361,640 thousand following the results of the Company's activities, at the General Meeting of Shareholders of PJSC FGC UES, held following the 2017–2018 corporate year, it was decided to pay remuneration to members of the Board of Directors.

Fixed annual remuneration was the only monetary form of remuneration of Board members for serving on the Board of Directors during the reporting period.

#### Total (aggregated) remuneration paid to members of the Board of Directors, RUB thousand

Type (element) of remuneration	2016	2017	2018
Fixed			
Remuneration for participation in work of the governing body	5,498.5	5,764,2	5,942.3
Additional remuneration to the Chairman of the Board of Directors	0	189.6	207.7
Additional remuneration for participation in the Committees of the Board of Directors	818.8	832.3	801.9
Other fixed remuneration	0	0	0
Total amount of fixed part of remuneration	6,317.3	6,786.1	6,951.9
Variable			
Bonuses accrued	0	0	0
Accrual of remuneration paid on the basis of shares	The Company's policy on remuneration of members of the Board of Directors does not provide for the provision of shares of the Company to members of the Board of Directors.		
Other variable remuneration (non-monetary remuneration and compensation), including:	0	0	0
Cost of travel to location of meetings of the Board of Directors and the Committees and back	0	0	0
Living cost	0	0	0
Other expenses related to the Company's activities	0	0	0
Total accrued size of the variable part of remuneration	0	0	0
Severance allowances, compensations and other payments in connection with early termination of powers	0	0	0
Total remuneration	6,317.3	6,786.1	6,951.9

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<sup>99</sup> Calculated as per RAS.

CORPORATE GOVERNANCE REPORT

REMUNERATION SYSTEM FOR GOVERNING BODIES

#### Remuneration of members of the Board of Directors in 2018, RUB thousand\*

	Participation in meetings of the Board of Directors (actually participated/ could participate)	For participation in meetings of the Board of Directors	For participation in the Committees of the Board of Directors	Allowances for acting as Chairman of the Board of Directors/Committee of the Board of Directors	Total remuneration
P. Grachev	36/36	692.3	138.5	-	830.8
A. Demin	36/36	692.3	69.2	207.7	900.0
I. Kamenskoy	36/36	692.3	69.2	276.9	900.0
A. Murov**	35/36	673.1	-	-	_
M. Poluboyarinov	33/36	634.6	-	-	634.6
E. Prokhorov	33/36	634.6	63.5	-	698.1
N. Roshchenko	30/36	576.9	_	-	576.9
S. Sergeev	36/36	692.3	69.2	-	761.5
P. Snikkars***	29/36	557.7	55.8	111.5	_
Ernesto Ferlenghi	33/36	634.6	126.9	126.9	888.5
O. Shatokhina	36/36	692.3	69.2	-	761.5
TOTAL					6,951.9

<sup>\*</sup> Other types of remuneration and reimbursement of expenses were not paid.

Members of the Board of Directors were not provided with any loans (credits) in 2018.

# SYSTEM OF REMUNERATION OF THE CHAIRMAN AND MEMBERS OF THE MANAGEMENT BOARD

#### **CALCULATION OF REMUNERATION**

#### GRI 102-9

In accordance with the best practice, the system of remuneration of the members of the Company's executive bodies is comprised of fixed and variable parts related to achievement of top managers' key performance indicators (KPIs). Such an approach allows motivating members of the Management Board to achieve strategic goals and thus contribute to growth of the Company's value.

The remuneration is comprised of fixed (salary) and variable (bonuses) parts. The variable part is comprised of quarterly and yearly bonuses (according to the results of achieved quarterly and yearly KPIs, correspondingly). Amount of bonus predominantly depends on achieving top managers' KPIs. If any KPI is not achieved, bonuses of all members of the Management Board, including the Chairman of the Management Board, get reduced by a certain percent depending on the KPI's weight.



#### Remuneration system

RBoard

It helps the Management Board members to attract and retain professionals and motivates them to achieve strategic goals.

Rfp

#### Fixed part

Thanks to a salary at a competitive level, the stability of the Management Board is achieved.

#### Variable pa



Quarterly and annual bonuses, the size of which is tied to the achievement of KPIs, stimulate the fulfilment of planned targets; other types of remuneration.

The Board of Directors approves the Company's KPI targets (adjusted values) and reports on their fulfilment, on the basis of which bonuses are paid to the Chairman and members of the Management Board.



Detailed information on the KPI system, KPI achievement in the reporting year and goals for 2018 can be found in section Strategic Report/Market Review, Strategy and KPI/Key Performance Indicators.

For details on the approval by the Board of Directors of KPI performance reports, see Appendix 1.

<sup>\*\*</sup> Remuneration is not paid due to the fact that the Board member is the Chairman of the Company's Management Board at the same time.

<sup>\*\*\*</sup> Remuneration is not paid due to the fact that the Board member is a public servant.

CORPORATE GOVERNANCE REPORT

REMUNERATION SYSTEM FOR GOVERNING BODIES

#### MAIN COMPONENTS OF THE SYSTEM OF REMUNERATION OF MEMBERS OF PJSC FGC MANAGEMENT BOARD

	Fixed part	Variable part and other remuneration
Form of implementation	Salary	The system of short-term motivation includes quarterly and annual bonuses based on achieving KPIs, as well as other forms of additional incentives.
The average weight of the component in the annual remuneration structure	33 %	67 %
Component purpose	Establishment of a fair competitive level of remuneration corresponding to market conditions and as a result the attraction and retention of highly professional managers.	Stimulation of the implementation of planned operating and financial performance to achieve the planned results on strategic priorities.
General provisions	Due to the competitive level of the fixed part of remuneration, the Company achieves the stability of composition of its management.	The size of quarterly and annual bonuses payable to members of the Management Board is calculated primarily on the basis of actually achieved KPI values. The Company's KPI system is interconnected with the business plan, including the Company's investment programme, with the Company's strategy and executive discipline.  Collective responsibility is established for the variable part of remuneration: In the event of non-fulfilment of any KPI, the size of the bonus of all members of the Management Board, including the Chairman, decreases.

<sup>\*</sup> Calculation based on remuneration paid for 2014–2018.

Conditions of the employment contract with the Chairman of the Management Board are established by the person authorised by the Board of Directors. Conditions of employment contracts with members of the Management Board are determined by the Chairman of the Management Board instructed by the Board of Directors.

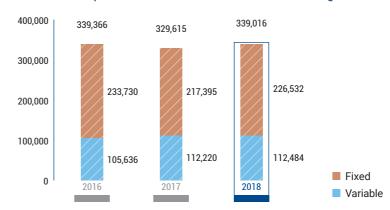
Information on remuneration of members and the Chairman of the Management Board are disclosed on the PJSC FGC UES website in the annual report and quarterly report of the issuer.

#### REMUNERATION PAID IN THE REPORTING YEAR

Total (aggregated) remuneration paid to the Chairman and members of the Management Board, RUB thousand

Type (element) of remuneration	2016	2017	2018
Fixed part	,	,	
Salary (wage)	105,636	112,220	112,484
Total fixed part of remuneration	105,636	112,220	112,484
Variable part			
Bonuses accrued in accordance with employment contract	180,385	195,979	184,683
Other types of remuneration	53,345	21,352	41,590
Severance allowances, compensations and other payments accrued in connection with early termination of powers		64	259
Total variable part of remuneration	233,730	217,395	226,532
Total remuneration	339,366	329,615	339,016

#### Remuneration paid to the members of PJSC FGC UES Management Board, RUB thousand



#### Amount of remuneration of the Chairman of the Management Board, RUB thousand

Type (element) of remuneration	2016	2017	2018
Fixed part			
Salary (wage)	27,200	25,324	25,277
Total fixed part of remuneration	27,200	25,324	25,277
Variable part			
Bonuses accrued in accordance with employment contract	46,014	39,272	53,010
Other types of remuneration	4,039	12,023	43
Total variable part of remuneration	50,053	51,295	53,053
Total account of the	77.050	76.610	70.000
Total remuneration	77,253	76,619	78,330

Members and the Chairman of the Management Board were not paid other fixed remuneration, share remuneration (or accrual of remuneration paid on the basis of shares) or stock purchase options, other variable remuneration in 2016–2018.

Members of the Management Board made no transactions with shares of PJSC FGC UES in 2018.

 $\label{lem:members} \mbox{Members of the Management Board were not provided with any loans (credits) in 2018.}$ 

**CORPORATE GOVERNANCE REPORT** SETTLEMENT OF CONFLICT OF INTEREST

#### SETTLEMENT OF CONFLICT **OF INTEREST**



#### GRI 102-25

The Company strives to prevent and minimise any consequences of possible conflicts of interest among members of the Company's governing bodies. The Company has a comprehensive system of dealing with any conflict of interest between members of the governing bodies of the Company providing for reasonable assurance that any conflict will be settled at an early stage and the Company's interests will not be infringed.

The settlement is carried out on the basis of the Company's Corporate Ethics Code, Corporate Governance Code, the Regulations on the Board of Directors, and the Regulations on the Management Board.

FGC UES approved the Code of Corporate Ethics for regulation of situations in which conflicts of interest may arise. In accordance with the Code, when making decisions

on business matters and performing work duties, FGC employees should:

avoid situations and circumstances that may lead to a conflict of interest;

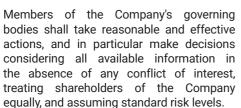
In the event of a conflict of interest, employees have to inform their immediate

supervisor and the Central Commission for the Compliance with Corporate Ethics



For details on preventing conflicts of interest of members of the Board of Directors and the governing bodies of the Company's management,

see Appendix 1.



and Settlement of Conflicts of Interest.

be guided by the interests of the Company;

disclose a real or potential conflict of interest;

facilitate the resolution of a conflict of interest.

The Company verifies information on the participation of members of the Management Board and the Board of Directors of the Company in other companies on a quarterly basis. The Company performs regular analysis of information received from members of the Company's governing bodies for the presence of a potential conflict

All members of the Board of Directors and members of the Management Board met the requirements of Art. 82 of the Federal Law on Joint Stock Companies about sending notifications to the Company about the presence of a possible interest in the Company's transactions. In order to identify conflicts of interest in a timely manner, the Company has developed a questionnaire for members of the Board of Directors and the Management Board, which they fill in quarterly and indicate all necessary information.



Information on the positions of members of the Board of Directors held in the governing bodies of other organisations and on the ownership of the Company's securities is disclosed on the website www.fsk-ees.ru in section About the Company/Governing Bodies/ Board of Directors,

and in the issuer's quarterly reports and annual reports posted at www.fsk-ees.ru/eng in section Investors/Financial Disclosure

#### **RISK MANAGEMENT SYSTEM.** INTERNAL CONTROL AND INTERNAL **AUDIT**

#### INTERNAL CONTROL SYSTEM

The Company's internal control system (hereinafter, the ICS) is an element of the Company's overall management system aimed at providing reasonable guarantees of achieving the goals in the following areas:

- efficiency of the Company's activities;
- compliance with applicable legal requirements and local regulations of the Company;
- ensuring the accuracy and timeliness of reporting.

The ICS is risk oriented. Control procedures principles of operation and elements The ICS covers all areas of the Company's activities; control procedures are performed continuously in all processes of the Company at all management levels.

In order to ensure the implementation and maintenance of an effective internal control system that complies with generally accepted practices and standards of internal control, as well as regulatory requirements, and contribute to the achievement of the Company's objectives, Federal Grid Company applies the Internal Control System of PJSC FGC UES. 100 It defines the objectives,

are risk-based and set up in such a way of the Company's internal control system, as to provide a reasonable assurance the main functions and responsibilities that the response to an emerging risk of participants in the internal control occurs effectively and in a timely manner. system, and the procedure for evaluating its effectiveness.

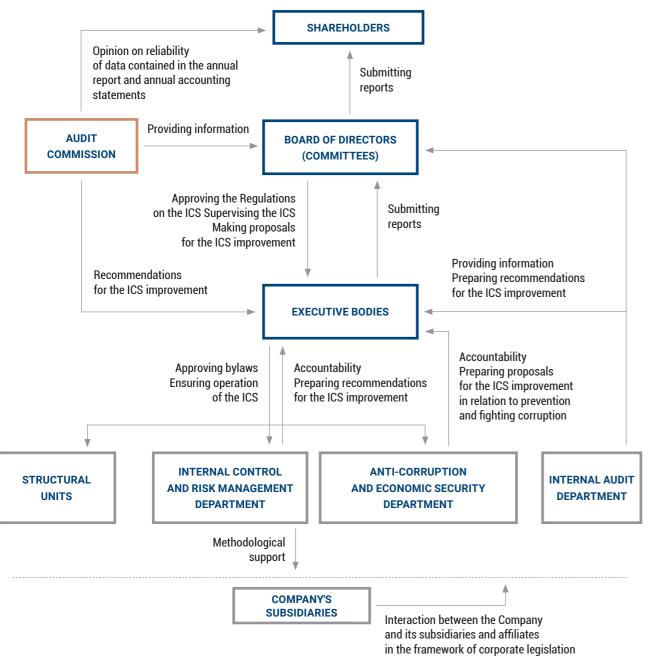
> The Company has an Order for the fulfilment of requirements of the Regulations on the Internal Control System, 101 which reveals the applied aspects of the application of the standards set out in the Regulations on the Internal Control System.

> The control procedures for the processes subprocesses of the core and supporting activities, as well as the Company's management processes are documented in the risk matrices and control procedures.

<sup>100</sup> Approved by resolution of the Board of Directors, Minutes No. 369 of 2 June 2017.

<sup>101</sup> Order of PJSC FGC UES No. 310 of 1 August 2017.

#### Interaction between the internal control system participants





For detailed information about the main functions of the ICS participants, see Appendix 1. The Internal Control System is operated in accordance within the model of three defence lines: This model means the implementation of internal control in the Company at three levels:

- 1st defence line. The level of governing bodies and the Company's units and divisions implementing control procedures by virtue of their responsibilities and job duties;
- 2nd defence line. The level of control units of the Company;
- 3rd defence line. The level of the Internal Audit Department.

The functions of the ICS participants are enshrined in the Regulations on the Company's Internal Control System, the provisions on structural divisions and job descriptions.

#### GRI 102-30

The Company's internal auditor conducted a comprehensive assessment of the internal control and risk management system and its compliance with the target state and level of maturity. The Company determined 6 maturity levels of the internal control system (from 1 "zero" to 6 "high"). According to the results of the assessment, the level of maturity of the internal control system is determined at the level of 4.9 points (optimal). Compared with the assessment at the end of 2017, the level of maturity increased by 0.2 points.

As of 31 March 2019, an external independent evaluation of the internal control system was conducted by a consortium of Ernst & Young - appraisal and consulting services LLC, and RSM Rus LLC, as a result of which the internal control system was recognised as efficient.

#### Results of the ICS development in 2018 and directions for further improvement

# Corrective action plans have been approved and being implemented based on the results of the 2017<sup>102</sup> audit of effectiveness of the internal control and risk management system and the results of the audit of functioning of the internal

Combating Corruption. 103 Events with a deadline of 2018 were executed in full.

Methods of self-assessment of the effectiveness of control procedures and the system of internal control processes (activities) were approved. 104

control and risk management system of the functional activity Preventing and

- A self-assessment of the effectiveness of control procedures in the functional areas (processes) of PJSC FGC UES was organised.
- Adaptation and actualisation of control matrices in functional areas (processes) of PJSC FGC UES, including their integration with the model of quality management system processes, were carried out.
- Regulations of the Internal Control process of PJSC FGC UES were approved. 105

#### ICS development plans

- Based on the results of a comprehensive analysis by the external auditor of the financial and economic activities of PJSC FGC UES, determine the vector and ways to further improve the internal control system.
- Increasing the operational efficiency of key control procedures.

<sup>&</sup>lt;sup>102</sup> Order of PJSC FGC UES No. 131 of 13 April 2018.

<sup>103</sup> Instruction of PJSC FGC UES No. 404r of 13 September 2017.

<sup>104</sup> Order of PJSC FGC UES No. 58 of 20 February 2018.

<sup>105</sup> Order of PJSC FGC UES No. 30 of 30 January 2019.

#### **RISK MANAGEMENT SYSTEM**

GRI 102-15



In the reporting year, both the current work within the Company's risk management was carried out: The List of Corruption Risks was updated, the owners of key operational risks were approved, and the work on further improving the methodological support of the risk management function was approved. In particular, a Risk Identification Procedure in PJSC FGC UES was developed and approved, and the Methodological Recommendations for Assessing Corruption Risks in PJSC FGC UES were approved. An important step in the regulation of efficiency analysis procedures was the preparation of recommendations for the assessment of the effectiveness of risk management measures.



Igor Feoktistov,
Director for Internal
Control of PJSC FGC UES



The FGC Regulations on the Risk Management System in force is available on the corporate site at www.fsk-ees.ru/eng in section Corporate Documents.



For information about the principles and subjects of the RMS and their functions in the field of the RMS, see Appendix 1. PJSC FGC UES has a risk management system (RMS). The Board of Directors approved the Regulations on the Risk Management System.  $^{106}$ 

The purpose of the RMS applied in the Company is to ensure stable continuous functioning and development of the Company by means of timely identification, assessment and efficient management of risks threatening efficient business operation and reputation of the Company, employee health, environment, as well as property interests of shareholders and investors.

The Company uses three methods to respond to risks:

- risk avoidance:
- risk acceptance or increase in order to implement favourable opportunities;
- risk mitigation or assignment.

The choice of response depends on the risk significance, the influence on the likelihood and impact of risks, costs of implementation, and benefits obtained.

#### Roles of the Risk Management System participants

	Activities and events
	■ Determines principles and approaches to organisation of the RMS.
	Approves approaches to identifying the risk's priority, its values and review frequency.
Board of Directors	Considers the matters of the risk management system operation, including on the basis of the reports: operation of the risk management system by the Chairman and member of the Management Board; results of assessment of the actual status, reliability and efficiency of the risk management system by the Internal Audit Department.
Audit Committee of the Board of Directors	Considers operational matters of the risk management system prior to their consideration by the Board of Directors.
	Ensure establishment of and maintaining operation of a sound risk management system.
Chairman of the Management	Responsible for implementation of resolutions of the Board of Directors on the risk management system.
Board and the Management Board	■ Submit the risk management system operation reports to the Board of Directors after their preliminary consideration by the Audit Committee.
	Share powers, responsibilities and liability for particular risk management procedures among the heads of the Company's structural units.
	Performs coordination of the risk management processes.
	Develops methodological documents in the area of risk management.
	Arranges and carries out training of the Company's employees in terms of risk management.
	Performs analysis of the Company's risk portfolio and makes proposals regarding its risk response strategies and re-allocation of resources to manage the risks.
	Makes reports on risks.
Internal Control and Risk Management Department	Performs operational control of the risk management processes performed by the Company's structural units and controlled legal entities in accordance with the established procedure.
	■ Monitors issues of the risk management system arrangement and functioning.
	Prepares and submits information on the effectiveness of the risk management proces to the executive bodies of the Company.
	Coordinates the processes of corruption risk management.
	Carries out control measures aimed at preventing, identifying and minimising corruptio risks.
Internal Audit Department	Performs regular and independent review of reliability and effectiveness of the risk management system.
Risk owners (heads, structural units)	Develop, record, implement, monitor and improve the risk management system, including identification and assessment of risks, development and application of risk response measures.
(iicaus, structurdi utilis)	Report on the risk management system operation to the Management Board and its Chairman through the Internal Control and Risk Management Department.
Executors of risk management measures (managers, structural units)	Perform risk management measures as agreed with risk owners in the functional areas of their responsibility.

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<sup>&</sup>lt;sup>106</sup> Approved by the resolution of the Board of Directors, Minutes No. 291 of 19 November 2015; changes introduced by the resolution of the Board of Directors, Minutes No. 347 of 13 December 2016.

#### Results of the RMS development in 2018 and directions for further improvement

2018 results	RMS development plans
<ul> <li>The procedure for identifying risks in PJSC FGC UES was developed and approved. 107</li> <li>Recommendations were issued on how to assess the effectiveness of risk management measures. 108</li> <li>The owners of key operational risks were approved. 109</li> </ul>	■ Improve the quality of key and operational risk assessment, risk identification and quality of risk management work, developing effective control procedures and proactive measures, as well as measures to minimise them.
<ul> <li>The Methodological Recommendations for the Assessment of Corruption Risks in PJSC FGC UES were approved.<sup>110</sup></li> </ul>	Assess the corruption risks of PJSC FGC UES in accordance with the Schedule of Assessment for 2019. <sup>112</sup>
■ The List of Corruption Risks of PJSC FGC UES was updated. <sup>111</sup>	Provide a phased automation of the risk management process in PJSC FGC UES.

#### **AUDIT COMMISSION**

The Audit Commission is a permanent body which is responsible for exercising control over PJSC FGC UES' financial and business operations, its governing bodies and structural units. The composition of the Audit Commission is elected annually at the General Meeting of Shareholders.

The activities of the Audit Commission are governed by the Articles of Association and the Regulations on the Audit Commission of PJSC FGC UES.<sup>113</sup>

The main functions of the Audit Commission are as follows:

- confirming reliability of the data in the Company's annual report, accounting balance sheet, and profit and loss statement;
- analysing the Company's financial position, discovering ways for improving thereof, and developing recommendations to the governing bodies;
- organising and performing audits (revisions) of the Company's financial and business operations.

#### Composition of PJSC FGC UES114 Audit Commission in 2018

Full name	Year of birth, education, position	Composition formed by the EGM on 15 September 2017 <sup>115</sup>	Composition formed by the AGM on 28 June 2018 <sup>116</sup>
MARINA LELEKOVA Chairman of the Audit Commission	Director of the Department for Control and Audit Activities of PJSC Rosseti Born in 1961. Education: higher	+	+
TATYANA ZOBKOVA	Deputy Director of the Department for Corporate Governance, Pricing Environment and Auditing in Fuel and Energy Industries of the Russian Ministry of Energy Born in 1976. Education: higher	+	+
ALEKSANDR BATALOV Secretary of the Audit Commission	Director of the Department for Economic Security and Anti-Corruption of PJSC Rosseti Born in 1973. Education: higher	+	+
EKATERINA SNIGIREVA	Head Deputy of the Department of Property Relations and Privatisation of the Federal Agency for State Property Management (Rosimushchestvo) Born in 1991. Education: higher		+
VLADIMIR KHVOROV	Leading Expert of the Department of State Regulation of Tariffs, Infrastructure Reforms and Energy Efficiency of the Ministry of Economic Development of the Russian Federation  Born in 1947. Education: higher	+	+
DMITRY SIMOCHKIN	Head of the Department of the Federal Agency for State Property Management (Rosimushchestvo) Born in 1992. Education: higher	+	

In 2018, the revised Regulations on Payment of Remuneration and Compensation to Members of the Audit Commission was approved. The main change is in the procedure for determining the amount and payment of remuneration. Remuneration to members of the Audit Commission is formed of the fixed part of remuneration, which is determined on the basis of the Company's revenue as per RAS for the financial year.

#### Amount of remuneration paid to the Audit Commission members in 2018, RUB thousand

Full name	Amount
M. Lelekova	233.2
A. Batalov	155.4
V. Khvorov	155.4
Total	544.0

<sup>&</sup>lt;sup>107</sup> Order of PJSC FGC UES No. 42 of 8 February 2018.

<sup>&</sup>lt;sup>108</sup> Order of PJSC FGC UES No. 43 of 8 February 2018.

<sup>109</sup> Order of PJSC FGC UES No. 213 of 15 June 2018.

<sup>&</sup>lt;sup>110</sup> Order of PJSC FGC UES No. 316 of 24 August 2018.

<sup>&</sup>lt;sup>111</sup> Minutes No. 87 of the Audit Committee of the Board of Directors of PJSC FGC UES dated 28 December 2018.

<sup>&</sup>lt;sup>112</sup> Order of PJSC FGC UES No. 448 of 4 December 2018.

<sup>&</sup>lt;sup>113</sup> Approved by the resolution of the Annual General Meeting of Shareholders of PJSC FGC UES on 26 June 2015 (Minutes No. 16 of 30 June 2015).

<sup>114</sup> Positions of the Audit Commission members are stated at the time of election. None of the Audit Commission members holds shares of PJSC FGC UES or positions in its governing bodies.

<sup>&</sup>lt;sup>115</sup> Minutes No. 19 of 20 September 2017.

<sup>&</sup>lt;sup>116</sup> Minutes No. 20 of 2 July 2018.

<sup>117</sup> Approved by the resolution of the Annual General Meeting of Shareholders of PJSC FGC UES of 28 June 2018 (Minutes No. 20 of 2 July 2018).

Information on the Company's

main internal documents

governing the internal audit

activity is given in Appendix 1.

#### **INTERNAL AUDIT**

Internal audit is an activity for provision of independent and objective guarantees and consultations to the Board of Directors and the executive bodies of PJSC FGC UES aimed at improving the Company's management efficiency. Internal Audit was created with the aim of systematically independent assessment of the reliability and efficiency of the risk

Internal audit is an activity for provision management and internal control system, of independent and objective guarantees and corporate governance practices.

The Internal Audit Department is a unit responsible for internal audit functions in the Company. The Internal Audit Department is administratively subordinate to the Chairman of the Management Board, and functionally to the Board of Directors of the Company.<sup>118</sup>

According to the Articles of Association of PJSC FGC UES, the Company's Board of Directors has the following competencies<sup>119</sup> in terms of internal audit:

- approval of the internal audit policy (internal audit regulations);
- approval of the activity plan and budget of the internal audit unit;
- approval of a candidate for the position of the head of the Company's Internal Audit Department and termination of their powers;
- determination of the remuneration conditions for the head of the Internal Audit
  Department, as well as consideration of significant limitations of powers of the Internal
  Audit Department or other restrictions that could adversely affect the implementation
  of internal audit;
- review results of quality assessment of the internal audit function.

 The internal audit function of FGC UES underwent an external assessment in the reporting year.
 Tell us about this project.

Yes, indeed, PJSC FGC UES was the first of the electric power industry companies to undergo an external independent assessment of the internal audit function in 2018. The Internal Audit Department of PJSC FGC UES was assessed for compliance with the International Professional Internal Audit Standards of the Institute of Internal Auditors and the Code of Ethics for Internal Auditors in accordance with the methodology for external independent assessment of the internal audit function of the IIA, as well as comparison with the best generally accepted practices.

Who conducted the assessment?

We used the services of a company from the "Big Four": Ernst & Young – appraisal and consulting services LLC.

What results were obtained?

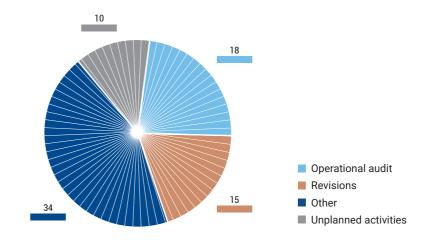
Based on the results of the assessment, the activities of the Internal Audit Department received the highest level "generally conforms" to the standards of the IIA and the code of ethics. Internal audit has a provision on internal audit, policies and procedures, and their performance and results are evaluated as conforming to the IIA standards.



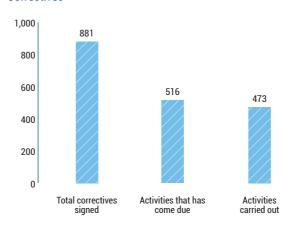
Svetlana Kovaleva, Internal Audit Director, Head of the Internal Audit Department of PJSC FGC UES

77 audit activities were executed by the internal auditor in 2018. 881 correctives were prescribed for execution aimed at eliminating and preventing further violations and shortcomings revealed by the internal audit. 473 corrective actions out of 516 actions with deadlines in the reported year were executed.

#### Control activities carried out by the internal audit in 2018



#### Correctives





For information on key decisions, measures aimed at improving the internal audit system, implemented in accordance with resolutions of the Company's Board of Directors, see Appendix 1.

<sup>&</sup>lt;sup>118</sup> Regulations on the Internal Audit of the Company (approved by the resolution of the Board of Directors of the Company, Minutes No. 291 of 19 November 2015); Order No. 505 of 29 December 2016 on the Distribution of Responsibilities Between Heads of the Executive Office of PJSC FGC UES.

<sup>&</sup>lt;sup>119</sup> Resolution of the Annual General Meeting of Shareholders (AGM resolution of 29 June 2017, Minutes No. 18 of 3 July 2017).

**CORPORATE GOVERNANCE REPORT** ANTI-CORRUPTION POLICY AND ECONOMIC SECURITY

#### **EXTERNAL AUDITOR**

external auditor to perform an independent in the amount of RUB 21,805,719 and unbiased assessment of quality of its RAS and IFRS accounting (financial) statements. The candidacy of the external auditor of the financial statements is approved by the Annual General Meeting of Shareholders of the Company. Candidacy is determined on the basis of competitive procedures that provide an objective choice. Selection of an audit organisation for the implementation of the mandatory audit of PJSC FGC UES' financial statements for 2018-2020 in the form of an open onestage competition without preliminary qualification selection was conducted by PJSC Rosseti.

The Annual General Meeting of Shareholders dated 28 June 2018<sup>120</sup> approved ERNST AND YOUNG limited liability company as the auditor of PJSC FGC UES. The Company's Board of Directors resolved to determine the amount of payment basic requirements. for the services of PJSC FGC UES'

The Company annually engages an auditor for the audit of reporting for 2018 and 68 kopecks, including VAT.

> On 27 April 2018, the Audit Committee of the Board of Directors<sup>121</sup> considered the issue of evaluating the effectiveness of the external audit process 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) statements by the internal auditor, the Audit Committee of PJSC FGC UES Board of Directors noted the compliance of the conducted external audit of the reports of PJSC FGC UES for 2017 with the main conditions of the concluded contracts. Taking into account the opinion of the Audit Committee of PJSC FGC UES Board of Directors, in general, the process of conducting external audits in the Company can be characterised as complying with the

ERNST & YOUNG LLC did not provide any non-audit services in 2018.

Reporting auditor of PJSC FGC UES

Full Corporate Name:

**ERNST AND YOUNG Limited Liability Company** 

Abbreviated Corporate Name:

**ERNST AND YOUNG LLC** 

77 Sadovnicheskaya Emb., Build. 1, Moscow, Russia, 115035

INN (Taxpayer No.): 7709383532 OGRN: 1027739707203

Phone: +7 (495) 648 96 42; +7 (495) 641 29 07

E-mail: Tatyana.Okolotina@ru.ey.com; Elena.Kovalchuk@ru.ey.com

Data on the membership of the auditor in self-regulatory organisations of auditors: Self-regulating organisation of auditors "Russian Union of Auditors" (Association)

SRO Address: 8 Petrovsky Lane, Build. 2, Moscow, 107031

#### **ANTI-CORRUPTION POLICY** AND ECONOMIC SECURITY

#### CORRUPTION PREVENTION

GRI 103-2

FGC UES declares zero tolerance towards corruption in any of its forms and aspects, meaning a total ban for all managers, employees and other persons acting on behalf of and/or for the benefit of the organisation, directly or indirectly, personally or through any intermediary, to take part in any corrupt practices.

Anti-corruption activities in PJSC FGC UES are aimed at reducing the risks of material and reputational damage to the Company as a result of corruption.

Anti-corruption activities in the Company are an element of the internal control and risk management system.

Since 2012, the Company has been operating and constantly improving its Anti-Corruption Policy. In 2015, the policy was updated<sup>122</sup> due to changes in anti-corruption legislation.<sup>123</sup> In 2017, a new edition of the Anti-Corruption Policy of PJSC FGC UES was approved, which corresponds to the Methodological Recommendations of the Federal Agency for State Property Management on risk management and internal control in the field of preventing and combating corruption. 124

The Company applies a risk-based approach to the management of its corruption prevention system.

For information on the main objectives and principles of the Anti-Corruption Policy, see Appendix 1.

GRI 102-12

The Company joined the Anti-Corruption Charter of Russian Business in 2015 (certificate of accession No. 2041) and confirmed its compliance with its requirements in 2017. In 2019, it is also planned to confirm the Company's compliance with the requirements of the Anti-Corruption Charter.

<sup>120</sup> Minutes No. 20 of 2 July 2018

<sup>&</sup>lt;sup>121</sup> Meeting Minutes of the Audit Committee of the Board of Directors No. 75 of 28 April 2018.

<sup>122</sup> Meeting Minutes of the Board of Directors of PJSC FGC UES No. 357 of 13 March 2017.

<sup>&</sup>lt;sup>123</sup> Meeting Minutes of the Board of Directors of PJSC FGC UES No. 280 of 24 August 2015.

<sup>&</sup>lt;sup>124</sup> Order No. 80 of the Federal Property Management Agency dated 2 March 2016.

**CORPORATE GOVERNANCE REPORT** SHARE CAPITAL. SECURITIES TRADING

To reduce corruption risks in 2018, the following measures were implemented:

- 12 inspections were carried out in branches and subsidiaries and affiliates;
- GRI 205-1 corruption risks were assessed regarding 21 subdivisions of the executive office (57 % of the total number of subdivisions). An up-to-date list of posts potentially associated with increased corruption risk has been developed, internal documents have been developed for conducting an assessment of corruption risks and identifying corruption indicators;
- the economic justification of expenses was monitored, including through a mechanism to check the reasonableness of the calculation of the initial purchase price. The materials were checked for more than 1,700 issues submitted to the central tender commission of FGC UES:
- work has begun on modifying the automated accounting system for beneficiaries of counterparties of FGC UES with the ability to verify the affiliation of the counterparties of the Company;
- experts of the Company's specialised departments underwent advanced training. Training events were held on countering corruption, getting acquainted with changes in current legislation, and explaining the methodology for assessing corruption risks.



For detailed information on the anti-corruption measures taken. see Appendix 1.

#### GRI 103-3, 205-3

There were no confirmed cases of corruption in 2018. Criminal cases concerning corruption in relation to the organisation or employees were not initiated during the reporting period and were not tried in courts.

#### **ECONOMIC SECURITY**

Economic security focused on early identification and prevention (localisation) of threats and risks that could cause the most serious financial and image damage to the Company. In the reporting year:

- More than 1,000 audits of financial and economic activities were carried out, 750 of them together with the relevant departments and internal audit.
- According to the results of the inspections, the amount of damage caused to the Company was set at RUB 918.5 million, economic damage to the interests of RUB 1.25 billion was prevented, and the compensated damage amounted to RUB 424.2 million.
- 436 facts of unlawful actions by personnel, outside legal entities and individuals were identified, and 327 resolutions were made.
- 174 applicant materials were prepared and sent to law enforcement agencies, of which 71 were prosecuted, courts of various instances convicted and prosecuted 22 persons.
- The Company participated in the consideration and approval of almost 4,000 materials submitted to the meeting of the central procurement bodies, for which 236 negative opinions were issued, more than 10,000 purchasing procedures were reviewed, over 13,700 counterparty inspections were conducted before entering into contracts, and 335 negative reports were issued conclusions. Cost of purchases reduced by RUB 108.2 million.
- Debt collection activities were carried out as part of enforcement proceeding: in 2018, 308 writs of debt collection for the total amount of RUB 1.76 billion were received, and RUB 1.5 billion were reimbursed from the work done by the Company.

In the reporting year, economic damage to the Company's interests in the amount of 1.25 billion was prevented.

#### SHARE CAPITAL. **SECURITIES TRADING**

As of 31 December 2018, the share capital of PJSC FGC UES was RUB 637,332,661,531.50 divided into 1,274,665,323,063 ordinary registered uncertified shares with a nominal value of RUB 0.50 each. No preferred shares were placed as of the above date.

In accordance with the Company's Articles of Association, the number of authorised shares is 72,140,500,768 ordinary registered shares with a nominal value of RUB 0.50 each and a total nominal value of RUB 36,070,250,384. Authorised ordinary shares have the same rights as outstanding ordinary shares.

In 2018, there were no issues or placements of additional shares by PJSC FGC UES.



Information on the Company's share capital history can be found on our corporate website www.fsk-ees.ru/eng/, in section Investors/Share Information/ Share Capital History.

Information on allocated issues of shares is available on the website www.fsk-ees.ru/eng/ in section Investors/Share Information/ Documents for current share

#### **EQUITY HOLDING STRUCTURE**

The total number of the Company's shareholders exceeds 400,000 persons. As of 31 December 2018, the list of shareholders included:

- 450,448 private persons;
- 2,347 legal entities, of which 36 nominee holders and 221 trust managers (TMs).

There were no significant changes in the Company's equity holding structure in 2018.

over 400,000 the total number of Company shareholders.

Equity holding structure of PJSC FGC UES as of 31 December 2018

PJSC Rosseti

Shareholders owning from

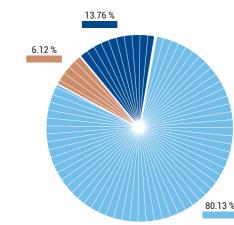
Shareholders owning less

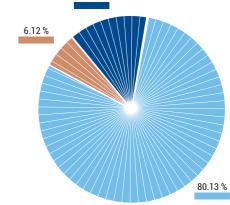
authorised capital

authorised capital

0.5 % to 2 % of the Company's

than 0.5 % of the Company's





The PJSC FGC UES management team is not aware of any shareholders (nominee holders) holding more than 5 % of the Company's outstanding shares, other than those indicated above.

INTEGRATED ANNUAL REPORT FOR 2018 | PJSC FGC UES |

CORPORATE GOVERNANCE REPORT SHARE CAPITAL. SECURITIES TRADING

#### PJSC FGC UES equity holding structure as of 31 December 2018

Ownership range	Accounts of hole	ders and TMs	Amount of uncertified registered ordinary shares (UROS) on accounts	
	Quantity	Proportion	Total of UROS	Proportion
Less than 0.01 %	452,655	99.9653 %	50,662,154,721	3.97 %
0.01 % - 0.05 %	89	0.0197 %	24,983,254,508	1.96 %
0.05 % - 0.1 %	34	0.0075 %	17,018,044,451	1.34 %
0.1 % - 0.5 %	26	0.0057 %	82,668,476,606	6.49 %
0.5 % - 1 %	5	0.0011 %	50,546,607,824,	3.97 %
1.0 % - 2.0 %	2	0.0004 %	27,427,739,561	2.15 %
Over 2.0 %	1	0.0002 %	1,021,359,045,392	80.13 %
Total	452,812	100 %	1,274,665,323,063	100 %

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 authorised capital of the Company. The government has no special right ("golden share") to participate in the Company's management.

#### Shareholders' Agreement

In June 2013, PJSC Rosseti and Rosimushchestvo signed the Stockholders Agreement on the procedure for managing and voting shares of PJSC FGC UES. The agreement covers all voting shares of PJSC FGC UES, held by the parties or to be acquired in the future.

As of 31 December 2018, 1.077 % of PJSC FGC UES' shares was in cross-ownership of FGC - Asset Management LLC.

The free float of PJSC FGC UES shares as of 31 December 2018 is 18.2 %. 125

The Company conducts an annual analysis of the shareholder register to identify the key groups of holders of ordinary shares and depository receipts.

#### MINORITY SHAREHOLDERS

The key minority shareholders of the Company are institutional investors, with the share of retail investors being approximately 3.5 %.

The largest foreign shareholder of FGC at the end of 2018 are the funds and investment mandates managed by Prosperity Capital Management (3.4 %)126.

The share of foreign institutional investors is over 50 % of free-float. These include the largest global funds with assets under management of over USD 1 billion, including Kopernik Global All-Cap Fund, Vanguard International Equity Index Fund, and state investment funds, including those of Norway and the UAE.

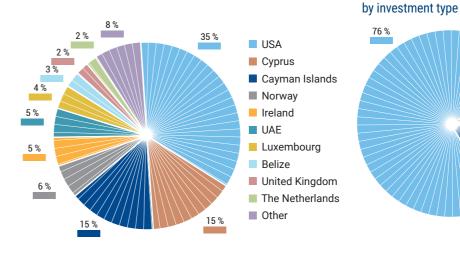
In general, foreign investors own 64.2 % of free float shares of FGC. This percentage increased by 4.9 p.p. over the past year.

#### List of foreign shareholders (in alphabetical order) holding in total ~ 5 % of outstanding shares of PJSC FGC UES\*

Name	Country	Type of investor
ABU DHABI INVESTMENT AUTHORITY	UAE	Sovereign wealth funds
Heptagon Fund Public Limited Company	IRELAND	Funds and managing companies
Kopernik Global All-Cap Fund	USD	Funds and managing companies
Norges Bank	NORWAY	Sovereign wealth funds
State Street Bank and Trust Company	USD	Funds and managing companies
THE PROSPERITY QUEST FUND	CAYMAN ISLANDS	Funds and managing companies
THE RUSSIAN PROSPERITY FUND	CAYMAN ISLANDS	Funds and managing companies

<sup>\*</sup> Source: Company data.

#### Distribution of foreign investors of FGC by region

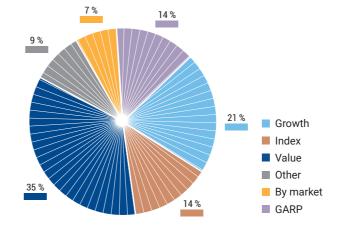


#### The largest percentage of FGC shares held by foreign investors - 35 % - belongs to US companies.

#### Over 75 % of FGC shares held by non-residents are concentrated in funds and management

companies.

#### Distribution of foreign investors of FGC by investment style



# Most investors view FGC shares as an undervalued asset

Funds

Banks

Brokers

2 %

Sovereign

Pension and

insurance

funds

Other

and managing

companies

and trusts

Distribution of foreign investors of FGC

(Value) or an asset with good growth prospects (Growth). The intermediate position between these two approaches represents the GARP investment style (Growth at reasonable price). The "By market" group includes short-term investors focused on the current market situation, including brokers and hedge funds. Index Group investors are guided by various index solutions.

<sup>125</sup> Free-float is calculated as a percentage of the shares of FGC which are in free circulation as of 31 December 2018, excluding shares owned by PJSC Rosseti, the State, municipalities and quasi-treasury shares.

<sup>&</sup>lt;sup>126</sup> Consent to information disclosure is received, data by Prosperity Capital Management Ltd.

funds

CORPORATE GOVERNANCE REPORT
SHARE CAPITAL, SECURITIES TRADING

# MARKET INTELLIGENCE ON THE COMPANY'S SECURITIES

FGC shares are included in the MOEX First Level quotation list.

FGC shares are included in the MOEX First Level quotation list, as well as in the run listed at PJSC St. Petersburg Stock Exchange.

Outside of the Russian Federation, the Company's shares are traded as global depositary receipts (GDR) at the London Stock Exchange. THE BANK OF NEW YORK MELLON (BNY Mellon) is the depositary bank of the GDR programme. As of 31 December 2018, the GDR programme size was 0.048 % of the authorised capital of FGC.

The Company's shares are included in the basis for calculation of key domestic and a number of foreign indices.

General information on shares of	f PJSC FGC UES	Weight of shares of PJSC FGC UES in stock indices as of 31 December 2018, %	
Category of shares	Registered ordinary uncertified share	MOEX Index	0.35
Nominal value	RUB 0.50	Moscow Wide Market Index (MOEXBMI)	0.3
MOEX ticker	FEES	RTS Index (RTSI)	0.35
St. Petersburg Stock Exchange ticker	FEES	Moscow Electricity Exchange (MOEXEU) Index	14.71
LSE ticker	FEES		
ISIN	RU000A0JPNN9	The DTV Fraggy (Vienna Stock Evehange)	15.67
Bloomberg Code	FEES RX	The RTX Energy (Vienna Stock Exchange)	



For more information on FGC shares trading, please visit our website www.fsk-ees.ru/

eng/, section Shareholders and Investors/Information on Shares/

Shares Schedule.

For more information on depositary receipts trading,

please visit our website

www.fsk-ees.ru/eng/, section

Investors/Share Informantion/

#### Results of exchange trading in shares and depositary receipts

	2016	2017	2018
Shares of PJSC FGC UES at MOEX			
Trading volume, RUB bln	90.4	145.8	61.2
Lowest price, RUB	0.0539	0.15	0.14588
Highest price, RUB	0.2097	0.261	0.1915
Year-end price, RUB	0.2032	0.16205	0.14812
Depositary receipts of PJSC FGC UES at the Lo	ondon Stock Exchange		
Trading volume, USD mln	7.0	6.1	0.7
Lowest price, USD	0.3	1.275	1.02
Highest price, USD	1.65	2.3	1.7
Year-end price, USD	1.64	1.35	1.03

GDR Programme.

For updated information on the GDR programme, please visit the official London Stock Exchange website www.londonstockexchange.com, indicating the Company's ticker symbol – FEES.

In 2018, FGC shares showed lagging dynamics in comparison with the MOEX index, but closed the year with a better result than the MOEXEU sector index. Over the year, the value of the Company's shares decreased by 8.6 % (from 16.2 kopecks at the end of 2017 to 14.8 kopecks at the end of 2018), while the MOEX index increased by 12.3 %, whereas the MOEXEU index was down by 11.4 %. The Company's market capitalisation as of 31 December 2018 amounted to RUB 188.9 billion.

#### Change in the value of ordinary shares of PJSC FGC UES in comparison with the MOEX index and MOEXEU sector index



#### Dynamics of trading volumes and value of depository receipts of PJSC FGC UES at the London Stock Exchange 127



In 2018, FGC shares, as well as the MOEXEU sector index as a whole, came under the pressure of dramatic depreciation of RUB (-20 % against USD), which reduced the investment attractiveness of companies focused on domestic demand. However, FGC's share losses were largely restricted by the Company's good dividend prospects. According to analysts, FGC has one of the best dividend reputations on the Russian market.



For detailed information on the dividend policy, please see section Profit Distribution and Dividend Policy.

<sup>&</sup>lt;sup>127</sup> The DR price quoted is the valuation of 1 GDR through the stock price based on the MOEX trading results (arbitration of the value of receipts). Calculation: Price of 1 share at MOEX/the Central Bank of the Russian Federation exchange rate USD to RUB x 500 (number of shares in 1 GDR).

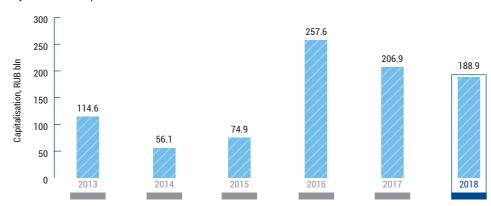
CORPORATE GOVERNANCE REPORT

SHARE CAPITAL, SECURITIES TRADING

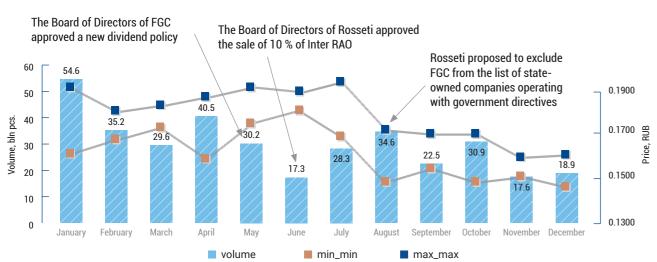
#### Dynamics of trading volumes and value of shares of PJSC FGC UES at the MOEX



#### Dynamics of capitalisation of PJSC FGC UES



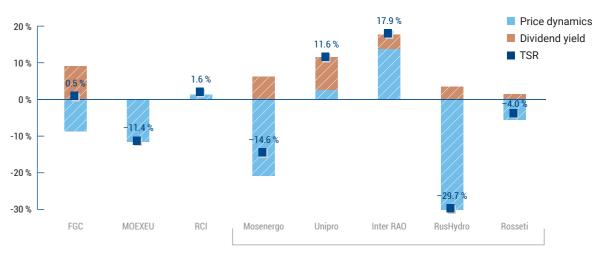
Trading volume, lowest and highest price of one share of PJSC FGC UES per month, main events driving dynamics of the stock value in 2018.



In 2018, total shareholder return (TSR) of FGC UES shares was above the average TSR value of the most capitalised companies in the Russian power sector.

#### GRI 103-3

TSR of the Russian power sector companies based on 2018 results



The most capitalised and liquid shares listed in MOEXEU

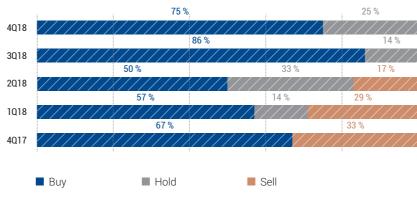
#### GRI 103-3

Analysts are still optimistic about the attractiveness of FGC shares. The percentage of "buy" recommendations for these securities at the end of 2018 rose up to  $75\,\%$  vs.  $67\,\%$  one year earlier, whereas the percentage of "sell" recommendations dropped to zero from  $33\,\%$  at the end of 2017.

# i

For detailed information on the dynamics of dividends and dividend yield of shares of PJSC FGC UES, see section Profit Distribution and Dividend Policy.

#### Analyst recommendations on shares of PJSC FGC UES\*



\* Source: Company data.

Results for the year show that the eight leading investment companies provided analytical coverage on PJSC FGC UES.

# FINANCIAL REPORT

The Company has been receiving a high return for over five years. This is the result of a coordinated purposeful work of the Board of Directors, management and all employees on improving the efficiency.

- Main Forms of Annual Financial Statements of PJSC FGC UES for 2018 as per RAS
- Main Forms of Financial Statements of PJSC FGC UES for 2018 as per IFRS



# MAIN FORMS OF ANNUAL FINANCIAL STATEMENTS OF PJSC FGC UES FOR 2018 AS PER RAS



Ernst & Young LLC Sadovnicheskaya Nab., 77, bld. 1 Moscow, 115035, Russia Tel: +7 (495) 705 9700 +7 (495) 755 9700 Fax: +7 (495) 755 9701 www.ey.com/ru ООО «Эрнст энд Янг» Россия, 115035, Москва Садовническая наб., 77, стр. 1 Тел.: +7 (495) 705 9700 +7 (495) 755 9700 Факс: +7 (495) 755 9701 ОКПО: 59002327

ОГРН: 1027739707203 ИНН: 7709383532

#### INDEPENDENT AUDITOR'S REPORT

To the Shareholders and Board of Directors of PJSC «FGC UES»

#### **OPINION**

We have audited the financial statements of PJSC «FGC UES» (the Company), which comprise the balance sheet as at 31 December 2018, statement of income for 2018 and appendices thereto.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as at 31 December 2018 and its financial performance and its cash flows for 2018 in accordance with the rules on preparation of financial statements established in the Russian Federation

#### **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 Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the financial 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 those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

#### **KEY AUDIT MATTER**

#### KEY AUDIT MATTER HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER

#### Impairment of account receivables

Impairment of account receivables is one of the most significant matter for our audit due to significant balance of account receivables as at 31 December 2018, as well as due to the fact that management's assessment of recoverability of account receivables is based on assumptions, in particular, on the forecasted ability of the Company's customers to pay.

Information on impairment of accounts receivable is disclosed in paragraph 3.9 of the Appendices to balance sheet and statement of income.

We analyzed the adequacy of the Company's accounting policy with respect to impairment of account receivables, as well as the procedures for confirming the appropriateness of estimates made by the Company's management, including analysis of history of settlements, ageing and overdue receivables and customers' ability to pay.

We performed audit procedures with respect to the information used by the Company to determine the impairment of accounts receivable, the aging structure of accounts receivable, tested the applicable levels of account receivables impairment allowances.

#### OTHER MATTERS

- The financial statements of PJSC «FGC UES» for 2017 were audited by another auditor who expressed an unmodified opinion on those statements on 20 February 2018.
- The financial statements of PJSC «FGC UES» for 2016 were audited by another auditor who expressed an unmodified opinion on those statements on 20 February 2017.

#### OTHER INFORMATION INCLUDED IN ANNUAL REPORT OF PJSC «FGC UES»

Other information consists of the information included in the Annual Report of PJSC «FGC UES» other than the financial statements and our auditor's report thereon. Management is responsible for the other information. The Annual Report of PJSC «FGC UES» is expected to be made available to us after the date of this auditor's report.

Our opinion on the 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 financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

#### RESPONSIBILITIES OF MANAGEMENT AND AUDIT COMMITTEE OF BOARD OF DIRECTORS FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the rules on preparation of financial statements established in the Russian Federation, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company'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 Company or to cease operations, or has no realistic alternative but to do so.

The Audit Committee of Board of Directors are responsible for overseeing the Company's financial reporting process.

#### AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's 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 financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the 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 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 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 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 financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Audit Committee of 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 our audit.

We also provide the Audit Committee of Board of Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to 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 the Audit Committee of Board of Directors, we determine those matters that were of most significance in the audit of the financial 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 report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is — T.L. Okolotina.

T.L. Okolotina Partner Ernst & Young LLC 20 February 2019

#### **DETAILS OF THE AUDITED ENTITY**

Name: PJSC «FGC UES»

Record made in the State Register of Legal Entities on 20 August 2002, State Registration Number 1024701893336. Address: 117630, Russia, Moscow, Academika Chelomeva street, 5A.

#### **DETAILS OF THE AUDITOR**

Name: Ernst & Young LLC

Record made in the State Register of Legal Entities on 5 December 2002, State Registration Number 1027739707203. Address: Russia 115035, Moscow, Sadovnicheskaya naberezhnaya, 77, building 1.

Ernst & Young LLC is a member of Self-regulated organization of auditors "Russian Union of auditors" (Association) ("SRO RUA"). Ernst & Young LLC is included in the control copy of the register of auditors and audit organizations, main registration number 11603050648.



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):
Type of activity: power transmission

Form of 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

	CODES
OKUD Form No. 1	0710001
Date (year, month, day)	2018.12.31
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 _	

Notes	ASSET	Indicator code	As of December 31, 2018	As of December 31, 2017	As of December 31, 2016
	1	2	3	4	5
	I. NON-CURRENT ASSETS				
S.1 of Notes* S.3.2 of Annexes**	Intangible assets	1110	3,741,290	2,673,277	3,326,907
S.1 of Notes* S.3.6 of Annexes**	Research and development results	1120	6,778	82,442	163,047
S.2 of Notes* S.3.3 of Annexes**	Fixed assets, including:	1130	954,319,673	878,328,073	857,440,111
	land plots and natural resources	1131	1,744,010	1,753,458	1,721,968
	buildings, machinery and equipment, structures	1132	949,044,246	873,401,377	852,356,759
	other fixed assets	1133	3,531,417	3,173,238	3,361,384
	Income-bearing investments in tangible assets	1140	_	_	_
S.3 of Notes* S.3.7 of Annexes**	Financial investments	1150	57,702,933	84,064,907	71,824,222
	Deferred tax assets	1160	_	-	_
S.2 of Notes*	Other non-current assets, including:	1170	251,183,633	285,625,335	250,509,851
	equipment for installation	1171	37,726,421	33,460,088	33,328,127
S.3.4 of Annexes**	investments in non-current assets	1172	191,292,474	230,629,349	191,073,182
S.5.1 of Notes* S.3.4 of Annexes**	advances against non-current assets	1173	21,832,613	21,265,668	25,790,087
S.3.11 of Annexes**	other non-current assets	1174	332,125	270,230	318,455
	Section I TOTAL	1100	1,266,954,307	1,250,774,034	1,183,264,138
	II. CURRENT ASSETS	,			
S.4 of Notes* S.3.10 of Annexes**	Inventory, including:	1210	10,937,851	9,749,040	9,108,558
	raw materials, materials and other similar assets	1211	10,937,851	9,749,040	9,108,558
	Value added tax on purchased assets	1220	915,376	650,020	493,970
S.5 of Notes* S.3.9 of Annexes**	Accounts receivable, including:	1230	169,855,975	128,379,075	135,201,277
	Accounts receivable (payments due within 12 months from the reporting date) including:	1231	92,515,178	77,882,865	11,327,562
	customers and consumers	1232	90,683,714	76,393,401	10,485,059
	advance payments made	1233	-	_	_
	other debtors	1234	1,831,464	1,489,464	842,503
	Accounts receivable (payments due within 12 months from the reporting date), including:	1235	77,340,797	50,496,210	123,873,715
	customers and consumers	1236	31,232,620	36,388,248	89,976,088
	amounts owed by members (founders) as payments into the authorized capital	1237	-	_	_
	advance payments made	1238	1,644,465	270,554	515,934
	other debtors	1239	44,463,712	13,837,408	33,381,693
S.3 of Notes* S.3.8 of Annexes**	Financial investments (except cash equivalents)	1240	6,578,091	2,051,190	2,067,318
S.3.19 of Annexes**	Cash and cash equivalents	1250	31,772,829	33,409,107	36,007,838
S.3.11 of Annexes**	Other current assets	1260	48,165	27,568	30,698
	Section II TOTAL	1200	220,108,287	174,266,000	182,909,659
	BALANCE	1600	1,487,062,594	1,425,040,034	1,366,173,797

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.

Notes	LIABILITY	Indicator code	As of December 31, 2018	As of December 31, 2017	As of December 31, 2016
	1	2	3	4	5
	III. EQUITY AND RESERVES				
S.3.1 of Annexes**	Authorized 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	301,169,595	285,993,481	258,523,592
S.3.1 of Annexes**	Additional capital (without revaluation)	1350	31,867,163	31,867,163	31,867,163
	Reserve capital	1360	21,610,434	19,492,352	14,188,807
	Undistributed profit (uncovered loss), including:	1370	98,413,848	62,885,484	45,088,345
	Uncovered loss of past years	1371	-	-	_
	Undistributed profit of past years	1372	42,226,913	62,885,484	45,088,345
	Undistributed profit of the reporting year	1373	56,186,935	_	_
	Section III TOTAL	1300	1,090,393,702	1,037,571,142	987,000,569
	IV. LONG-TERM LIABILITIES				
S.3.12 of Annexes**	Borrowings and loans	1410	224,463,734	233,862,457	236,653,463
	Deferred tax liabilities	1420	60,827,426	55,006,638	49,658,250
	Estimated liabilities	1430	_	_	_
	Other liabilities	1450	17,708,107	17,242,803	512,667
	Section IV TOTAL	1400	302,999,267	306,111,898	286,824,380
	V. SHORT-TERM LIABILITIES				
	Borrowings and loans	1510	22,245,391	23,687,193	29,195,354
S.5.3 of Notes* S.3.13 of Annexes**	Accounts payable, including:	1520	68,223,409	54,484,828	60,031,744
	suppliers and contractors	1521	39,300,899	30,383,436	31,047,890
	payables to employers	1522	18,516	19,407	21,370
	payables to state non-budgetary funds	1523	660,238	533,822	555
	taxes and fees payable	1524	11,041,882	7,278,959	16,731,083
	advances received	1525	13,208,422	12,501,008	8,171,878
	other creditors	1526	3,778,992	3,621,211	3,984,504
	payables to members (founders)	1527	214,460	146,985	74,464
	Deferred income	1530	643,517	668,204	694,921
S.7 of Notes*	Estimated liabilities	1540	2,557,308	2,516,769	2,426,829
	Other liabilities	1550	_	_	_
	Section V TOTAL	1500	93,669,625	81,356,994	92,348,848
	BALANCE	1700	1,487,062,594	1,425,040,034	1,366,173,797

<sup>\*</sup> Notes to the Balance Sheet and the Profit and Loss Statement for 2018.

\*\* Annexes to the annual 2018 Financial Statements.

Executive

A.E. Muro

20 February 2019

Chief Accountant

oedo /

A.P. Noskov

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.

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### **STATEMENT OF FINANCIAL RESULTS** for 2018

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): Type of activity: power transmission Form of 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. 1	0710001
Date (year, month, day)	2018.12.31
as per OKPO	56947007
INN	4716016979
as per OKVED	35.12
as per OKOPF/OKFS	47/41
as per OKEI	384

Notes	Indicator Description	Code	For the reporting period	For the same period of the previous year
	1	2	3	4
	Income and expenses for common activities			
	Revenue from sale of goods, products and services (net of VAT, excise duties and other similar mandatory payments), including:	2110	240,294,489	215,999,310
	electric power transmission services	2111	213,619,982	192,560,137
	connection services	2112	24,300,051	21,411,649
	other activity	2119	2,374,456	2,027,524
S.6 of Notes*	Production cost of goods, products and services sold, including:	2120	(170,825,202)	(152,383,316)
	electric power transmission services	2121	(169,263,087)	(151,051,798)
	connection services	2122	(104,667)	(97,474)
	other activity	2129	(1,457,448)	(1,234,044)
	Gross profit (2110 + 2120)	2100	69,469,287	(63,615,994)
	Commercial expenses	2210	-	_
S.6 of Notes*	Administrative expenses	2220	(8,490,827)	(8,253,906)
	Profit (loss) from sales (2100 + 2210 + 2220)	2200	60,978,460	55,362,088
	Income from participation on other companies	2310	2,452,691	1,912,559
	Interests income	2320	8,108,953	8,613,322
	Interests expenses	2330	(3,978,163)	(3,941,486)
S.3.15 of Annexes**	Other income, including:	2340	25,661,516	23,532,350
	quoted financial asset revaluation surplus	2341	11,839,069	20,622
S.3.15 of Annexes**	Other expenses, including:	2350	(19,815,686)	(24,885,537)
	quoted financial asset revaluation losses	2351	(221,333)	(7,496,003)
	Profit (loss) before tax (2200 +2310 + 2320 + 2330 + 2340 + 2350)	2300	73,407,771	60,593,296
S.3.5 of Annexes**	Current profit tax, including:	2410	(11,394,520)	(12,880,041)
	permanent tax liabilities	2421	2,533,754	6,109,770
S.3.5 of Annexes**	Change in deferred tax liabilities	2430	(5,932,669)	(5,278,564)
S.3.5 of Annexes**	Change in deferred tax assets	2450	111,881	69,824
	Other, including:	2460	(5,528)	(3,227)
	Other similar mandatory payments	2461	(5,528)	(3,227)
	Profit tax adjustment for the previous periods	2462	-	_
	NET PROFIT (LOSS) FOR THE REPORTING PERIOD	2400	56,186,935	42,361,640

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.

Notes	Indicator Description	As of December 2018	As of December 2017
	FOR REFERENCE		
S.3.3 of Annexes**	Result of the fixed assets revaluation, not included in the net profit (loss) for the period	15,518,685	27,816,547
	Gain or loss from other operations not included in the net profit for the period		
	Total financial result for the period	71,705,620	70,178,187
S.3.16 of Annexes**	Basic earnings (loss) per share	0.0441	0.0332
	Diluted earnings (loss) per share		

<sup>\*</sup> Notes to the Balance Sheet and the Profit and Loss Statement for 2018

A.P. Noskov

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20 February 2019

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.

<sup>\*\*</sup> Annexes to the annual 2018 Financial Statements



### STATEMENT OF CHANGES IN EQUITY

for 2018

Organization: Public Joint-Stock Company
"Federal Grid Company of Unified Energy System"
Taxpayer Identification Number (INN):
Type of activity: power transmission
Form of incorporation / form of ownership:
public joint-stock company /
mixed Russian assets with a federal share
Unit of measurement: RUB, in thousands

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
Date (year, month, day)	2018.12.31
as per OKPO	56947007
INN	4716016979
as per OKVED	35.12
as per OKOPF/OKFS	47/41
as per OKEI	384

#### 1. CHANGES IN EQUITY

Indicator Description	Code	Authorized capital	Treasury shares repurchased from shareholders	Additional capital	Reserve capital	Undistributed profits (uncovered loss)	Total
Capital value as of December 31, 2016 <sup>1</sup>	3100	637,332,662	_	290,390,755	14,188,807	45,088,345	987,000,569
For 2017 <sup>2</sup>							
Increase in capital value - total:	3210	_	_	27,816,547	_	42,361,640	70,178,187
including:							
net profit	3211	Х	Х	Х	Х	42,361,640	42,361,640
property revaluation	3212	Х	Х	27,816,547	Х	-	27,816,547
income relating directly to the increase in capital value	3213	х	Х	-	х	-	-
additional issue of shares	3214	-	_	_	Х	Х	_
increase of share denomination	3215	_	_	_	Х	_	Х
reorganization of legal entity	3216	-	_	-	-	_	_
other	3217	_	_	_	_	_	_

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Indicator Description	Code	Authorized capital	Treasury shares repurchased from shareholders	Additional capital	Reserve capital	Undistributed profits (uncovered loss)	Total
Reduction of capital value - total:	3220	_	<del>_</del>	_	_	(19,607,614)	(19,607,614)
including:							
loss	3221	Х	Х	Х	Х	_	_
property revaluation	3222	Х	Х	_	Х	-	-
expenses relating directly to the reduction of capital value	3223	Х	Х	_	х	-	-
decrease of share denomination	3224	_	_	_	Х	_	_
reduction of shares quantity	3225	_	_	_	Х	_	_
reorganization of legal entity	3226	_	_	_	_	_	_
dividends	3227	Х	Х	Х	Х	(19,607,614)	(19,607,614)
Changes in the additional capital	3230	Х	Х	(346,658)	_	346,658	Х
Changes in the reserve capital	3240	Х	Х	Х	5,303,545	(5,303,545)	Х
Capital value as of December 31, 2017 <sup>2</sup>	3200	637,332,662	_	317,860,644	19,492,352	62,885,484	1,037,571,142

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.

Indicator Description	Code	Authorized capital	Treasury shares repurchased from shareholders	Additional capital	Reserve capital	Undistributed profits (uncovered loss)	Total
For 2018 <sup>3</sup>					·		
Increase in capital value - total	3310	_	_	15,518,685	-	56,186,935	71,705,620
including:							
net profit	3311	Х	Х	Х	Х	56,186,935	56,186,935
property revaluation	3312	Х	Х	15,518,685	Х	_	15,518,685
income relating directly to the increase in capital value	3313	Х	Х	_	Х	_	-
additional issue of shares	3314	_	_	_	Х	Х	-
increase of share denomination	3315	_	_	_	Х	_	Х
reorganization of legal entity	3316	_	_	_	_	_	_
Reduction of capital value - total:	3320	-	_	_	_	(18,883,060)	(18,883,060)
including:							
loss	3321	Х	Х	Х	Х	_	_
property revaluation	3322	Х	Х	_	Х	-	-
expenses relating directly to the reduction of capital value	3323	Х	Х	-	Х	-	-
decrease of share denomination	3324	_	_	_	Х	-	-
reduction of shares quantity	3325	_	-	_	Х	_	-
reorganization of legal entity	3326	-	_	_	_	_	-
dividends	3327	Х	Х	Х	Х	(18,883,060)	(18,883,060)
other	3328	-	_	-	_	_	-
Changes in the additional capital	3330	Х	Х	(342,571)	_	342,571	Х
Changes in the reserve capital	3340	Х	Х	Х	2,118,082	(2,118,082)	Х
Capital value as of December 31, 2018 <sup>3</sup>	3300	637,332,662	_	333,036,758	21,610,434	98,413,848	1,090,393,702

#### 2. CORRECTIONS DUE TO CHANGES IN THE ACCOUNTING POLICY AND ERRORS ELIMINATION

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		As of December 31,	Changes in e	quity for 2017 <sup>2</sup>	· As of December 31,	
other capital items subject to corrections:	Code	2016 <sup>1</sup>	due to net profit (loss)	due to other factors		
EQUITY - TOTAL						
before corrections	3400	_	_	_	_	
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 correction	ns:					
before corrections	3402	_	_	_	_	
correction due to:						
changes in the accounting policy	3412	_	_	_	_	
errors elimination	3422	_	_	_	_	
after corrections	3502	_	_			

#### 3. NET ASSETS

Indicator Description	Code	As of December 31, 2018 <sup>3</sup>	As of December 31, 2017 <sup>2</sup>	As of December 31, 2016 <sup>1</sup>
Net assets	3600	1,091,037,219	1,038,239,346	987,695,490

Chief Executive

A.E. Murov

**Chief Accountant** 

A.P. Noskov

20 February 2019

Notes: 1. The year preceding the previous year is indicated. 2. The previous year is indicated. 3. The reporting year is indicated.

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.



Organization: Public Joint-Stock Company "Federal Grid Company of Unified Energy System"

Taxpayer Identification Number (INN): Type of activity: power transmission Form of incorporation / form of ownership: public joint-stock company / mixed Russian assets with a federal share

Unit of measurement: RUB, in thousands

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
Date (year, month, day)	2018.12.31
as per OKPO	56947007
INN	4716016979
as per OKVED	35.12
as per OKOPF/OKFS	47/41
as per OKEI	384

4200

(99,759,473)

(96,308,654)

Indicator	Code	For 2018	For 2017
1	2	3	4
CASH FLOWS FROM CURRENT TRANSACTIONS			
Receipts - total	4110	246,796,788	229,247,960
including:			
from sale of products, goods, work and services	4111	229,506,983	210,773,286
lease payments, license fees, royalties, commission charges and other similar payments	4112	1,314,924	935,257
from resale of financial investments	4113	-	-
other receipts	4119	15,974,881	17,539,417
Payments - total, including:	4120	(119,406,103)	(108,558,349)
to suppliers (contractors) for raw materials, materials, work and services	4121	(57,645,661)	(41,146,101)
remuneration of labor	4122	(17,662,948)	(16,514,357)
debenture interest	4123	(4,441,515)	(4,846,346)
corporate tax	4124	(10,938,031)	(16,877,846)
other payments	4129	(28,717,948)	(29,173,699)
Balance of cash flows from current transactions	4100	127,390,685	120,689,611
CASH FLOWS FROM INVESTMENT TRANSACTIONS			
Receipts - total, including:	4210	19,459,972	20,035,317
from sale of fixed assets (except financial investments)	4211	190,442	164,670
from sale of other companies' shares (participatory interest)	4212	3,708,155	-
from repayment of granted loans, from sale of debt securities (claims for cash against third parties)	4213	12,479,129	17,107,160
dividends, interest on debt financial investments and other similar income from participatory interest in other companies	4214	3,082,246	2,763,487
other receipts	4219	-	-
Payments - total, including:	4220	(119,219,445)	(116,343,971)
payments associated with the acquisition, establishment, upgrading, reconstruction and preparation for the use of fixed assets	4221	(91,302,730)	(86,148,749)
from purchase of other companies' shares (participatory interest)	4222	(504,276)	(816,831)
from purchase of debt securities (claims for cash against third parties), granting loans to third parties	4223	(17,141,868)	(16,091,032)
debenture interest included in the investment asset value	4224	(10,270,464)	(13,287,354)
other payments	4229	(107)	(5)

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.

Indicator	Code	For 2018	For 2017
1	2	3	4
CASH FLOWS FROM FINANCIAL TRANSACTIONS			
Receipts - total, including:	4310	10,039,700	16,020,390
obtaining of credits and loans	4311	40,950	22,050
monetary contributions of owners (members)	4312	-	_
from issue of shares, participatory interest increase	4313	-	-
from issue of bonds, promissory notes and other debt securities	4314	9,998,750	15,998,000
other receipts	4319	-	340
Payments - total, including:	4320	(39,307,190)	(43,000,078)
to owners (members) due to repurchase of shares (participatory interest) of their organization or their cessation of membership	4321	-	-
for payment of dividends and other distribution payments profit to owners (members)	4322	(18,884,671)	(19,607,954)
due to the payment of promissory notes and other debt securities, repayment of credits and loans	4323	(20,422,519)	(23,392,124)
other payments	4329	-	-
Cash flow balance from financial operations	4300	(29,267,490)	(26,979,688)
Cash flow balance for the reporting period	4400	(1,636,278)	(2,598,731)
Cash and cash equivalents balance as of the beginning of the reporting year	4450	33,409,107	36,007,838
Cash and cash equivalents balance as of the end of the reporting year	4500	31,772,829	33,409,107
Influence of foreign currency change versus RUB	4490		

20 February 2019

A.P. Noskov

For full version of annual accounting statements of Federal Grid Company for 2018 see Appendix 13.

Balance of cash flows from investment transactions

## MAIN FORMS OF FINANCIAL STATEMENTS OF PJSC FGC UES FOR 2018 AS PER IFRS

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Ernst & Young LLC Sadovnicheskaya Nab., 77, bld. 1 Moscow, 115035, Russia Tel: +7 (495) 705 9700 +7 (495) 755 9700 Fax: +7 (495) 755 9701 ООО «Эрнст энд Янг» Россия, 115035, Москва Садовническая наб., 77, стр. 1 Тел.: +7 (495) 705 9700 +7 (495) 755 9700 Факс: +7 (495) 755 9701 ОКПО: 59002327 ОГРН: 1027739707203

ИНН: 7709383532

#### INDEPENDENT AUDITOR'S REPORT

To Shareholders and Board of Directors of Public Joint-Stock Company "Federal Grid Company of Unified Energy System"

#### **OPINION**

We have audited the consolidated financial statements of Public Joint-Stock Company "Federal Grid Company of Unified Energy System" (PJSC "FGC UES") and its subsidiaries

(the Group), which comprise the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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 2018 and its consolidated financial performance and its consolidated cash flows for 2018 in accordance with International Financial Reporting Standards (IFRSs).

#### **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 Auditor's responsibilities for the audit of the consolidated financial statements section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the consolidated financial 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 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. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

#### **KEY AUDIT MATTER**

#### HOW OUR AUDIT ADDRESSED THE MATTER

#### Allowance for expected credit losses on trade receivables

The matter of creating allowance for expected credit losses on trade receivables is one of the most significant matters for our audit due to the material balances of trade receivables as of 31 December 2018, as well as due to the fact that management's assessment of the possible recoverability of these receivables is based on assumptions, in particular, on the projected solvency of the Group's customers.

Information on allowance for expected credit losses on trade receivables is disclosed in Notes 10, 13 and 27 to the consolidated financial sta tements.

We analyzed the adequacy of the Group's accounting policy on the trade receivables with respect to the creation of allowance for expected credit losses on trade receivables, as well as procedures to confirm the appropriateness of measurements made by the Group's management, including the analysis of repayment of trade receivables, the analysis of maturity and delayed performance of obligations, and the analysis of customers' solvency.

We performed audit procedures in respect of the information used by the Group to determine the allowance for expected credit losses on trade receivables, the structure of receivables by age and maturity, and tested the correctness of the charged allowance amounts based on management's estimates.

#### Impairment of non-current assets

Due to the existence of the impairment indicators of non-current assets as of 31 December 2018, the Group performed impairment testing. The value-in use of property, plant and equipment, forming a significant share of the Group's non-current assets, as of 31 December 2018, was determined by the projected cash flow method.

The matter of impairment testing of property, plant and equipment was one of the most significant matters for our audit because the property, plant and equipment balance forms a significant part of the Group's assets at the reporting date, and because management's assessment of the value-in use is complex and largely subjective and is based on assumptions, in particular, on the projected electricity transmission volumes, transmission fees, as well as operating and capital expenditures that depend on the expected future market or economic conditions in the Russian Federation.

Information on the results of the impairment analysis of non-current assets is disclosed by the Group in Note 6 to the consolidated financial statements.

As part of our audit procedures, we also assessed the assumptions and methodologies applied by the Group, in particular, those relating to projected total revenue from the electricity transmission, tariff regulations, operating and capital expenditures, long-term growth rate and discount rate. We tested the input data incorporated in the model and the mathematical accuracy of the model used to determine the recoverable amount in the impairment test of fixed assets. We engaged valuation specialists to analyze the model used to determine the recoverable amount in the impairment test of property, plant and equipment. We also analyzed the sensitivity of the model to changes in the main indicators of assessment and the Group's disclosures of assumptions on which the results of impairment testing largely depend.

#### Assessment of retirement and other liabilities to employees

The Group has defined benefit pension plans.

Assessment of retirement and other liabilities to employees is a significant audit matter as management determines carrying values of defined benefit pension plans and the discounted value of respective liabilities on the basis of actuarial valuation that includes certain assumptions, and the amount of liabilities under defined benefit pension plans at the reporting date is highly sensitive to changes in those assumptions. Such assumptions include, but are not limited to, mortality, both during and after employment. rates of employee turnover, discount rate, future salary and benefit levels as well as the expected return on plan asset.

Information on pension liabilities is disclosed in Note 18 to the consolidated financial statements.

In the course of our audit procedures we also analyzed the applied assumptions, made sample testing of the Group's employee data used for actuarial calculations, as well as performed analytical procedures in respect of the carrying value of liabilities under the defined benefit pension plans and their changes during the period. We engaged the professional actuaries to provide assistance with these audit procedures. We also reviewed the respective disclosures in the consolidated financial statements.

#### **OTHER MATTERS**

The financial statements of the PJSC "FGC UES" and its subsidiaries for 2017 were audited by another auditor who expressed an unmodified opinion on those statements on 23 March 2018.

The financial statements of the PJSC "FGC UES" and its subsidiaries for 2016 were audited by another auditor who expressed an unmodified opinion on those statements on 21 March 2017.

#### OTHER INFORMATION INCLUDED IN THE COMPANY'S ANNUAL REPORT

Other information consists of the information included in the Annual Report other than the consolidated financial statements and our auditor's report thereon. Management is responsible for the other information. The Annual Report is expected to be made available to us after the date of this auditor's 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 AUDIT COMMITTEE OF THE BOARD OF DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, 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. Audit Committee of the Board of Directors are responsible for overseeing the Group's financial reporting process.

#### AUDITOR'S 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 auditor's 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 skepticism 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 auditor's report to the related disclosures in the 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 auditor's 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 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 our audit.

We also provide Audit Committee of the Board of Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to 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 Audit Committee of the Board of Directors, 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 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 report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is – T.L Okolotina

T.L. Okolotina
Partner Ernst & Young LLC
15 March 2019

#### **DETAILS OF THE AUDITED ENTITY**

Name: PJSC «FGC UES»

Record made in the State Register of Legal Entities on 20 August 2002, State Registration Number 1024701893336. Address: 117630, Russia, Moscow, Academika Chelomeya street, 5A.

#### **DETAILS OF THE AUDITOR**

Record made in the State Register of Legal Entities on 5 December 2002, State Registration Number 1027739707203.

Address: Russia 115035, Moscow, Sadovnicheskaya naberezhnaya, 77, building 1.

Ernst & Young LLC is a member of Self-regulated organization of auditors "Russian Union of auditors" (Association) ("SRO RUA"). Ernst & Young LLC is included in the control copy of the register of auditors and audit organizations, main registration number 11603050648.



PJSC "FGC UES"

#### **CONSOLIDATED STATEMENT OF FINANC IAL POSITION**

(in millions of Russian Rouble unless otherwise stated)

	Notes	31 December 2018	31 December 2017	1 January 2017
			(restated*)	(restated*)
ASSETS				
Non-current assets				
Property, plant and equipment	6	937,277	879,293	809,645
Intangible assets	7	6,638	6,303	7,320
Investments in associates and joint ventures	8	1,442	1,136	1,160
Financial investments	9	37,956	67,403	76,537
Deferred income tax assets	16	207	55	14
Long-term accounts receivable	10	72,699	69,350	45,145
Other non-current assets		1,306	960	1,853
Total non-current assets		1,057,525	1,024,500	941,674
Current assets				
Cash and cash equivalents	11	37,618	42,535	44,404
Bank deposits	12	3,811	_	450
Accounts receivable and prepayments	13	71,417	45,437	58,187
Income tax prepayments		56	211	305
Inventories	14	17,037	15,907	14,900
Other current assets		111	111	140
		130,050	104,201	118,386
Assets held for sale	30	21,467	-	-
Total current assets		151,517	104,201	118,386
TOTAL ASSETS		1,209,042	1,128,701	1,060,060
EQUITY AND LIABILITIES				
Equity				
Share capital: Ordinary shares	15	637,333	637,333	637,333
Treasury shares	15	(4,719)	(4,719)	(4,719)
Share premium		10,501	10,501	10,501
Reserves	15	25,167	40,482	49,093
Retained earnings		170,699	74,152	6,829
Equity attributable to shareholders of FCC		838,981	757,749	699,037
Non-controlling interest		181	(603)	(837)
Total equity		839,162	757,146	698,200
Non-current liabilities				
Deferred income tax liabilities	16	29,586	25,528	18,600
Non-current debt	17	224,585	233,862	236,954
Long-term accounts payable	20	15,001	14,864	_
Government grants		867	966	919
Retirement benefit				
obligations	18	5,950	7,617	5,959
Total non-current liabilities		275,989	282,837	262,432
Current liabilities				
Accounts payable to shareholders of FGC UES		213	146	73
Current debt and current portion				
of non-current debt	17, 19	22,224	23,988	29,660
Accounts payable and accrued charges	20	67,608	60,925	62,059
Income tax payable		3,846	3,659	7,636
Total current liabilities		93,891	88,718	99,428
Total liabilities		369,880	371,555	361,860
TOTAL EQUITY AND LIABILITIES		1,209,042	1,128,701	1,060,060

<sup>\*</sup> The amounts shown here do not correspond to the 2017 consolidated financial statements and reflect change in accounting policy for measuring property, plant and equipment (for details see Note 3).

Authorised for issue and signed on behalf of the Management Board: 15 March 2019

Chairman of the Management Board

Head of Accounting and Financial Reporting - Chief Accountant

The accompanying notes are an integral part of these Consolidated Financial Statements For full version of consolidated financial statements of FGC UES Group for 2018 see Appendix 14 A.P. Noskov



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 2018	Year ended 31 December 2017
			(restated*)
Revenues	21	253,979	242,186
Other operating income	21	6,474	6,405
Operating expenses	22	(155,844)	(135,505)
Loss on derecognition of subsidiary		-	(52)
Reversal of impairment/(impairment)	6	2,248	(11,121)
of property, plant and equipment, net	- U	·	
Operating profit		106,857	101,913
Finance income	23	12,981	12,587
Finance costs	24	(4,862)	(4,501)
Share of profit of associates and joint ventures	8	125	28
Profit before income tax		115,101	110,027
Income tax expense	16	(22,256)	(22,210)
Profit for the year		92,845	87,817
Other comprehensive income/(loss)			
Items that will not be reclassified subsequently to profit or loss			
Change in fair value of financial investments	9	1,613	-
Remeasurements of retirement benefit obligations	18	(134)	(1,395)
Income tax relating to items that will not be reclassified	16	6,717	145
Total items that will not be reclassified to profit or loss		8,196	(1,250)
Items that are or may be reclassified subsequently to profit or loss		·	( , , ,
Change in fair value of financial investments	9	-	(9,134)
Foreign currency translation difference	8	181	(53)
Income tax relating to items that may be reclassified	16	-	1,826
Total items that are or may be reclassified to profit or loss		181	(7,361)
Other comprehensive income/(loss)			4
for the period, net of income tax		8,377	(8,611)
Total comprehensive income for the year		101,222	79,206
Profit attributable to:			
Shareholders of FGC UES	25	92,809	87,744
Non-controlling interests		36	73
Total comprehensive income attributable to:			
Shareholders of FGC UES		101,186	79,133
Non-controlling interests		36	73
Earnings per ordinary share for profit attributable to shareholders	0.5	0.071	0.070
of FGC UES – basic and diluted (in Russian Rouble)	25	0.074	0.070

<sup>\*</sup> The amounts shown here do not correspond to the 2017 consolidated financial statements and reflect change in accounting policy for measuring property, plant and equipment (for details see Note 3).

The accompanying notes are an integral part of these Consolidated Financial Statements For full version of consolidated financial statements of FGC UES Group for 2018 see Appendix 14.



PJSC "FGC UES"

## CONSOLIDATED STATEMENT OF CASH FLOWS

(in millions of Russian Rouble unless otherwise stated)

	Notes	Year ended 31 December 2018	Year ended 31 December 2017 (restated*)
CASH FLOWS FROM OPERATING ACTIVITIES:			
Profit before income tax		115,101	110,027
Adjustments to reconcile profit before income tax to net cash provided by operations			
Depreciation of property, plant and equipment	22	32,346	28,428
(Gain)/loss on disposal of property, plant and equipment	22	(310)	1,093
Amortisation of intangible assets	22	1,154	1,220
(Reversal of impairment)/Impairment of property, plant and equipment, net	6	(2,248)	11,121
Loss on derecognition of subsidiary		-	52
Share of result of associates	8	(125)	(28)
Accrual/(reversal) of allowance for expected credit losses	22	4,634	(3,813)
Reversal of other provision for liabilities and charges	20	(778)	(1,320)
Finance income	23	(12,981)	(12,587)
Finance costs	24	4,862	4,501
Other non-cash operating income		(2)	(241)
Operating cash flows before working capital changes and income tax paid		141,653	138,453
Working capital changes:		·	·
Increase in accounts receivable and prepayments		(7,458)	(3,959
Increase in inventories		(1,130)	(1,007)
Decrease in other current assets		265	719
Increase in accounts payable and accrued charges		2,093	3,796
Income tax paid		(11,286)	(17,235)
Net cash generated by operating activities		124,137	120,767
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property, plant and equipment		(88,941)	(86,970)
Proceeds from disposal of property, plant and equipment		1,029	1,446
Purchase of intangible assets		(2,049)	(1,011)
Redemption of promissory notes		10	10
Placement of bank deposits		(24,134)	(9,566)
Redemption of bank deposits		20,323	10,016
Dividends received		2,251	2,579
Loans given		(53)	(1)
Repayment of loans given		23	1,002
Proceeds from sale of financial investments		3,708	_
Interest received		3,194	5,959
Net cash used in investing activities		(84,639)	(76,536)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from current and non-current borrowings	17	10,054	16,074
Repayment of current and non-current borrowings	17	(20,436)	(23,795)
Repayment of lease	17	(115)	(149)
Dividends paid	15	(18,702)	(19,354)
Interest paid		(14,712)	(18,164)
Acquisition of non-controlling interests		(504)	(817)
Government grants		-	105
Net cash used in financing activities		(44,415)	(46,100)
Net decrease in cash and cash equivalents		(4,917)	(1,869)
Cash and cash equivalents at the beginning of the period	11	42,535	44,404
Cash and cash equivalents at the end of the period	11	37,618	42,535

<sup>\*\*</sup>The amounts shown here do not correspond to the 2017 consolidated financial statements and reflect change in accounting policy for measuring property, plant and equipment (for details see Note 3).

The accompanying notes are an integral part of these Consolidated Financial Statements For full version of consolidated financial statements of FGC UES Group for 2018 see Appendix 14.



### **CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

(in millions of Russian Rouble unless otherwise stated)

	Attributable to shareholders of FGC UES								
	Notes	Share capital	Share premium	Treasury shares	Reserves	(Accumulate d deficit)/ Retained earnings	Total	Non- controlling interest	Total equity
As at 1 January 2018, as previously reported		637,333	10,501	(4,719)	302,099	(144,118)	801,096	672	801,768
Effect of changes in accounting policies	3	-	-	-	(261,617)	218,270	(43,347)	(1,275)	(44,622)
As at 1 January 2018 (restated*)		637,333	10,501	(4,719)	40,482	74,152	757,749	(603)	757,146
Total comprehensive inco	me for the	year							
Profit for the year		_	-	-	-	92,809	92,809	36	92,845
Other comprehensive inco	me/(loss),	net of relate	ed income tax						
Change in fair value of financial investments, net of tax	9, 15	_	_	_	8,458	-	8,458	_	8,458
Remeasurements of retirement benefit obligations, net of tax	15, 18	_	_	-	(262)	_	(262)	_	(262)
Foreign currency translation difference	8, 15	_	_	-	181	-	181	-	181
Total other comprehensive income		-	-	-	8,377	-	8,377	-	8,377
Total comprehensive income for the year		-	-	-	8,377	92,809	101,186	36	101,222
Transfer of accumulated revaluation reserve at disposal of financial investments	9	-	_		(23,692)	23,692	_	_	-
Dividends declared		-	-	_	-	(18,702)	(18,702)	-	(18,702)
Acquisition of non- controlling interests		-	-	-,	-	(1,252)	(1,252)	748	(504)
As at 31 December 2018		637,333	10,501	(4,719)	25,167	170,699	838,981	181	839,162

<sup>\*</sup>The amounts shown here do not correspond to the 2017 consolidated financial statements and reflect change

in accounting policy for measuring property, plant and equipment (for details see Note 3).



PJSC "FGC UES"

### **CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

(in millions of Russian Rouble unless otherwise stated)

	Attributable to shareholders of FGC UES								
	Notes	Share capital	Share premium	Treasury shares	Reserves	(Accumu- lated deficit)/ Retained earnings	Total	Non- controlling interest	Total equity
As at 1 January 2017, as previously reported	,	637,333	10,501	(4,719)	281,759	(198,273)	726,601	1,816	728,417
Effect of changes in accounting policies	3	-	-	-	(232,666)	205,102	(27,564)	(2,653)	(30,217)
As at 1 January 2017 (restated*)		637,333	10,501	(4,719)	49,093	6,829	699,037	(837)	698,200
Total comprehensive inco	me for the	year							
Profit for the year		-	-	-	-	87,744	87,744	73	87,817
Other comprehensive inco net of related income tax	me/(loss),								
Change in fair value of financial investments, net of tax	9, 15	_	_	_	(7,308)	_	(7,308)	_	(7,308)
Remeasurements of retirement benefit obligations, net of tax	15, 18	_	_	_	(1,252)	-	(1,252)	-	(1,252)
Foreign currency translation difference	8, 15	-	-	-	(51)	-	(51)	-	(51)
Total other comprehensive income		-	-	-	(8,611)	-	(8,611)	-	(8,611)
Total comprehensive income for the year		-	-	-	(8,611)	87,744	79,133	73	79,206
Dividends declared		-	-	-	-	(19,424)	(19,424)	(3)	(19,427)
acquisition of non- controlling interests		-	-	-	-	(997)	(997)	180	(817)
Loss on derecognition of subsidiary		-	-	-	-	-	-	(16)	(16)
As at 31 December 2017 (restated*)		637,333	10,501	(4,719)	40,482	74,152	757,749	(603)	757,146

<sup>\*</sup> The amounts shown here do not correspond to the 2017 consolidated financial statements and reflect change in accounting policy for measuring property, plant and equipment (for details see Note 3)

The accompanying notes are an integral part of these Consolidated Financial Statements For full version of consolidated financial statements of FGC UES Group for 2018 see Appendix 14.



ADDITIONAL INFORMATION

INFORMATION

### **INFORMATION ON THE REPORT**



#### GRI 101

Reporting cycle	Annual, for the period from 1 January 2018 through 31 December 2018 GRI 102-50, 102-52						
Report Format	Integrated Annual Report of PJSC FGC UES						
	GRI Sustainability Reporting Standards GRI 102-54						
International Reporting Standards	Core option, Compliance Table, see section Compliance with GRI Standards						
	Industry Application GRI G4 for the electric power industry, The Electric Utilities Sector Disclosures International Integrated Reporting Standard, The International <ir> Framework</ir>						
	See the Compliance Table in section Compliance with GRI Standards						
	Stakeholder Engagement Standard, AA1000 Stakeholder Engagement Standard (2015)						
Russian Reporting Standards	Regulation No. 454-P on disclosure of information by issuers of securities approved by the Central Bank of the Russian Federation, dated 30 December 2014  Corporate Governance Code recommended by the Bank of Russia (Letter No. 06-52/2463 dated 10 April 2014)  Resolution No. 1214 of the Government of the Russian Federation, dated 31 December 2012 on improvement of the Procedure of Management of Open Joint Stock Companies whose Shares are in Federal Ownership, and Federal State Unitary Enterprises						
Date of previous report publication	July 2018 <b>GRI 102-51</b>						
Scope of Report	PJSC FGC UES, including all branches (MPS and EMPS)  Production indicators and indicators in the field of financial and economic activity of PJSC FGC UES, stated in the Report, are presented on the basis of indicators of accounting statements of PJSC FGC UES, prepared in accordance with Russian Accounting Standards. Individual financial and economic indicators are presented in accordance with the consolidated financial statements as per IFRS and are followed by relevant notes.  As compared to the previous year, no indicators were restated. GRI 102-48						
	The reporting information is confirmed by the conclusions of:  Independent audit organisation ERNST & YOUNG LLC, confirming the reliability of the accounting (financial) statements as per RAS and the reliability of the consolidated financial statements as per IFRS						
	Auditors' report on the financial statements for 2018 is stated in section Financial Statements						
	Independent auditor's report is given in section Financial Statements						
Verification of reporting information	independent auditing firm Nexia Pacioli LLC, confirming the reliability of non-financial information and compliance of the Report with the main application variant of GRI SRS Standards and the International Integrated Reporting Standard GRI 102-56						
	The Independent auditor's report is given in section Additional Information						
	representatives of the main stakeholders in the course of the public Report endorsement procedure						
	The Conclusion on the public Report endorsement is given in section Additional information						

#### REPORT PREPARATION PROCESS

The purpose of the Report preparation is to inform interested parties about the Company's activities: strategy and mission, social responsibility policy and sustainability of business development, key events and results of activities, impact on the economy, society, environment, and on interaction with stakeholders.

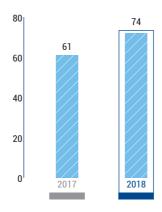
The Report is prepared in accordance with the principles of determining the content of the report and with the reporting information quality principles GRI SRS.

#### GRI 102-46

#### **MATERIALITY DETERMINATION PROCESS**

While preparing this Report, the Company, together with representatives of the groups of main stakeholders, identified material topics for disclosure in the Report. Representatives of the groups of main stakeholders (23 respondents representing external stakeholders and 51 respondents representing internal stakeholders) were questioned. Based on the results of the survey, a materiality matrix was formed.

#### Respondent reach when preparing the Report



Respondents assessed the material topics by two parameters:

- impact of the topic on assessments and decision making by the stakeholders,
- impact of the Company on the economy, environment and social sphere (within the scope of the topic).

Based on the results of the survey, a materiality matrix was formed. According to the GRI SRS Standards, any topic is material if it is highly assessed for at least one parameter. On this principle, the topics are divided into three groups according to the degree of materiality:

- Group I material topics with more than 2 points for at least one parameter;
- Group II less material topics with 1.5 to 2 points for at least one parameter;
- Group III immaterial topics with less than 1.5 points for both parameters.

Scope of topics: PJSC FGC UES, including all branches (MPS and EMPS). GRI 103-1

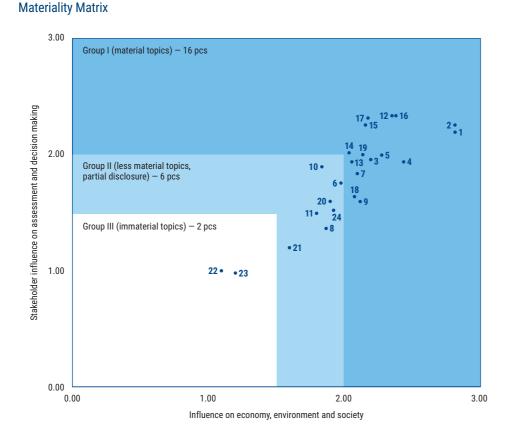
No significant changes in the scope and coverage of disclosed topics compared to previous reports. GRI 102-49

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ADDITIONAL INFORMATION

INFORMATION ON THE REPORT

GRI 102-47



#### Material topics of the Report

Olou	P'
1	Implementation of infrastructure projects, development of the Unified National Electric Grid
2	Reliability and quality of electric power supplied to consumers
3	Tariff setting
4	Efficiency of infrastructure operation
5	Efficiency of investment activities (capital construction)
7	Implementation of digital technologies and solutions
9	Investment attractiveness
12	Improving economic efficiency and financial sustainability
13	Managing procurement activities and combating unfair competition
14	Corruption management
15	Ensuring decent working conditions and respect for employees' rights
16	Occupational health and safety at work
17	Personnel development
18	Impact on socio-economic development of the regions in which the Company is present
19	Compliance with the requirements of legislation and regulatory bodies in the social and economic sphere

#### Group II

- 6 Innovative activities, scientific and technical development
- 8 Import substitution
- 10 Information transparency
- 11 International cooperation
- 20 Energy efficiency and internal power consumption
- 21 Biological diversity preservation, including preservation of natural habitat along power transmission lines
- 24 Compliance with the requirements of legislation and regulatory bodies in the area of environmental protection

#### Group III

- 22 Emissions of air pollutants
- 23 Discharges and waste generated as a result of the Company's activities

As part of preparation of the Report 18 April 2019, public hearings were held on the draft report, which were attended by representatives of the groups of main stakeholders. Requests and recommendations made at the hearings have been regarded, to the extent possible, in the process of preparation of this Report (see section Interaction with Stakeholders during the Preparation of the Report). Requests of stakeholders received during the previous reporting campaign, and reviews of the previous report received within the framework of Russian and international competitions of annual reports, have been also regarded in the process of preparing this Report.



Refer to section Compliance with GRI Standards for information on correlation between material topics and GRI SRS topics.

GRI 102-32

#### RESPONSIBILITY FOR REPORT PREPARATION

The Report is approved by resolutions of the Board of Directors (tentatively) and the Annual General Meeting of Shareholders of PJSC FGC UES.

Group I

ADDITIONAL INFORMATION

AUDITOR'S REPORT ON NON-FINANCIAL STATEMENTS

#### **DISCLAIMER**

This Integrated Annual Report (hereinafter, the Report) is drawn up with the use of information available to PJSC FGC UES at the time of its preparation. The Company trusts that the information provided in the Report is complete and accurate at the time of publication of the Report, however does not claim that it cannot be further specified or revised.

This Report contains forecasting statements reflecting expectations of the Company's management team. Due to various objective factors, actual performance results may differ from the above forecasts and assessments.

The Annual Report contains certain statements regarding forecasting the business operations, economic indicators and financial standing of the Company, its business plans, projects, and expected results. Also, the Report may contain estimates of trends in terms of changes in prices of services/products, volumes of production and consumption, costs, estimated expenses, development prospects and other similar factors, as well as forecasts regarding development of the industry and markets, and timelines of commencement and termination of individual projects within the Company's operations.

Such terms as "assume", "expect", "forecast", "intend", "seek", "estimate", "plan", "deem", "consider", "could be", "will", along with

other resembling or similar expressions, as well as those used with negation, usually reflect the forecasting nature of any statement. Forecasting statements, in virtue of their specific character, involve inherent risk and uncertainty of both general and individual nature, and there is a risk that such assumptions, forecasts, projects and other forecasting statements will not be implemented. In view of the above risks, uncertainties and assumptions, the Company forewarns that the actual results may substantially differ from the indicators expressed or implied in such forecasting statements, being valid only at the date of the Report preparation.

The Company neither represents nor warrants that the performance results, as reflected in the forecasting statements, will be achieved. The Company shall not be liable for any losses or damage which may be incurred by any individuals or legal entities acting on the basis of such forecasting statements. Such forecasting statements represent, in each specific case, only one of multiple possible case scenarios and shall not be deemed to be the most likely scenario.

Except as expressly provided by law, the Company assumes no obligation to publish updates and changes to its forecasting statements based on any new information and subsequent events.

## AUDITOR'S REPORT ON NON-FINANCIAL STATEMENTS



Nexia Pacioli Limiting Liability Company (Nexia Pacioli LLC)

TIN 7729142599 KPP 770601001 OGRN 1027739428716 Phone: +7 (495) 640-6452 E-mail: pacioli@pacioli.ru, http://www.pacioli.ru 2 Malaya Polyanka st., Moscow 119180, Russia



## STATEMENT ON RESULTS OF INDEPENDENT ASSURANCE OF THE PJSC FGC UES INTEGRATED ANNUAL REPORT 2018

#### ADDRESSEES OF THE STATEMENT

The Statement is addressed to the PJSC FGC UES management.

#### SUBJECT MATTER OF THE ASSURANCE

- (1) Information included in the PJSC FGC UES Integrated Annual Report 2018.
- (2) The process of stakeholder engagement during preparation of the Integrated Annual Report 2018.

#### CRITERIA

- (1) Information included in the PJSC FGC UES Integrated Annual Report 2018:
- requirements of the Russian Law to the content of annual reports of joint stock companies regarding information disclosure;
- requirements of the local integrated reporting regulations;
- recommendations of the AA1000 AccountAbility Principles Standard (AA1000APS) 2008 regarding the PJSC FGC UES compliance with the principles of inclusiveness, materiality and responsiveness;

- requirements of the GRI Standards (Core Option);
- requirements of the International Integrated Reporting Standards.
- (2) The stakeholder engagement process during preparation of the Integrated Annual Report for 2018:
- recommendations of the AA1000 Stakeholder Engagement Standard (AA1000SES) 2015.

#### **RESPONSIBILITY OF THE PARTIES**

The PJSC FGC UES management is responsible for preparation and presentation of the Integrated Annual Report 2018, stakeholder engagement and implementation of all related procedures and requirements, including the requirements to the internal control system.

Nexia Pacioli LLC is accountable only to the PJSC FGC UES for the results of assurance of the Integrated Annual Report 2018 within the agreed terms of reference and assumes no responsibility to any third parties.

**ADDITIONAL INFORMATION** 

#### STANDARDS AND ASSURANCE LEVEL

Reviews of Historical Financial Information" (ISAE 3000) to Type 2 as per AA1000AS (2008).

The assurance was conducted in accordance with and AA1000AS (2008). The assurance corresponds the International Standard on Assurance Engagements to the level "limited" as per ISAE 3000 (2013) and "moderate" 3000 "Assurance. Engagements Other than Audits or as per AA1000AS (2008). The assurance corresponds

#### **BOUNDARIES**

The assurance was conducted exclusively in respect of the 2018 data. The assurance was not conducted in respect of forward-looking statements and statements expressing opinions, convictions and intentions.

The in-field audit procedures were limited to visits to the PJSC FGC UES Headquarters.

The assurance was performed exclusively based on the Russian language version of the Integrated Annual

Report 2018 provided in MS Word format and pre-approved by the Management Board of the PJSC FGC UES on

We were unable to verify the fact of the publication of the final version of the Integrated Annual Report 2018 (including all Appendices and Public Assurance Statement) on the corporate website, because the signing of this statement preceded the publication.

#### **METHODOLOGY**

During the work we implemented the following actions:

- randominterviewing of the PJSC FGC UES top-management representatives, as well as random interviewing of the employees engaged in the preparation of the Integrated Annual Report;
- analysis of the local regulations related to integrated reporting;
- random verification of data used for preparation of the Integrated Annual Report;
- review of the information published on www.fsk-ees.ru about the PJSC FGC UES operations, including sustainability activities;
- random review of the information about the PJSC FGC UES published in the mass media;
- the conformity assessment of the Integrated Annual Report preparation process against local regulations related to reporting;
- the assessment of the PJSC FGC UES's observance of the AA1000APS (2008) principles;

- evaluation of compliance with GRI 101 standard regarding requirements for the principles of determining the content of the report and ensuring its quality;
- the assessment of compliance with GRI 103 standard regarding requirements for disclosure of approaches to management;
- compliance assessment of GRI 102, 201, 204, 205, 206, 302, 304, 305, 306, 307, 401, 403, 404, 413, 419, EU12 419 regarding the requirements for the reporting elements stated in the GRI Content Index, as well as requirements for topics' disclosure related to managerial approaches;
- the assessment of compliance with of the International Integrated Reporting Standards requirements;
- evaluation of information in the Integrated Annual Report against the requirements of the Russian law related to the content of annual reports of joint stock companies.

#### **CONCLUSIONS**

Based on the work done and the evidence received, we detected no facts that would make us believe that the subject of assurance (1) does not correspond in all material aspects to the requirements of the Russian law to the content of annual reports of joint stock companies; requirements of the local reporting regulations; recommendations of AA1000APS (2008) standard regarding observance the principles of inclusiveness,

materiality and responsiveness; requirements of the GRI Standards (Core Option); requirements of the International Integrated Reporting Standards.

Concerning the subject matter of the audit (2), we conclude that the process is implemented using AA1000SES recommendations (2015) to the principles of cooperation, mutual linkage of goals, format and audience of engagement.

#### **IMPORTANT CIRCUMSTANCES**

Without changing our opinion, we draw attention to the existence of inherent limitations of the Statement related to the nature of spot checks. As a result, unscrupulous actions, errors or violations may remain undetected.

#### RECOMMENDATIONS

in relation to the target values as well as to plans.

Increase the degree of disclosure of indicators, which have not fully complied with GRI requirements.

It is reasonable to exercise the disclosure of indicators Given the global scale of the PJSC FGC UES's operations, we recommend considering inclusion of provisions related to support of additional international guidelines on responsible business practices, such as the UN Global Compact, when preparing the next intergraded annual report.

#### STATEMENT OF INDEPENDENCE AND COMPETENCE

Nexia Pacioli LLC is an independent audit and consultancy company that observes requirements of the International Code of Ethics for Professional Auditors and Auditing Companies, as well as the Code of Ethics for Professional Auditors in the Russian Federation, based on the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior, and fulfilling the requirements of the International Quality Control Standard 1 "Quality control in auditing organizations conducting audit and review of financial reporting, as well as performing other tasks that provide confidence and tasks to provide related services". This way, Nexia Pacioli LLC supports the succinct system of quality control, confirmed by the documented policy and procedures regarding meeting the ethical requirements, professional standards and applicable legislation

and norms. Nexia Pacioli LLC is a member of the selfregulating organization of auditors, the "Sodruzhestvo" association, included in the Register of auditors and auditing organizations noted by the self-regulatory organization of auditors on October 28, 2016 under the primary registration number 11606052374. The team of specialists that audited the PJSC FGC UES Integrated Annual Report included competent employees of Nexia Pacioli LLC, who had done a special training in the GRI Standards, standards of the series AA1000, standard ISO 26000:2010, having many years of experience in consultancy on public nonfinancial reporting and assurance as per ISAE 3000. The Head of the Audit has a Uniform Qualification Certificate of the Auditor; there is a specialist in the team who has the existing certificate CSAP of Accountability.



S. I. Romanova **General Director** 23 May 2019 ADDITIONAL INFORMATION PUBLIC CERTIFICATION STATEMENT

## **CONCLUSION ON PUBLIC ENDORSEMENT OF THE INTEGRATED** REPORT

#### INTRODUCTION

provided us with an opportunity to participate and procedure.

PJSC FGC UES' management offered us to assess give comments during the Public Hearings regarding the 2018 Integrated Annual Report (hereinafter, the Draft Report held on 18 April 2019. At the event we the Report) in terms of its completeness and materiality were free to express our opinion on the issues discussed. of information disclosed therein, as well as to assess We hereby confirm our independence and objectivity of the management's response to the recommendations our assessments. We received no compensation from and proposals of stakeholders. To this end, the Company the Company for participating in the public verification

#### REPORT ASSESSMENT PROCEDURE

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 upon results of the Public Hearings (Minutes of the event, including the table of response to the stakeholders' comments), as well as on the comments given by the Company's management and employees in the course of public assurance of the Report.

Our statement is based on a comparative analysis. In the process of public certification of the Report, we did not set the task of verifying the reliability of information. Confirmation of the degree of compliance of the Report with any reporting standards, both Russian and international, was not the goal of this certification as well.

> The results of our work are included into this Public Certification Statement, containing our generally agreed opinions.

#### ASSESSMENT, COMMENTS AND RECOMMENDATIONS

We all agreed on the positive assessment of the Report, i.e. its format and the amount of information contained herein.

We appreciate that the Report is issued by the Company for the seventeenth consecutive year. It is a good example of raising the level of transparency and openness by the Company. The format of integrated annual report used by PJSC FGC UES in preparation of this Report is in line it possible to fully disclose information on the strategy implementation, the Company's production activities, financial and economic results of the year, results in the area of sustainable development and plans for the future.

Application of international standards in the course of issuing the Report is its another unconditional advantage (a series of Global Reporting Initiative (GRI SRS) standards in the area of sustainable development, a series of AA1000 Institute of Social and Ethical Accountability, and the International <IR> Framework).

Our recommendations on improving the quality of public with the best practices of corporate reporting and makes reporting of PJSC FGC UES are reflected in the minutes of Public Hearings (Appendix 1 to the minutes).

#### **MATERIALITY**

The Report includes the Map of Material Topics the material topics we mean those topics contributing determined together with the Company's representatives to actual or potential impacts on stakeholders or making and stakeholders. In our opinion, the Report discloses all material topics presented on the Map.

methodology for determining material topics of activity international standards for the fifth year, which allows to the Company's management. take into account the views of stakeholders. Furthermore, by

influence on assessments and decisions of the stakeholders in respect of the Company.

It should be noted that the Company has been using the The Report's main theme Space for Development is disclosed both on special spreads and throughout for their disclosure in the Report developed on the basis of the Report, including interviews with representatives of

#### **COMPLETENESS AND BALANCE**

In our opinion, all material information is presented in full in the Report. The information is given in a balanced manner: the positive results of the Company's performance are described, as well as the problems the Company faces and addresses. In order to more accurately adhere to the principle of completeness, the Report contains

references to regulatory documents and additional sources of information, including the ones posted on the corporate website. We are not aware of any facts of concealing the material information.

#### INTERACTION WITH STAKEHOLDERS IN THE REPORT PREPARATION

When preparing the Report, the Company demonstrated a high level of readiness to carry on an open dialogue with stakeholders covering different areas of its activities. We note that the Company's management is aware of the constructiveness and prospects for interaction with stakeholders.

The Company recorded all the recommendations of the stakeholders in the minutes of the Public Hearings, carried out a thorough analysis, took them into account when preparing the final version of the Report, and also took over the commitments for future reporting periods.

We also would like to note that our proposals on the future

reports, spoken out during the discussion of the 2017 integrated annual report, were considered in the development of the 2018 Report.

We believe that the Company will continue to consistently implement the principles of responsible corporate behaviour in its activities by improving the quality of annual reports and interaction with stakeholders.

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#### Signatures of certifying parties

Full name	Position S	ignature
Irina ESIPOVA	General Director of the FEC Communication Development Centre	21-
Elena ZUBAKINA	Development Director of the Russian Bird Protection Association	med
Aleksandr MAKHROV	Deputy Chairman of the sub-committee for energy sector of the Russian Union of Industrialists and Enterpreneurs	H
Aleksey MOSKALEV	Discipline Head of the Vice President establishement for the energy sector of the NLMK Group	#
Nikita REMNEV	Head of the Student Construction Teams Unit of the National Research Institute MPEI	March
Aleksandr CHUDNOV	Researcher of the Departement for Civil Service and Mobilisation Training of the Ministry of Energy of Russia	L
Arkady ZAMOSKOVNY	General Director of the Russian Association of Energy Employers	A
Ilya ANDREEV	Head of the department for social partnership and legal coverage development of the Russian Engineering Association (SoyuzMash)	Meet

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## COMPLIANCE WITH STANDARDS (GRI AND <IR>)



#### GRI 102-55

#### **GRI Content Index**

Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
GRI 101: Principles of Report Preparation	101	Principles of report preparation	Information on the Report		234
	102-1	Name of organisation	Report fly page		2
	102-2	Activities, brands, products, services	About the Company		10
	102-3	Head office location	Contact information		259
	102-4	Geographic reach	Geographic reach		12
	102-5	Type of ownership and form of business organisation	Fly page of the Report		2
GRI 102: General	102-6	Markets targeted by the organisation	Geographic reach Services market for electricity transmission		12 63
Indicators 2016	102-7	Size of the organisation	Geographic reach Financial capital Number and qualification of employees Main forms of financial statements of PJSC FGC UES for 2018 as per IFRS		12 86 114 224
	102-8	Information on employees and other work force	Number and qualification of employees Appendix 1. Human Capital		114
	102-9	Supply chain	Procurement activities		84
	102-10	Significant changes in the organisation and supply chain		No significant changes in the size, structure or ov of the organisation or its chain in the reporting year	supply

Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
	102-11	Application of the precautionary principle		In accordance with the principle, PJSC FGC UE to avoid any assumed of to the environment, every is no proven scientific of that any particular type may cause such damages tage of development of documentation for the facilities construction/of the impact of their oper on the environment is a and design choices are prevent or minimise any negative impact	S seeks damage en if there evidence of activities ge. At the of project power grid renovation, rations assessed, made to
	102-12	External initiatives supported by the organisation	Sustainable development strategy Environmental protection outcomes Prevention of corruption		54 105 201
	102-13	Membership in associations	Appendix 1. International Activities Appendix 7. Information on Participation in Profit and Non-Profit Organisations in 2018		
GRI 102: General Indicators 2016	102-14	Statements of key decision makers in the company	Statement from the Chairman of the Board of Directors Statement from the Chairman of the Management Board		6 8
	102-15	Key impacts, risks and opportunities	Business model Key risks Risk management system Appendix 1. Key Risks		36 59 194
	102-16	Principles, values, standards and norms of conduct	Human resources management General information on the Company's corporate governance		113 151
	102-18	Management structure	General information on the Company's corporate governance		151
	102-22	Members of the supreme management body and its committees	Members of the Board of Directors Committees of the Board of Directors		158 172, 174, 175
	102-23	Chairman of the supreme management body	Members of the Board of Directors		162
	102-24	Procedure for nomination and selection of candidates to be members of the supreme corporate management body and its committees	Members of the Board of Directors		158

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Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
	102-25	Conflict of interest	Settlement of conflicts of interest		190
	102-26	Role of the supreme management body in setting goals, principles	Sustainable development strategy Report of the Board of Directors of the Company		53 155, 47
		and strategies	Strategy Committee		172
	102-28	Assessment of performance of the supreme corporate management body	Assessment of performance of the Board of Directors		157
	102-30	Risk management process efficiency	Internal control system Appendix 1		193
	102-32	Position of the person officially verifying and approving the organisation's reports and covering all material aspects	Responsibility for the Report preparation		237
	102-35	Policy of remuneration of the supreme management body members and senior executives	General information on the Company's remuneration policy		182
GRI 102:	102-36	Remuneration assessment process	Calculation of remuneration		184
General	102-40	List of stakeholders	Approach to stakeholder engagement		134
indicators 2016	<b>102-41</b>	Percentage of employees covered by collective labour agreements		PJSC FGC UES has no col labour agreements. PJSC is a signatory to the Secto Agreement in the electric industry of the Russian Fe	FGC UES oral Tariff power
	102-42	Principles for identification and selection of stakeholders	Approach to stakeholder engagement		133
	102-43	The organisation's approach to engagement with stakeholders	Approach to stakeholder engagement Participation of stakeholders in shaping the Company's strategy Interaction with stakeholders during the Report preparation		133 143 145
	102-44	Key topics and concerns raised by the stakeholders	Interaction with stakeholders during the Report preparation		144, 145
	102-45	Legal entities whose reports have been included in the consolidated financial statements	Appendix 1. Financial Capital Appendix 14. Consolidated Financial Statements of PJSC FGC UES for 2018 as per IFRS. http://www.fsk-ees.ru/ upload/docs/2018_IFRS_FGC_UES_ wo.pdf		
	102-46	Methods of determining the Report content and the scope of material topics	Report preparation process		235

Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
	102-47	List of material topics	Report preparation process		236
	102-48	Results of all restatements in previous reports and reasons thereof	Improvement of power supply reliability to the regions, Information on the Report		68 234
	102-49	Significant changes in scope and coverage of material topics compared to previous reporting periods	Report preparation process		235
	102-50	Reporting period	Information on the Report		234
GRI 102: General Indicators	102-51	The latest previous report issue date	Information on the Report		234
2016	102-52	Reporting cycle	Information on the Report		234
	102-53	Contact person for questions on the report	Contact persons		260
	102-54	Indication to the GRI application level: basic or advanced	Information on the Report		234
	102-55	GRI Content Index	Compliance with standards (GRI and <ir>)</ir>		244
	102-56	Organisation's policy and practices regarding the external report endorsement assurance	Information on the Report	The external auditor shall be selected through tender procedures	234
GRI 103:	103-1	Discussed topics and scope thereof	Report preparation process		235
Management Approaches	103-2	Management approaches and components thereof	Specified individually for each material topic		
2016	103-3	Assessment of efficiency of management approaches	Specified individually for each material topic		
Group I on the	materialit	y matrix (material topics)			
Improving economic efficiency	103-2	Management approaches and components thereof	Development strategy Financial capital		44, 50, 52 87
and financial sustainability GRI 201: Economic performance results 2016	103-3	Assessment of efficiency of management approaches	Key performance indicators (KPI) Financial capital		58 87
	201-1	Straight economic value, generated and distributed	Appendix 1. Financial Capital		

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Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
Managing procurement	103-2	Management approaches and components thereof	Procurement activities		82
activities and combating unfair	103-3	Assessment of efficiency of management approaches	Procurement activities		82
competition GRI 204: Procurement	204-1	Share of expenses on local suppliers	Procurement activities		83
practices 2016 GRI 206: Anticom- petitive behaviour 2016	206-1	Total number of instances of legal proceedings brought against the organisation in relation to anti-competition and anti- trust infringements, and results thereof	Procurement activities		84
	103-2	Management approaches and components thereof	Corruption prevention Appendix 1. Anti-Corruption Activities		201
Corruption management	103-3	Assessment of efficiency of management approaches	Anti-corruption activities		202
GRI 205: Corruption management 2016	205-1	Total number and percentage of subdivisions subject to corruption risk assessments and material risks identified	Anti-corruption activities		202
	205-3	Confirmed cases of corruption and response actions taken	Anti-corruption activities		202
Ensuring	103-2	Management approaches and components thereof	Personnel management Number and qualification of employees		113 114
decent working conditions	103-3	Assessment of efficiency of management approaches	Personnel policy results		114
and respect for employees'	401-1	Total number of hired employees and personnel turnover	Number and qualification of employees Appendix 1		114
rights GRI 401: Employment 2016	401-2	Benefits and preferences granted to full-time employees, which are not granted to temporary or part-time employees	Social security		121

Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
	103-2	Management approaches and components thereof	Occupational health and safety management Appendix 1. Human Capital		122
	103-3	Assessment of efficiency of management approaches	Workplace injuries and occupational diseases		126
	403-1	Occupational Health and Safety Management System	Occupational health and safety management Appendix 1. Functioning of Subdivisions Responsible for the Workplace Accidents Avoidance and Prevention		122
Occupational health	403-2	Hazard identification, risk assessment and investigation into incidents	Process of hazard identification, assessment of relevant risks, competence of persons-in-charge Arrangement of favourable working conditions for employees Appendix 1. Personnel Protection against Harmful Production Factors		123 125
and safety at work GRI 403: Health and workplace	403-3	Subdivisions in charge of occupational health and safety	Appendix 1. Functioning of Subdivisions in Charge of the Workplace Accidents Avoidance and Prevention		
safety 2018	403-4	Interaction, consultation services and communication with employees on occupational safety and health issues	Process of hazard identification, assessment of relevant risks, competence of persons-in-charge Appendix 1. Functioning of Subdivisions in Charge of the Workplace Accidents Avoidance and Prevention		124
	403-5	Occupational health and safety training of employees	Workplace safety instructions system for employees		124
	403-6	Personnel health maintenance	Voluntary health insurance and personnel health maintenance Appendix 1. Personnel Health Maintenance		121
	403-7	Prevention and mitigation of health and safety impacts directly related to business relationships	Appendix 1. Approaches to the Occupational Health and Safety Impacts Management through Interaction with Business Partners and Consumers		

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Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
Occupational health and safety at work GRI 403: Health and workplace safety 2018	403-8	Safety management system coverage	Occupational health and safety management		123
	403-9	Workplace injuries	Workplace injuries and occupational diseases	The fatal injuries rate in 2018 was 0.0512 per 1 million hours worked The fatal injuries rate in 2018 was 0.0256 per 1 million hours worked	126
	403-10	Occupational diseases	Workplace injuries and occupational diseases	The Company has no information about occupational diseases of contractors' employees	126
	103-2	Management approaches and components thereof	Training, re-training and advanced training of personnel		116
Personnel development GRI 404:	103-3	Assessment of efficiency of management approaches	Personnel assessment		118
Training and	404-1	Average training hours per man year	Training, re-training and advanced training of personnel		117
education 2016	404-2	Personnel development programmes	Training, re-training and advanced training of personnel Appendix 1. Programmes Implemented by the Company's Personnel Training Centres		116
Impact on socio-	103-2	Management approaches and components thereof	Industrial Safety Management		71
economic development of the regions in which the Company is present GRI 413: Local Communities 2016	103-3	Assessment of efficiency of management approaches	Appendix 1. Fire Safety Appendix 1. Results of Ensuring Industrial Safety		

Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
Impact on socio- economic development of the regions in which the Company is present GRI 413: Local Communities 2016	413-1	Percentage of subdivisions with implemented programmes of interaction with local communities, community impact assessment programmes and programmes of development of local communities		FGC UES actively cooperal local communities on a cobasis by working togethe authorities and public org. The reliable and continuous supply of consumers is the lement of this cooperation due to construction of ne facilities, open discussion investment programme pronsultations, as well as to applications received for local communities' represent provision of jobs with a different remuneration level and so benefits is also a means of cooperation.  Such approach to interact local stakeholders historicits effectiveness, targetin sufficiency, so the Compar formalised special progracooperation with local co	ontinuous r with local ganisations. rus power he key on. It is w UNEG his of the roject and responding rom the sentatives. ecent ocial of mutual tion with cally proved g and any runs no
	413-2	Actual material or potential negative impacts on local communities		The Company has no signactual or potential negation the local communities	ve impact
Compliance with the requirements of legislation and regulatory bodies in the social and economic sphere GRI 419: Compliance with social and economic requirements 2016	103-2	Management approaches and components thereof		The Company structures activities in strict compliathe applicable legal and r framework. FGC UES strictomplies with the legislategulatory requirements i and economic areas	ance with egulatory ctly tion and

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Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
Compliance with the requirements of legislation and regulatory	103-3	Assessment of efficiency of management approaches		The criterion of the Compa efficient activity in this are a timely response to chang in requirements of legislat and regulators, minimisati of penalties and non-finan sanctions imposed on FGC	ea is ges ion on icial
bodies in the social and economic sphere GRI 419: Compliance with social and economic requirements 2016	419-1	Non-compliance with the legislation and regulatory requirements in the social and economic areas	Tax deductions	No non-financial sanctions are imposed against the Company as a result of non-compliance with legislation or regulatory requirements in the area of social and economic activities  No lawsuits are filed against the Company with the help of dispute regulation mechanisms	131
Implemen- tation of infrastructure	103-2	Management approaches and components thereof	Development strategy Grid development and investment activities		44 72
projects, development of the Unified National Electric Grid	103-3	Assessment of efficiency of management approaches	KPI in the context of strategic objectives		58
Reliability	103-2	Management approaches and components thereof	Development Strategy Improving the reliability of power supply		44 68
and quality of electric power	103-3	Assessment of efficiency of management approaches	KPI in the context of strategic objectives		58
supplied to consumers	EU12	Transmission electric power losses and respective share in the total volume of electricity	Reduction of Relative Electricity Losses		64
	103-2	Management approaches and components thereof	Tariff Regulation Appendix 1. Tariff Regulation		93
Tariff setting	103-3	Assessment of efficiency of management approaches	Appendix 1. Control of Reliability and Quality of Services		
Efficiency of infrastructure	103-2	Management approaches and components thereof	Reduction of relative electricity losses Improving the reliability of power supply		64 68
operation	103-3	Assessment of efficiency of management approaches	KPI in the context of strategic objectives		58

Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
Efficiency of investment	103-2	Management approaches and components thereof	Grid development and investment activities		72
activities (capital construction)	103-3	Assessment of efficiency of management approaches	KPI in the context of strategic objectives		58
Imple- mentation of digital	103-2	Management approaches and components thereof	Development of communication networks and it systems Management of innovative activities		80 96
technologies and solutions	103-3	Assessment of efficiency of management approaches	KPI in the context of strategic objectives		58
	103-2	Management approaches and components thereof	Opportunities and risks for FGC UES		42
Investment attractiveness	103-3	Assessment of efficiency of management approaches	Comparison of FGC UES with some Russian public power companies with the most capitalised and liquid shares among those listed in the MOEXEU sector index Market intelligence on the Company's securities		209
Group II on the	e materiali	ity matrix (less material topic			
Compliance with the	103-2	Management approaches and components thereof	Environmental safety management		102
requirements of legislation and	103-3	Assessment of efficiency of management approaches	Environmental protection results		105
regulatory bodies in the area of environmental protection GRI 307: Compliance with the environmental protection requirements 2016	307-1	The monetary value of substantial penalties and the total number of non-financial sanctions imposed for non-compliance with the environmental legislation, the number of environmental impact complaints filed, processed and settled through the formal filing mechanisms	Appendix 1. Natural Capital		
Energy efficiency and internal power consumption GRI 302: Energy 2016	302-4	Reduction of energy consumption	Energy saving and improvement of energy efficiency of the PJSC FGC UES economy in 2018.		111

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Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
Biological diversity preservation, including	304-1	Production sites owned, leased or managed by the organisation and located within protected natural areas and terrains with high biodiversity value situated outside of protected natural areas or adjacent to such areas.	Appendix 11. Register of Specially Protected Natural Areas		
preservation of natural habitat along power transmission	304-2	Significant impact of the organisation's activities, products, and services on biological diversity	Conservation of biodiversity		109
lines GRI 304: Biodiversity 2016	304-4	Total number of species on the Red List of the International Union for Conservation of Nature and the National List of Protected Species, with their habit areas located on terrains affected by the organisation's activities	Conservation of biodiversity Appendix 10. Species Listed in the IUCN Red List and the Red Book of the Russian Federation, which Inhabit the Territories of PJSC FGC UES' Operation		110
Innovative activities, scientific and technical development	-	-	Intellectual Capital		
Import substitution	-	-	Import Substitution Policy		
Information transparency	-	-	Information disclosure		
International cooperation	_	-	Appendix 1. International Activities		

Standard	Indicator	GRI indicator	Section of report/ report annex number/notes	Comments	Page number
Group III on t	he material	lity matrix (immaterial topics)	)		
Emissions of air pollutants GRI 305:	305-1	Direct greenhouse gas emissions		No direct greenhouse em place as a result of the C core business activities ( transmission and distrib	ompany's electricity
Emissions 2016	305-7	Pollutant emissions into the atmosphere Appendix 1. Natural capital	Air pollutant emissions		106
Discharges and waste	303-1	Water consumption	Usage of water resources Appendix 1. Natural Capital		107
generated as a result of the Company's activities	306-1	Total waste discharge with indication of waste water quality and receiving facility	Waste generation and disposal Appendix 1. Natural Capital		107
GRI 303: Water 2016 GRI 306: Solid and liquid waste 2016	306-2	Total weight of waste with breakdown by type and methods of handling	Waste generation and disposal		108

ADDITIONAL INFORMATION

GLOSSARY AND ABBREVIATIONS

## COMPLIANCE WITH THE INTERNATIONAL INTEGRATED REPORTING STANDARD

Reflection of the Standard Fundamental Concepts in the Report

Fundamental concepts	Used/not used
Creation of value for the organisation and stakeholders	Used
Capitals	Used
Value creation process	Used

#### Report compliance with the <IR> Standard guiding principles

Guiding principles	Compliant/not compliant
Strategic focus and future orientation	Compliant
Information cohesiveness	Compliant
Engagement with stakeholders	Compliant
Materiality	Compliant
Conciseness	Partially compliant*
Reliability and completeness	Compliant
Consistency and comparability	Compliant

<sup>\*</sup> Scope of the Report is reduced as compared to the scope of the integrated annual report for the previous year.

#### Availability of the <IR> Standard content elements in the Report

Content elements	Report section	Page number
Organisation overview and external	Company introduction,	10
environment	Industry profile	40
Management	Corporate management report	146
Business Model	Business Model	36
	Business Model	36
Dieks and appartunities	Opportunities and Risks for FGC UES	42
Risks and opportunities	Key Risks	59
	Risk Management System	194
Strategy and allocation of recourses	Strategic priorities and objectives	28
Strategy and allocation of resources	Development strategy	44
	Key results of the year	16
Performance results	Business model	36
	Performance results for 2018	62
	Industry profile	40
Future prospects	Development strategy	44
	Performance results for 2018	62

### **GLOSSARY AND ABBREVIATIONS**



#### **ABBREVIATIONS AND ACRONYMS**

DECT	Wireless communications systems compliant with DECT (Digital European Cordless Telecommunications) standard
EBIT	Earnings Before Interest and Taxation
EBITDA	Earnings Before Interest, Taxation, Depreciation and Amortisation
GRI	Global Reporting Initiative
GRI SRS	GRI Standards
ISIN	International Securities Identification Number
ISO	International Organisation for Standardisation
LSE	London Stock Exchange
OPEX	Operating expense
RAB	Regulatory Asset Base (tariff regulation based on the method of economically justified return on investment)
TSR	Total shareholder return
ADCS	Automated dispatch control system
AECS	Automated engineering control system
APCS	Automated process control system
ATX	Automatic telephone exchange
NPP	Nuclear power plant
BAM	Baikal-Amur Mainline
GDP	Gross domestic product
OHPL	Overhead power line
FOCL	Fibre optic communication line
EGMS	Extraordinary general meeting of shareholders
ESTO	Eastern Siberia – Pacific Ocean oil pipeline
HF communication	High Frequency Communication
IEA	Internal environmental audit
GDR	Global depositary receipts
AGMS	Annual general meeting of shareholders
SDPP	State district power plant
POL	Petroleum, oil and lubricants
НРР	Hydroelectric power plant
S&A	Subsidiaries and affiliates
LTDP	Long-Term Development Programme
EBRD	European Bank for Reconstruction and Development
UNEG	Unified National (All-Russian) Electric Grid
UTCNEPI	Unified technological communications network of electric power industry
UES of Russia	Unified Energy System of Russia
IIA	Institute of Internal Auditors

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ADDITIONAL INFORMATION

CMIS	Corporate Management Information System
CGC	Corporate Governance Code
KOR	Key operational risk
KPI	Key Performance Indicators
PTL	Power transmission line
MEDT of Russia	Ministry of Economic Development of the Russian Federation
Minenergo of Russia	Ministry of Energy of the Russian Federation
IUCN	International Union for Conservation of Nature
SME	Small and medium entrepreneurship
IFRS	International Financial Reporting Standards
MPTL	Main power transmission lines
RGP	Required gross proceeds
VAT	Value added tax
R&D	Research and development
<b>EEPI Association</b>	All-Russian Industrial Association of Employers of Electric Power Industry
UNO	United Nations Organisation
OSG	Open switchgear
WMEP	Wholesale electricity and capacity market
UES	Unified energy system
EMPTL	Enterprises of main power transmission lines
EPS	Electric power substation
RPA	Relay protection and automation
RAS	Russian Accounting Standards
GDC	Grid distribution company
ICS	Internal control system
CIGRE	Conseil International des Grands Reseaux Electriques Haute Tension (International Council on Large Electric Systems)
ММ	Mass media
QMS	Quality Management System
CIS	Commonwealth of Independent States
HSE MS	Health, Safety and Environment Management System
RMS	Risk management system
EMS	Environmental management system
TC	Technological connection
TSR	Trans-Siberian Railway
FEC	Fuel and energy complex
СНРР	Combined heat and power plant
OWATX	Office and Worksite ATX
FZ	Federal Law
FTS of Russia	Federal Tariff Service of the Russian Federation
ECM	Electronic computing machine

### **UNITS OF MEASURE**

GW	gigawatt	mln	million
kV	kilovolt	bln	billion
kW	kilowatt	pct	percentage point
sq. km	square kilometre	RUB	Russian rouble
kWh	kilowatt-hour	t	tonne
km	kilometre	TFOE	tonnes of fuel oil equivalent
cu m	cubic meter	ths.	thousand
MVA	megavolt-ampere	h	hour
MVAr	megavolt-ampere reactive	pc.	piece
MWh	megawatt-hour		

## **CONTACT INFORMATION**

Full corporate name	Public Joint Stock Company Federal Grid Company of the
r un corporate nume	Unified Energy System
Abbreviated name	PJSC FGC UES
Form of ownership and business legal structure GRI 102-3	Mixed Russian property with a share of federal ownership Public Joint Stock Company
Location GRI 102-3	Moscow, Russia
Postal address GRI 102-3	5a Akademika Chelomeya Str., Moscow, 117630
	Unified data centre: 8 (800) 200-18-81
Phone/fax	Foreign calls:
	+7 (495) 710-93-33. Fax: +7 (495) 710-96-55
E-mail	info@fsk-ees.ru
OGRN	1024701893336
INN	4716016979
Core business	Electricity transmission over the transmission networks and power supply of consumers throughout the Unified National Electric Grid (UNEG)
Corporate website	http://www.fsk-ees.ru/eng/
	JSC Registration Company STATUS
Registrar Information	23 Novokhokhlovskaya Str., Build. 1, Moscow, 109052 http://www.rostatus.ru

ADDITIONAL INFORMATION

CONTACT INFORMATION

#### **CONTACT PERSONS**

GRI 102-53

Phone: 8 (800) 200-18-81 Fax: +7 (495) 710-96-41

Egor TOROPOV

Contact information for institutional investors and analysts

Phone: 8 (800) 200-18-81, ext. 22-75 E-mail: toropov-ev@fsk-ees.ru

Aleksey NOVIKOV

Phone: 8 (800) 200-18-81, ext. 21-43 E-mail: novikov-as@fsk-ees.ru

External Communications and Government Relations Department

Yuliya RATNIKOVA

Phone: 8 (800) 200-18-81, ext. 20-97 E-mail: ratnikova-yd@fsk-ees.ru

Corporate and Strategic Management Department Oksana VERSTAKOVA

Phone: +7 (495) 710-90-28 E-mail: verstakova-op@fsk-ees.ru

#### **INFORMATION ON STATE REGISTRATION**

Data on initial state registration:

• State registration number: 00/03124

• Date of state registration: 25 June 2002

Name of the public registrar:

Registration Chamber of the Leningrad Region

**Information on legal entity registration:** Primary state registration number of legal entity 1024701893336

Date of legal entity entry on the Unified State Register of Legal Entities (registered prior to 1 July 2002): 20 August 2002

Name of registration authority: Inspectorate of the Ministry of Taxes in Tosnensky district of the Leningrad Region.

#### **REGISTRAR**

Entity maintaining the register of holders of registered securities, the registrar:

JSC Registration Company STATUS (JSC STATUS)

Address: 23 Novokhokhlovskaya Str., Build. 1, Moscow, 109052

**Phone:** +7 (495) 974-83-50 **Fax:** +7 (495) 678-71-10

Hotline for shareholders of PJSC FGC UES: 8 (800) 500-05-52

E-mail: info@rostatus.ru

Licence number: 10-000-1-00304 Licence issue date: 12 March 2004

Licence term: indefinite

Issuing authority: Federal Financial Markets Service of Russia

#### **DEPOSITORY**

**Information on the depository carrying out centralised storage of securities:** Non-bank Credit Organisation National Settlement Depository Closed Joint-Stock Company (CJSC NSD)

Address: 12 Spartakovskaya Str., Moscow, 105066

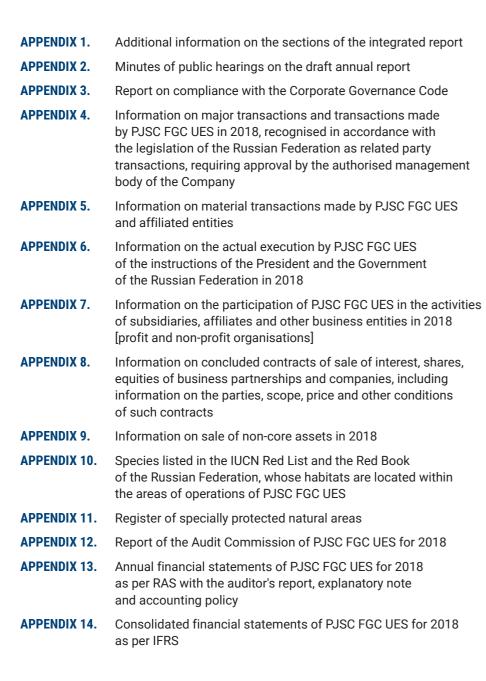
**Phone:** +7 (495) 234-48-27 **E-mail:** info@nsd.ru

Licence number: 177-12042-000100 Licence issue date: 19 February 2009

Licence term: indefinite

Issuing authority: Federal Financial Markets Service of Russia

### **APPENDICES**





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**APPENDIX 1** ADDITIONAL INFORMATION ON THE SECTIONS OF THE ANNUAL REPORT

#### **APPENDIX 1**

## ADDITIONAL INFORMATION ON THE SECTIONS OF THE ANNUAL REPORT

#### STRATEGIC REPORT

## CONSOLIDATION OF ELECTRIC GRID FACILITIES FORMING PART OF UNEG

In compliance with p. 2, Art. 7 of Federal Law No. 35-FZ of 26 March 2003 "On the Electric Power Industry" (hereinafter, the "FZ-35"), 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 service agreements for electricity transmission via electric grid facilities included into UNEG and define the provisions of such agreements;
- using (decommissioning) of the specified facilities without approval of 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 electricity circulation in accordance with the provisions of FZ-35, based on the contracts determining the use of electric grid facilities, PJSC FGC UES concludes agreements with third parties on its behalf for the provision of services for electricity transmission using the electric grid facilities included in UNEG, which are owned by other owners or other legal owners, agrees their use (decommissioning),

as well as returns to the owners or other legal owners the income received as a result of their rights.

In case there is an economic expediency for PJSC FGC UES, the lease and purchase and sale contracts may be concluded with the owners and/or other legal owners of UNEG facilities, according to which PJSC FGC UES acquires the rights, on a reimbursable basis, of property ownership and use, as well as the rights of ownership for UNEG facilities.

As of 31 December 2018, 13 contracts were concluded between PJSC FGC UES and the owners/other legal owners of UNEG facilities, which determined the use of the facilities, as well as 11 lease contracts and 7 contracts for the gratuitous use of property.

For the purpose of implementing the Long-Term Development Programme, the Company together with a specialised consulting organisation performed assessment of opportunities and risks of consolidation of electric grid facilities owned by third parties, forming part of UNEG and being managed by the Company, including the facilities located in non-isolated centralised power supply zones.

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#### INTERNATIONAL ACTIVITY

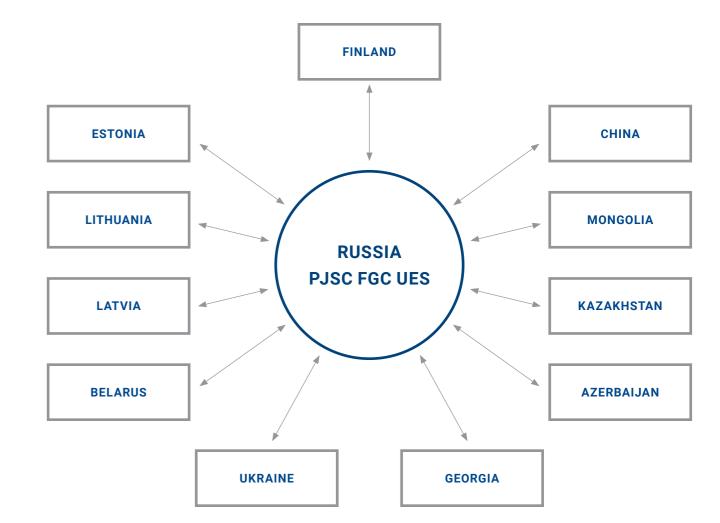
#### GRI 102-13

**APPENDIX 1** 

## PJSC FGC UES' MAIN DIRECTIONS OF INTERNATIONAL COOPERATION

Since 1 January 2004, PJSC FGC UES has acted as a carrier of electricity across the Russian border and is a technical executor under commercial contracts of export/import participants of the wholesale electricity and capacity market.

PJSC FGC UES renders services for electricity transmission in the territory of the Russian Federation to its state border in accordance with the terms of the contract with PJSC Inter RAO through the grid facilities belonging to UNEG and owned or otherwise legally owned by PJSC FGC UES.



#### Monitoring the volumes of consolidation of electric grid assets

	2016				2017			2018		
	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	3,785.22	31,890.79	6,897.45	4,429.86	35,620.80	10,479.10	5,197.91	47,264.79	
Acquisition of electric grid facilities	-	_	-	500.00	725.16	3,730.00	-	-	-	
Rent of electric grid facilities*	6,512.98	3,555.34	27,571.96	6,172.35	3,474.82	27,571.96	6,921.31	3,471.01	27,357.87	
Other (permanent tenure rights)	_	_	-	-	-	-	-	-	-	
Other (temporary tenure rights)**	225.10	229.88	4,318.83	225.10	229.88	4,318.83	3,557.79	1,726.90	19,906.92	

<sup>\*</sup> The consolidation of the Company's electric grid assets includes the lease of the objects of the subsidiaries JSC Kuban Trunk Grids and JSC Tomsk Trunk Grids.

<sup>\*\*</sup> Pursuant to:

<sup>-</sup> Order of the Russian Government No. 2243-r of 2 December 2013, contracts were concluded between the local office of the Federal Agency for State Property Management (Rosimushchestvo) in Krasnodar Krai and the Company for the gratuitous use of property constituting the property of Russia's state treasury, the object of which is the electric grid real estate of the distribution grid complex located in the Adler District of Sochi, Krasnodar Krai, built for the purpose of organising and conducting the XXII Olympic Winter Games and the XI Paralympic Winter Games in Sochi in 2014;

<sup>-</sup> Order of the Russian Government No. 1709-r of 9 August 2017, the Ministry of Property and Land Relations of the Republic of Crimea and the Company concluded three contracts for the gratuitous use of property constituting the property of Russia's state treasury, the object of which is the electric grid facilities built as part of implementation of the federal target programme Social and Economic Development of the Republic of Crimea and Sevastopol until 2020;

<sup>-</sup> Resolution of the Company's Board of Directors (extract from Meeting Minutes No. 384/1 of 25 December 2017), the regional state institution the Directorate for Integrated Development of the Lower Angara Region and the Company concluded a contract for the gratuitous use of property of Krasnodar Krai, the object of which are the electric grid facilities of the capacity output scheme of Boquchanskaya HPP.

## ELECTRICITY EXPORT AND IMPORT UNDER PJSC INTER RAO'S CONTRACTS IN 2012–2018

#### Actual electricity exports, mln kWh

No.	Country	2014	2015	2016	2017	2018
1	Azerbaijan	53.054	54.848	59.560	63.373	76.150
2	Belarus	1,425.023	2,815.240	3,180.811	2,732.968	49.500
3	Georgia, South Ossetia	767.189	656.564	557.448	653.297	351.585
4	Kazakhstan	1,643.673	1,541.999	1,164.275	1,293.934	1,346.670
5	China	3,375.632	3,299.350	3,319.908	3,319.190	3,108.921
6	Latvia	0.000	0.000	0.000	0.000	0.000
7	Lithuania	3,215.539	2,994.516	3,018.544	3,130.899	4,414.918
8	Estonia	0.000	0.000	0.000	0.000	0.000
9	Mongolia	390.332	284.450	299.869	371.187	415.993
10	Ukraine	177.993	2,461.972	119.644	93.923	44.939
11	Finland	2,995.008	3,383.435	5,281.610	5,040.337	6,903.038
TOTAL	L:	14,043.443	17,492.374	17,001.669	16,699.108	16,711.714

#### Actual electricity imports, mln kWh

No.	Country	2014	2015	2016	2017	2018
1	Azerbaijan	134.169	108.365	120.143	117.251	121.367
2	Belarus	0.260	0.058	0.058	0.000	0.000
3	Georgia, South Ossetia	160.078	169.575	147.590	261.923	96.889
4	Kazakhstan	3,084.440	989.666	2,725.996	5,736.324	4,824.636
5	China	0.000	0.000	0.000	0.000	0.000
6	Latvia	0.000	0.000	0.000	0.000	0.000
7	Lithuania	43.161	114.561	115.575	85.267	52.102
8	Estonia	0.000	0.000	0.000	6.269	0.000
9	Mongolia	30.368	54.178	33.867	23.019	26.988
10	Ukraine	0.000	3.756	0.000	0.000	0.000
11	Finland	0.234	23.400	0.000	0.000	0.000
TOTA	L:	3,452.710	1,463.559	3,143.229	6,230.053	5,121.982

## INFORMATION ON INTERSTATE POWER TRANSMISSION LINES (IPTL) AND ELECTRICITY TRANSIT

Pursuant to Decree of the Russian Government No. 41 of 26 January 2016, power transmission lines crossing the state border of the Russian Federation comply with the criteria for assigning electric grid facilities to UNEG.

PJSC FGC UES collects and processes information on the movement of electricity through 133 interstate power transmission lines (IPTL) based on data of commercial electricity metering devices.

In order to provide reliable electricity supply to Russian customers in the Bryansk, Pskov, Leningrad and Kaliningrad Regions, strengthen cooperation and development of the international electricity market and manage parallel operation of the power systems, on 7 February 2001 PJSC FGC UES entered into an agreement with JSC SO UES, SIA Belenergo, Elering AS, Augstsprieguma tikls AS and Litgrid AB on parallel operation of the power systems in Russia, Belarus, Estonia, Latvia and Lithuania (hereinafter, the "ER BRELL Agreement on Parallel Operation").

In accordance with the Agreement of 20 November 2009 between the Russian Government and the Government of the Republic of Kazakhstan on measures ensuring parallel operation of the unified power systems of the Russian Federation and the Republic of Kazakhstan, there is an electricity transit contract signed, under which PJSC FGC UES has been paying for the electricity transit throughout the territory of Kazakhstan since May 2010 in order to provide reliable supply of the Russian customers with electricity.

In accordance with the Protocol on Provision of Access to the Services of Natural Monopolies in the Field of Electric Power, including the pricing and tariff policy, which is Appendix No. 21 to the Agreement on Eurasian Economic Union, the inter-state transmission of electricity between the participating countries is possible, including through the grids of UES of Russia.

## PARALLEL WORK OF UES OF THE RUSSIAN FEDERATION WITH ELECTRIC POWER SYSTEMS OF FOREIGN COUNTRIES

Russia's power system works simultaneously with the power systems of Georgia, Azerbaijan, Kazakhstan, Belarus, Ukraine, Estonia, Lithuania, Latvia and Mongolia, in particular it is connected with the power systems of Finland and China through HVDC lines of UES of Russia. There are currently several contracts in force stipulating parallel operation of the Russian UES with the electric power systems of foreign states. The parties to these contracts are PJSC FGC UES and the economic entities of the following countries: Georgia, Azerbaijan, Kazakhstan, the Baltic States and the Republic of Belarus. Moreover, agreements on technical support of parallel operation are signed with Ukraine, the Republic of Belarus, and Mongolia. The Company also concluded an Inter-System Contract with Finland and an Inter-System Agreement with the People's Republic of China.

As an organisation managing UNEG and interstate power transmission lines (hereinafter, the "IPTL"), PJSC FGC UES:

- coordinates commercial contracts for import/export of electricity and provides engineering support thereof;
- arranges and implements commercial metering of electricity transmitted via IPTL;
- measures and ensures customs processing of actual volumes of electricity transmitted across the state border.

To determine the amount of electricity transmitted via each IPTL, PJSC FGC UES has agreements with foreign electric power companies on metering of the transmitted volume of electricity, according to which PJSC FGC UES exchanges commercial metering data with the electricity systems of 11 foreign countries.

In the framework of international exchange, PJSC FGC UES takes actions to enhance the relationship with the energy

systems of the adjacent states in the field of electric power, including the CIS Electric Power Council and its commissions, the Committee for Energy Systems of BRELL, working groups in the Executive Committee of the Electric Power Council of the CIS and the Committee for Energy Systems of BRELL.

On the basis of the Agreement on Parallel Operation of the Energy Systems of ER BRELL, a permanent working body of the Parties to the Agreement was established on 7 February 2002, i.e. the Committee for Energy Systems of Belarus, Russia, Estonia, Latvia, and Lithuania (ER BRELL Committee). The ER BRELL Committee has the following priority tasks:

coordinating the principles of managing joint operation, as well as developing and coordinating the legal, technical and technological documents regulating parallel operation of BRELL power systems; coordinating cooperation with power companies operating the national power grids and/ or performing operational dispatch management of the power systems, which are interconnected with BRELL power systems; developing recommendations for improvement of the information exchange and ensuring control of compliance with the requirements for the joint parallel operation; informing about perspective plans for power systems development providing an impact on parallel operation.

In 2018, PJSC FGC UES's representatives participated in: meetings of the ER BRELL Committee, meetings of the working groups of the ER BRELL Committee on planning and operational management, and the meeting of the heads of the parties to the ER BRELL Agreement on Parallel Operation:

- the meeting of the working group on planning and operational management held on 14–15 February in Minsk;
- the 34th meeting of the ER BRELL Committee held on 15–16 March in Moscow;

**APPENDIX 1** 

- the meeting of the working group on planning and Final desynchronisation of the Baltic power systems from the operational management held on 4-5 September in
- the 35th meeting of the ER BRELL Committee held on The Electric Power Council of CIS was established on 14 November in Minsk;
- the 16th meeting of the heads of the parties to the ER BRELL Agreement on Parallel Operation held on 15 November in

A number of issues related to the reliable operation of BRELL power systems were discussed at the meetings of the committees and the working group on planning and operational management, including those concerning the regulation of coordination of settings for relay protection and automatic reclosing of interstate power transmission lines.

The parties discussed their positions: on the revision of the updated Regulation on the Organisation of Operational and Dispatch Management of Parallel Operation of BRELL Power Systems; the analysis results of the possible automatic exchange of daily planning data at an interval of 1 hour without flow distribution calculation; the status of preparations for testing in the BRELL power ring with separation of the Baltic power systems for isolated work scheduled for 8 June 2019 (on 6 February 2019, the information was published on Elering AS official website that a resolution was made at a meeting of operators of the transmission network of the Baltic States held on 4 February 2019 to postpone the planned testing with isolation of the Baltic States from UES of Russia and CES of Belarus); amendments to be introduced to the data lists aimed to update the estimated model in the part of the newly commissioned equipment; and testing of the power system of the Kaliningrad Region in the isolated regime from 18 May until 26 May 2019, as well as Methodological Guidelines for Stability of the BRELL Power Ring Systems. The following documents were coordinated and approved: The list of transmitted TV measurements and TV signals between the North-Western Operational and Dispatch Management Department and Elering, the Baltic Regional Dispatch Management Department and Litgrid; changes and supplements to the distribution list of dispatching objects of CES of Belarus, UES of Russia, ES of Estonia, ES of Latvia and ES of Lithuania in accordance with the dispatch management method, submitted for approval by the heads of the parties to the Agreement, etc.

The following documents were approved at the meeting of the heads of the parties: Guidelines for Separation of Power Systems of the Baltic States for Isolated Work from UES of Russia and CES of Belarus and Restoration of Parallel Operation; amendments to the Guidelines for Prevention of Development and Liquidation of Disturbances in the Regular Mode in BRELL Power Ring and amendments to the Regulation on Operational and Dispatch Management of Parallel Operation of UES of Russia, ES of Estonia, CES of Belarus, ES of Lithuania and ES of Latvia. Representatives of the transmission network organisations initiated an extraordinary meeting of the Committee for Energy Systems of ER BRELL for desynchronisation of the Baltic power systems from UES of Russia and CES of Belarus to be held on 25 January 2019.

Russian power system and the power system of the Republic of Belarus is scheduled to take place before 2025.

14 February 1992 by the Agreement on Coordination of the Interstate Relations in the Field of Power Industry of the CIS. The Council is an interstate sectoral authority of the Commonwealth of Independent States.

Heads of the respective state authorities and national power companies of the participating states form part of the CIS Electric Power Council and are assigned by their states with the respective authorities.

Working groups, coordinating councils and target working groups represent the working bodies of the CIS Electric Power

In 2018, representatives of PJSC FGC UES took active part in meetings of the working groups of the CIS Electric Power Council and the Coordinating Council for Implementation of the Interaction and Cooperation Strategy between the CIS Countries in the Power Industry, as well as development of the position on the agenda items and materials for participation and elaboration of legal documents regulating development of the common electric power market of the CIS. PJSC FGC UES' representative leads the working group on metrological support of the electric power industry of the CIS.

As part of operation of the working groups and coordinating councils, the following documents were developed and agreed: Amendments and supplements to the Strategy (main directions) of Interaction and Cooperation of the CIS Countries in the Field of Power Industry; the Action Plan of the Committee for Coordination of Cooperation between the State Energy Supervision Authorities of the CIS Countries for 2019-2021; Regulation on the Board of the Electric Power Council of the CIS for Inquiry of the Technological Disturbance, Development and Implementation of Joint Measures for Prevention of Technological Disturbances at Electric Power Facilities Providing Interstate Transmission of Electricity and Capacity of the CIS Countries; Guidelines for Arrangement of Fire Trainings at Electric Power Enterprises of the CIS Countries; Methodological Guidelines for Stability of Energy Systems of the CIS Countries, Baltic States and Georgia, which Operate in Parallel, etc.

On 2 November 2018, PJSC FGC UES participated in the 53d in-person meeting of the Electric Power Council of the CIS held in Astana and chaired by A. Novak, President of the Electric Power Council of the CIS and the Russian Minister of Energy.

The meeting was attended by delegations of the electric power management authorities and electric power companies of the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Republic of Moldova, the Kyrgyz Republic, the Russian Federation, the Republic of Taiikistan. Turkmenistan and the Republic of Uzbekistan.

In the course of the meeting the documents developed in the working groups and coordinating councils were endorsed, and the 2019 Action Plan of the Electric Power Council of the CIS was approved. As the powers of the President of the Electric Power Council of the CIS and the Vice-President of the Electric Power Council of the CIS expired, Aleksander Novak was elected President of the Electric Power Council of the CIS and Usmonali Yusunali Usmonzoda, Minister of Energy and Water Resources of the Republic of Tajikistan,

was elected Vice-President of the Electric Power Council of the CIS in the meeting. In addition, the Memorandum on Cooperation between the Electric Power Council of the CIS and the Eurasian European Commission was approved there.

#### FORMATION OF THE COMMON ELECTRICITY MARKET OF THE EURASIAN ECONOMIC UNION

The common electricity market of the Eurasian Economic Union (hereinafter, the "CEM EEU") is formed in accordance with Article 81 of the Treaty on the Eurasian Economic Union of 29 May 2014 on the basis of electric power systems of the member states operating in parallel taking into account the specifics of existing models of electric power markets of the Union member states.

The CEM EEU Formation Concept was approved by Resolution No. 12 of the Supreme Eurasian Economic Council of 8 May 2015.

The CEM EEU Formation Programme was approved by Resolution No. 20 of the Supreme Eurasian Economic Council of 26 December 2016.

The implementation period for the CEM EEU Formation Programme starts from the date of its approval and ends on 1 July 2019. It will lead to development of methodological, organisational, infrastructural, technological and legal bases of the future CEM EEU.

26 January 2018 A. Molsky, Deputy Chairman of the Management Board, participated in the meeting of the Advisory Committee on Electric Power at the Board of the Eurasian Economic Commission, where disputes between the member states were discussed with regards to the provisions of the International Treaty on CEM EEU.

In 2018, representatives of PJSC FGC UES also took part in 15 meetings of the Subcommittee for CEM EEU Formation, where the above-stated Draft International Treaty and other draft international laws and regulations were discussed, which were developed for the CEM EEU formation and functioning. Following Resolution No. 142 of the Board of the Eurasian Economic Commission of 7 September 2018, the Draft International Treaty on CEM EEU was approved in general (in the form of the Protocol to amend the Union Treaty). The Draft International Treaty was then sent by letter No. KE-2264/21 of the Eurasian Economic Commission of 14 September 2018 to governments of the member states, including the Government of the Russian Federation for intra-state coordination.

In 2019, within the framework of the Advisory Bodies of the Eurasian Economic Commission it is planned to finalise the International Treaty based on the results of the intra-state coordination and take necessary actions for its approval by the Supreme Eurasian Economic Council (the President of the Russian Federation is a member) within the period stipulated by the CEM EEU Formation Programme (before 1 July 2019).

Furthermore, in 2019 development and discussion of the draft international laws and regulations aimed at forming and functioning of CEM EEU will continue on the platform of the Eurasian Economic Commission involving representatives of PJSC FGC UES.

#### **KEY RISKS**

#### GRI 102-15

#### Management of Key Operational Risks in 2018

#### Risk Risk management activities

#### **★ KOR-001**

Risk of deviation of the actual scope of electricity transmission services from the value set in the business plan ■ Taking measures aimed at settling disputes with consumers of electricity transmission services in part of the scope of services and preventing occurrence of new disputed scope of services;

Working with consumers of electricity transmission service for coordination of the planned scope of services, including the declared capacity, to introduce them into the respective electricity transmission service contracts and submit them to the state tariff regulation authorities.

#### **✗** KOR-002

Risk of deviation of the actual average tariff for electricity transmission from the value set in the business plan Qualitative planning and control of the level of expenditures, which can be controlled or are beyond the control;

- Qualitative formation of justification materials for the tariff setting/review application;
- Control of the level of reliability and quality of services provided by PJSC FGC UES;
- Timely and qualitative preparation of reports on PJSC FGC UES' invested capital movement base.

#### **✗ KOR-003**

Risk of deviation of the actual scope of technological connection from the value set in the business plan Controlling timely fulfilment of obligations under the signed technological connection contracts;

- Handling claims against consumers, who have exceeded the term for fulfilment of their technological connection obligations before the Company;
- Increasing the responsibility of the contractors. Setting schedules for completion of procedures by the Company's structural units and implementation of actions to improve control over scheduled deadlines at all stages of business process, from registration of an application for technological connection to full performance of contractual obligations;
- Controlling the quality of materials prepared to submit a tariff application;
- Timely submission of the tariff application;
- Monitoring and attracting new consumers;
- $\blacksquare$  Timely activation of works within the framework of the IP implementation;
- Timely introduction of technological connection and investment plan actions;
- Developing offers to be considered by the executive authorities for introduction of amendments into orders of the Russian Government No. 861 of 27 December 2004 and No. 1178 of 29 December 2011 related to clarification of the procedure for concluding agreements for design and estimate documentation development, extension of the application submission term to set the price for technological connection, and settlement of relations with third parties in the framework of the technological connection:
- Implementation of the Programme for Improving the Efficiency of Technological Connection to PJSC FGC UES' Electric Grids and Increasing Transformer Capacity Utilisation (approved by resolution of the Management Board No. 1281/2 of 31 December 2014):
- Ensuring the fulfilment of PJSC FGC UES' accumulated obligations under the previously concluded technological connection agreements, which term has been violated by the Company.

#### **✓ KOR-004**

Risk of deviation of the expenditures for purchase of losses from the value set in the business plan

- Ensuring compliance of the technical condition of measuring instruments with the requirements of Government Decree of No. 1172 of 27 December 2010 and Federal Law No. 102 of 26 June 2008;
- Timely and complete implementation of measures aimed at reducing electricity losses.

#### **✓ KOR-005**

Risk of deviation of expenditures that are beyond the control from the value set in the business plan, except for the expenditures for purchase of electricity to compensate losses

- Budget control; in case of additional expenditures that are beyond the control, developing proposals to the Budget Committee for redistribution of funds through savings of controlled expenditures;
- Controlling compliance of expenditures with the approved tariff and balance decisions;
- Timely submission of applications to the regulatory authorities taking into account increase in expenditures that are beyond the control.

#### Risk Risk management activities

#### 

Risk of increase in the operating expenses compared to those established for the planned period

- Control of compliance with the approved amount of operating expenses and achievement of target indicators for reduction of unit operating expenses;

Control of compliance of planned operating expenses with the level of approved tariff and balance decisions;

Budget control: approval of executed contracts if there are funds available in the approved Income and Expenditure Budget and the Cash Flow Budget, signing the certificates of works performed if they correspond to the price conditions of the contracts.

#### ✓ KOR-007

Risk of deviation of the overdue accounts receivable from the amount set in the business plan

- Handling claims in order to reduce the accounts receivable, controlling timely performance;
- Complete and/or partial reduction of power supply to consumers in arrears;
   Controlling implementation of debt restructuring agreements;
- Interacting with the Federal Bailiff Service of the Russian Federation at the enforcement proceedings stage, signing cooperation agreements with the Federal Bailiff Service of the Russian Federation, controlling debt repayment in the framework of the enforcement proceedings based on the court judgements on recovery of overdue debts.

#### **✓ KOR-008**

Risk of fluctuation in the Debt/EBITDA indicator from the value set in the business plan

- Obtaining economically justified tariff and balance decisions ensuring compliance of the tariff level with the approved business plan:
- Control of compliance with the approved amount of operating expenses and achievement of target indicators for reduction of unit operating expenses. Target indicator in compliance with the approved Business Plan, % of reduction in 2018 > 2 %;
- Cost management depending on the expected income level (with consideration of mandatory reliability and security requirements) to achieve the EBITDA level approved by the Company's Business Plan;
- Developing and implementing an Action Plan aimed at improving efficiency and financial and economic performance;
- Financing in compliance with target indicators of the Company's investment budget;
- Timely approval by the Company's management bodies of target indicators of the investment budget and their changes (adjustments) for the Investment Programme forming part of PJSC FGC UES' budget;
- Reducing equipment procurement costs (reducing starting price margins, procurement bundling and centralisation, direct purchases from suppliers/manufacturers, improvement of competition);
- Taking actions to reduce the overdue accounts receivable for electric power transmission services and settle disputes; monitoring achievement of the target level of collected electricity payments:
- Handling claims in order to reduce the accounts receivable; controlling timely performance,
- Complete and/or partial reduction of power supply to consumers in arrears.
- Controlling implementation of debt restructuring agreements.

#### ✓ KOR-009

Risk of fluctuation in the net profit from the value set in the business plan

- Operational control; monitoring compliance of the net profit with the approved business plan;
- Obtaining economically justified tariff and balance decisions ensuring compliance of the tariff level with the approved business plan;
- Controlling compliance with the approved amount of operating expenses and achieving target indicators for reduction of unit operating expenses;
- Implementing the Action Plan to reduce the overdue accounts receivable for electric power transmission services and settling disputes, monitoring achievement of the target level of collected electricity payments;
- Implementing a Project for the Long-Term Efficiency Improvement of PJSC FGC UES and its Subsidiaries (Order No. 273 of 3 August 2016).

## ✓ KOR -010 Risk of failure to fulfil

Risk of failure to fulfil the main parameters of the Investment Programme

- Developing and submitting draft changes (adjustments) to the target indicators of PJSC FGC UES' Investment Programme 2016–2020 to the Ministry of Energy of Russia;
- Approval by the regulator of the required gross revenue in the amount sufficient for implementation of the Investment Programme;
   Timely approval by the Company's management bodies of target indicators of the investment budget and their changes (adjustments) for the Investment Programme forming part of PJSC FGC UES' budget;
- Timely submission by project managers (MPS General Directors, structural units of the Executive Office) of GCU as part of the project certificates to develop the IPR project for construction and reconstruction of electric grid facilities;
- Timely implementation of planned actions for GCU as part of the project certificates to develop the IPR project for construction and reconstruction of electric grid facilities approved by the Investment Programme;
- Acceptance quality control of materials and equipment;
- Quality management of capital construction;
- Handling claims with contractors violating their contractual obligations prior to commissioning of the facility;
- Financing in compliance with target indicators of the Company's investment budget;
- Timely development of initial permits, design and working documentation.

Risk

#### Risk management activities

#### **✗ KOR-011**

Risk of fluctuation in the percent indicator of reduction in the investment costs from the value established for the planned period

- Reducing equipment procurement costs (reducing starting price margins, procurement bundling and centralisation, direct purchases from suppliers/manufacturers, improvement of competition);
- Reaching the share of standard technological solutions of 30 % in 2018;
- Internal technical expertise (optimisation of technical solutions), cost examination of the projects;
- Cancelling excessive works based on the results of examination of the design documentation;
- Controlling timely registration of land and legal relations and issue of the initial permits;
   Annual monitoring of the unit cost of investment projects as part of benchmarking and comparative analysis of unit
- Technological and price audit of investment projects;
- Timely development of initial permits, design and working documentation;

construction cost indicators per unit of physical parameters (km, MVA);

Applying basic technical solutions with optimal cost.

#### **KOR-012**

Risk of failure to achieve the capacity utilisation rate established for the planned period

- Developing and implementing a Technical Action Plan to optimise the load of underutilised electric grid facilities of PJSC FGC JJFS:
- Monitoring the existing and expected consumption rate of electricity and capacity at PJSC FGC UES' electric grid facilities (analysis of potential load on energy hubs, power centres with a capacity of 35 kV and higher);
- Submitting proposals to the executive authorities of the constituent entities of the Russian Federation to include the technical actions for load optimisation at underutilised electric grid facilities and the expected increase in electricity consumption rates into the Electric Power Charts and Development Programmes of the constituent entities of the Russian Federation;
- Considering the technical actions for load optimisation at underutilised electric grid facilities in development of PJSC FGC UES' investment programmes

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Risk of failure to achieve the reliability level of electricity transmission services established in tariff regulation ■ Widening of overhead line right-of-ways to reach the established standard;

- Developing M&R programmes with consideration of the assessment results of current technical state of the equipment, including the electric grid equipment diagnostics performed based on these results;
- Quality control of M&R works (including those performed by contractors);
- Monitoring implementation of actions based on the results of investigation of technological violations (accidents);
- Timely implementation of the projects for renovation of the electric grid facilities and target reliability improvement programmes (IPR implementation).

#### ✓ KOR-014

Risk of failure to provide the quality of technological connection services established in tariff regulation

- Minimising the human factor (negligence, lack of attention, etc.);
- Controlling compliance with the deadlines for submission of technical requirements for approval to the Operational and Dispatch Management Department/Regional Dispatch Management Department;
- Controlling compliance with the deadlines for submission of the Company's requests to the authorised executive authority for state tariff regulation to determine the amount of payment for technological connection to electric grids;
- Improving control of compliance with the deadlines for adding the technological connection facilities to the Company's Investment Programme;
- Improving control of compliance with the deadlines for procurement procedures;
- Improving control of compliance with the deadlines for performance of contract works;
- Operational control of fulfilment of technological connection requests, analysing the risks of failure to fulfil them;
- Implementation of the Programme for Improving the Efficiency of Technological Connection to PJSC FGC UES' Electric Grids and Increasing Transformer Capacity Utilisation (approved by resolution of the Management Board No. 1281/2 of 31 December 2014);
- Developing proposals to be considered by the executive authorities to introduce amendments into orders of the Government of the Russian Federation No. 861 of 27 December 2004 and No. 1178 of 29 December 2011 related to: clarification of the procedure for concluding the design and estimate documentation development agreement, extension of the application submission term to set the price for technological connection, settlement of relations with third parties in the framework of the technological connection;
- Regular meetings to resolve technological connection problems in a timely manner;
- Ensuring compliance with deadlines for execution of warnings of the Russian Federal Antimonopoly Service and its territorial bodies in terms of technological connection;
- Pre-trial settlement of disputes with consumers related to technological connection. Meetings with:
- working groups forming part of subsidiaries and affiliates of PJSC Rosseti;
- consumers for pre-trial settlement.

#### Risk management activities

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Risk

Risk of an accident due to the fault of the Company Internal investigations of accidents resulted in issue of orders for remedial actions to be taken.

In addition, the following actions have been taken to minimise this risk:

- Improving personnel qualification by means of practical training of skills and methods of safe work performance (in order to develop the safe occupational behaviour skills of employees and prevent dangerous situations);
- Medical examinations of employees (preliminary, regular, pre-trip);
- Conducting safety days and other occupational safety inspections, working with personnel at each EMPS;
- Operating the system of response to violations of occupational safety requirements (taking enforcement actions against employees, who have violated the occupational safety requirements);
- Analysing violations of the occupational safety requirements and developing the remedial actions;
- Ensuring acquisition and provision of certified high-quality personal protective equipment, special clothing and footwear, rinse-off and detoxicating products, working tools, devices and monitoring their proper application;
- Introducing and applying technologies providing for safe performance of works and safe working conditions;
- Controlling compliance with the occupational safety requirements at PJSC FGC UES' facilities;
- Ensuring safe operation of vehicles, including premises and parking spaces for vehicles;
- Controlling compliance with the rules of passenger and cargo transportation;
- Analysing road accidents and developing remedial actions;
- Controlling performance (implementation) of programmes containing occupational safety requirements and aimed at preventing injuries (programmes for liquidation of potential injury places, etc.);
- Taking actions under the project Safe Energy for Children (conducting electrical safety lessons at schools, excursions for school children to substations, preparing and distributing electrical safety cards and bookmarks for children at schools, publishing articles in regional and interregional mass media about works performed to prevent electrical injuries of children and teenagers):
- Taking actions under the project Safe Energy for Population (interacting with the communities of fishermen, gardeners, non-ferrous metal reception points and informing the population through printed media, radio and television about the danger of approaching and staying close to electrical installations, as well as violating of the electric grid safety rules and requirements, mortal danger of unauthorised connection to electric grids among residents of private households, etc.);
- Taking actions under the programmes for installation of information signs prohibiting and informing about the danger of fishing in the exclusion area of overhead lines, where the overhead lines cross the water bodies;
- When signing contractor agreements, introduction of obligations and liability of personnel for safe performance of works in the existing electrical installations, electrical installations under construction, technical refurbishment, reconstruction and control of their compliance with the safety requirements when performing works;
- Performing inspections at EMPS, where accidents took place, including road accidents;
- Developing and implementing actions to prevent occupational injuries and ensure compliance of the personnel of MPS and EMPS branches with the occupational safety requirements based on the accident investigation results, performance of control measures and resolutions of the Occupational Safety Committee, as well as ensuring efficient operation and constant improvement of the occupational safety management system;
- Timely performance of actions prescribed under the instruction acts and operational instructions issued based on the results of inspections performed by the supervision and control bodies and in the framework of technical supervision, as well as actions to liquidate the reasons of accidents stated in the investigation reports.

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Risk of fluctuation in the labour productivity improvement indicator from the value set in the business plan

- Improving the Company's organisational and staff structure with consideration of centralisation/decentralisation of functions:
- the labour productivity 
  Controlling compliance of actual number of administrative and managerial personnel with the planned values set in the Company's business plan;
  - Taking actions to improve motivation and loyalty of employees and reduce personnel turnover;
  - Improving work organisation for rational use of working time.

## PERFORMANCE RESULTS 2018



#### **MANUFACTURED CAPITAL**

#### **QUALITY MANAGEMENT SYSTEM (QMS)**

QMS is a part of the Company's general 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 satisfy all stakeholders, including employees, shareholders, investors and partners of the Company.

The Company developed and approved by the resolution of the Board of Directors<sup>1</sup> a Regulation on PJSC FGC UES´ Quality Management System.

In 2017, the senior management of PJSC FGC UES made a resolution to bring the existing system in compliance with the requirements of the new version of ISO 9001:2015 in order that the Company can further apply for the international certificate

In 2018, PJSC FGC UES performed the following actions to bring the existing QMS in compliance with the requirements of ISO 9001:2015:

 PJSC FGC UES Quality Policy has been developed, approved by the Management Board of PJSC FGC UES<sup>2</sup> and is planned for approval by PJSC FGC UES Board of Directors in 2019.

- PJSC FGC UES' Quality Management System Guidelines<sup>3</sup> and Internal Audit Procedure of the Quality Management System<sup>4</sup> have been developed and approved;
- 1,415 specialists of the Executive Office/MPS/EMPS received training under the course Quality Management System Meeting the Requirements of ISO 9001:2015. Introduction of the Quality Management System at PJSC FGC UES and the Internal Audit of the Quality Management System at PJSC FGC UES;
- following the results of QMS audit performed at PJSC FGC UES by the consulting company, a conclusion has been drawn that the Company is ready for international certification.

In 2019, PJSC FGC UES plans to certify its QMS in compliance with the requirements of the international standard ISO 9001:2015.

## OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEM

#### **GRID DEVELOPMENT AND INVESTMENTS**

Key investment projects for 2016-2020

Investment projects	Social and economic significance
Development of the power infrastructure for the oil transportation system (ESPO)	In 2017, design and exploration works on the facilities of the external power supply of SS-23, 26, 32 were performed in order to increase oil pumping through the ESPO-I pipeline system up to 80 million tonnes per year in the framework of the interstate agreements with the PRC. Construction and installation works on the facilities of external power supply of SS-6, 29 were carried out, and PJSC FGC UES facilities were reconstructed to increase the capacity of SS-15, 16.
Power supply of port areas	In 2019, the first construction stage of the 330 kV Murmanskaya substation is to be completed. The substation will improve the reliability of power supply to Murmansk and create opportunities for connection of new consumers, including the coal transhipment complex Commercial Seaport "Lavna" and the railway substation of the same name. Power will be supplied to Kolskaya Verf, the offshore superfacility construction yard.  In 2019, reconstruction of Vyshesteblievskaya SS with a capacity of 220 kV will be completed resulting in an increase in transformer capacity by 125 MVA to supply power to railway approach lines to the Dry Cargo Seaport of Taman.
Improvement of the access to electric grid infrastructure of Krasnodar Krai	In order to improve the reliability of electricity supply to consumers of the Pavlovsky and Krylovsky Districts of Krasnodar Krai, Tikhonkaya SS is planned to be built with a capacity of 110 kV and transformer capacity of 64 MVA (2x32 MVA) along with two overhead lines Tikhonkaya-Krylovskaya with a capacity of 100 kV and approximate length of 24 km each, as well as reconstruction of Krylovskaya SS with a capacity of 220 kV.  Technological connection of JSC Oboronenergo was completed. PJSC FGC UES implements a project for construction of Novo-Labinskaya SS with a capacity of 220 kV with overhead lines of 220 kV and commissioning of 330 MVA. In addition, construction of Vostochnaya Promzona SS in Krasnodar is at the completion stage.
Power delivery of the generation facilities	Works were completed for implementation of the power delivery schemes at Rostovskaya NPP, Nizhne-Bureiskaya HPP, and Leningradskaya NPP. Works are continued to implement the power delivery schemes at Novovoronezhskaya NPP-2 and Zaramagskaya HPP.  In 2019–2020, in order to ensure power delivery from plants almost 300.00 km of lines and 1,002 MVA of transformer capacity are planned to be commissioned.
Development of the power infrastructure in the area of BAM and TransSib	In order to ensure the potential loads of the Eastern ground of JSC RZD, PJSC FGC UES implements an Integrated Investment Project of Power Infrastructure Development in the Area of Baikal-Amur and Trans-Siberian Railways. The project will provide infrastructure to the facilities of the Eastern ground of JSC RZD. There will be positive effect achieved for the large potential consumers (PJSC Transneft – MPL ESPO-1, PJSC Polyus, Baikal Mining Company LLC – Udokan Deposit Ore Processing Plant) and for the existing consumers in the territories of the project implementation (improvement of power supply due to commissioning of new and reconstruction of existing transformer capacities and power transmission lines).
Building of the electricity infrastructure for the gas transportation system Power of Siberia	Works continue at the external power supply facilities of a number of compressor plants, Power of Siberia HPP, as well as Chayandinsky OGCF crude oil delivery and acceptance point to provide energy supply to the gas extracting centres of the Republic of Sakha (Yakutia) and the Irkutsk Region, and ensure gas transportation from these plants through Khabarovsk to Vladivostok.

<sup>&</sup>lt;sup>1</sup> Minutes No. 291/3 of 19 November 2015.

<sup>&</sup>lt;sup>2</sup> Minutes No. 1572/5 of 24 August 2018.

<sup>&</sup>lt;sup>3</sup> Order No. 398 of 22 October 2018.

<sup>&</sup>lt;sup>4</sup>Regulation No. 429r of 17 September 2018.

#### Key parameters of the major investment projects

	Implemen	tation period	<ul><li>Commissioned</li></ul>	D. dina	The amount of funding in
Project	start	end	in 2018	Design capacity	2016-2020, RUB bln
Development of the power infrastructure for the oil transportation system	2011	2021	0	354 MVA 554.5 km	11. 90
Power supply of port areas	2011	2019	0	625 MVA 11.4 km	3.17
Improvement of the access to electric grid infrastructure of Krasnodar Krai	2010	2019	0	954 MVA 52.59 km	5.60
Power delivery of the generation facilities	2009	2021	0	8,409 MVA 3,326.40 km 2,250 MVAr	39.28
Development of the power infrastructure in the area of BAM and TransSib	2010	2024	0	3,998 MVA 4,217.9 km 1,394 MVAr	74.96
Ensuring reliable operation of UES of Russia separately from the energy systems of the Baltic States (BRELL macroproject)	2008	2020	0	900 MVA 896.56 km 1,078.8 MVAr	37.48
Building of the electricity infrastructure for the gas transportation system Power of Siberia	2016	2020	0	114 km	5.11

#### **QUALITY MANAGEMENT OF CAPITAL CONSTRUCTION**

As part of the implementation of Decree of the Russian Government No. 468 of 21 June 2010 "On the procedure for conducting construction supervision in the implementation of construction, reconstruction and overhaul of capital construction facilities" in order to verify compliance with the requirements of project documentation, technical regulations, urban development plan of the land, and the results of engineering surveys, construction supervision is carried out.

The construction supervision at the capital construction facilities of the Company's Investment Programme is carried out by organisations engaged in construction, as well as JSC TsIUS UES, within the framework of fulfilling the contract for performance of the functions of a technical customer No. Ts/02 of 1 March 2018.

#### **INCREASING THE RELIABILITY OF POWER SUPPLY**

## ENSURING RELIABLE POWER SUPPLY FOR THE FACILITIES OF THE RUSSIAN INVESTMENT FORUM SOCHI-2018, THE WORLD CUP 2018 AND THE EASTERN ECONOMIC FORUM 2018

From 14 to 16 February 2018, the Russian Investment Forum Sochi-2018 was held at the site of the Main Media Centre of the Olympic Park in Sochi. The Russian investment forum is a key event of the year for the presentation of investment opportunities of regions and a substantive discussion on regional development issues. Practically all Russian regions and the largest Russian companies take part in the forum, which allows for a direct dialogue between the business sphere and the government. PJSC FGC UES' branches Sochi EMPS and Kuban EMPS were involved to ensure power supply of the forum.

The geographical spread of the 2018 World Cup in the Russian Federation covered 11 cities and 12 stadiums. PJSC FGC UES provided power supply for the Spartak stadium in Moscow and Fisht stadium in Sochi. PJSC FGC UES also participated in providing power supply for sports facilities and significant infrastructure facilities of such constituent entities of the Russian Federation as Volgograd, Rostov-on-Don, St. Petersburg, Nizhny Novgorod, Samara, Saransk, Kazan, and Yekaterinburg. PJSC FGC UES' branches MPS Volga, MPS North-West, MPS Ural, MPS Centre, MPS South and 14 EMPS were involved to ensure reliable power supply for the 2018 World Cup facilities.

The tasks of operational and technological management, operational maintenance of SS, diagnostics and testing of equipment, operation of communication systems, operation and repair of power transmission lines were carried out in accordance with the schemes of enhanced operation of electric grid facilities. In total, more than 1,700 people were

engaged and more than 270 units of special equipment were used. During the 2018 World Cup, the electric grid facilities operated according to the normal power supply scheme, and compliance with the technological silence mode was ensured; repair and other works on electric grid facilities involved in the power supply of the 2018 World Cup sport and infrastructure facilities were excluded.

During the 2018 World Cup from 14 June 2018 to 15 July 2018, there were no interruptions in the power supply of sports and infrastructure facilities in the area of responsibility of PJSC FGC UES.

In general, the holding of the sports event is another successful experience after the 2014 Winter Olympics in Sochi. The operation scheme during the 2018 World Cup has fully justified itself and will be further applied in reliable power supply of facilities of special important events in Russia.

In accordance with the Decree of the President of the Russian Federation, the Eastern Economic Forum is held annually in the city of Vladivostok. The IV Eastern Economic Forum was held on Russky Island from 11 to 13 September 2018. The International Forum is held annually in Vladivostok in order to stimulate foreign investment in the Russian Far East and the development of economic cooperation in the Asia-Pacific region. Also, domestic issues related to the Far East are discussed at the event. PJSC FGC UES' branch Primorskoye EMPS (6 SS of 220–500 kV, 10 OHL of 220 kV) ensured reliable power supply for the EEF-2018.

#### RESULTS OF THE REPAIR PROGRAMME IMPLEMENTATION

In 2018, as part of PJSC FGC UES' repair programme, the work on repair and maintenance of power lines, substations, relay protection devices and emergency control automation, automated control systems, telemechanics, communication systems, automated control systems and metering of electricity, measuring instruments, technological and administrative buildings and structures, as well as vehicles, was conducted in accordance with the maintenance and repair consolidated plan of PJSC FGC UES, approved by the Chief Engineer, Deputy Chairman of the Management Board.

The following factors had an impact on the repair campaign in 2018:

- the need to complete the main work affecting the receipt of a certificate of preparedness for a fall/winter period before 1 October 2018;
- elimination of consequences of emergency outages in the electric grid complex;
- organisation of work on the operational and maintenance of the facilities of the Talent and Success Foundation;
- organisation of inspections and thermal imaging of overhead lines and substation equipment in the area

- of responsibility of PJSC FGC UES' branch MPS South, affecting the reliable power supply of the Crimean peninsula;
- preparation of the PJSC FGC UES facilities for holding the 2018 Soccer World Cup;
- preparation of objects of PJSC FGC UES MPS Siberia for holding the XXIX World Winter Universide in the city of Krasnoyarsk in 2019.

The plan of maintenance and repair of the PJSC FGC UES facilities for the main spectrum was completed in full.

In addition to the general plan, a number of unscheduled work was carried out in order to take priority measures to prepare electric power industry subjects for the completion of the compliance assessment in 2018/2019, as well as urgent work in order to ensure reliable operation of electric grid facilities and prevent emergency outages.

Actual repair expenses for 2018 amounted to RUB 13,149 million

Carrying out timely repairs, as well as reliable assessment of the technical condition of the main equipment by technical specialists of enterprises operating UNEG facilities, ensures reliable quality and uninterrupted power supply to consumers.

In accordance with the PJSC FGC UES Long-Term Development Programme, maintenance staff was provided with full load in 2018, taking into account the balance and uniformity of its employment during the year, including by performing additional work outside the repair campaign on investment and unregulated activities (in particular: Technical audit of power supply facilities of the Republic of Dagestan, interregional exercises for organising the elimination of massive power outages of the constituent entities of the Russian Federation), which together resulted in an increase in the efficiency of the load of repair personnel by 1 p.p. in the reporting period compared to 2017 (from 114 % in 2017) to 115 % in 2018), with unconditional compliance with the requirements of the Labour Code of the Russian Federation. In addition, the Company ensured outpacing growth in 2018 in labour productivity of repair personnel in comparison with 2014 in the amount of 16 % with a target value

of 9.8 % established by Programme No. 4 of the 40/40 project, approved by the Protocol of the PJSC FGC UES Budget Committee of 13 September 2018 (letter of PJSC FGC UES No. TS/285/495 of 13 September 2018 "On sending the Protocol of the Budget Committee"), which was mainly achieved through the use of the current costing standards database (hereinafter, the "CSD") of PJSC FGC UES in the 2016 edition (with the expansion and addition of the composition of prices in 2017) and decrease in the ad hoc breaks and loss of working time.

As a result of a 26 % increase in the volume of service over the past 6 years while simultaneously optimising the number of M&R personnel by 11 %, growth in the volume of service (c.u.) by 1 (One) M&R worker was achieved in the amount of 42 %. In particular, the growth of this indicator in 2018 compared with 2017 amounted to 2.6 %.

#### OPERATIONAL PROCESS CONTROL AND SITUATIONAL MANAGEMENT

Operational process control is a system of measures carried out to ensure reliable operation of the UNEG facilities and to comply with the operational process modes set by the dispatch centres of the system operator.

In the framework of operational process control of the Company situational management tasks are executed. The situational management is a system of measures carried out

in correspondence with a contingency or emergency situation on the electric grid complex (analysis and assessment of risks of the situation occurrence and its consequences, making and implementing appropriate management decisions).

The tasks of operational process control and situational management were successfully solved in 2018.

#### Results of operational process control and situational management in 2018

- The Concept of Development of the Operational Process Control Situational Management System in PJSC FGC UES was released and approved in accordance with the Meeting Minutes of the Company's Management Board of 9 October 2018.
- As part of improving the system of accounting for the indicators of reliability of the services provided, Order of PJSC FGC UES No. 443 of 30 November 2018, "On the calculation of reliability indicators of the services provided" was approved. The main amendments affected the following processes:
  - the process of entering information on reliability indicators in the "Emergency" software and "Reliability" complex system of the Ministry of Energy of Russia was regulated;
  - the process of determining the parameters of electricity transmission termination due to process violations was clarified;
  - forms for consumer delivery points were added to the statements for their submission to PJSC Rosseti;
- the process of entering information on the cessation of electricity transmission in the Appendix to the TV (technological violation) investigation certificates was regulated.

- As part of improving the monitoring process and maintaining the required voltage levels in UNEG, as well as in connection with the issuance of the Rules for Technological Operation of Electric Power Systems, approved by Decree of the Russian Government No. 937 of 13 August 2018, Order of PJSC FGC UES No. 255 of 30 June 2017 was updated.
- The Distribution of Functions Between the Management Levels in the Operational Process Control and Situational Management System in PJSC FGC UES was approved by Order of PJSC FGC UES No. 519r of 24 October 2018 and released
- The Instruction for the Production of Switching at PJSC FGC UES' Substations of 35-750 kV was revised and approved by Order of PJSC FGC UES No. 393r of 1 September 2017.
- The Instruction on the Procedure for Conducting Operational Negotiations and Transmitting Operational Information of PJSC FGC UES was approved by Order of PJSC FGC UES No. 7r of 15 January 2018 and issued.
- The Instruction on the Procedure for Working with the Documentation of Operational Personnel of 35-750 kV PJSC FGC UES' Substations was approved by Order of PJSC FGC UES No. 305r of 10 July 2018 and issued.

- The Regulation on the Procedure for Issuing Permits for the Preparation of Workplaces and Admission to Work on Power Lines and Equipment of PJSC FGC UES' Substations was approved by Order of PJSC FGC UES No. 485r of 10 October 2018 and issued.
- The Standard Instruction on the Organisation and Conduct of Inspections of Equipment, Devices and Structures by Operating Personnel of PJSC FGC UES' Substations was approved by Order of PJSC FGC UES No. 49r of 6 February 2018 and issued.
- The Standard Regulations for Work with Operational and Duty Personnel of PJSC FGC UES were approved by Order of PJSC FGC UES No. 219r of 5 May 2018 and issued.
- From 23 to 28 April 2018, the VI Interregional Competition of Operational Personnel of 220-750 kV Substations and Dispatchers of the Grid Control Centre EMPS of PJSC FGC UES was held by PJSC FGC UES' branch MPS West Siberia.
- Transmission of operational information and participation of FGC in providing reliable power supply to facilities during the period of special events (Russian Investment Forum Sochi-2018, St. Petersburg International Economic Forum, Soccer World Cup 2018, International Energy Efficiency and Energy Development Forum "Russian Energy Week", Eastern Economic Forum, etc.).
- During the training organised to work out interaction of the PJSC FGC UES - EMPS branches in the event of liquidation of emergencies at PJSC FGC UES' electric grid facilities (from 22 September 2018 to 21 December 2018), the work of the FGC/MPS/EMPS headquarters was conducted, as well as collection of information and effective management of the training progress.

- The Standard Technical Requirements were approved for the SHS of the APCS of the substations and for the exchange of process data for the implementation of functions of equipment telecommanding and relay protection devices of the substations from the dispatching centres of JSC SO UES and the network management centres of network organisations.
- The Procedure for Planning Disconnection Schedules for Electric Grid Facilities of PJSC FGC UES to Perform Maintenance, Repair, Reconstruction, Targeted Programmes and New Construction was developed and approved by Order of PJSC FGC UES No. 290 of 1 August 2018.
- In connection with the update of the Rules for Repair Outage and Decommission of Electric Grid Facilities (Decree of the Russian Government No. 937 of 13 August 2018 "On approval of the Rules for Process Operation of Electric Power Systems and on Amendments to Certain Acts of the Government of the Russian Federation"), amendments were made to Order of PJSC FGC UES No. 290 of 1 August 2018 "On approval of the Procedure for Planning Disconnection Schedules for Electric Grid Facilities of PJSC FGC UES".
- The Regulation on the Procedure for Executing and Coordinating Normal Electric Circuits of PJSC FGC UES' Substations was developed and approved (it was agreed by JSC SO UES on 25 September 2018 and approved by PJSC FGC UES on 3 October 2018).
- Order of PJSC FGC UES No. 136r of 28 March 2018 "On the Procedure for Installing Portable Grounding and Tolerance on Overhead Power Lines" was issued.

#### REPAIR PROGRAMME

## M&R production results for 2018 and targets for 2019 (own property)

Description of work	Measurement unit	Actual 2018	Target 2019
WORK ON POWER TRANSMISSION LINES			
Clearing routes	ha	56,525	54,808
Cutting down trees threatening to fall	units	24,032	18,176
Insulators replacement	units	88,099	103,464
Replacement/repair/strengthening of the foundations	units	12,094	11,288
Replacement of the ground wire	km	1,331	653
Replacement of the vent fingers	units	3,909	2,440
Replacement of U-bolts of anchor plates	units	110	204
Replacement/reinforcement of supports	units	2,793	2,102
WORKS ON SS			
Repair of autotransformers/transformers	units	47	51
Repair of reactors	units	15	12
Repair of switches	units	1,774	1,716
Repair of disconnectors	units	3,424	4,871
Repair of compressors	units	150	131

#### PREPARATION FOR THE WORK DURING SPECIAL PERIODS

In 2018, the flood in most of Russia was moderate; there were no emergency shutdowns of electricity grid equipment as the result of the flood, including with consumers de-energising in the area of operational responsibility of PJSC FGC UES' branches.

The Company also prevented occurrence of major disruptions in the operation of the energy facilities during forest fires commenced in spring in the Far Eastern Federal District. During the emergency, Company employees worked closely with the regional administrations, the Russian Ministry of Emergency Situations, hydro-meteorological services, and power companies of the regional grid distribution system. The work was done in advance to reduce the possibility of the cut off of overhead lines due to the ground fires, dry vegetation was removed in a timely manner and the fire break plowing was performed around the substations.

44 headquarters function on a permanent basis in the Company's branches in order to ensure reliable operation of the electric grid complex in the event of a power failure of consumers and other abnormal situations. Representatives of the branches participate in the work of the headquarters for

the security of electricity supply established in the constituent entities of the Russian Federation. The Company entered into 154 agreements on cooperation with contractors involved in extraordinary and emergency situations and recovery works at the facilities of the electric grid complex, as well as 62 agreements with Roshydromet, and 81 agreements with the Russian Ministry of Emergency Situations.

The Company has formed an emergency reserve in sufficient volume, including an enlarged assembly. In order to improve the efficiency of the electric grid facilities management during emergency recovery operations, the Company has 584 backup power sources with a total capacity of 173.38 MW.

Passage of the compliance assessment 2018–2019 in comparison with the similar periods of previous years, due to a noticeable decrease in the total number (specific accident rate reduced by 16%) of the voltage transformer by the Company, both at the substation equipment and at power transmission lines; there is also a decrease in the number of accidents caused by personnel erroneous or incorrect actions.

#### **FIRE SAFETY**

**APPENDIX 1** 

#### GRI 103-3, 413-2

The Company complies with the requirements of federal legislation related to fire safety.

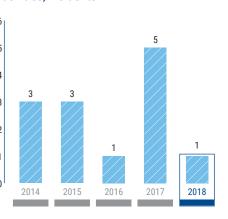
In 2018, one fire was registered at PJSC FGC UES' facilities. There were no signs of violation of the fire safety rules according to the investigation.

Fire safety days are held once every three months in all units of PJSC FGC UES' branches MPS, as a result of which a set of actions has been developed to eliminate identified observations and violations.

FGC UES was noted for the widest geography of participants attracted in the 2017 GTO season. According to the results of the GTO Corporate Cup, the Company took a second place.

As part of the training of fire safety personnel, periodic fire training and exercises are held, including together with the fire-fighting units of the Ministry of Emergency Situations of Russia.

## Reported cases of fires at the Company facilities, incidents

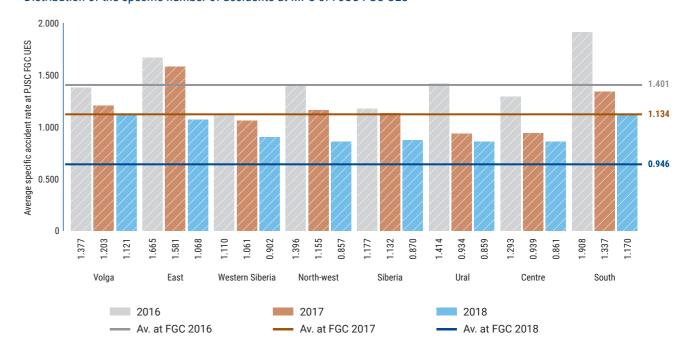


#### Requirements of federal legislation related to fire safety

- Federal Law No.69-FZ of 21 December 1994 "On fire safety";
- Federal Law No. 123-FZ of 22 July 2008 "Technical regulations on fire safety requirements";
- The Fire Safety Rules in the Russian Federation, approved by Decree of the Russian Government No. 390 of 25 April 2012 and other regulatory legal acts of the Russian Federation;
- Company standards, put in force by Order of PJSC Rosseti No. 6r of 15 January 2015:
- Company Standard 34.01-27.1-001-2014 (IFSR 27-14)
   "The Fire Safety Rules in the electric grid complex of JSC Rosseti";
- Company Standard 4.01-27.3-001-2014 (AFSR 28-14)
   "Fire protection installations. General technical requirements";
- Company Standard 4.01-27.3-002-2014 (AFSR 29-14)
   "Fire protection designing of objects of the electric grid complex of JSC Rosseti. General technical requirements".

#### **RESULTS OF ENSURING INDUSTRIAL SAFETY**

#### Distribution of the specific number of accidents at MPS of PJSC FGC UES



GRI 103-3 The average specific accident rate for SS and PTL has a steady downward trend

#### List of the Company's industrial safety projects completed in 2018

- meetings of the Committees on labour protection were
   labour protection days and sudden inspections of working held at the level of the Executive Office and the Company's
- Special commissions checked the norms and rules are known by Company staff; all directors and chief engineers of EMPS and employees of business subdivisions of occupational safety and reliability (BSOSR) of MPS and EMPS passed the knowledge test in the central examination commission of PJSC FGC UES;
- before starting the 2018 repair campaign, actions were implemented to ensure the readiness of objects for its implementation, including staff, protection equipment, tools, rigging, and transport;
- work was carried out to identify hazards and estimate risks (hazard identification at workplaces and injury risk estimation, identification and creation of lists of injury equipment and applied mechanisms requiring the replacement or repair under the conditions of safe works performance, development of actions to eliminate (reduce) hazards, including them in action plans for improving labour conditions and protection, estimation of the adequacy of actions taken to reduce the level of injury and effectiveness of the taken actions);
- an action program was developed and implemented to reduce the injury risks, taking into account the effectiveness analysis of the safety management system and the results of control and analytical actions;
- the training focused on the development of practical skills and methods for safe working practices, and the professional development programmes were adjusted to increase the number of hours for labour protection issues;
- training films on work safety were shown and discussed with the staff during the training;
- the staff was informed on time about the circumstances and reasons of accidents occurred in the electric grid
- the manufacturers of working wear were involved to bring to the staff the importance of the full use of working wear, its component parts and compliance technical requirements;
- drivers who transfer passengers were taught the skills of safe (emergency) driving, including driving in difficult road and climatic conditions on the basis of specialised educational organisations;

- teams were held every month;
- target inspections of the organisation of labour protection in EMPS and mutual inspections between EMPS for the experience exchange were carried out;
- months of road traffic safety were held;
- the implementation of the Behavioural Safety Audit project was continued to change the staff's approach to the conscious observance of safety standards;
- work was carried out to prevent violations of labour protection requirements, including for poor-quality performance of functional responsibilities in labour protection on the basis of the Regulation on the System of Response to Violations of Labour Protection Requirements by Company staff;
- the implementation of the project for the use of mobile video recorders to record and analyse with the staff the most dangerous behaviour of employees performing woks in existing electrical installations;
- target inspections of the enterprises in which accidents took place (on results of the investigation of these accidents, the analysis of detected violations and the inspection of the organisation of safe working practices were conducted, corrective and preventive actions were developed, which were extended to all Company's branches, corrective measures were taken for those employees who committed violations or poorly performed their labour
- the work of stationary and movable labour protection cabinets was continued to promote safe labour conditions and to train staff in safe working methods, taking into account the modern requirements;
- the work on the effective functioning of the psychological discharge rooms for the operating staff of substations was continued;
- a contest for the best work organisation on labour protection in EMPS and the best work organisation on labour protection in MPS was held. In 2018, the Sverdlovsk enterprise of MPS of Ural and MPS of Siberia were recognised as the best Company's branches for the work organisation on labour protection, respectively.

#### **DEVELOPMENT OF COMMUNICATION AND IT SYSTEMS**

#### **AUTOMATED PROCESS CONTROL SYSTEM**

Automated process control system (APCS) is a unified distributed hierarchical system that allows to perform operational and non-operational functions by the Grid Control Centres, to improve the efficiency of UES mode control due to high level of observability, to prevent the emergency outages of consumers and to reduce the time for decision making and the possibility of wrong actions by operating staff in emergency situations.

APCS, as a control system for the operation UNEG, combines means and subsystems of the existing independently developing automatic and automated control systems (such as APCS, IATS, ADCS, RPA, EFMS), thus providing the necessary interface for interaction with the control systems of the system operator and grid distribution companies.

As a control system for the operation and development of UNEG, APCS unites the means and automation systems of

the dispatch operational and technical activities of the FGC apparatus and MPS/EMPS services.

In 2018, the works on creation of automated operational and technological control systems of the Grid Control Centres (AOTCS GCC) were continued.

In 2018, the actions were continued to improve the reliability and observability of the objects of UNEG in accordance with concluded contracts on the creation of ITC IATS in MPS North-West by 36 SS, MPS Volga - 27 SS, MPS South - 25 SS, MPS Siberia - 16 SS, MPS East - 8 SS.

When carrying out project, the Import Substitution Programme is implemented, the preference is given to using equipment and software of domestic manufacturers at all hierarchy levels of technological control.

#### **DEVELOPMENT OF THE ENTERPRISE INFORMATION CONTROL SYSTEM**

The enterprise information control system (EICS) of PJSC FGC UES is a set of information systems that are methodologically and technically interconnected and meant to the Company's business processes automation in order to increase their efficiency. The development of EICS is carried out within the frame of the consolidated IT strategy implementation plan of PJSC FGC UES for 2014-2020 (IT strategy), approved by the Management Board of PJSC FGC UES in 2014.

In 2018, a number of projects was implemented within the framework of which the Company's business processes through the development of their automation. In particular, the following business processes were improved:

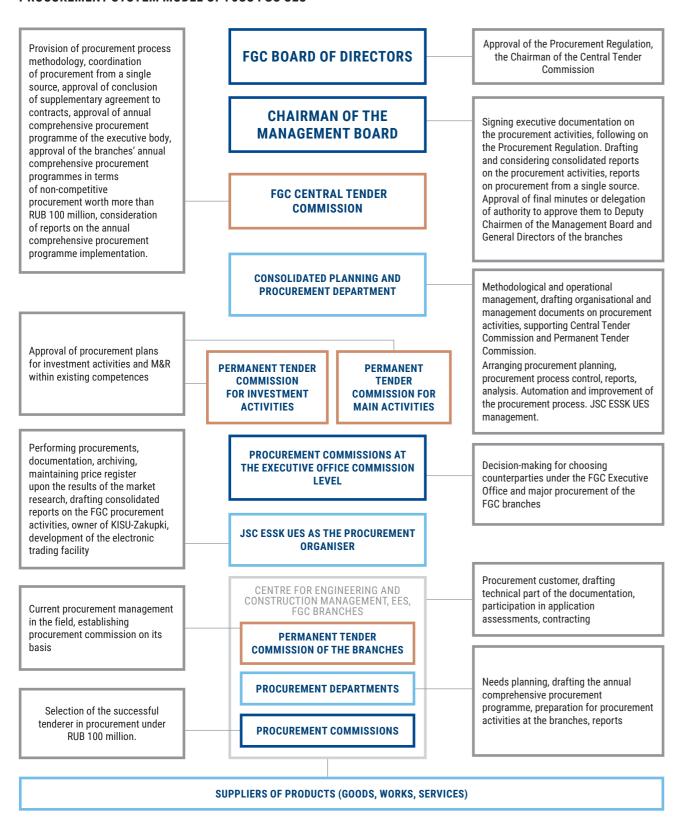
• investment management (project for the creation of an automated system for verification and correction of the investment programme);

- financial management (projects for the creation of an automated control system of relationship with contractors in terms of counter requirements and the creation of an automated accounting system of address and target
- property management (project for the creation of an automated accounting system of movable property and the maintenance of legal information on properties);
- business assets management (project for the creation of an automated process control system of planning repairs, diagnostics and evaluation of technical conditions).

In 2019, the development of EICS will be continued within the frame of the consolidated IT strategy implementation plan of JSC FGC UES for 2014-2020, taking into account the results of the draft Consolidated Plan of the Department Programme "Unified technological policy. Reliability of electricity supply" and the tasks of moving to the prior use of domestic software.

#### PROCUREMENT CHAIN AND PROCUREMENT ACTIVITY

#### PROCUREMENT SYSTEM MODEL OF PJSC FGC UES



#### PROCUREMENT METHODS

#### Competition

**APPENDIX 1** 

The competition is the main procurement method, with or without pre-qualification, without special procedures, in the absence of expressly provided grounds of carrying out other procedures (the assumed procurement volume exceeds RUB 10 million (incl. VAT).

#### Auction

The auction can be only one-stage, with or without pre-qualification. The auction does not provide for post-qualification or the right to submit alternative proposals. It is held when purchasing products, for which there is a competitive market of producers and for which the procurement initiator has formulated detailed requirements in form of the technical task. CPB PJSC FGC UES has the right to determine the list of products purchased only following the results of the auction.

Request for proposals can be with or without pre-qualification. It is held when one of the following conditions is fulfilled:

a) the initial (maximum) contract price doesn't exceed RUB 10 million (incl. VAT);

#### Request for proposals

b) short deadlines - from the date of announcement of the procurement procedure to the beginning of deliveries, works and services less than 20 calendar days (there is no possibility to hold an open competition), but there are no circumstances requiring the immediate procurement from a single source, and the complexity of products or conditions of their delivery don't allow for the auction or request for rates.

#### Request for rates

When purchasing simple products for which there is a functioning market, the only criterion is the rate and provided that the contract price doesn't exceed RUB 5 million for the open rate request (incl. VAT) based on the results of open competitive procedures, among the participants, with whom framework agreements have been concluded. It is prohibited to conduct procurement of complex, unique equipment by means of the request for rates.

They are carried out when the customer's profit for the reporting financial year is more than RUB 5 billion. In other cases, this procurement method is not used.

#### Simple procurement

It is carried out when technical requirements are clearly formulated for products to be purchased, including when the functional characteristics (consumer properties) of goods, sizes, package, goods dispatch are determined, the specific requirements to the work (services) results in the form of the technical task are established.

It is carried out when the initial (maximum) contract price amounts from RUB 100,000 to 500,000, inclusively (incl. VAT). It can be carried out by the customer's decision when the initial (maximum) contract price is less than RUB 100,000 (incl. VAT).

#### Small procurement

It is carried out when the initial (maximum) procurement price is up to RUB 100,000 (incl. VAT). It is carried out when technical requirements are clearly formulated for products to be purchased, including when the functional characteristics (consumer properties) of goods, sizes, package, goods dispatch are determined, the specific requirements to the work (services) results in the form of the technical task are established.

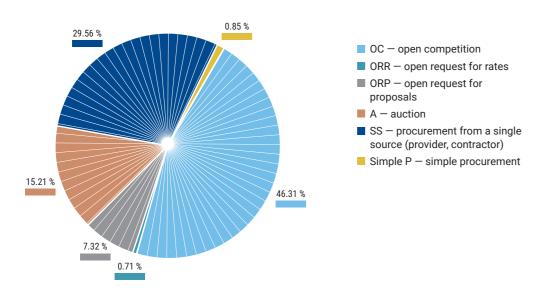
The decision on the choice of a supplier is accepted by the customer's CPB or by other authorising body within its competence in accordance with the Unified Procurement Standard based on the customer's information on the conducted market analysis.

#### Procurements from a single source (provider, contractor)

They are divided into

- a) procurement of unique goods (works, services) from a single supplier (provider, contractor);
- **b)** procurement from a single source (contractor, provider) in order to prevent emergency situations or liquidate their consequences.

#### Structure of regulated procurements by their implementation methods in 2018



TOTAL	By all methods	ОС	ORP	ORR	A	SS1	Simple P
Cost of conducted procedures, RUB bln	227.1	105.2	1.6	16.6	34.6	67.2	1.9
Number of conducted procedures, pcs.	17,584	694	1,311	2,333	5	816	12,425
In % from the cost of conducted procedures	100	46.31	0.71	7.32	15.21	29.56	0,85

According to the results of the procurement campaign in 2018, PJSC FGC UES completed 17,584 procurement procedures for a total amount of RUB 227,142,549.53 thousand. The share of procurement procedures conducted on a competitive basis was RUB 159,927,163.6 thousand or  $70.4\,\%^1$  of the total procurement volume. The economic effect from the procurement performance was RUB 5,734,918.8 thousand.

#### INFORMATION ON THE COOPERATION WITH SMALL AND MEDIUM-SIZED BUSINESS ENTITIES IN 2018

In accordance with Federal Law No. 223-FZ of 18 July 2011, the procurement activity is carried out with the inclusion in the procurement plan of goods, works, services and innovating and high-technology products, the compulsory procurement portion from small and medium-sized business entities (SME). From the force (1 July 2015) of the RF Government Decree No. 1352 of 11 December 2014, which approved procurement quotas by specific customers of SME in the amount of 10 % and further increasing the portion of such procurements (special trades) up to 15 %, the procurement plan from such SME, within the frame of the main and investment activities of the Company, is exceeded in the range from 10 % to 30 % and above during the reporting year regularly.

Within the frame of execution of the RF Government Order No. 867-r of 29 May 2013 "On approval of the action plan ("road map") "Access extension of small and medium-sized business entities to the procurements of infrastructure monopolies and government-sponsored companies", in 2014 the Programme of Partnership between PJSC FGC UES and small and mediumsized business entities was approved by PJSC FGC UES, and the register of small and medium-sized business entities that has joined the Partnership Programme is maintained<sup>2</sup>. The "Road map for the cooperation with SME" section was also developed on the Company's official website www.fsk-ees. ru/suppliers/dorozhnaya\_karta\_po\_sotrudnichestvu\_s\_msp. The list of goods, works and services that are planned to be purchased only from small and medium-sized business entities was approved on 27 April 2015 according to the RF Government Decree No. 1352 of 11 December 2014. This list expands every year to increase the procurement portions from SME. There were 118 positions at the end of 2018. Also, in order to ensure the efficiency of procurement conducted by PJSC FGC UES for small and medium-sized enterprises, on 25 February 2014 the composition of the advisory body was approved, which included the following representatives: PJSC Rosseti, Chamber of Commerce and Industry of the Russian Federation, Skolkovo Foundation, Association of Enterprises of the Power Constructing Complex, Compliance

Evaluation and Monitoring Directorate of JSC Corporation

SME. Committee on Innovation of NAPI. Procurement and

Sales Management Institute named after A.B. Solovyov

of NRU HSE, Energy Committee of the All-Russian Public

Organisation of SME OPORA ROSSII, and RUSENERGOSBYT LLC (hereinafter, the "Council of SME").

Taking into account the draft amendments, the procurement plan was approved by the Federal Corporation for the Development of Small and Medium-Sized Enterprises in 2018.

There are regular interactions with development institutions, including JSC Corporation SME, as well as other organisations and industry associations to support SME and increase procurements of such SME in the total annual procurement volume of the Company. An efficient instrument in such work was the Council of SME. On 8 June 2018, a joint meeting of the Advisory Bodies on ensuring the procurement efficiency was held by PJSC Rosseti, PJSC FGC UES, PJSC MOESK, and PJSC IDGC of Centre as part of the Open Day for suppliers and potential participants of procurement procedures. SMEs, JSC Corporation SME, Opora Rossii, Chamber of Commerce and Industry, etc. were invited to the event (Minutes of 8 June 2018).

The work is carried out with the suppliers (contractors, providers) who have joined the Programme of Partnership between PJSC FGC UES and SMEs according to the Company's Order No. 92 of 25 February 2014. The register of such SMEs is maintained, information on which is posted on the official website of PJSC FGC UES. In addition, the work is carried out to monitor and update the list of goods, works and services that are purchased only with the participation of SMEs in order to increase the procurement portion from such SMEs.

According to the Company's innovation development plan and the needs for innovation and high-technology products, the list of goods, works and services that meet criteria for being qualified as innovative products, advanced technology products has been developed and approved by Order No. 500r of 30 November 2016. The innovative products procurement plan for 2016–2020 was placed in the UIS on 27 December 2016. The innovation plan for 2018 was amended. In 2018, the work on the draft regulations of appeals of SME for the introduction of innovation proposals was continued. This regulation is integrated into the Company's draft order "On approval of the Regulation for the Performance of Pilot Production at PJSC FGC UES' Facilities" and to date it is under approval by the interested business units of PJSC FGC UES.

<sup>&</sup>lt;sup>1</sup> Taking into account the procurement procedures in the amount of RUB 41,476,691.6 thousand for the assets exchange in accordance with the instruction of the Russian Government No. DK-P9-5664 of 29 August 2019 and the building lease for the Executive Office of PJSC FGC for 5 years in the amount of RUB 3,588,878.8 thousand.

<sup>&</sup>lt;sup>2</sup> To date, Order No. 867-r has been fulfilled (the RF Government Order No. 174-r of 6 February 2016).

#### Information on complaints sent to the Federal Antimonopoly Authority on actions of PJSC FGC UES when carrying out the procurement activity

The main objects of complaints were:

- 1) The unanswered request of a participant in the procurement procedure for explanation of provisions of procurement documentation.
- 2) Wrongful rejection/admission of a participant in the procurement procedure.
- 3) An indication in notice that doesn't correspond to the procurement object of OKPD.
- 4) Procurement without taking into account the peculiarities of participation of SMEs.
- 5) Violation of the re-sale procedure.
- 6) The time extension of application consideration and the summation of procurement results.
- 7) Incorrect evaluation of the participants' applications.

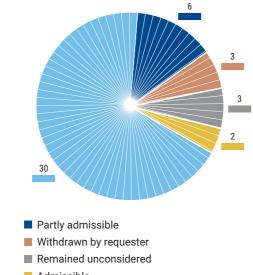
During the reporting period, the Moscow Arbitration Court considered 26 cases on appeal of decisions of the FAC (including appeal of decisions made by the FAC in 2017).

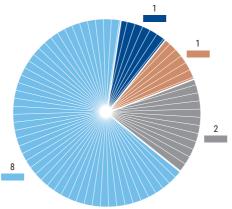
Upon the results of the consideration, 2 requirements of PJSC FGC UES were rejected by the Moscow Arbitration Court, and 24 requirements of PJSC FGC UES were met in full.

Within the framework of administrative proceedings of the FAC, 4 decisions on instituting administrative action against PJSC FGC UES were taken under p. 7, Art. 7.32.3 of AC (violation of retirements for the content of notices, documentation) for a total amount of RUB 20,000. By the decisions of the Moscow Arbitration Court, the above mentioned resolutions of the FAC are recognised as illegal and cancelled.

During 2018, the 9th Arbitration Court of Appeal considered 12 cases in appeal of decisions of the Moscow Arbitration Court (including appeal of decisions of the Arbitration Court given in 2017), where: 2 appeals of PJSC FGC UES were accepted, 1 appeal of PJSC FGC UES was rejected, including 1 accepted appeal of the FAC; upon the results of the consideration of 8 appeals of the FAC, the decisions of first instance were left unchanged, the stated claims of the FAC were not accepted.

The Arbitration Court of the Moscow District considered 2 cassation appeals, where: 1 appeal of the FAC was rejected, the decision of first instance was left unchanged, 1 appeal of the FAC was accepted.



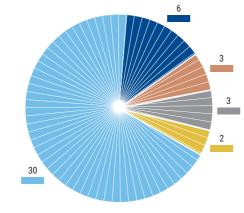


- FAS appeal claims left unaccepted

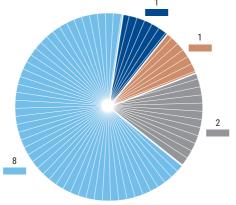
#### IMPORT SUBSTITUTION POLICY

The corporate plan of import substitution corresponds to the following tasks:

- ensuring technological safety of the electric grid complex of the Russian Federation;
- reducing dependence on foreign products, equipment, technical devices as well as services/works of foreign companies and use of foreign software.



- Admissible
- Inadmissible



- Accepted FAS appeals
- Rejected appeals of PJSC FGC UES
- Accepted appeals of PJSC FGC UES



#### MAIN FINANCIAL AND ECONOMIC INDICATORS, RUB BLN

No.	Indicator	2015	2016	2017	2018
1.	Revenue from sales of products (services), including:	173.3	218.4	216.0	240.3
1.1.	Electricity transmission	159.0	171.1	192.6	213.6
1.2.	Technological connection	12.4	45.5	21.4	24.3
1.3.	Sale of electricity				
1.4.	Other activities	1.9	1.8	2.0	2.4
2.	Cost of products (services)	-134.9	-140.0	-152.4	-170.8
3.	Gross profit	38.3	78.3	63.6	69.5
4.	Administrative expenses	-7.9	-8.0	-8.3	-8.5
5.	Selling expenses				
6.	Profit (loss) on sales	30.5	70.3	55.4	61.0
7.	Interest receivable	8.2	7.8	8.6	8.1
8.	Interest payable	-8.5	-6.2	-3.9	-4.0
9.	Income from participation in other organisations	0.1	0.3	1.9	2.5
10.	Other income	23.5	73.0	23.5	25.7
11.	Other expenses	-26.0	-20.8	-24.9	-19.8
12.	Profit (loss) before taxation	27.9	124.3	60.6	73.4
13.	Tax on profit and other payments	-10.0	-18.2	-18.2	-17.2
14.	Net profit (loss)	17.9	106.1	42.4	56.2
15.	Adjusted EBITDA*	103.7	119.7	129.3	129.0

<sup>\*</sup> Excluding operations for the accrual and restoration of provisions for doubtful debts, financial performance related to the sale of and change in the cost of quoted business assets, and revenues from technological connection.

#### **PROFIT DISTRIBUTION**

Profit distribution in 2018, RUB thousand

	2014 (for 2013)	2015 (for 2014)	2016 (for 2015)	2017 (for 2016)	2018 (for 2017)
Undistributed profit (loss) of the reporting period, incl.:	-25,897,521	4,699,940	17,870,137	106,070,911	42,361,640
Reserve fund	-	256,837	893,507	5,303,546	2,118,082
Development	_	-	-	21,599,974	19,935,757
Payment of dividends	_	847,383	16,976,630	18,184,825	20,307,801 (including the interim dividends for Q1 2017 1,423,130 (AGM Resolution No. 18 of 3 July 2017))
Cover for losses of previous periods	-	3,595,720	-	60,982,566	-

is presented in accordance with the resolutions of the AGM 2015 (for 2014) – Minutes No. 16 of 30 June 2015; Company's Annual General Meetings of Shareholders (AGM):

Information on the profit distribution and dividends paid AGM 2014 (for 2013) – Minutes No. 15 of 30 June 2014; AGM 2016 (for 2015) - Minutes No. 17 of 4 July 2016; AGM 2017 (for 2016) - Minutes No. 18 of 3 July 2017; AGM 2018 (for 2017) - Minutes No. 20 of 2 July 2018.

#### ISSUES OF THE COMPANY'S BONDS IN CIRCULATION

As of 31 December 2018, the following issues of the Company's bonds circulated:

Series	Total nominal value (RUB)	Placement coupon rate	Volume in circulation at nominal value (RUB)	Current coupon rate
4-06-65018-D	10,000,000,000	7.15 %	7,534,586,000	8.25 %
4-07-65018-D	5,000,000,000	7.50 %	1,760,821,000	7.50 %
4-08-65018-D	10,000,000,000	7.15 %	7,314,887,000	8.25 %
4-09-65018-D	5,000,000,000	7.99 %	667,049,000	0.10 %
4-10-65018-D	10,000,000,000	7.75 %	29,151,000	7.75 %
4-11-65018-D	10,000,000,000	7.99 %	520,989,000	0.01 %
4-12-65018-D	10,000,000,000	8.10 %	46,462,000	8.10 %

Series	Total nominal value (RUB)	Placement coupon rate	Volume in circulation at nominal value (RUB)	Current coupon rate
4-13-65018-D	10,000,000,000	8.5 %	10,000,000,000	8.50 %
4-18-65018-D	15,000,000,000	8.50 %	109,762,000	8.50 %
4-21-65018-D	10,000,000,000	8.75 %	419,838,000	7.40 %
4-22-65018-D	10,000,000,000	1-2 coupons - 9 % per annum, 3-20 coupons are calculated using the formula*: Ki = (CPI - 100 %) + 2 %	10,000,000,000	4.80 %
4-23-65018-D	10,000,000,000	1 coupon – 8.4 % per annum, 2–140 coupons are calculated using the formula: Ki = $(CPI - 100 \%) + 1 \%$	10,000,000,000	4.50 %
4-24-65018-D	10,000,000,000	8.00 %	10,000,000,000	8.00 %
4-25-65018-D	15,000,000,000	8.60 %	1,781,862,000	9.00 %
4-26-65018-D	15,000,000,000	1 coupon - 7.5 % per annum, 2-136 coupons are calculated using the formula: Ki = (CPI - 100 %) + 1 %	15,000,000,000	4.40 %
4-27-65018-D	15,000,000,000	1 coupon – 7.5 % per annum, 2–136 coupons are calculated using the formula: Ki = (CPI – 100 %) + 1 %	11,000,000,000	4.40 %
4-28-65018-D	20,000,000,000	1 coupon – 8.4 % per annum, 2–140 coupons are calculated using the formula: Ki = (CPI – 100 %) + 1 %	20,000,000,000	4.50 %
4-29-65018-D	20,000,000,000	1 coupon – 7.1 % per annum, 2–132 coupons are calculated using the formula: Ki = (CPI – 100 %) + 1 %	20,000,000,000	4.40 %
4-30-65018-D	10,000,000,000	1 coupon - 7.5 % per annum, 2-132 coupons are calculated using the formula: Ki = (CPI - 100 %) + 1 %	10,000,000,000	4.50 %
4-34-65018-D	15,000,000,000	1 coupon – 7.5 % per annum, 2–132 coupons are calculated using the formula: Ki = (CPI – 100 %) + 1 %	14,000,000,000	4.50 %
4-37-65018-D	20,000,000,000	1 coupon – 17.9 % per annum, 2–120 coupons are calculated using the formula: Ki = (CPI – 100 %) + 1 %	20,000,000,000	4.40 %
4-38-65018-D	20,000,000,000	1 coupon – 17.9 % per annum, 2–120 coupons are calculated using the formula: Ki = (CPI – 100 %) + 1 %	20,000,000,000	4.40 %
4B02-02-65018-D	10,000,000,000	9.35 %	10,000,000,000	9.35 %
4B02-03-65018-D	10,000,000,000	7.75 %	9,000,000,000	7.75 %
4B02-04-65018-D	10,000,000,000	7.6 %	7,000,000,000	7.60 %
Exchange bonds series 001P-01R	10,000,000,000	8.70 %	10,000,000,000	8.70 %
XS0863439161	17,500,000,000	8.446 %	17,500,000,000	8.446 %

#### ANALYSIS OF CHANGES IN THE ACCOUNTS RECEIVABLE, RUB BLN

Indicator	for 31 Dec 2016	for 31 Dec 2017	for 31 Dec 2018
Accounts receivable. including:	135.2	128.4	169.9
Buyers and customers. including:	100.5	112.8	121.9
electricity transmission	39.5	36.3	29.6
technological connection services	57.4	74.8	91.1
Notes receivable	20.6	0.6	0.6
Advances made	0.5	0.3	1.6
Other receivables	13.6	14.7	45.7

The increase in other accounts receivables as of 31 December 2018 was due to the sale of shares of PJSC Inter RAO in 2018, the payment of which under the terms of the concluded contracts is foreseen in 2019.

In 2018, in order to recover accounts receivables of the counterparties, the PJSC FGC UES Executive Office sent 183 claims and statements to arbitral tribunals concerning the inclusion in the register of claims of debtors for the recovery of debt for electricity transmission services. Total claims amounted to RUB 18,170.88 million.

Based on the outcomes of court proceedings in 2018, judicial acts were issued on collecting receivables for electricity transmission in favour of the Company in 139 cases for a total amount of claims of RUB 4,846.49 million.

In 2018, with a view to recovering accounts receivable from counterparties of PJSC FGC UES' branches MES,

249 statements of claim and applications for inclusion in the register of creditors' claims were submitted to arbitral tribunals. Total claims amounted to RUB 2,441.40 million.

ADDITIONAL INFORMATION ON THE SECTIONS OF THE ANNUAL REPORT

Based on the outcomes of court proceedings in 2018, judicial acts were issued to collect accounts receivable in favour of FGC UES' branches MES and the inclusion in the register of creditors' claims in 159 cases for a total of RUB 519.39 million.

The total amount of claims for unfinished legal proceedings in which FGC acts as a plaintiff amounts to RUB 55.384 billion as of 31 December 2018, including RUB 22.234 billion for the FGC Executive Office.

The total amount of the claims for unfinished legal proceedings in which FGC acts as a defendant amounts to RUB 15.858 billion as of 31 December 2018, including RUB 2.614 billion for the FGC Executive Office.

#### ANALYSIS OF CHANGES IN ACCOUNTS PAYABLE, RUB BLN

Indicator	for 31 Dec 2016	for 31 Dec 2017	for 31 Dec 2018
Accounts payable. including:	60.0	54.5	68.2
Suppliers and contractors	31.0	30.4	39.3
Notes payable			
Advances received	8.2	12.5	13.2
including power purchase agreements	6.4	11.8	11.2
Taxes and duties	16.7	7.3	11.0
Other payables	4.1	4.3	4.7

#### **TARIFF REGULATION**

#### GRI 103-2

### THE LIST OF MAIN REGULATORY ACTS REGULATING THE ISSUES OF TARIFF SETTING AND ELECTRICITY TRANSMISSION ACTIVITIES THROUGH UNEG

- Federal Law No. 35-FZ of 26 March 2003 on Electric Power Industry;
- resolution of the Russian Government No. 1178 of 29 December 2011 on Pricing in Regulated Areas (Tariffs) in the Electric Power Industry;
- resolution of the Russian Government No. 1220 of 31 December 2009 on Defining the Applicable Indicators of Reliability and Quality of Goods and Services Provided in Establishing Long-Term Tariffs;
- resolution of the Russian Government No. 1172 of 27 December 2010 on Approval of the Rules for the Wholesale Electricity and Capacity Market and Amendment of Certain Acts of the RF Government Related to Organising the Functioning of the Wholesale Electricity and Capacity Market;
- resolution of the Russian Government No. 861 of 27 December 2004 on Approval of the Rules for Non-Discriminatory Access to Electricity Transmission Services and Provision Thereof, the Rules for Non-Discriminatory Access to Services on Operational Dispatch Management in the Electric Power Industry and Provision Thereof, the Rules for Non-Discriminatory Access to Services of the Wholesale Market Administrator and Provision Thereof, the Rules for Technological Connection of Power Receivers

- of Electricity Consumers, Power Generating Facilities, and Electric Grid Facilities Owned by Grid Organisations and Other Entities, to Electric Grids;
- resolution of the Russian Government No. 977 of 1 December 2009 on Investment Programmes of Electric Power Industry Entities;
- Russian FTS Order No. 56-e/1 of 21 March 2006 on Approval of the Guidelines for Calculation of Tariffs for Electricity Transmission via Unified National (All-Russia) electric Grid;
- Russian FTS Order No. 228-e of 30 March 2012 on Approval of the Guidelines for Regulation of Tariffs Using the Return on Equity;
- Russian FTS Order No. 53-e/1 of 12 April 2012 on Approval of the Procedure for Preparing of a Consolidated Balance Forecast for Electricity Generation (Capacity) and Supply Within the Unified Energy System of Russia by Constituent Entities of the Russian Federation and the Procedure of Determining the Ratio of the Total Forecasted Annual Electricity Consumed by the Population and Similar Consumer Categories to the Volume of Electricity, Corresponding to the Annual Average Forecasted Capacity Determined for These Consumer Categories.

#### REGULATION OF TARIFFS FOR ELECTRICITY TRANSMISSION SERVICES THROUGH UNEG

Russian FTS Order No. 297-e/3 of 9 December 2014 approved the tariffs for electricity transmission via UNEG for the second long-term regulatory period of 2015–2019. At the end of 2018, the following changes were made to the established tariffs and regulatory parameters:

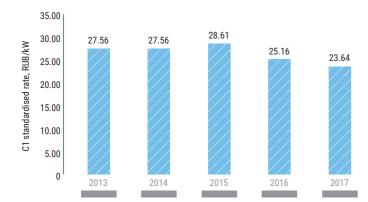
- according to clause 37 of the Basics of Pricing in the Field of Regulated Prices (Tariffs) in the Electric Power Industry, approved by the Resolution of the Russian Government No. 1178 of 29 December 2011; Order of the FAS of Russia No. 1710/18 of 6 December 2018 amended Russian FTS Order No. 297-e/3 of 9 December 2014 and approved adjusted tariffs for electricity transmission services via UNEG, provided by PJSC FGC UES for 2019;
- by Order of the Federal Antimonopoly Service of Russia No. 873/18-DSP of 26 June 2018 (as amended No. 1649a/18-DSP of 27 November 2018) the forecast balance of electricity and capacity for 2019 was approved, providing for a decrease in the volume of services provided by the Company to network organisations from 1 July 2019, due to a phased transition to the calculations based on the arithmetic mean power.

#### TARIFFS FOR TECHNOLOGICAL CONNECTION SERVICES

The FAS of Russia defines two payment methods for technological connection to the UNEG facilities: the approval of individual payment for a specific applicant (in case if construction of electrical grid facilities is required) and approval of the payment per formula using the C1 standard tariff rate.

During the period from 2013 to 2017, the Federal Tariff Service of Russia and the Federal Antimonopoly Service of Russia approved the standardised tariff rate C1 for PJSC FGC UES in the amount of RUB 23.64 to 28.61 for 1 kW (excl. VAT).

Dynamics of the C1 standardised rate, RUB/ kW (excl. VAT) in the period from 2013 to 2017

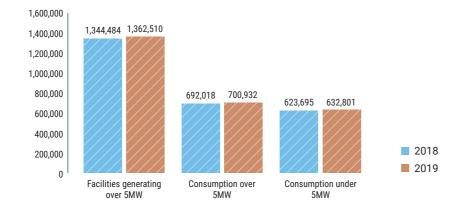


Order of the FAS of Russia No. 1135/17 of 29 August 2017 on Approval of Guidelines for Determining the Amount of Payment for Technological Connection to Electric Networks established a new procedure for calculating the charge of the C1 standardised tariff rate for technological connection to UNEG on the basis of 1 connection (1 contract for technological connection), differentiated by three categories of applicants.

Order of the FAS of Russia No. 1827/18 of 21 December 2018 on Approval of the Payment for Technological Connection of Power Receivers of Electric Power Consumers, Electric Power Generation Facilities, and Electric Grid Facilities owned by Grid Organisations and Other Persons to Unified National

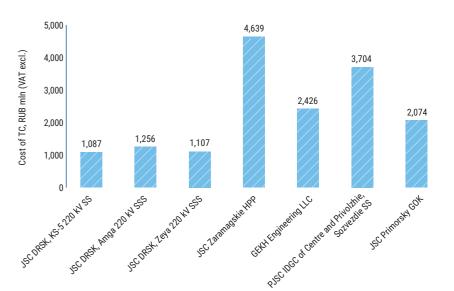
Facilities in the Form of a Formula for 2019 approved the C1 standardised tariff rate for three categories of applicants in the amount of:

- RUB 1,362,509.76 excl. VAT for technological connection of facilities for the production of electricity, the connected capacity of which exceeds 5 MW;
- RUB 700,931.55 excl. VAT for technological connection of power receiving devices, as well as electric grid facilities, the connected capacity of which exceeds 5 MW;
- RUB 632,800.69 excl. VAT for technological connection of power receiving devices and power industry facilities, the connected capacity of which does not exceed 5 MW.

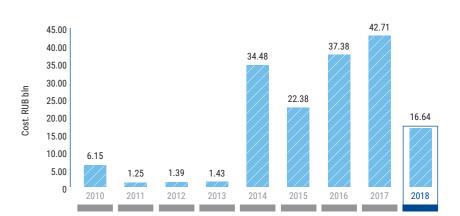


In 2018, the payment for technological connection on an individual project was established for 15 consumers for a total of RUB 16.6 billion (excl. VAT).

Applicants with the highest fee for technological connection



Dynamics of the approval of individual payment for technological connection



#### **REGULATION OF RELIABILITY AND QUALITY OF SERVICES**

GRI 103-

Tariff regulation carried out by the method of return on invested capital on the basis of long-term parameters, implies the obligation of FGC to fulfil the reliability and quality indicators of the services provided by the FTS of Russia.

Order of the Ministry of Energy of Russia No. 1256 of 29 November 2016 approved the Methodological Guidelines for calculating the level of reliability and quality of the goods supplied and services provided for the organisation managing the UNEG and territorial grid organisations.

The list includes the indicators of power transmission reliability that characterise occurrence of process disturbances and

their consequences for the consumers, as well as the quality indicators of consumer service that primarily characterise timely execution of technological connection liability.

Order of the FTS of Russia No. 254-e/1 of 26 October 2010 approves the Guidelines for calculation and application of decreasing (increasing) factors allowing to ensure consistency of the tariff levels established for organisations that perform regulated operations with the level of reliability and quality of goods delivered and services provided. In accordance with these guidelines, the increasing or decreasing factors within the limits of 3 % of the required gross revenue will be applied to the FGC revenues.

#### Planned values of reliability and quality indicators for the FGC services established by the FTS of Russia

	2015	2016	2017	2018	2019
Service reliability indicator	0.03602	0.03548	0.03495	0.03443	0.03391
Services quality level indicator	1.23908	1.22049	1.20219	1.18415	1.16639

#### TARIFFS FOR SERVICES FOR ELECTRICITY TRANSMISSION ON OBJECTS OF DISTRIBUTIVE NETWORKS

The FGC provides electricity transmission services using distribution grid facilities (DGF), created as part of the PJSC FGC UES investment programme, including electric grid facilities built for the XXII Olympic Winter Games and the XI Paralympic Winter Games of 2014 in Sochi, built by the Olimpstroy Group of Companies, transferred for free use by the FGC in pursuance of the orders of the Government of the Russian Federation, as well as facilities built to supply the Valaam Island in the Republic of Karelia.

For the first time for FGC, Order of REC-DTST of Krasnodar Krai No. 82/2014-e of 26 December 2014 approved tariffs for 2015 for the services of electric power transmission in DGC facilities located in the Krasnodar Territory.

By Resolution of the State Committee of the Republic of Karelia No. 243 of 27 December 27 2016 on prices and tariffs, tariffs for electricity transmission services for DGF facilities located in the Republic of Karelia owned by the Company were approved for the first time for 2017.

According to the barter agreement No. 544364 of 26 December 2014 concluded between PJSC FGC UES and JSC DVEUK, DGF facilities located in the Krasnodar Territory and the Republic of Karelia (Valaam Island) were transferred into the ownership of JSC DVEUK.

Given the fact that FGC UES PJSC has established tariffs for electricity transmission services at DGC facilities for 2019,

JSC DVEUK and PJSC FGC UES concluded lease agreements for DGC facilities located in the Krasnodar Territory and the Republic of Karelia (Valaam Island), in accordance with which the said facilities of DGC were transferred for temporary possession and use of PJSC FGC UES on 1 January 2019.

For 2019, tariffs for transmission services for distribution grids for PJSC FGC UES are set on the basis of long-term regulatory parameters.

Order of REC-DTsT of Krasnodar Krai No. 90/2018-e of 28 December 2018, on Establishment of Uniform (Boiler) Tariffs for Services for Electricity Transmission through the Krasnodar Krai networks and the Republic of Adygea, approved for PJSC FGC UES the required gross proceeds for the maintenance of DGF facilities located in Krasnodar Krai in the amount of RUB 1,761.4 million for 2019.

Based on the decision of the State Committee of the Republic of Karelia regarding prices and tariffs No. 213 of 29 December 2017 On Establishing Unified Boiler Tariffs for Electricity Transmission Services through the Networks of the Republic of Karelia for 2019, the required gross revenues for the maintenance of DGC facilities were approved for PJSC FGC UES, located in the Republic of Karelia, in the amount of RUB 334.4 million

#### PJSC FGC UES ECONOMIC PERFORMANCE IN 2018, RUB BLN

#### GRI 201-1

Name	2017	2018
Economic value added	226,727.2	251,132.7
Revenue	226,727.2	251,132.7
Economic value distributed	122,600.5	155,073.4
Operating costs	49,564.5	72,759.5
Wages and salaries, other payments and benefits for personnel	20,524.1	21,835.2
Payments to equity contributors	23,549.4	22,862.8
Payments to the state budget	28,871.7	37,385.4
Community investments	90.8	230.5
Economic value retained	104,126.8	96,059.3

Increase in operating costs in 2018 compared to 2017 was mainly due to:

- the growth of expenses on power purchase to compensate for losses due to the entry into force of the Resolution of the Government of the Russian Federation of 7 July 2017 No. 810 on 1 July 2017, under which changes were made to the rules of non-discriminatory access to power transmission services and the provision of these services in terms of acquisition of the actual amount of electricity losses (income provided);
- an increase in material costs due to an increase in the volume of purchased materials, tools, equipment, and fuel.

The increase in payments of taxes and fees in 2018 compared to 2017 was due to an increase in property tax liabilities (change in the norms of the Russian Tax Code) and income tax (due to an increase in taxable income).

The Company has no investments, the estimated level of income for which is more than 10 % per year.

### THE LIST OF ORGANISATIONS INCLUDED IN THE OUTLINE OF THE CONSOLIDATION OF FINANCIAL STATEMENTS

(in accordance with the indicators GRI 102-45, 201-1)

No.	Name of the organisation	INN (Taxpayer No.)
1	PJSC FGC UES	4716016979
2	JSC APBE	7729530055
3	Index Energetiki – FGC UES LLC	7729601362
4	JSC Kuban Trunk Grids	2312130841
5	JSC Mobile GTES	7706627050
6	JSC MUS Energetiki	7705039240
7	JSC NTC FGC UES	7728589190
8	JSC Tomsk Trunk Grids	7017114665
9	JSC TsIUS UES	7728645409
10	JSC ChitaTechEnergo	7536053550
11	JSC Electrosetservice UNEG	7705825187
12	JSC Energostroysnabkomplekt UES	7723185941
13	IT Energy Service LLC	7729403949
14	FGC - Asset Management LLC	7728320231



### **INTELLECTUAL CAPITAL**

#### PRIORITY DIRECTIONS OF INNOVATIVE DEVELOPMENT OF PJSC FGC UES

Direction	Implementation timeframe	Technologies
DIGITAL SUBSTATION  A digital substation is a substation with a high level of automation of technological process control, equipped with developed information technology and control systems and facilities, where all information exchange processes between SS elements, information exchange with external systems, and SS control are implemented in digital form. At the same time, the primary power equipment of the digital substation (DSS) and the components of IT and control systems shall be functionally and structurally designed to support digital data exchange, which allows 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: bay controllers, switches, fibre optic communication lines, optical and electronic current and voltage transformers (conversion devices), intelligent electronic devices, registration and diagnostics systems.
DIGITAL DESIGN  Ecosystem engineering based on modern information technology design, support of teamwork and parallel engineering, the introduction of digital assessment methods and virtual checks of engineering solutions. The initiative is aimed at implementing the Strategy for the development of the electric grid complex of the Russian Federation <sup>3</sup> in terms of improving performance and reducing the unit cost of investments and meeting the requirements of the Unified Technical Policy in the electric grid complex at all stages of the life cycle of power facilities, optimisation and informatisation of engineering activities, creating electronic services that ensure uniformity of design processes, constructions and interaction of subjects in the construction of power grid facilities.	2015–2020 (modification and development of the informational services: 2020–2025)	CAD (PLM, BIM), modelling tools, e-catalogues, electronic payment services, logistic tools of data processing, mobile terminals, geolocation, laser technologies.
ENERGY EFFICIENCY AND LOSS REDUCTION  The most promising innovative areas of implementation and further research in the field of loss reduction include:  efforts to reduce power consumption for the substation own needs, including improving the efficiency of transformer cooling systems and automating the heating of drive cabinets, switches, separators, autotransformer on-load tap-changers;  research and testing of functional wire coatings to reduce energy losses, including corona losses;  new developments and approbation in the area of creating distributed (intelligent) systems for controlling voltage and reactive power.  A number of research works and pilot projects are to be implemented, aimed at creating standard technical solutions to reduce technological power losses during its transmission.	2015–2018 (implementation of targeted programmes: 2018–2025)	Functional wire coating, distributed (intelligent) automatic voltage and reactive power control systems, heat recycling of transformers, energy efficient cooling control systems of the power transformers, automatic equipment heating control systems.
REMOTE CONTROL AND SECURITY  PJSC FGC UES is introducing an automated process control system (APCS), a set of tools to automate the tasks of production, engineering, operation and process control of the UNEG grid facilities, enabling remote control and monitoring of the facility operation to ensure high operational readiness of the UNEG and system reliability of the UES as a whole. The development of remote control technology from the Network Management Centres of PJSC FGC UES, coordinated interaction with JSC SO UES Dispatcher departments with the optimisation of the facility operation scheme are ensured. This has an effect of increased facility control while reducing management costs. To ensure the implementation of the project and the development of the market of management and protection tools, it is necessary to carry out a set of measures for pilot implementation and development of regulatory and technical documentation, as well as solving a number of integration problems and developing appropriate tools.	2016-2025	Systems of technological control of the level of control centres (SCADA, EMS) and the level of objects (SSPI, SSPTI), modern digital measurement systems (monitoring and diagnostic tools, systems and means of information and physical protection, systems for detecting and localising cybernetic attacks).

Direction	Implementation timeframe	Technologies
POWER QUALITY  The work in this area involves the placement of voltage control devices, a system of balancing and compensation of voltage harmonics in complex circuit mode nodes of a grid. So far, a broad class of devices, based on a power electronic hardware, which enable to impart active characteristics to the elements of the electric grids and ensure control on a new quality level, have been developed with the participation of the PJSC FGC UES. In order to scale technology to the distribution system and energy receiving devices of the industrial consumers, pilot projects, the development of a new type of control systems, regulatory and legislative adjustments, as well as the establishment of a ramified system of independent control of the electric power quality are required.	2016-2025	The package of FACTS technologies (DCD, static thyristor compensator (STC), controlled shunt reactor (CSR), phase shifting devices (PSD), STATCOM), systems of balancing and compensation of voltage harmonics, distributed monitoring and control systems, standard automatic control systems that make it possible to regulate several electric power quality criteria of voltage.
RELIABILITY AND ASSET MANAGEMENT  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 data, such an integrated approach to the management of business assets reduces the repair costs by 5–15 % (depending on the region of the Company's presence), equipment downtime by 5–20 %, and increases the equipment service life by 5–30 %. This includes the development of infrastructure for data aggregation, a series of data-processing studies, the adaptation and implementation of technological innovations that are actively used in logistics, revision of the regulatory documentation and the introduction of new service approaches, including maintenance.	2016–2019 (modification and development of information services: 2020–2025)	Transaction technologies and asset management system elements, mobile terminals of production personnel, unmanned aircraft, systems for modelling the consequences of technological violations, remote information reading systems from sensors and RFID tags, systems for structuring and analysing production risks, geolocation technologies, intelligent monitoring and diagnostics systems, systems of integration and collective use of production data, systems of accumulation and visualisation of production information (stationary, mobile), knowledge management systems, remote training systems and personnel certification, distribution systems of positive experience in the operation of production equipment.
COMPOSITE MATERIALS AND SUPERCONDUCTIVITY  The initiative seeks to implement the Strategy for the Development of the Electric Grid Complex of the Russian Federation <sup>4</sup> , as well as the order of the Russian Government No. 1307-r of 24 July 2013 on Developing the Composite Materials Industry in terms of improving performance and reducing the unit cost of investment and meeting the requirements of a uniform technical policy cycle at all stages of energy facilities through the development of new technical solutions with the wider use of new structural materials, the creation of a production base and favouring standard solutions, industry standards and company standards.	2015-2025	Composite materials for structures of overhead lines and substations, composite materials for insulating products, composite cores and conductor products, high-temperature superconductivity technology, functional coatings of overhead lines, new insulation materials to ensure a reduction in consumption for own needs.

<sup>&</sup>lt;sup>3</sup> Approved by the order of the Government of the Russian Federation on 3 April 2013 No. 511-r

<sup>&</sup>lt;sup>4</sup> Approved by the order of the Government of the Russian Federation on 3 April 2013 No. 511-r.

### INFORMATION ON PLANNED AND ACTUAL VALUES OF COSTS FOR THE MAIN DIRECTIONS OF INNOVATIVE DEVELOPMENT

No.	Innovative Development Directions	Cost plan. RUB million. (VAT excl.)	Actual expenses. RUB million. (VAT excl.))
1	Shift to digital substations of various voltage classes	43.47	43.47
2	Shift to digital active adaptive networks with distributed intelligent automation and control systems	105.04	99.54
3	Shift to the integrated efficiency of business processes and automation of management systems	114.82	112.01
4	The use of new technologies and materials in power industry	282.93	282.93

### PARTICIPANTS IN THE DEVELOPMENT OF THE PROGRAMME AND IMPLEMENTATION OF FGC UES INNOVATION ACTIVITIES

The main participants in the implementation of the Programme in the Company are:

- The Board of Directors;
- Investments Committee of the Board of Directors<sup>5</sup>;
- Management Board;
- Chairman of the Management Board;
- First Deputy Chairman of the Management Board;
- Deputy Chairman of the Management Board, tasked with organising the activities of the Innovation and Scientific and Technological Development Management Unit;
- Profile Units;

- Innovative Development Department;
- Technical Committee;
- The Committee for the development and improvement of organisational and technological conditions for the introduction of innovative and high-tech products at the electric grid facilities of PJSC FGC UES, including those produced by SMEs;
- Subsidiaries and associated companies.

The Programme lists the functions of each of the participants.

#### MAIN RESULTS OF THE R&D PROGRAMME IMPLEMENTATION FOR 2018

Development Results	Use of Developments
The sets of working design documentation (WDD), unified single-chain intermediate and anchor-angle supports of overhead lines, unified double-chain intermediate and anchor-angle supports of overhead lines 330 and 500 kV, and foundations for them have been developed.	The economic impact of the use of standardised support structures in construction and operation can be achieved by reducing the number of supports and foundations per 1 km of overhead lines, reducing the number of insulators and line fittings. The analysis of the material intensity of the overhead line showed that with the use of modified support structures, the metal consumption can be reduced by 30–50 % relative to the existing unified supports.
A prototype of a selective automatic reclosing system for aerial cable lines with voltage of 110 kV and above has been developed. (ARS ACL). The prototype is installed on the ACL 500 kV Zapadnaya – Ochakovo I and II circuit (Centre MPS).	Creating a system of selective automatic reclosing will allow:  to reduce operating costs by cutting the number of breaker repairs caused by short-circuit trips;  to exclude unjustified decrease in the switching resource of switches when disconnecting unsuccessful recloser;  to reduce the risk of damage done to cable shields from short-circuit currents effects;  to exclude the possibility of a single-phase short circuit within the cable part of the line in the two- and three-phase;  to exclude the need to replace a cable that is damaged with the line turned on again.
A software and hardware complex has been designed and manufactured for recording the processing and analysis	SHS will allow to organise a more efficient detection of defects, to combine a set of diagnostic methods and tools, including the ability to

manufactured for recording the processing and analysis of information using the best available technologies to optimise the costs of overhead line maintenance (hereinafter referred to as OHL Monitoring SHS). OHL Monitoring SHS is installed for pilot production in the branch of FGC UES — MES Centre.

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SHS will allow to organise a more efficient detection of defects, to combine a set of diagnostic methods and tools, including the ability to visualize data into geographic information systems (hereinafter – GIS) and to optimise the costs of maintenance and repair.

The prototypes of the software and hardware system for monitoring climate impacts on the OHL structures have been developed, taking into account all factors affecting its accidents and the software and hardware system for monitoring the state of the OHL, allowing to determine the pre-emergency condition of the air line and prevent accidents

The prototypes were installed on the 110 kV OHL Olenya-Yamburg 1 of the MES of Western Siberia for pilot operation.

Development of a monitoring system for climatic influences on structures of overhead lines taking into account all factors affecting its accident rate (wind speed, icy deposits, minimum and maximum temperatures, temperature and wind speed during icing, depth of soil freezing-thawing, etc.) and monitoring systems of the condition of the overhead line, will allow to determine the pre-emergency condition of the overhead line and prevent accidents (determination of the effective mechanical stresses in wires and cables, rolls of the supports, the presence and size of glacial sediments, etc.).

<sup>&</sup>lt;sup>5</sup> Given the possibility of attracting independent innovation experts from other organisations (including representatives of technology platforms relevant for the Company and innovative regional clusters, as well as development institutions) on innovation development issues.

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#### PJSC FGC UES CORPORATE STANDARDS (REGULATORY AND TECHNICAL **DOCUMENTS) DEVELOPED IN 2018**

No.	Subject area	Service Station Name	Registration number
DOCU	MENTS APPROVED	IN 2018	
1.	Measurement	PJSC FGC UES standard guidelines for the quality of organisation and performance of metering process	STO 56947007- 29.240.01.252-2018
2.	Digital Technologies	Typical test procedures for DSP components for compliance with IEC 61850 first and second editions	STO 56947007- 29.240.10.253-2018
3.	RPA, Process automation system	Recommendations concerning the calculation and selection of parameters for setting up and triggering devices for Relay Protection and Automation (RPA) installed in the network of the controlled CPC adjacent to the switch-on point	STO 56947007- 29.120.70.254-2018
4.	OHL, CL, SS	Steel lattice supports of the new unification of 220 kV overhead lines. Guidelines on the use of pillars of new unification in the design of 220 kV overhead lines	STO 56947007- 29.240.55.255-2018
5.	Digital Technologies	Technical requirements for hardware and DSP software and electrical equipment	STO 56947007- 29.240.10.256-2018
6.	Digital Technologies	Digital Substation Networks and communications systems at substations (based on the IEC 61850 standards group). Part 1. IEC 61850-6	STO 56947007- 29.240.10.257-2018
7.	Digital Technologies	Digital Substation Networks and communications systems at substations (based on the IEC 61850 standards group). Part 2 IEC 61850-5	STO 56947007- 29.240.10.258-2018
8.	Digital Technologies	Digital Substation Networks and communications systems at substations (based on the IEC 61850 standards group). Part 3 IEC 61850-7-1	STO 56947007- 29.240.10.259-2018
9.	Digital Technologies	Digital Substation Industrial communication networks. Networks with high availability for automatic processing. Part 3 IEC 62439-3	STO 56947007- 29.240.10.260-2018
10.	Digital Technologies	Digital Substation Precise time synchronisation protocol for measuring and control systems	STO 56947007- 29.240.10.261-2018
11.	RPA, PAS, PCAAS	Guidelines for the design of operational direct current systems (ODSP) of the UNEG substation. Generic design solutions	STO 56947007- 29.120.40.262-2018
12.	OHL, CL, SS	Substation own needs systems. Generic design solutions	STO 56947007- 29.240.40.263-2018
DOCU	MENTS UPDATED II	N 2018	
1.	OHL, CL, SS	Generic technical requirements for tire support for voltage 35–750 kV	STO 56947007- 29.080.30.073-2011
2.	OHL, CL, SS	Typical technical requirements for power transformers 6–35 kV for distribution electrical networks	STO 56947007- 29.180.074-2011
3.	OHL, CL, SS	Typical technical requirements for high-voltage inputs of 10-750 kV voltage classes	STO 56947007- 29.080.20.088-2011
4.	OHL, CL, SS	Generic technical requirements for current transformers 110 and 220 kV	STO 56947007- 29.180.085-2011
5.	OHL, CL, SS	Generic technical requirements for switchgears for voltage classes 6–35 kV	STO 56947007- 29.130.20.104-2011
6.	OHL, CL, SS	Spacers are remote damping. General technical conditions	STO 56947007- 29.120.10.158-2013

No.	Subject area	Service Station Name	Registration number
7.	OHL, CL, SS	Generic technical requirements for 500 kV shunt reactors	STO 56947007- 29.180.078-2011
8.	OHL, CL, SS	Generic technical requirements for combined current and voltage transformers 110 and 220 kV	STO 56947007- 29.180.080-2011
9.	OHL, CL, SS	Methodical directions on the use of power cables with insulation of cross-linked polyethylene for a voltage of $10-35\text{kV}$	STO 56947007- 29.060.20.020-2009
10.	OHL, CL, SS	Guidelines for the use of ice detectors and forecasting of icing hazard	STO 56947007- 29.240.55.113-2012
11.	OHL, CL, SS	Uninsulated wires having normal construction. General technical requirements	STO 56947007- 29.060.10.079-2011
12.	OHL, CL, SS	Tension fittings for overhead lines. Technical requirements	STO 56947007- 29.120.10.061-2010
13.	OHL, CL, SS	Supporting fittings for overhead lines. Technical requirements	STO 56947007- 29.120.10.062-2010
14.	OHL, CL, SS	Connection fittings for overhead lines.Technical requirements	STO 56947007- 29.120.10.063-2010
15.	OHL, CL, SS	Contact fittings for overhead lines Technical requirements	STO 56947007- 29.120.10.065-2010
16.	OHL, CL, SS	Protective fittings for overhead lines. Technical requirements	STO 56947007- 29.120.20.066-2010
17.	OHL, CL, SS	Methodological Guidelines for conducting periodic technical examination of UNEG SS electrical equipment	STO 56947007- 29.240.10.030-2009
18.	RPA, Process automation system	A model programme of acceptance tests of automated process control systems completed by the construction of JSC FGC UES substations	STO 56947007- 25.040.40.012-2008
19.	Measurement	Accuracy standards for mode and process parameters measured at the PJSC FGC UES facilities. Methodological Guidelines for determining the metrological characteristics of measuring channels and complexes	STO 56947007- 29.240.01.244-2017
20.	RPA, PAS, ECM AMIS	Devices for collecting and transmitting data from automated information and measuring systems for commercial metering of electricity (ECM AMIS). Typical technical requirements	STO 56947007- 35.240.01.188-2014
21.	OHL, CL, SS	Rules for preparation of wiring schematic diagrams of substations	STO 56947007- 29.240.10.249-2017
PLAN	S TO PREPARE RE	GULATORY AND TECHNICAL DOCUMENTS	

It is planned to prepare 33 new company standards (such as STO) for typical cabinets as well as to update 19 existing company standards following their implementation.

#### SCIENTIFIC AND TECHNICAL PARTNERSHIP

Interaction with the entities of the innovative industry In 2018, the focus was on the priority areas of scientific and ecosystem - institutions of innovative development, technology platforms, higher education institutions and research and development organisations, equipment manufacturers — is one of the objectives stipulated by the Innovative Development Programme.

Key partners of the Company in scientific and research and development operations are:

- JSC NTC FGC UES;
- Tomsk Polytechnic University;
- Unitel Engineering LLC;
- JSC RT Soft;
- JSC IAES.

technical development associated with digitalisation, namely: Digital Substation, Digital Designing, and Remote Control and Safety. Financing of these operations amounted to RUB 256 million (43 % of the total R&D funds), that is 54 % more than in 2017.

ADDITIONAL INFORMATION ON THE SECTIONS OF THE ANNUAL REPORT

Besides, FGC UES cooperates with organisations of the Ministry of Energy of Russia. In 2018, FSBO Russian Energy Agency was commissioned by the Company to prepare the final report on the analysis of the technical development and efficiency indicators of FGC as compared with leading similar foreign companies

#### **PLANS FOR 2019 AND MEDIUM TERM**

The Company plans to achieve the following effects in the framework of the Innovative Development Programme:

- 1) Growth of the R&D Programme planning and implementation quality and efficiency aimed at:
- compensating resourcing reduction of the Company's Investment Programme;
- maximum focus on the most advanced and crucial directions of innovative activities.
- 2) Updating "open innovation" tools to cooperate with partners in FGC innovative development, including:
- development and promotion of public documents and Internet resources related to Company's innovative development for its partners and contractors;
- assure development of innovative competence centres established jointly with the Company or with its support on the basis of university labs, chairs, departments and small innovative subsidiaries, as well as innovation contests;
- development of public and private partnership mechanisms;
- development of instruments for knowledge, competencies and Company's operations management to use at maximum the internal potential of FGC UES.



#### **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 minimising 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 equipment;
- management of generated waste products and their environmentally safe handling;
- improvement of environmental management system.

#### RESULTS OF IEA AND EXTERNAL ENVIRONMENTAL SUPERVISION

#### GRI 307-1

The number of non-compliances identified during the 2018 internal environmental audit per one inspected facility reduced by 2.11 % over the previous year which proves the efficiency of the FGC UES's activities for minimisation of the adverse environmental impact.

In 2018, the territorial authorities of Rosprirodnadzor and Rospotrebnadzor conducted seven inspections in FGC UES's

branches (MPS/EMPS) to check the compliance with the environmental legislation; following inspection results, 3 corrections were recommended and 1 fine of RUB 5,000 was imposed on an official. One correction was implemented in 2018; the deadline for the two other corrections was set for 2019.

#### PAYMENTS FOR NEGATIVE IMPACT ON THE ENVIRONMENT

Dynamics of evolution of payments for negative impact on the environment 2014–2018, RUB mln



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 reason for the presence of excess fees is the 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.

#### **AIR POLLUTANT EMISSIONS**

#### **GRI 305-7**

		Damant					
Indicators	UOM			Report	rt		
	30	2014	2014 2015 2016 20		2017	2018	
Gross emission of harmful substances to air, total	t	184.00	221.06	226.69	182.12	171.13	
including:							
solid	t	5.91	8.62	9.34	8.33	7.69	
including:							
solid fuel ash	t	0.00	0.83	1.10	1.10	1.09	
gaseous and liquid	t	178.09	212.45	217.34	173.79	163.44	
including:							
sulphur dioxide	t	1.14	1.58	1.74	1.94	2.14	
carbonic oxide	t	42.82	51.15	50.47	49.67	48.77	
nitrogen oxide (re-calculated to NO2)	t	6.02	7.69	7.91	9.39	10.78	
carbon hydride (without volatile organic compounds)	t	49.61	46.26	41.15	23.49	16.81	
volatile organic compounds	t	68.38	94.41	103.41	78.06	73.14	
benzopyrene	t	0.02	0.00	0.00	0.00	0.00	
carbon hydride (without volatile organic compounds) volatile organic compounds	t t	49.61 68.38	46.26 94.41	41.15 103.41	23.49 78.06		

#### **EMISSIONS OF GREENHOUSE GASES**

GRI 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.

In order to reduce indirect greenhouse gas emissions, FGC implements measures set forth in the Energy Saving and Energy Efficiency Programme of the Unified National Electric Grid (UNEG) for 2015–2019.

The Company does not estimate greenhouse gas emissions.

#### **USE OF WATER RESOURCES**

**APPENDIX 1** 

Use of water resources by PJSC FGC	2018
GRI 303-1 Water consumption, thousand m <sup>3</sup>	
Total, including:	799.5
from surface water sources	73.3
from underground sources	481.6
from centralised water supply systems	237.9
from other sources	6.7
GRI 306-1 Water discharge, thousand m³	
Total, including:	373.84
Water discharge into centralised systems	319.66
Water discharge into surface water bodies, including:	54.18
without treatment	0.0
insufficiently treated	28.12
normally treated	26.06

No repeated use of water discharges by other organisations takes place.

#### **ENERGY EFFICIENCY AND INTERNAL ENERGY CONSUMPTION**

2018 energy saving results<sup>6</sup>:

- Equipping buildings, constructions, structures with metering devices for water, natural gas, thermal and electric power. Progress: 100 %.
- Reduction in specific electric power consumption by substations per 1 conventional equipment item was 1.31 %, whereas the target value was 0.5 %.
- Reduction in specific electric power consumption by buildings, constructions, structures per 1 square meter was 1.03 %, whereas the target value was 3.4 %.
- Reduction in specific thermal power consumption by buildings, constructions, structures per 1 square meter was 1.2 %, whereas the target value was 5.8 %.
- Reduction in specific consumption of petrol used by FGC to provide electric power transmission services via UNEG, per 1 km of vehicle mileage was 2.9 %, whereas the target value was 0.4 %.
- Reduction in specific consumption of diesel fuel used by FGC to provide electric power transmission via UNEG, per 1 km of vehicle mileage was 1.8 %, whereas the target value was 0.5 %.
- LED lighting devices installation (% of the total number of lighting devices) was 30 %, whereas the target value was 30 %.

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<sup>&</sup>lt;sup>6</sup> Planned target values are defined by the FAS of Russia.

#### GRI 302-1 The volume of energy resources used in FGC

No.	Types of resources	Measurement unit	Target 2018	Actual 2018	Deviation, %
1	. N. I	In physical terms	-	-	-
1.	Nuclear energy *	In monetary terms	-	-	_
		In physical terms	37.11 thousand Gcal	39.87 thousand Gcal	7.4
2.	Thermal energy in administrative buildings		RUB 63,775.82 thousand VAT excl.	RUB 68,510.67 thousand VAT excl.	7.4
3.	Electric energy in administrative buildings	In physical terms	29,654.85 thousand kWh	31,071.13 thousand kWh	4.8
J.	powered from third-party sources	wered from third-party RUB 131,198.28	RUB 137,464.14 thousand VAT excl	4.8	
4.	Electromagnetic energy *	In physical terms	-	-	-
<b>4</b> .	Liectioniagnetic energy	In monetary terms	-	-	_
5.	Oil*	In physical terms	-	-	_
J.	Oli	In monetary terms	-	-	_
		In physical terms	6,412.24 thousand I	5,587.53 thousand I	-12.9
6.	6. Gasoline for cars	In monetary terms**	RUB 225,895.56 thousand VAT excl.	RUB 196,841.95 thousand VAT excl	-12.9
		In physical terms	5,988.04 thousand I	9,263.71 thousand I	54.7
7.	Diesel fuel	In monetary terms**	RUB 218,482.11 thousand VAT excl.	RUB 337,999.67 thousand VAT excl	54.7
0	Haating ailt	In physical terms	-	-	_
8.	Heating oil*	In monetary terms	-	-	_
9.	Natural gas *	In physical terms	-	-	-
	Natural gas	In monetary terms	-	-	_
10.	Coal*	In physical terms	-	-	
		In monetary terms	-	-	
11.	Oil shale*	In physical terms	-	-	
		In monetary terms	-	-	
12.	Peat*	In physical terms	-	-	
		In monetary terms	-	-	
13.	Other*	In physical terms	-	-	
	TO. Other	In monetary terms	-	-	

<sup>\*</sup>The resource is not used in FGC and in accordance with order of the FAS of Russia No. 508-e of 26 March 2014 is not a resource in respect of which the target indicators are set.

The base year is the previous year from the reporting year in accordance with 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 2018 is 2017).

### MEASURES TO REDUCE CONSUMPTION OF ELECTRIC AND THERMAL POWER, RESOURCES AND POL

The key measures aimed at reducing the consumption of electric and thermal energy in buildings, structures and installations:

- improving heat insulation of building and structures;
- replacement of window structures with energy efficient ones (dome and ribbon windows);
- replacement of old lamps with new energy-saving ones (mainly LED);
- installation of a lighting control system (installation of motion and presence sensors);
- replacing the old doors, entrance units and gates with new energy efficient ones;
- modernisation of heating, ventilation and air-conditioning systems;
- installation of reflective shields behind the heating appliances;
- control of operation modes of heating units;
- optimising operation of heating, air-conditioning, lighting of the buildings, and disconnecting of office equipment, electric appliances with the appointment of responsible persons.

Main activities aimed at reducing consumption of petrol, oil and lubricants:

- technical control of operation of vehicles (alignment of wheels, tyre pressure control, replacement of oil, filters, spark plugs, injection of fuel nozzles, etc.);
- adjustment of fuel consumption rates;
- purchasing of the injection engine test benches;
- equipping of vehicles with satellite positioning equipment for continuous monitoring;
- optimising traffic routes, educating personnel, and, when possible, priority loading with minimum specific fuel consumption.

<sup>\*\*</sup> The value in monetary terms is indicated from the calculation of the average cost of an energy resource per year.



#### **HUMAN CAPITAL**

GRI 102-8, 103-2

#### PERSONNEL POLICY RESULTS

#### **HEADCOUNT AND PERSONNEL COMPETENCY**

Information on the Company's staff strength as of 31 December 2018

Headcount, persons	22,302
Women, persons	3,725
Men, persons	18,577

#### **GRI 401-1**

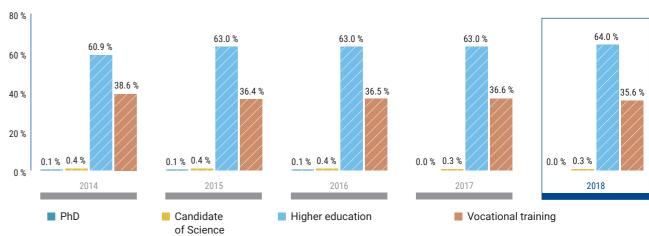
Employees hired in 2018 with a breakdown by age, gender and branch

			Gende	r		A	ge	
	Total	%	М	F	under 25 years	from 25 to 50 years	above 50 years, pensioners	Working pensioners
Executive Office	87	3.84	45	42	7	75	5	0
MPS Centre	458	20.20	358	100	154	259	45	0
MPS North-West	308	13.59	235	73	87	186	34	1
MPS Volga	130	5.73	107	23	44	83	3	0
MPS South	280	12.35	242	38	80	179	19	2
MPS Urals	220	9.70	179	41	69	136	14	1
MPS Siberia	340	15.00	287	53	100	230	10	0
MPS West Siberia	249	10.98	216	33	52	182	15	0
MPS East	195	8.60	173	22	81	108	6	0
Total for PJSC FGC UES	2,267		1,842	425	674	1,438	151	4

Employees fired in 2018 with a breakdown by age, gender and branch

			Gende	r		A	ge	
	Total	%	М	F	under 25 years	from 25 to 50 years	above 50 years, pensioners	Working pensioners
Executive Office	91	7.10	43	48	6	61	9	15
MPS Centre	505	4.95	345	160	161	254	47	43
MPS North-West	375	4.89	282	93	87	186	61	41
MPS Volga	194	2.42	129	65	57	98	9	30
MPS South	287	6.67	237	50	86	187	5	9
MPS Urals	251	3.05	187	64	61	145	19	26
MPS Siberia	273	3.93	207	66	87	169	9	8
MPS West Siberia	166	5.21	132	34	47	107	6	6
MPS East	207	5.00	171	36	77	111	9	10
Total for PJSC FGC UES	2,349	4.64	1,733	616	669	1,318	174	188

#### Staff structure: education



#### STAFF TRAINING AND DEVELOPMENT

#### TRAINING, RETRAINING AND ADVANCED TRAINING

#### **Human resources and digital transformation**

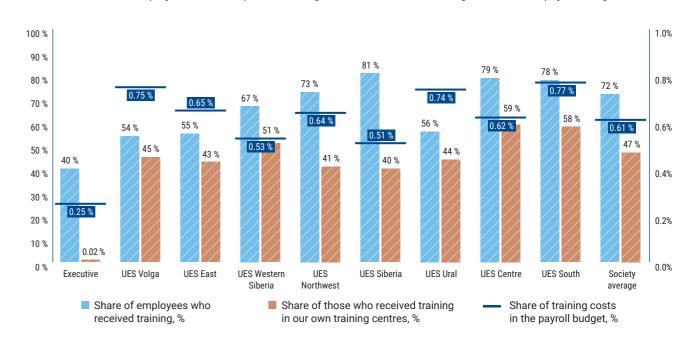
The main challenge of the digital economics is the changes in staff training which are possible only in cooperation of the state, higher education establishments and companies. In 2017 under the auspices of the Russian Ministry of Energy, the Russian Ministry of Education and Science and RNC CIGRE, PJSC FGC UES organised a round table discussion: "New professions in electrical power industry in the era of digital economics", where the key areas were identified:

- Development and retraining of company's personnel;
- Training of specialists in new professions/ disciplines at establishments of higher education;
- Development of cooperation with the international scientific community.

Due to the introduction by the company of substations with remote control of switching devices, PJSC FGC UES needs specialists familiar with digital control systems of power facilities. Therefore, a new programme has been developed in cooperation with the National Research University Moscow Power Engineering Institute to retrain company specialists servicing relay protection and automatics devices. 70 staff members completed the training.

Taking into account the importance of specialist training in new professions/ disciplines, a joint master's programme has been developed in cooperation with the National Research University Moscow Power Engineering Institute "Smart protection, automatics and control systems for power systems control"; first students were enrolled in 2018.

#### A share of FGC UES employees who took part in trainings and a share of the training costs in 2018 payroll budget



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#### Programmes implemented by the Company's Personnel Training Centres

In order to ensure transparency and to verify the quality of training organised by the Personnel Training Centres, PJSC FGC UES arranges for professional public certification of corporate advanced training programmes. In 2018 the most popular programmes were certified:

- advanced training programme for operation personnel of substations and administrative and engineering staff allowed to operate substations;
- specialist training in: "Safe methods and procedures of working at height without scaffolding for group 2 staff."

The Personnel Training Centres are the main platform for professional competitions. During the period in question, 3 Interregional Professional Competitions were held:

- competitions of operation personnel and EMPS GCC staff;
- personnel competitions in OHL M&R;
- APCS staff competitions.

In 2018 the Department of RZM and PAS organised a remote competition for RPA personnel (using digital technologies) in cooperation with the Personnel Training Centre. The event was attended not only by PJSC FGC UES's staff, but also by representatives of PJSC Lenenergo and Belenergo (Belarus).

Based on the results of the All-Russian Professional Skill Competition "The best duty electrician of 2018", held under the auspices of the Ministry of Energy of Russia, the 1st place was awarded to a specialist of PJSC FGC UES.

In 2018, employees of PJSC FGC UES participated in the Young Professionals Open Corporate Championship of Professional Excellence, held by PJSC Rosseti according to the WorldSkills procedure, in the following areas of expertise:

- operation of cable power lines;
- maintenance and repair of the relay protection and automation equipment.

Pursuant to the training licence, the Personnel Training Centres of PJSC FGC UES organise trainings not only for its own staff, but they also implement complex training projects for third-party customers.

In 2018, the training centres of the Federal Grid Company trained 1,178 people for third-party customers.

Within the scope of development of partnership with the Vietnamese State Power Grid Company, in 2018 the Personnel Training Centre organised training for 35 specialists of EVN NPT in Hanoi using special advanced training programmes:

- an advanced training programme for specialists in NDE of substation equipment;
- an advanced training programme for specialists in organisation and implementation of power transformer repairs.

#### **PERSONNEL ASSESSMENT**

The main assessment principles are as follows:

- comprehensiveness (identification of the highest number of factors characterising staff performance and professionalism and management performance);
- objectivity (assessment relates to unbiased staff performance and actual competencies demonstrated,

due to involvement of a large number of respondents including external experts, as well as use of special tools);

- openness, flexibility and transparency of assessment criteria and methods;
- staff criteria differentiation depending on different staff categories.

#### **Enhanced staff reliability project**

In order to reduce the number of technical violations due to erroneous actions of staff, PJSC FGC UES has been implementing a long-term project to enhance staff reliability. The project covers:

- staff knowledge checks using remote technologies;
- psychological diagnostics of personnel;
- special trainings.

**APPENDIX 1** 

For assessment of risky behaviour of the staff, a set of modern remote psychophysiological tests is used which was developed taking into account the Company's specifics and needs.

The differentiation algorithm allows identifying staff reliability categories: high reliability, stable performance, operation disruption risk, as well as low reliability and "dual" risk area following knowledge assessment and psychological testing.

In 2018, the project enrolled 1,236 employees directly involved into RPA and emergency operation.

A scenario for project participants was developed and implemented taking into account reliability category. Special attention was paid to employees in the "dual risk area" (following psychological assessment results and those who made at least 3 mistakes in knowledge check). They were subjected to psychophysiological examination, additional training and knowledge re-assessment.

The key project outcome is the reduction in the number of process violations caused by erroneous actions by FGC UES's

#### Introduction of professional standards and the Centre for Qualification Assessment

In 2018, PJSC FGC UES exerted major efforts to assess staff qualification correspondence to professional standards. 11,317 employees were assessed. The results were used to shape an activity programme up to 2022, within the scope of which in 2018 165 employees had advanced training and re-training, 578 employees will complete their training in 2019. 277 company employees will receive higher education.

JSC NTC FGC UES was used as the basis for the Centre for Development and Assessment of Qualifications in the Electric Grid Complex (CDA). During the period in question,

draft regulation on the Centre, job descriptions, procedure for organisation and execution of qualification assessment were prepared. Assessment tool developers in PJSC FGC UES were trained in the National Qualification Development Agency. In 2018, 4 assessment tools were developed and approved. their testing is scheduled for February-March 2019 at examination sites of the Personnel Training Centres of MPS East (APCS staff) and MPS Centre (OHL M&R staff).

#### Company staff reserve

Production staff reserve of PJSC FGC UES  267 employees	The 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;
"Chief Engineer School is a long-term multi-level project for prospective specialists 50 employees	power line. The project aims at training employees for the managerial positions of the Chief Engineer's units in the Company's branches and ensures management succession in technological processes.
Youth staff reserve 42 employees	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.

#### YOUTH POLICY



#### Cooperation with specialised educational establishments

Annually PJSC FGC UES cooperated with approx. 80 establishments of higher education and 40 specialised secondary educational establishments, including contractual cooperation with 52 and 13 establishments, respectively.

Key areas of cooperation:

- training, professional retraining and advanced training of employees (69 students are getting their employersponsored education in 12 higher educational establishments under employer-sponsored education agreements);
- arrangements for practical staff training, including organisation of on-the-job training for students at the facilities of PJSC FGC UES (2018: 960 students), summer work for students at construction sites (2018: 194 students), Young Engineer School for undergraduates in Personnel Training Centre Bely Rast (2018: 27 students);
- professional orientation including organisation of introductory tours at Company's production sites (2018: 1,440 people), All-Russia Day of PJSC FGC UES in educational institutions (2018: 3,000 students and teachers);

- staff support of the educational process. Approx. 50 employees of the Company are tutors of student qualification papers or take part in thesis defence or state examination committees;
- improvement of educational standards and professional competences in cooperation with educational establishments. Training programmes and graduation and course papers are integrated and adapted to the production specifics of PJSC FGC UES;
- modernisation of educational and scientific infrastructure of educational establishments. Annually the Company supports educational establishments in purchase of lab equipment and classroom modernisation. In 2018, PJSC FGC UES assisted in modernisation of the lab unit at the Relay Protection and Automation of Power Systems of the National Research University Moscow Power Engineering Institute;
- participation of students and post-graduates in events organised by PJSC FGC UES.

#### **SOCIAL SECURITY**

#### STAFF HEALTH SUPPORT

#### GRI 403-6

**APPENDIX 1** 

#### Support of healthy lifestyle

In 2018, FGC UES's indoor soccer, volleyball, basketball, swimming, table tennis, racing and other teams participated in corporate tournaments of PJSC Rosseti and in tournaments organised in cooperation with the Ministry of Energy. In September 2018, FGC's team participated in the Far East Corporate Games held in Vladivostok within the scope of the sporting programme of the Eastern Economic Forum. In May 2018, the corporate indoor soccer tournament of PJSC FGC UES was held. In August 2018, the 4th corporate GTO Spartakiad took place.

In November 2018, the VIII Traditional Open Chess Tournament of Power Engineers in memory of M. Botvinnikov was organised by PJSC FGC UES and JSC NTC FGC UES. The tournament welcomed 37 teams of power companies, equipment manufacturers, scientific and research institutes, establishments of higher education.

#### **AWARD POLICY**

#### Corporate awards of PJSC FGC UES

PJSC FGC UES has established the following awards:

- the title Honoured Employee of Federal Grid Company,
- the title Veteran of Federal Grid Company,
- a badge of honour For contribution to the development of Federal Grid Company, First Class and Second Class,
- a badge of honour For Professional Skills,
- a badge of honour For Construction and Reconstruction of Electric Grid Facilities,
- putting a photo to the Recognition Board of PJSC FGC UES,
- honorary Diploma,
- letter of Commendation.

Nominees for awards can be employees having the credit of the state, power industry, PJSC FGC UES, showing high performance and competences in management, demonstrating high results in operation, construction and reconstruction of power grid facilities, in development, exploration and introduction of new machinery and technologies, those who have implemented progressive labour organisation methods, showed professionalism in accident prevention and liquidation, power facilities recovery, respected and with good account among colleagues, advocating corporate values and abiding by them.

Following the year results, the staff of PJSC FGC UES branches ensuring reliable equipment operation, showing high performance results and good results in exploration and introduction of new machinery and technologies, are awarded "Best branch of the Federal network company - MPS" and "Best Enterprise of Federal Grid Company - EMPS."

In 2018, awards were given to 1,456 employees of PJSC FGC UES, its subsidiaries and contractors, of which:

- 2 employees were given state awards and awards of the President of the Russian Federation;
- 10 employees were awarded by the Electric Power Council of the Commonwealth of Independent States;
- 101 employees received awards from the Ministry of Energy of the Russian Federation;
- 138 employees were awarded by the Association ERA of Russia;
- 205 employees who made major contributions to the development of the electric grid complex received corporate awards from PJSC Rosseti;
- 1,000 employees were given corporate awards of PJSC FGC UES.

Employees of PJSC FGC UES subsidiaries received awards from the entities of the Russian Federation and subsidiaries for their contribution to the development of the regional electric grid system.

For ensuring reliable operation of equipment, development and introduction of new equipment and technologies, introduction of progressive forms and methods of labour organisation and management the title "The best branch of the Federal Federal network company - MPS" was awarded to the branch MPS of Siberia, the title "Best Enterprise of the Federal Network Company - EMPS" to the branch West-Siberian Enterprise of Main Electric Networks.

#### **OCCUPATIONAL SAFETY**



#### MAIN OBLIGATIONS OF THE COMPANY IN THE AREA OF OCCUPATIONAL SAFETY

#### **GRI 103-2**

The Company's main obligations in the area of occupational safety include:

- ensuring priority of preservation of life and health of workers in the process of their work over results of production activity;
- demonstrating the commitment of top management and managers at all levels of management to occupational safety issues;
- ensuring compliance of production activities with the state regulatory requirements of labour protection, requirements of international agreements, industry-wide and local statutory regulations on labour protection;
- ensuring safe working conditions of employees at power grid facilities, prevention of injuries and deterioration of health of employees;
- prevention of injuries of any third parties on the territory of the power grid complex of PJSC FGC UES;
- ensuring the prevention of any emergencies, accidents and incidents;
- identification of hazards at workplaces, assessment and effective management of professional risks with due regard for the distinctive features and specificity of production activities;
- ensuring the timely modernisation of power grid facilities, replacement of equipment, improvement of production and technological processes, providing workers with highquality tools and devices, efficient means of individual and collective protection;
- stimulating the introduction of innovative approaches and technologies ensuring the safety of workers in the course of production activities;

- continued improvement and enhancement of efficiency of the occupational safety management system with due regard for the modern methods, standards and best practices in the area of occupational safety;
- developing a culture of safe behaviour among workers and ensuring compliance with the labour protection requirements in the process of labour activity;
- establishing and maintaining the required level of competence of managers, specialists and other employees in order for them to carry out their duties related to ensuring and complying with the occupational safety and labour protection requirements;
- creating conditions for maximising support of competent and qualified employees for a long-term professional job;
- · increasing the motivation of employees to comply with the requirements of occupational safety in the process of labour activities and to improve their level of qualification;
- taking actions to encourage the contractors' employees to comply with the labour protection requirements while carrying out works at the facilities of PJSC FGC UES;
- carrying out consultations and encouraging employees and their representatives to actively participate in the management of occupational safety and ensuring safe working conditions;
- mainstreaming the occupational safety in order to prevent injuries and occupational diseases of workers.

#### NORMS AND STANDARDS IN LINE WITH THE COMPANY'S OCCUPATIONAL SAFETY MANAGEMENT SYSTEM

**APPENDIX 1** 

The Company's Occupational Safety Management System meets the following requirements:

- Code of the Russian Federation):
- Model Regulations on the Occupational Safety Management System, approved by the Order of the Ministry of Labour of the Russian Federation No. 438n of 19 August 2016;
- OHSAS 18001-2007. Occupational disease prevention and safety management system. Specification;
- GOST 12.0.230-2007. Occupational health and safety management systems. General requirements (enacted by Order of Rostekhregulirovanie No. 169-st of 10 July 2007);
- Federal Law No. 197-FZ of 30 December 2001 (Labour
   GOST 12.0.230.1-2015. Occupational health and safety management systems. Guidelines for the use of GOST 12.0.230-2007 (enacted by Order of Rosstandart No. 603-st of 9 June 2016);
  - GOST 12.0.230.2-2015. Occupational health and safety management systems. Conformity assessment. Requirements (enacted by Order of Rosstandart No. 603-st of 9 June 2016);
  - GOST R 12.0.010-2009. Occupational health and safety management systems. Definition of hazards and risk assessment (enacted by Order of Rostekhregulirovanie No. 680-st of 10 December 2009).

#### PROPOSALS ON RESPONDING TO THREATS IDENTIFIED IN THE COURSE OF THE OCCUPATIONAL RISK **ASSESSMENT:**

- forming a list of equipment requiring replacement or repair under the operations safety conditions;
- elimination (prevention) of hazards and reduction of risks;
- improvement of staff professional training, psychophysiological training of personnel for work at potentially dangerous workplaces;
- measures to mitigate the risk of injuries are included in the action plans intended to improve work environment and occupational health and safety conditions, and to reduce occupational risk levels in the Company;
- monitoring the efficiency of taken decisions and their adjustment, monitoring the implementation of the risk management plan and future planning of improvement of the labour protection activities in the Company.

#### PROFESSIONAL SKILL COMPETITIONS

Based on the results of the All-Russian Professional Skill Competition "The best duty electrician of 2018", held under the auspices of the Ministry of Energy of Russia, the 1st place was awarded to a specialist of PJSC FGC UES.

In 2018, employees of PJSC FGC UES participated in the Young Professionals Open Corporate Championship of Professional Excellence, held by PJSC Rosseti according to the WorldSkills procedure, in the following areas of expertise:

- operation of cable power lines;
- maintenance and repair of the relay protection and automation equipment.

#### REGULATORY FRAMEWORK FOR INVESTIGATIONS OF WORKPLACE ACCIDENTS

- Federal Law No. 197-FZ of 30 December 2001 (Labour Code of the Russian Federation);
- Ordinance of the Ministry of Labour of the Russian Federation No. 73 of 24 October 2002 "On approval of forms of documents required for investigation and

recording of workplace accidents, and Regulations on features of investigation of workplace accidents in certain industries and organisations".

#### 8 достойныя ра и экономичес рост

**APPENDIX 1** 

### PERSONNEL PROTECTION AGAINST HARMFUL PRODUCTION FACTORS

#### GRI 403-2

The main harmful production factors which may have a negative impact on workers' health status at workplaces include:

- physical factors (microclimate, temperature and relative humidity, noise, electromagnetic fields, etc.);
- chemical factors (chemicals and mixtures measured in the workplace air);
- labour process severity (physical dynamic load, working posture, weight of lifted loads, etc.);
- labour process intensity (duration of concentrated observation, impact on vocal apparatus, etc.).

The Company performs systematic actions to identify injurycausing equipment, places and mechanisms used, which is a part of the systematic hazard identification and risk assessment activities carried out by the Company, including:

- workplace hazards identification and employee injury risks estimation:
- identification and creation of lists of injury-causing equipment and mechanisms used requiring replacement or repair under the safe operation conditions;
- development of (short-term and forward-looking) measures to eliminate (reduce) hazards, with their subsequent inclusion in the action plans intended to improve work environment and occupational health and safety conditions, and to reduce occupational risk levels;
- assessment of sufficiency and efficiency of the measures taken to reduce the injury rate.

In order to reduce the impact of electromagnetic field at workplaces (substations and overhead power transmission lines of 330 kV and above), the following actions are carried out:

- organisational arrangements (fencing of electromagnetic field exposure areas, location of workplaces and service personnel flow routes at sufficient distances from electromagnetic sources, ensuring compliance with the maximum allowable levels);
- engineering and technical measures (installation of biological EMI protection along the traffic routes, introduction of new technologies and application of personal EMI protection equipment).

Activities planned and carried out in 2018 include measures intended to eliminate substandard operation of the supply and exhaust ventilation at chemical laboratories and permanent stations of arc welders, procurement of sophisticated respiratory protection equipment for electric and gas welders, provision of appropriate special clothing for personnel in compliance with the typical industry standards for the personal protection means allocation.

Measures planned to be implemented in 2019 are intended to reduce harmful production factors exceeding the allowable levels at such workplaces, and to carry out an unscheduled special assessment of labour conditions (SALC).

Based on the results of the SALC, action plans are to be developed and approved which are intended to improve work environment and occupational health and safety conditions, and to reduce occupational risks in the Company, including the arrangements for:

- accident prevention;
- carrying out sanitary and hygienic measures to prevent industrial diseases:
- overall improvement of labour conditions;
- providing personnel with personal protective equipment, etc.

### APPROACHES TO THE OCCUPATIONAL HEALTH AND SAFETY IMPACTS MANAGEMENT THROUGH INTERACTION WITH BUSINESS PARTNERS AND CONSUMERS

**GRI 403-7** In case any violations of the labour protection requirements are detected in the course of unannounced inspections of the contractors' teams working at the Company's electric grid complex facilities, a notice shall be sent to the contractor's senior managers with a demand to comply with the OHS requirements, including any hazardous facilities, indicating any identified violations and the need to take appropriate corrective actions towards the employees having committed such violations. The occupational safety liabilities of the contractors' employees are stated in their job contracts.

**GRI 413-2** No violations of occupational safety requirements were registered in 2018 with a high probability of causing any serious harm to the health of employees not being on the Company's staff, however subjected to the SALC at the Company.

### FUNCTIONING OF SUBDIVISIONS RESPONSIBLE FOR THE WORKPLACE ACCIDENTS AVOIDANCE AND PREVENTION

#### GRI 403-1, 403-3, 403-4

FGC UES includes business subdivisions of occupational safety and reliability (BSOSR), comprising qualified and trained experts compliant with professional standard "Specialist in the area of occupational safety" <sup>7</sup>.

Each BSOSR comprises both stationary and mobile occupational safety offices. All production facilities are furnished with the occupational safety and health desks.

Meetings of the workforce of business operating units of the branches of PJSC FGC UES – EMPS have appointed the operating personnel authorised in the area of occupational safety. Each branch of MPS (EMPS) comprises the Occupational Safety Committees.

#### **AUTHORISED OCCUPATIONAL SAFETY PERSONNEL**

An important element of labour protection management is the engagement of workforce in creation of healthy and safe working conditions through authorised (trusted) occupational safety personnel. The authorised occupational safety personnel monitors the level of work environment and occupational health and safety conditions in their respective business subdivisions, as well as compliance with the requirements of labour protection standards by the business subdivision employees. All authorised personnel

has undertaken occupational safety training courses at the specialised organisations in a timely manner.

Due to the efforts of the authorised occupational safety personnel, the number of inspections of workplaces and working teams has been increased in order to prevent any violations of the occupational health and safety legislation requirements.

#### **OCCUPATIONAL HEALTH AND SAFETY COMMITTEES**

Occupational health and safety committees have been established at all levels of the Company management structure (executive office, MPS, EMPS). In 2018, the Committees' decisions were implemented on all the addressed issues.

The number of the Occupational Health and Safety Committee employees is 979, including 406 staff representatives (41.5%).

 $The FGC has \, 45 \, operating \, Occupational \, Health \, and \, Safety \, Committees. \, In \, 2018, 278 \, meetings \, of \, the \, Committees \, were \, held.$ 

<sup>&</sup>lt;sup>7</sup> Approved by the Order of the Ministry of Labour and Social Protection of the Russian Federation No. 524n of 4 August 2014.



#### **SOCIAL GOODWILL**



# PARTICIPATION IN THE ACTIVITIES OF THE RUSSIAN NATIONAL COMMITTEE OF CIGRE (INTERNATIONAL COUNCIL ON LARGE ELECTRIC SYSTEMS)

PJSC FGC UES is actively involved in the development of the Russian National Committee of CIGRE (International Council on Large Electric Systems), the largest international organisation in the area of electric power industry, which has brought together various leading experts, scientists, representatives of branch companies, ministries and departments, with the Youth Section being of major importance in the structure thereof.

Involvement of employees of PJSC "FGC UES" in the activities of research committees of the RNC CIGRE, participation in the activities of the Youth Section as experts, reviewers and lecturers, contributes to the development of managerial and innovative skills, improvement of professional expertise, and enhancement of the level of foreign language skills of the Federal Grid Company personnel.

The most significant events of 2018 include:

 contest of graduate qualification works on the electric power and electrical engineering subjects (graduation theses), within which the PJSC FGC UES experts evaluate theses of bachelors and masters of Russia's leading technical universities;

- contest of translators of scientific and technical literature
  on the electric power and electrical engineering subjects,
  intended to improve the level of foreign language skills and
  technical terminology in the area of electric power industry
  and electrical engineering. Specialists of PJSC FGC UES
  take part in the contestants' works evaluation;
- young specialists of PJSC FGC UES act as experts at the Case-in International Engineering Championships;
- participation in the International Youth Power Industry Forum (SPIEF-2018) and the Youth Day of the Russian Energy Week;
- a team of the PJSC FGC UES youth talent pool became the participants to the Youthful Energy Interregional Summer Educational Forum.

In 2018, the RNC CIGRE Youth Section programme, supervised by PJSC FGC UES, was distinguished for its contribution to engaging students in the international scientific activities at the 47th Session of CIGRE in Paris, and it was appointed as the General Coordinator on arranging all youth events within the 48th Session of CIGRE.

#### PARTICIPATION IN THE CONGRESS AND EXHIBITION ACTIVITIES

#### **FEBRUARY**

A delegation of PJSC FGC UES, headed by the Chairman of the Management Board, Mr. A. Murov, took part in the work of the Russian Investment Forum. The head of the company took part in the meeting of Mr. Dmitry Medvedev, Prime Minister of the Russian Federation, with representatives of business circles.

#### MAY

A delegation of PJSC FGC UES, headed by Mr. A. Murov took part in the activities of the St. Petersburg International Economic Forum. The Chairman of the company attended the plenary meeting and spoke at the session "Digital Infrastructure: Challenge or Opportunity?". At the forum:

- a cooperation agreement was signed with the Russian Engineering Union, aimed at the development of domestic enterprises of the power engineering industry, developing and manufacturing high-technology products, and at the technical re-equipment of the electric grid complex and electricity consumers;
- a strategic cooperation agreement was signed with Rostelecom, making provisions for cooperation in the area of development and operation of communication networks.

#### **SEPTEMBER**

A delegation of PJSC FGC UES, headed by Mr. A. Murov, took part in the events of the Eastern Economic Forum business programme, including the plenary session "Far East: extending boundaries of opportunities." On the sidelines of the Forum the cooperation agreements were signed with Primorsky Territory and Sakhalin Region, aimed at the development of the power grid infrastructure in the regions, and at the consumer electricity supply availability growth through the use of distributed energy generation facilities of Mobile GTPP subsidiary company.

#### **SEPTEMBER - OCTOBER**

PJSC FGC UES took part in the All-Russian energy saving festival # ВместеЯрче (Brighter Together). The company branch offices took part in the work of regional steering committees of # ВместеЯрче (Brighter Together) festival, held events in the constituent entities of the Federation and provided information support of the festival.

#### **OCTOBER**

A delegation of PJSC FGC UES, headed by Mr. A. Murov, took part in the Russian Energy Week, an international forum on energy efficiency and energy development. The head of PJSC FGC UES attended a plenary meeting with the participation of the President of the Russian Federation, the All-Russian conference on winterisation arrangements for the period of 2018/2019, spoke at the session dedicated to the digitalisation of networks and held business meetings with the senior managers of EVNNPT and Siemens companies.

#### **NOVEMBER**

A delegation of PJSC FGC UES, headed by Mr. A. Murov, took part in the first Russian-Chinese energy business forum, held under the auspices of the Presidential Commission of the Russian Federation for the Fuel and Energy Complex development strategy and environmental safety issues. Within the business trip to Beijing, a meeting was also held with the senior managers of Huawei company to exchange the digital projects implementation experience.

#### SOCIAL AND ECONOMIC IMPACTS

#### **KEY PRIORITIES OF THE FGC UES SPONSORSHIP ACTIVITIES**

#### **Cooperation with the State Hermitage Museum**

PJSC FGC UES acted as the general sponsor of Ilya and Emilia Kabakovs' exhibition "Not Everyone Will Be Taken To The Future" held at the State Hermitage Museum from 20 April till 29 July 2018. The exhibition is a joint project of the State Hermitage Museum, the Tretyakov Gallery and the Tate Modern Gallery (UK).

#### **Cooperation with the Russian Chess Federation**

Since 2016, PJSC FGC UES has been acting as a title sponsor of the Russian international chess teams. In 2018, with the support of PJSC FGC UES a number of joint activities aimed at the development and popularisation of chess throughout the country were implemented, as follows: Aeroflot Open, a Russian Junior Championship, White Castle All-Russian Chess Competition, Higher League All-Russian Championship, Superfinals of the 71st Russian Men's Championship and of the 68th Russian Women's Championship, the 43rd World Chess Olympiad in Batumi (Georgia), the 8th Open Chess Tournament in memory of Mikhail Botvinnik, the first Russian world chess champion.

On 22 November 2018, PJSC FGC UES and the Russian Chess Federation (RCHF) counter-signed a new cooperation agreement for a three-year period. The Company will continue to support the Russian international chess teams, participate in the training of juniors and the nation-wide development of chess. The document was signed by the Chairman of the Board of PJSC FGC UES, Mr. A. Murov and the President of the Russia Chess Federation, Mr. A. Filatov, witnessed by the President of FIDE, Mr. A. Dvorkovich..

#### **Cooperation with PFC CSKA**

Since 2014, PJSC FGC UES has been the title partner of Professional Football Club CSKA.

With the company support, certain competitions and events for the club fans have been arranged. Football players and coaches of PFC CSKA held master classes and autograph sessions for the students of power engineering institutions, together with the team a series of visual materials was developed on electrical safety and electric injuries prevention using images of the football club players.

#### **Cooperation with the Russian Rugby Federation**

In 2018 PJSC FGC UES acted as the official sponsor of the Russia Rugby Federation. The finals of the Federal Rugby League tournament were arranged with the company support, and the Russian international rugby team took part in the European Championships qualification stage (Grand Prix Series) and in the European Beach Rugby Championships.

#### **Cooperation with the Roscongress Foundation**

In 2018 the Company sponsored some major business events with the participation of the top state officials: International Forum on Energy Efficiency and Energy Development "Russian Energy Week" and Eastern Economic Forum.

### Interaction with the Moscow Academic Theatre named after K. Stanislavsky and V. Nemirovich-Danchenko

FGC UES acted as the Official Partner of the Moscow Academic Musical Theatre named after K. Stanislavsky and V. Nemirovich-Danchenko. The company supports management of events within the 100th anniversary theatrical season of 2018/2019.

#### STAKEHOLDER ENGAGEMENT APPROACH

### INTERNAL DOCUMENTS OF THE COMPANY REGULATING INTERACTION WITH STAKEHOLDERS

#### GRI 102-43

The Company has a number of effective corporate documents regulating various aspects of interaction with stakeholders:

- Code of corporate ethics and official conduct of employees of PJSC FGC UES,
- Information policy,
- Investment programme,
- Innovative development programme,
- Environmental policy implementation programme,
- Partnership programme between PJSC FGC UES and the small and medium-sized business entities,
- Communication Policy and others.

#### INTERACTION WITH EXTERNAL STAKEHOLDERS

#### **Consumer Council**

The Council of consumers of services of PJSC FGC UES is a collegial body representing interests of all consumer groups, public and entrepreneurial associations. At its site certain issues are discussed which are related to the Russian Federation power grid complex development strategy delivered by FGC UES.

In 2018 a meeting of the Council of consumers of services of PJSC FGC UES was held which considered the following issues:

- results of activities of FGC UES for 2017;
- results of the repair and maintenance activities and of the FGC UES power grid equipment operation reliability improvement for 2017;
- investment activity of FGC UES. Review of the annual report on public technological and price audit of investment projects of FGC UES in 2017.

### **CORPORATE MANAGEMENT REPORT**

#### **COMMITTEES OF BOARD OF DIRECTORS**

#### **AUDIT COMMITTEE**

Area of activity	Results of activities
	Previewing the annual accounting (financial) statements of PJSC FGC UES for 2017 and recommendatio for approval.
	Considering the impact of changes in the accounting policy of PJSC FGC UES as per the International Accounting Standards for 2018 on the consolidated financial results of PJSC FGC UES.
	Reviewing the Conclusion and Acts of the audit committee of PJSC FGC UES on the results of the audit of its financial and economic activities for 2017.
	Reviewing the results of audits of financial and economic activities of subsidiaries and affiliates of PJSC FGC UES for 2017.
	Reviewing the results of independent audit of financial, economic and investment activities of PJSC FGC UES for 2016.
Reports, audits and examinations	Reviewing the issue of Recommendations to the Annual General Meeting of Shareholders on the candidature of the auditor of PJSC FGC UES.
	Evaluating the efficiency of external audit of the accounting (financial) statements of PJSC FGC UES for 2017.
	Reviewing the results of audit of the business process in the area of investment activity.
	Considering Report on the implementation of corrective action plans aimed at eliminating the causes of shortcomings identified in accordance with the findings of audits of functional areas of activity (processes) of PJSC FGC UES:
	- capital construction,
	<ul> <li>management of projects financed through the technological connection fees,</li> <li>procurement activities.</li> </ul>
	■ Considering forecast for the implementation of key operational risks by the end of 2017.
	■ Giving recommendations on approval of the List of Corruption Risks of PJSC FGC UES.
	■ Previewing the Annual report of PJSC FGC UES for 2017 and recommendation for approval.
Risk management	Considering report on the implementation of a set of actions intended to improve the system of risk management and internal control with regard to the internal auditor's recommendations.
system, internal control and corporate	Considering reports of the internal auditor of PJSC FGC UES on the assessment of efficiency of the corporate management and the internal control and risk management systems in PJSC FGC UES, based the results of 2017.

Considering report of the Chairman of the Management Board and members of the Management Board of PJSC FGC UES on the organisation and functioning of the internal control system for 2017. Considering report of the Chairman of the Management Board and members of the Management Board of PJSC FGC UES on the organisation, functioning and efficiency of the risk management system for 2017.

■ Considering report on PJSC FGC UES key operational risks for the H1 of 2018.

Reviewing the results of PJSC FGC UES anti-corruption monitoring for 2017.

#### **STRATEGY COMMITTEE**

**APPENDIX 1** 

Decisions taken on key areas of activity

Area of activity	Results of activities
Determining and monitoring the strategy implementation	<ul> <li>Approving the standard forms of documents used in PJSC FGC UES in the course of the technological connection implementation.</li> <li>Reviewing the results of rendering services within the framework of Stage 1 of the Terms of Reference for "Assessment of opportunities and risks of consolidation of power grid facilities, classified as a single national (all-Russian) electricity grid, or meeting the criteria of reference to the Federal Grid Company, under the management of PJSC FGC UES, including the power grid facilities being in the ownership of any third parties and located in the non-insulated areas of centralised power supply, with preparation of the draft Program of phased consolidation of the Federal Grid Company facilities under the management of PJSC FGC UES".</li> <li>Considering reports on the implementation of measures and achievement of key performance indicators defined by the PJSC FGC UES long-term development programme for the period of 2015–2019, and the forecast up to 2030.</li> <li>Considering report on the results of operations in the capital markets and interaction with rating agencies for 2017.</li> <li>Considering reports on the progress and results of implementation of measures under the Programme for Disposal of Non-Core Assets of PJSC FGC UES and its Subsidiaries.</li> <li>Introducing changes in the Regulation on the organisation (procedure) of disposal of non-core assets of PJSC FGC UES.</li> <li>Approving a new version of the register (plan of disposal) of non-core assets of PJSC FGC UES.</li> </ul>
Business planning	<ul> <li>Approving a new edition of the business planning standard of PJSC FGC UES.</li> <li>Considering the consolidated business plan based on the Russian Accounting Standards (RAS) and the consolidated business plan based on the International Accounting Standards (IAS) for the FGC UES Grou of Companies for 2018, and forecast indicators for 2019–2022.</li> <li>Considering reports on execution of the business plan of PJSC FGC UES, on execution of the consolidate business plan based on the RAS and consolidated business plan based on the IAS for the FGC UES Group of Companies.</li> </ul>
Dividend and credit policies	<ul> <li>Considering report of PJSC FGC UES on the actual use of currency and interest risk hedging instruments for 2017 and the economic effect achieved.</li> <li>Approving a new version of the Regulation on the dividend policy of PJSC FGC UES.</li> </ul>

#### HR AND REMUNERATION COMMITTEE

Decisions taken on key areas of activity

Area of activity	Results of activities				
Remuneration and setting/ implementation of KPIs	<ul> <li>Considering reports on the KPIs implementation by the senior managers of PJSC FGC UES for various periods of financial and economic activities.</li> <li>Introducing changes in the methods of calculation and assessment of the key performance indicators implementation by the senior managers of PJSC FGC UES.</li> <li>Reviewing the results of assessment of efficiency of the Board of Directors of PJSC FGC UES.</li> </ul>				
HR issues	<ul> <li>Introducing professional standards into the activities of PJSC FGC UES</li> <li>Considering issues related to the working environment of the Chairman of the Board of PJSC FGC UES and individual members of the Board of PJSC FGC UES.</li> </ul>				

management

Fraud management

#### **INVESTMENT COMMITTEE**

Decisions taken on key areas of activity

Area of activity	Results of activities
Adjusting the investment	■ Recommending for approval an adjustment to the investment programme of PJSC FGC UES for 2016-2020.
programme	Considering proposals of PJSC FGC UES on improvement of the process of formation, coordination, approval and adjustment to the investment programme.
	Considering information and reports on the status of implementation of a number of investment projects of PJSC FGC UES.
Implementing individual	Reviewing the results of field inspections carried out by the Ministry of Energy of the Russian Federatio on the progress of implementation of a number of investment projects of PJSC FGC UES and the planned measures to eliminate the identified deviations.
investment projects	Considering reports of the managers of PJSC FGC UES on execution of action plans intended to eliminate the deviations identified in the course of inspections of the Ministry of Energy of the Russian Federation.
	Approving the Action Sheet for the implementation of the Comprehensive Plan for Modernisation and Expansion of the Main Infrastructure for the Period until 2024.
	Considering report on execution of production programmes in 2017: maintenance and repair (MaR), technical upgrading and reconstruction (TUaR).
Implementation of the Investment Programme	Considering report on execution of the investment programme of PJSC FGC UES for the Q4 of 2017 and throughout 2017, including the projects of federal significance and projects implemented with application of federal budget resources and other budgetary funds, as well as non-budget funds.
	Considering report on execution of the investment programme of PJSC FGC UES for the Q1, Q2 and Q3 of 2018, including the federal projects.
	Recommending for approval a list of investment projects of PJSC FGC UES being subject to public technological and price audits in 2018.
	Approving the Regulations for the investment programme formation and changing, as well as preparing reports on its implementation, increasing investment efficiency and reducing expenses of PJSC FGC UES.
Approval of internal	Considering the annual report on the technological and price audits of investment projects of PJSC FGC UES in 2017.
documents	Approving the annual report for 2017 on the implementation of the Programme of Innovative Development of PJSC FGC UES for 2016–2020 with an outlook until 2025.
	<ul> <li>Approving a new edition of the internal document of PJSC FGC UES, the scenario conditions of formation of the investment programmes of PJSC FGC UES.</li> <li>Approving the Quality Policy of PJSC FGC UES.</li> </ul>
	<ul> <li>Approving the Quality Policy of P3SC FGC GES.</li> <li>Approving a new edition of the Unified Procurement Standard of PJSC FGC UES (Procurement Regulations).</li> </ul>
Implementation of technological connections	Considering reports on reviewing applications for technological connection and performance of contracts on implementation of technological connection to the power grid facilities of PJSC FGC UES for H1 of 2017, throughout 2017, and for the H1 of 2018.

#### SYSTEM OF REMUNERATION OF MANAGEMENT BODIES

#### **APPROVAL OF THE QUARTERLY KPI IMPLEMENTATION REPORTS IN 2018**

KPIs implementation by PJSC FGC UES for Q1 and Q2 of 2018 of the Board of Directors of 05.04. 20199. was approved by the decision of the Board of Directors of

In 2018, the Board of Directors made decisions to approve 20 November 2018<sup>8</sup>, report on the KPIs implementation by reports on the quarterly KPIs implementation: Report on the PJSC FGC UES for Q3 of 2018 was approved by the decision

#### **CONFLICT OF INTEREST MANAGEMENT**

#### PREVENTION OF A CONFLICT OF INTEREST BETWEEN MEMBERS OF THE BOARD OF DIRECTORS

#### GRI 102-25

In accordance with the internal documents of the Company, a number of obligations are imposed on the members of the Board of Directors, who shall:

- avoid any actions that will lead or may lead to a conflict between their interests and interests of the Company;
- inform the Board of Directors and the Corporate Secretary in a timely manner about any existing conflict of interest and the grounds of its emergence;
- timely disclose any information on his/her possession of securities of the Company, its subsidiaries and controlling persons, any sale or acquisition thereof; on any overlapping positions held by him/her in other legal entities; on his acceptance of any invitation to become a candidate to the members of the Board of Directors of another legal entity, or any change of his principal place of employment.

#### PREVENTION OF CONFLICT OF INTERESTS BETWEEN **MEMBERS OF EXECUTIVE BODIES**

The Regulation on the Management Board of PJSC FGC UES stipulates an obligation of members of the Management Board to notify the Board of Directors, the Audit Committee, the Auditor and the Executive Secretary of the Management Board of the following facts:

- any affiliation;
- potential conflict of interest, including any interest in closing any transaction by the Company;
- possession of the Company's securities, as well as any sale or acquisition thereof.

In order to minimise the emergence of any conflicts of interest, any overlapping positions of the members of the Management Board in other organisations shall be permitted only upon consent of the Board of Directors of the Company.

<sup>&</sup>lt;sup>8</sup> Minutes of Meeting of the Board of Directors No. 428 of 21 November 2018.

<sup>&</sup>lt;sup>9</sup> Meeting Minutes of the Board of Directors No. 442 of 05 April 2019.

#### INTERNAL CONTROL

#### **FUNCTIONS OF ICS PARTICIPANTS**

**GRI 102-30** 

Participant	
Name	

**Core functions in ICS** 

#### FIRST LINE OF PROTECTION

#### The Board of **Directors**

- determines the principles of and approaches to the Company's internal control system arrangement, including approval of internal documents of the Company, stating the internal control system structure, and criteria for the internal control system efficiency assessment;
- supervises the activities of the Company's executive bodies in the main (priority) areas of operations;
- annually review reports of the Chairman and members of the Management Board on the Company's internal control system functioning;
- annually reviews the Internal Auditor's reports on the internal control system efficiency;
- reviews the results of external independent assessment of the internal control system efficiency.

#### The Audit Committee of the **Board of Directors**

- previews, prior to approval by the Company's Board of Directors, the internal documents stating the internal control system structure and the criteria of its efficiency;
- previews the following documents, prior to their reviewing by the Company's Board of Directors: report of the Chairman and members of the Management Board on the internal control system functioning; Internal Auditor's report on the internal control system efficiency, and information on the results of the external independent assessment of the internal control system efficiency;
- reviews issues related to monitoring the Company's accounting (financial) statements accuracy, selecting an external auditor and performing the external audits, ensuring compliance with the regulatory legal requirements, and considering issues related to the analysis and assessment of implementation of the Regulations on internal control system.

#### Other committees of the Board of Directors (HR and Remuneration Committee, Strategy Committee,

monitor implementation of the determined financial and operating indicators, monitor compliance with the applicable laws, rules and procedures determined by the local normative acts, and monitor accuracy and timeliness of reports drawn by the Company.

#### The Audit Commission

Investments Committee)

- confirms validity of data stated in the annual report, and the annual accounting (financial) statements of the
- reviews the Company's financial standing, identifies reserves for the financial standing improvement, makes recommendations to the management bodies;
- conducts inspections (audits) of the Company's financial and economic activities.

#### **Executive bodies** of the Company (Management Board, Chairman of the Management Board)

- ensure development and efficient functioning of the internal control system;
- ensure implementation of the resolutions of the Board of Directors in terms of the internal control arrangements.

#### The Company's **Management Board**

- ensures that reports of the Chairman and members of the Management Board on the internal control system functioning are submitted for consideration to the meeting of the Company's Board of Directors upon preliminary review by the Audit Committee of the Company's Board of Directors;
- reviews the results of external independent and internal assessments of the internal control system efficiency, works out measures to develop and improve the internal control system.

### The Chairman of the Company's Management Board

**Core functions in ICS** 

- approves regulatory and methodological documents of the Company in terms of the internal control system development and functioning, except for the documents to be approved by the Company's Board of Directors;
- ensures implementation of the Company's performance plans required to achieve its targets;
- arranges accounting records maintenance and management accounting, issue accounting (financial) and other
- submits to the Company's Board of Directors consideration any reports on the financial and economic activities of the Company and on the arrangement and functioning of the Company's internal control system.

#### Heads of units and structural subdivisions of the Company

**APPENDIX 1** 

**Participant** 

Name

- are responsible for the internal control system development, documentation, implementation, monitoring and improvement in the functional areas of the Company's operations, whereof the responsibility for arrangement and coordination/implementation is assigned to them by the Company's regulatory documents/ provisions on structural subdivisions, including:
- ensuring implementation of the internal control principles;
- arranging efficient processes (activity areas), including development and implementation of any new or changing the existing control procedures, with regard to identified risks;
- assessment of the monitored processes (activity areas) regarding the necessity to optimise their efficiency and meet the changing conditions of external and internal environment, ensuring their regulation, and developing proposals to improve the control procedures;
- arranging implementation of the control procedures;
- arranging assessment (monitoring) of the control procedures implementation;
- eliminating any drawbacks identified in the control procedures and processes (activity areas).

#### **Employees of** the Company's structural subdivisions, implementing control procedures in virtue of their official duties

- execute the control procedures;
- ensure timely notifying the line managers of the cases when execution of the control procedures has become impossible for whatever reasons, and/or on any amendments in the control procedures design required due to any changes of internal and/or external business environment conditions of the Company;
- submit to the line managers consideration any proposals on the control procedures implementation in respective activity areas.

Participant Name

**Core functions in ICS** 

#### **SECOND LINE OF PROTECTION**

#### **Legal Department**

Monitors the Company's compliance with the applicable legal requirements by conducting legal expertise and coordination in accordance with the procedure established by the Company's regulatory and administrative documents, drafts agreements and contracts, drafts regulatory and administrative documents, drafts decisions of the Company's management bodies, drafts powers of attorney to represent the Company's interests to any third parties, drafts applications, letters, appeals, complaints sent on behalf of the Company to legislative and executive authorities, judicial authorities, law enforcement agencies, and monitors and informs the Company's senior managers on the adopted regulatory legal acts of the Russian Federation having any significant impact on the Company's activities, minimising the risks of non-compliance with the applicable legal requirements and the Company's interests.

#### Corporate and Strategic Management Department

Monitors compliance of decisions taken by the Company's executive bodies with the legislation of the Russian Federation, Company standards, regulatory and administrative documents of the Company, and the Company's interests, minimising the risks of non-compliance with the requirements of corporate legislation and internal regulatory documents.

## The Anti-Corruption and Economic Security Department

Arranges and carries out inspection activities to establish the causes of any economic and reputation damage to interests of the Company and its subsidiaries and affiliates, agency checks on receipt of any information about possible abusive activities of any officials of the Company and its subsidiaries and affiliates, including the hotline reports.

# Department of Business Administration

Supervises execution of instructions stated in the Company's Management Board records, Company orders, minutes of meetings and directions of the Chairman of the Management Board of the Company, minimising the risks associated with the late fulfilment of any important tasks.

#### Centre of Technical Supervision of PJSC Rosseti

Carries out under the contract with PJSC FGC UES:

- selective technical supervision of the condition and level of performance of the existing facilities of the electric grid complex;
- monitoring of the operational and process management arrangements;
- monitoring of the production process safety level (labour protection; fire, industrial and environmental safety);
- monitoring of implementation of the operational and system-wide measures intended for the prevention of fires, breakdowns and accidents;
- monitoring of completeness and timeliness of execution of the Company's accident-prevention documentation and regulatory and administrative documents, minimising the risks of non-compliance with the applicable legal requirements and the Regulations on a Uniform technological policy in the electric grid complex, as well as any risks associated with violation of production process safety, emergence of fires, breakdowns and accidents.

#### Participant Name

**APPENDIX 1** 

#### **Core functions in ICS**

#### Internal Control and Risk Management Department

- coordinates the internal control processes;
- develops methodological documents in the area of internal control;
- arranges and carries out training of the Company's employees in terms of internal control;
- monitors issues of the internal control system arrangement and functioning;
- prepares and presents to the Company's executive bodies any information on the internal control system arrangement and functioning;
- ensures the implementation of the Company's Anti-Corruption Policy, introduction and monitoring of the implementation of Anti-Corruption Policies in the Company's subsidiaries and affiliates;
- arranges and carries out anti-corruption procedures in the Company;
- develops and ensures updating of the regulatory and administrative documents aimed at prevention (avoidance) of corruption;
- arranges and carries out activities laying the groundwork of anti-corruption behaviour and animus toward corruption among employees;
- ensures work of the Company's Central Commission on compliance with the corporate ethics code and conflict of interest management;
- submits reports to the Federal agencies of executive authority in accordance with the requirements of the Normative Legal Acts of the Russian Federation in terms of disclosure of information on the counterparties chain of ownership, ensuring efficiency and transparency of the Company's activities;
- carries out daily monitoring of the Company's counterparties until complete performance of their contractual obligations in respect of any information on their insolvency (bankruptcy), liquidation, striking off the State Register (Uniform State Register of Legal Entities);
- carries out monitoring and control of bankruptcy and liquidation procedures of counterparties, analysis of implementation of relevant procedures, analysis of information on the progress of cases and bankruptcy procedures, decisions taken by meetings of creditors and creditor committees and actions of insolvency officers, preparation of proposals to protect the Company's interests in connection with liquidation (bankruptcy) of any counterparties, striking off the Uniform State Register of Legal Entities, including development of alternatives to minimise the Company's risks;
- maintains a unified register of the Company's contractors, including the Company's branches, subsidiaries and affiliates undergoing any bankruptcy and liquidation procedures;
- coordinates the activities of the Company's structural subdivisions in order to represent and protect interests of the Company as a creditor in any cases of bankruptcy and liquidation of counterparties;
- selects any self-regulatory professional bodies of insolvency officers to nominate an insolvency officer for any bankruptcy proceedings;
- ensures preparation of conclusions on evidence of any signs of fictitious or deliberate bankruptcy of organisations, carries out express analyses of legal entities;
- interacts with insolvency officers, winding-up committees (liquidators), creditors, law enforcement agencies and other persons in connection with any insolvency (bankruptcy), liquidation, striking off the Uniform State Register of Legal Entities.

#### THIRD LINE OF PROTECTION

#### The Internal Audit Department

- upon internal audits, develops recommendations on any improvement of control procedures, any individual components (elements) of internal control and the whole internal control system;
- carries out independent internal assessment of the internal control system efficiency and issue recommendations on improving the internal control system efficiency and performance.

#### **RISK MANAGEMENT SYSTEM**

#### continuity and integrity; assignment of risk management responsibility goal orientation efficiency integration into management cross-functional networking balance between risks and **KEY PRINCIPLES OF RMS:** profitability reasonable confidence indeterminacy adaptability consistency continuous improvement quality of information interest and leadership The Board of Directors: ■ The Audit Committee of the Board of Directors; executive bodies (Chairman of the Management Board, Management THE MAIN PARTICIPANTS **OF RMS ARE** Internal Control and Risk Management Department; Internal Audit Department: risk owners; risk management executives.

#### **INTERNAL AUDIT**

The Company approved the following documents regulating the internal audit activities:

- Regulation on the Internal Audit Department of PJSC FGC UES, approved by the Chairman of the Management Board of PJSC FGC UES on 4 October 2017;
- Guidelines for conducting internal audits of PJSC FGC UES, approved by the order of PJSC FGC UES of 6 July 2017 No. 261 (approved by the Audit Committee of the Board of Directors of PJSC FGC UES (Minutes No. 62 of 30 May 2017));
- Internal audits quality guarantee and improvement programme of PJSC FGC UES, approved by the Board of Directors of PJSC FGC UES on 11 December 2017 (Appendix 3 to Meeting Minutes No. 383 of the Board of Directors of PJSC FGC UES of 14 December 2017):
- Rules of interaction of the Internal Audit Department with structural subdivisions and branches of PJSC FGC UES in the course of inspections and monitoring of the corrective action plans implementation, approved by Order of PJSC FGC UES No. 120 of 22 March 2017;
- Guidelines for monitoring the corrective action plans implementation to eliminate violations and shortcomings identified subsequent to the results of internal audits, approved by Order of PJSC FGC UES No. 97 of 13 March 2017;
- Instruction on the generation and use of the Unified Classifier of Violations and Shortcomings, approved by Order of PJSC FGC UES No. 97 of 13 March 2017;
- Guidelines for planning the Internal Audit Department activities, approved by Order of PJSC FGC UES No. 98 of 13 March 2017:
- Guidelines for preparation of reports on implementation of the plan of activities and performance results of the Department of Internal Audit of PJSC FGC UES, approved by Order of PJSC FGC UES No. 488 of 22 November 2017;
- Code of Ethics of Internal Auditors of PJSC FGC UES approved by Order of PJSC FGC UES No. 261 of 6 July 2017 (approved by the Audit Committee of the Board of Directors of PJSC FGC UES (Minutes No. 62 of 30 May 2017)):
- Internal control and risk management system efficiency assessment standard of PJSC FGC UES, approved by the Board of Directors of PJSC FGC UES (Minutes No. 309 of 29 February 2016);

- Procedure for interaction of the Internal Audit Department of PJSC FGC UES with the internal control system subjects and other interested parties carrying out the internal system control monitoring and assessment in individual areas of activity, and formation of a guarantee administration scheme (the "guarantee card"), approved by Order of PJSC FGC UES No. 510 of 7 December 2017;
- Regulations for recording of inspections of PJSC FGC UES carried out by external control (supervision) bodies, approved by Order of PJSC FGC UES No. 104 of 15 March 2017.
- Regulation on the professional competency profile of the Internal Audit Department officers, approved by Order of PJSC FGC UES No. 303 of 9 August 2018.

Key decisions and measures aimed at improving the internal audit system implemented in accordance with the decisions of the Board of Directors of the Company:

- On 19 February 2018, the Board of Directors of PJSC FGC UES approved the plan of activities and budget of the Internal Audit Department of PJSC FGC UES for 2018 (Minutes No. 392 of 22 February 2018).
- Feedback from the Audit Committee of the Board of Directors is provided by the head of internal audit in various forms during interaction with the Audit Committee, including analysis of decisions/recommendations of the Audit Committee on issues within the internal audit competence, as well as through questioning the Audit Committee members.
- Quotient of satisfaction of the Audit Committee of the Company's Board of Directors with the internal audit unit performance results (weighted average total of points in the questionnaires of the voting members of the Audit Committee versus the number of voting members of the Audit Committee) at the end of 2018 corresponds to a "conforming" rate in accordance with the Company's Internal Audits Quality Guarantee and Improvement Programme, approved by decision of the Board of Directors of the Company of 11 December 2017 (Minutes No. 383 of 14 December 2017).

#### **ANTI-CORRUPTION ACTIVITIES**

#### PRINCIPLES AND OBJECTIVES OF THE ANTI-CORRUPTION POLICY

#### GRI 103-2

The basic principles of the Company's Anti-Corruption Policy implementation correspond to the best practices of corruption management:

- Compliance with the applicable legislation and generally accepted standards.
- Zero tolerance towards corruption in any of its forms and aspects, meaning a total ban for all managers, employees and other persons acting on behalf of and/or for the benefit of the organisation, directly or indirectly, personally or through any intermediary, to take part in any corrupt practices.
- Example of top management. Members of the Board of Directors, Chairman and Members of the Management Board, as well as other senior officials of the Company declare uncompromising attitude towards corruption; generate and observe high ethical standards of doing business, with their behaviours setting an example for other employees of the Company.
- Observance of legitimate rights and interests. The Company ensures protection of business reputation of its employees, partners, counterparties and other persons, as well as observance of non-disclosure whilst implementing the anti-corruption measures.
- Involvement of employees. The Company regularly informs its employees on the provisions of anti-corruption laws and actively involves them in the generation and implementation of anti-corruption standards and procedures.
- Transparency of doing business and training. The Company makes every possible effort to explain to its employees, intermediaries and counterparties the principles and requirements of its anti-corruption activities, the liability for violation of the provisions of anti-corruption laws and this Anti-Corruption Policy.
- Responsibility for corrupt practices. The Company makes every possible effort to ensure prompt, inevitable and illustrative suppression of any acts of corruption on the grounds provided by the Company's normative, regulatory and administrative documents. The perpetrators shall be held liable regardless of their position and duration of work in the organisation.

- Efficiency of anti-corruption procedures. The Company carries out anti-corruption measures ensuring easy implementation and producing meaningful results.
- Identification and assessment of corruption risks. The
  Company is constantly working to identify and assess the
  significance of corruption risks specific to the Company's
  activities, with regard to its strategic development plans.
  The anti-corruption procedures being carried out are
  commensurate with the risk of corruption, with due regard
  for the corruption risks existing in the Company's activities.
- Availability of a system of anti-corruption control procedures. The Company develops and implements control procedures aimed at minimising corruption risks. The procedures are transparent, understandable, enforceable and commensurate with the identified corruption risks. The Company regularly evaluates the efficiency of anti-corruption control procedures and carries out respective improvement measures.
- Checks of counterparties. The Company carries out thorough checks of counterparties to minimise reputation, financial and operational risks related to interaction therewith. The checks include, but are not limited to, the analysis of information from open sources on the degree of compliance of a counterparty with ethical principles of business conduct, its readiness to comply with the requirements of the Anti-Corruption Charter of Russian Business, to include anti-corruption provisions in the agreements, and to participate in collective anti-corruption measures.
- Monitoring and control. The Company regularly assesses observance of anti-corruption procedures by its managers and employees. The results of such assessments shall be communicated to the Chairman of the Management Board, the Board of Directors and shareholders of the Company.

The objectives of the Anti-Corruption Policy of the Company include:

- implementation of the requirements of Federal Law No. 273-FZ of 25 December 2008 On Countering Corruption and the Decree of the Russian President of 29 June 2018 No. 378 On the National Anti-Corruption Plan for 2018–2020;
- creation of an efficient legal arrangement to prevent and combat corruption;
- creation of an efficient practical mechanism for implementing measures to prevent and fight corruption (including approval of the anti-corruption measures programme);
- improvement of the regulatory and legal framework in the area of corruption management and interaction with the government authorities in charge of anti-corruption issues;

- prevention of corruptive delinquencies, ensuring responsibility for any corruption and other offences;
- assistance to shareholders, partners, counterparties, members of management and control bodies, employees to gain consistent understanding of the Company's stance on zero tolerance towards corruption in any of its forms and aspects;
- minimisation of the risk of the Company's involvement in any corrupt practices;
- shaping the corporate anti-corruption mentality.

#### **REPORT ON ANTI-CORRUPTION MEASURES 2018**

#### Direction Key achievements

#### Corruption Risk Management (hereinafter — CR)

In order to reduce the likelihood of realisation of corruption risks, the CR owners arranged quarterly assessments of the likelihood of corruption risks realisation, developed action plans to mitigate them. There were no identified realised corruption risks in the Company and its branches in 2018.

**GRI 205-1** In 2018, corruption risks were assessed regarding 21 subdivisions of the executive office (57 % of the total number of subdivisions).

In order to implement the risk-oriented approach in the Company and its branches, the List of Positions Related to High Corruption Risks was approved  $^{10}$ .

In order to unify functional verticals of the Company's management, as well as upon analysing the CR List by the degree of its corruption danger, amendments to update the CR List were drafted<sup>11</sup>.

Methodological Recommendations for CR assessment in PJSC FGC UES based on the Standard CR Assessment Methods of PJSC Rosseti and SDCs of PJSC Rosseti were approved<sup>12</sup>. Methodological Recommendations define the principles and approaches to assessing CR and identifying corruption indicators.

Risk owners described CR of the Company. All risks were assessed by expert method on the basis of the professional judgement with principles stipulated in the methodological documents of the Company taken into account.

# Identification and settlement of conflicts of interest

In 2018, certification of the conflict of interest of the Company's employees for 2017 was arranged. According to the certification of the conflict, all manageable situations were settled.

In addition, certification of the conflict of interest of applicants to the vacant positions was held on a regular basis. There were no conflicts of interest during the reporting period.

In 2018, in compliance with the Regulation for Arranging Surveys for Preventing, Detecting and Fighting Corruption and other Offences <sup>13</sup>, preventive surveys with the usage of a lie detector were held regarding job applicants, transfer of the employees starting with the head of the department and above, as well as during agency checks.

<sup>10</sup> In compliance with the Methodological Recommendations of Rosimushchestvo. PJSC FGC UES Order No. 88 of 22 March 2018.

<sup>11</sup> Approved by the Audit Committee of the Board of Directors on 28 December 2018 (Minutes No. 87 of 28 December 2018)

<sup>12</sup> PJSC FGC UES Order No. 316 of 24 August 2018

<sup>13</sup> PJSC FGC UES Order No. 259 of 6 July 2018

#### Direction **Key achievements Anti-corruption control** Monitoring procurement process in relation to corruption risks, timely receipt of information on changes in relations with the in the shareholders of the contracting parties, as well as the inclusion of an anti-corruption clause partners and contracting and other mandatory clauses into contracts. parties Verification of counterparties' reputation and identification of possible affiliations was carried out by: ■ Anti-Corruption and Economic Security Department when considering applications of participants Internal Control and Risk Management Department when auditing the current counterparties. Identification of The Procedure for Organising Anti-Corruption Control of the Procurement Stages and Anti-Corruption potential corruption due Expertise of the Projects on The Company's Executive Documentation was updated<sup>14</sup>. In 2018, 256 to the abuse of power projects on the executive documentations were revised, regarding the approval of regulations, methodical recommendations, provisions, procedures, etc. No violations were identified. Pursuant to Federal Law No. 224 of 27 June 2010, the Company constantly maintained and updated the list of insiders, notifying the persons included/excluded to/from the list of insiders, organised interaction of structural divisions on issues related to control over the use and disclosure of insider information in accordance with the requirements of the Russian legislation. If necessary, the list of insiders was provided to the trade organisers of PJSC Moscow Exchange. Interaction with public The Company carried out the following work: authorities ■ collection and monthly submission of information on concluded contracts with indication of the entire chain of owners of counterparties to the federal executive authority; monthly sending of information on the Company's measures to improve efficiency and transparency of the Company's operations to the federal executive authority. Upon the federal executive authority's request the information on the measures aimed at improving the efficiency of the anti-corruption activities was prepared and sent to the Ministry of Energy of Russia, the Ministry of Labour and Social Affairs of the Russia, the Civil Service and HR Department of the Russian Government. Informing and training The information in the Anti-corruption Activities section of the corporate website and the internal portal employees on antiof the Company was updated in a timely manner. corruption issues, Three trainings were held for the Company's employees. Internal Control and Risk Management shaping anti-corruption Department employees passed an additional advanced training on a number of subjects. Internal Control behaviour of employees and Risk Management Department employees also took part in: the All-Russian interactive initiative organised by the Chamber of Commerce and Industry of the Russian Federation and timed to the International Anti-Corruption Day; ■ the SPARK Conference on Business Security and Risk Management 2018 An anonymous survey of employees on the implementation of the Anti-Corruption Policy of the Company was conducted15

#### **APPENDIX 2**

### MINUTES OF the Public Hearings on the PJSC FGC UES draft integrated annual report for 2018

#### Venue:

9/11 Bolshoy Nikolovorobinsky Lane, PJSC FGC UES, Moscow Date and time:

18 April 2019, from 3 p.m. till 6 p.m.

#### **AGENDA**

- 1. PJSC FGC UES draft annual report for 2018: goals, standards and key topics
- 2. Implementation of key infrastructure projects.
- 3. HR management and social projects of PJSC FGC UES in 2018.
- 4. Occupational and environmental safety management of PJSC FGC UES.
- 5. Recommendations and proposals of stakeholders for the draft annual report; Company representatives' reaction to the recommendations and proposals of stakeholders.
- 6. Summary.

#### LIST OF PARTICIPANTS

	Representatives of PJSC FGC UES						
1.	ALEKSEY Acting First Deputy Chairman of the Management Board     MOLSKY						
2.	2. <b>DMITRY</b> Deputy Chairman of the Management Board, Chief Engineer <b>VODENNIKOV</b>						
3.	3. NATALIA Deputy Chairman of the Management Board OZHEGINA						
4.	MARIA TIKHONOVA	Deputy Chairman of the Management Board					
5.	MADINA KALOEVA	Director of Corporate Strategy, Head of the Corporate Strategy Department					
6.	GEORGY Head of External Communications and the Government Relations Department RESHETNIKOV						
		Representatives of Horizon Corporate Finance LLC					
7.	ALEKSANDER MUKHIN	Executive Director (meeting moderator)					
8.	TARAS YUDIN	Senior Analyst					

<sup>&</sup>lt;sup>14</sup>PJSC FGC UES Order No. 259 of 6 July 2018

<sup>&</sup>lt;sup>15</sup>PJSC FGC UES Instruction No. 124 of 19 March 2018

#### Representatives of stakeholders MIKHAIL President of Rusenergosbyt LLC **ANDRONOV** Head of the Natural Monopolies Department JSC RUSAL Global Management B.V. 10. OLEG **VASILIEV** 11. ALEKSANDER Head of the Relay Protection and Automation of Power Systems Department at MPEI National Research University VOLOSHIN 12. ALEKSANDER Deputy Director of Public Relations of RusCable Media Holding **DEMENTYEV** 13. IRINA General Director of Fuel and Energy Complex Communications Development Centre **ESIPOVA ELENA** 14. Director of Development of the Russian Bird Conservation Union **PASTUKHOVA** NATALIA Deputy Head of Expert Centre of the Non-Profit Partnership Russian Institute 15. **LIKHACHEVA** 16. ALEKSANDER Deputy Chairman of the Energy Sub-Committee of the Russian Union of Industrialists and Entrepreneurs **MAKHROV** 17. **ANNA** Leading Specialist of ANO Russian System of Quality (Roskachestvo) **MIKHEEVA ALEKSEY** Head of Staff in Energy under Vice President of NLMK Group **MOSKALEV** 19. **ELENA** Head of the Issuer Control Management Department of the Listing Department of PJSC Moscow Exchange **PASTUKHOVA** 20. NIKITA Head of the Student Labour Detachment Headquarters of MPEI **REMNEV** 21. ALEKSANDER Assistant of the Civil Service and Mobilisation Training Department of the Ministry of Energy of Russia **CHUDNOV** VLADIMIR 22. First Vice President of the Association ERA of Energy **SHCHELKONOGOV**

#### **SPEAKERS:**

The moderator explained the tasks and procedure of the Public Hearings.

#### ITEM NO.1

The speech was made by M. Tikhonova, Deputy Chairman of the Management Board. Topic: PJSC FGC UES Draft Annual Report for 2018: Goals, Standards and Key Topics.

M. Tikhonova presented general facts about the Company, including its area of activity, length of its power lines, number and total transformer capacity of substations.

She gave an overview of requirements, recommendations and standards used by the Company as guidelines in the report preparation. It was noted that the Company intends to gradually develop this approach to preparing the integrated

annual report, strives to improve the public reporting quality and the efficiency of stakeholder engagement.

A summary of the procedure for selecting material report topics was introduced and the main theme Space for Development with explanation for its relevance was announced.

Ms Tikhonova also presented information on the report certification procedure for which stakeholder representatives were invited.

#### ITEM NO.2

The speech was made by A. Molsky, Acting First Deputy Chairman of the Management Board. Topic: Implementation of Key Infrastructure Projects.

A. Molsky began with a review of the electricity and capacity consumption dynamics for the Unified Energy System of Russia and forecasts up to 2025 in accordance with the approved Roadmap and the UES of Russia development programme. He noted a trend for an increase in electricity consumption and the corresponding increase in FGC electric power output.

The speaker informed that the general development areas for the main network infrastructure up to 2024 are indicated in Decree of the President of the Russian Federation No. 204 dated 7 May 2018 on National Goals and Strategic Tasks for Development of the Russian Federation Over the Period up to 2024. Mr Molsky gave an overview on implementation of key infrastructural projects in such areas as the development

of centralised power systems, power supply to port zones, development of the external power supply system for the Baikal-Amur Mainline and the Trans-Siberian Railway, power plants' output, the ESPO and Power of Siberia projects, power supply to advanced development zones.

He drew particular attention to the projects in the area of technological connection for which the Company focuses on large consumers.

In conclusion, he emphasised the innovation factor of the FGC investment projects, noting that the Company's approach lies in application of new technologies without additional increase in the costs of the projects.

#### ITEM NO.3

The speech was made by N. Ozhegina, Deputy Chairman of the Management Board. Topic: HR Management and Social Projects of PJSC FGC UES in 2018.

N. Ozhegina spoke about main staff indicators of FGS for the reporting period such as average staffing number, age, productivity, and turnover. She mentioned that the expert community highly evaluated the activities of the Company in the HR management and social areas, which is further confirmed by awards won at the specialised competitions in 2018 and 2019.

The Company pays special attention to personnel training and education. The presentation provided information on the activities of nine Personnel Training Centres, as well as the training system using training simulators of operation of actual power grid facilities.

It contained information on ongoing work for the development of human capacity, particularly for introduction of professional

standards to the FGC personnel interaction system, as well as the accreditation of education programmes of FGC to be used in the electric grid complex. Ms Ozhegina reported on plans to open a qualification assessment centre in 2019. The Company's involvement in the work of the youth section at the Russian National Committee of CIGRE was highlighted. N. Ozhegina also talked about young personnel training programmes implemented jointly with MPEI National Research University.

At the end of the report, she touched upon such social responsibility issues as corporate events, corporate sport, housing and youth policies.

#### **APPENDIX 2**

#### **ITEM NO.4**

The speech was given by D. Vodennikov, Deputy Chairman of the Management Board, Chief Engineer. Topic: Occupational and Environmental Safety Management of PJSC FGC UES.

the Company's grid security, decrease in accident rate and number of erroneous actions of the personnel.

audit conducted in 2018, the results of which showcased the Company's Environmental Management System as fully compliant with the requirements of the ISO 14001:2015 international standard. Mr Vodennikov presented information on the environmental policy and a summary of environmental activities carried out in 2018, including, in particular, work to preserve the habitat of the oriental stork and participation in the Amur tiger conservation programme. It was noted that following the results of the XIV All-Russian Competition

D. Vodennikov spoke about positive dynamics in improving Leader of Environmental Protection in Russia 2018, PJSC FGC UES won awards in two categories in the reporting

The speaker informed the audience about the supervisory D. Vodennikov informed the audience on the industrial injuries dynamics and reported that the FGC total injury frequency rate is 5 times lower than the average in the industry. He also presented information on special assessment of labour conditions (SALT) and activities of occupational safety committees.

> In conclusion, Mr Vodennikov focused on the Company's goals to increase the occupational safety level in 2019.

#### **ITEM NO.5**

Stakeholders made their proposals and gave recommendations for the draft annual report.

- E. Zubakina expressed the desire to change the wording "PJSC FGC UES' activities do not have a significant impact on the biodiversity of protected natural zones or other areas that are significant from the point of view of biodiversity outside of protected natural zones". According to Ms Zubakina, construction of power lines cannot but impact biodiversity.
- **D. Vodennikov** replied that the Company shall consider it.
- E. Pastukhova suggested stating in the annual report that dividends are calculated with net revenue adjustment.
- M. Tikhonova responded that the procedure for calculating dividends in FGC is regulated by Order of the Russian Government No. 1094-r dated 29 May 2017 on Forming Principles for Long-Term Shareholder Interest – Russian Federation in PJSC Rosseti on the Issue of Dividend Payments, according to which the FGC dividend policy specifies adjustments to the net profit in order to calculate the amount of dividend payments.
- N. Likhacheva suggested specifying the results of recommendations given as a result of the annual independent

evaluation of the Board of Directors activities when preparing future annual reports.

M. Tikhonova confirmed the possibility to take this comment

V. Shelkonogov proposed supplementing the 2019 annual report with information on independent assessment results for staff qualification correspondence to professional standards organised by the Centre for Development and Assessment of Qualifications in the Electric Grid Complex (CDA).

N. Ozhegina noted that preliminary results of the CDA operation shall be obtained in 2019 and agreed to include relevant information in the 2019 annual report.

Furthermore, the participants made other comments in regard to the activities of the Company, but not related to the contents of the annual report.

#### **ITEM NO.6**

The meeting moderator suggested that those with any remaining questions should send them to the Company in a working order, thanked the participants of the Public

Hearings for their activity and informed that recommendations received shall be included in the 2018 annual report if possible.

FGC representatives thanked the participants for their presence in the Public Hearings as well.

Appendix: Chart of Proposals and Recommendations of Stakeholders.

Horizon Corporate Finance LLC

Deputy Chairman of the Management Board

#### Chart of Proposals and Recommendations of Stakeholders

No.	Stakeholder	Proposal	Taken into account	
1.	Representative of the Expert Centre of Non-Profit Partnership Russian Institute of Directors	To supplement the annual report with information on implementation of recommendations and information on independent annual assessment of the Board of Directors activities.	Will be taken into account when drafting the 2019 annual report.	
2.	Representative of the Russian Bird Conservation Union	To amend the annual report stating that the activities of PJSC FGC UES affect biodiversity.	The impact of PJSC FGC UES on biodiversity is insignificant.  Pursuant to standard GRI 304-2, impact is significant if habitats, valuable populations or separate species cannot be preserved.	
			In the course of PJSC FGC UES operation, no cases of animals' habitats relocation and/or damage were observed.	
3.		To supplement Appendix 10 to the annual report with a detailed list of RED Book species.	Taken into account in Appendix 10.	
4.	Representative of the Association ERA of Energy	To supplement the annual report with information on independent assessment results for staff qualification correspondence to professional standards organised by the Centre for Development and Assessment of Qualifications in the Electric Grid Complex (CDA).	Will be taken into account when drafting the 2019 annual report.	
5.	Representative of PJSC MOEX	To state in the annual report that dividends are calculated with net revenue adjustment.	Taken into account in section Dividend Policy and Profit Distribution.	

Appendix 1

### **APPENDIX 3**

#### REPORT OF PJSC FGC UES

on compliance with principles and recommendations of the Corporate Governance Code approved by the Bank of Russia Board of Directors on 21 March 2014 and recommended for application by the Bank of Russia (Bank of Russia Letter No. 06-52/2463 of 10 April 2014)

Report date: 30 March 2019.

This Report was considered as part of the preliminary consideration of the Company's Annual Report by the Board of Directors of PJSC FGC UES 24.05.2019 (Minutes No. 450 of 24 May 2019).

The Board of Directors confirms that the material 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 2018 to 30 March 2019.

This Report is an Appendix to the annual report of PJSC FGC UES for 2018, 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.

	governance principles	compliance criteria	of Compliance with corporate governance principle	principles compliance criteria
1.1.	1. The Company shall ensure equal and fair treatment of all shareholders exercising their right to participate in the governance of the Company.			
1.1.1.	The Company shall create the most favourable conditions for its shareholders to enable them to participate in the General Meeting and develop reasoned 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.	The Company's internal document approved by the General Meeting of Shareholders and regulating the procedures for holding the General Meeting is publicly available.     The Company provides an accessible way to communicate with the community, such as a hotline, a special email address or an Internet forum that enables shareholders to express their opinions and ask questions regarding the agenda when preparing for the General Meeting. The above actions were taken by the Company prior to each General Meeting held in the reporting period.	observed partially observed not observed	
1.1.2.	Procedures for sending notice of the General Meeting and provision of the relevant materials shall enable shareholders to get properly prepared for participating therein.	1. The Notice of the upcoming General Meeting was posted (published) on the corporate website at least 30 days prior to the meeting.  2. The Notice of the General Meeting specified the exact location of the meeting and documents required for admission to the premises.  3. Shareholders had access to the information about the persons who had proposed items on the agenda and nominated candidates to the Board of Directors and the Audit Commission of the Company.	observed partially observed not observed	
1.1.3.	During the preparation for and holding of the General Meeting, shareholders shall be able to receive in a freely and timely manner information on the meeting and materials thereto, ask questions to members of the Company's executive bodies and the Board of Directors, and to communicate with each other.	1. In the reporting period, shareholders were enabled to ask questions to members of the Company's executive bodies and the Board of Directors prior to and during the Annual General Meeting.  2. Position of the Board of Directors (including any dissenting opinions recorded in the minutes) on each agenda item of the General Meetings held within the reporting period was included in the materials for the General Meeting of Shareholders.  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.	observed partially observed not observed	

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
1.1.4.	There shall 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.	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.      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.	observed partially observed not observed		
1.1.5.	Each shareholder shall be able to freely exercise his/ her right to vote in a straightforward and the most convenient manner.	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 and certified by the Company's counting board.	observed partially observed not observed		
1.1.6.	Procedures for holding a General Meeting set by the Company shall 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.	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 agenda 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.	observed partially observed not observed		

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
1.2.	Shareholders shall hav	e equal and fair opportunity to parti	cipate in the Comp	any's profits by means of receiving dividends.	
1.2.1.	The Company shall develop and put in place a transparent and clear mechanism for determining the amount of dividends and payment thereof.	The Company's dividend policy has been developed, approved by the Board of Directors and disclosed.     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.	observed partially observed not observed		
1.2.2.	The Company shall 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.	The Company's dividend policy clearly indicates the financial/economic circumstances under which the Company shall not pay dividends.	observed partially observed not observed		
1.2.3.	The Company shall not allow deterioration of dividend rights of its existing shareholders.	In the reporting period, the Company did not take any actions leading to the deterioration of dividend rights of the existing shareholders.	observed partially observed not observed		

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments	
1.2.4.	The Company shall 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.	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.	observed  partially observed  not observed	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 under the agreement concluded with PJSC Rosseti.  The Russian Federation has no affiliated persons.  Currently, the legislation is moving along the path of simplifying the related-party transactions procedure, and reducing their total number. Thus, Federal Law No. 343-F2 of 3 July 2016, from 1 January 2017, introduced a new related-party transactions procedure through notification to management bodies members, and also expanded the list of transactions that are not recognised as related-party transactions, including transactions with a price threshold, before the achievement of which the transactions can be made without corporate procedures provided by Chapter XI of the Federal Law No. 208-FZ of 26 December 1995 On Joint-Stock Companies.  In accordance with these changes and taking into account the Bank of Russia Directive No. 4335-U of 31 March 2017 (regarding the amount of transactions) deals amounting to more than RUB 1 billion between PJSC FGC UES and the controlled entities of PJSC Rosseti in 2018 were related-party transactions and were made in the manner prescribed by the requirements of the legislation of the Russian Federation. In accordance with the procedure established in the Company, all contracts concluded in the Company are preliminary approved, including checking counterparties for transactions. The counterparties are also inspected at the stage of procurement procedures.  At the moment, the Company does not plan to make any addition		
1.3.	The corporate governance system and practices shall guarantee equal conditions for all shareholders owning shares of the same category (type), including minori shareholders and foreign shareholders, as well as their equal treatment by the Company.					
1.3.1.	The Company shall 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.	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.	observed partially observed not observed		No conflicts of interests were recorded in the reporting period.	

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments	
1.3.2.	The Company shall not take any actions that will or might result in artificial redistribution of corporate control.	The Company does not have quasi-treasury shares or they did not take part in the voting during the reporting period.	observed partially observed not observed		The Company has quasi-treasury shares but they did not take part in the voting at the Annual General Meeting and the Extraordinary General Meeting of Shareholders in 2018.	
1.4.	The shareholders shall shares in a non-onerou		ent means of recor	rding their rights in shares as well as with the opportunity to freel	y dispose of such	
1.4.	The shareholders shall 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 nononerous manner.	The registrar's quality and reliability in maintaining the shareholder register meet the Company's and its shareholders' needs.	observed partially observed not observed			
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.					
2.1.1.	The Board of Directors shall 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 shall also ensure that the Company's executive bodies act in accordance with an approved development strategy and the Company's activities.	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 concluded with them.  2. The Board of Directors has considered a report (reports) of the sole executive body and members of the collective executive board on the implementation of the Company's strategy.	observed  partially observed  not observed	1. Partially not observed.  According to the Company's Articles of Association, the Board of Directors shall appoint members of the Management Board of PJSC FGC UES, and the General Meeting of Shareholders shall appoint the Chairman of the Management Board.  The Company did not amend its Articles of Association with respect to delegating the authority to appoint the Chairman of the Management Board to the Board of Directors at the Annual General Meeting of Shareholders in 2018 due to the high risk of financial and economic implications for the Company resulting from the possible demand for redemption of minority stakes.  Due to the amendments to the legislation (Federal Law No. 209-FZ of 19 July 2018) regarding the exclusion of the redemption of shares when delegating authority from the General Meeting of Shareholders to the Board of Directors, the Company plans to consider delegating authority to appoint the Chairman of the Management Board to the Board of Directors.  2. Observed.		
2.1.2.	The Board of Directors shall 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	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.	observed partially observed not observed			

	Cornerate	Cornerate government with sixt	Ctotue	Evaluation of deviation from	Comments	
	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments	
2.1.3.	The Board of Directors shall determine principles of and approaches to the establishment of the Company's risk management and internal control systems.	The Board of Directors determined principles of and approaches to the establishment of the Company's risk management and internal control systems.      In the reporting period, the Board of Directors reviewed the Company's internal control and risk management systems.	observed partially observed not observed			
2.1.4.	The Board of Directors shall determine the Company's policy on remuneration and/or reimbursement of expenses incurred by its Board members, members of its executive bodies and other key managers.	The Company has developed and implemented the policy (-ies) approved by the Board of Directors on the remuneration and reimbursement (compensation) of expenses incurred by the Board members, members of its executive bodies and other key managers.      During the reporting period, the Board of Directors considered issues related to the above policy(-ies).	observed partially observed not observed			
2.1.5.	The Board of Directors shall play a key role in prevention, detection and resolution of internal conflicts between the Company's bodies, shareholders and employees.	The Board of Directors plays a key role in prevention, detection and resolution of internal conflicts.     The Company has established a system for identifying transactions involving conflicts of interest and a system of measures aimed at resolving such conflicts.	observed partially observed not observed			
2.1.6.	The Board of Directors shall play a key role in ensuring that the Company is transparent, discloses information in full and in a timely manner, and provides its shareholders with easy access to its documents.	The Board of Directors has approved the Regulations on the Information Policy.     The Company has determined persons responsible for implementing the information policy.	observed partially observed not observed			
2.1.7.	The Board of Directors shall monitor the Company's corporate governance practices and play a key role in its material corporate events.	During the reporting period, the Board of Directors considered items on the Company's corporate governance practices.	observed partially observed not observed			
2.2.	The Board of Directors shall be accountable to the Company's shareholders.					
2.2.1.	Information on the Board of Directors' activities shall be disclosed and provided to the shareholders.	The Company's annual report for the reporting period includes information on the attendance at meetings of the Board of Directors and its committees.     The annual report contains information on the main findings of the Board of Directors' performance evaluation for the reporting period.	observed partially observed not observed			

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance Comments principles compliance criteria
2.2.2.	The Chairman of the Board of Directors must be available for communication with the Company's shareholders.	The Company has     a transparent procedure that     enables shareholders to submit     their questions and positions     thereon to the Chairman     of the Board of Directors.	observed partially observed not observed	
2.3.		shall be an efficient and profession nterests of the Company and its sha		of the Company capable of making objective and independent judgments and taking
2.3.1.	Only persons with impeccable business and personal reputation shall be elected to the Board of Directors; such persons shall 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.	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.	observed  partially observed  not observed	1. Observed.  2. Not observed.  In the reporting period, the Board of Directors and/or the HR and Remuneration Committee did not evaluate candidates to the Board of Directors considering the following criteria.  The procedure for nominating candidates to the Board of Directors of the Company is regulated by the Regulation of the Government of the Russian Federation No. 738 of 3 December 2004.  Taking into account the legal status of the Company (PJSC FGC UES is included in the special list approved by the Order of the Government of the Russian Federation No. 91-r of 23 January 2003), candidates to the Board of Directors are nominated in accordance with the Order of the Government of the Russian Federation.  The candidates to the Board of Directors are selected and evaluated by the Federal Property Management Agency Committee on selection of independent directors and representatives of the interests of the Russian Federation for governing and control bodies of joint-stock companies considering suggestions of the Russian Ministry of Energy and PJSC FGC UES.  The candidates are preliminary surveyed and evaluated in terms of their experience, knowledge, business reputation, absence of conflicts of interest, etc.  In 2018, candidates for the Board of Directors of PJSC FGC UES were nominated by the Order of the Government of the Russian Federation No. 363-r of 3 March 2018.  The Company does not plan to implement this recommendation in the next reporting periods.
2.3.2.	Board members shall 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.	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 (or its Nomination Committee), as well as information on the candidates' compliance with the independence criteria according to the recommendations in paragraphs 102–107 of the Code, and the candidates' written consent to be elected to the Board of Directors.	observed  partially observed  not observed	1. Partially not observed.  When holding the Annual General Meeting of Shareholders on 28 June 2018, in 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 Regulation of the Government of the Russian Federation No. 738 of 3 December 2004.  In 2018, 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. 363-r of 3 March 2018.  The Company does not plan to implement this recommendation in the next reporting periods.  Other information on 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 shall be balanced, in particular, in terms of qualifications, expertise, knowledge and business qualities of its members. The Board of Directors shall enjoy the confidence of shareholders.	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.	observed partially observed not observed	

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
2.3.4.	The number of members of the Company's Board of Directors shall 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.	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.	observed partially observed not observed		
2.4.	The Board of Directors	s shall include a sufficient number o	f independent dire	ctors	
2.4.1.	An independent director shall 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) shall 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.	During the reporting period, all independent members of the Board of Directors met the independence criteria specified in recommendations 102–107 of the Code or were recognised as such by the decision of the Board of Directors.	observed partially observed not observed		

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
2.42.	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 shall take precedence over form.	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 reporting period, the Board of Directors (or the Nomination Committee) at least once reviewed the independence of the acting Board of Directors members who the Company specifies in the annual report as independent directors.  3. Procedures have been developed in the Company that determine necessary actions to be taken by the member of the Board of Directors if he or she stops being independent, including the obligation to notify the Board of Directors in a timely manner.	observed partially observed not observed	1. Not observed.  In 2018, the conclusion regarding the independence of candidates to the Board of Directors of the Company was not presented to the shareholders as the status of the candidates to the Board of Directors of the Company is determined by the Order of the Government of the Russian Federation No. 363-r of 3 March 2018 on Nomination of Candidates to the Governing and Control Bodies of PJSC FGC UES taking into account the preliminary selection by the Federal Property Management Agency of candidates for management and control bodies of joint-stock companies with participation of a state, representatives of the Moscow Exchange, where the independence of these candidates is also assessed in accordance with recommendations of the Code and the requirements of the Listing Rules of PJSC Moscow Exchange. The Company does not plan to implement this recommendation in the next reporting periods.  2. Observed.  3. Observed.	
2.4.3.	At least one third of the elected members of the Board of Directors is made up of independent directors.	At least one third of the elected members of the Board of Directors is made up of independent directors.	observed partially observed not observed	1. Partially not observed.  Independent members of the Board of Directors during the reporting period made up less than 1/3 of the Board of Directors composition of 11 members.  To comply with this recommendation of the Code, the number of independent directors in the company shall be more than three (at least four).  Board of Directors of the Company has three independent directors, that corresponds with the listing rules of the Moscow Exchange, which state that the Board has to have at least 1/5, but no less than 3, independent directors.  The process of formation of proposals and nomination of candidates for the management bodies of the Company is regulated by the Resolution of the Government of the Russian Federation No. 738 On Management of the Federal Ownership of Shares of Joint-stock Companies and the Use of a Special Right to Participate in the Management of Joint-stock Companies ('Gold Share') dated 3 December 2004. 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, election candidates for the Board of Directors of PJSC FGC UES were nominated by the order of the Government of the Russian Federation No. 602-r of 31 March 2017 as representatives of the Russian Federation and independent directors.  In 2018, election candidates for the Board of Directors of PJSC FGC UES were nominated by the order of the Government of the Russian Federation No. 303-r of 3 March 2018 as representatives of the Russian Federation and independent directors.  Thus, the Company cannot influence the process of electing members to the Board of Directors.  The risks associated with the incomplete implementation of the recommendations of the Code are offset by the effective organisation of the activities of independent directors in the Company.  There is no information on the planned increase in the number of nominated independent directors; therefore, there is no plan to increase their number at present.	

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
2.4.4.	Independent directors shall play a key role in preventing internal conflicts in the Company and performing the Company's material corporate actions.	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.	observed  partially observed  not observed	1. Partially not observed. Independent directors (who do not have any conflicts of interest) do not always perform a preliminary evaluation of material corporate actions related to a potential conflict of interest. The Company's Articles of Association do not give a definition of material corporate actions. However, the issues mentioned in the Corporate Governance Code relating to material actions are:  • reorganisation of the Company; • acquisition of 30 or more percent of the voting shares of the Company (takeover); • material transactions made by the Company; • increase or decrease in the authorised capital of the Company; • listing and delisting of the Company's shares, in accordance with the current legislation and the Articles of Association of the Company, are assigned 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 decrease in the authorised capital) fall within the competence of the Strategy Committee of the Board of Directors.  Thus, the assessment of material corporate actions related to a possible conflict of interest is carried out within the framework of the analysis of the Board Strategy Committee materials, as well as within the consideration of materials sent to the members of the Board of Directors.  During the reporting period, several material corporate actions were made by persons under the control of the Company from the list of material corporate actions specified in the Code. In all these cases, the Strategy Committee made a preliminary assessment of corporate actions and gave appropriate recommendations to the Board of Directors.  Therefore, the risks associated with the incomplete implementation of this recommendation of the Code have not been identified.  Under the current process of reforming the corporate legislation and the lack of a unified approach to understanding the essence of "material corporate actions", the Company does not currently plan to make any amendments to its i	
2.5.	The Chairperson of the	Board of Directors contributes to t	he most effective i	implementation of the functions imposed on the Board of Director	's
2.5.1.	The Chairperson of the Board of Directors shall be an independent director; or a senior independent director shall be appointed among the Company's independent directors to coordinate work of the independent directors and to liaise with the Chairperson of the Board.	1. The Chairperson 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 Chairperson of the Board of Directors (and, if applicable, the Senior Independent Director) are properly specified in the Company's internal documents.	observed  partially observed  not observed	1. Not observed.  The Chairman of the Board of Directors is not an independent director.  In accordance with sub-paragraph D of paragraph 1 of the list of instructions of the President of the Russian Federation No. Pr-846 of 2 April 2011, as well as the Order of the Government of the Russian Federation No. ISH-P13-26pr of 8 April 2011, professional trustee shall be elected as a Chairperson of the Board of Directors of companies with state participation.  A directive is issued on the topic of election of the Chairperson of the Board of Directors in accordance with the Decree of the Government of the Russian Federation No. 738 of 3 December 2014.  There is no practice of determining a senior independent director in the Board of Directors during the reporting period.  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 management of the Company. In addition, the Company has established Committee and the HR and Remuneration Committee) consist exclusively of independent directors. The activities of independent directors in the Company are organised effectively and the introduction of an additional Senior Independent Director position will not lead to improvements in the corporate governance system of the Company. Thus, the absence of the Senior Independent Director does not entail additional risks for the Company and its shareholders.  The Company does not plan to appoint a Senior Independent Director.  The election of the Chairperson of the Board of Directors will be held in accordance with the directive of the Government of the Russian Federation.	

2. Observed.

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
2.5.2.	The Chairperson of the Board of Directors ensures a constructive atmosphere of meetings, free discussion of issues included in the agenda of the meeting, control over the implementation of decisions made by the Board of Directors.	The performance of the Chairperson of the Board of Directors was assessed as part of the procedure for evaluating the Board of Directors' effectiveness during the reporting period.	observed partially observed not observed		
2.5.3.	The Chairperson of the Board of Directors shall take the necessary measures to provide members of the Board of Directors with information necessary for making decisions on issues of the agenda in a timely manner.	The duty of the Chairperson of the Board of Directors, which is to ensure all Board members are provided with relevant information on the meeting's agenda in a timely manner, is set out in the Company's internal documents.	observed partially observed not observed		
2.6.	Members of the Board with due diligence and		easonably in the in	terests of the Company and its shareholders on the basis of s	sufficient knowledge
2.6.1.	Members of the Board of Directors make decisions taking into account all available information, in the absence of a conflict of interest, based on equal treatment of shareholders of the Company, within the framework of ordinary business risk.	1. Internal documents of the Company establish that a member of the Board of Directors is obliged to notify the Board of Directors is obliged to notify the Board of Directors if he or she has a conflict of interest in relation to any item on the meeting agenda of the Board of Directors or a Board committee, prior to the discussion of the relevant agenda item.  2. The Company's internal documents stipulate that a member of the Board of Directors shall refrain from voting on any item where he or she has a conflict of interest.  3. The Company has established a procedure that allows the Board of Directors to receive professional advice on matters within its competence at the expense of the Company.	observed partially observed not observed		
2.6.2.	The rights and obligations of the members of the Board of Directors are clearly stated and enshrined in the Company's internal documents.	The Company adopted and published an internal document that clearly defines the rights and obligations of members of the Board of Directors.	observed partially observed not observed		

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance Comments principles compliance criteria
2.6.3.	Members of the Board of Directors have sufficient time to carry out their duties.	1. Individual attendance at meetings of the Board of Directors and committees, as well as time spent in preparation for participation in meetings, was taken into account as part of the Board of Directors' assessment procedure, during the reporting period.  2. In accordance with internal documents of the Company, members of the Board of Directors are obliged to notify the Board of Directors of their intention to join the management bodies of other organisations (in addition to controlled and affiliated organisations of the Company), as well as of the fact of such appointment.	observed partially observed not observed	
2.6.4.	All members of the Board of Directors have equal access to documents and information of the Company. Newly elected members of the Board of Directors shall be provided with sufficient information on the Company and the work of the Board of Directors as soon as possible.	In accordance with internal documents of the Company, members of the Board of Directors have the right to access documents and make inquiries concerning the Company and its controlled organisations, and executive bodies of the Company are obliged to provide relevant information and documents.      The Company has a formalised program of orientation events for newly elected members of the Board of Directors.	observed partially observed not observed	
2.7.	Meetings of the Board	of Directors, preparation for them and	d participation of m	embers of the Board of Directors ensure the effective functioning of the Board of Directors
2.7.1.	Meetings of the Board of Directors are held as necessary, taking into account the scope of activities and the Company's objectives in a certain period of time.	The Board of Directors held at least six meetings during the reporting period.	observed partially observed not observed	
2.7.2.	The internal documents of the Company establish the procedure for preparing and holding meetings of the Board of Directors, providing the members of the Board of Directors with the opportunity to prepare for a meeting properly.	1. The Company approved an internal document defining the procedure of preparation for and holding meetings of the Board of Directors, which, also establishes that the notice of holding the meeting shall be sent, as a rule, at least 5 days in advance.	observed partially observed not observed	

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
7.3.	The format of the meeting of the Board of Directors is determined with regards to the importance of the agenda. Most important issues shall be resolved face-to-face.	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) shall be considered at Board meetings held in person.	observed  partially observed  not observed	1. Partially not observed.  The Company's Articles of Association and internal documents do not determine what issues shall be resolved at face-to-face meetings of the Board of Directors.  According to the recommendations of the Corporate Governance Code, issues to be resolved at face-to-face meetings include the following:  I related to holding an Annual General Meeting of Shareholders;  In accordance with the directives of the Government of the Russian Federation;  approval of the Company's material transactions;  consideration of material business aspects of any legal entities controlled by the Company;  financial and operational activities of the Company's business (including financial and operational plans);  other, including the results of the Board of Directors' performance assessment, review of risk management policy, etc.  Thus, a number of items that, according to the Code, require face-to-face consideration by the Board of Directors involve tight deadlines for consideration what does not allow to ensure holding a Board of Directors face-to-face meeting within the time specified by law due to a possible lack of quorum.  At the same time, the work plan of the Board of Directors defines a range of priority issues that are considered at face-to-face meetings, including approval of a business plan (a consolidated business plan including indicators of financial and economic activity of subsidiaries and dependent companies), the investment programme of the Company and the long-term development programme. In 2018, a draft Corporate Governance Code was developed with the need to consider issues defined by the Corporate Governance Code at face-to-face meetings of the Board of Directors taken into account. Currently, the draft of the Code is being approved by the management bodies of the Company.	

APPENDIX 3

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
2.7.4.	Decisions on the most important issues related to the Company's business shall 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.	1. The company's Articles of Association provides that decisions on the most critical issues 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.	observed partially observed not observed	1. Not observed.  The Company's Articles of Association provides that decisions on the most critical issues outlined in Recommendation 170 of the Code shall be resolved 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.  In accordance with paragraph 18.6 of the Charter, decisions at a meeting of the Company's Board of Directors shall be made by a majority vote of the members of the Board of Directors participating in the meeting, except for cases as required by the law of the Russian Federation or the present Articles of Association.  Paragraph 18.8 of the Company's Articles of Association specifies the list of issues to be resolved by a two-thirds majority of votes of the Board members participating in the meeting. In particular, the list includes the issues, stipulated by paragraph 4 and paragraph 8 of Recommendation 170 of the Code: approval of the Company's material transactions and consideration of material items relating to activities of any legal entities controlled by the Company. In addition, in accordance with the Articles of Association, decisions are made by a two-thirds majority votes of the Board of Directors by the members participating in the meeting of the Company's participation in other organisations and credit policy setting.  In practice, this Code recommendation is being implemented, as in 2018 at least 10 of the 11 elected members of the Board of Directors participating in the meeting is comparable to the majority of the votes of all elected members of the Board of Directors participating in the meeting is comparable to the majority of the votes of all elected members of the Board of Directors. It should also be noted that in 2018, none of the issues at all meetings of the Board of Directors was resolved by less than a half of the votes of all 11 elected members of the Board of Directors.  The risks associated with incomplete implementation of the recommendations of	

	governance principles	compliance criteria	of Compliance with corporate governance principle	principles compliance criteria	Comments
.8.	The Board of Directors	establishes committees for prelimi	nary consideration	of the most important issues of the Company's activities.	
.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.	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, who is 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.	observed partially observed not observed		
.8.2.	For the purpose of preliminary consideration of matters related 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 shall not be the Board Chairperson.	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 Chairperson 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.	observed partially observed not observed		
.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 (nominations, HR) with the majority of its members being independent directors.	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.	observed partially observed not observed		

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
2.8.4.	Taking into account the scope of activities and the level of risk of the Company, the Board of Directors is satisfied that the composition of its committees fully meets the objectives of the Company's activities. Additional committees have either been formed or have not been deemed necessary (strategy committee, corporate governance committee, ethics committee, isk management committee, budget, health, safety and environment committee, etc.).	During the reporting period, the Board of Directors of the Company considered the issue of suitability of the composition of its committees for the tasks of the Board of Directors and the objectives of the Company's activities. Additional committees were either established or were not recognised as necessary.	observed partially observed not observed		
2.8.5.	The composition of the committees shall be determined in such a way that it would allow a comprehensive discussion of considered issues on a preliminary basis with due account of the variety of opinions.	1. Committees of the Board of Directors are headed by independent directors. 2. Internal documents (policies) of the Company stipulate provisions, according to which non-members of the Audit Committee, Nominations Committee and Remuneration Committee may attend committee meetings only at the invitation of the Chairperson of the concerned committee.	observed partially observed not observed	1. Partially not observed.  Three of the four committees — Human Resources and Remuneration, Audit and Investment Committees — are chaired by independent directors.  The Strategy Committee is chaired by a member of the Board of Directors who is not an independent director — Pavel Snikkars, Director of the Energy Development Department of the Ministry of Energy of Russia.  PJSC FGC UES is a company with tariff regulation and with state participation, included in the list of strategic organisations of Russia, is a subject of natural monopoly. Thus, in view of the competence of the Strategy Committee, it is reasonable to elect a representative of the sectoral ministry as its Chairperson.  According to the Regulations on the above Committees, taking into account certain resolutions of the Government of the Russian Federation, these Committees are composed mainly of individuals who are not members of the Board of Directors and provide an independent and thorough discussion of issues and the development of preliminary recommendations to the Board of Directors. Therefore, the risks associated with the incomplete implementation of this recommendation of the Code have not been identified.	
2.8.6.	The Chairpersons of the committees shall inform the Board of Directors and its Chairperson of the work of their committees on a regular basis.	During the reporting period, the Chairpersons of the Committees reported on the Committees' work to the Board of Directors on a regular basis.	observed partially observed not observed		

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
2.9.	The Board of Directors	shall ensure evaluation of its own p	performance, and t	hat of its Committees and members of the Board	'
2.9.1.	The Board of Directors' performance evaluation shall 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.	The self-evaluation or external evaluation of the Board of Directors performance conducted during the reporting period included the performance evaluation of the committees, individual directors and the Board as a whole.      The results of the self-evaluation or external evaluation of the Board of Directors performance, conducted in the reporting period, were considered at the Board meeting held in praesentia.	observed partially observed not observed	1. Observed. 2. Not observed. The results of the performance evaluation of the Board of Directors conducted during the reporting period were considered at the meeting of the Board of Directors on 29 May 2018, with voting held in absentia (Minutes No. 408 of 1 June 2018).  The internal document of the Company — the Regulation on Conducting an Assessment 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 February 2017) — provides that the results of the evaluation shall be considered at the meeting of the Board of Directors held in praesentia. The decision on the form of holding a meeting of the Board of Directors shall be made by the Chairperson of the Board of Directors in compliance with the Regulations on the Board of Directors.  When assessing the effectiveness of the Board of Directors in 2019 following 2018, the Company plans to consider the results of the evaluation at the meeting of the Board of Directors.	
2.9.2.	Performance evaluation of the Board of Directors, its Committees and Board members shall be conducted on a regular basis, at least once a year. 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.	In order to conduct an independent assessment of the performance of the Board of Directors during the last three reporting periods, the Company invited an outside organisation (consultant) at least once.	observed partially observed not observed		
3.1.		ate Secretary shall be responsible f s and interests, and support of effic		older engagement, coordination of the company's actions aimed pard of Directors	l at protecting
3.1.1.	The Corporate Secretary has the knowledge, experience and qualification sufficient to carry out the duties entrusted to him, an impeccable reputation and enjoys the trust of shareholders.	The Company adopted and disclosed an internal document — the Regulations on the Corporate Secretary.     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.	observed partially observed not observed		
3.1.2.	The Corporate Secretary shall be independent enough of the Company's executive bodies and be vested with powers and resources required to carry out his/her tasks.	The Board of Directors approves the appointment, dismissal and additional remunerations of the corporate secretary.	observed partially observed not observed		

programmes.

Corporate governance principle Status Explanation of deviation from corporate governance Corporate compliance criteria principles compliance criteria of Compliance with corporate governance principle The amount of remuneration paid by the Company is sufficient to attract, motivate and retain persons possessing the necessary expertise and qualifications for the Company. Remuneration to Board of Directors members, members of the executive bodies, and other key managers of the company shall be paid in accordance with a remuneration policy approved by the Company The term "other key 4.1.1. The amount of 1. The Company has adopted remuneration paid internal remuneration managers of observed the Company" is not document(s) - remuneration by the Company to its Board members, policy (policies) for Board applied according executive bodies, members, executive bodies to the Action Plan partially and other key and other key managers that ("roadmap") on observed managers shall clearly defines the approaches introducing the be sufficient to to the remuneration of the above Corporate Governance individuals. motivate them to Code provisions work efficiently and not observed in the Company's enable the Company practice approved to attract and by the decision of retain competent the Board of Directors and qualified No. 255 of 12 March 2015 professionals. At the same time the Company avoids a higher level of remuneration than necessary, as well as an unjustifiably large gap between remuneration levels of the said persons and employees of the Company. 4.1.2. The Company's 1. In the reporting period,  $\checkmark$ remuneration policy the Remuneration Committee reviewed the remuneration policy observed shall be developed by its Remuneration (policies) and the practice of its Committee and (their) implementation and, partially approved by the if necessary, submitted observed Board of Directors. the relevant recommendations With the assistance to the Board of Directors. of its Remuneration not observed Committee, the Board of Directors shall monitor the implementation of and compliance with the remuneration policy in the Company and also review and amend it, if necessary. 4.1.3. The Company's 1. The policy (policies) The term "other key remuneration policy of the Company on remuneration managers of the observed contains transparent contains transparent Company" is not mechanisms for determining mechanisms applied according the amount of remuneration due to the Action Plan used to determine partially to members of the Board ("roadmap") on the amount of observed introducing the Board members, and other key management Corporate Governance the executive bodies, bodies employees of the Code provisions not observed Company, and also regulates in the Company's and other key all types of payments, benefits managers practice approved of the Company, as and privileges granted to these by the decision well as to regulate all persons. of the Board of types of payments, Directors No. 255 benefits, and of 12 March 2015. privileges provided

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
1.4.	The Company is recommended to develop a policy regarding reimbursement of expenses (compensation), which would contain a list of reimbursable expenses and specify service levels provided to Board members, the executive bodies, and other key managers of the Company. Such a policy may be an integral part of the Company's remuneration policy.	The Company's remuneration policies (policy) 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.	observed partially observed not observed		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 decision of the Board of Directors No. 255 of 12 March 2015.
2.	The remuneration syst	em of Board members shall ensure	aligning of the dire	ectors' financial interests with the long-term financial interest:	s of shareholders
2.1.	A fixed annual remuneration shall be paid to the Board members by the Company. The Company doesn't pay remuneration for participation in certain Board of Directors' or its committees' meetings. The Company doesn't use any form of short-term incentives and additional financial incentives with regard to Board members.	Fixed annual remuneration was the only monetary form of remuneration of Board members for serving on the Board of Directors during the reporting period.	observed partially observed not observed		
2.2.	Long-term ownership of the Company's shares contributes the most to aligning financial interests of Board members with the long-term interests of the Company's shareholders.  At the same time, the Company does not stipulate the right to sell shares by achieving certain performance indicators, and Board members do not participate in option	If the Company's internal document(s) — remuneration policy(policies) provides for granting shares to Board members, clear rules for holding shares by Board members, aimed at encouraging long-term ownership of such shares, shall be available and disclosed.	observed partially observed not observed	This criterion is not applicable because the Company's remur internal document(s) does not provide for granting the Comp members.	

to any of the above individuals.

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
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).	1. 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 (financial instruments based on the Company's shares).  2. The long-term incentive programme for members of the Company's executive bodies and other key managers implies that the right to sell shares and other financial instruments used under such programme will not arise earlier than three years after their provision. The said right shall be made conditional on the achievement of certain targets by the Company.	observed partially observed not observed	1. Not observed. 2. Not observed. The Company does not have a long-term incentive programme for members of the 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 achieving KPI established by the Board of Directors. It should be noted that achieving a number of indices affects the increase in capitalisation and long-term growth of the Company's shareholder value.  The Company is considering the possibility of introducing a long-term incentive programme for members of its executive bodies involving Company's shares (financial instruments based on Company's shares) based on market conditions, state regulation and policy of PJSC Rosseti regarding this issue.	
4.3.3.	The amount of reimbursement (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, shall not exceed two times the fixed portion of his/her annual remuneration.	1. The amount of reimbursement ("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.	observed partially observed not observed		
5.1.	The Company has a so	ound risk management and internal o	control system aim	ed at providing reasonable assurance that the company's goals w	ill be achieved
5.1.1.	The Board of Directors shall determine principles of and approaches to the establishment of the Company's risk management and internal control system.	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.	observed partially observed not observed		
5.1.2.	The Company's executive bodies shall create and maintain an efficient risk management and internal control system in the Company.	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.	observed partially observed not observed		

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance Comments principles compliance criteria
5.1.3.	The Company's risk management and internal control system shall 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.	The Company has approved an anti-corruption policy.     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.	observed partially observed not observed	
5.1.4.	The Board of Directors shall take 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.	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.	observed partially observed not observed	
5.2.	For regular independer the Company arranges		ess of the risk mar	nagement and internal control system and corporate governance practices,
5.2.1.	Internal audits are carried out by a separate structural unit created by the Company or through engaging an independent outside party. The internal audit department shall have separate lines of functional and administrative reporting. Functionally, the internal audit department reports to the Board of Directors.	To perform internal audits, the Company has established a separate structural unit that performs internal audits and reports functionally to the Board of Directors, or has engaged an independent outside organisation subject to the same reporting principle.	observed partially observed not observed	
5.2.2.	The Internal Audit Department evaluates effectiveness of the internal control system and the risk management system, as well as the corporate governance system. The Company applies generally accepted standards of internal	1. During 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.	observed partially observed not observed	

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
5.1.	The Company and its a	activities shall be transparent for its	shareholders, inve	estors and other stakeholders	
i.1.1.	The Company developed and implemented an information policy enabling the Company to efficiently exchange information with its shareholders, investors and other stakeholders.	The Company's Board of Directors has approved an information policy developed in compliance with the Corporate Governance Code recommendations.     The Board of Directors (or one of its committees) considered matters related to the Company's compliance with its information policy at least once during the reporting period.	observed partially observed not observed		
1.1.2.	The Company shall disclose information on its corporate governance system and practices, including detailed information on compliance with the principles and recommendations of the Code.	1. The Company discloses information on its corporate governance system and the general corporate governance principles applied thereby, including on its corporate website.  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 the said person's plans for corporate governance in the Company.	observed partially observed not observed		The Company has no information if the controlling shareholder has memorandum concerning Company's 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.
5.2.	The Company shall dis decisions	close, on a timely basis, full, update	ed and reliable info	rmation about itself so as to enable its shareholders and investor	s to make informed
5.2.1.	The Company shall disclose information in accordance with the principles of regularity, consistency and timeliness, as well as accessibility, reliability, completeness and comparability of data disclosed.	1. The Company's information policy determines the approaches to, and criteria for, determining information that could have a significant influence on the Company's value and its securities, and the procedures that ensure the timely disclosure of such information.  2. If the Company's securities are traded in foreign markets, equivalent material information shall be disclosed in the Russian Federation and in such markets simultaneously in the reporting period.  3. If foreign investors hold a material share in the Company's capital, the Company shall disclose information in Russian and in a commonly used foreign language in the reporting period.	observed partially observed not observed		The Company provides disclosures in accordance with the requirements of the Financial Services Authority of the UK. Disclosure of information that the Company considers significant in the Russian Federation and in the UK is synchronous and equivalent.

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance Comments principles compliance criteria
6.2.2.	The Company is advised against using a formalistic approach to information disclosure; it shall disclose material information on its activities, even if disclosure of such information is not required by law.	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 statement.      The Company shall disclose 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.	observed partially observed not observed	
6.2.3.	The Company's annual report, being one of the most important tools for communication with shareholders and other stakeholders, shall contain information enabling one to evaluate the Company's performance for the year.	The Company's annual report contains the Company's operating and financial highlights.     The Company's annual report contains information on environmental and social aspects of the Company's operations.	observed partially observed not observed	
6.3.	The Company shall pro	ovide information and documents re	quested by its shar	eholders in accordance with the principle of equal and easy access
6.3.1.	The exercise by the shareholders of their right to access the Company's documents and information should not be unreasonably burdensome.	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.	observed  partially observed  not observed	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 a shareholder's request. 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 is also disclosed in the Company's annual report and on the website of the Company.  In 2019, the information policy will be amended regarding provision of information on legal entities controlled by the Company upon a shareholder's request.
6.3.2.	When providing information to its shareholders, the Company shall 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.	In the reporting period, the Company did not deny shareholders' requests for information, or such denials were justified.     In cases specified in the Company's information policy, shareholders are informed of the confidential nature of information and undertake to keep it confidential.	observed partially observed not observed	

	Corporate governance principles	Corporate governance principle compliance criteria	Status of Compliance with corporate governance principle	Explanation of deviation from corporate governance principles compliance criteria	Comments
7.1.				pital structure and its financial position and, accordingly, on the posi that the rights and interests of shareholders as well as other stakeh	
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 authorised capital, listing and delisting of its shares, as well as other actions which might result in significant changes in rights or violation of their interests. The Company's Articles of Association shall 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 shall fall within the matters reserved for the Company's Board of Directors.	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 at least the following as material corporate actions: reorganisation of the Company, acquisition of 30 or more percent of its voting shares (takeover), entering into material transactions, increase or decrease of its authorised capital, listing and delisting of the Company's shares.	observed partially observed not observed	1. Partially not observed. 2. Partially not observed. 2. Partially not observed. 3. Partially not observed. 4. Partially not observed. 5. The Company's Articles of Association do not give a definition of material corporate actions.  4. However, decision-making on issues related to the material actions specified in Recommendation 303 of the Code (for example: reorganisation of the Company, increasing or decreasing its authorised capital, decision making on the Company's participation in other organisations, decision making on application for delisting of the Company's shares and (or) equity securities convertible into its shares, decision making on approval 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 falls within the remit of the Board of Directors or the General Meeting of Shareholders. When submitting any matters to the shareholders' meeting, including material corporate actions, the Board of Directors provides shareholders with appropriate recommendations.  1. addition, taking into account the inclusion of PJSC FGC UES in a special list approved by the Order of the Government of the Russian Federation No. 91-r of 23 January 2003, as well as the list of strategic organisations approved by the Decree of the President of the Russian Federation No. 1009 of 4 August 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 authorised capital) are resolved in accordance with the Decrees of the President of the Russian Federation.	
7.1.2.	The Board of Directors shall play a key role in making decisions or developing recommendations related to material corporate actions; for that purpose, it shall rely on opinions of the Company's independent directors.	The Company has a procedure whereby independent directors declare their position on material corporate actions prior to their approval.	observed partially observed not observed		
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 shall be ensured for all of shareholders; if statutory mechanisms designed to protect the shareholder rights prove to be insufficient for that purpose, additional measures shall be taken with a view to protecting the rights and legitimate interests of the Company's shareholders. In such instances, the Company shall not only seek to comply with the legal requirements but shall also be guided by the principles of corporate governance set out in the Code.	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 material corporate actions than stipulated by law.      During the reporting period all material corporate actions were approved prior to their implementation.	observed partially observed not observed		

Explanation of deviation from corporate governance Corporate Corporate governance principle principles compliance criteria of Compliance with corporate The Company shall have in place such a procedure for taking any material corporate actions that would enable its shareholders to receive full information on such actions in time and influence them, and that would also guarantee that the shareholder's rights are observed and duly protected in the course of taking such actions 721 Information on 1. In the reporting period, material cornorate the Company disclosed observed actions shall be information on the Company's disclosed with material corporate actions in a timely manner and in detail, explanations partially concerning reasons including the reasons and time for, conditions and frame for taking such actions. observed consequences of such actions. not observed 7.2.2. Rules and 1. The Company's internal 1. Observed documents provide for procedures in 2. Observed observed relation to material the procedure for engaging an 3. Not observed. corporate actions independent appraiser when  $\checkmark$ The Company's internal documents do not provide for an determining the value of property taken by partially extended list of grounds on which members of the Board the Company shall to be acquired or disposed of Directors, as well as other persons referred to in the observed be set out in its of under a major transaction or a legislation, are deemed to be interested in the Company's internal documents. related-party transaction. transactions. 2. The Company's internal not observed Given the special aspects of activities of the holding documents provide for structure of PJSC Rosseti, which includes PJSC FGC UES, the procedure for engaging transactions with legal entities controlled by PJSC FGC UES an independent appraiser and transactions with controlling entity of PJSC FGC UES, for determining a price PJSC Rosseti, and other entities controlled by PJSC Rosseti are of the Company's shares. deemed to be related-party transactions. repurchased or redeemed. Currently, the legislation is moving along the path of 3. The Company's internal simplifying the related-party transactions procedure, and documents do not provide for reducing their total number. Thus, Federal Law No. 343-FZ an extended list of grounds on of 3 July 2016, from 1 January 2017, introduced a new which members of the Board related-party transactions procedure through notification to of Directors, as well as other members of management bodies, and also expanded the persons referred to in the list of transactions that are not recognised as related-party legislation, are deemed transactions, including transactions with a price threshold to be interested in the Company's before which the transactions can be made without corporate procedures provided by Chapter XI of the Federal Law No. 208-FZ of 26 December 1995 On Joint-Stock Companies.

The expansion of grounds on which members of the Board of Directors and other persons referred to in the legislation are deemed to be interested in the Company's transactions could hinder the activities of the Company due to the increase in the

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 deemed to be interested in the Company's

number of related-party transactions.

## **APPENDIX 4**

INFORMATION ON MAJOR TRANSACTIONS
AND TRANSACTIONS MADE BY PJSC FGC UES IN 2018,
RECOGNISED AS RELATED PARTY TRANSACTIONS UNDER
RUSSIAN LEGISLATION AND SUBJECTS TO APPROVAL
BY THE COMPANY'S AUTHORISED GOVERNING BODIES

Information on transactions made by PJSC FGC UES in 2018, recognised as major transactions under Russian legislation

In 2018, the Company made no transactions recognised as major transactions in accordance with the Federal Law on Joint-Stock Companies, as well as other transactions to which the major transaction approval procedure applies pursuant to PJSC FGC UES's Articles of Association.

Information on transactions made by PJSC FGC UES in 2018, recognised as related party transactions under Russian legislation and approved by the Company's authorised governing bodies

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost <sup>i</sup> , term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
1.	Supplementary Agreement No. 21 to Contract No. TS/01 on Acting as Customer and Developer of 1 April 2008	28 February 2018	Parties to Supplementary Agreement No. 21:  PJSC FGC UES (Company);  JSC TsIUS UES (Customer and Developer).  Subject and cost:  Amendment of Contract No. TS/01 on Acting as Customer and Developer of 1 April 2008 (hereinafter, the "Contract").  The Parties agreed to terminate the Contract on 1 March 2018 based on p. 1, Article 450 of the Civil Code of the Russian Federation.  The cost of services determined by Supplementary Agreement No. 21 for the period from 1 January 2017 to 28 February 2018 does not exceed RUB 1,923,400,000 (one billion nine hundred twenty three million four hundred thousand) 00 kopecks, incl. VAT (18%) in the amount of no more than RUB 293,400,000 (two hundred ninety three million four hundred thousand) 00 kopecks.  The total cost of services under the Contract for the period from 1 April 2008 to 28 February 2018 does not exceed RUB 23,842,313,000 (twenty three billion eight hundred forty two million three hundred thirteen thousand) 00 kopecks, incl. VAT (18%) in the amount of no more than RUB 3,636,963,000 (three billion six hundred thirty six million nine hundred sixty three thousand) 00 kopecks.  Term of Supplementary Agreement No. 21:  Supplementary Agreement No. 21 shall enter into force from the moment it is signed and be valid until the Parties fulfial lit their obligations.  The terms and conditions of Supplementary Agreement No. 21 in relation to amended cl. 7.1.1 of the Contract shall apply to the Parties' arrangements from 1 January 2017.	PJSC Rosseti N. Pozdnyakov	No. AM-914 of 13 February 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
2.	The Contract on Acting as Technical Customer	1 March 2018	Parties to the Contract: PJSC FGC UES (Company); JSC TSIUS UES (Technical Customer). Subject of the Contract: Under the Contract, the Technical Customer agrees to act as Technical Customer and perform other functions stipulated by the Contract on behalf of and at the expense of the Company, related to creation (construction, reconstruction, overhaul) of facilities owned by the Company, as well as facilities in respect of which the Company is authorised to carry out actions for their creation, and the Company, in its turn, undertakes to pay for rendered services in the amount and procedure stipulated in the Contract. If there is a need to implement measures to connect electric grid facilities to be created under the Contract to the electric grid facilities owned by third parties, the Technical Customer undertakes to conclude relevant contracts with the third parties on behalf of the Company and on terms agreed with the Company in compliance with the procedure provided by the organisational and administrative documentation. As part of the Contract and in accordance with the Company's assignment, the Technical Customer undertakes to provide: - development of draft and project documentation; - creation (construction, reconstruction, overhaul) of the Facility; - supply of materials and equipment; - approval of work results and commissioning of the facility in compliance with the terms and conditions stipulated in the Contract; - registration of rights to the facility; - fulfilment of the target indicators according to the approved construction schedule and the Company's Assignment; - management of creation (construction, reconstruction, modernisation, technical re-equipment, renovation) of the facility; - participation in procurement procedures for selection of suppliers, contractors and executors in accordance with the Company's organisational and administrative documentation; - conclusion of contracts with suppliers, contractors and executors and executors' performance of their obligations under the contracts conc	PJSC Rosseti N. Pozdnyakov	No. AM-914 of 13 February 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
3.	Service Contract for Ensuring Operation and Development of the Electric Grid Complex	6 March 2018	Parties to the Contract:  PJSC Rosseti (Executor);  PJSC FGC UES (Customer).  Subject of the Contract:  The Executor undertakes to provide the Customer with a service for ensuring operation and development of the electric grid complex in compliance with the terms of the Contract, and the Customer undertakes to accept and pay for the service in compliance with the terms of the Contract.  Cost of the Contract:  The cost of the Executor's services for one year does not exceed RUB 515,284,448 (five hundred fifteen million two hundred eighty four thousand four hundred forty eight) 60 kopecks, incl. VAT (18 %) in the amount of RUB 92,751,200 (ninety two million seven hundred fifty one thousand two hundred) 75 kopecks.  The cost of PJSC Rosseti's services under the Contract for ensuring operation and development of the electric grid complex may be revised.  Term of rendering services under the Contract:  Start: 1 January 2018;  End: 31 December 2020.  Term of the Contract:  The Contract shall enter into force from the date it is signed and be valid until 31 December 2020. As for the settlements, the Contract shall be valid until 11 leveral survey.	PJSC Rosseti A. Murov M. Poluboyarinov A. Demin	No. AM-7816 of 26 December 2017	Board of Directors of PJSC FGC UES (Minutes No. 387 of 9 January 2018, issue No. 9).
4.	Agreement No. 2315 on Termination of the Contract for Ensuring Operation and Development of the Electric Grid Complex of 30 September 2014	15 March 2018	Parties to the Agreement:  PJSC FGC UES (Customer);  PJSC Rosseti (Executor).  Subject and cost:  Subject and cost:  Subject and cost:  Operation and Development of the Civil Code of the Russian Federation, the Parties agreed to consider the Service Contract No. 2315 for Ensuring Operation and Development of the Electric Grid Complex of 30 September 2014 (hereinafter, the "Contract") terminated as of 31 December 2017.  The total cost of services under the Contract, taking into account Supplementary Agreement No. 1 of 12 December 2017 for the period from 1 January 2014 to 31 December 2017, amounts to RUB 2,275,040,018 (two billion two hundred seventy five million forty thousand eighteen) 88 kopecks, incl. VAT (18 %) in the amount of RUB 347,040,002 (three hundred forty seven million forty thousand two) 88 kopecks.  Term of the Agreement:  The Agreement shall come into force from the moment it is signed by the Parties and is applied to the Parties' arrangements from 31 December 2017.	PJSC Rosseti A. Murov M. Poluboyarinov A. Demin	No. AM-880 of 14 February 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
5.	Supplementary Agreement No. 14 to Contract No. 06/13 on Repair and Diagnostics of Equipment and Targeted Programmes for the SS and OHL of MPS West Siberia of 18 February 2013	19 March 2018	Parties to Supplementary Agreement No. 14:  PJSC FGC UES (Customer);  JSC Electrosetservice UNEG (Contractor).  Subject and cost:  Amendment of Contract No. 06/13 on Repair and Diagnostics of Equipment and Targeted Programmes for the SS and OHL of MPS West Siberia of 18 February 2013.  The total cost of works under the Contract, taking into account supplementary agreements No. 1–14, does not exceed RUB 1,399,271,352 (one billion three hundred ninety nine million two hundred seventy one thousand three hundred fifty two) 46 kopecks, incl. VAT (18 %) in the amount of no more than RUB 213,448,172 (two hundred thirteen million four hundred forty eight thousand one hundred seventy two) 41 kopecks.  Term of Supplementary Agreement No. 14:  Supplementary Agreement No. 14 shall enter into force from the moment it is signed by the Parties and be valid for the term of the Contract. According to p. 2, Article 425 of the Civil Code of the Russian Federation, the terms and conditions of Supplementary Agreement No. 14 shall apply to the legal relationship between the Parties existing since 1 January 2017.	PJSC Rosseti	No. AM-7929 of 29 December 2017	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
6.	Supplementary Agreement No. 20 to Agency Contract No. 69 on Implementation of the Investment Programme of JSC Kuban Trunk Grids on Reconstruction and Technical Re-Equipment of Electric Grid Facilities of 29 May 2006	19 March 2018	Parties to Supplementary Agreement No. 20: PJSC FGC UES (Executor); JSC Kuban Trunk Grids (Customer). Subject and cost: Amendment of Agency Contract No. 69 on Implementation of the Investment Programme of JSC Kuban Trunk Grids on Reconstruction and Technical Re-Equipment of Electric Grid Facilities of 29 May 2006 (hereinafter, the "Contract"). As for 2018, the amount of payment determined by Supplementary Agreement No. 20 to the Contract did not exceed RUB 193,725,000 (one hundred ninety three million seven hundred twenty five thousand) 00 kopecks, incl. VAT (18 %) in the amount of no more than RUB 29,551,271 (twenty nine million five hundred fifty one thousand two hundred seventy one) 19 kopecks. The total amount of payment under the Contract, taking into account supplementary agreements 1–20, does not exceed RUB 1,754,011,518 (one billion seven hundred fifty four million eleven thousand five hundred eighteen) 32 kopecks, incl. VAT (18 %) in the amount of no more than RUB 267,561,079 (two hundred sixty seven million five hundred sixty one thousand seventy nine) 06 kopecks.  Term of Supplementary Agreement No. 20: Supplementary Agreement No. 20 shall enter into force from the moment it is signed by the Parties and be valid until the Parties fulfil all their obligations.	PJSC Rosseti A. Solod	No. AM-690 of 6 February 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
7.	Supplementary Agreement No. 5 to the Contract for Sale and Purchase of Immovable Property to be Created of 1 August 2014	19 March 2018	Parties to Supplementary Agreement No. 5: PJSC FGC UES (Buyer); JSC TaigaEnergoStroi (Seller). Subject and cost: Amendment of the Contract for Sale and Purchase of Immovable Property to be Created of 1 August 2014 (hereinafter, the "Contract"). The price of the property units under the Contract, taking into account supplementary agreements No. 1–5, does not exceed RUB 7,778,557,862 (seven billion seven hundred seventy eight million five hundred fifty seven thousand eight hundred sixty two) 36 kopecks, incl. VAT (18 %) in the amount no more than RUB 1,186,559,673 (one billion one hundred eighty six million five hundred fifty nine thousand six hundred seventy three) 92 kopecks. Term of Supplementary Agreement No. 5: Supplementary Agreement No. 5 shall enter into force on the date it is signed.	A. Molsky	No. AM-388 of 24 January 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
8.	Contract for repair, maintenance and diagnostics of electric grid facilities	23 April 2018	Parties to the Contract:  PJSC FGC UES (Customer);  JSC Electrosetservice UNEG (Executor).  Subject of the Contract:  Under the Contract:  Under the Contract, the Executor undertakes to perform repair, maintenance and diagnostics of electric grid facilities in accordance with the specifications of the Customer, and the Customer undertakes to accept the result of the work and pay for it.  Cost of the Contract:  The cost of works under the Contract does not exceed RUB 1,001,575,406 (one billion one million five hundred seventy five thousand four hundred six) 58 kopecks, incl. VAT (18 %) in the amount of no more than RUB 152,782,689 (one hundred fifty two million seven hundred eighty two thousand six hundred eighty nine) 13 kopecks.  Term of execution of the works under the Contract:  Start: 1 January 2018;  End: 31 December 2022.  Term of the Contract:  The Contract shall enter into force from the date it is signed, but shall apply to the Parties' arrangements which arose from 1 January 2018 and be valid until the Parties fulfil all their obligations.	PJSC Rosseti	No. AM-1223 of 1 March 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost <sup>i</sup> , term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
9.	Contract for Repair, Maintenance and Diagnostics of Electric Grid Facilities of PJSC FGC UES' branch MPS West Siberia for 2018–2022	24 April 2018	Parties to the Contract:  PJSC FGC UES (Customer);  JSC Electrosetservice UNEG (Executor).  Subject of the Contract:  Under the Contract:  Under the Contract, the Executor undertakes to perform repair, maintenance and diagnostics of electric grid facilities (hereinafter, the "works") in compliance with the specifications of the Customer, and the Customer undertakes to accept the result of the work and pay for it.  Cost of the Contract:  The cost of works under the Contract does not exceed RUB 1,267,302,488 (one billion two hundred sixty seven million three hundred two thousand four hundred eighty eight) 24 kopecks, incl. VAT (18 %) in the amount of no more than RUB 193,317,328 (one hundred ninety three million three hundred seventeen thousand three hundred twenty eight) 72 kopecks.  Term of execution of the works under the Contract:  Start: 15 March 2018;  End: 31 December 2022.  Term of the Contract:  The Contract shall enter into force from the date it is signed and be valid until the Parties fulfil all their obligations.  In accordance with p. 2 Art. 425 of the Civil Code of the Russian Federation, the terms of the Contract shall apply to the relationship between the Parties existing since 15 March 2018.	PJSC Rosseti	No. AM-2076 of 6 April 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company' Board of Directors as the Company did not receive a corresponding request.
10.	Supplementary Agreement No.7 to Contract No. 01/13 for Repair, Maintenance and Diagnostics of the Electric Grid Facilities of MPS Centre of 15 February 2013	28 May 2018	Parties to Supplementary Agreement No. 7:  PJSC FGC UES (Customer);  JSC Electrosetservice UNEG (Executor).  Subject and cost:  Amendment of Contract No. 01/13 for Repair, Maintenance and Diagnostics of the Electric Grid Facilities of MPS Centre of 15 February 2013 (hereinafter, the "Contract").  The total cost of works under the Contract, taking into account supplementary agreements No. 1–7, does not exceed RUB 1,934,723,788 (one billion nine hundred thirty four million seven hundred twenty three thousand seven hundred eighty eight) 71 kopecks, incl. VAT (18 %) in the amount of no more than RUB 295,127,357 (two hundred ninety five million one hundred twenty seven thousand three hundred fifty seven) 60 kopecks.  Term of Supplementary Agreement No. 7:  Supplementary Agreement No. 7 is an integral part of the Contract and shall come into force from the moment it is signed by the Parties.	PJSC Rosseti	No. AM-2319 of 18 April 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company' Board of Directors as the Company did not receive a corresponding request.
11.	Supplementary Agreement No. 15 to Agency Contract No. 29/08-AD for Implementation of the Investment Programme of JSC Tomsk Trunk Grids on Construction, Reconstruction and Technical Re-Equipment of Electric Grid Facilities of 21 November 2008	31 May 2018	Parties to Supplementary Agreement No. 15:  PJSC FGC UES (Executor);  JSC Tomsk Trunk Grids (Customer).  Subject and cost:  Amendment of Agency Contract No. 29/08-AD for Implementation of the Investment Programme of JSC Tomsk Trunk Grids on Construction, Reconstruction and Technical Re-Equipment of Electric Grid Facilities of 21 November 2008 (hereinafter, the "Contract").  As for 2018, the amount of payment determined by Supplementary Agreement No. 15 to the Contract did not exceed RUB 65,363,000 (sixty five million three hundred sixty three thousand) 00 kopecks, incl. VAT (18 %) in the amount of no more than RUB 9,970,627 (nine million nine hundred seventy thousand six hundred twenty seven) 12 kopecks.  The total amount of payment under the Contract, taking into account supplementary agreements No. 1–15, does not exceed RUB 1,890,155,794 (one billion eight hundred ninety million one hundred fifty five thousand seven hundred ninety four) 86 kopecks, incl. VAT (18 %) in the amount of no more than RUB 28,832,850 (twenty eight million eight hundred thirty two thousand eight hundred fifty) 06 kopecks.  Term of Supplementary Agreement No. 15:  Supplementary Agreement No. 15 shall enter into force from the moment it is signed and be valid until the Parties fulfil all their obligations.	PJSC Rosseti D. Vodennikov	No. AM-690 of 6 February 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company' Board of Directors as the Company did not receive a corresponding request.

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost <sup>i</sup> , term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
12.	Supplementary Agreement No. 1 to the Debt Settlement Agreement of PJSC IDGC of the South for Electricity Transmission Services under the UNEG of 31 December 2017	18 June 2018	Parties to Supplementary Agreement No. 1: PJSC FGC UES (Lender); PJSC IDGC of the South (Debtor). Subject and cost: Amendment of the Debt Settlement Agreement of PJSC IDGC of the South for Electricity Transmission Services under the UNEG of 31 December 2017 (hereinafter, the "Agreement"). The total outstanding debt under the Agreement amounts to RUB 1,477,965,779 (one billion four hundred seventy seven million nine hundred sixty five thousand seven hundred seventy nine) 94 kopecks, incl. VAT (18 %) in the amount of RUB 225,452,407 (two hundred twenty five million four hundred fifty two thousand four hundred seven) 11 kopecks. The total cost of the Agreement for the entire validity period shall not amount to or exceed 10 (ten) percent of the net book value of PJSC FGC UES' assets according to its accounting statements as of the latest reporting date.  Term of Supplementary Agreement No. 1: Supplementary Agreement No. 1 shall enter into force from the moment it is signed by the Parties and be valid for the term of the Agreement. The terms and conditions of Supplementary Agreement No. 1 are applied to the Parties' arrangements from 1 January 2018.	PJSC Rosseti	No. AM-1167 of 27 February 2018	Board of Directors of PJSC FGC UES (Minutes No. 401 of 14 May 2018, issue No. 1).
13.	Supplementary Agreement No. 1 to the Debt Settlement Agreement of PJSC IDGC of the South for Electricity Transmission Services under the UNEG of 27 June 2017	18 June 2018	Parties to Supplementary Agreement No. 1: PJSC FGC UES (Lender); PJSC IDGC of the South (Debtor). Subject and cost: Amendment of the Debt Settlement Agreement of PJSC IDGC of the South for Electricity Transmission Services under the UNEG of 27 June 2017 (hereinafter, the "Agreement"). The total outstanding debt under the Agreement amounts to RUB 4,110,466,911 (four billion one hundred ten million four hundred sixty six thousand nine hundred eleven) 42 kopecks, incl. VAT (18 %) in the amount of RUB 627,020,376 (six hundred twenty seven million twenty thousand three hundred seventy six) 32 kopecks. The total cost of the Agreement for the entire validity period shall not amount to or exceed 10 (ten) percent of the net book value of PJSC FGC UES' assets according to its accounting statements as of the latest reporting date.  Term of Supplementary Agreement No. 1: Supplementary Agreement No. 1 shall enter into force from the moment it is signed by the Parties and be valid for the term of the Agreement. The terms and conditions of Supplementary Agreement No. 1 are applied to the Parties' arrangements from 1 January 2018.	PJSC Rosseti	No. AM-1167 of 27 February 2018	Board of Directors of PJSC FGC UES (Minutes No. 401 of 14 May 2018, issue No. 2).
14.	Supplementary Agreement No. 11 to Contract No. 04/13 for Repair, Maintenance and Diagnostics of Electric Grid Facilities of 11 March 2013	20 June 2018	Parties to Supplementary Agreement No. 11: PJSC FGC UES (Customer); JSC Electrosetservice UNEG (Executor). Subject and cost: Amendment of Contract No. 04/13 for Repair, Maintenance and Diagnostics of Electric Grid Facilities of 11 March 2013 (hereinafter, the "Contract"). The total cost of works under the Contract, taking into account supplementary agreements No. 1–11, does not exceed RUB 1,118,209,094 (one billion one hundred eighteen million two hundred nine thousand ninety four) 16 kopecks, incl. VAT (18 %) in the amount of no more than RUB 170,574,268 (one hundred seventy million five hundred seventy four thousand two hundred sixty eight) 60 kopecks. Term of Supplementary Agreement No. 11: Supplementary Agreement No. 11 is an integral part of the Contract, shall enter into force from the date it is signed by the Parties, apply to the Parties' arrangements from 1 January 2017 and be valid until the Parties fulfil all their obligations.	PJSC Rosseti	No. AM-3062 of 22 May 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

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No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost <sup>i</sup> , term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
15.	Supplementary Agreement No. 6 to Contract No. 214-2016 for Performance of Works of 13 December 2016 under the title: Construction of a Smart Distribution Grid of 20/0.4 kV on the Territory of the Skolkovo Innovation Centre, Stage 2	25 June 2018	Parties to Supplementary Agreement No. 6: PJSC FGC UES (Customer); JSC TsIUS UES (Contractor). Subject and cost: Amendment of Contract No. 214-2016 for Performance of Works of 13 December 2016 under the title: Construction of a Smart Distribution Grid of 20/0.4 kV on the Territory of the Skolkovo Innovation Centre, Stage 2 (hereinafter, the "Contract"). The total cost of works under the Contract, taking into account supplementary agreements No. 1–6, does not exceed RUB 10,351,987,437 (ten billion three hundred fifty one million nine hundred eighty seven thousand four hundred thirty seven) 73 kopecks, incl. VAT (18 %) in the amount of no more than RUB 1,579,116,727 (one billion five hundred seventy nine million one hundred sixteen thousand seven hundred twenty seven) 79 kopecks.  Term of Supplementary Agreement No. 6: Supplementary Agreement No. 6 shall enter into force and be an integral part of the Contract from the date it is signed by the Parties.	PJSC Rosseti N. Pozdnyakov	No. AM-3062 of 22 May 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
16.	Supplementary Agreement No. 1 to Contract No. 01/18 for Repair, Maintenance and Diagnostics of Electric Grid Facilities of 23 April 2018	25 July 2018	Parties to Supplementary Agreement No. 1:  PJSC FGC UES (Customer);  JSC Electrosetservice UNEG (Executor).  Subject and cost:  Amendment of Contract No. 01/18 for Repair, Maintenance and Diagnostics of Electric Grid Facilities of 23 April 2018 (hereinafter, the "Contract").  The total cost of works under the Contract, taking into account Supplementary Agreement No. 1, does not exceed RUB 1,001,575,406 (one billion one million five hundred seventy five thousand four hundred six) 58 kopecks, incl. VAT (18 %) in the amount of no more than RUB 152,782,689 (one hundred fifty two million seven hundred eighty two thousand six hundred eighty nine) 13 kopecks.  Term of Supplementary Agreement No. 1:  Supplementary Agreement No. 1 is an integral part of the Contract, shall enter into force from the moment it is signed and be valid until the Parties fulfil all their obligations.  The terms and conditions of Supplementary Agreement No. 1 are applied to the Parties' arrangements from 1 January 2018.	PJSC Rosseti	No. AM-3979 of 4 July 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
17.	Report on Determining Shares in the Joint Ownership	2 August 2018	Parties:  PJSC FGC UES;  JSC Kuban Trunk Grids.  Subject, cost and other material conditions:  Within the framework of Contract No. DI-73/107/30-49 for the Use of Electric Grid Facilities of 30 December 2005, the Parties determine the following:  - PJSC FGC UES' expenses, attributable to the 220 kV OHL facility Shepsi-Dagomys (hereinafter, the "Facility"), amount to RUB 1,983,668,000 (one billion nine hundred eighty three million six hundred sixty eight thousand), excl. VAT;  - JSC Kuban Trunk Grids' expenses, attributable to the Facility, amount to RUB 69,891,000 (sixty nine million eight hundred ninety one thousand), excl. VAT.  - PJSC FGC UES's share in the joint ownership for the Facility amounts to 87.3 % (eighty seven point three percent);  - JSC Kuban Trunk Grids' share in the joint ownership for the Facility is 12.7 % (twelve point seven percent).  All income and expenses related to the use and operation of the Facility jointly owned by the Parties shall be distributed among the Parties in proportion to their share.  Term of the Report:  The Report shall enter into force on the date of signing by the Parties.	PJSC Rosseti A. Solod	No. AM-3979 of 4 July 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

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No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost <sup>i</sup> , term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
18.	Supplementary Agreement No. 2 to Contract No. 529/ID of 19 October 2016 for the Performance of Works Related to the Second Construction Stage under the title: Construction of the 500 kV Beloberezhskaya Substation with the 500 kV Novobryanskaya- Eletskaya, 220 kv Beloberezhskaya Tsementnaya, and the 220 kv Beloberezhskaya- Tsementnaya, and the 220 kv Beloberezhskaya- Bryanskaya HV Approach Lines for the Needs of PJSC FGC UES' Branch MPS North-West	22 August 2018	Parties to Supplementary Agreement No. 2: PJSC FGC UES (Customer); JSC TsIUS UES (Contractor).  Subject and cost:  Amendment of Contract No. 529/ID of 19 October 2016 for the Performance of Works Related to the Second Construction Stage under the title: Construction of the 500 kV Beloberezhskaya Substation with the 500 kV Novobryanskaya-Eletskaya, 220 kv Beloberezhskaya- Tsementnaya, and the 220 kv Beloberezhskaya-Bryanskaya+IV Approach Lines for the Needs of PJSC FGC UES' Branch MPS North-West (hereinafter, the "Contract"). The total cost of works under the Contract and supplementary agreements No. 1 and 2 does not exceed RUB 2,005,000,000 (two billion five million), incl. VAT (18 %) in the amount of no more than RUB 305,847,457 (three hundred five million eight hundred forty seven thousand four hundred fifty seven) 63 kopecks.  Term of Supplementary Agreement No. 2: Supplementary Agreement No. 2 shall enter into force on the date of signing.	PJSC Rosseti	No. AM-4581 of 25 July 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
19.	Supplementary Agreement No. 21 to Agency Contract No. 69 for the Implementation of the Investment Programme of JSC Kuban Trunk Grids for the Renovation and Technical Re-Equipment of Electric Grid Facilities of 29 May 2006	30 August 2018	Parties to Supplementary Agreement No. 21: PJSC FGC UES (Executor); JSC Kuban Trunk Grids (Customer).  Subject and cost: Amendment of Agency Contract No. 69 for the Implementation of the Investment Programme of JSC Kuban Trunk Grids for the Renovation and Technical Re-Equipment of Electric Grid Facilities of 29 May 2006 (hereinafter, the "Contract").  As for 2018, the amount of payment determined by Supplementary Agreement No. 21 to the Contract did not exceed RUB 193,724,000 (one hundred ninety three million seven hundred twenty four thousand) 00 kopecks, incl. VAT (18 %) in the amount of no more than RUB 29,551,118 (twenty nine million five hundred fifty one thousand one hundred eighteen) 64 kopecks.  The total payment under the Contract and supplementary agreements No. 1–21 does not exceed RUB 1,754,010,518 (one billion seven hundred fifty four million ten thousand five hundred eighteen) 32 kopecks, incl. VAT (18 %) in the amount of no more than RUB 267,560,926 (two hundred sixty seven million five hundred sixty thousand nine hundred twenty six) 52 kopecks.  Term of Supplementary Agreement No. 21:  Supplementary Agreement No. 21 shall enter into force from the date of signing by the Parties and be valid until the Parties fulfil all their obligations.	PJSC Rosseti A. Solod	No. AM-5010 of 9 August 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
20.	Supplementary Agreement No. 1 to Contract No. 06/18 for the Repair, Maintenance and Diagnostics of Electric Grid Facilities of PJSC FGC UES' Branch MPS West Siberia for 2018–2022 of 24 April 2018	31 August 2018	Parties to Supplementary Agreement No. 1: PJSC FGC UES (Customer); JSC Electrosetservice UNEG (Contractor). Subject and cost: Amendment of Contract No. 06/18 for the Repair, Maintenance and Diagnostics of Electric Grid Facilities of PJSC FGC UES' branch MPS West Siberia for 2018–2022 of 24 April 2018 (hereinafter, the "Contract"). The total cost of works under the Contract and Supplementary Agreement No. 1 does not exceed RUB 1,267,302,488 (one billion two hundred sixty seven million three hundred two thousand four hundred eighty eight) 24 kopecks, incl. VAT (18 %) in the amount of no more than RUB 193,317,328 (one hundred ninety three million three hundred seventeen thousand three hundred twenty eight) 72 kopecks.  Term of Supplementary Agreement No. 1: Supplementary Agreement No. 1 shall enter into force from the date of signing by the Parties and be valid for the term of the Contract. In accordance with p. 2, Art. 425 of the Civil Code of the Russian Federation, the terms and conditions of Supplementary Agreement No. 1 shall apply to the legal relationship between the Parties existing since 15 March 2018.	PJSC Rosseti	No. AM-3979 of 4 July 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

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No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
21.	Supplementary Agreement No. 7 to Contract No. 214-2016 of 13 December 2016 for the Performance of a Set of Works under the title: Construction of a Smart Distribution Grid of 20/0.4 kV on the territory of the Skolkovo Innovation Centre, Stage 2	6 September 2018	Parties to Supplementary Agreement No. 7:  PJSC FGC UES (Customer);  JSC TSIUS UES (Contractor).  Subject and cost:  Amendment of Contract No. 214-2016 of 13 December 2016 for the Performance of a Set of Works under the title: Construction of a Smart Distribution Grid of 20/0.4 kV on the Territory of the Skolkovo Innovation Centre, Stage 2 (hereinafter, the "Contract").  The total cost of works under the Contract, taking into account supplementary agreements No. 1–6, does not exceed RUB 10,351,987,437 (ten billion three hundred fifty one million nine hundred eighty seven thousand four hundred thirty seven) 73 kopecks, incl. VAT (18%) in the amount of no more than RUB 1,579,116,727 (one billion five hundred seventy nine million one hundred sixteen thousand seven hundred twenty seven roubles) 79 kopecks.  Term of Supplementary Agreement No. 7: Supplementary Agreement No. 7 shall enter into force and be an integral part of the Contract from the date of signing by the Parties.	PJSC Rosseti	No. AM-5010 of 9 August 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
222.	Supplementary Agreement No. 3 to Contract No. 479805 of 25 August 2017 for the Performance of Contract Works (Building and Assembly Works, Pre-commissioning, Supply of Physical Resources and Equipment) under the title: Measures for Compensation of Reactive Power in the Consolidated Power System of the North-West Region with Installation of Two 10 kV Shunt Reactors 29.7 Mvar on 330 kV Substation Velikoretskaya, Two 330 kV Starorusskaya, 330 kV Starorusskaya, 330 kV Shunt Reactor 100 Mvar on 330 Substation kV Starorusskaya, 330 kV Substation Novosokolniki and Two Groups of Single-phase 330 kV TOR on 750 kV Substation	30 November 2018	Parties to Supplementary Agreement No. 3:  PJSC FGC UES (Customer);  JSC NTC FGC UES (Contractor).  Subject and cost:  Amendments to the contract for performance of contract works (building and assembly works, pre-commission, supply of physical resources and equipment) under the title: Measures for Compensation of Reactive Power in the Consolidated Power System of the North-West Region with Installation of Two 10 kV Shunt Reactors 29.7 Mvar on 330 kV Substation Velikoretskaya, Two 330 kV Shunt Reactors 100 Mvar on 330 Substation kV Starorusskaya, 330 kV Shunt Reactor 100 Mvar on 330 kV Substation Novosokolniki and Two Groups of Single-phase 330 kV TOR on 750 kV Substation Leningradskaya for the needs of the branch PJSC FGC UES – MPS North-West No. 479805 of 25 August 2017 (hereinafter, the "Contract").  The price of works under the Contract, taking into account additional agreements No. 1–3, does not exceed RUB 1,177,675,240 (one billion hundred seventy-seven million six hundred seventy-five thousand two hundred forty) 40 kopecks, including VAT (18 %) not exceeding RUB 179,645,375 (one hundred seventy-nine million six hundred forty-five thousand three hundred seventy-five) 66 kopecks.  Term of Supplementary Agreement No. 3:  Supplementary Agreement No. 3 shall enter into force on the date it is signed by the Parties.	PJSC Rosseti	No. AM-7864 of 19 December 2018 <sup>1</sup>	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
3.	Supplementary Agreement No. 3 to Contract No. 529/ID of 19 October 2016	4 December 2018	Parties to Supplementary Agreement No. 3:  PJSC FGC UES (Customer);  JSC TsIUS UES (Contractor).  Subject and cost:  Amendments to the contract No. 529/ID of 19 October 2016 (hereinafter – the "Contract").  The total price of work under the Contract, taking into account supplementary agreements No. 1–3, does not exceed RUB 1,868,255,288 (one billion eight hundred sixty-eight million two hundred fifty-five thousand two hundred eighty-eight) 88 kopecks, including VAT in the amount not exceeding RUB 284,988,094 (two hundred eighty-four million nine hundred eighty-eight thousand ninety-four) 90 kopecks.  Term of Supplementary Agreement No. 3:  Supplementary Agreement No. 3 shall enter into force on the date it is signed.	PJSC Rosseti R. Filimonov	No. AM-6943 of 15 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

<sup>&</sup>lt;sup>1</sup> According to clause 24 of Resolution of the Plenum of the Supreme Court of Russia No. 27 of 26 June 2018, the requirement to obtain consent for the conclusion of a related-party transaction may be sent at any time, including after the transaction has been completed. In this case, the relevant body of the company considers the subsequent approval of the transaction.

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No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, costi, term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
24.	Supplementary Agreement No. 22 to Agency Contract No. 69 of 29 May 2006 on the Implementation of the Investment Programme for Construction, Reconstruction and Technical Re-equipment of Power Grid Facilities of JSC Kuban Trunk Grids	14 December 2018	Parties to Supplementary Agreement No. 22: PJSC FGC UES (Executor); JSC Kuban Trunk Grids (Customer).  Subject and cost:  Amendments to the Agency Contract on the implementation of the investment program for the construction, reconstruction and technical re-equipment of the power grid facilities of JSC Kuban Trunk Grids No. 69 of 29 May 2006 (hereinafter – the "Contract").  The total price of works under the Contract taking into account supplementary agreements No. 1–22 is RUB 1,813,779,518 (one billion eight hundred thirteen million seven hundred seventy-nine thousand five hundred eighteen) 32 kopecks, including VAT in the amount of RUB 276,678,231 (two hundred seventy-six million six hundred seventy-eight thousand two hundred thirty-one) 61 kopecks.  Term of Supplementary Agreement No. 22:  Supplementary Agreement No. 22 shall enter into effect from the moment it is signed and shall be in effect until the Parties fulfil all their obligations.	PJSC Rosseti	No. MA-7268 of 28 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
25.	Contract for the Provision of Independent Guarantees	20 December 2018	Parties to the Contract:  PJSC FGC UES (Guarantor);  JSC Mobile GTES (Principal).  Subject of the Contract:  The Guarantor undertakes to provide the Principal with separate independent guarantees as a proper fulfillment of the Principal's obligations for the payment of petroleum products supplied under Contract No. 100018/02044D of 12 April 2018 for petroleum products supply, concluded between the Principal and PJSC Rosneft.  Price under the Contract:  The total amount of simultaneous effective independent guarantees (hereinafter, the "Limit") shall not exceed RUB 2,600,000,000 (two billion six hundred million).  Independent guarantees are provided to the Principal without paying remuneration to the Guarantor.  Limit term under the Contract:  The Limit is valid form the conclusion date of the Contract to 30 April 2019. Each Guarantee, provided within the Limit, shall not expire later than the termination date of the Limit. Herewith, the validity period for each Guarantee shall be limited to a specific calendar date.  Term of the Contract:  The Contract shall enter into force from the date it is signed by the Parties and is valid until the obligations of the Parties are terminated.  Other essential terms of the Contract:  Issuance of an independent guarantee shall be carried out upon the written request of the Principal.  An independent guarantee is provided if there is an available Limit at least the amount of the corresponding independent guarantee on the date of issue.  The Principal undertakes to reimburse the Guarantor the amounts paid by the Guarantor to the Beneficiary for each independent guarantee, no later than 5 (five) business days from the payment date in favour of the Beneficiary.  The Guarantor does not charge the Principal for the use of the Principal's obligations to the Guarantor under the Contract, the Principal shall pay that the Guarantor pays to the Beneficiary.  In case of non-performance or improper performance of the Principal's obligations to the Guarantor under the Contract and ending	PJSC Rosseti	No. AM-6756 of 6 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

APPENDIX 4 INFORMATION ON MAJOR TRANSACTIONS

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost <sup>i</sup> , term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
26.	Contract on Guarantee Providing Procedure and Meeting the Demands of the Guarantor*	20 December 2018	Parties to the Contract:  PJSC FGC UES (Guarantor);  JSC Electrosetservice UNEG (Borrower).  Subject of the Contract:  The Guarantor ensures the fulfilment of the obligations of the Borrower to the Joint-Stock Company Vetroenergeticheskaya Otdelnaya Generating Company (JSC VetroOGK), OGRN 1115074014967, INN 5036118291, which arise from Contract No. 716/221-D/347/222-D of 7 August 2018 (hereinafter, the "Principal Obligation"), for the purpose of which the Guarantor enters into a corresponding guarantee contract (contracts) with JSC VetroOGK, the lender of the Borrower.  The total amount of guarantees provided under the guarantee contract(s) of the Principal Obligation of the Borrower shall not exceed RUB 1,020,510,127 (one billion twenty million five hundred ten thousand hundred twenty-seven) (hereinafter, the "Limit").  Under the guarantee contract(s) between the Guarantor and the lender of the Borrower (JSC VetroOGK) the following obligations of the Borrower arising from the Principle Obligation can be ensured:  — on the return of the advance payment in the amount of RUB 874,722,966 (eight hundred seventy-four million seven hundred twenty-two thousand nine hundred sixty-six);  — on proper fulfilment of obligations worth 145,787,161 (one hundred forty-five million seven hundred eighty-seven thousand one hundred sixty-one).  The Contract defines the procedure and conditions for granting these guarantees and reimbursement to the Guarantor of the sums paid to the lender of the Borrower.  Cost of the Contract:  The Limit is valid from the effective date of the Borrower under the Principal Obligation to JSC VetroOGK without the Borrower's paying remuneration.  Limit term under the Contract:  The Limit is valid from the effective date of the Basic Obligation until 14 June 2019 (inclusive).  Other essential terms of the Contract:  The Borrower undertakes to reimburse the Guarantor for the amount paid by the Guarantor's performance of the obligations of the Borrower to JSC VetroOGK, its lender no later than 5 (five) b	PJSC Rosseti	No. AM-7184 of 23 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

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No.	Transaction Date of transaction	Material terms of the transaction  (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
27.	Contract of Guarantee* 21 December 2018	Parties to the Contract: PJSC FGC LIES (Guaranton); JSC VetroOGK (Lender); JSC VetroOGK (Lender); JSC Electrosetservice UNEC (Borrower, Beneficiary). Subject of the Contract: The Guarantor undertakes to be liable to the Lender for the performance of the obligations of the Borrower provided by Contract No. 716/221-0/347/222-D for the performance of general construction works, works on the construction of substation and on the provision of technological connection within the framework of the project Construction of 101 MW MP and Wind Turbine Plant. Adygeiskaya WPP (hereinafter, the "Principal Contract") concluded between the Lender and the Borrower and (or) arising therefrom due to the provisions of the Russian legislation, including, but not exclusively, obligations to pay money, including penalties (fees, fines) provided for in the Principal Contract, elimburserment of legal costs for debt collection and other losses of the Lender, which may arise in the future (except for lost portis), in case of non-performance or improper performance of obligations by the Borrower in respect of construction works of the SS facilities (SS 220 Kr WPP with a switchgear 220 Kr V for 3 cells with the installation of two transformers with the capacity of 2280 MVA, as described in Appendix 1 to the Principal Contract), provided for in the Principal Contract, within the amount of RUB 42.557.693 (forty-two million five hundred fifty-seven thousand six hundred and ninety-three) and 50 kopecks (hereinafter, the "Principal Obligation"). Cost of the Contract: The Guarantor shall be liable to the Lender for the due fulfilment of the basic liability by the Borrower in the amount not exceeding RUB 42,557.693 (forty-two million five hundred fifty-seven thousand six hundred and ninety-three) 50 kopecks.  Guarantee validity under the Contract: Under the Contract the quarantee is valid until 14 June 2019 (inclusive).  Term of the Contract: The Contract shall come into force on the date of occurrence of one of the following events:  - effective	PJSC Rosseti	No. AM-7184 of 23 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

APPENDIX 4 INFORMATION ON MAJOR TRANSACTIONS

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
28.	Contract of Guarantee*	21 December 2018	Parties to the Contract:  PJSC FGC UES (Guarantor);  JSC VetroOGK (Lender).  The body whose liabilities are protected by the Contract:  JSC Electrosestservice UNEG (Borrower, Beneficiary).  Subject of the Contract:  The Guarantor agrees that it will be liable to the Lender for the Borrower's fulfilment of its obligations under the Principal Contract, concluded between the Lender and the Borrower, and/or arising therefrom under the Russian legislation. These obligations include, but are not limited to, monetary payments, including penalties (fines, fees) provided for in the Principal Contract, court costs reimbursement for debt recovery and other losses of the Lender that may arise in the future (except for lost profits) due to failure or improper fulfilment by the Borrower of its liabilities in terms of general construction work (in accordance with article 1, section 1 of the Principal Contract within the amount of RUB 103,229,467 (one hundred thee million two hundred twenty-nine thousand four hundred sixty-seven) 50 kopecks (hereinafter – the Principal Obligation) by the Borrower in the amount not exceeding RUB 103,229,467 (one hundred thee million two hundred twenty-nine thousand four hundred sixty-seven) 50 kopecks.  Guarantee validity under the Contract:  Under the Contract the guarantee is valid until 14 June 2019 (inclusive).  Term of the Contract:  The Contract shall come into force on the date of occurrence of one of the following events:  - effective date of the Principal Contract;  - date of receipt of the last consent (approval) is required in accordance with the current Russian legislation and/or constituent documents of PJSC FGC UES and/or JSC VetrooGK.  - date the Contracts are signed by PJSC FGC UES and JSC VetroOGK.  Guarantee is terminated if:  - it expires on 14 June 2019 (inclusive);  - the Principal Obligation is terminated, and if the liability is transferred to another body in case the Guarantor did not agree to be liable for the new Borrower;  - the Lender refuses to properly fulfil liabi	PJSC Rosseti	No. AM-7184 of 23 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request

transaction (parties, subject, cost', term) ies)	elated party(- s) to the insaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
29. Contract of Guarantee*  Deember 2018  Parties to the Contract: Discrete PJSC FGC LIES (Guarantor); JSC VetroORK (Lender) The body whose liabilities are protected by the Contract: JSC Electrosestevice UNISG (Borrower, Beneficiary). Subject of the Contract: The Guarantor agrees that it will be liable to the Lender for the Borrower's fulfilment of its obligations under the Principal Contract. Concluded between the Lender and the Borrower, regarding the return to the Lender of the advanced payment received by the Borrower under the Principal Contract. The payment was made for works on construction of the substation (220 KV wind turbine substation with 22 KV distribution) plant on 3 cells with installation of two transformers with capacity 2x60 MVA, as described in the Appendix 1 to the Principal Contract and/or the Russian legislation, within the amount not off the Principal Contract and/or the Russian legislation, within the amount not advanced by the Principal Contract and/or the Russian legislation, within the amount not advance payment paid by the Lender in favour of the Borrower (hereinafter, the "Principal Obligation").  Cost of the Contract:  The Guarantor shall be liable to the Lender for the due fulfilment of the basic liability by the Borrower in the amount not exceeding RNIB 255,346,161 (two hundred firthy the million there hundred forthy as thousand one hundred sixty-one).  Guarantee validity under the Contract:  Under the Contract:  Under the Contract the quaran tee is valid until 14 June 2019 (inclusive).  Term of the Contract:  The Contract shall come inno force on the date of occurrence of one of the following events:  - effective date of the Principal Contract;  - date of resept of the last consent (approval) is required in accordance with the current Russian legislation and/or constituted obcurrents of PUSP FOCUS and/or JSC VetroOBK.  - date of seigning the Contract between PJSC FGC UES and JSC VetroOBK.  - date of seigning the Contract the Quarantor of the Buarantor, and the Borrower are join	SC Rosseti	No. AM-7184 of 23 November 2018	

APPENDIX 4 INFORMATION ON MAJOR TRANSACTIONS

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
30.	Contract of Guarantee*	21 December 2018	Parties to the Contract:  PJSC FGC UES (Guarantor);  JSC VetroOGK (Lender).  The body whose liabilities are protected by the Contract:  JSC Electrosetservice UNEG (Borrower, Beneficiary).  Subject of the Contract:  The Guarantor undertakes to be liable to the Lender for fulfilment of liabilities under the Principal Contract between the Lender and the Borrower.  The Borrower is obliged to return the advance payment for general construction works (in accordance with the Article 1, Section 1 of the Principal Contract) in cases provided for by the Principal Contract and (or) the Russian legislation, within the amount of RIB 619,376,805 (six hundred nineteen million three hundred seventy-six thousand eight hundred five), but not exceeding the advance paid by the Lender to the Borrower (hereinafter, the "Principal Obligation").  Cost of the Contract:  The Guarantor shall be liable to the Lender for the due fulfilment of the Principal Obligation by the Borrower in the amount not exceeding RUB 619,376,805 (six hundred nineteen million three hundred seventy-six thousand eight hundred five).  Guarantee validity under the Contract:  Under the Contract the guarantee is valid until 14 June 2019 (inclusive).  Term of the Contract:  The Contract shall enter into force on the date of occurrence of one of the following events, whichever is the later:  effective date of the Principal Contract;  date of receipt of the last consent (approval) of the authorised governing body of the Parties, if such consent (approval) is required in accordance with the current Russian legislation and/or constituent documents of PJSC FGC UES and/ JSC VetroOGK.  Guarantee is terminated if:  guarantee expires on 14 June 2019 (inclusive);  - the Principal Obligation is terminated, and if the liability is transferred to another body in case the Guarantor did not agree to be liable for the new Borrower;  - the Perincipal Obligation is terminated, and if the liability is transferred to another body in case the Guarantor did not agree to be liable for the	PJSC Rosseti	No. AM-7184 of 23 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request

No.	Transaction	Date of transaction	Material terms of the transaction (parties, subject, cost', term)	Related party(- ies) to the transaction	Notice of the related party transaction (letter details)	The governing body who has resolved to approve the transaction or its subsequent approval (if there is such a resolution, report details are provided)
34.	Supplementary Agreement No. 3 to the Loan Contract of 28 January 2016	27 December 2018	Parties to Supplementary Agreement No. 3:  PJSC FGC UES (Lender);  JSC Mobile GTES (Borrower).  Subject and cost:  Amendments to the Loan Contract of 28 January 2016.  Term of Supplementary Agreement No. 3:  Supplementary Agreement No. 3 shall enter into force from the date it is signed by the authorised representatives of the Parties and shall be valid until the termination of the Loan Contract of 28 January 2016. In accordance with clause 2 of Article 425 of the Civil Code of Russia, the provisions of the Supplementary Agreement No. 3 in part 5 of the Supplementary Agreement No. 3 shall apply to the relations of the Parties arising from 4 July 2018.	PJSC Rosseti	No. MA-7312 of 29 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.
35.	Contract for the Performance of Works (IRA, Equipment) under the Investment Project: 500 kV OHL Nevinnomyssk – Mozdok Extension of 500 kV Substation Nevinnomyssk and 330 kV Substation Mozdok (construction of 500 kV outdoor switchgear) (construction of 1–4 sections of high OHL)	28 December 2018	Parties to the Contract: PJSC FGC UES (Customer); JSC TSIUS UES (Contractor).  Subject of the Contract: Under the Contract, the Contractor undertakes to perform a range of works:  - construction of 500 kV OHL Nevinnomyssk — Mozdok-2, (1–4 sites in the amount of unperformed work);  - construction of 10 kV OHL for own supply needs of short circuit switch for ice melting on 500 kV OHL Nevinnomyssk — Mozdok-2 with the length of 1 km;  - construction of a short circuit switch for ice melting and an automated information system of ice load control (whole OHL);  - preparatory work;  - construction and installation, and commissioning works within the scope of the Contract;  - acceptance testing and commissioning of facilities;  - arrangement of the designer's supervision;  - guarantee of performance of liabilities in accordance with the terms of the Contract;  - soil reclamation;  - registration of the consent of the owners of rearranged objects for the rearrangement and reconstruction of these objects of power grid economy and conclusion of agreements on compensation of violated rights;  - on the implementation of a complex of works on the rearrangement (reconstruction) of objects owned by third parties, with registration of title documents for land plots and permits, conclusion compensation agreements and agency contracts;  - as well as ensuring that the Facility is equipped with materials, equipment, spare parts for the equipment in accordance with the design and working documentation, and deliver the result of the work to the Customer, and the Customer undertakes to accept the result of the work and pay the stipulated price in the manner prescribed by the Contract.  Cost of the Contract:  The price of works under the Contract does not exceed RUB 2,878,789,618 (two billion eight hundred seventy-eight million seven hundred eighty-nine thousand six hundred eighteen) 64 kopecks, plus VAT (VAT is calculated in accordance with the Russian legislation).  Term of execution of the works under the Contract:  Start: from the	PJSC Rosseti R. Filimonov	No. AM-7165 of 23 November 2018	The issue of approval of the transaction conclusion on the terms specified in the Notice was not submitted for review by the Company's Board of Directors as the Company did not receive a corresponding request.

<sup>\*</sup> Contracts of guarantee between PJSC FGC UES and JSC VetroOGK and the Contract on the procedure of providing guarantee and meeting the demands of the Guarantor between PJSC FGC UES and JSC Electrosetservice UNEG, which are interrelated and considered a related-party transactions (total price of liabilities under the Contracts exceeds RUB 1 billion (Bank of Russia Instruction No. 4335-U of 31 March 2017)).

<sup>&</sup>lt;sup>1</sup> Cost of disposed or purchased property or services shall be determined by the Company's Board of Directors based on market value and in accordance with Article 77 of the Federal Law on Joint-Stock Companies.

## **APPENDIX 5**

# INFORMATION ON THE MATERIAL TRANSACTIONS BY PJSC FGC UES AND ITS CONTROLLED ENTITIES IN 2018

In accordance with the recommendations of the Corporate Governance Code approved by the Board of Directors of the Bank of Russia on 21 March 2014, PJSC FGC UES qualifies the following transactions as material:

- 1. Sale of shares (interests) in any legal entities controlled by PJSC FGC UES which is material to the latter, where, as a result of such transaction, PJSC FGC UES would lose control over such legal entities;
- 2. Transactions with property of PJSC FGC UES or any legal entities controlled thereby (including related transactions, if any, entered into by PJSC FGC UES and one and/or more legal entities controlled thereby) whose value exceeds a threshold amount specified in the Company's Articles of Association or which is material to the Company's business operations:
- 2.1. Transactions involving the Company's non-current assets in the amount exceeding 10 (ten) percent of the book value of said assets as of the date of making a resolution on entering into said transaction;
- 2.2. Transactions (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress intended for producing, transmitting, dispatching and distributing electricity and heat, with a book value exceeding RUB 75 million;
- 2.3. Transactions (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress not intended for producing, transmitting, dispatching and distributing electricity and heat, with a book or market value exceeding RUB 150 million;
- 2.4. Major transactions entered into by subsidiaries and affiliates of PJSC FGC UES;
- 2.5. Transactions entered into by subsidiaries and affiliates (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress intended for producing, transmitting, dispatching and distributing electricity and heat, with a book or market value exceeding RUB 15 million;
- 2.6. Transactions entered into by subsidiaries and affiliates (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress not intended for producing, transmitting, dispatching and distributing electricity and heat, with a book or market value exceeding RUB 30 million;
- 3. Establishment of a legal entity controlled by PJSC FGC UES and being material for business operations of PJSC FGC UES.

- 1. In 2018 there were no sale of shares (interests) in any legal entities controlled by PJSC FGC UES which is material to the latter, where, as a result of such transaction, PJSC FGC UES would lose control over such legal entities.
- 2. Transactions with property of PJSC FGC UES or any legal entities controlled thereby (including related transactions, if any, entered into by PJSC FGC UES and one and/or more legal entities controlled thereby) whose value exceeds a threshold amount specified in the Company's Articles of Association or which is material to the Company's business operations.
- 2.1. In 2018 there were no transactions involving the Company's non-current assets in the amount exceeding 10 (ten) percent of the book value of said assets as of the date of making a resolution on entering into said transaction.
- 2.2. Transactions (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress intended for producing, transmitting, dispatching and distributing electricity and heat, with a book value exceeding RUB 75 million.

No.	Transaction description	Transaction parties	Transaction subject*	Transaction price	Governing body that resolved to approve the transaction (minutes' date and number)
1.	Contract of Exchange	PJSC FGC UES (Party 1); JSC DVEUK (Party 2).	Party 1 undertakes to transfer movable and immovable property, comprising electric grid facilities, for the ownership of Party 2 and assign (transfer) its property rights (rights of claim) to Party 2 for movable and immovable property, comprising electric grid facilities and owned by Party 2.	The market value of the property being the subject of the transaction amounts to RUB 34,563,909,638 (thirty four billion five hundred sixty three million nine hundred nine thousand six hundred thirty eight) 00 kopecks plus VAT under the current laws.  The price of the transaction for PJSC FGC UES amounts to RUB 22,592,917,813 (twenty two billion five hundred ninety two million nine hundred seventeen thousand eight hundred thirteen) 00 kopecks plus VAT under the current laws.	PJSC FGC UES Board of Directors (Minutes No. 433 of 26 December 2018).

<sup>\*</sup> All material terms of the transaction are disclosed in the respective resolutions of the Directors' Board on approval of the transaction and available on website www.fsk-ees.ru in section Investors/Corporate Governance/Decisions of the Board of Directors.

2.3. In 2018 there were no transactions (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress not intended for producing, transmitting, dispatching and distributing electricity and heat, with a book or market value exceeding RUB 150 million.

APPENDIX 5 INFORMATION ON THE MATERIAL TRANSACTIONS

# $2.4.\ Major\ transactions\ entered\ into\ by\ subsidiaries\ and\ affiliates\ of\ PJSC\ FGC\ UES:$

No.	Transaction description	Transaction parties	Transaction subject	Transaction price	Governing body that resolved to approve the transaction (minutes' date and number)
1.	Supplementary Agreement No. 4 of 23 January 2018 to Contract No.298/7-17 of 21 April 2017	JSC TsIUS UES and UEU LLC	Amendments to the Contract	708,233,577.30	extract from Minutes of the Management Board No. 1535/12 of 21 March 2018
2.	Supplementary Agreement No. 3 of 30 January 2018 to Supply Contract No. 144 of 4 July 2016	JSC TsIUS UES and Trading House Avantazh LLC	Amendments to the Contract	179,651,340.82	extract from Minutes of the Management Board No. 1539/4/1 of 11 April 2018
3.	Supplementary Agreement No. 21 of 28 February 2018 to Contract No. Ts/01 of 1 April 2008 on performing the functions of customer and developer	PJSC FGC UES and JSC TsIUS UES	Amendments to the Contract	23,842,313,000.00	extract from Minutes of the Management Board No. 1591/4/1 of 14 November 2018
4.	Technical Customer Contract No. Ts/02 of 1 March 2018  PJSC FGC UES and JSC TsIUS UES		To act as the Technical Customer for and on behalf of the Company and to perform other functions set forth by the Contract	7,746,537,111.14	Not approved
5.	Supply Contract No. 185 of 12 January 2018	JSC TsIUS UES and ROSTRADEGROUP LLC	Supply of goods	9,655,671.90	extract from Minutes of the Management Board No. 1539/4/2 of 11 April 2018
6.	Supplementary Agreement No. 3 JSC TSIUS UES of 22 March 2018 to Contract and USS LLC No. 306/7-17 of 21 June 2017 for construction and assembly, infrastructure improvements project, and inventory supply		Amendments to the Contract	632,160,670.96	extract from Minutes of the Management Board No. 1600/4/2 of 20 December 2018
7.	Supplementary Agreement No. 3 of 19 February 2018 to Contract No. 305/7-17 of 3 July 2017 for construction and assembly, infrastructure improvements project, and inventory supply		Amendments to the Contract	999,436,298.24	extract from Minutes of the Management Board No. 1543/8 of 28 April 2018
8.	Supplementary Agreement No. 3 of 19 February 2018 to Contract No. 309/7-17 of 26 June 2017 for construction and assembly, infrastructure improvements project, and inventory supply	JSC TSIUS UES and Energostroyuniversal LLC	Amendments to the Contract	299,172,151.02	extract from Minutes of the Management Board No. 1547/1/1 of 16 May 2018
9.	Supplementary Agreement No. 3 of 19 February 2018 to Contract No. 308/7-17 of 26 June 2017 for construction and assembly, infrastructure improvements project, and inventory supply	plementary Agreement No. 3 9 February 2018 to Contract 308/7-17 of 26 June 2017 construction and assembly, estructure improvements project,		815,395,729.18	extract from Minutes of the Management Board No. 1547/1/2 of 16 May 2018
10.	Supplementary Agreement No. 2 of 29 March 2018 to Contract No. 07/3-73 of 12 September 2016 for design estimates preparation, detailed design documentation preparation	JSC TSIUS UES and UEU LLC	Amendments to the Contract	217,013,456.10	extract from Minutes of the Management Board No. 1553/6 of 14 June 2018
11.	Unnumbered Supplementary Agreement of 22 March 2018 to State Contract No. 80.KS of 1 October 2015	Russian Energy Agency of the Ministry of Energy of the Russian Federation and JSC TSIUS UES	Amendments to the State Contract	46,734,765,000.00	extract from Minutes of the Management Board No. 1562/3/4 of 16 July 2018
12.	Supplementary Agreement No. 5 of 28 April 2018 to Contract No. 298/7-17 of 21 April 2017 for construction and assembly, pre- commissioning, and inventory supply	JSC TsIUS UES and UES LLC	Amendments to the Contract	708,233,577.30	extract from Minutes of the Management Board No. 1578/3 of 18 September 2018
13.	Contract No. 07/3-94 of 4 May 2018 on amendments to the design estimates	JSC TSIUS UES and Energo-Yug LLC	Amendments to the design estimates	97,500,000.00	extract from Minutes of the Management Board No. 1598/8/2 of 10 December 2018
14.	Supply Contract No. 198 of 1 June 2018	JSC TSIUS UES and ROSTRADEGROUP LLC	Supply of goods	689,881.47	extract from Minutes of the Management Board No. 1574/11 of 4 September 2018

No.	Transaction description	Transaction parties	Transaction subject	Transaction price	Governing body that resolved to approve the transaction (minutes' date and number)
15.	Supplementary Agreement No. 4 of 31 May 2018 to Contract No. 283/7-16 of 12 May 2016 for construction and assembly, pre- commissioning, and inventory supply	JSC TSIUS UES and UEU LLC	Amendments to the Contract	1,872,202,580.00	extract from Minutes of the Management Board No. 1550/2 of 30 May 2018
16.	Unnumbered Supplementary Agreement of 6 April 2018 to State Contract No. 80.KS of 1 October 2015	Russian Energy Agency of the Ministry of Energy of the Russian Federation and JSC TSIUS UES	Amendments to the State Contract	46,734,765,000.00	extract from Minutes of the Management Board No. 1562/3/3 of 16 July 2018
17.	Unnumbered Supplementary Agreement of 23 April 2018 to State Contract No. 80.KS of 1 October 2015	Russian Energy Agency of the Ministry of Energy of the Russian Federation and JSC TSIUS UES	Amendments to the State Contract	46,734,765,000.00	extract from Minutes of the Management Board No. 1564/7/2 of 24 July 2018
18.	Unnumbered Supplementary Agreement of 24 April 2018 to State Contract No. 80.KS of 1 October 2015	Russian Energy Agency of the Ministry of Energy of the Russian Federation and JSC TSIUS UES	Amendments to the State Contract	46,734,765,000.00	extract from Minutes of the Management Board No. 1564/7/1 of 24 July 2018
19.	Unnumbered Supplementary Agreement of 30 August 2018 to State Contract No. 80.KS of 1 October 2015	Russian Energy Agency of the Ministry of Energy of the Russian Federation and JSC TSIUS UES	Amendments to the State Contract	46,663,694,613.60	extract from Minutes of the Management Board No. 1591/4/3 of 14 November 2018
20.	Contract No. 07/3-96 of 30 July 2018 for amendments to the design estimates  JSC TsIUS UES and Energo-Yug LLC		Contract No. 07/3-96 of 30 July 2018 for amendments to the design estimates	82,000,000.00	extract from Minutes of the Management Board No. 1606/1/2 of 1 February 2019
21.	Unnumbered Supplementary Agreement of 21 November 2018 to State Contract No. 80.KS of 1 October 2015	Russian Energy Agency of the Ministry of Energy of the Russian Federation and JSC TSIUS UES	Amendments to the State Contract	46,734,765,000.00	extract from Minutes of the Management Board No. 1595/7/4 of 21 November 2018
22.	Unnumbered Supplementary Agreement of 21 November 2018 to State Contract No. 80.KS of 1 October 2015	Russian Energy Agency of the Ministry of Energy of the Russian Federation and JSC TSIUS UES	Amendments to the State Contract	46,734,765,000.00	extract from Minutes of the Management Board No. 1595/7/1 of 21 November 2018
23.	Supplementary Agreement No. 3 of 13 August 2018 to Contract No. 07/3-73 of 12 September 2016 for design estimates preparation, detailed design documentation preparation	JSC TSIUS UES and UEU LLC	Amendments to the Contract	217,013,456.10	extract from Minutes of the Management Board No. 1607/2/1 of 4 February 2019
24.			Amendments to the Contract	3,452,353,639.29	extract from Minutes of the Management Board No. 1572/7 of 24 August 2018
25.	Supplementary Agreement No. 4 of 21 November 2018 to Contract No. 305/7-17 of 3 July 2017 for construction and assembly, infrastructure improvements project, and inventory supply	JSC TSIUS UES and LEM LLC	Amendments to the Contract	1,193,547,965.86	extract from Minutes of the Management Board No. 1595/7/2 of 21 November 2018
26.	Notice of unilateral reduction in the Contract price limit No. 284/7-16	JSC TsIUS UES and JSC Stroytransgaz	Notice of unilateral reduction in the Contract price limit No. 284/7-16	6,356,965,773.84	extract from Minutes of the Management Board No. 1595/7/3 of 21 November 2018
27.	Supplementary Agreement No. 1 of 21 December 2018 to Supply Contract No. 185 of 12 January 2018	JSC TSIUS UES and ROSTRADEGROUP LLC	Amendments to the Contract	9,045,795.14	extract from Minutes of the Management Board No. 1598/8/1 of 10 December 2018

No.	Transaction description	Transaction parties	Transaction subject	Transaction price	Governing body that resolved to approve the transaction (minutes' date and number)
28.	Report on determining shares in the joint ownership	PJSC FGC UES and JSC Kuban Trunk Grids	Determination of shares of PJSC FGC UES and JSC Kuban Trunk Grids in the joint ownership of the OHL 220 kV Shepsi – Dagomys, lit. L.	2,271,329,000.00	Meeting Minutes of the Board of Directors No. 164 of 10 September 2018
29.	Contract No. 716/221-D/347/222-D of 7 August 2018 for civil works, substation construction and technological connection under the project Construction of 610 MW WPP and Wind Turbine Plant. Adygeya Wind Power Plant	JSC Electrosetservice UNEG JSC NovaWind JSC VetroOGK	Substation construction and technological connection	3,188,878,750.00	extract from Minutes of the Management Board No. 1600/3 of 20 December 2018

2.5. Transactions entered into by subsidiaries and affiliates (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress intended for producing, transmitting, dispatching and distributing electricity and heat, with a book or market value exceeding RUB 15 million.

No.	Transaction description	Transaction parties	Transaction subject	Transaction price	Governing body that resolved to approve the transaction (minutes' date and number)
1.	Report on determining shares in the joint ownership between PJSC FGC UES and JSC Kuban Trunk Grids	PJSC FGC UES and JSC Kuban Trunk Grids	Determination of shares in the joint ownership of PJSC FGC UES and JSC Kuban Trunk Grids, being a transaction, the subject of which is immovable property resulting from the investment project: Comprehensive technical refurbishment and reconstruction of SS 220/110/35/10 kV Starominskaya" (location: Quarter 73, Starominskaya village, Starominsky District, Krasnodar Krai).	346,494,468.00	Meeting Minutes of the Board of Directors No. 164 of 10 September 2018

- 2.6. In 2018 subsidiaries and affiliates of PJSC FGC UES didn't enter into transactions (including several related transactions) involving disposal or potential disposal of property constituting fixed assets, intangible assets and construction in progress intended for producing, transmitting, dispatching and distributing electricity and heat, with a book or market value exceeding RUB 30 million.
- 3. Establishment of a legal entity controlled by PJSC FGC UES and being material for business operations of PJSC FGC UES.

# **APPENDIX 6**

# INFORMATION ON THE ACTUAL PERFORMANCE OF INSTRUCTIONS OF THE PRESIDENT AND THE RUSSIAN GOVERNMENT IN 2018

No.	Instruction	Registration data	Summary of the incoming document	Information on the performance of relevant instructions and orders by PJSC FGC UES
1. D	ISPOSAL OF NO	N-CORE ASSETS		
1.1.	Instruction of the Russian Government	No. ISH-P13-4065 of 7 July 2016 (cl. 1)	Ensuring the development and maintenance of programmes for disposal of non- core assets	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 (an extract from Meeting Minutes of the Board of Directors of JSC FGC UES No. 178 of 16 November 2012) approved the Management Programme for Non-core Assets of JSC FGC UES (hereinafter, the "Management Programme for NA"), and the Board of Director of PJSC FGC UES (an extract from Meeting Minutes of the Board of Directors of PJSC FGC UES No. 31 of 14 March 2016) approved the revised Management Programme for NA.
				Based on Directives of the Russian Government No. 4863p-P13 of 7 July 2016, and in accordance with the Guidelines on the Identification and Disposal of Non-Core Assets developed by the Ministry of Economic Development of the Russian Federation in conjunction with the Federal Property Management Agency, PJSC FGC UES developed (and updated) the Programme for Disposal of Non-Core Assets of PJSC FGC UES and its subsidiaries (hereinafter, the "Programme for Disposal of NA"), approved by the Board of Directors of PJSC FGC UES (an extract from Meeting Minutes of the Board of Directors of PJSC FGC UES No. 350/12 of 28 December 2016).
				Furthermore, in order to improve the efficiency of the Programme for Disposal of NA implementation, PJSC FGC UES approved the following orders:
				<ul> <li>Order No. 163 of 4 April 2017 on Further Measures to Improve the Efficiency of Activities for the Sa of Non-Core Assets of PJSC FGC UES and its Subsidiaries;</li> </ul>
				<ul> <li>Order No. 530 of 20 December 2017 on Approval of the Procedure for Conducting Competitive Procedures (Trades) for the Sale of Non-Core Assets of PJSC FGC UES.</li> </ul>
				Based on Directives of the Russian Government No. 6604p-P13 of 18 September 2017, and in accordance with the Resolution of the Board of Directors of PJSC FGC UES of 22 May 2018 (an extra from Meeting Minutes of the Board of Directors of PJSC FGC UES No. 404/1 of 25 May 2018), the following revised internal documents regulating the procedure for identifying and selling non-core assets of PJSC FGC UES were approved:
				<ul> <li>- the Programme for Disposal of Non-Core Assets of PJSC FGC UES and Its Subsidiaries (Programm for Disposal of NA);</li> </ul>
				- the Procedure for Organising Sales of Non-Core Assets of PJSC FGC UES and Its Subsidiaries.
				In order to improve the efficiency of activities for the sale of non-core assets and develop the Programme for Disposal of NA, the Company approved:
				<ul> <li>Order No. 377 of 5 October 2018 on Approval of the Procedure for Gratuitous Transferring (Giving)</li> <li>Non-Core Assets of PJSC FGC UES to the Property of Public Law Entities;</li> </ul>
				<ul> <li>Order No. 555p of 15 November 2018 on Approval of the Methodological Recommendations, regulating the procedure for filling the form of the Register of Non-Core Assets.</li> </ul>
				In accordance with the provisions of the current Programme for Disposal of NA, the Board of Directo of PJSC FGC UES should:
				- approve the updated Register of Non-Core Assets of PJSC FGC UES at least once a year;
				– review quarterly reports on progress and results of the Programme for Disposal of NA implementation.
				Information on the sale of non-core assets is quarterly published on the Interdepartmental Portal for the Management of State Property (Federal Property Management Agency). Information on the resul of 2018 is reflected in full, taking into account the facilities sold, which are the property

of PJSC FGC UES subsidiaries.

Information on the disposal of non-core assets in 2018 is given

No controlled companies were established in 2018.

No.	Instruction	Registration data	Summary of the incoming document	Information on the performance of relevant instructions and orders by PJSC FGC UES
2. P	URCHASE OF GO	ODS, WORKS AND	SERVICES	
2.1.	Instruction of the President of Russia (sub-cl. 4, 5, cl. 1) Instruction of the Russian Government	No. Pr-2821 of 5 December 2014 No. AD-P9-9176 of 8 December 2014	Step-by-step substitution of purchases of foreign products (works and services) with those of Russian products (works, services) of equivalent technical parameters and consumer properties	PJSC FGC UES activities in the field of import substitution are carried out in accordance with a Corporate Plan of Import Substitution for 2017–2020 (Order of PJSC FGC UES No. 494 of 28 November 2017). PJSC FGC UES developed the Corporate Plan of Import Substitution in accordance with the Methodological Recommendations on the preparation of corporate import substitution plans by state corporations, state companies and joint-stock companies, in which the share of the Russian Federation exceeds 50 %, organisations implementing investment projects included in the register of investment projects in accordance with Decision of the Government Commission on Import Substitution No. 219R-AU of 11 August 2016, approved by the Ministry of Economic Development of the Russian Federation, and taking into account the Analytical Report "Assessment of the Potential of Import Substitution, its Main Directions and the Conditions for their Implementation in the SDCs of PJSC Rosseti until 2019", reviewed by the Management Board of PJSC Rosseti (Minutes No. 386pr of 14 October 2015).  The PJSC FGC UES Corporate Plan of Import Substitution's goals and objectives 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.  By the end of 2018, the share of purchases of domestic electrical equipment in the total volume of PJSC FGC UES' purchases was 91 % (the share of domestic electrical equipment purchases increased by 6 % compared to 2017).
				Information on the historical dynamics of the relevant indicator can be found in section Strategic Report/Results of Sustainable Development Activities/Procurement Activities/Import Substitution Programme.
2.2.	Instruction of the Russian Government	No. ISH-P13-1872 of 1 April 2016	Purchases of domestic software necessary for operations of joint- stock companies with the state participation	By the Resolution of the Board of Directors of PJSC FGC UES (Minutes No. 342 of 13 October 2016), amendments were made to the Regulation on Purchases concerning the purchase of domestic competitive software necessary for the Company's operations.  As part of the implementation, amendments were made to the Regulation on the Purchase of Goods, Works and Services for the needs of PJSC FGC UES (revision No. 342 of 13 October 2016).  The Customer's right to establish priorities when purchasing Russian products is stipulated in Section 4.5 of the Unified Procurement Standard of PJSC FGC UES (Regulation on Purchases) (resolution of the Board of Directors, Minutes No. 436 of 29 January 2019).  As part of the instruction performance, a letter from PJSC FGC UES No. FR-5925 of 14 October 2017 was
	Meeting Minutes of the Government Commission on the Use of Information Technologies to improve the quality of life and business environment	No. 1 of 9 February 2018	Transition to the use of mainly domestic software for 2018-2021	Moreover, in accordance with the Regulation on Purchases, information on these purchases that was not included in the Software Register shall be published on the Company's official site no later than 7 calendar days from the date of publishing of notices and software procurement documentation in the unified procurement information system (www.zakupki.gov.ru) and on specialised Internet sites. As part of the instruction performance, relevant amendments were made to the internal documents regulating the procedure for purchasing goods, works and services of the following PISC FGC UES subsidiaries and affiliates, which carry out procurement activities: JSC TSIUS UES, JSC Mobile GTES, JSC MUS Energetiki, JSC NTC FGC UES, JSC ChitaTechEnergo, JSC Electrosetservice UNEG, JSC ESSK UES, IT Energy Service LLC, JSC Kuban Trunk Grids, and JSC Tomsk Trunk Grids. As part of the performance and in accordance with Directives of the Russian Government No. 10068p-P13 of 6 December 2018 (Materials of the Board of Directors No. 4msd of 17 January 2019), the Board of Directors shall review the matter related to PJSC FGC UES transition to the use of mainly domestic software and the following draft resolution:  1. Instruct A. Murov, Chairman of the PJSC FGC UES Management Board, to ensure:  1.1. Preparation and approval of an action plan for 2018–2021 of PJSC FGC UES transition to the use of mainly domestic software (hereinafter, the "Action Plan for 2018–2021") by the Board of Directors of PJSC FGC UES, and ICT Competence Centre, which includes:  - appointing an authorised person at a rank not below the Deputy Chairman of the Management Board of PJSC FGC UES, responsible for carrying out activities related to PJSC FGC UES transition to the use of mainly domestic software;  - estimating financial resources with indication of terms, volumes and sources of financing to ensure PJSC FGC UES transition to the use of mainly domestic software;  - estimating financial resources with indication of terms, volumes and sources of financing to en

Summary of the Information on the performance of relevant instructions and orders by PJSC FGC UES 2.3. Minutes of the No. DM-P9-38pr Introduction of By the resolution of the Management Board of PJSC FGC UES (Minutes No. 1422 of 2 November 2016), meeting with (cl. 7) of 14 June amendments to it was recommended that the Board of Directors amend the Regulation on Purchases in terms of setting the priority for purchases of Russian innovative building materials. the Chairman 2016 the Company's of the Russian Procurement As part of the execution, amendments were made to the Regulation on Purchases of Goods, Works Policy in terms of Government and Services for the needs of PJSC FGC UES (revision No. 352 of 9 January 2017). innovative building The priority for purchases of Russian innovative building materials is set by clause 4.5.9 of the Unified materials Procurement Standard of PJSC FGC UES (Regulation on Purchases) (resolution of the Board of Directors, Minutes No. 436 of 29 January 2019). The Chairman of the Management Board was instructed to ensure the introduction of amendments and additions to the Regulation on Purchases of Goods, Works and Services provided by subsidiaries. As part of the instruction performance, relevant amendments and additions were made to the internal documents regulating the procedure for purchasing goods, works and services of the following PJSC FGC UES subsidiaries, which carry out procurement activities: JSC TsIUS UES, JSC Mobile GTES, JSC MUS Energetiki, JSC NTC FGC UES, JSC Electrosetservice UNEG, JSC ESSK UES, IT Energy Service LLC, JSC Kuban Trunk Grids, and JSC Tomsk Trunk Grids. For more details on the Company's procurement activities please refer to section Strategic Report/Sustainability Results/Procurement Activities.

#### 3. STRATEGY DEVELOPMENT AND UPDATING, LONG-TERM PLANNING

Instruction of No. Pr-3013 the President of of 27 December Russia 2014 governing the on progress of the long-term development programmes implementation

approval of the list of internal documents. Company's activities; provision of reports and achievement of the approved to key performance

indicators

Pursuant to cl. 2 of Pr-3013, the following documents were developed and approved by the Company: - Regulation on Increasing Investment and Operational Efficiency and Cutting Expenses of PJSC FGC UES (approved by the resolution of the Board of Directors, Minutes No. 312 of 28 March

- Regulation on Internal Audit (approved by the resolution of the Board of Directors, Minutes No. 291 of 19 November 2015);

- Regulations on the Risk Management System (approved by the resolution of the Board of Directors, Minutes No. 291 of 19 November 2015, updated by the resolution of the Board of Directors, Minutes No. 347 of 13 December 2016):

- Regulation on the Quality Management System (approved by the resolution of the Board of Directors, Minutes No. 291 of 19 November 2015);

- Regulation on the Procedure for Developing and Implementing Innovative Development Programmes (approved by Order of PJSC FGC UES No. 445 of 16 November 2015).

Pursuant to cl. 3 of Pr-3013 regarding the provision of reports on the long-term developmen programmes implementation, according to Minutes of the Board of Directors No. 267 of 25 April 2015, the Chairman of the Company's Management Board was instructed to ensure provision of materials mandatory for the preparation and holding of annual general meetings of shareholders of PJSC FGC UES, reports on the PJSC FGC UES Long-Term Development Programme implementation and on achievement of the approved key performance indicators within the term established by Federal Law No. 208-FZ on Joint-Stock Companies of 26 December 1995.

Pursuant to cl. 3 of Instruction of A. Dvorkovich, Deputy Chairman of the Government, No. AD-P36-4992 of 20 July 2016, a plan for review of quarterly reports on the PJSC FGC UES Long-Term Development Programme implementation and achievement of KPIs at meetings of the Board of Directors of PJSC FGC UES was approved by the resolution of the Board of Directors of PJSC FGC UES of 25 October 2017 (extract from Minutes No. 381/2 of 27 October 2017)

The Report on the Long-Term Development Programme Implementation in 2017 was included in the 2018 AGM materials.

Currently, reports are being prepared on the achievement of KPIs approved by PJSC FGC UES in 2018 for their inclusion in the 2019 AGM materials.



For more details on the Company's key performance indicators refer to section Strategic Report/Market Review, Strategy and KPIs/Key Performance Indicators (KPI).

3.2. Instruction of the President of Russia

**APPENDIX 6** 

No. Pr-3086 of 27 December

2013

Development and approval of the Company's long-term development programme; conducting an audit of the long-term development programme implementation and approval of audit standards

On 19 December 2014, the Board of Directors of JSC FGC UES (Minutes No. 243 of 22 December 2014) approved the Long-Term Development Programme of JSC FGC UES for 2015-2019 and a forecast until

The Board of Directors of JSC FGC UES (Minutes No. 245 of 31 December 2014) approved the standards for conducting an annual independent audit of the programme implementation, the results of which are sent to the Ministry of Energy of Russia as proposals for appropriate amendment to the programme no later than 10 July of the year following the reporting year.

The implementation of the Long-Term Development Programme is audited 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 and in 2019 according to the results of 2018. In July 2018, the resolution of the Strategy Committee of the Board of Directors of PJSC FGC UES (Minutes No. 70 of 1 August 2018) took note of the report of an independent auditor on the results of the audit of the 2017 Report on the Long-Term Development Programme implementation. In accordance with the resolution of the Strategy Committee of the Company's Board of Directors (Minutes No. 51 of 3 August 2017), PJSC FGC UES is developing a new revision of the Long-Term Development Programme



For more details on the PJSC FGC UES Long-Term Development Programme please refer to section Strategic Report/Market Overview, Strategy and KPIs/Development Strategy.

Instruction

the Russian

Government

3.3. Instruction of

Registration data

No. AD-P36-6296

September 2015

No. DM-P36-7563

of 7 November

No. AD-P36-8381

December 2015

(cl. 1) of 10

(cl. 5) of 15

Summary of the

Innovative

development

and offers on

the development

of indicators of

Comparison of

development

indicators of the joint-stock

the technological

level and current

key performance

company with the

development level

and indicators of

leading foreign counterparties

state companies'

innovative activities

AND THE RUSSIAN GOVERNMENT
Information on the performance of relevant instructions and orders by PJSC FGC UES
By the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 352 of 9 January 2017), amendments were made to the Long-Term Development Programme of PJSC FGC UES approved by the resolution of the Board of Directors of JSC FGC UES of 19 December 2014 (Meeting Minutes of the Board of Directors of JSC FGC UES No. 243 of 22 December 2014), 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 Programme of PJSC FGC UES.
The Efficiency of Innovation Activity indicator is included in the Methodology for Calculating and Evaluating the Performance of Key Performance Indicators of PJSC FGC UES Top Managers for 2016, approved by the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 354 of 9 February 2017), with a weight of 20 %.
By the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 409 of 8 June 2018), the Chairman of the Management Board of PJSC FGC UES was instructed to ensure the comparison of the technological development level and current key performance indicators of PJSC FGC UES with the development level and indicators of leading foreign counterparties and to send the results, proposals for amendment to the Innovative Development Programme of PJSC FGC UES for 2016–2020 with a view to 2025 and the Long-Term Development Programme of PJSC FGC UES for 2015–2019 with a forecast to 2030, and proposals on the structure and values of the integral key performance indicator of PJSC FGC UES for 2010 to the Ministry of Epsengmin Development of Puscia parkets them.

**APPENDIX 6** 

of PJSC FGC UES for 2019 to the Ministry of Economic Development of Russia no later than The reporting materials on the results of comparison were sent by Letter No. KP-6672 of 31 October 2018 to the Ministry of Economic Development of Russia and the Ministry of Energy of Russia.

Corporate procedures are being carried out for discussion on the Board of Directors' meeting of the approval of the report on comparison of the technological development level and current key performance indicators of PJSC FGC UES with the development level and indicators of leading foreign counterparties.



For more details on the Company's innovation activities refer to section Strategic Report/Innovative Development.



For more details on the Company's key performance indicators refer to section Strategic Report/Market Review, Strategy and KPIs/Key Performance Indicators (KPI).



For more details on the remuneration of the Chairman and members of the Management Board refer to section Report on Corporate Governance/Remuneration for Members of the Board of Directors and Management Bodies/Remuneration for the Chairman and Members of the Management Board.

3.4 Resolution of the Russian Government

No. 132 of 16 February 2015

Carrying out technological and price audit of draft investment programmes and reports on implementation of the investment programmes

In accordance with the resolution of the Board of Directors (Minutes No. 380 of 16 October 2017), approved according to Directive of the Russian Government No. 1752p-P13 of 16 March 2017, starting from 2017 the technological and price audit (hereinafter, the "TPA") of draft investment programmes (hereinafter, the "IPs") (draft amendments made to the IPs) and reports on their implementation is carried out at PJSC FGC UES.

### TPA of draft investment programmes:

1. The conclusion on performing TPA of the IPs draft amendment was published as part of the information on the draft amendment for public discussions at the official website of the Ministry of Energy of Russia on 1 March 2018.

The conclusion of the expert organisation as part of the information on Recommendations to the Board of Directors of PJSC FGC UES on Consideration of PJSC FGC UES's Investment Programme Draft Amendment for 2016–2020 was reviewed at the meeting of the Company's Board of Directors on 22 February 2018 (extract No. 393/1 of Meeting Minutes of the Board of Directors of 26 February

- 2. The conclusion on performing TPA of the IPs draft amendment improved upon the results of public discussions was published as part of the information on the IPs draft amendment at the official website of the Ministry of Energy of Russia on 5 April 2018.
- 3. The conclusion on performing TPA of the IPs draft amendment improved based on amendments introduced by federal authorities was published at the official website of the Ministry of Energy of Russia as part of the improved IPs draft amendment of 9 August 2018 (published on 19 August 2018).
- 4. The conclusion on performing TPA of the IPs final draft amendment was not disclosed as a request to recall (cancel) the application on approval of the investment programme (and/or the amendments to PJSC FGC UES' investment programme for 2016–2020 (ref. No. FR-7835 of 18 December 2018) was sent to the Ministry of Energy of Russia and the investment programme draft amendment of PJSC FGC UES for 2016-2020 was not approved by the Ministry of Energy Russia (No. 09-6459

#### TPA of reports on the investment programmes implementation:

The conclusions of the expert organisation on TPA of reports for Q1, Q2 and Q3 2018 are disclosed on the website of the Federal State Information System at invest.gosuslugi.ru as part of information on reports on the PJSC FGC UES' IPs implementation for Q2, Q3 and Q4 2018, respectively.

No.	Instruction	Deviatoration date	Common of the	Information on the professional of colours instructions and orders by DICC FCC UFC
NO.	Instruction	Registration data	Summary of the incoming document	Information on the performance of relevant instructions and orders by PJSC FGC UES
3.5.	Instruction of the Russian Government	No. DM-P16-6658 of 30 September 2015 (cl. 6)	Prioritising of financing socio-economic	Pursuant to Instruction of the Russian Government No. 3538p-P13 of 25 May 2017 within the framework of the investment programme materials submitted to the Ministry of Energy of Russia and published on the Internet in accordance with Resolution of the Russian Government No. 977 of
	Instruction of the President of Russia	No. Pr-1891 of 17 September 2015 (cl. 1)	development of the Far East in the framework of implementation	1 December 2009 on Investment Programmes of Electric Power Industry Entities, PJSC FGC UES has published an appendix with a list of projects ensuring priority funding to socio-economic development of the Far East.
	Resolution of the Russian Government	No. 232 of 6 March 2018	of Russian state programmes and activities of joint-stock	By the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 435 of 17 January 2019), the Chairman of the Management Board of PJSC FGC UES was assigned to ensure the implementation of Resolution of the Russian Government No. 232 of 6 March 2018 regarding approval of the procedure for approval of planned and programme destination documents with the Ministry for Development of the Russian Far East and the specified ministry.
		companies with state participation, including implementation of their investment programmes	Instruction executed. The procedure for approval of planned and programme destination docume with the Ministry for Development of the Russian Far East has been approved (Order of PJSC FGC No. 43 of 7 February 2019).	
4. H	R MANAGEMENT	7		
4.1.	Instruction of the President of Russia	No. PR-1474 of 5 July 2013	Use of key performance indicators to	The procedure for calculating and evaluating KPIs achievement by PJSC FGC UES' senior management is based on the Methodological Guidelines for using key performance indicators by government-owned corporations, government-owned companies and government-owned unitary enterprises as well as
	Instruction of the Russian Government	No. ISH-P13-2043 of 27 March 2014	evaluate the performance of management. KPIs should be taken into account when making decisions	business entities, in which the total share of Russia and a constituent entity of the Russian Federation in the authorised capital exceeds 50 %.  The Board of Directors approved the procedures for calculating and evaluating KPIs achievement by the senior management of JSC FGC UES for 2014 (Minutes No. 217 of 15 April 2014), for 2015 (Minutes No.243 of 22 December 2014); of PJSC FGC UES for 2016 (Minutes No. 354 of 9 February 2017); and PJSC FGC UES for 2017 (Minutes No. 370 of 13 June 2017).

of 2 April 2018 taken into account).

related to salaries

and staffing

In 2018, the Company's Board of Directors reviewed quarterly reports on KPIs achievement by the senior management of PJSC FGC UES for the relevant period: - reports on key performance indicators achievement by the senior management of PJSC FGC UES

for O1 and O2 2018 were approved by the resolution of the Board of Directors of 6 November 2017 (Minutes No. 428 of 21 November 2018); - the report on key performance indicators achievement by the senior management of PJSC FGC UES

In 2018, PJSC FGC UES operated a quarterly and annual bonus system based on the procedure

for calculating and evaluating KPIs achievement by PJSC FGC UES' senior management approved

by the Board of Directors of PJSC FGC UES (Minutes No. 370 of 13 June 2017, with Minutes No. 396

for Q3 2018 has been recommended for approval by the Management Board at the Board of Directors' meeting (Meeting Minutes of the Management Board No. 1596 of 26 November 2018) and by the HR and Remuneration Committee of PJSC FGC UES' Board of Directors (Minutes No. 57 of 5 December

For more details on the Company's key performance indicators refer to section Strategic Report/Market Review, Strategy and KPIs/Key Performance Indicators (KPI).

о.	Instruction	Registration data	Summary of the incoming document	Information on the performance of relevant instructions and orders by PJSC FGC UES			
.2.	Instruction of the Russian Government	No. 1250-r of 9 July 2014	Improving labour productivity as per clause 6, section 2	By the resolution of the Board of Directors (Minutes No. 242 of 19 December 2014), the Chairman of the Management Board was assigned to ensure that appropriate steps are taken to improve labour productivity in the Company.			
			of the Action Plan on Labour Productivity Improvement,	Procedures for improving labour productivity and efficiency of operations are set in the Long-Term Development Programme of PJSC FGC UES.			
			Employment Creation and Modernisation of Highly Productive Workplaces approved by	The list of procedures aimed at improving operational efficiency of the Long-Term Development Programme of PJSC FGC UES includes procedures for labour productivity improvement, reserves identification and reducing work-time losses of industrial production personnel (hereinafter, the "IPP"			
				Workplaces	Workplaces approved by	Workplaces approved by	Workplaces In accorda Productivi approved by
			Russian Government	Stage 1. Mobilisation and deployment of the IPP Project.			
			No. 1250-r of 9 July 2014	A procedure for conducting extended benchmarking in areas of the IPP activity has been developed (the results have been adopted by the management committee, Minutes No. 4 of 17 June 2016).			
				Stage 2. Analysis of the current status (diagnostics) of the IPP Project.			
				Data for pilot Verkhne-Don EMPS were obtained and analysed (the results were adopted by the management committee, Minutes No. 6 of 10 October 2016).			
				Stage 3. Development and coordination of activities/initiatives to increase the IPP productivity.			
			The list of initiatives on increasing the IPP productivity has been developed (the results were adopted by the management committee, Minutes No. 7 of 12 January 2017).				
				Stage 4. Introduction of procedures for increasing the IPP productivity in pilot EMPSs.			
		E S t T N		The initiatives developed at Stage 4 have been implemented in pilot EMPSs (the results were adopted by the management committee, Minutes No. 9 of 18 December 2017).			
			Stage 5. Preparation for distribution of the developed initiatives at all PJSC FGC UES branches to improve labour productivity.				
				Two groups have been formed: 1) the initiatives taken into account (implemented) when preparing the M&R Plan for 2019–2023; and 2) the initiatives implemented by general directors of MPS branches of PJSC FGC UES under the methodological control of heads of the working groups. The results were			

#### age 1. Mobilisation and deployment of the IPP Project.

#### ge 2. Analysis of the current status (diagnostics) of the IPP Project

#### age 3. Development and coordination of activities/initiatives to increase the IPP productivity.

#### age 4. Introduction of procedures for increasing the IPP productivity in pilot EMPSs.

#### ge 5. Preparation for distribution of the developed initiatives at all PJSC FGC UES branches mprove labour productivity.

groups have been formed: 1) the initiatives taken into account (implemented) when preparing the R Plan for 2019–2023; and 2) the initiatives implemented by general directors of MPS branches of PJSC FGC UES under the methodological control of heads of the working groups. The results were adopted by the management committee (Minutes of 2 March 2018).

In order to increase the efficiency of activities and achieve optimal use of human resources, the Company implements consistent procedures aimed at improving labour productivity (including pursuant to Resolutions of the Russian Government No. 2454p-P13 of 23 April 2014, No. 7389p-P13 of 31 October 2014, No. 2303p-P13 of 16 April 2015, and No. 4750p-P13 of 4 July 2016) and reducing operating expenses by optimising staff costs.

Key procedure for increasing productivity in 2018 is the implementation of the Project for Construction of Standard Functional Structures of Production Subdivisions at the EMPS Branches of PJSC FGC UES (in terms of RMES, FMS, and MS), within the framework of which:

- functional structures and staffing schedules of production subdivisions at the EMPS branches of PJSC FGC UES have been created in accordance with the developed criteria for creation of production units and standard functional structures:
- division of responsibilities between management levels has been unified (EMPS as production units);
- basis for development and implementation of end-to-end management standards for production

The project Implementation made it possible to reduce the number of management levels, increase the rate of manageability, level the staff workload and increase operations manageability

The labour productivity indicator is included in the PJSC FGC UES Procedure for Calculating and Evaluating KPIs Achievement by the Senior Management for 2016, approved by the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 354 of 9 February 2017), in the PJSC FGC UES Procedure for Calculating and Evaluating KPIs Achievement by the Senior Management for 2017, approved by the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 370 of 13 June 2017), and in the PJSC FGC UES Procedure for Calculating and Evaluating KPIs Achievement by the Senior Management for 2018, approved by the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 370 of 13 June 2017, with Minutes No. 396 of 2 April 2018 taken into account).



For more information on labour productivity please see section Strategic Report/Sustainability Results.



For more details on the Company's key performance indicators refer to section Strategic Report/Market Review, Strategy and KPIs/Key Performance Indicators (KPI).

Instruction	Registration data	Summary of the incoming document	Information on the perforn
Instruction of the Russian Government	No. 51193p-P13 of 14 July 2016	Implementation of professional standards	The matter of implementati at the meeting of the Board the Chairman of the Managinitiating meetings of the Board the Chairman of the Managinitiating meetings of the Board the Managinitiating meetings of the Board the Managinitiating meetings of the Board the Implementation of Profusion of the Marting of the Board the Implementation of Profusion of Creation of the Morking on Creation of a Working on Creation of a Working on The Marting of PJSC FGC UES professional standards shood the Managing of the Marting of Managing of PJSC FGC UES Activities at implementing profession – Approval of a standard list of PJSC FGC UES No. 460 of Standards and in compliance – bringing in line staffing so the approved standard list of PJSC FGC UES' Executive standards; – holding a training for PJSI standards; – amendments were made in accordance with provisio
			of 5 June 2017);  - performing conformity as requirements of the profess experience, permits);  - participation of the Comp the framework of an indepe industry.  The matter of implementati of H1 2018 was considered on 16 August 2018, and the Activities was taken into ac professional standards in the Bringing in line the docum structural subdivisions, wor - performing conformity as requirements of the profess experience, permits);
			- approval of the Regulation (Order of PJSC FGC UES No of PJSC FGC UES to working The matter of implementation of H1 2018 was considered on 11 December 2018, and in PJSC FGC UES' Activities at implementing profession  - Performing conformity as (hereinafter, the "branches" implementation in the Comwith requirements of the promote of the profession of

**APPENDIX 6** 

4.3.

tion of professional standards in PJSC FGC UES' activities was considered rd of Directors of PJSC FGC UES held on 24 November 2016, and gement Board of PJSC FGC UES was instructed to prepare materials for Board of Directors of PJSC FGC UES at least once in every six months with the agenda and taking into account the provisions of Federal Law No. 122-FZ Code of Russia, and Articles 11 and 73 of the Federal Law on Education in 2 May 2015, based on approving and implementing the corresponding work on the implementation of professional standards when evaluating and f PJSC FGC UES.

ance of relevant instructions and orders by PJSC FGC UES

tion of professional standards in PJSC FGC UES' activities was considered d of Directors of PJSC FGC UES held on 31 May 2017, and the Report on fessional Standards in PJSC FGC UES' Activities was taken into account, lowing activities aimed at implementing professional standards in activities

- val of an organisational and regulatory document regulating the sional standards in PJSC FGC UES' activities (Order of PJSC FGC UES No. 222 Group for the Implementation of Professional Standards of 1 July 2016):
- ES' staffing schedules in order to identify jobs and positions to which the ould be applied.

tion of professional standards in PJSC FGC UES' activities per results d at the meeting of the Board of Directors of PJSC FGC UES held he Report on the Implementation of Professional Standards es was taken into account, according to which the following activities aimed nal standards in the Company's activities were carried out:

- list of positions in the MPS and EMPS branches of PJSC FGC UES (Order of 2 November 2017) in accordance with the requirements of professional nce with Order of PJSC Rosseti No. 66 of 27 April 2017;
- schedules of the MPS and EMPS branches of PJSC FGC UES with of positions. No amendments were made to the staffing schedule ve Office as positions of the employees are in line with the professional
- SC FGC UES's employees who take part in the implementation of professional
- to educational programmes implemented by the Personnel Training Centre ons of the professional standards (Order of PJSC FGC UES No. 259r
- ssessment of PJSC FGC UES Executive Office's employees with the ssional standards mandatory for implementation (educational level, work
- pany in a methodological examination of the evaluation kit for its use within endent assessment of professional qualifications in the electric power

tion of professional standards in PJSC FGC UES' activities per results d at the meeting of the Board of Directors of PJSC FGC UES held ne Report on the Implementation of Professional Standards in PJSC FGC UES' ccount, according to which the following activities aimed at implementing the Company's activities were carried out:

- ments defining the functional structure of PJSC FGC UES (regulations on ork instructions for employees) with the professional standards;
- ssessment of employees of PJSC FGC UES' MPS and EMPS branches with ssional standards mandatory for implementation (educational level, work
- ons on Application of Professional Standards in PJSC FGC UES' Activities No. 193 of 31 May 2018) to ensure optimal and effective transition ng under the conditions of professional standards.

tion of professional standards in PJSC FGC UES' activities per results d at the meeting of the Board of Directors of PJSC FGC UES held d the Report on the Implementation of Professional Standards s was taken into account, according to which the following activities aimed nal standards in the Company's activities were carried out:

- assessment of employees of PJSC FGC UES' MPS and EMPS branches ") with requirements of the professional standards mandatory for npany's activities; As a result, the branches' employees who do not comply rofessional standards were revealed.
- nentation of procedures aiming to ensure that the branches' employees of the mandatory professional standards;
- assessment of employees involved in training activities in the Personnel Training Centres of the branches with requirements of the Vocational Training, Vocational Education and Further Vocational Education Teacher professional standard. All employees involved in training activities in the Personnel Training Centres of the branches meet the requirements of the professional standard

Qualifications of the employees involved in training activities in the Personnel Training Centres of the branches eliminated the need to perform the procedures aiming to ensure their compliance with the requirements of the professional standard.

No.	Instruction	Registration data	Summary of the incoming document	Information on the performance of relevant instructions and orders by PJSC FGC UES	
5. C	ONTROL OVER	THE COMPANY'S A	CTIVITIES		
5. 1.	Instruction	No. ISH-P13-321	Analysing annual	In 2018, PJSC FGC UES' current financial flow management system was analysed, including:	
	of the Russian Government	of 26 January 2015	results of creating a unified treasury	- Budget planning and monitoring mechanism;	
			of the joint-stock company, its	<ul> <li>the procedure for selecting credit institutions, banks, and instruments to finance activities of the Company, its subsidiaries and affiliates;</li> </ul>	
			subsidiaries and affiliates	- documents regulating settlement and cash services.	
			dimates	Based on the analysis, the Company defined main directions for improving efficiency of PJSC FGC UES Unified Treasury.	
				The Company developed and approved a new Procedure for Intra-Group Financing of PJSC FGC UES, its Subsidiaries and Affiliates. PJSC FGC UES' Executive Office is working to attract external financing. In the event of cash gaps, the Company's subsidiaries and affiliates are financed through intra-group loans. Operating costs, including external debt servicing costs, were significantly reduced through the efficient use of intra-group financing.	
				In terms of cash and liquidity management, PJSC FGC UES Group uses the single account through bar agreements on cash pulling technology (a virtual pulling for subsidiaries and affiliates in the retained financing and %; a material pulling for branches on the zero retained financing principle); a single payment calendar is maintained taking into account payments of branches and monitoring payments made by the subsidiaries and affiliates. All Company payments are made from accounts of PJSC FGC UES' Executive Office.	
					PJSC FGC UES approved new limits of credit organisations for the subsidiaries and affiliates. The Company drew up a list of banks where it is possible to open settlement and other bank accounts and to allocate free funds, as well as determined end limits for one-time placement of funds by subsidiaries and affiliates (approved by the Boards of Directors of the subsidiaries and affiliates). At the same time, more than 98 % of liquidity is concentrated on PJSC FGC UES.
				By Letter No. 95-09-11/05-330 of 10 May 2018, the Interregional Operational Department of the Federa Treasury informed PJSC FGC UES that information on creating unified treasuries is not required.	
5.2.	Instruction of the Russian Government	No. ISH-P13-1925 of 5 April 2018	Valuation of intellectual property rights to perform further procedures for ensuring legal protection of the intellectual property rights of the joint-	By the resolution of the Board of Directors of PJSC FGC UES (Minutes No. 426 of 2 November 2018), the Chairman of the Management Board of PJSC FGC UES was instructed to ensure valuation of intellectual property rights to perform further procedures for ensuring legal protection of the intellectual property rights of PJSC FGC UES, transferring them to the balance as intangible assets for inclusion in the financial turnover and determining their value, if necessary.	

**APPENDIX 7** 

# INFORMATION ON PARTICIPATION OF PJSC FGC UES IN PROFIT AND NON-PROFIT **ORGANISATIONS IN 2018**

**GRI 102-13** 

# **REGULATING DOCUMENTS AND POLICIES ON MANAGING** SUBSIDIARIES AND AFFILIATES

## MANAGING SUBSIDIARIES AND BUSINESS ENTITIES IN WHICH PJSC FGC UES PARTICIPATES IS REGULATED BY THE COMPANY'S INTERNAL DOCUMENTS:

- Affiliates and Other Business Entities in which PJSC FGC UES Participates;
- Standard for Drawing Up Summary Instructions for Representatives of PJSC FGC UES on Issues Included in Agendas of General Meetings of Shareholders/Participants and Meetings of the Boards of Directors (Supervisory Boards) of Entities in which PJSC FGC UES Participates;
- Procedure for Calculating and Evaluating KPIs Achievement by Subsidiaries and Other Entities in which PJSC FGC UES Participates;
- Business Planning Procedure for PJSC FGC UES' Subsidiaries and Affiliates;
- Regulations on Ensuring Financial Sustainability of PJSC FGC UES' Subsidiaries, Affiliates and Other Entities in which PJSC FGC UES Participates;

- Regulations on Managing PJSC FGC UES' Subsidiaries, Procedure for Interaction of Departments of PJSC FGC UES' Executive Office with PJSC FGC UES' Subsidiaries and Affiliates when Collecting Information and Verifying the Data Received for Calculation and Evaluation of KPIs Achievement;
  - Order of PJSC FGC UES on Approval of Standards and Model Regulations on Managing Subsidiaries and Affiliates;
  - Order of PJSC FGC UES on Organisation of Work of PJSC FGC UES' Representatives on the Boards of Directors and Committees of Organisations that are not PJSC FGC UES' Subsidiaries, and other organisational and administrative documentation of PJSC FGC UES.

The key document regulating matters related to management of subsidiaries and affiliates is the Regulations on Managing PJSC FGC UES' Subsidiaries, Affiliates and Other Business Entities in which PJSC FGC UES Participates.

## THE MANAGEMENT SYSTEM FOR PJSC FGC UES' SUBSIDIARIES AND AFFILIATES: DISTRIBUTION OF RESPONSIBILITY AND POWER BETWEEN THE COMPANY'S MANAGEMENT BODIES, SUBSIDIARIES AND AFFILIATES

#### THE MAIN FORMS OF INTERACTION OF THE COMPANY WITH ITS SUBSIDIARIES AND AFFILIATES:

- PJSC FGC UES' Board of Directors reviews issues pertaining to the Company representatives' position on draft decisions on issues included in agendas of General Meetings of Shareholders/participants and meetings of the Boards of Directors (Supervisory Boards) of subsidiaries and affiliates:
- participation in preparation of proposals and decisionmaking by the management bodies of subsidiaries and affiliates through the Company's representatives at
- the General Meeting of Shareholders/participants and meetings of the Boards of Directors (Supervisory Boards) of subsidiaries and affiliates;
- PJSC FGC UES's Management Board reviews issues on interaction of the Company with its subsidiaries and affiliates according to its competence determined by PJSC FGC UES' Articles of Association.

stock company,

transferring them

to the balance as

intangible assets

for inclusion in the

financial turnover

and determining their

value, if necessary

## Information on participation of PJSC FGC UES in profit organisations as of 31 December 2018

No.	Company's abbreviated name <sup>1</sup>	Core activity	Purpose of participation	Form of participation	Share of PJSC FGC UES in the Company's authorised capital as of	Financial participation (share book value) as of 31 December	Financial Indica	tors for 2018	Amount of dividends paid on the Company's shares owned	The Company's charity and sponsorship support
					31 December	2018,			hy DISC EGC HES	avnancae in
					2018	RUB thousand	Revenue,	Net profit,	in the reporting	2018,
							RUB	RUB	year,	RUB
							thousand	thousand	RUB thousand	thousand

## 1. INFORMATION ON SUBSIDIARIES WITH PJSC FGC UES' STAKE IN THE AUTHORISED CAPITAL FROM 50 % + 1 SHARE TO 100 %

1.	JSC MUS Energetiki	Organisation, development and operation of distributing networks in the fuel and energy sector	Support for PJSC FGC UES' core business	Ownership of the Company's shares	100.00 %	19,997	1,551,590	47,516	29,961	0
2.	JSC NTC FGC UES	Conducting research, development, design and survey work and providing expert services in the field of electric power	Support for PJSC FGC UES' core business	Ownership of the Company's shares	100.00 %	2,307,097	3,974,285	95,555	0	0
3.	JSC TsIUS UES	Project management in the field of construction (including acting as the customer and developer and provision of engineering services for the construction, renovation and technical re- equipment of technically difficult facilities)	Support for PJSC FGC UES' core business	Ownership of the Company's shares	100.00 %	833,000	15,219,541	-39,404	0	0
4.	JSC ESSK UES	Organising and conducting procurement procedures for selecting suppliers, contractors and executors	Support for PJSC FGC UES' core business	Ownership of the Company's shares	100.00 %	206,250	203,631	36,862	132,557	0
5.	JSC Electroset- service UNEG	Diagnostics, maintenance, repair and emergency repair works at grids and other facilities of the UNEG electric grid economy	Support for PJSC FGC UES' core business	Ownership of the Company's shares	100.00 %	872,486	3,208,873	-67,750	0	0
6.	Index Energetiki — FGC UES LLC	Operations with securities	The stake in the Company's authorised capital was obtained 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 reorganisation of the companies on 1 July 2008.	Shareholding in the Company's authorised capital:	100.00 %	0	0	1,233	0	0
7.	FGC – Asset Management LLC	Operations with securities	Assets accumulation (securities, stakes in the authorised capitals of business entities) for PJSC FGC UES	Shareholding in the Company's authorised capital:	100.00 %	2,740,277	182,645	1,365	0	0
8.	JSC Kuban Trunk Grids	Provision of electric power transmission and distribution services	Consolidation and management of UNEG's facilities	Ownership of the Company's shares	100.00 %	747,169	461,919	-3,8 41	0	0
9.	JSC Tomsk Trunk Grids	Provision of electric power transmission and distribution services	Consolidation and management of UNEG's facilities	Ownership of the Company's shares	87.164 %	1,574,500	191,120	6,058	2,068	0

No.	Company's abbreviated name <sup>1</sup>	Core activity	Purpose of participation	Form of participation	Share of PJSC FGC UES in the Company's authorised capital as of	Financial participation (share book value) as of 31 December	Financial indica	tors for 2018	Amount of dividends paid on the Company's shares owned	The Company's charity and sponsorship support	
					31 December 2018	2018, RUB thousand	Revenue, RUB thousand	Net profit, RUB thousand	by PJSC FGC UES in the reporting year, RUB thousand	expenses in 2018, RUB thousand	
1.2.	Non-core sub	osidiaries									
10.	JSC Mobile GTES	Electricity production	The shares were obtained 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 reorganisation of the companies on 1 July 2008.	Ownership of the Company's shares	100.00%	9,064,594	10,758,021	767,663	0	2,607	
11.	JSC Chita- TechEnergo	Communication services, designing and operation of communication lines	The shares were acquired through the reorganisation of JSC Chita Trunk Grids, who holds 100 % of the Company's shares, by merging with JSC FGC UES on 1 July 2008.	Ownership of the Company's shares	100.00%	4,093	439,303	28,423	0	0	
12.	JSC APBE	Development of forecasts in the electric power industry	The shares were obtained in accordance with the separation balance sheet upon the merger of JSC RAO UES of Russia with JSC FGC UES during the reorganisation of the companies on 1 July 2008.	Ownership of the Company's shares	100.00%	0	805	-5,728	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 obtained 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 reorganisation of the companies on 1 July 2008.	Shareholding in the Company's authorised capital:	79.999%	378,540	959,391	17,419	460	0	
14.	JSC Nurenergo	Supply (sale) of electricity and heat at the set tariffs in accordance with the dispatch schedules of electrical and heat loads.	Shares of the additional issue were received as repayment of loans previously granted to the Company. Resolution of the Board of Directors of JSC FGC UES of 20 May 2004 (Minutes No. 15)	Ownership of the Company's shares	76.9996%	0	2	2	0	3	

<sup>&</sup>lt;sup>1</sup> Data on the companies' names as of 31 December 2018.

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<sup>&</sup>lt;sup>2</sup> Financial statements were not presented as of 12 March 2019.

<sup>&</sup>lt;sup>3</sup> The Company's data were not presented to PJSC FGC UES as of 12 March 2019.

No. Company's abbreviated name <sup>1</sup>	Core activity	Purpose of participation	Form of participation	Share of PJSC FGC UES in the Company's authorised capital as of	Financial participation (share book value) as of 31 December	Financiai indica	ators for 2018	Amount of dividends paid on the Company's shares owned	The Company's charity and sponsorship support
				31 December	2018, RUB thousand		Net profit, RUB thousand	by PJSC FGC UES in the reporting year, RUB thousand	avnamaca in

					2010	NOD MOUSAIIU	RUB thousand	RUB thousand	year, RUB thousand	RUE thousand
	NFORMATION  Core affiliates	ON AFFILIATES WITH A ST	AKE IN PJSC FGC I	JES' AUTHO	RISED CAPIT	TAL FROM 20	% TO 50 %			
15.	JSC IPS Sak- Rusenergo	Electric power transmission services	Ensuring the development of PJSC FGC UES' core business	Ownership of the Company's shares	50.00 %	763,227	898,155⁴	386,7264	27,352	(
2.2.	Non-core aff	iliates								
16.	CJSC Severovostok- energo	Production and sales of electricity and heat	The shares were obtained 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 reorganisation of the companies on 1 July 2008.	Ownership of the Company's shares	49.00%	0	0	9	0	(
17. 3. II	JSC ENIN	Performance of research, design, experimental, and process works in the field of electric power  ON BUSINESS ENTITIES W	The shares were obtained 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 reorganisation of the companies on 1 July 2008.	Ownership of the Company's shares	38.239 %	0 ISED CAPITA	2 L FROM 2 %	<sup>2</sup> TO 20 %	0	0
3.1.	Core entities									
18.	PJSC Inter RAO	Electricity and heat production, supply (sale) of electricity and heat	Financial investments	Ownership of the Company's shares	9.239 %	37,530,295	53,901,083	18,938,776	2,201,569	15,487
19.	JSC ACRA	Rating activity	Financial investments	Ownership of the Company's shares	3.704%	111,112	2	2	0	3
<b>3.2.</b> 20.	Non-core ent	tities Publishina	Financial	Ownership	8.50 %	1	2	2	0	3
20.	EnergoRynok	. 23.10.11.1g	investments	of the Company's shares	5.55 %	·				
	NFORMATION Core entities	ON BUSINESS ENTITIES W	ITH PJSC FGC UES	STAKE IN 1	THE AUTHOR	RISED CAPITA	L OF LESS T	HAN 2 %		
21.	PJSC Rosseti	Management of holding companies	Financial investments	Ownership of the Company's shares	0.151 %	422,743	2	2	22,561	3
22.	CJSC Taiga- EnergoStroy	Electric power transmission services, acting as the customer and developer in the construction of buildings and structures, construction of	Ensuring the development of PJSC FGC UES' core business	Ownership of the Company's share	0.00067 % (1 share)	0	2	2	0	3
		buildings and structures								
4.2.	Non-core en									

## Information on PJSC FGC UES' participation in non-profit organisations as of 31 December 2018

No.	NPO	Brief profile of the organisation (types of activities)	Term of participation	Purpose of participation	Financial participation (types of payments/amount, RUB thousand)
1.	All-Russian industrial association of employers in energy sector «Employers Russian Association of Energy» (Association «ERA of Energy»)	Representing the interests of employers in the electric power industry, protection of their rights in public and local authorities and in relations with trade unions.  Representing the interests of employers in the electric power industry in negotiating and concluding industrial tariff agreements (ITAs) and other agreements regulating social and labour and other related relations.	Since 2004 to the present day	Participation in preparation of ITAs and its use in the preparation of PJSC FGC UES' regulatory documents. Guaranteed right to use ITAs in tariff regulation.  Receiving informational, advisory and other support in matters of social and labour and other related relations from Association «ERA of Energy».	Membership fee per year — 2,450.00.
2.	Non-profit partnership Council of Energy Industry Veterans	Implementation of activities aimed at providing comprehensive assistance to energy industry veterans.	Since 2008 to the present day	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.  Financial support of veterans.	Membership fee per year – 20,000.00.
3.	NP "CTSCenter UES"	Training and research activities	Since 2007 to the present day	Development of public and private partnership in the field of personnel training in the electric power industry.	Membership fee per year — 950.00.
4.	Construction Industry Companies Support Syndicate (SRO ASO POSO)*  * transition on a territorial basis in accordance with Federal Law No. 372-FL on Amendments to the Urban Development Code of the Russian Federation and Certain Legislative Acts of the Russian Federation of 3 July 2016	SRO ASO POSO is a non-profit corporate organisation established to coordinate business activities, represent and protect common interests, including professional, to achieve socially useful objectives, as well as other lawful and non-profit purposes, and to unite legal entities and individual entrepreneurs carrying out their activity in the field of construction, renovation, and overhaul of capital construction facilities.	Since 30 June 2017 to the present day	Compliance with the requirements of Russian legislation. As part of PJSC FGC UES's investment activity, PJSC FGC UES' MES branches perform construction and installation operations in-house. These activities are regulated by federal statutes – Urban Development Code of the Russian Federation No. 190-FZ of 29 December 2004.	Total from 1 January 2018 to 31 December 2018 — RUB 105.00 thousand (VAT exempt), including: — membership fee for Q1, Q2, Q3 and 4Q 2018 — RUB 25.00 thousand. Total = RUB 100.00 thousand. — target membership fee for payment of the mandatory annual membership fee of SRO ASO POSO to the National association of builders, NOSTROY — RUB 5.00 thousand.
5.	Association "NP Market Council"	In accordance with clause 1, Article 33 of Federal Law No. 35-FZ on Electric Power Industry of 26 March 2003, "NP Market Council" was established aimed to ensure operation of the market's commercial infrastructure, provide effective interconnection of wholesale and retail markets, creation of favourable conditions for attracting investments to the electric power industry and availability of a common position of the wholesale and retail markets' participants in the course of development of regulatory documents for the electric power industry, organise effective wholesale and retail trade of electricity, capacity, and other products allowed for circulation on the wholesale and retail markets based on self-regulation, in order to ensure the energy security of Russia, integrity of the economic area, freedom of economic activities and competition on the wholesale and retail markets, to strike a balance of the interests of producers and buyers of electricity and capacity, meeting public needs for reliable and sustainable electricity supply.	Since 2008 to the present day	Ensuring purchase of electricity and capacity in order to compensate for losses in the UNEG grids in accordance with Federal Law No. 35-FZ on Electric Power Industry of 26 March 2003.	Membership fees to the property of Association "NP Market Council": 2018 – RUB 1,880.00 thousand

<sup>&</sup>lt;sup>1</sup> Data on the companies' names as of 31 December 2018.

<sup>&</sup>lt;sup>2</sup> Financial statements were not presented as of 12 March 2019.

<sup>&</sup>lt;sup>3</sup> The Company's data were not presented to PJSC FGC UES as of 12 March 2019.

<sup>&</sup>lt;sup>4</sup> At the exchange rate of the National Bank of Georgia as of 29 December 2018: RUB 100 = GEL 3.8588.

No.	NPO	Brief profile of the organisation (types of activities)	Term of participation	Purpose of participation	Financial participation (types of payments/amount RUB thousand)
6.	Association of Real Estate Investors (AREI)	AREI is an association that unites companies who own land and real estate, as well as investing in real estate in Russia. Its members are institutional investors operating on 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 day	Participants of AREI are PJSC FGC UES, PJSC Gazprom, PJSC "MMC "Norilsk Nickel", PJSC Rosneft, PJSC HydroOGK, PJSC RZD, and others.  AREI carries out activities to prepare and amend legislative acts of the Russian Federation in the field of land and property relations in the interests of its participants, represents the interests of AREI members against municipal and federal authorities and responsible persons that determine the state policy on the market of land and investments in real estate, and together with its members participates in public events and procedures for developing the real estate and land market.	Membership fee per year — RUB 300.00 thousand.
7.	The Russian National Committee of the International Council on Large Electric Systems	The International Council on Large Electric Systems, CIGRE (Conseil International des Grands Réseaux Electriques, CIGRE) is the biggest international non-governmental and non-profit organisation in the field of electric power industry. It was founded in France in 1921 and now 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.  The CIGRE's Headquarter is located 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 CIGRE's major goal is to coordinate researches and share the experience and scientific and technological information related to functioning of electric 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.  CIGRE's activities form strategic vision on the power system development for the energy policy and are closely connected with the scientific research and development, defining key directions in the integration processes.  To date, over 1,000 organisations and 7,000 experts involved with all areas of the electric power industry are members of CIGRE. The main organisational principle of CIGRE is operating via national committees that unite industry companies and institutions of their countries or region. At present, CIGRE counts members in 95 countries.	Since 2005 to the present day	■ Learning new practices and the best technologies for managing power systems and producing electric equipment for the purpose of implementing import substitution programmes adopted at PJSC FGC UES. ■ timely identification of risks and threats based on the international experience, facilitating the identification of ways to mitigate them, which includes attracting the world's leading specialists and share of experience with partners at international sites. ■ 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. ■ 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.	EUR 40,000 annually, VAT exempt.

0.	NPO	Brief profile of the organisation (types of activities)	Term of participation	Purpose of participation	Financial participation (types of payments/amount, RUB thousand)
	SRO NP Peterburg- EnergoAudit	SRO NP PeterburgEnergoAudit controls its members' activities related 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 NP PeterburgEnergoAudit controls the compliance of SRO members with the requirements of current legislation and internal documents of SRO.  Scheduled inspections of activities of each member are performed at least once a year in accordance with the calendar of scheduled inspections.  The grounds for unscheduled inspections are:  inquiry of federal state authorities, state authorities of constituents of the Russian Federation or local authorities; an individual's complaint due to the actions (inaction) of a SRO member, except for anonymous complaints; resolution of SRO's management bodies and(or) its specialised bodies.  If a SRO member violates the requirements of SRO's standards, rules and membership conditions, all inspection materials shall be submitted to the Disciplinary Committee of SRO NP PeterburgEnergoAudit to consider the cases on taking disciplinary action against the SRO member.	Since 2011 to the present day	The 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 was performed by the staff of the branches only which allowed to reduce the inspection costs.	Membership fee — 18.00 (incl. VAT), quarterly.
	Non-profit Partnership Scientific and Technical Council of Unified Energy System	Non-profit Partnership Scientific and Technical Council of Unified Energy System was established on 20 May 2008 after liquidation of JSC RAO UES of Russia and taking a decision to keep the Scientific and Technical Council of Unified Energy System as a separate legal entity (Minutes of the Board of Directors of JSC RAO UES of Russia No. 273 of 29 February 2008).  In accordance with the establishing minutes of Non-profit Partnership Scientific and Technical Council of Unified Energy System, PJSC FGC 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 FGC 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, and PJSC Inter RAO UES.  The areas of the partnership's activities include review and decision-making of the most significant issues involving operations of UES and its entities:  expert review of various projects and works;  analysis of the UES development concept and strategy;  new engineering solutions and technology;  priority development areas of the industry;  R&D programmes;  technical regulation and standardisation;  publishing and other activities.	Since 2008 to the present day	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 and expert support of projects, analysis of scientific and technical and innovative activities of PJSC FGC UES, and identification of current trends in the development of the power grid complex are necessary for the creation of PJSC FGC UES' targeted development programmes.	Membership fee per year — 2,000.00 (VAT exempt).

No.	o. NPO Brief profile of the organisation (types of activities)		Term of participation	Purpose of participation	Financial participation (types of payments/amount, RUB thousand)
10.	Global Energy Association	The Global Energy Association is a highly regarded and renowned organisation. The organisation's key focus is the support of research and innovations projects in the field of global energy, and managing an international award 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, and operates with the support of 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 the Russian Ederation, announced on inception of this new scientific award. The new international prize very quickly became one of the most famous and prestigious awards of its kind. Sometimes mass media unofficially names it the Energy Nobel.	Since 2002 to the present day	Support of research and innovations in the field of the electric power industry.	Membership fee per year — 58,200.00 (VAT exempt).
11.	All-Russian Industry Association of Employers "Union of Machine Builders of Russia"	One of the major goals of the association is to establish a development strategy for the engineering industry of Russia, to participate in establishing active governmental policy mechanisms for modernisation and development of the national engineering network at the leading industrially developed countries level.  Its governing bodies include representatives of PJSC RZD, PJSC OAK, JSC Rosoboroneksport, MC ROSNANO, PJSC KAMAZ, JSC Scientific Industrial Corporation Uralvagonzavod, JSC United Shipbuilding Corporation, PJSC United Aircraft Corporation, etc.  Rostech's facilities comprise the basis of the Union of Machine Builders of Russia. They have a significant potential to implement measures for import substitution and digitalisation of the economy.		Partnership in terms of digitalisation of the energy sector, industrial innovation, development and implementation of information and telecommunication technologies and security systems for power grid enterprises complex. The interaction of FGC UES with the Union of Machine Builders of Russia implies constant sharing of information, joint activities, development of proposals to improve the legal framework and cooperation with the authorities, providing comprehensive assistance to power engineers, etc.	None
12.	The Russian Union of Industrialists and Entrepreneurs (RSPP)	The main objectives of RSPP include improving the business environment of Russia, raising the status of domestic entrepreneurs in the country and in the world, and maintaining the balance of interests of the society, government and business. 400 organisations representing the key economic industries are members of the RSPP.		Joining RSPP allowed PJSC FGC UES to participate in influencing the economic policy and in furthering legislative initiatives of the association with the trunk electric grid network interests taken into account.	Membership fee per year — RUB 300.00 thousand (VAT exempt).

**APPENDIX 8** 

INFORMATION ON CONCLUDED PURCHASE CONTRACTS OF SHARES, STOCKS, EQUITY INTEREST OF BUSINESS PARTNERSHIPS AND BUSINESS ENTITIES INCLUDING INFORMATION ON THE PARTIES, SUBJECT, PRICE, AND OTHER TERMS OF THE CONTRACTS

In 2018, FGC UES concluded the following alienation contracts for shares owned by FGC UES:

## • On 29 June 2018, a share purchase contract was concluded between PJSC FGC UES (Seller) and DVB Leasing Ltd (Buyer):

Issuer	Public Joint-Stock Company Inter RAO UES, OGRN 1022302933630
Issuer's address	Russian Federation, Moscow
Type, category, form of shares	ordinary registered uncertified shares
State registration number of the shares issue	1-04-33498-E
Amount of shares (pieces)	3,132,000,000 (three billion one hundred thirty-two million) pieces
Nominal value of one Issuer's share	RUB 2.809767 (two point eight hundred nine thousand seven hundred sixty-seven) per share
Keeper of the register of the Issuer's shareholders	JSC VTB Registrar
Share storage location	Vendor's securities account in DCT Ltd
Share value	RUB 10,480,611,600 (ten billion four hundred eighty million six hundred eleven thousand six hundred)

## On 29 June 2018, a share purchase contract was concluded between PJSC FGC UES (Seller) and Praktika Ltd (Buyer):

Issuer	Public Joint-Stock Company Inter RAO UES, OGRN 1022302933630
Issuer's address	Russian Federation, Moscow
Type, category, form of shares	ordinary registered uncertified shares
State registration number of the shares issue	1-04-33498-E
Amount of shares (pieces)	699,357,212 (six hundred ninety-nine million three hundred fifty-seven thousand two hundred twelve) pieces
Nominal value of one Issuer's share	RUB 2.809767 (two point eight hundred nine thousand seven hundred sixty-seven) per share
Keeper of the register of the Issuer's shareholders	JSC VTB Registrar
Share storage location	Vendor's securities account in DCT Ltd
Share value	RUB 2,340,259,038 (two billion three hundred forty million two hundred fifty-nine thousand thirty-eight) and 52 kopecks
	·

INFORMATION ON CONCLUDED PURCHASE CONTRACTS OF SHARES, STOCKS, EQUITY INTEREST

Public Joint-Stock Company Inter RAO UES, OGRN 1022302933630
B : E ! .: M
Russian Federation, Moscow
ordinary registered uncertified shares
1-04-33498-E
6,608,642,788 (six billion six hundred eight million six hundred forty-two thousand seven hundred eighty-eight) pieces
RUB 2.809767 (two point eight hundred nine thousand seven hundred sixty-seven) per share
JSC VTB Registrar
Vendor's securities account in DCT Ltd
RUB 22,114,501,361 (twenty-two billion one hundred fourteen million five hundred one thousand three hundred sixty-one) and 48 kopecks

### On 28 August 2018, a share purchase agreement was concluded between PJSC FGC UES (Seller) and GENNORD PROJECTS LIMITED (Buyer):

Issuer	Rosseti Public Joint-Stock Company, OGRN 1087760000019
Issuer's address	Moscow, Russia
Type, category, form of shares	ordinary registered uncertified shares
State registration number of the shares issue	1-01-55385-E
Amount of shares (pieces)	1,080,646,965 (one billion eighty million six hundred forty-six thousand nine hundred sixty-five) pieces
Nominal value of one Issuer's share	RUB 1 (one) per share
Keeper of the register of the Issuer's shareholders	JSC STATUS
Share storage location	Vendor's securities account in DCT Ltd
Share value	RUB 900,000,000 (nine hundred million)

## **APPENDIX 9**

## **NON-CORE ASSETS DISPOSAL IN 2018**

The revised Programme for Disposal of Non-Core Assets of PJSC FGC UES and its subsidiaries (hereinafter, the "Programme for Disposal of NA") has been developed in accordance with the Instruction of the Russian Government No. 6604p-P13 of 15 September 2017 and approved by the resolution of the Board of Directors of PJSC FGC UES on 22 May 2018.<sup>1</sup>

In order to improve the efficiency of non-core assets management, PJSC FGC UES approved the following documentation as part of the programme development:

- the Procedure for Organising Sales of Non-Core Asset of PJSC FGC UES and its subsidiaries;<sup>2</sup>
- the Procedure for Gratuitous Transferring (Giving) Non-Core Assets of PJSC FGC UES to the Property of Public Law Entities;<sup>3</sup>
   Methodological Recommendations for filling the following forms: <sup>4</sup>
  - 1) Register of Non-Core Assets;
  - 2) Report on the Implementation of the Register of Non-Core Assets;
  - 3) Action Plan for Disposal of Non-Core Assets;
  - 4) Register of Cash Generating Units of Management Accounting.

#### THE COMPANY'S KEY PRINCIPLES APPLIED TO IMPLEMENT THE PROGRAMME FOR DISPOSAL OF NA:

- transparency public availability of information on the methods and approaches applied to identify non-core assets from the assets portfolio;
- consistency regular review of the assets portfolio to identify non-core assets;
- clarity open and public procedures for selling non-core assets and disclosing information on such sales in a way that
  potential buyers could access it;
- efficiency reasonable from the economic point of view sale of non-core assets;
- maximisation of revenues selling non-core assets on a reimbursable basis;
- minimisation of costs reducing costs of illiquid assets maintenance.

#### THE COMPANY'S KEY TARGETS FOR SELLING NON-CORE ASSETS:

- optimising the composition and structure of assets;
- improving assets utilisation efficiency;
- reducing costs related to non-core assets management and maintenance;
- using extra sources of financing;
- improving the competitiveness and investment attractiveness;
- adding the value.

### THE COMPANY'S MAIN GOALS IN MANAGING NON-CORE ASSETS:

- reviewing the assets portfolio to identify non-core assets;
- creating and keeping the Register of Non-Core Assets (Register of NA);
- arranging activities on non-core assets disposal in accordance with the Programme for Disposal of NA, the Company's
  internal organisational and regulatory documents and on the basis of the Register of Non-Core Assets approved by the
  Board of Directors;
- supervising execution of resolutions on non-core assets disposal and submitting reports on the Programme for Disposal
  of NA implementation.

<sup>&</sup>lt;sup>1</sup> The extract of Meeting Minutes of PJSC FGC UES' Board of Directors No. 404/1 of 25 May 2018.

 $<sup>^{\</sup>rm 2}$  The extract of Meeting Minutes of PJSC FGC UES' Board of Directors No. 404/1 of 22 May 2018.

<sup>&</sup>lt;sup>3</sup> Approved by Order of PJSC FGC UES No. 377 on Approval of the Procedure for Gratuitous Transferring (Giving) Non-Core Assets of PJSC FGC UES to the Property of Public Law Entities of 5 October 2018;

<sup>&</sup>lt;sup>4</sup> Approved by Order of PJSC FGC UES No. 555r on Approval of the Methodological Recommendations of 15 November 2018.

## Information on disposal of non-core assets of PJSC FGC UES in 2018

	Asset (according to the Register of NA)	Number (if applicable)	The balance sheet's line item showing the asset as at the reporting date preceding the date of disposal	The balance sheet's line item (including itemisation) showing income and expenditure from the asset disposal	Asset book value, RUB thousand	Actual disposal proceeds, RUB thousand, excl. VAT	Deviation between actual disposal proceeds and the asset book value, RUB thousand	Cause of the deviation between actual disposal proceeds and the asset book value
1.	Plumbing with a water measuring unit of the 220 kV substation (from the water measuring unit of the Bezhetsk substation to the connection point on the territory of the SOM plant)	0211-2-12- 09515	1132	9120034102	10.93	-	-10.93	Charge free transfer to municipal ownership
2.	Road to residential buildings of the 750 kV Bely Rast substation	0209-1-12- 02432	1132	9120034102	0.00	-	0.00	
3.	Access road of 2,048 m long to the 500 kV Vladivostok substation	0800-2-12- 15792	1132	9120034102	49,448.27	-	-49,448.27	Charge free transfer to municipal ownership
4.	P-Tolyatti 178		1132	9110021101; 9120031110	10,392.58	10,392.60	0.02	
4.1.	Administrative building, lit. E	0500-1-11- 30001	1132	9110021101; 9120031110				
4.2.	Warehouse, lit. A	0500-1-11- 30002	1132	9110021101; 9120031110				
4.3.	Warehouse, lit. B	0500-1-11- 30003	1132	9110021101; 9120031110				
4.4.	Warehouse, lit. G	0500-1-11- 30004	1132	9110021101; 9120031110				
4.5.	Warehouse, lit. D	0500-1-11- 30005	1132	9110021101; 9120031110				
4.6	Reinforced concrete fence	0500-2-11- 30006	1132	9110021101; 9120031110				
5.	Land plot of the 220 kV Ilyich Plant substation	0304-2-19- 34921	1131	9110021101; 9120031110	9,793.00	106,270.00	96,477.00	
6.	Joint-Stock Company of Power and Electrification Ispytatelny Stend of Ivanovskaya GRES (JSC Stend)	-	1150	2340 2350	434,000.00	434,000.00	0.00	
7.	Joint-Stock Company Non-state Pension Fund of the Electric Power Industry (JSC NPF of the Electric Power Industry)	-	1150	2340 2350	131.83	13,315.29	13,183.46	

# **APPENDIX 10**

# THE SPECIES LISTED IN THE IUCN RED LIST AND THE RED DATA BOOK OF THE RUSSIAN FEDERATION, WHOSE HABITATS ARE LOCATED WITHIN THE TERRITORIES OF PJSC FGC UES

	Status	Animals	Plants	Fungi
	0 — Considered to be Extinct	-	1	-
	1 — Endangered Ones	8	6	-
Listed in the Red Data Book	2 - Declining Species	44	29	-
of the Russian Federation	ille Neu Data Book	24	69	12
	4 – Undefined by Status	3	3	-
	5 - Recoverable and Recovering Ones	- 1 8 6 44 29 24 69 3 3 2 - 5 - 5 2	-	
	0 - Considered to be Extinct  1 - Endangered Ones  2 - Declining Species  3 - Rare Ones  4 - Undefined by Status	5	-	-
Listed in the Red List of	EN — Endangered Species	5	2	-
the International Union for	VU - Vulnerable Species	16	3	-
Conservation of Nature	NT — Near Threatened	7	1	-
	LC - Least Concern	7	11	-

Name of the protected natural area	List of species
Baikal State Nature Biosphere Reserve	Species included in the Red Data Book of the Russian Federation:  15 plant species: Asahinea scholanderi, Cypripedium macranthos, Coccocarpia erythroxili, Calypso bulbosa, Leptogium hildenbrandi, Lobaria pulmonaria, Allium altaicum, Lobaria retigera, Neckera borealis, Omphalina hudsoniana, Galium paradoxum, Fritillaria dagana, Swertia baicalensis, Tridactylina kirilowii, Cetrelia alaskana.  11 animal species: golden eagle, saker falcon, demoiselle crane, eastern imperial eagle, white-tailed
	eagle, Apollo, steppe eagle, peregrine falcon, osprey, reindeer, black stork.  3 fungi species: Hericium coralloides, Leccinum percandidum, Clavariadelphus pistillaris.
Bolshekhekhtsirsky State Nature Reserve	Species included in the Red Data Book of the Russian Federation:  16 plant species: Pogonia japonica, Watershield, Cypripedium calceolus, Trapa natans, Gastrodia elata, Panax ginseng, Japanese water iris, Lilium callosum, Neottianthe cucullata, Paeonia lactiflora, Paeonia obovata, Galium paradoxum, Trapa, Fritillaria ussuriensis, water caltrop, buffalo nut.
	15 animal species: Siberian tiger, Steller's sea eagle, golden eagle, greater spotted eagle, oriental stork, white-naped crane, mandarin duck, white-tailed eagle, Indian paradise flycatcher, peregrine falcon, osprey, mountain weasel, black stork, red-crowned crane, grey-faced buzzard.  3 fungi species: Mutinus ravenelii, violet webcap, netted stinkhorn.

Name of the protected natural area	List of species
Voronezh State Nature Biosphere Reserve	Species included in the Red Data Book of the Russian Federation: 3 plant species: Stipa pennata, Iris aphylla, Pulsatilla pratensis. 4 animal species: saker falcon, griffon vulture, greater spotted eagle, stag beetle. 4 fungi species: Polyporus umbellatus, Sparassis crispa, Polyporus umbellatus, lingzhi mushroom.
Ilmen State Nature Reserve	Species included in the Red Data Book of the Russian Federation:  14 animal species: golden eagle, Eurasian curlew, greater spotted eagle, azure tit, black-throated loon, European mink, Dalmatian pelican, Eurasian oystercatcher, Eastern imperial eagle, calosoma sycophanta, peregrine falcon, Eurasian eagle-owl, dunlin, black stork.  6 plant species: Anemone uralensis, Minuartia helmii, Minuartia krascheninnikovii, Epipogium aphyllum, Cephalanthera longifolia, Orchis militaris.  4 animal species are also included in the IUCN Red List: European mink, Dalmatian pelican, Eastern imperial eagle, peregrine falcon.
Lapland State Biosphere Nature Reserve	Species included in the Red Data Book of the Russian Federation: 6 plant species: Calypso bulbosa, Cotoneaster cinnabarinus, Carex livida, Dactylorhiza traunsteineri, Isoetes maritima, Isoetes lacustris. 6 animal species: golden eagle, gyrfalcon, freshwater pearl mussel, white-tailed eagle, peregrine falcon, osprey.
Prioksko-Terrasny State Nature Biosphere Reserve	Species included in the Red Data Book of the Russian Federation:  5 plant species: Cypripedium calceolus, Eottianthe cucullata, Fritillária ruthénica, Neotinea ustulata, Orchis militaris.  6 animal species: greater spotted eagle, European bison, Apollo, osprey, great grey shrike, Eurasian eagle-owl.  1 animal species is also listed in the IUCN Red Book — the European bison.
Khopyor State Nature Reserve	Species included in the Red Data Book of the Russian Federation:  13 plant species: Trapa natans, Cephalaria litvinovii, Stipa pennata, Stipa pulcherrima, Iris aphylla, Stipa dasyphylla, Pulsatilla pratensis, Fritillaria ruthenica, Trapa, Tulipa schrenkii, water caltrop, buffalo nut, Orchis militaris.  25 animal species: Rosalia longicorn, Eurasian stone-curlew, greater spotted eagle, saker falcon, golden eagle, aquatic warbler, great bustard, middle spotted woodpecker, Levant sparrowhawk, stag beetle, short-toed snake eagle, Eurasian oystercatcher, eastern imperial eagle, clouded Apollo, white-tailed eagle, Calosoma sycophanta, Eurasian beaver, Russian desman, osprey, Saga pedo, peregrine falcon, lesser kestrel, little bustard, Eurasian eagle-owl, black stork.
Nechkinsky National Park	Species included in the Red Data Book of the Russian Federation:  4 plant species: Cypripedium calceolus, Calypso bulbosa, Neottianthe cucullata, Cephalanthera rubra.  14 animal species: Volga pikeperch, brown long-eared bat, Eurasian curlew, greater spotted eagle, Carabus menetriesi, European bullhead, Siberian taimen, white-tailed eagle, Russian desman, Alburnoides bipunctatus, Sterlet, osprey, Eurasian eagle-owl, black stork.
Orlovskoye Polesye National Park	Species included in the Red Data Book of the Russian Federation  9 plant species: Trapa natans, Neottianthe cucullata, Dactylorhiza traunsteineri, Dactylorhiza baltica, Pulsatilla pratensis, Dactylorhiza maculata, Trapa, water caltrop, buffalo nut.  10 animal species: great spotted eagle, Russian desman, greater noctule bat, middle spotted woodpecker, short-toed snake eagle, European bison, clouded Apollo, lesser spotted eagle, hazel grouse, black stork.  1 animal species is also listed in the IUCN Red Book — the European bison.

Name of the protected natural area	List of species
Samarskaya Luka	Species included in the Red Data Book of the Russian Federation:
National Park	20 plant species: Astragalus zingeri, Cypripedium calceolus, Trapa natans, Iris pumila, Stipa pulcherrima, European feather grass, Hedysarum grandiflorum, Hedysarum razoumowianum, Euphorbia zhiguliensis, Neottianthe cucullata, Artemisia salsoloides, Cephalanthera rubra, Fritillaria ruthenica, Thymus cimicinus, Koeleria sclerophylla, Lathyrus litvinovii, water caltrop, buffalo nut, Globularia trichosantha.  28 animal species: Rosalia longicorn, saker falcon, ivory gull, golden eagle, greater noctule bat, black-
	throated loon, stag beetle, short-toed snake eagle, red-breasted goose, sociable lapwing, Eurasian oystercatcher, long-legged buzzard, little tern, eastern imperial eagle, clouded Apollo, white-tailed eagle, great grey shrike, European bullhead, Calosoma sycophanta, Xylocopa valga, Russian desman, Alburnoides bipunctatus, Saga pedo, sterlet, osprey, pallid harrier, Pallas's gull, black stork.
Smolny National Park	Species included in the Red Data Book of the Russian Federation:
	6 plant species: Trapa natans, Neottianthe cucullata, Cephalanthera rubra, Trapa, water chestnut, buffalo nut.
	17 animal species: golden eagle, Eurasian curlew, greater spotted eagle, short-toed snake eagle, Eurasian oystercatcher, clouded Apollo, Eastern imperial eagle, little tern, Apollo, great grey shrike, white-tailed eagle, Xylocopa valga, osprey, lesser kestrel, pallid harrier, little bustard, Eurasian eagle-owl.
Sochi National Park	Species included in the Red Data Book of the Russian Federation:
	35 plant species: Anacamptis pyramidalis, Colchicum speciosum, Colchicum umbrosum, Stipa orientalis, Epimedium colchicum, Dioscorea caucasica, Genista suanica, Ruscus colchicus, Ficus carica, Erythronium caucasicum, Staphylea colchica, Campanula autraniana, Lilium kesselringianum, Leptopus colchicus, Lilium caucasicum, Limodorum abortivum, Epipogium aphyllum, Ophrys oestrifera, Dactylorhiza triphylla, Galanthus woronowii, Cephalanthera damasonium, Cephalanthera rubra, Paeonia wittmanniana, Buxus colchica, Spiranthes spiralis, Serapias vomeracea, Steveniella satyrioides, English Yew, Traunsteinera globosa, Tulipa humilis, Globularia trichosantha, Crocus vallicola, Crocus speciosus, Anacamptis coriophora, Orchis militaris.
	56 animal species: Rosalia longicorn, Alburnus mento, griffon vulture, greater horseshoe bat, golden eagle, bearded vulture, Carabus hungaricus, greater noctule bat, Vipera dinniki, Vipera kaznakovi, Aphodius bimaculatus, Anax imperator, Aporrectodea dubiosa, Carabus biebersteini constantinovi, Carabus miroshnikovi, Stag beetle, short-toed snake eagle, Eisenia transcaucasica, European bison, Rhaesus serricollis, Caucasian grouse, red kite, Lutra lutra meridionalis, Caucasian wildcat, Carabus caucasicus, Xylosteus caucasicola, Protaetia speciosa, brown trout, Caucasian toad, Caucasian parsley frog, Parnopes grandior, leopard, lesser horseshoe bat, lesser spotted eagle, southern banded newt, clouded Apollo, white-tailed eagle, common bent-wing bat, lesser mouse-eared bat, Triturus vulgaris lantzi, Apollo, Orussus abietinus, Mehely's horseshoe bat, Calosoma sycophanta, Pleroneura dahli, Xylocopa valga, peregrine falcon, osprey, Greek tortoise, Geoffroy's bat, Southern crested newt, Cerambyx nodulosus, Ukrainian brook lamprey, Aesculapian snake, black stork, cinereous vulture.  Listed in the IUCN Red Book: the European bison.
Khvalynsky National Park	Species included in the Red Data Book of the Russian Federation:
	14 plant species: Astragalus zingeri, Cypripedium calceolus, Daphne cneorum, Hyssopus cretaceus, Iris pumila, Stipa pulcherrima, Iris aphylla, Hedysarum razoumowianum, European feather grass, Hedysarum grandiflorum, Potentilla volgarica, Paeonia tenuifolia, Anthemis trotzkiana, Fritillaria ruthenica.
	16 animal species: saker falcon, golden eagle, greater spotted eagle, levant sparrowhawk, stag beetle, short-toed snake eagle, Dalmatian pelican, eastern imperial eagle, marbled duck, white-tailed eagle, Russian desman, Bombus fragrans, peregrine falcon, osprey, little bustard, Eurasian eagle-owl.
Shorsky National Park	Species included in the Red Data Book of the Russian Federation:
	9 plant species: Aconitum paskoi, Cypripedium macranthos, Cypripedium calceolus, Siberian fawn lily, tree lungwort, Liparis loeselii, Dactylorhiza baltica, Rheum altaicum, Orchis militaris.
	6 animal species: golden eagle, Siberian taimen, peregrine falcon, osprey, Eurasian eagle-owl, black stork.

Name of the protected natural area	List of species					
Shushensky Bor	Species included in the Red Data Book of the Russian Federation:					
National Park	14 plant species: Aconitum sajanense, Cypripedium macranthos, Cypripedium calceolus, Bupleurum martjanovii, Siberian fawn lily, European feather grass, Allium tytthocephalum, tree lungwort, Neottianthe cucullata, Carex insaniae, Sticta limbata, Tuckneraria laureri, Cetraria Laureri, Orchis militaris.					
	20 animal species: Asian dowitcher, saker falcon, golden eagle, greater spotted eagle, demoiselle crane, gyrfalcon, Bewick's swan, eastern imperial eagle, white-tailed eagle, lesser white-fronted goose, osprey, peregrine falcon, lesser kestrel, pallid harrier, steppe eagle, Eurasian eagle-owl, black stork, hooded crane Pallas's gull, pied avocet.					
Ugra National Park	Species included in the Red Data Book of the Russian Federation:					
	9 plant species: Cypripedium calceolus, Trapa natans, European feather grass, Dactylorhiza baltica, Cephalanthera longifolia, Trapa, water caltrop, buffalo nut, Orchis militaris.					
	23 animal species: saker falcon, golden eagle, Eurasian curlew, greater spotted eagle, aquatic warbler, greater noctule bat, black-throated loon, middle spotted woodpecker, short-toed snake eagle, Eurasian oystercatcher, lesser spotted eagle, Eastern imperial eagle, great grey shrike, European bullhead, white-tailed eagle, Russian desman, Alburnoides bipunctatus, peregrine falcon, osprey, pallid harrier, sterlet, Eurasian eagle-owl, black stork.					
Voronezh State Nature	Species included in the Red Data Book of the Russian Federation:					
Biosphere Reserve	3 plant species: European feather grass, Pulsatilla pratensis, Fritillaria ruthenica.					
	4 animal species: saker falcon, griffon vulture, greater spotted eagle, stag beetle.					
	4 fungi species: Polyporus umbellatus, Sparassis crispa, lingzhi mushroom, Polyporus umbellatus.					
Historic and landscape	Species included in the Red Data Book of the Russian Federation:					
complex Bogolyubov	3 plant species: Isoetes setacea, Diphasiastrum tristachyum, Dactylorhiza traunsteineri.					
Medow – The Church of the Intercession	8 animal species: golden eagle, greater spotted eagle, European bison, short-toed snake eagle, Russian desman, osprey, black-throated loon, black stork.					
of the Holy Virgin on the Nerl River	1 species is listed in the IUCN Red Book: the European bison.					
Davydov Nature Reserve	Species included in the Red Data Book of the Russian Federation:					
	1 plant species: Salvinia natans.					
	2 animal species: willow ptarmigan, Russian desman.					
Kologrivsky Forest State	Species included in the Red Data Book of the Russian Federation:					
Nature Reserve	3 plant species: Cypripedium calceolus, tree lungwort, Dactylorhiza traunsteineri.					
	7 animal species: golden eagle, greater spotted eagle, short-toed snake eagle, European bullhead, grayling, osprey, peregrine falcon.					
Kaluzhskie Zaseki State Nature Reserve	Species included in the Red Data Book of the Russian Federation:					
Nature Reserve	1 plant species: early-purple orchid.					
	19 animal species: greater spotted eagle, Eurasian curlew, golden eagle, Russian desman, greater noctule bat, middle spotted woodpecker, European bison, short-toed snake eagle, clouded Apollo, lesser spotted eagle, white-tailed eagle, European bullhead, great grey shrike, brook lamprey, Alburnoides bipunctatus, osprey, peregrine falcon, pallid harrier, black stork.					
	9 fungi species: Gyroporus cyanescens, Grifola frondosa, Hen-of-the-wood, coral tooth fungus, Dog stinkhorn, Cortinarius violaceus, Clavariadelphus pistillaris, Sparassis crispa, Gyroporus cyanescens.					
	1 species is listed in the IUCN Red Book: the European bison.					

Name of the protected natural area	List of species
Dmitrievsky State Regional Fauna (Hunting) Reserve for Preservation of Elks and Roe Deers	Species included in the Red Data Book of the Russian Federation: 3 animal species: saker falcon, white-tailed eagle, peregrine falcon.
Blagoveshchensky State Nature Reserve	Species included in the Red Data Book of the Russian Federation:  2 plant species: European feather grass, Stipa zalesskii.  18 animal species: Asian dowitcher, golden eagle, red-breasted goose, sociable lapwing, demoiselle crane, glossy ibis, little tern, white-tailed eagle, Pallas's fish eagle, marbled polecat, great white pelican, white-headed duck, pallid harrier, lesser kestrel, black-winged stilt, Pallas's gull, Caspian tern, pied avocet.
Taganai National park	Species included in the Red Data Book of the Russian Federation: 6 plant species: Anemone uralensis, Minuartia helmii, Epipogium aphyllum, Cephalanthera longifolia, Cephalanthera rubra, Orchis militaris. 10 animal species: black stork, golden eagle, clouded Apollo, Apollo, peregrine falcon, osprey, Saga pedo, Bombus wurflenii, slender-billed curlew, Eurasian eagle-owl.
East Ural Nature Reserve	Species included in the Red Data Book of the Russian Federation: 4 plant species: Cypripedium calceolus, Lilium martagon, Pulsatilla vernalis, lily. 8 animal species: golden eagle, Dalmatian pelican, white-tailed eagle, saker falcon, peregrine falcon, osprey, Eurasian eagle-owl, Pallas's gull.
Donsky Nature Park	Species included in the Red Data Book of the Russian Federation:  9 plant species: Trapa natans, Genista tanaitica, Stipa pulcherrima, European feather grass, Lepidium meyeri, Jurinea cretacea, Scrophularia cretacea, Serratula tanaitica, water caltrop.  6 animal species: short-toed snake eagle, eastern imperial eagle, white-tailed eagle, steppe eagle, little bustard, Eurasian eagle-owl.
Shalov-Perechitsky State Integral Nature Reserve	Species included in the Red Data Book of the Russian Federation: 4 plant species: Sand pink, Pulsatilla pratensis, Eastern pasqueflower, Onobrychis arenaria. 9 animal species: white stork, golden eagle, Eurasian curlew, Eurasian bittern, whooper swan, osprey, Eurasian eagle-owl, black stork, black-throated loon.

#### Total number of species listed on the IUCN Red List and the National List of Protected Species

**127 plant species:** Asahinea scholanderi, pyramidal orchid, Astragalus zingeri, Pogonia japonica, watershield, Aconitum paskoi, Aconitum sajanense, Colchicum speciosum, Colchicum umbrosum, Cypripedium macranthos, lady'sslipper, Anemone uralensis, Stipa orientalis, Bupleurum martjanovii, Daphne cneorum, Epimedium colchicum, Cephalaria litvinovii, Gastrodia elata, Sand pink, Dioscorea ginseng, Hyssopus cretaceus, Ficus carica, Ruscus colchicus, Coccocarpia erythroxili, Calypso, Japanese water iris, Iris aphylla, Stipa dasyphylla, European feather grass. Stipa zalesskii, Lepidium meveri, Cotoneaster cinnabarinus, Hedysarum grandiflorum, Hedysarum razoumowianum, Erythronium caucasicum, Staphylea colchica, Campanula autraniana, Iris pumila, Siberian fawn lily, Leptogium hildenbrandii, tree lungwort, Allium altaicum, Lobaria retigera, Leptopus colchicus, Lilium caucasicum, Limodorum abortivum, Lilium kesselringianum, Potentilla volgarica, Liparis loeselii, Lilium callosum, Allium tytthocephalum, lily, Minuartia helmii, Minuartia krascheninnikovii, Euphorbia zhiguliensis, Neckera borealis, Neottianthe cucullata, Epipogium aphyllum, Jurinea cretacea, Scrophularia cretacea, Omphalina hudsoniana, Carex insaniae. Ophrys oestrifera. Carex livida. Galium paradoxum, Chinese peony, Paeonia obovata, Galium paradoxum, Pulsatilla pratensis, Cephalanthera longifolia, Isoetes lacustris, Dactylorhiza traunsteineri, Isoetes maritima, Cephalanthera rubra, Dactylorhiza baltica, Dactylorhiza maculata, Artemisia salsoloides, Dactylorhiza triphylla, Galanthus woronowii, Paeonia wittmanniana, Pulsatilla vernalis, Paeonia tenuifolia, Anthemis trotzkiana, Cephalanthera damasonium, Eastern pasqueflower, Pulsatilla pratensis, Fritillaria dagana, Trapa, Fritillaria ussuriensis, Fritillaria ruthenica, Rheum altaicum, Fritillaria meleagris, Swertia baicalensis, Buxus colchica, Serapias vomeracea, Steveniella satyrioides, Spiranthes spiralis, Sticta limbata, Lilium martagon, Serratula tanaitica, Salvinia natans, Tridactylina kirilowii, Thymus cimicinus, Koeleria sclerophylla, Tulipa schrenkii, English Yew, Traunsteinera globosa, Tulipa humilis, Tuckneraria laureri, Cetraria laureri, Cetrelia alaskana, water caltrop, buffalo nut, Lathyrus litvinovii, Globularia punctata, Globularia trichosantha, Crocus speciosus, Crocus vallicola, Onobrychis arenaria, Anacamptis coriophora, Early purple orchid, Orchis militaris, Burnt-tip orchid.

**123 animal species:** Siberian tiger, Eurasian stone-curlew, Rosalia longicorn, Alburnus belvica, Asian dowitcher, white stork, saker falcon, griffon vulture, golden eagle, Steller's sea eagle, greater spotted eagle, Eurasian curlew, Volga pikeperch, brown long-eared bat, ivory gull, greater horseshoe bat, Eurasian bittern, aquatic warbler, Vipera dinniki, Vipera kaznakovi, greater noctule bat, Oriental stork, caucasica, Genista tanaitica, Genista suanica, Panax white-naped crane, great bustard, Aphodius bimaculatus, Anax imperator, grayling, black-throated loon, European mink, azure tit, middle spotted woodpecker, Levant sparrowhawk, demoiselle crane. Carabus menetriesi. Aporrectodea dubiosa. Carabus biebersteini constantinovi. Carabus miroshnikovi. Freshwater pearl mussel, stag beetle, European bison, Eisenia transcaucasica, short-toed snake eagle, Rhaesus serricollis, Eurasian oystercatcher, Gyrfalcon, Dalmatian pelican, redbreasted goose, sociable lapwing, long-legged buzzard, Carabus caucasicus, Xylosteus caucasicola, Protaetia speciosa, Parnopes grandior, Caucasian toad, Caucasian parsley frog, brown trout, Caucasian grouse, red kite, Lutra lutra meridionalis, Caucasian wildcat, glossy ibis, leopard, mandarin duck, eastern imperial eagle, lesser spotted eagle, clouded Apollo, little tern, southern banded newt, lesser horseshoe bat, white-tailed eagle, steppe eagle, Apollo, European bullhead, Siberian taimen, Lissotriton vulgaris, common bent-wing bat, lesser mouse-eared bat, Pallas's fish eagle, Calosoma sycophanta, Xylocopa valga, Orussus abietinus, Pleroneura dahli, Mehely's horseshoe bat, lesser white-fronted goose, marbled polecat, Indian paradise flycatcher, Russian desman, brook lamprey, great white pelican, hazel grouse, Eurasian beaver, Alburnoides bipunctatus, peregrine falcon, reindeer, mountain weasel, great grey shrike, osprey, Saga pedo, lesser kestrel, little bustard, sterlet, pallid harrier, Greek tortoise, Bombus fragrans, white-headed duck, Geoffroy's bat, Bombus wurflenii, southern crested newt, slender-billed curlew, Cerambyx nodulosus, Ukrainian brook lamprey, Eurasian eagle-owl, black-winged stilt, black-bellied sandpiper, Pallas's gull, cinereous vulture, black stork, black stork, Aesculapian snake, grey-faced buzzard, red-crowned crane.

> 15 fungi species: Polyporus umbellatus, Gyroporus cyanescens, Grifola frondosa, hen-of-the-wood, coral tooth fungus, Mutinus ravenelii, Dog stinkhorn, Leccinum percandidum, Cortinarius violaceus, Clavariadelphus pistillaris, Phallus duplicatus, Sparassis crispa, Gyroporus cyanescens, Polyporus umbellatus, Lingzhi mushroom.

## **APPENDIX 11**

# THE LIST OF ENVIRONMENTALLY SENSITIVE AREAS WHERE PJSC FGC UES OPERATES

GRI 304-1

EMPS	Information on	Environmentally sensitive area		Location in respect to	Type of territory	Type of activity		
	Name	Location	Length, km – for OHL and ACL; occupied area, ha – for SS.	Name	Level of importance	the territory		or activity
MPS CENTRE								
Verkhne- Donskoye EMPS	220 kV dual circuit OHL: Yuzhnaya Usman-Tyagovaya, Kirovskaya POST 474	Voronezh Region, Verkhnehavsky District	12.27	Voronezh State Nature Biosphere Reserve named after V. Peskov	Federal	Within the territory	Ground	Production
Volgo-Donskoye EMPS	500 kV Balashovskaya-Lipetskaya Vostochnaya (towers No. 894–915)	Voronezh Region, Novokhopersky District	8.47	Khopyor State Nature Reserve	Federal	Within the territory	Ground	Production
	500 kV Balashovskaya-Lipetskaya Zapadnaya (with branch line to Novovoronezhskaya NPP) (towers No. 894–916)	Voronezh Region, Novokhopersky District	8.78	-			Ground	Production
Volga-Okskoye EMPS	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	Vladimir Region, Suzdalsky District	1.60	Historic and landscape complex Bogolyubov Medow — The Church of the Intercession of the Holy Virgin on the Nerl River	Regional	Within the territory	Ground	Production
	220 kV Vladimirskaya CHPP- 2 — Vladimirskaya with branch line to Rayonnaya SS and 220 kV Vladimirskaya CHPP-2 — Zarya		2.50	Davydov Nature Reserve	Regional	Within the territory	Ground	Production
	220 kV Manturovo-Semenov OHL	Kostroma Region, Manturovsky District	19.30	Kologrivsky Forest State Nature Reserve	Federal	Within the territory	Ground	Production
Moskovskoye EMPS	220 kV Kashira-Oka OHL 1, 2	Moscow Region, Serpukhovsky District	4.00	Prioksko-Terrasny State Biosphere Nature Reserve	Federal	Within the territory	Ground	Production
Priokskoe EMPS	500 kV Smolenskaya NPP – Kaluzhskaya OHL	Kaluga Region, Yukhnovsky District	8.00	Ugra National Park	Federal	Within the territory	Ground	Production
	220 kV Cherepetskaya GRES- Liteynaya OHL	Kaluga Region, Kozelsky District	18.00	-		Within the territory	Ground	Production
	220 kV Cherepetskaya GRES- Tsementnaya OHL	Kaluga Region, Kozelsky District	18.00	-			Ground	Production
	500 kV Smolenskaya NPP- Mikhaylovskaya OHL	Kaluga Region, Ulyanovsky District	15.00	Kaluzhskie Zaseki State Nature Reserve	Federal	Within the territory	Ground	Production
Chernozemnoe EMPS	330 kV Stary Oskol-OEMK 1 OHL	Belgorod Region, Starooskolsky District	1.50	Dmitrievsky State Regional Fauna (Hunting) Reserve for Preservation of Elks and Roe Deers	Regional	Within the territory	Ground	Productio
	500 kV Stary Oskol — Metallurgicheskaya OHL	Belgorod Region, Starooskolsky District	4.00		Regional	Within the territory	Ground	Production
	500 kV Novobryanskaya – Elets OHL (towers No. 212–308)	Orlov Region, Khotynetsky District	1.20	Orlovskoye Polesye National Park	Federal	Within the territory	Ground	Production

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EMPS	Information on the electric grid facility			Environmentally sensitive	e area	Location in respect to	Type of territory	Type of activity
	Name	Location	Length, km – for OHL and ACL; occupied area, ha – for SS.	Name	Level of importance	the territory	territory	or activity
MPS SIBERIA								
Kuzbasskoye EMPS	500 kV Sayano-Shushenskaya HPP-Novokuznetskaya No. 1 ACL	Kemerovo Region	78.50	Shorsky State National Park	Federal	Within the territory	Ground	Production
	500 kV Sayano-Shushenskaya HPP-Novokuznetskaya No. 2 OHL	Kemerovo Region	78.50	_		Within the territory	Ground	Production
Khakasskoe EMPS	500 kV Sayano-Shushenskaya HPP – Novokuznetskaya No. 1 ACL	Republic of Khakassia	183.23			Within the territory	Ground	Production
	500 kV Sayano-Shushenskaya HPP-Novokuznetskaya No. 2 ACL	Republic of Khakassia	182.65			Within the territory	Ground	Production
	220 kV Minusinskaya tower- Shushenskaya tower circuit 1, 2 OHL (D-37/38)	Krasnoyarsk Krai	48.70	Shushensky Bor National Park	Federal	Within the territory	Ground	Production
	220 kV Sushenskaya tower–Ergaki OHL (D46)	Krasnoyarsk Krai	125.50			Within the territory	Ground	Production
Zabaikalskoe EMPS	220 kV Mysovaya-Vydrino OHL (OHL-273)	Republic of Buryatia	3.54	Protective zone of the Baikal State Nature Biosphere Reserve	Federal	Within the territory	Ground	Production
	220 kV Mysovaya-Vydrino OHL (OHL-274)	Republic of Buryatia	3.54	•		Within the territory	Ground	Production
	500 kV Irkutsk-Gusinoozernaya GRES OHL (IG-582)	Republic of Buryatia	3.54	Baikal State Nature Biosphere Reserve		Within the territory	Ground	Production
	220 kV Goryachinskaya SS	Republic of Buryatia	5.50	Baikal State Nature Biosphere Reserve	Federal	Within the territory	Ground	Production
MPS EAST								
Khabarovskoye EMPS	220 kV Khekhtsir-Gidroliznaya/ Khekhzir-Dormidontovka/t OHL L-227/228	Khabarovsk Krai	9.78	Territory of the Bolshekhekhtsirsky State Nature Reserve	Federal	Within the territory	Ground	Production
	220 kV Khekhtsir-Gidroliznaya/ Khekhzir-Dormidontovka/t OHL L-227/228	Khabarovsk Krai	2.80	Khekhtsirsky State Nature Reserve	Federal	Within the territory	Ground	Production
	220 kV Khekhtsir CHPP-3- Khekhtsir-2 OHL L-223/224	Khabarovsk Krai	25.65	-		Within the territory	Ground	Production
	220 kV Khekhtsir CHPP-3 – Khekhtsir-2 OHL L-225/226	Khabarovsk Krai	24.00	•		Within the territory	Ground	Production
	500 kV Khabarovskaya-Khekhtsir-2 OHL L-513	Khabarovsk Krai	4.44	•		Within the territory	Ground	Production
	500 kV PrimGRES-Khekhtsir-2 OHL L-516	Khabarovsk Krai	13.13	•			Ground	Production
Amurskoye EMPS	220 kV Amurskaya- Blagoveshchenskaya No. 1 OHL	Amur Region	7.80	Blagoveshchensky State Nature Reserve	Regional	Within the territory	Ground	Production
	220 kV Amurskaya – Blagoveshchenskaya No. 2 OHL	Amur Region	7.80	•			Ground	Production

:MPS	Information on the electric grid facility			Environmentally sensitive area		Location	Type of territory	Type of activity
	Name	Location	Length, km – for OHL and ACL; occupied area, ha – for SS.	Name	Level of importance	in respect to the territory	territory	oi activity
MPS URALS								
Sverdlovskoye EMPS	500 kV BNPP-2-Yuzhnaya OHL (500 kV Yuzhnaya-Shagol OHL)	Sverdlovsk Region, Sysertsky District	17.30	Bazhovskie Mesta Nature Reserve.	Regional	Within the territory	Ground	Productio
	220 kV Beloyarskaya NPP- Mramornaya OHL	Sverdlovsk Region, Sysertsky District	39.90	Bazhovskie Mesta Nature Reserve.	Regional	Within the territory	Ground	Productio
	500 kV Kozyrevo-Reftinskaya GRES OHL	Sverdlov Region, Bogdanovichsky District	32.10	Bogdanovichsky State Fauna Hunting Nature Reserve.	Regional	Within the territory	Ground	Production
	220 kV Reftinskaya GRES- Travyanskaya circuit 2 OHL	Sverdlov Region, Bogdanovichsky District	34.90	Bogdanovichsky State Fauna Hunting Nature Reserve.	Regional	Within the territory	Ground	Production
	220 kV Reftinskaya GRES-Anna OHL (220 kV Reftinskaya GRES- Travyanskaya circuit 1 OHL)	Sverdlov Region, Bogdanovichsky District	10.10	Bogdanovichsky State Fauna Hunting Nature Reserve.	Regional	Within the territory	Ground	Production
	220 kV Anna-Travyanskaya OHL (220 kV Reftinskaya GRES- Tranyanskaya circuit 1 OHL)	Sverdlov Region, Bogdanovichsky District	24.80	Bogdanovichsky State Fauna Hunting Nature Reserve.	Regional	Within the territory	Ground	Production
	220 kV Sredneuralskaya GRES- Pervouralskaya circuit 2 OHL	Sverdlov Region, Sredneuralsky District, Verkhnepyshminsky District	1.66	Lake Iset and Surrounding Forests Landscape Nature Reserve	Regional	Within the territory	Ground	Production
	220 kV Sredneuralskaya GRES- Pervouralskaya circuit 1 OHL with a branch line to Trubnaya SS	Sverdlov Region, Sredneuralsky District, Verkhnepyshminsky District	1.66	Lake Iset and Surrounding Forests Landscape Nature Reserve	Regional	Within the territory	Ground	Production
	220 kV Emelino-Trubnaya OHL	Sverdlov Region, Pervouralsky District, Verkhneye Dubrovo District	4.33	Forests at the Geographical Border of Europe and Asia Landscape Reserve	Regional	Within the territory	Ground	Producti
	220 kV Sredneuralskaya GRES- Pervouralskaya circuit 2 OHL	Sverdlov Region, Pervouralsky District, Verkhneye Dubrovo District	10.72	Forests at the Geographical Border of Europe and Asia Landscape Reserve	Regional	Within the territory	Ground	Production
	220 kV Sredneuralskaya GRES – Pervouralskaya circuit 1 OHL with a branch line to Trubnaya SS	Sverdlov Region, Pervouralsky District, Verkhneye Dubrovo District	10.72	Forests at the Geographical Border of Europe and Asia Landscape Reserve.	Regional	Within the territory	Ground	Production
	220 kV Salda SS-Koshai SS OHL	Sverdlov Region, Verkhnetursky District, Alapaevsky District	13.70	Dobrovolsky Trakt Landscape Nature Reserve	Regional	Within the territory	Ground	Production
	220 kV Sredneuralskaya GRES- Pervouralskaya circuit 1 OHL with a branch line to Trubnaya SS (a branch line to Trubnaya SS)	Sverdlovsk Region, Pervouralsky District	4.90	Environmentally sensitive natural area of the state landscape reserve of regional importance – Forests at the Geographical Border of Europe and Asia Landscape Nature Reserve.	Regional	Within the territory	Ground	Producti
	500 kV Reftinskaya GRES-Tagil OHL	Sverdlovsk Region, Rezhevsky District	16.70	Rezhevsky Nature Mineral Reserve	Regional	Within the territory	Ground	Production
Yuzhno- Uralskoe EMPS	500 kV Zlatoust-Chelyabinskaya tower 107-128 OHL	Chelyabinsk Region, Miassky District	5.40	Ilmen State Nature Reserve	Federal	Within the territory	Ground	Production
	500 kV Zlatoust-Chelyabinskaya tower 17-45 OHL	Chelyabinsk Region, Zlatoustovsky District	7.10	Taganai National park	Federal	Within the territory	Ground	Production
	500 kV Beloyarskaya NPP-2-Shagol (500 kV Yuzhnaya-Shagol OHL) tower 440-469 OHL	Chelyabinsk Region, Kunashaksky, Kaslinsky Districts	13.00	East Ural Radiation Reserve	Federal	Within the territory	Ground	Production
	500 kV Beloyarskaya NPP-2-Shagol OHL (500 kV Yuzhnaya-Shagol OHL) towers 498-533		12.00				Ground	Production
	220 kV Shagol-Kashtak OHL, towers 33-41	Chelyabinsk Region, Chelyabinsk, Sosnovsky District	2.90	Kashtaksy Bor Botanic Natural Monument of the Regional Significance	Regional	Within the territory	Ground	Production

EMPS Information on the electric grid facility Environmentally sensitive area Location Type of Type

EMPS	Information on the electric grid facility			Environmentally sensitive	e area	Location in respect to	Type of territory	Type of activity
	Name	Location	Length, km – for OHL and ACL; occupied area, ha – for SS.	Name	Level of importance	the territory	territory	or activity
Permskoye EMPS	500 kV Vyatka–Votkinskaya HPP OHL towers 881–896	Udmurt Republic, Votkinsky District	5.80	Nechkinsky National Park	Federal	Within the territory	Ground	Producti
	220 kV VHPP-Izhevsk 1 central OHL towers 7-43	•	7.69	-		Within the territory	Ground	Producti
	220 kV VHPP-Izhevsk 2 central OHL towers 7-48		7.80	_		Within the territory	Ground	Producti
	220 kV branch line to the Siva settlement 1 central OHL towers 1–22		6.74			Within the territory	Ground	Producti
	220 kV branch line to the Siva settlement 2 central OHL towers 1–22		7.02			Within the territory	Ground	Product
	220 kV Kauchuk-Metallurg OHL towers 23-42	Udmurt Republic, Sarapulsky District	7.60	_		Within the territory	Ground	Product
	220 kV Kauchuk-Kama OHL towers 23-42		7.60	_		Within the territory	Ground	Product
	220 kV Kauchuk-Metallurg OHL towers 81-101		7.77	_		Within the territory	Ground	Product
	220 kV Kauchuk-Kama OHL towers 81-104		7.18	_		Within the territory	Ground	Product
	220 kV Kauchuk-Pozim OHL towers 69-101		10.35				Ground	Product
MPS SOUTH								
Rostovskoe EMPS	330 kV Yuzhnaya-Rostovskaya OHL	Rostov Region, Kuibyshevsky District	1.03	Lysogorka	Regional	Within the territory	Ground	Product
	220 kV R20-T10 OHL, circuit 1	Rostov Region, Myasnikovsky District	2.22	Kamennaya Balka	Regional	Within the territory	Ground	Product
	220 kV Rostovskaya-T15 OHL	Rostov Region, Myasnikovsky District	0.63	Chulekskaya Balka	Regional	Within the territory	Ground	Product
	220 kV Novocherkasskaya GRES- NZB OHL	Rostov Region, Oktyabrsky District	0.50	Persianovskaya Preserved Area	Regional	Within the territory	Ground	Product
	220 kV Pogorelovo-Donetskaya OHL	Rostov Region, Kamensky District	0.60	Glubokaya River Chalk Deposit	Regional	Within the territory	Ground	Product
	500 kV Rostovskay NPP-Shakhty OHL	Rostov Region, Tsymlyansky District	23.64	Donsky Nature Park	Regional	Within the territory	Ground	Product
	220 kV Tsymlyanskaya HPP-Shakhty OHL		12.24			Within the territory	Ground	Product
	500 kV Rostovskaya NPP-	Rostov Region, Proletarsky	20.31	Rostov Oblast Wetlands — Veselovskoe Water Reservoir	Regional	Within the territory	Ground	Product

EMPS	Information on the electric grid facility			Environmentally sensitive area		Location in respect to	Type of territory	Type of activity
	Name	Location	Length, km – for OHL and ACL; occupied area, ha – for SS.	Name	Level of importance	the territory		
Sochinskoye EMPS	110 kV Mzymta SS	Krasnodar Krai	0.45	Sochi National Park	Federal	Within the territory	Ground	Production
	110 kV Roza Khutor SS	Krasnodar Krai	0.48	-		Within the territory	Ground	Production
	110 kV Laura SS	Krasnodar Krai	0.46	_		Within the territory	Ground	Production
	110 kV Sportivnaya SS	Krasnodar Krai	0.33	_		Within the territory	Ground	Production
Kubanskoye EMPS	220 kV Shepsi SS	Krasnodar Krai	4.32	_		Within the territory	Ground	Production
	220 kV Poselkovaya SS	Krasnodar Krai	1.81	_		Within the territory	Ground	Production
	220 kV Sochi CHPP-Psou ACL	Krasnodar Krai	34.04	_		Within the territory	Ground	Production
	220 kV Sochi CHPP-Dagomys ACL	Krasnodar Krai	17.14	_		Within the territory	Ground	Production
	220 kV Psou-Poselkovaya OHL	Krasnodar Krai	51.39			Within the territory	Ground	Production
	220 kV Psou-Bzybi OHL	Krasnodar Krai	2.44	_		Within the territory	Ground	Production
	110 kV Psou-Leselidze OHL	Krasnodar Krai	0.81	_		Within the territory	Ground	Production
	220 kV Shepsi-Dagomys ACL	Krasnodar Krai	61.59	_		Within the territory	Ground	Production
	220 kV Chernomorskaya- Poselkovaya ACL	Krasnodar Krai	50.88	_		Within the territory	Ground	Production
	220 kV Adler CHPP-Psou ACL	Krasnodar Krai	9.67	_		Within the territory	Ground	Production
	220 kV Dagomys-Chernomorskaya ACL	Krasnodar Krai	75.52	_		Within the territory	Ground	Production
	220 kV Centralnaya-Dagomys ACL	Krasnodar Krai	61.99	-		Within the territory	Ground	Production
	220 kV Adler HPP-Chernomorskaya ACL	Krasnodar Krai	7.52				Ground	Production
Stavropolskoe EMPS	330 kV Mashuk SS	Stavropol Krai, Pyatigorsk	5.51	Caucasian Mineral Water Spas (territories of health recreation areas and resorts)	Federal	Within the territory	Ground	Production
	330 kV 03 HPP-2-Mashuk OHL	Stavropol Krai, Zheleznovodsk	0.07	-		Within the territory	Ground	Production
	330 kV 04 Mashuk-Prokhladnaya OHL	Stavropol Krai, Zheleznovodsk	0.07			Within the territory	Ground	Production
MPS VOLGA  Nizhne- Volzhskoye EMPS	220 kV Saratov HPP-Kubra OHL with branch line to Vozrozhdenie SS	Saratov Region	11.85	Khvalynsky National Park	Federal	Within the territory	Ground	Production
Nizhegorodskoe EMPS	500 kV Ulyanovskaya-Severnaya OHL (newly named Veshkaima- Osinovka)	Republic of Mordovia, Ichalkovsky District	24.47	Smolny National Park	Federal	Within the territory	Ground	Production
	500 kV Ulyanovskaya-Yuzhnaya OHL (newly named Veshkaima- Arzamasskaya)	Republic of Mordovia, Ichalkovsky District	24.40	•		Within the territory	Ground	Production
Samarskoye EMPS	220 kV Syzran-1-2 OHL	Samara Region	25.00	Samarskaya Luka National Park	Federal	Within the territory	Ground	Production
Sredne- Volzhskoye	500 kV HPP Veshkaima-Severnaya OHL	Ulyanovsk Region	17.00	Samarskaya Luka National Park	Federal	Within the territory	Ground	Production
EMPS	500 kV HPP Veshkaima-Yuzhnaya OHL	Ulyanovsk Region	17.00			Within the territory	Ground	Production

EMPS	Information on	the electric grid facility		Environmentally sens	itive area	Location in respect to	Type of territory	Type of activity
	Name	Location	Length, km – for OHL and ACL; occupied area, ha – for SS.	Name	Level of importance	the territory		or activity
MPS NORTH-WI	EST			,				
Karelskoe EMPS	Valaam DPP	located in Sortavalsky District of Republic of Karelia, in the northern part of Ladoga Lake, 22 km away from the coastline	1.33	Valaam Archipelago Natural Park	Regional	Within the territory	Ground	Production
	35 kV Valaam SS	located in Sortavalsky District of Republic of Karelia, in the northern part of Ladoga Lake, 22 km away from the coastline	0.19	-		Within the territory	Ground	Production
	PTL-397 330 kV Kolskaya NPP-Monchegorsk OHL, towers No. 91–105 (10 suspension towers and 4 anchor towers) on the territory of the reserve	Murmansk Region, Monchegorsky District (western part of Kola peninsula)	2.17	Lapland State Biosphere Nature Reserve	Federal	Within the territory	Ground	Production
	PTL-398 330 kV Kolskaya NPP-Monchegorsk OHL, towers No. 88-102 (10 suspension towers and 4 anchor towers)	Murmansk Region, Monchegorsky District (western part of Kola peninsula)	2.17	-		Within the territory	Ground	Production
	35 kV Läskäla-Valaam No. 1, 35 kV Läskäla-Valaam No. 2	Sortavalsky District of the Republic of Karelia, in the northern part of Ladoga Lake, 22 km away from the coastline	27.25 km — underwater part along the bottom of Ladoga Lake 3.89 km — on Valaam Islands	Valaam Archipelago Natural Park	Regional	Within the territory	Ground	Production
Novgorodskoe EMPS	330 kV Luzhskaya SS	Leningrad Region, Luzhsky District	5.20	Shalov-Perechitsky State Integral Nature Reserve	Regional	Within the territory	Ground	Production
	330 kV Gatchinskaya-Luzhskaya OHL	•	4.83	•		Within the territory	Ground	Production
	110 kV Nizovaya-1 OHL	•	0.20	•		Within the territory	Ground	Production
	110 kV Severnaya-1 OHL	-	0.20	•		Within the territory	Ground	Production
	110 kV 531 Tarkovichi SS-305 Severnaya SS	-	1.04	-		Within the territory	Ground	Production
	110 kV OHL to Luga SS	-	0.20	-		Within the territory	Ground	Production
	110 kV Syrets-1 OHL		1.51			Within the territory	Ground	Production

There are no subsurface and underground plots owned, leased or controlled by the Company.

# **APPENDIX 12**

# OPINION OF THE AUDIT COMMISSION OF PUBLIC JOINT-STOCK COMPANY FEDERAL GRID COMPANY OF THE UNIFIED ENERGY SYSTEM

Approved by the Audit Commission of PJSC FGC UES Report No. 5/2018 dated 30 April 2019

30 April 2019 Moscow

## I. INTRODUCTION

## 1. INFORMATION ON MEMBERS OF THE AUDIT COMMISSION

Members of the Audit Commission were elected by the resolution of the General Meeting of Shareholders	Resolution of the regular General Meeting of Shareholders of PJSC FGC UES of 25 June 2018 (Minutes No. 20 of 2 July 2018)
Chairman and Secretary of the Audit Commission were elected by the resolution of the Audit Commission	Meeting Minutes No. 1/2018 of the Audit Commission of PJSC FGC UES of 31 July 2018
Chairman of the Audit Commission	Marina Lelekova
Deputy Chairman of the Audit Commission	Ekaterina Snigiryova
Secretary of the Audit Commission	Aleksander Batalov
Manchara of the Audit Commission	Tatyana Zobkova
Members of the Audit Commission	Vladimir Khvorov

Audit period: Pursuant to the resolution of the Audit Commission of PJSC FGC UES of 28 March 2019 (Minutes No. 4/2018 of 28 March 2019), financial and economic activities of PJSC FGC UES for 2018 shall be audited from 1 April 2019 to 20 June 2019. The data reliability in the 2018 Annual Report, the Accounting (Financial) Statements for 2018 and the 2018 Related Party Transactions Report shall be assessed from 1 April 2019 to 29 April 2019.

**Basis for the audit:** Federal Law No. 208-FZ on Joint Stock Companies of 26 December 1995, PJSC FGC UES' Articles of Association, Regulations on the Audit Commission, and Resolution of the Audit Commission of PJSC FGC UES of 28 March 2019 (Minutes No. 4/2018 of 28 March 2019).

**Purpose of assessment:** To express an independent opinion on the data reliability in the 2018 Annual Report, the Accounting (Financial) Statements of PJSC FGC UES for 2018, and the Related Party Transactions Report

for 2018 (hereinafter, the Reporting). In all material respects, reliability is understood as the degree of the Reporting accuracy, which allows shareholders to make correct conclusions about the operation results, financial and property status of the Company and make informed decisions based on these conclusions. In accordance with the Civil Code of the Russian Federation, Federal Law No. 208-FZ on Joint Stock Companies of 26 December 1995 and PJSC FGC UES Articles of Associations, the Company's sole executive body shall be responsible for the preparation and reliability of the Reporting.

Audited period: 1 January 2018 through 31 December 2018.

**Audited items:** PJSC FGC UES' 2018 Annual Report, Accounting (Financial) Statements for 2018, Related Party Transactions Report for 2018, management decisions, management reports, accounting ledgers, primary accounting documents and other documents of its financial and economic activities.

### The audit inspection was governed by the following regulations:

- Federal Law No. 402-FZ on Accounting of 6 December 2011;
- Federal Law No. 208-FZ on Joint Stock Companies of 26 December 1995;
- the Civil Code of the Russian Federation;
- Order of the Ministry of Finance of Russia No. 34n on Approval of the Regulations for Accounting and Reporting in the Russian Federation of 29 July 1998;
- Accounting Regulations (standards);
- Order of the Ministry of Finance of Russia No. 66n on Accounting Forms of 2 July 2010;
- Regulations No. 454-P on Information Disclosure by Equity Securities Issuers, approved by the Bank of Russia on 30 December 2014;
- Order No. 4335-U of the Bank of Russia on Setting Maximum Amounts on Transactions of Joint Stock Companies and Limited Liability Companies upon Exceeding of Which Such Transactions May Be Recognised as Related Party Transactions of 31 March 2017;
- Accounting Policy of PJSC FGC UES for 2018 approved by Order No. 535 of PJSC FGC UES of 30 December 2015 (as amended by orders of PJSC FGC UES No. 128 of 14 April 2016, No. 506 of 29 December 2016, No. 554 of 29 December 2017; No. 387 of 12 October 2018);
- other laws and internal organisational and administrative documents of PJSC FGC UES.

### 2. INFORMATION ON THE COMPANY

Public Joint Stock Company Federal Grid Company of the Unified Energy System (hereinafter, the Company)
PJSC FGC UES (hereinafter, the Company)
Moscow, Russian Federation
5 A Academic Chelomey St., Moscow, 117630
1024701893336 dated 20 August 2002
4716016979
MPS Volga; Sredne-Volzhskoye EMPS; Nizhne-Volzhskoye EMPS; Samara EMPS; Nizhny Novgorod EMPS;
<ul> <li>MPS East; Khabarovsk EMPS; Primorsky EMPS; Amur EMPS;</li> <li>MPS North-West; Bryansk EMPS; Karelian EMPS; Novgorod EMPS;</li> <li>Vyborg EMPS; Leningrad EMPS; Northern EMPS;</li> </ul>
MPS Siberia; West-Siberian EMPS; Krasnoyarsk EMPS; Omsk EMPS; Khakassky EMPS; Kuzbass EMPS; Transbaikal EMPS; Tomsk EMPS;
MPS Ural; Sverdlovsk EMPS; South Ural EMPS; Orenburg EMPS; Perm EMPS;
MPS Centre; Volga-Don EMPS; Chernozemnoye EMPS; Priokskoye EMPS; Vologda EMPS; Volga-Okskoye EMPS; Verkhne-Donskoye EMPS; Valday EMPS; Moscow EMPS; Bely Rast (St. Petersburg);
MPS South; Stavropol EMPS; Rostov EMPS; Kuban EMPS; Caspian EMPS; Sochi EMPS;
MPS West Siberia; Central EMPS; Southern EMPS; Yamalo-Nenets EMPS; Eastern EMPS.
A. Murov, elected as Chairman of the Management Board pursuant to the resolution of the Extraordinary General Meetings of Shareholders of 11 November 2013 (Minutes No. 14 of 11 November 2013), and of 19 November 2018 (Minutes No. 21 of 21 November 2018)
Andrey Noskov, elected as Director of Accounting and Reporting, Head of the Accounting and Reporting Department (Chief Accountant) under Order No. 690/1R of 18 August 2011

### 3. INFORMATION ON THE COMPANY'S AUDITOR

Full corporate name	Ernst & Young Limited Liability Company
Short corporate name	Ernst & Young LLC
Registered Address:	77 Sadovnicheskaya Emb., Build. 1, Moscow, Russia, 115035
INN/KPP	7709383523/770501001
OKPO (Russian National Classifier of Businesses and Organisations)	59002827
OGRN	An entry was made in the Unified State Register of Legal Entities on 5 December 2002, state registration number 1027739707203 was assigned
Contact information	Telephone: + 7 (495) 755-97-00 Fax: + 7 (495) 755-97-01 www.ey.com
Additional Information	The Company is a member of the Self-Regulatory Organisation of Auditors "Russian Union of Auditors" (Association), abbreviated name: SRO RUA (GRN 2137799142314, entry made in EGRUL on 3 August 2016) Ernst & Young LLC is included in the control copy of the register of auditors and audit organisations with the main registration number 11603050648
Resolution of the Annual General Meeting of Shareholders on approval of the auditor	Resolution of the Annual General Meeting of Shareholders of PJSC FGC UES (Minutes No. 20 of 2 July 2018)
Basis for entering into the audit contract	An open single-stage tender without pre-qualification announced following Order No. 595p of PJSC Rosseti dated 30 October 2017 for the right to enter into a mandatory contract on audit of PJSC Rosseti subsidiaries' and affiliates' reports for 2018—2020 conducted by Rosseti PJSC in accordance with the Regulations on Procurement of Goods, Works and Services for Subsidiaries and Affiliates of PJSC Rosseti acting as customers. Ernst & Young LLC won the contract (Meeting Minutes No. 13/595p of the Rosseti Tender Commission of 16 March 2018 and Minutes No. 14/595p of pre-contract negotiations of 16 April 2018)
Audit Contract	Audit Contract No. ECU-2018-00126 (2018) of PJSC FGC UES dated 23 July 2018
Auditor's opinion	Independent auditor's opinion on the accounting (financial) statements of PJSC FGC UES for 2018 of 20 February 2019

We planned and conducted the audit to obtain reasonable assurance that the Company's 2018 Reporting is free of material misstatement.

The audit inspection was planned and carried out on a random basis and included the study of evidence supporting the importance and disclosure in the Reporting of information on related-party transactions concluded in the reporting year, on the Company's financial and economic activities, assessment of accounting principles and methods preparation of accounting (financial) statements, determination of material estimated values. During the audit inspection we determined the level of materiality (the level of the aggregate permissible error of the distortion of the reporting indicators). By materiality, we mean the property of information disclosed in the statements to influence the decisions made by users of these statements. The level of admissible error shall be a criterion to confirm the reliability of the Company's Reporting.

In the course of the audit, we selectively reconciled data from accounting ledgers, primary accounting documents, accounting (financial) statements, the Annual Report and the Related Party Transactions Report for the reporting year. We examined the results of the Company's asset and liability recognition. Based on the Company's accounting (financial) statements, we analysed the financial position and financial status of the Company.

During the audit, we reviewed the Company's compliance with the legislation of the Russian Federation and the Company's internal regulations, compliance of the Reporting with the content of operations and events so that their reliable presentation was ensured. We examined the compliance of the Company's financial and economic transactions with the legislation in order to obtain reasonable and sufficient assurance that the Reporting does not contain material misstatements.

We also examined the completeness of random disclosures:

- compliance of the Company's Annual Report with the requirements of the Regulations No. 454-P on Information Disclosure by Equity Securities Issuers, approved by the Bank of Russia on 30 December 2014;
- compliance of the Company's accounting (financial) statements with Federal Law No. 402-FZ on Accounting of 6 December 2011 and with the Russian Accounting Standards;
- compliance of the Related Party Transactions Report for the reporting year with the requirements of Federal Law No. 208-FZ on Joint Stock Companies of 26 December 1995, and Order No. 4335-Uon Setting Maximum Amounts on Transactions of Joint Stock Companies and Limited Liability Companies upon Exceeding of Which Such Transactions May Be Recognised as Related Party Transactions of the Bank of Russia of 31 March 2017.

As of the date of this opinion, the Company's 2018 Annual Report, submitted for approval by the Annual General Meeting of Shareholders, and Related Party Transactions Report for 2018, have not yet been approved by the Company's Board of Directors.

In the course of assessing the accuracy of the Reporting, the Audit Commission relied, inter alia, on the first stage results of the audit of the Company's financial and economic activities for 2018, the opinion of the Company's auditor Ernst & Young LLC dated 2 February 2019, the opinion of JSC BDO Unicon based on the results of the technological and price audit of the Reports on the Company's investment programme implementation performed under Contract No. 497735 dated 29 December 2017.

## II. ANALYSIS

In the reporting year, the Company's accounting methods constituting the Accounting Policy 2018 complied with the accounting legislation of the Russian Federation and with federal standards.

The Company's asset and liability recognition was performed in accordance with the requirements of the legislation. The results of the inventory were included in the accounting (financial) statements of the Company.

The Company's accounting (financial) statements for 2018 were prepared in accordance with the accounting reporting procedure established in the Russian Federation, in all material respects.

As of 31 December 2018, the book value of the Company's assets amounted to RUB 1,487,063 million. The Company's assets increased by RUB 62,023 million (4.4 %) in 2018.

As of 31 December 2018, the value of non-current assets amounted to RUB 1,266,954 million, which is RUB 16,180 million (1.3 %) more than the value of the Company's non-current assets as of 31 December 2017. The increase in the value of the Company's non-current assets was caused by the increase in the value of fixed assets as a result of commissioning of completely constructed facilities. Concurrently, the cost of long-term financial investments significantly decreased, mainly due to the sale of shares of PJSC Inter RAO and PJSC Rosseti.

As of 31 December 2018, the share of current assets accounted for 15 % of all assets, which is RUB 220,108 million. Receivables constitute the largest part (77 %) of current assets, which is RUB 169,856 million, including long-term receivables (42 % of the current asset value) and short-term receivables (35 % of the current asset value). The value of current assets, in comparison with their value as of 31 December 2017, increased by 26.3 % mainly due to the increase in receivables.

As of 31 December 2018, the Company's equity is 73 % and amounts to RUB 1,090,394 million. The Company's equity

increased by 5.1 % in the reporting year due to the net profit of the reporting year, increase in the reserve capital and bringing it up to 3.4 % of the authorised capital, and due to the results of revaluation of non-current assets.

Outside liabilities account for 27 % of the equity and liabilities. Outside liabilities increased by RUB 9,201 million (14.1 %) in the reporting year. As of 31 December 2018, they amounted to RUB 396,669 million. The largest part of the outside liabilities was constituted by borrowed funds (62 % or RUB 246,709 million) and payables (18 % or RUB 68,223 million) as of 31 December 2018. Borrowed funds decreased by 10.1 % in the reporting year, while payables increased by 25.2 %.

In 2018, the Company's activities resulted in the net profit amounting to RUB 56,187 million, which is 32.6 % higher than the net profit in the previous reporting period.

As of 31 December 2018, the net asset value was RUB 1,091,037 million and exceeded the Company's authorised capital. The net asset value increased by 5.1 % in the reporting year.

The Company's financial stability indicators are within the recommended values, which indicates stable financial status.

The Audit Commission revealed no facts of violation of the Russian legislation by the Company's financial and economic activities which could significantly affect the contents of the Company's financial statements.

The Audit Commission found no evidence of misinterpretation of the information contained in the Related Party Transactions Report for 2018.

The Company's Annual Report submitted for approval by the Annual General Meeting of Shareholders contains information provided for by Regulations No. 454-P on Information Disclosure by Equity Securities Issuers, approved by the Bank of Russia on 30 December 2014.

## III. SUMMARY

**APPENDIX 12** 

In the opinion of the Audit Commission, as of 31 December 2018 the Company's accounting (financial) statements, in all material respects, reliably reflect the Company's financial position, results of its financial and business activities for 2018 and conform with the Russian accounting laws.

Besides, the Audit Commission also found no material misstatement in the financial information contained in

the Company's 2018 Annual Report and in Related Party Transactions Report for 2018.

The Company's Reporting includes the following documents confirmed by the Audit Commission:

Reporting form	Signing date/Board review date	Number of sheets per document
Balance Sheet as of 31 December 2018	20 February 2019	2
Profit and Loss Statement for 2018	20 February 2019	2
Statement of Changes in Equity for 2018	20 February 2019	2
Cash Flow Statement for 2018	20 February 2019	2
Explanatory Notes to the Balance Sheet and the Profit and Loss Statement for 2018 with appendices	20 February 2019	62
Integrated Annual Report of PJSC FGC UES excluding appendices	undated	259
Related Party Transactions Report of PJSC FGC UES for 2018	9 April 2019	54
	Balance Sheet as of 31 December 2018  Profit and Loss Statement for 2018  Statement of Changes in Equity for 2018  Cash Flow Statement for 2018  Explanatory Notes to the Balance Sheet and the Profit and Loss Statement for 2018 with appendices  Integrated Annual Report of PJSC FGC UES excluding appendices	Reporting form  Reporting form  Reporting form  Review date  Balance Sheet as of 31 December 2018  20 February 2019  Profit and Loss Statement for 2018  20 February 2019  Statement of Changes in Equity for 2018  20 February 2019  Cash Flow Statement for 2018  20 February 2019  Explanatory Notes to the Balance Sheet and the Profit and Loss Statement for 2018 with appendices  Integrated Annual Report of PJSC FGC UES excluding appendices  undated

This Auditor's opinion shall be considered together with all supported forms of the Accounting (Financial) Statements and Explanatory Notes to the Balance Sheet and the Profit and Loss Statement for 2018 in text and tabular form, which are integral parts of the Company's 2018 Annual Report 2018, as well as the Related Party Transactions Report for 2018.

Chairman of the Audit Commission

Members of the Audit Commission

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A. Batalov

T. Zobkova

V. Khvorov