

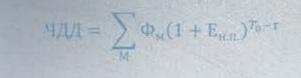
$$Q = \sqrt{3} UI \sin \varphi$$

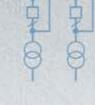
$$I_H = I'_H + II''_H = \cos(8)$$

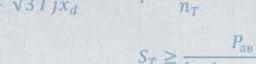
$$\sum_{i=m}^{n-m} T_{ni}(\omega_{ni} - \omega_{ni-1})$$

$$I_H = I'_H + II''_H = \cos(8)$$

$$I_H = I'_H + II''_H = \cos(8)$$





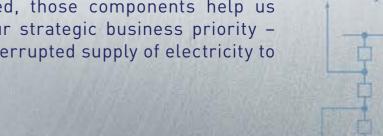


Federal Grid of Unified Energy System Company \*

$$r_{\rm av} = \frac{n_{\phi}}{(r_{\rm fin}a)}$$



Federal Grid Company's formula for reliability is based on four key components: infrastructure, technology, governance, and cooperation. Once effectively applied and continuously developed, those components help us successfully implement our strategic business priority ensuring reliable and uninterrupted supply of electricity to customers across Russia.



The Annual Report was preliminary approved by the Board of Directors of Federal Grid Company, Minutes No. 267 dated 25.05.2015.

$$S_{\text{min}} = \sqrt{3} \, U_{\text{min}} I_{\text{min}} I_{\text{min}} (1 - \frac{U_{\text{min}}}{U_{\text{min}}}) \qquad S_T \ge \frac{P_{\text{dis}}}{k_{\text{min}} (n_T - n_{\text{min}})}$$

$$S = P + jQ = j\frac{U_c^2 - U_c E_q(\cos \delta - j\sin \delta)}{x_d}$$

 $P = \sqrt{3} U$ 

# Federal Grid **Company today**

- Federal Grid Company is a unique infrastructure company that provides reliable and uninterrupted electricity transmission through backbone electric grids in the Russian Federation
- The Federal Grid Company's key activity is managing the **Unified National Electric** Grid (UNEG) that includes a network of transmission lines covering most of Russia<sup>1</sup>
- Federal Grid Company is a world leader among public electric grid companies in terms of the length of electricity transmission lines and transformer capacity
- Federal Grid Company is a customer-oriented company that ensures high standards of customer services and stakeholder engagement in order to maintain sustainability of the long-term development
- The Company ensures reliable, uninterrupted and safe supply of electricity to customers through continuous investments in modernising and expanding the electric

- power infrastructure using advanced innovative technologies, and by improving anti-terrorism and anti-crime measures, as well as enhancing economic and information security of the Company
- Federal Grid Company is a natural monopoly in the area of electricity transmission and is included in a list of systemically important organisations of strategic importance to
- Federal Grid is a public company; its securities are traded on Russian and foreign stock markets, including the Moscow Stock Exchange and the London Stock Exchange
- The Company's major shareholder that owns 80.13% of its common stock is the state-owned company Russian Grids (Rosseti)
- Federal Grid Company was established in 2002, in accordance with the Russia's electric energy industry reform, as the organisation that manages UNEG for the purpose of its maintenance and development

#### **KEY ACTIVITIES** Providing the electricity Managing the Unified National transmission and technological connection Electric Grid (UNEG) services to WECM participants Investing activities Maintaining the UNEG facilities and providing in the area of UNEG development technical supervision

# of total length of electricity transmission lines thousand MVA of transformer capacity ╢┼ **Russian regions** with a total area of more than covered by the Federal Grid's transmission lines and substations of all energy consumption in Russia is of electricity transmitted via the Company's branches ╢ employees amount of capital investments deployed in 2014 169 revenue at year end 2014

market capitalisation as of

the end of 2014

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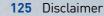
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<sup>1</sup> Certain UNEG areas are managed by other operators: JSC Grid Company of the Republic of Tatarstan, JSC Bashkir Grid Company, JSC Irkutsk Electric Grid Company and JSC Regional Electric Grids (REG).

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

Efficient work for the benefit of the country and shareholders



the entire Ural region. We completed construction of power distribution scheme from power unit No. 3 with a capacity of 1,000 MW of the Rostovskaya NPP. Its commissioning will make it possible to cover future demand for electricity and capacity in the integrated power system of South and improve the reliability of power supply to customers. We provided for the development of the oil and gas complex in the Far North by commissioning two 220 kV substations of new generation in Yamal-Nenets Autonomous Okrug ("Arsenal" and "Mangazeya"). Two new electricity transmission lines from 500 kV Tarko-Sale substations and Urengoi HPP will be instrumental for implementation of important infrastructure projects in the region.

I should particularly emphasise the commissioning of an ultra-high voltage 500 kV Yenisei substation for the supply of electricity to Krasnoyarsk. The new facility will be the second largest source of energy supply in the capital city of Siberia. It will eliminate the energy shortage in the central power district of Krasnoyarsk Krai.

The launching of external power supply to Vostochny Spaceport was a milestone. We currently can deliver capacity up to 121 MW to the power receivers of the complex. We intend to connect the spaceport facilities to the Company's second substation, 500 kV Amurskaya.

Federal Grid Company's achievements in 2014 were largely merited to the con-

"The Company's main goal in 2015 will be to identify and use the capacity for saving and import substitution, while the unconditional priority will be to ensure the reliability of UNEG and reduce the accident rate."

In 2014, the Government of the Russian Federation approved the Long-Term Development Programme of Federal Grid Company until 2019 and Prospects through 2030 that had been adopted by the Company's Board of Directors. The Programme does not envision any increase of electricity demand in the coming five years, while operational costs should be reduced by 25% by 2017.

Much attention is being paid to import substitution. Federal Grid Company intends to reduce import of equipment to a minimal level by 2030. We expect that equipment will be manufactured domestically but also supplied by member states of the Customs Union. The aim of import substitution is to maintain the energy sector's sustainability to external and internal economic, human-induced and natural hazards, and minimise damages caused by destabilising factors including geopolitical ones.

Thus, the Company's main goal in 2015 will be to identify and use the capacity for saving and import substitution, while the unconditional priority will be to ensure

the reliability of UNEG and reduce the accident rate. The implementation of social projects that focus on the retention and development of the Company's professional team remains our priority.

As for corporate governance, Federal Grid Company employs the best practices and implements a package of measures outlined in the new Corporate Governance Code. These include, but are not limited to, provisions that are aimed at making the Company highly attractive for investors and, consequently, at improving its competitiveness in the capital markets. Furthermore, the Company's corporate governance practices are being changed in order to make them consistent with the requirements of MICEX Listing Rules to the issuers,

whose shares are traded on the Level 1 quotation list.

In 2015, the Company will continue work on making its internal documents, rules and procedures consistent with the new requirements of the Russian legislation and recommendations of regulators. This will help to improve the efficiency and competitiveness and strengthen the confidence of customers and investors.

A detailed overview of Federal Grid Company's achievements in sustainable development is available in the Social Responsibility and Corporate Sustainability Report, which is published annually.

Federal Grid Company faces all important tasks in 2015. We will have to commission new and reconstructed grid facilities in accordance with agreed-upon schedules and improve the efficiency of our core business processes, including those that are part of our operations as a member of Russian Grids Group of companies.

I am confident that Federal Grid Company will complete these tasks successfully and continue its efficient work for the benefit of the country and shareholders.

"As for corporate governance, Federal Grid Company employs the best practices and implements a package of measures outlined in the new Corporate Governance Code."

#### Dear shareholders!

In 2014, the Board of Directors focused on the establishment of necessary conditions for meeting the Company's strategic goals, i.e. to ensure reliable and high-quality energy supply to the customers in the Russian Federation and lay the groundwork for the further strengthening of the electric power grid infrastructure.

Federal Grid Company improved the reliability of the Unified National Electric Grid's operations in 2014. We managed to reduce the accident rate by 14.5%, and our actual electricity losses were below the targets that had been approved by the Russian Ministry of Energy.

Federal Grid Company delivered power that was essential for the implementation of major industrial and infrastructure projects in Russia. By commissioning of 330 kV Vasileostrovskaya substation we "Federal Grid Company's achievements in 2014 were largely merited to the concerted and fruitful joint efforts of the Board of Directors and the Company's management team."

completed the construction of the energy ring in St Petersburg that substantially improved the reliability of electricity supply and made it possible to connect the city's new facilities, including those that are being built for the 2018 FIFA World Cup, to the energy system. We have built infrastructure for power delivery at the new power unit of Beloyarskaya NPP. Additional capacity of 800 MW will make it possible to mitigate power shortage in Sverdlovsk and Chelyabinsk oblasts and improve the reliability of power supply in

certed and fruitful joint efforts of the Board of Directors and the management team aimed at overcoming the impact of uncertainty in the capital market and economic slowdown on the Company's operations and the sector in general.

It is important to note prompt cooperation between the Board of Directors and the executive team on the key issues of operating and investing activities.

Oleg Budargin

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

# Reliability and Financial Sustainability

#### Dear shareholders!

For the first time over the past years Federal Grid Company posted profit in 2014 despite freezes on tariff growth and the rising inflation. This result was made possible only due to strenuous cost-cutting efforts. We will follow our course toward internal optimisation and positive financial results in 2015, too. In my view. the priority objective for 2015 is to maintain high reliability of energy supply and improve accessibility of our infrastructure and the customer focus. The only way for the Company to develop in the current macroeconomic realities is the utmost internal efficiency and higher quality of services that we provide.

# Operational and Financial Results

In our operations, we have achieved the most important objective, i.e. reliable electricity supply to our customers. The Company met all its targets. There were no major accidents. The volume of process disruptions at the facilities of the Unified National Electric Grid went down in the reporting period by 14.5% year-on-year. By 2015, Federal Grid Company achieved the highest indicators of UNEG reliability over the last five years: the accident rate declined by 40% since 2010.

The repair work in physical terms that had been planned for 2014 is fully completed. The total investments in repairs amounted to RUB11.7 billion. At the same time we optimised procurement, thus ensuring cost cutting.

In terms of the grid development, in 2014 we ensured power delivery at 10 generation facilities with the total capacity of 4,700 MV, including 880 MV at the fourth power unit of Beloyarskaya NPP and 1,100 MV at the new third plant of Rostovskaya NPP. The Company built an electrical grid infrastructure for 8 thermal heat generation facilities across Russia.

The Company completed the construction of an energy ring around St. Petersburg, ensured external energy supply to Vostochny Spaceport, built a large feeding centre in Krasnoyarsk krai (500 kV "Yenisei" substation) and implemented several projects for oil companies (e.g., the development of Vankor group of fields; electric power supply to the second phase of the East Siberia–Pacific Ocean oil pipeline).

In 2014, Federal Grid Company reported revenue growth to RUB168.9 billion, or by



"By 2015, Federal Grid Company achieved the highest indicators of UNEG reliability over the last five years: the accident rate declined by 40% since 2010."

8.7% as compared with 2013. It is important to note that we managed to increase revenues from technological connection by sixfold (by more than RUB6 billion).

In 2014, we set on major cost optimisation events. The result of these efforts was a reduction of operating costs (unit cost and administrative costs, excluding depreciation and property tax payments) relative to the 2013 level although the number of

equipment items serviced by the Company has increased.

Federal Grid Company received net profit of more than RUB5.1 billion for 2014 – for the first time over the past years. The adjusted earnings before interest, profit tax, depreciation and amortisation (adjusted EBITDA) amounted to RUB99.6 billion in the reporting year, up by 3% as compared with 2013

# Priorities in the Period of Increasing Uncertainty

The approval of a Long-Term Development Programme of Federal Grid Company for 2015-2019 by the Government of the Russian Federation was one of the most important outcomes in 2014. The programme is based on a strictly pragmatic approach. The Company cannot afford, and does not see the need, to continue expansive accelerated development of its backbone electric grid complex. In the coming five years our paradigm will be to increase internal efficiency of operations and investments.

This implies our continued efforts to meet the objectives related to providing reliable and accident-free work and address new issues, such as maintenance of the revenue base, increase of the capacity load rate, introduction of new schemes for the financing of technological connection, and support of economic growth areas. The continued optimisation of operating costs and construction costs by end-2017 by 25% and 30%, respectively, becomes a more important task for maintaining the Company's sustainable financial health.

As for implementation of the technological connection projects, we focus on providing the connection within the deadlines required by the customer. Given financial constraints, we design various options for obtaining project financing (via government support and contributions from customers).

The Company will continue to formulate its key investment priorities in line with the government objectives. Federal Grid Company will continue work on such projects as strengthening of electricity connections between integrated power systems of Centre and North-West, the construction of an electricity grid infrastructure for the extension of BAM and Transsib, and energy supply to ESPO-2.

Federal Grid Company is focused on the most open and transparent planning of its investments, including flexible adapta-

# In 2014, The Company received net profit of more than RUB 5 billion for the first time over the past years."

tion of its investment programme to the changing actual demand for electricity on the part of our large customers.

In terms of geography, Eastern Siberia and the Russian Far East as regions of accelerated development and economic growth remain particularly important for the Company.

Import substitution is still our key priority. We look at the Programme of Import Substitution until 2019 (adopted in 2014) from the perspective of cost cutting and mitigation of foreign exchange risks.

Federal Grid Company has a technical policy, adopted a Regulation on the energy management system. In 2014 we received a certificate of compliance with the international standard ISO 50001:2011.

In our view, it is important to emphasise that by improving energy efficiency of Federal Grid Company we help to reduce energy intensity of the national GDP. Energy efficiency and import substitution, as well as our efforts to ensure reliable energy supply, are described in further detail in our 2014 Social Responsibility and Corporate Sustainability Report.

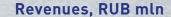
# "By improving energy efficiency of Federal Grid Company, we help to reduce energy intensity of the national GDP"

In the social policy the Company retains its focus on support and development of human capital, collaboration with the relevant institutions of higher education, creating opportunities for young specialists, support of veterans, and on ensuring generational continuity for the transfer of valuable professional experience.

In 2014, we completed the first fiveyear targeted Energy Saving and Energy Efficiency Programme. The programme targets for technological and economic effect are met by 105% and 108%, respectively. A similar programme for the next five years has been drawn up and approved by the Management Board. I would like to emphasise that the key to reliable and sustainable work of Federal Grid Company is improvement of our own efficiency. We should continuously refine business processes related to the ensuring of reliability, cut construction costs and build only those facilities that are in demand, cut maintenance expenditure, provide efficient technological connection services, and be transparent for customers, shareholders and regulators. We have set goals and drew up detailed action plans for their implementation. I firmly believe that the consistent work of our team will help us to meet all our targets and make Federal Grid Company even stronger, more reliable and more successful

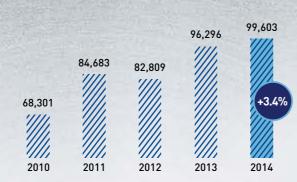
> Andrey Murov

#### **KEY PERFORMANCE INDICATORS**



# 155,352 138,137 138,837 1111,085 12010 2011 2012 2013 2014

#### Adjusted EBITDA, RUB mln

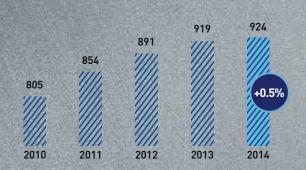


# Length of electricity transmission lines\*, thousand km



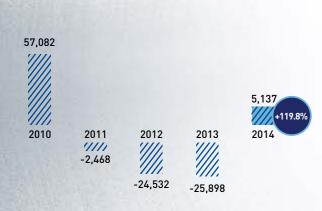
\* PTLs the ownership rights to which have been duly registered for Federal Grid Company and other owners, excluding leased PTLs and SSs with 10 kW voltage and lower operating on the territory of Krasnodar Krai and the Far East Federal University on Russky Island owners

#### Number of substations\*, units

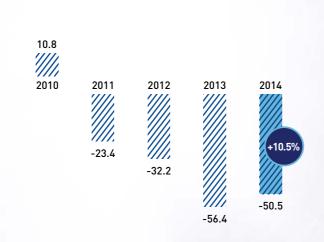


\* SSs the ownership rights to which have been duly registered for Federal Grid Company and other owners, excluding leased PTLs and SSs with 10 kW voltage and lower operating on the territory of Krasnodar Krai and the Far East Federal University on Russky Island owners

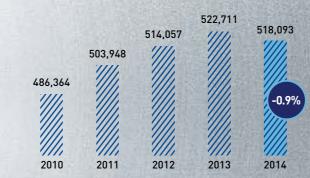
#### Net profit (loss), RUB mln



#### Total Shareholder Return (TSR), %

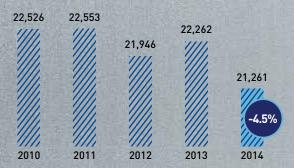


#### Electricity supply\*, mln



\* electricity supply to distribution grid companies, direct customers and independent energy joint stock companies, overseas power systems, net

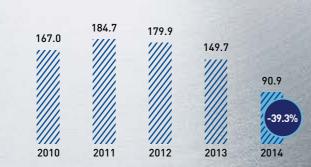
# Electricity losses within UNEG, mln kWh



Financial leverage



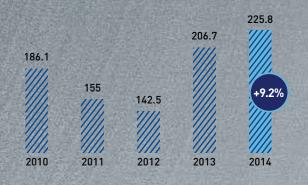
Actual implementation of the investment programme, RUB bn



Workplace accident frequency rate per 1,000 persons



### Environmental costs, RUB mln



#### **KEY EVENTS IN THE** REPORTING YEAR

2014





The National Corporate Governance Rating of Federal Grid Company was confirmed at 7+ level Well-Developed Corporate Governance

International rating agency Fitch Ratings affirmed the Company's credit rating at BBB level

ings Services lowered the long-term foreign currency credit Federal Grid Company from BBB/ Negative to BBB-/ Negative following the downgrade of the Russian



The Company completed the construc-500 kV Boguchanskaya HPP – Ozernaya HVL 330 km in length between Krasnoyarsk Krai and Irkutsk Oblast



and scientific organisations, small and medium businesses. power supply companies and our major consum-



Shares of Federal Grid Company were transferred to Level 1 quotation list of Moscow Exchange



The Annual General Meeting of Shareholders made a resolution to for the first quarter of 2014 in the amount of RUB436.8 mln





Saving and Energy Efficiency Programme for **2**015 – 2019 was approved which aims to achieve the operational and economic benefits expressed in 32.4 thousand tonnes of reference



The Company

Headquarters and two branches -MES Volga and Sama skoye PMES received a certificate of conformity to the ISO 50001:2011 Energy Management System



Moody's affirmed the Baa3 international scale and Aaa. ru national scale ratings of Federal Grid Com**EVENTS AFTER THE** REPORTING DATE

2015





 $S = P + jQ = j \frac{U_c^2 - U_c E_q(\cos \theta)}{T}$ 



Federal Grid

completed testing of 330

kV Gatchin-

skaya-Leningrad NPP

electricity

line that is

one of the

elements of

power deliv-

ery scheme

Leningrad

Following

the Russian

Federation

rating, Fitch

lowered the

lona-term

foreign cur

rating of

Company

to the level

of Russia's

Outlook is

rating equal

to 'BBB-', the

rency default

Federal Grid

sovereign

NPP-2 under

construction

of the

transmission

A 500 kV Iset substation was commissioned in Sverdlovsk Oblast to deliver power from a new power unit of Beloyarsk



Technical re-equipment of 220 kV Chara substation in Zabaykalsky Krai was competed that improved the reliability of electricity supply to the region including the Baykal-Ămur Railway and Udocan copper field



approved the Long-Term Development Programme of Federal Grid Compa ny for 2015-2019 and Prospects through 2013 that had been previously approved by the Government of

Negative Following the review of the Russian Federation

Upon comreview period, Moody's affirmed the Company's Ba1 global scale rating/ Negative, and Aa1. ru national scale rating

Following its

the Russian

Federation

credit rating,

sovereign

Standard

Grid Com-

lowered the

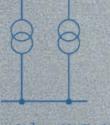
credit rating

& Poor's

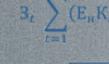
downgrade of

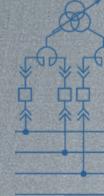
The Board of Directors approved the 'Road Map' for integrating key provision of the new Russian Corporate Governance Code into the Company's practice

Federal Grid the Russian









The Supervisory Board of Vnesheconom-

 $0S\varphi$ 3 UI

bonds for the Company's investing activities

February March



The Environmental Management Systems of the Corporate Headquar ters and the

branches

MES South,

MES North West, MES

MES East were certified for the com-

pliance with

the require-

ments of the

international

standard ISO

14001-2004

Federal Grid

Company

connected

5.9MW ca-

pacity to new

the Skolkovo

Innovation

Hypercube.

Technopark

and the first

electric vehi

cle charging

■ XX

Programme

for Import

Substitution

of Equipment,

Technologies.

Materials and

was approved

increasing the

share of do-

mestic man-

ufacturers in

procurements

equipment

from 30 to

90%

Systems for

2015-2019

aimed at

stations

buildings

Centre -

Matrex.

Directors approved a new version of the Environmen tal Policy that enhances the environmental responsibility of Federal Grid Company and determines key areas of environmen tal activity



Power facilities were commissioned to supply electricity to oil pumping stations 11 15 and 19 of the Eastern Siberia-Pa cific Ocean (ESPO) pipeline providing a throughput

capacity of 50 mln tonnes per year

The Russian Ministry of Energy approved the investment programmes of Federal **Grid Company** for 2014 and for 2015-2019 practice

A 'Road Map' was developed for integrating key provision of the new Russian Corporate Governance Code into the

Company's

the Russian

sovereign rating, Moody's lowered the Federal Grid's credit ratings to Ba1global scale and Aa1.ru national scale ratings and placed them on review for pany to BB+/ Negative pletion of the Federal Grid

Company joined the Anti-Corruption Charter of Business

bank made a decision to invest RUB40 billion of pension savings for a 30 years period through acquisition of Federal Grid's

January

Practice

February

March

April

BBB-

Federation

credit rating

from BBB to

sovereign

May

June

July

pany

August

September

October

November

December

Federation

January

downgrade

April

# **Strategic overview** Implementation of the Long-Term Development Programme of Federal Grid Company is aimed at maintaining and developing the Unified National Electric Grid - a backbone electric grid infrastructure for ensuring economic growth in Russia and uninterrupted $U_C = E_a + \sqrt{3}Ijx$ energy supply for consumers throughout the country APIZABI NOI 1 Reliability Infrastructure Technology Governance (+) Cooperation Strategy

#### MARKET OVERVIEW

# Preparedness for Market Challenges

According to the Russian legislation, Federal Grid Company is the management organisation of the Unified National (All-Russia) Electric Grid (UNEG). The backbone grid is a part of the basic infrastructure of the Russian electricity market, and electricity transmission

in Russia

**Key Parameters of Economic Development** 

Consumer price growth, %

1.3

business is a natural monopoly. Being a natural monopoly entity, the Company is subject to the government regulation.

The infrastructural nature of the electricity industry in general and of the electric grid in particular, explains the high dependence of the scope and content

15.8

0

-3.0

of Federal Grid's services on the overall economic situation. The social and economic conditions in the reporting year constrained the capacity of the grid services market. Electricity consumption across the unified energy system (UES) of Russia increased by 0.4% against the 2013 level and reached 1,013,900 billion kWh in 2014. A moderate increase of electricity consumption is expected in 2015-2018. A substantial increase in electricity consumption across UES in these years will be because of its expansion within the integrated power system (IPS) South and IPS East (integration of the western and central energy regions of the Republic of Sakha (Yakutia)). A modest increase of demand for electricity is expected in the period beyond 2018.

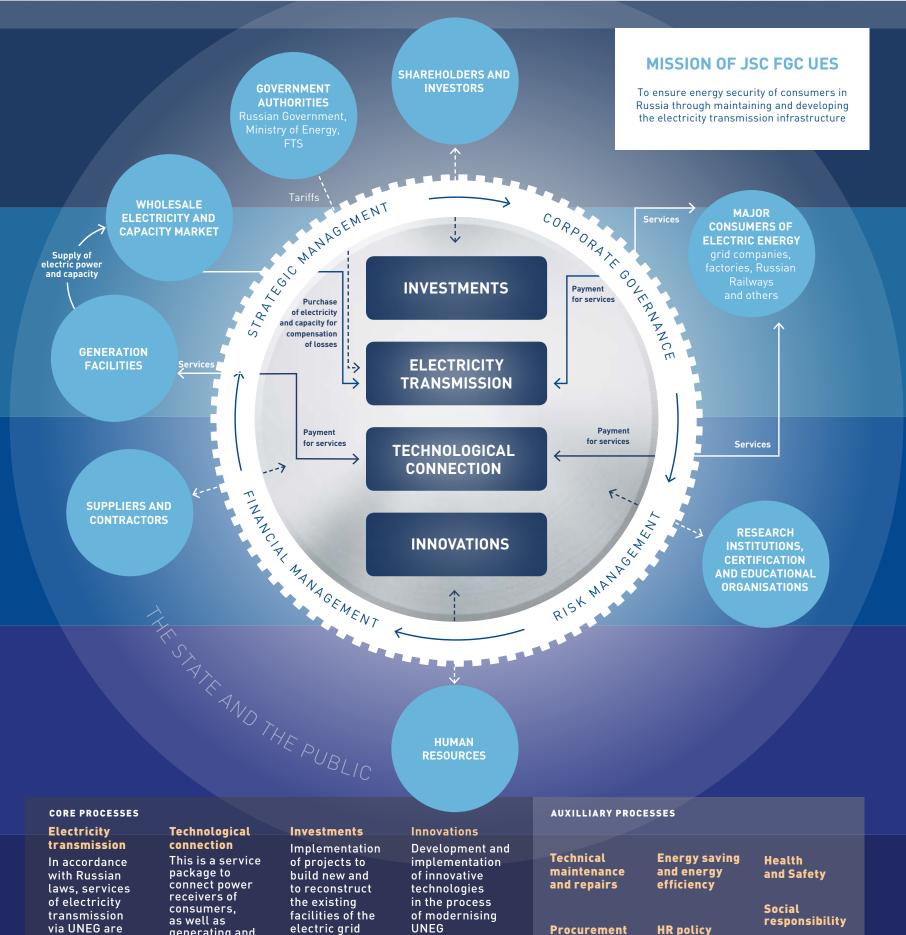
Given the crisis and economic slowdown, the Company faces a certain reduction in its operating and investing activities, and stronger financial constraints, such as reduction in income and increase in funding costs.

The volume of electricity transmission services reduced in 2014 in line with the tendency observed since 2009. Given the trends and the abovementioned factors, and with regard to the transition to the principle of measuring services at their average arithmetic capacity, Federal Grid anticipates a certain reduction of the market for its services despite the increased number of consumers. The number of customers will increase largely because direct consumers will grow in number (including the "last mile" ones and energy-selling organisations acting in the interests of the customers). However, distribution grid companies will remain the largest customers of the Federal Grid's services.

Taking into account the intensity of filing applications and contractual time-frames, there has been no any strongly pronounced tendency in the volume of technological connection services in recent years.



# STRATEGIC GOALS AND OBJECTIVES RESOURCES Financial • Increase return on equity Reduce operational and investment costs Equity • Maintain financial sustainability • Debt • Develop UNEG infrastructure in order to prevent constraints on economic growth • Ensure reliability and quality • UNEG facilities: of energy supply to customers 1. Transmission lines • Consolidate all facilities of UNEG electric grids Maintain a competitive level of tariffs on 2. Substations • Ensure quality customer service Intellectual • Develop research and innovation capacity • Develop and put in place new technologies Patents • Substitute imports in order to support Licenses innovative development of the Russian energy Software • Develop and train personnel • Provide social support • Employees • Establish a talent pool • Employees' experience and for a «smart» energy sector professional expertise • Cooperate with higher education institutions • Corporate culture Natural • Ensure environmentalisation and improve



electric grid

infrastructure

generating and

Federal Grid's

facilities to

monopoly

operations

regulated

infrastructure

with a view to

improve the

UNEG

#### VALUE CREATION

- Growth of share value and dividends for shareholders and
- Interest income for debt providers
- Payment of national taxes



- New facilities: electricity
- Reliable energy supply to economyMutually beneficial co-operation
- Energy security of the State



- Development of new technologies for higher production efficiency
- Energy saving and increased energy efficiency within the Company and across the country





• Job creation that drive economic growth in the country





- Water
- Energy resources

- energy efficiency of the electric grid operations
- Reduce air emissions of hazardous substances
- Reduce water consumption

HR policy

**Environment** 

• Balance between the use of natural resources and the efficiency of economic activities



#### Trends in the Mid-Term Development of the Russian Electricity Sector

- The electricity industry's pricing pressure on the economy will be transformed into intensified competition for tariff revenues among all participants in the process of electricity production, distribution and sale
- Unequal electricity consumption across Russia because of the major differences between various regions in terms of capacity and current development of industrial and economic growth
- Customers will press for more reliable and better-quality energy supply on the back of rising prices for electricity in general
- Competition will be tougher on the wholesale electricity market as a result of commissioning new sophisticated generating capacities under regulated contracts for capacity supply

#### Electricity Consumption in Russia in 2010-2014 and Forecast for 2015-2020

	2010	2011	2012	2013	2014	2015 forecast	2016 forecast	2017 forecast	2018 forecast	2019 forecast	<b>2020</b> forecast
Electricity consumption in UES of Russia, billion kWh	961.7	1,000.7	1,016.5	1,009.8	1,013.9	1, 016.3	1,028.7	1,045.1	1,053.7	1,061.4	1,084.3

The continued development of the national energy sector is based on the scenario of innovative economic development. According to the Energy Strategy of Russia until 2030, as approved by the Russian Government, the national economy's dependence on the energy sector is expected to weaken following priority being given to the development of innovative energy-saving sectors and the implementation of energy-saving technologies. As a result, the fuel and energy complex's share of gross domestic product will fall by almost half by 2030 (compared with 2005).

At the same time, the energy sector will maintain its key role in making fundamental strategic decisions pertaining to the national development. This is particularly true of the construction of a new power infrastructure that will accelerate the social and economic development of Eastern Siberia and the Russian Far East, help to overcome infrastructural imbalances between regions and form new territorial and production clusters based on energy-generating and processing facilities. The geography of energy and service consumption will change in the medium term as new "growth points" will appear in the

At the same time, the energy sector will maintain its key role in making fundamental strategic decisions pertaining to the national development. This is particularly true of the construction of a new power infrastructure that will accelerate

Russian economy. The highest relative increase of electricity transmission services is anticipated in the integrated power systems of East and South, including because of implementation of national investment projects.

The lessening dependence of the economy on the energy sector will be accompanied by qualitative changes in the role of the fuel and energy complex in the national economy. The Russian energy sector will maintain its influence on the social situation in the country because the Russian citizens' living standards depend largely on the level of energy comfort and the availability of energy resources.

#### **DEVELOPMENT STRATEGY**

## Long-Term Development Programme

In December 2014, the Board of Directors approved¹ a Long-Term Development Programme of Federal Grid Company for 2015-2019 with a forecast through 2030 that had been approved by the Government of the Russian Federation.

The above Programme summarises the results achieved in the first long-term period of tariff regulation with respect to strategic objectives. It formulates the Company's new goals, objectives and key performance indicators for the second long-term period of tariff regulation with due regard of the current and prospective economic situation in the Russian Federation. The Programme

# From Outstripping Expansive Development to Higher Internal Efficiency

identifies the priorities of technical and investment policy, a forecast-based financial model, key risk factors and an action plan to achieve the strategic goals and objectives.

The Board of Directors approved<sup>2</sup> a standard for an annual independent audit of the Programme implementation. The

findings of this audit must be communicated as proposed adjustments of the Programme to the Ministry of Energy no later than 10 July of the year following the reporting year.

The Long-Term Programme is consistent with the targets and provisions of the Development Strategy for the Russian

Electric Grid Complex, as approved by Resolution No. 511-r of the Government of the Russian Federation, dated 3 April 2013, and Methodological Guidelines on the Drafting of Long-Term Development Programmes approved by the RF Ministry of Economic Development in 2014.

#### Federal Grid's Development Programmes

- Long-term development programme for 2015-2019 and prospects through 2030
- Investment programme for 2015-2019
- Innovative development programme for 2013-2017 and through 2020
- Fixed assets renovation programme

<sup>1</sup> Minutes No. 243 dated 19 December 2014

- Maintenance and repair programme and targeted programmes
- Energy saving and improved energy efficiency programme for 2015-2019
- Programme for substitution of imported equipment, technologies, materials and systems

2010 - 2014
First long-term period of tariff regulation

2015 - 2019 Second long-term period of tariff regulation

Implementing strategic objectives to overcome technological lags and ensure outstripping development of the electric energy infrastructure by implementing a large-scale investment programme Transition from the model of outstripping expansive development of UNEG to a model of higher internal efficiency while maintaining the reliability and technological development levels

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Strategic goal	KPI¹	<b>2014</b> TARGET	<b>2014</b> ACTUAL	<b>2015</b> TARGET	<b>RESULTS</b> of the first long-term period of tariff regulation, 2010 – 2014	PLANS for the second long-term period of tariff regulation, 2015 – 2019	
	No increase in the number of major accidents	0	0	0	Reliability and quality parameters improved, the number	Reduce undersupply of electricity to customers and	
Reliability of power supply to	Preventing increase in the number of persons injured in accidents	Zero increase	Zero increase	Zero increase	of accidents were reduced, and the fallout of the accident at the Sayano-Shushenskaya	optimise the utilisation of the existing capacities	
customers	Achieving reliability level of services	1*	1*	1*	<ul> <li>HPP was minimised</li> <li>Injury rate at the Company's facilities lowered and the number of fires was reduced</li> </ul>		
	Reduction in operating costs <sup>2</sup>	15%	21.7%	At least 24%	• Electricity losses declined from 4.56%	Reduce operational costs relative to the	
	Reduction in investment costs <sup>2</sup>	At least 10%	17.03%	At least 15%	to 4.13%  • An automated system of commercial	2012 level by 25% by 2017 while maintaining reliability and quality	
	Electricity losses	No more than 4.34% of supply	4,13% of supply	No more than 4,27% of supply	metering of electric power was developed and put in place • Innovative development,	of electricity supply to customers  Implement a long-term investment programme in an environment where restrictions are imposed on the growth of tariffs, and reduce investment costs relative to 2012 by 30% by 2017 with minimal reduction of physical parameters  Implement innovative development, energy efficiency, energy saving and import substitution programmes	
Effective management	Labour productivity	-	-	At least 17%	energy efficiency, energy saving and import substitution programmes are being implemented		
Development of UNEG infrastructure and implementation of projects of national significance	Meeting schedule for facilities commissioning	At least 95%	100,9%	At least 95%	A large-scale investment programme (RUB772.2 billion in 2010-2014) was completed Since 2010, transformer capacity increased by almost 7% to 332.1 MVA; the number of substations increased by 14% to 924; and the length of electricity transmission lines increased by more than 14% to 138.8 kilometers. Investment projects of national significance (including projects of electric power infrastructure development in Vladivostok before APEC summit and in Sochi before the Winter Olympic Games) were implemented	Implement new investment projects of national significance on schedule, such as energy supply to Baikal-Amur and Transsiberian railways; ensure reliable operation of UES of Russia working separately from the energy systems of the Baltic States; develop reliable power supply to customers in the Southern Federal District; provide electric grid infrastructure for schemes of delivery of capacity to the newly commissioned substation facilities	

<sup>&</sup>lt;sup>2</sup> Minutes No. 245 dated 31 December 2014

<sup>&</sup>lt;sup>3</sup> Methodological Guidelines on the Drafting of Long-Term Programmes for the Development of Strategic Open Joint-Stock Companies and Federal Sate Unitary Enterprises and Open Joint-Stock Companies in Which the Total Share of the Russian Federation in the Authorised Capital Exceeds Fifty Percent

<sup>\*</sup> The actual value of the service reliability indicator is not higher than the plan value set by FTS

Methodology for Calculation and Evaluation of Key Performance Indicators for Federal Grid's
 Senior Management is approved annually by the Board of Directors

<sup>&</sup>lt;sup>2</sup> Reduction of operating and investment costs relative to the 2012 level

Strategic goal	KPI¹	<b>2014</b> TARGET	<b>2014</b> ACTUAL	<b>2015</b> TARGET	RESULTS of the first long-term period of tariff regulation, 2010 – 2014	PLANS for the second long-term period of tariff regulation, 2015 – 2019	
	Return on invested capital (ROIC)	At least 1	1.77	At least 0.9	The Company has investment grade credit ratings (two	Contract long-term financing at lower rates, including	
	Financial leverage	Not higher than 1.5 **	0.44	Not higher than 1.5 **	of them equal to the sovereign	from the National Wealth Fund, for	
Maintenance of financial stability	Total shareholder return (TSR)	At least the average value of MICEX PWR	- 50.5%	Higher than the average value for the past three years before the reporting year by the amount established by the Board of Directors	rating) which made it possible for it to contract long-term (up to 35 years) debt at the average weighted rate of 8%	implementation of investment projects o national significance	
					Contracts for	Ensure customer	
Effective engagement with customers	Meeting deadlines for technological connection	Not higher than 1	0.72	Not higher than 1.1	technological connection to UNEG facilities were implemented (273 applications). This helped to reduce the number of zones with free cross-flows from 29 to 21 and intensify competition on the wholesale market	satisfaction with the quality of services including the level of tariffs, and schedule and price of technological connection of new customers  • Reduce the cost of technological connection of new customers	

<sup>\*\*</sup> Or not higher than the value set in the business plan

## Challenges

Trends in the development of the Russian economy and, in particular, the energy sector are placing new challenges for the Company. Successful overcoming of these challenges will depend on the consistency in implementation of the corporate strategy.

- The actual growth rates of electricity consumption are below the targets due to macroeconomic deterioration. This poses new objectives for the Company with respect to rational planning of grid development and building an adequate economic model of payment for reserves.
- Electricity consumption by applicants for technological connection has not been increasing to a level that would provide for return on investment via the electricity transmission tariff. As a result, the Company needs to make new mechanisms for distributing responsibility, investment costs and risks of inaccurate planning of energy consumption among Federal Grid and applicants.
- The tariff should at least cover the cost of debt and other mandatory costs, provide for financing of future investments, and ensure profits for shareholders.
   Therefore, Federal Grid Company needs to reduce its operational and investment costs substantially without lowering its reliability and increasing the future costs.
- In late 2014, FTS approved the following regulatory parameters and tariffs for electricity transmission via UNEG for 2015-2019: return on invested capital is set at 10%; tariff increase will be 7.5% in 2015, 5.5% in 2016 and 4.5% annually in 2017-2019. Tariff increase will be about a half of the anticipated inflation rate, and the operational costs efficiency index is set at 3% for 2015-2019. This means that the Company will need to make substantial cuts of its operational costs in base prices of the first year of regulation.
- Given restrictions on the growth of tariffs, the Company should tighten its criteria for assessment and selection of investment projects and find new

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- funding mechanisms. The need to implement new long-term projects that have national significance and are exposed to high commercial risks will require long-term financing at low rates, which is currently available from the state budget only.
- Depreciation of the national currency and growing inflation rates increase the uncertainty of investment expectations and might bring about delays in implementation of investment projects run by electricity consumers and in the generation sector. Not only new projects of technological connection will be delayed but new facilities will have a load lower than had been planned.
- Restricted access of large banks to the global capital markets and the raising of the key rate by the CBR result in deteriorated terms of lending and higher cost of debt. Therefore, Federal Grid's investment opportunities in implementation of new projects might diminish, thus having an adverse impact on its overall investment attractiveness.

Our Company's financial standing will largely depend on how effectively we will address these challenges. Measures included in the log-term development programme are aimed at resolving thereof.

The base case scenario underlying Federal Grid's financial model is based on the meeting of key performance indicators including the cuts of operational costs by 25% relative to the 2012 level and investment costs by 30% already by 2017. These targets are more ambitious than those set in the Development Strategy for the Rus-

sian Electric Grid Complex. Yet, the Company aims to achieve these higher targets because it needs to complete a long-term investment programme and maintain a sustainable financial position.

The risks of deviation from the base case scenario of the long-term financial model are taken into account in a moderately conservative scenario that envisions reduced revenues from the electricity transmission service. This is because Resolution No. 740 dated 31 July 2014 will become effective and the Company's settlements with

its direct customers will be based on the actual capacity as of 1 January 2015, while the existing procedure of payments by grid organisations will remain in place.

The situation in the Russian economy developed in the second half of 2014 is making a significant impact on the parameters of Federal Grid's strategic development than had been set earlier. Therefore, the Long-Term Development Programme might be adjusted to reflect the forecasts of the social and economic development of Russia.

### Strategy in the Context of Sustainable Development

Traditionally, sustainable development is based on the ambition to meet the needs of the existing generation without threatening the needs of future generations. This can only be done if all stakeholders' positions are taken into account, with continuous communication with these stakeholders and integration of these practices in all of the Company's business processes.

Owing to its specific role in the energy sector, economy and social development, Federal Grid Company expands and complements the traditional concept of sustainability in its operations.

As a monopoly operator of UNEG, The Company ensures electricity transmission via backbone electric grids and is responsible for providing a reliable power supply for consumers across the Russian Federation.

The Company's responsibility for the efficient administration and development of UNEG is not only to ensure a safe, reliable and uninterrupted electricity supply but also to provide non-discriminatory access to its grid services that should be provided in a transparent, honest (corruption-free) and innovations-based manner. This is why one of the Company's most important tasks in terms of philosophy and values of corporate social responsibility and sustainable development is to continuously seek the balance between public and economic interests in our work.

Federal Grid Company, as one of the largest electric power companies in Russia, is responsible for the condition of UNEG, the lynchpin of the national grid system and a vital public infrastructure. Having assessed existing problems and prospective threats, the Company developed and began implementing a Long-Term Development

Programme aimed, among other things, at the renovation, modernisation and innovative development of UNEG. The success of this programme largely depends on constructive cooperation between the Company and a broad range of stakeholders. These include suppliers, contractors, project and R&D think tanks, distribution

electric grid companies, IDGCs, customers, generators, infrastructure regulators, labour unions, government authorities, public and environmental organisations and the expert community.

# Strategic Priorities of Federal Grid's Sustainable Development

- To build mechanisms and practices for the synchronisation of stakeholder plans that envisage the development and expansion of UNEG
- To achieve import substitution for the purposes of the innovative development of the national energy
- To form a talent pool for the smart energy sector
- To develop responsible HR management practices

- To improve labour protection and industrial safety
- To strengthen environmental protection and improve the energy efficiency of grid operations
- To ensure a fair distribution of economic value and assess the economic expediency of implementing innovations and new technologies
- To integrate Corporate Social Responsibility (CSR) strategy in the internal business processes

#### **GEOGRAPHY**

# Country-Wide Reliability

Our Company operates in 77 Russian regions covering an area of more than 15.1 million sq. km. The territory in which the Company's facilities are located is divided into zones of responsibility for corporate branches - backbone electric grids (MES), and their local enterprises (PMES). Underpopulated territories with no large customers such as Chukotka, Kamchatka, Magadan Oblast, Sakhalin, Nenets Autonomous Okrug and Altai Republic - are not integrated into UNEG because they do not have economic conditions necessary for laying electricity transmission lines and establishing large substations.



Federal Grid Company collects and processes information about electricity transmission along 140 cross-border electricity transmission lines.



# International Operations

Cross-border electricity transmission lines that cross the state border of the Russian Federation meet the statutory criteria of treating electric grid facilities as UNEG facilities.

Federal Grid Company facilitates the transit of the Russian electricity through electric grids of foreign states being a a technical contactor under commercial contracts of importers and exporters on the WECM and, pursuant to the contracts with JSC Inter-RAO UES and JSC TGC-1, provides services on electricity transmission throughout Russia and right up to its borders via electric grid facilities that are integrated into UNEG and legally owned or possessed by the Company.

There are currently several agreements in force, stipulating parallel operation of the Russian UES with the electric power systems of foreign states. The parties to these agreements are Federal Grid Company and economic entities of Georgia, Kazakhstan, the Baltic countries and the Republic of Belarus. The Company also signed an Intersystem Agreement with Finland. It also signed agreements on technical support of parallel operations with Ukraine, the Republic of Belarus, Azerbaijan and

• Being an organisation that manages cross-border electricity transmission lines, Federal Grid Company:

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- coordinates commercial contracts for the import/export of electricity and provides their engineering support
- arranges and implements commercial metering of electricity transmitted along cross-border electricity transmission lines
- measures actual volumes of electricity that has been transmitted across the State border, and arranges for their customs clearance.

\* PTLs and SSs the ownership rights to which have been duly registered for Federal Grid Company and other owners, excluding leased PTLs and SSs with 10 kW voltage and lower operating on the territory of Krasnodar Krai and the Far East Federal University on Russky Island

transmission

lines 0.4-750 kV (PTL)

## **Subsidiaries** and Associates

**National** 

(UNEG)

**Electric Grid** 

As of 31 December 2014, Federal Grid Company had 21 subsidiaries and associates that operate in different industries, including those that support electric grid facilities (core subsidiaries and associates).

#### **Core Subsidiaries and Associates**

thousand km

JSC MUS Energetiki	100%
JSC R&D Centre of FGC UES	100%
JSC CIUS EES	100%
JSC ESSK EES	100%
JSC Elektrosetservis UNEG	100%
Index Energetiki – FGC UES LLC	100%
JSC Tomsk Trunk Grids	52%
AO OES GruzRosenergo	50%
JSC Kuban Trunk Grids	49%

regional branches of Federal Grid Company Backbone Electric Grid Enterprises (PMFS) Technical Supervision Special Purpose Production Centre "Bely Rast" Electric Grids

924 units /

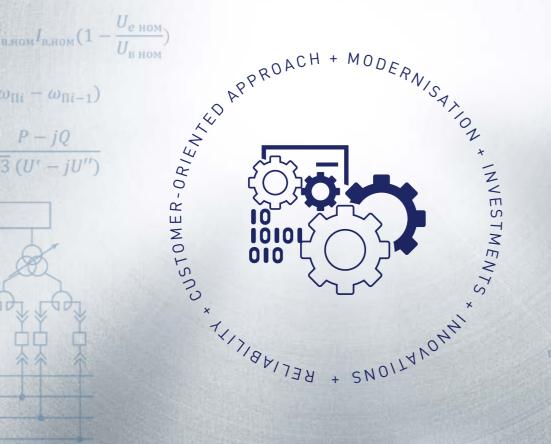
substations

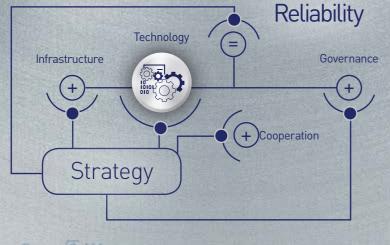
6-1150 kV

(SS)

# PERFORMANCE RESULTS

When improving reliability, efficiency and safety of electric grid infrastructure, Federal Grid Company recognises the importance of comprehensive modernisation, new technological capabilities and customer orientation in the delivery of services. All this  $U_C = E_q + \sqrt{3}Ip$  involves the Company's active role in the processes of innovative economic development and investments.





#### **OPERATING PERFORMANCE**

#### **ELECTRICITY TRANSMISSION**

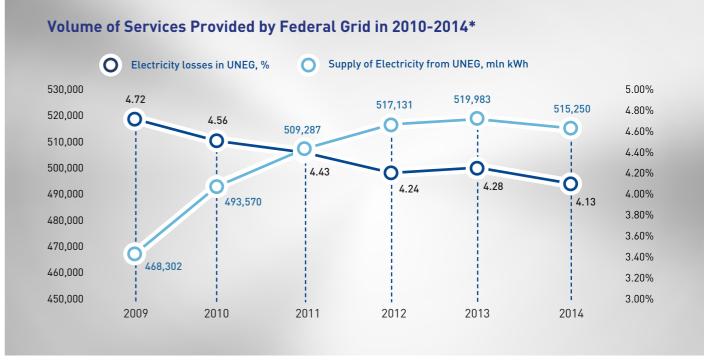
The core activity and main revenue source for Federal Grid Company is the electricity transmission through the Unified National Electric Grid ('UNEG').

In accordance with Russian laws, Federal Grid's services of electricity transmission via UNEG are monopoly operations regulated by the State.

The cost of electricity transmission services is based on tariffs that are set by the Russian Federal Tariff Service (FTS) and includes:

- the cost of electricity transmission for the maintenance of electric grid facilities that are part of UNEG;
- the cost of electricity losses in UNEG allowed by the relevant technological standards in the Russian regions.

In 2014, the volume of electricity transmission services to consumers via UNEG amounted to 515,250 million kWh, down by 0.9% from 2013.



<sup>\*</sup> relative value for 2009-2011 was recalculated to comparable conditions

Federal Grid enters into direct contracts with customers. The number of counterparties has been increasing steadily because of new technological connections to UNEG and phased discontinuation of the "last mile" principle.¹.

#### Federal Grid at Wholesale Electricity and Capacity Market (WECM)

Since 01.01.2006, Federal Grid, on its own, has been purchasing electricity on the WECM to compensate for actual UNEG losses net of losses that have been measured and paid for in equilibrium prices by the WECM participants.

Since 01.01.2011, Federal Grid has been purchasing electricity and capacity at free (non-regulated) prices in accordance with the wholesale market's rules. Purchases of electricity and capacity on the wholesale market for compensation of losses in the non-pricing zones are made under quadripartite contracts by and between JSC FGC UES, JSC

ATS, JSC CFR and the seller of electricity and capacity.

The price of electricity and capacity that Federal Grid purchased to compensate for the losses, in 2014 RUB11.81 billion net of VAT, including RUB4.15 billion (net of VAT) for electricity and RUB7.66 billion for capacity (net of VAT).

<sup>&</sup>lt;sup>1</sup> The "last mile" principle is a form of cross-subsidisation where large industrial customers that are connected directly to Federal Grid Company's transmission grids pay an additional tariff for distribution grids of IDGCs to which some of the Company's capacity (the "last mile") are leased.

#### Share of Federal Grid's Largest Customers in Terms of Revenues from Electricity Transmission Services, 2014 A JSC Tyumenergo 9.72% JSC IDGC Centre 9.65% C JSC MOESK 9.18% **D** JSC JDGC Ural-Sverdlovenergo 4.48% JSC Lenenergo 4.40% F JSC Kubanenergo 3.27% **G** JSC Far East Distribution Grid Company 3.07% 3.01% **H** JSC JDGC Ural-Chelyabenergo JSC RUSAL Krasnoyarsk Aluminium Plant 2.21% 2.14% JSC IDGC Centre and Volga-Nizhnovenergo Others 48.87%

Among the Company's branches, the largest volume of electricity is supplied by MES Centre (24%), MES Siberia (16%) and MES Ural (14%).

#### Operating Results of Federal Grid Company in 2014

	Cumply of Floatsicitus william MMb	Electricity Losses		
	Supply of Electricity* million kWh		%	
Federal Grid	515,250	21,261	4.13%	

<sup>\*</sup> Supply of electricity from the grid network to customers and related territorial network organisations within balance sheet and operational attribution

#### **Electricity Supply to Neighbouring Countries**

	2010	2011	2012	2013	2014	Growth 2014/2013
Net supply of electricity via UNEG to neighbouring countries (according to WECM's data), million kWH	15,716	19,285	15,769	12,974	10,572	- 18.5%

# Reducing Electricity Losses

Actual electricity losses in the Company's grids in 2014 amounted to 21,261 million kWh, down by 1,001 million kWh compared to the previous year. The relative level of 2014 losses was 4.13% of electricity supplied by the grid. As compared to 2013, it decreased by 0.15 percentage points and for the preceding 5-year period, by 0.43 percentage points. The reduction of losses was driven by the optimum load of the transmission grid and by measures taken as implementation of the programme for reducing electricity losses.

The measures to reduce electricity losses for the reporting period were approved as part of the Programme for Energy Saving and Improving Energy Efficiency of Federal Grid Company. They were implemented in three key areas:

#### Actual Electricity Losses in 2013-2014

	2010	2011	2012	2013	2014	Growth 2014/2013
million kWh	22,526	22,553	21,946	22,262	21,261	- 1,001
%	4.56	4.43	4.24	4.28	4.13	0.15 р р

- optimisation of scheme and mode parameters in the process of the running and operational management of electric grids:
- cutting of electricity consumption for substation needs;

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 construction, reconstruction and development of electric grids, and commissioning of energy-saving equipment.

As a result of implementing the above measures, electricity losses were reduced in 2014 by 96.1 million kWh (while the target number was 90.1 million kWh)

#### TECHNOLOGICAL CONNECTION

# Client-Oriented Approach in Developing High-Quality Services

Technological connection is a service package which the Company offers to connect electricity consumers' power receivers, electricity producing facilities and grid facilities to Federal Grid's electric grids.

We provide technological connection services to new and existing customers if the latter need to change the operating parameters of their power facilities. Our objective is to synchronise the development of industry across the country with the potential of the backbone electric grid complex and to prevent the risk of excess investment.

# The Company's activities on technological connection in recent years have been loss-making. What are the possibilities for changing this situation?

"If you look at technological connection as a separate business process, it would inevitably be loss-making, since for the actual connection of a consumer in most cases you need significant capital expenditure, including those relating to the changes in the grid's topology, increase in transformer capacity and schemes of external power supply.

However, technological connection is a comprehensive service and should

be looked at in the context of Federal Grid's core activity, i.e. transmission of electricity via trunk grids. Since completed connection projects lead to contractual relations with customers in respect of electricity transmission, in the medium- and long-term, the connection activities bring profit.

Moreover, in order to increase revenues from technological connection services, we are implementing a plan approved by the

Alexey Molsky
Deputy Chairman of the Federal
Grid's Management Board

Management Board that is designed to increase the efficiency of such operations and increase utilisation of transformer capacity."



In 2014 Federal Grid signed 226<sup>1</sup> agreements for technological connection with consumers, distribution grid companies and generation companies, down by

65% from 2013. The key factor contributing to the decrease of the number of agreements signed was the regulatory limitation in respect of the applications

for technological connection for voltage class below 110 KW and the economic situation in Russia.

#### **Key Indicators for Technological Connection**

	2010	2011	2012	2013	2014
Number of counterparties – new technological connection	252	149	315	652	226
Capacity as per Technological Connection Agreements MW	9,936.5	4,375.9	6,580.8	14,993	4,828.1

In the reporting year, the total maximum capacity for technological connection of consumers and distribution grid companies was 3.8 GW, and 1.8 GW for electricity production facilities.

 $<sup>^{</sup>m 1}$  The number of contracts with direct consumers, regional grid companies and electricity production facilities.



#### **Client-Oriented Approach**

Federal Grid focuses its
efforts on increasing the
transparency and accessibility
of the technological connection
to the grids. The Company is
implementing an action plan

"Increasing the Accessibility of the Power Infrastructure" approved by the Russian Government, which provides for reduced timelines and stages of technological connection.

In 2014, Federal Grid met the targets established by the FTS of Russia relating to the quality of services provided in respect of

technological connection to the Company's electric grids. The service quality indicator was 1.152 (whereas the target was 1.2040).

Service Quality Indicators Set by FTS for 2011–2014		Regulation period					
(order No. 486-e/3 dated 28 December 2010)	2011	2012	2013	2014			
Quality indicator for technological connection services	1.2599	1.2410	1.2224	1.2040			

#### Federal Grid's Major Technological Connection Projects in 2014

Consumer	Facility	Capacity, MW
JSC OGK- 1, Tyumen oblast	Urengoyskaya Hydro Power Station	490
CJSC Nizhnevartovskaya Hydro Power Station, Tyumen oblast	Nizhnevartovskaya Hydro Power Station, Power Unit No 3.1	431
JSC Fortum, Tyumen oblast	CCGT-3, Nyaganskaya Hydro Power Station	422
JSC Kuzbassenergo, Kemerovo oblast	Novokuznetskaya GTPP	298
LUKOIL-Astakhanenergo LLC, Astrakhan oblast	CCGT-235 of Tsentralnaya Boiler Unit	235
Nizhny Novgorod Branch of JSC TGK-6, Nizhny Novgorod oblast	Novogorkovskaya Heat and Power Plant	188
JSC Mobilnye GTES, Krasnodar Territory	Power Plant (90 MW of capacity)	90
EvroKhim – VolgaKaliy LLC, Volgograd oblast	Mining and Processing Works (at the Gremyachinsk potash salts deposit)	86.5
Lafarge GEO LLC, Kaluga oblast	Cement Processing Plant	55.5
Nefteyugansk Branch of Salym Petroleum Development N.V, Tyumen oblast	Salym Field	40
JSC RusHydro, Samara oblast	Zhiguli Hydro Power Station	31.5
JSC Kamensk Uralsky Metallurgical Works, Sverdlovsk oblast	Metallurgical works	20

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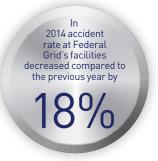
#### IMPROVING RELIABILITY

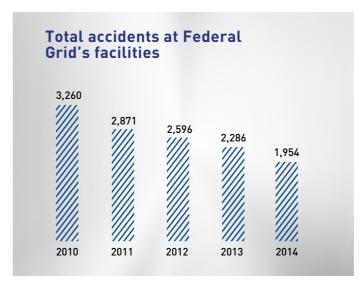
# Reliability as a Strategic Priority

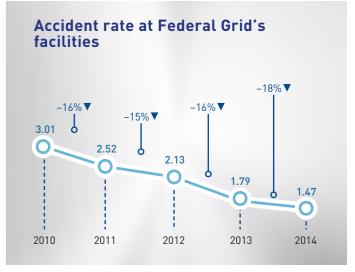
Ensuring reliable electricity supply to our consumers is one of our priorities. Maintaining a high level of reliability and reducing the volume of uncovered demand for electricity have been established as strategic objectives by the Long-Term Programme for the Development of Federal Grid for 2015-2019. Our Company strives to ensure continuous growth and improvement and makes significant efforts to increase the reliability of UNEG's operation.

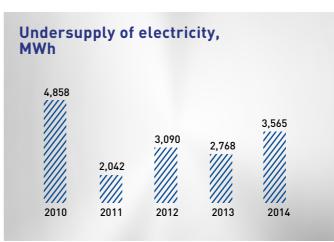
In the reporting year, we continued to take regular efforts to reduce the accident rate and have achieved visible results in this area.

As compared with the previous year, the accident rate at Federal Grid's facilities went down by 14.5%, although the maintenance workload (number of electric facilities) has been consistently increasing.









The reliability of Federal Grid's grids has been increasing every year thanks to the introduction of new equipment and improvement of skills and professionalism of the maintenance personnel. Undersupply of electricity to consumers (as per reports on the investigation of accidents) is consistently low and tends to decline.

The insignificant increase in undersupply observed during the reporting year was due to ground fire outbreaks outside the exclusion zone of 500 kV Amurskaya – Kheykhe (MES East) OHL during the period from 14 April to 2 May 2014. The level of the above mentioned undersupply represented 55% of the total Federal Grid's undersupply for the year.

#### Federal Grid's Technical Policy

Implementation of the Unified Technical Policy approved by the Board of Directors of Federal Grid in 2013 shall help us improve the electric grid complex's efficiency, reduce its operational cost, strengthen the system-wide reliability of UNEG and meet the increasing demand for electricity.

## Fixed Assets Renovation Programme

is aimed at ensuring the reliable and efficient functioning of the electric grid complex. It was included in the Company's Investment Programme for 2015-2019 approved by the Order of the Russian Energy Ministry No 807 dated 31.10.2014.

The Fixed Assets Renovation Programme The draft of the Renovation Programme for 2015-2019 stipulates financing of RUB 111.27 billion, commissioning of facilities with a total capacity of 12.395 MVA and reconstruction of 788,61 km of transmission lines.

The Company energised 12 completely reconstructed facilities and 228 partially reconstructed facilities and comprehensive investment programmes.

For 2015, the Renovation Programme envisages commissioning of 535 MVA of capacity and reconstruction of 1.7 km of electricity transmission lines for the total amount of RUB 22.43 billion.

#### Most Significant Reconstruction Projects Implemented in 2014

330 kV Vladikavkas-2 SS	Substation 330 kV Vladikavkaz-2 provides electric power supply for large industrial enterprises of the Republic of North Ossetia, including JSC Elektrotsink and BOR – Energosbyt LLC and is also used for transit of power from Stavropol Krai to the Chechen Republic and Dagestan.  In 2014, the reconstruction included replacement of autotransformer AT-3 with the capacity of 200 MVA.
	OT ZUU MVA.
Reconstruction and re-equipment of 500 kV Tikhoretskaya SS	Substation 500 kV Tikhoretskaya in Krasnodar Krai is a hub facility connecting the power system of Kuban with Stavropolskaya HPP, Novocherkasskaya HPP and Volgodonskaya NPP. The comprehensive reconstruction of this facility (in 4 stages) significantly increases reliability of power supply to consumers in the Krasnodar Krai.
300 KV TIKIIOT ELSKAYA 33	In 2014, as part of the reconstruction, new autotransformers with the capacities of 125 MVA and 25 MBA were commissioned. As a result, the capacity of this facility increased to 2,641 MVA.
E00 let Kundurch aveleana CC	Substation 500 kV Kuybyshevskaya with installed capacity of 1,602 MVA supplies over 70% of Samara oblast with electric power and links Samara oblast's power system with such power facilities as Zhigulevskaya HPP, Zainskaya HPP and Balakovskaya NPP.
500 kV Kuybyshevskaya SS	In 2014, after reconstruction two autotransformer groups with the capacity of 801 MVA each were commissioned, which help significantly increase reliability of power supply in the region and create conditions for connecting new customers to the power system.

What is meant by reliability in the context of Federal Grid's core operations - transmission of electricity and how does the Company ensure reliability?



"Reliability in our work means uninterrupted power supply provided to our consumers, reduction of electricity losses in the grids and provision of our customers with high-quality

Maintaining a high level of reliability is one of the goals of National Grid's long-term development and we make significant efforts to meet

#### **Vladimir Dikoy**

Deputy Chairman of the Management Board, Chief Engineer, member of the Management Board of Federal Grid Company

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this goal. Reliability is ensured both by modernisation of Federal Grid's infrastructure and by effective and efficient technical maintenance and repair of electric grid equipment. In 2014, we invested over RUB 11 billion in implementing these measures.

Another important area of ensuring reliability is well-coordinated operation during the so-called 'special periods', when the load on the system is higher due to seasonal factors and weather and climatic conditions. First, we prepare for operation during such periods in advance and, second, we address any technological problems in the grids operation if they arise as promptly as possible."

### Repairs Programme

The Repairs Programme aims to provide technical maintenance and repairs at Federal Grid's power facilities in order to ensure that equipment of substations and high-voltage lines is in good working conditions, that there are no accidents during the autumn/winter period and to ensure reliable operation of UNEG as a whole.

Repairs Programme for UNEG facilities has been developed based on the results of diagnostics and analysis of technical condition of the equipment in line with the relevant regulations and specifications, instructions of the manufacturers of the

relevant equipment, local conditions and our experience of operating electric facilities.

All measures scheduled for maintenance, repairs and diagnostics were implemented in full:

- We cleared 49,573 hectares of high-voltage electricity transmission line paths
- We replaced 235,1112 insulators at high-voltage lines, 269 of ground-wire cables and 183 supports for high-voltage transmission lines

• We repaired 314 phases of transformer equipment, 2,026 on-/off switches, 14,761 phases of disconnectors and 124 compressors

In total, in 2014 we spent RUB 11.7 billion on technical maintenance and repairs.



## Operation during Special Periods

Weather and climatic conditions make a strong impact on Federal Grid's operations, therefore, we prepare electric grid equipment and facilities in advance for operation under low temperatures and peak loads occurring during the autumn/ winter period and in case of natural anomalies during periods of river floods, fires and thunderstorms. These are called "special periods" in our operation.

Using the experience of special periods in previous years, the Company developed and approved mandatory measures related to the preparation for and operation during special periods for all Federal Grid's branches - MESs and PMES, as well as additional measures to ensure the reliable operation of electric grid facilities taking into account local conditions.

The areas of efforts to ensure reliable operation of Federal Grids facilities during special periods are as follows:

- Federal Grid operates on a permanent basis 50 duty stations, whose objective is to ensure reliable operation of the Company's facilities during any emergency or other contingency situations and in cases where there is a threat of disruption of the course or efficient organisation of emergency and recovery work at such facilities.
- Branch representatives take part in the work of duty stations set up in the federal subjects of the Russian Federation to electricity supply safety.
- Our Company entered into 120 agreements on co-operation with contrac-

#### **Ensuring Reliable Power Supply in 2014**

During the reporting year, Federal Grid ensured reliable power supply of sports-related and infrastructure facilities during 22nd Olympic Games and 11th Paralympic Winter games in Sochi, functioning of

electric grid facilities used by the St. Petersburg International Economic Forum and other big events. The Company met all of its obligations and related to providing reliable power supply to its customers.

tors, which are involved, whenever necessary, in emergency and recovery efforts at the grid facilities. It also entered into 65 agreements with RosHydroMet and 89 agreements with the Russian Ministry of Emergency Situations.

- A sufficient emergency reserve has been created including a pool of large
- The Company and subsidiaries of JSC Russian Grids arranged regular sharing of information about the existing emergency reserve and its locations, the information of its status and additions to the reserve is constantly updated.
- The status of transmission lines is video-archived during their inspections, walk-arounds and fly-arounds.
- The Company has 544 back-up sources of power with total capacity of 169.5.

On 7 November 2014, the Commission of the Russian Ministry of Energy issued a certificate No 70-2014 confirming the Company's readiness for operation during the 2014-2015 autumn/winter period.

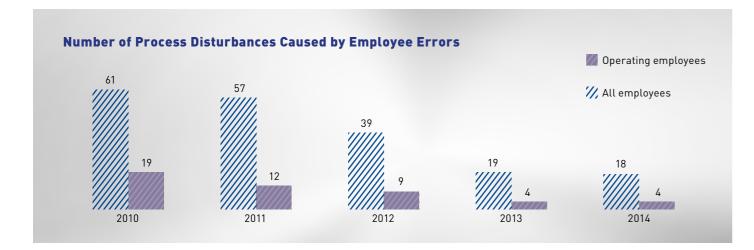
> Federal Grid's own resources for emergency and recovery work Emergency teams including in total

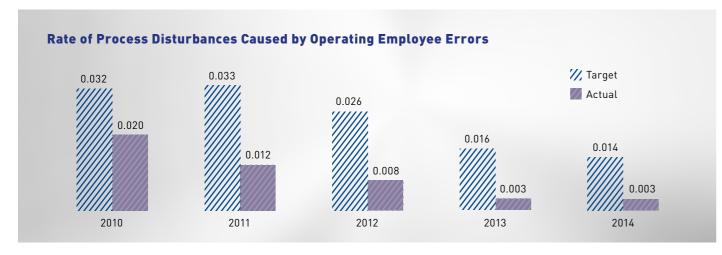
## Operational Process Control

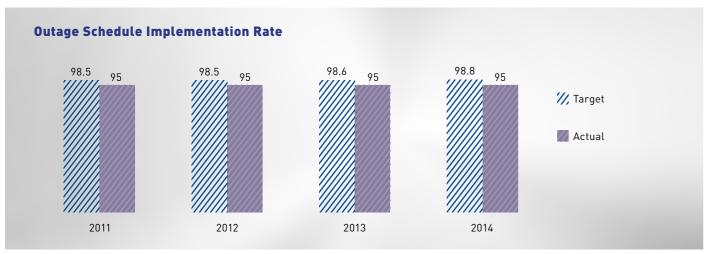
Operational process control in the Company is aimed at ensuring the reliable operation of the UNEG facilities and adhering to the operating modes that are set by the System Operator's control centres. Our objective is to comply with the quality and safety requirements when we operate the UNEG facilities.

In 2014 all centres for the management of grids at branches of Federal Grid -PMESs – received operational roles relating to the management of electric grid facilities that are within the scope of PMESs' operation and that were not part of the dispatch-management system.

The successful implementation of operational process control in 2014 is attested by the evolution of such indicators as the rates of process disturbances caused by operating employee errors and outage schedule implementation rate.







#### DEVELOPMENT OF COMMUNICATION NETWORKS AND IT SYSTEMS

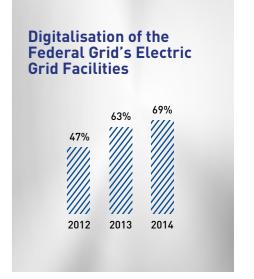
# Information Technology for Higher Effectiveness

Reliability of UNEG, building a smart grid and effective management of the Company's business are based on the use of advanced and modern information and communications technology.

Our Company has been building the Energy System's Unified Process Communications Network (ESUPCN), which is designed to manage the technological processes involved in the production, transmission and distribution of electricity. The ESUPCN focuses on the digitalisation of the network and on making it smart.

In order to improve observability of the electric grid facilities and dispatch management, the strategic priority is to digitalise communication channels of the automated dispatch management system While implementing its IT strategy in accordance with the import substitution programme, Federal Grid Company prefers to use Russian-made equipment and software at all levels of technological management.

(ADMS) and automated process control system (APCS) at the level "Object - Dispatch Centre."



#### Structure of the Uniform Communications Network in the Electric Power Industry and Technologies Employed in This Network

#### Fibre-optic communications network (FOCN)

This is the basic communications network for the energy system. It is based on the use of a fibre-optic cable which is suspended on overhead electricity transmission lines. This helps to make process control of the electric network more efficient and improve reliability of power supply to

communications via electricity

This process communications network

uses phase wires and cables of overhead

transmission lines to carry signals, such

as voice, telemechanics data, information

from the automated systems of electric

power control and recording (ASEPCR),

and commands for relay protection and

emergency automatic equipment that are

necessary for process control of electric

power facilities in the normal and emer-

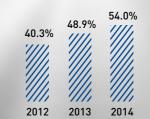
High-frequency (HF)

transmission lines

gency modes.

network

#### Total Length of FOCN, thousand kilometers





**Commissioning of HF** 

**UNEG Substations** 

2012

**Communications Systems at** 

2013

367

2014

Federal Grid completed construction of FOCNs on transmission lines at the following facilities:

- 368 km FOCN Urengoi Hydropower Plant Mangazeya SS, Kartopia Nyagan Hydropower Plant SS in the responsibility area of MES Western Siberia branch

   368 km FOCN Kalininskaya Nuclear Powei Plant Novaya SS Konakovo Hydropower Plant Opytnaya SS in the responsibility area of MES Contro branch
- 675 km FOCN Kurgan SS Vityaz SS, Voskhod SS Vit-
- inskaya Nuclear Power Plant – Novaya SS – Konakovo Hydropower Plant - Opytnaya SS in the responsibility area of MES Centre branch
- yaz SS in the responsibility areas of MES Ural, Western Siberia and Siberia branches
- 98 km FOCN Gatchina SS- Luga SS in the re-sponsibility area of MES North-West branch

#### In 2014

In 2014

As part of new construction and renovation of the electric grid facilities. Federal Grid upgraded some HF communications system facilities and decommissioned some other equipment because FOCNs were operationalised.

In the reporting year, Federal Grid installed 367 half-sets of HF communications. The Company's facilities now have 11.690 such half-sets.

#### **Commissioning of Telephone** Telephone communications **Switching Systems at UNEG Substations**



#### In 2014

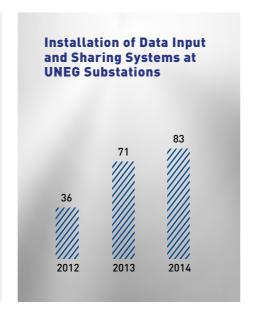
Federal Grid installed 113 PABXs at the electric grid facilities of its branches, as well as systems for recording operational personnel communication, DECT wireless communications systems and loudspeaker and radio searching communications systems.

## Automated Process Control System

The automated process control system (APCS) is a Company-wide system for the management of UNEG operations and development, so it integrates the devices and systems for the automated dispatch, processing and operational activities of the Company's administration and MES / PMES services.

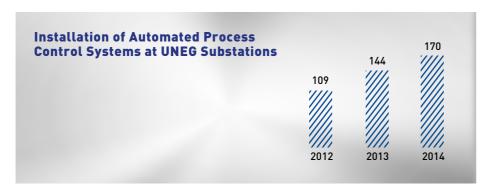
In 2014, the Company began developing software & hardware complexes for Network Management Centres of MES Siberia and MES East; completed a pilot project of an integrated APCS for MES North-West; and implemented measures to improve observability of UNEG facilities at 83 substations.

The automated process control system allows both operational and non-operational functions to be performed by Electric Grid Control Centres, improves the efficiency of UNEG mode control by allowing a high level of observability, prevents outages and reduces the time for decision-making and the likelihood of errors by operational employees in emergency situations.



### **Automated Process Control Systems**

Automated process control systems are built in the process of comprehensive reconstruction and construction of new facilities. They help to ensure the utmost effectiveness of electricity transmission in the electric grid complex, improve reliability by reducing employees' errors, and the transition to using the substations without operating personnel.



## Development of Corporate Information-Based Management System

The development of corporate information-based management system (CIMS) is regulated by Federal Grid's IT strategy and implemented as part of a consolidated corporate plan for implementation of programmes of automated management of operations.

A corporate information-based management system ensures comprehensive automation of the Company's main business processes; improves manageability of Federal Grid via centralisation and systematisation of all available information and providing prompt access to it; and helps to reduce costs via more efficient spending of funds.

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In 2014, with due regard of the Company's development goals and objectives, the Management Board approved an adjusted plan for implementation of the corporate IT strategy until 2020. This plan includes the following automation programmes that are targeted at the further development of CIMS: programmes for automated management of business processes and investing activities aimed at the development of UNEG and capital construction, automation of customer relations, management of assets, procurement, financial and business operations, substitution of imported electrical equipment, and HR management.

#### **PROCURFMENT**

## Transparency and Competitive Procurement

The Company makes purchases proactively in all regions where it operates. Its procurement activities are targeted at purchasing the necessary equipment and services on the competitive market within its corporate investment programme, and at fulfilling its annual repairs and target programmes.

The main document which regulates corporate procurement by Federal Grid is Regulations on the Procedure for Regulated Procurement of Goods, Works and Services. This is a fundamental document for the organisation of regulated procurement on methodological basis, with up-to-date, competition-based

forms of purchases that are mostly made through tenders.

It is through the tendering procedures used for procurement in 2011-2013 that Federal Grid has managed to achieve annual cost savings in procurement at the level of 9-10% per unit.

#### **Principles**

- Openness
- Competitiveness
- Justification

# Optimise the

**Key objectives** 

- procurement management system on the basis of best practices in this field
- Reduce the Company's costs by saving funds during the procurement of

goods, works and services, including by minimising intermediary services

 Supply quality goods, works and services to the Company at minimal costs and strictly on time



In 2014, the Company made competitive purchases to the total amount of RUB86.9 billion, that made up 92% of total procurement volume of Federal Grid.

#### 2014 Regulated Procurements by Type

	Value of purchases under procurement procedures, RUB billion	Number of procedures	Share in the total value of purchases %
Open tender	75.9	782	80.4%
Open request for quote	0.6	245	0.7%
Open request for proposals	8.1	2,084	8.6%
Sole source	6.0	828	6.4%
Restricted tender	1.5	1	1.6%
Minor purchase	1.1	4,254	1.2%
Ordinary purchase	1.0	3,770	1.1%
Total	94.2	11,964	100%





#### What results has Federal Grid Company achieved by using electronic procurement?

"Since February 2008, more than 95% of competitive procurements for Federal Grid have been made via the electronic marketplace. Using the e-marketplace allowed us to create a more transparent and competitive environment for suppliers of services, works, materials and equipment.

Additionally, the functional capabilities of the e-marketplace helped us to increase the level of annual savings from procurement by 4-5% of the level of savings within the period before the full-scale launch of e-commerce in procurement."

#### **Pavel Barkalov**

Procurement Director – Head of Procurement and Master Scheduling Department of Federal Grid Company

# Cooperation with Small and Medium-Sized Enterprises (SMEs)

Subject to the Decree of the Russian Government No. 867-r dated 29 May 2013 "On Approving an Action Plan ("Roadmap") on Improving the Access of Small and Medium-Sized Enterprises to Procurements of Infrastructure Monopolies and State-Owned Companies", our Company approved a Partnership Programme

- Federal Grid branches (MES, PMES)

- JSC Energotechcomplekt

**Procurement Model** 

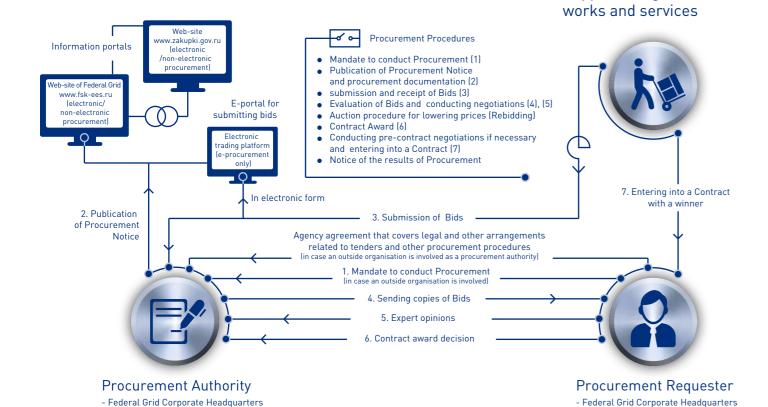
between Federal Grid Company and small and medium-sized enterprises and started to maintain a register of SMEs who have joined the Programme.

We also established an Advisory Body on the issues of ensuring efficiency of Federal Grid's procurement, which includes, among others, small and medium-sized business entities.

In compliance with the Government Resolution No. 1352 dated 11 December 2014, we are going to approve a list of goods, works and services to be purchased from SMEs only.

Suppliers of goods,

- Federal Grid branches (MES, PMES)



# Import Substitution as a Strategic Priority

The national economy's ability to supply electric power industry with domestically manufactured assets that are required for its reliable operations is a factor of the country's energy security and sustainability to external economic threats. This is why the reduction of reliance on imported equipment is an important development area of the Russian electric power industry.

Federal Grid Company now depends on imported equipment and components for 330 kV and above (in the first place, cross connect equipment). Besides, the share of imported components that are used in the Russian-made equipment is at least 30-40%. Given the need to lower the risks caused by reliance on imported equipment, Federal Grid Company decided that import substitution is a strategic priority of its long-term development programme.

Our Company, as one of the largest Russian customers of high and extra-high voltage electrical equipment, is interested in the development of the Russian electrical engineering industry and in the formation of competitive internal markets of such equipment.

In order to encourage these processes and overcome dependence on imports, we drafted a Programme for Import Substitution of Equipment, Technologies, Materials and Systems, and approved it in 2014. The strategic priority of this Programme is to reduce the share of procured imported electrical equipment to 5% by 2030.



Can we say that Federal Grid's experience of import substitution is the best practice in the Russian economy?



"Our Company has been systemically implementing the policy of substituting imported items with Russian-made electrical equipment since 2010. Over this period, we designed a mechanism for entering into long-term contracts with producers that have their manufacturing assets in Russia. This mechanism is used in contracts for supply of high-technology electrical equipment for Federal Grid's needs.

#### Valery Goncharov

First Deputy Chairman of the Management Board Member of the Management Board of Federal Grid Company

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"Our Company has been systemically implementing the policy of substituting imported items with Russian-made electrical equipment Contracts are signed with the leading international companies, such as Toshiba, Hyundai Heavy Industries, and Siemens.

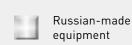
Besides, Federal Grid is now the only government-owned company with an approved and publicly available import substitution programme. In accordance with this programme our ambitious goal is to reduce the share of imported electrical equipment in our procurements to 5% by 2030.

We extensively share our experience in this area. In particular, Federal Grid officers contribute to law-making on import substitution as they sit on expert panels at the Ministry of Industry and Trade, Ministry of Economic Development and State Duma."

 $<sup>{\</sup>small 1}\ {\small The\ Programme\ is\ approved\ by\ Federal\ Grid's\ Board\ of\ Directors\ (Minutes\ No.\ 224\ dated\ 15\ August\ 2014)}$ 



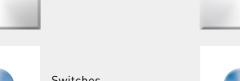
Targeted Share of Russian-Made Electrical Equipment in the Total Procurements, by 2019, by Types of Equipment







Disconnectors 110-750 kV



Shunt reactors

110-750 kV



Power transformers, autotransformers 110-750 kV



Controlled shunt reactors 110-500 kV



Current transformers 110-500 kV





Voltage transformers 110-500 kV



Power cable insulated by cross-linked polyethylene 110-330 kV



Gas insulated switchgears 110-500 kV

In 2011-2014, Federal Grid Company achieved the following results during implementation of its import substitution policy:

- It entered into 97 cooperative agreements with electric engineering companies, including 74 agreements with the Russian companies.
- It signed long-term supply contracts with several leading foreign manufacturers.
   These contracts include deep localisation of production in the Russian Federation, purchase of Russian-made components,
- establishment of joint ventures with the Russian manufacturers, and transfer of technologies to them.
- The Company proactively cooperates with the authorities, nongovernmental organisations and other stakeholders in order to develop rules and regulations on import substitution.
- Federal Grid Company developed, approved and is proactively using a special-focus methodology for assessment of localisation of electrical products manufacturing. Besides, the Company is drafting criteria that will help to treat enterprises located in the Russian Federation as domestic producers.

#### Russian-made electrical equipment in operation

An extra-high voltage singlephase transformer (transformer capacity: 417; voltage: 750 kV) has been successfully operating at one of Federal Grid's substations –

750 kV Gribovo. This transformer, the first one of this class in Russia, is an innovative product of JSC Electrozavod. It has better characteristics than those

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required by the current standards: electricity losses are 10% less, while transportation mass and fully loaded mass are reduced by 15% и 12%, respectively.

# Long-Term Contracts between Federal Grid and Electric Manufacturers for Supply of Electrical Equipment with Localisation of Manufacturing in the Russian Federation



#### Hyundai Electrosystems LLC

A plant which produces 110-500 kV gas insulated switchgear cubicles is a subsidiary of Hyundai Heavy Industries (South Korea) in Primorie region

Manufacturing 56.7% localisation level targeted by 2017



#### Power Machines - Toshiba. High-Voltage Transformers

A plant which produces 110-750 kV transformers in St. Petersburg is a joint venture of JSC Power Machines and Toshiba (Japan)

55.0% localisation level targeted by 2018

**SIEMENS** 

#### Siemens - Transformers

A subsidiary of international corporation Siemens in Voronezh sells power transformers and autotransformers of up to 250 MVA and up to 220 kV

77.5%

Manufacturing localisation level in 2014

Manufacturing

#### ENERGY SAVING AND ENERGY FEFICIENCY

# Contribution to Improving Energy Efficiency of the Economy

We recognise Federal Grid's substantive role in improving energy efficiency of the national economy and, therefore, we treat implementation of energy saving and energy efficiency initiatives as a priority of our operations.

In the reporting year, our Company completed the implementation of its Energy Saving and Energy Efficiency Programme for 2010-2014 that had been adopted in accordance with the Russian laws. A similar programme was developed and approved for 2015-2019.1

#### Objectives of the Energy Saving and Energy Efficiency Programme

- To ensure saving and rational use of the fuel and energy resources and reduce consumption of electric power for corporate needs during electricity transmission via UNEG grids by improving energy efficiency of the Company's facilities and equipment
- To put in place a system of electric power management and certification of operations based on requirements of ISO 50001:2011 "Energy management systems Requirements with guidance for use"
- To improve energy efficiency of the Company's electrical grid facilities and equipment

Economic effect of measures that were implemented as part of the Energy Saving Programme in 2014 amounted to

RUB

113.6

MIn

In 2014, initiatives targeted at better energy saving and energy efficiency were implemented in the following key areas:

- Reducing the process energy consumption during electricity transmission through UNEG
- Fitting the buildings, structures, and installations that are owned by Federal Grid with metering devices for water, natural gas, thermal energy, and electrical energy
- Reducing the electrical and thermal energy consumption in buildings, structures, and installations owned by Federal Grid
- Reducing the consumption of fuel and lubricants used by Federal Grid to provide the electricity transmission services through UNEG
- Developing and improving Federal Grid's regulations and internal documents related to energy saving and higher energy efficiency

# Federal Grid's energy management system consistent with the international standard ISO 50001:2011

In 2014, the corporate system of energy management of Federal Grid Company, its Corporate Headquarters and two branches (MES Volga and Samarskoe PMES) was certified for consistency with the international standard ISO 50001:2011.

Strengths of the Company's energy management system:

- A detailed and manageable Energy Saving Programme
- A well-designed system for monitoring of implementa-
- tion of targeted initiatives included in the Energy Saving Programme
- High responsibility and competence of employees involved in the development

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- and implementation of the energy management system
- Promotion of information about advantages and methods of energy saving in the Company's offices

<sup>1</sup> The Programme was approved by the Management Board of JSC FGC UES (Minutes No. 1239/3 dated 06 June 2014)

Our Company focuses on employee in-service training in energy saving and believes that such training plays an important role. For example, in 2014 the Company arranged training in MES East Training Centre for the following categories of MES East employees in order to prepare and ensure an appropriate level of competence:

- Operating employees of substations and administrative and managerial employees (11 groups, 13-15 persons each); topic: "Classification of electric grids by purpose. Management of electric grid operating modes. Energy saving, energy efficiency and energy management"
- Specialists of MES East and PMES who are responsible for implementation of the Energy Saving Programme and energy management. Topic: "Energy saving technologies and energy management in the power industry"
- Specialists of MES East and PMES: training was arranged as part of the "Day of Knowledge"; topic: "Energy saving, energy efficiency and energy management."

#### Use of Energy Resources in Federal Grid Company, 2014

	Volume	Planned process impact of initiatives aimed at reducing the consumption of energy/fuel	Actual process impact of initiatives aimed at reducing the consumption of energy/fuel	Economic impact of measures taken to reduce the consumption of energy/fuel
Process electricity consumption in UNEG, o/w:	21,261.1	90.1	96.1	107,100.9
	mln kWh	mln kWh	mln kWh	RUB thousand, excluding VAT
Electricity consumption for substations' own needs	968.7	5.3 млн	5.6	5,849.3
	mln kWh	кВт*ч	mln kWh	RUB thousand, excluding VAT
Electricity consumption in buildings	32.6	0.95	0.9	3,027.9
	mln kWh	mln kWh	mln kWh	RUB thousand, excluding VAT
Thermal energy consumption in buildings	44.39	1.36	1.88	1,800.5
	thousand Gcal	thousand Gcal	thousand Gcal	RUB thousand, excluding VAT
Gasoline consumption	8,232.3	31.32	32.92	997.7
	thousand liters	thousand liters	thousand liters	RUB thousand, excluding VAT
Diesel consumption	6,960.8	19.09	23.48	733.0
	thousand liters	thousand liters	thousand liters	RUB thousand, excluding VAT

The Company achieved these results through energy saving initiatives.

Federal Grid is taking the following actions in order to reduce technological consumption (losses) of electricity in INFG:

- Optimisation of the circuit and mode parameters in operation and control of the electric grids
- Reduction of electricity consumption for the own needs of the substations
- Building, reconstruction, and development of electric grids, as well as commissioning of energy saving equipment

In 2014, the companywide process effect of measures aimed at the reduction of electricity losses was a saving of 96.112 million kWh, which is equivalent to 11,821.8 tonnes of fuel equivalent; the economic effect amounted to RUR107.1 million.

The key measures aimed at the reduction of electric and thermal energy consumption in buildings, structures and installations:

- Improving heat insulation of building walls
- Replacement of wooden windows with energy efficient equivalents
- Replacement of incandescent light bulbs in buildings with energy saving equivalents (including LED strip lamps))
- Installation of lighting control systems (installation of motion sensors)
- Replacement of old doors (mostly wooden ones) with new energy efficient ones
- Modernisation of ventilation and air conditioning systems
- Installation of reflecting screens behind heating devices
- Appointment of responsible parties
- Optimisation of the heating g systems operations

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- The key measures aimed at the reduction of consumption of fuel and lubricants:
- Daily checks of tire pressure in vehicles
- Adjustment of fuel consumption norms
- Thorough monitoring of vehicle use
- Purchase of a diagnostic tools for vehicle injection engines
- Optimisation of travel routes using satellite navigation for continuous monitoring (GLONASS
- Optimisation of travel routes, staff training, and priority for loads with the lowest unit fuel consumption.

In 2014, the companywide effect of measures aimed at the reduction of consumption of resources for Federal Grid's own needs amounted to 447.7 tonnes of fuel equivalent (861.56 thousand kWh, 1,880 Gcal, 56,400 litres of fuel and lubricants) to the total amount of RUR6.559 million.

#### Federal Grid pilot projects on energy saving and energy efficiency

#### **Heat recovery**



Pilot project of AT 1 heat recovery (Phase A) at 500/220/10 kV Nizhegorodskaya substation (MES Volga) for heating the substation control desk: the Company used a heat pump that made it possible to increase the saving of thermal resources for heating and reduce the consumption of electricity for heating of buildings and air cooling of transformers.

- Expected energy saving: 648,000 kWh / year
- Expected cash effect of energy saving: RUB1.166.78 thousand

#### Optimising operation of the transformer cooling systems



Cooling control boxes AT-1 with frequency regulation were replaced at 500/220/10 kV Nizhegorodskaya substation [MES Volga]. The replacement helped to increase the service life of the autotransformer, increase the efficiency of using the cooling system, and register, store and automatically transmit information about the cooling system parameters in the automatic management system.

 Calculated energy saving: 16,000 kWh / year

#### Using plasma lamps for lighting of the open switchgear



Twenty-four external floodlights at 500/220/10 kV Nizhegorodskaya substation (MES Volga) were replaced with plasma lights that have high quality of light flux, energy efficiency and long service life, and are environmentally friendly.

 Annual consumption of electricity used for lighting was reduced by 60,700 kWh / year



#### Using "light tubes" for lighting of office buildings

This technology for lighting of office buildings by outdoor sunlight was used when the administrative building of MES Volga in Samara was refurbished; 14 "light tubes" were installed on the roof of a six-floor building.

 Calculated energy saving: 2,999.5 kWh / year

#### Introduction of an automated heating station



Automated control of water consumption was put in place when the heating system in the administrative building of MES Volga in Samara was refurbished. This technology helps to reduce excess energy consumption for heating and hot water supply, extend the life service and reduce the time between repairs of heat networks and boiler room equipment, keep record of heat consumption and make surplus heat for periods of the lowest temperatures.

- Thermal energy saving: 230 Gcal
- Expected cash effect of thermal energy saving: RUB437.04 thousand

#### Improving energy efficiency of the lighting installations



Work was completed on raising energy efficiency of lighting installations in the administrative building of the Upper Don PMES: the existing lamps and lighting fixtures were replaced with energy efficient LED light bulbs and automated management of internal lighting in the building was installed.

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- Electricity saving: at least 19,300 kWh / year
- Operational costs reduced by at least RUB430,500/year

#### INVESTMENTS AND INNOVATIVE DEVELOPMENT

#### INVESTING ACTIVITIES

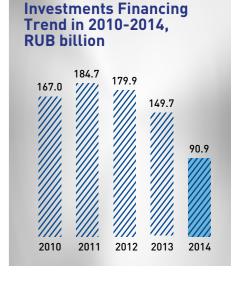
# Investments in the Development of Electric Grid Infrastructure

The main objectives of Federal Grid Company's investments are modernisation and improving reliability of the unified energy system operations required to provide uninterrupted power supply to the consum-

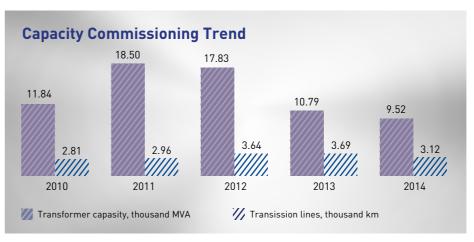
ers. As part of its investment activities, the Company implements projects on the construction of new electric grid infrastructure facilities and reconstruction of the existing ones.

#### Investments in the Development of Electric Grid Infrastructure

	2014 actual	Actual / target
Financing, RUB billion (including VAT)	90,857.03	78%
Capital investment volume, RUB billion (including VAT)	135,161.14	109%
Conversion of construction in progress into fixed assets, RUB billion	155,091.13	121%
Deployment of industrial capacities (commissioning of power facilities), MVA	9,522	112%
Deployment of industrial capacities (commissioning of power facilities), km	3,120.62	95%

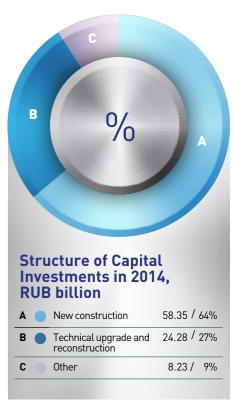


<sup>\*</sup> Справочно: фактический объем незавершенного строительства, переведенный в состав основных средств в физическом выражении (трансформаторная мощность и линии электропередачи), в 2014 г. составил 5 069 МВА и 3 331 км.



Overall, Federal Grid has met the 2014 investment programme targets. In particular, its performance was 78% for financing, 109% for investment volume, 121% for conversion of construction in progress

into fixed assets, 93% for commissioning of transformer capacities (as adjusted) and 95% for commissioning of transmission lines.



## Significant Investment Projects Implemented in 2014



We commissioned 341.8 km of the 500 kV Rostov NPP - Tikhoretsk OHL, which is strategically important for the development of the South Federal District



We reconstructed 220 kV Koysug SS (to 250 MVA), which will subsequently enable to provide reliable power supply to a number of large industrial consumer in Rostov oblast, such as JSC Rostovskiy Port



Our Company put into operation the second circuit of high voltage line between Urengoy HPP and oil fields of the Autonomous District with the total length of 426.7 km



#### New construction



- We commissioned 341.8 km of the 500 kV Rostov NPP - Tikhoretsk OHL, which is strategically important for the development of the South Federal District - it will deliver capacity from the new Rostov NPP facility (1,100 MW) to the region.
- 252.8 km of Pechorskaya HPP Ukhta-Mikun high voltage line was commissioned. This line is supposed to ensure more reliable electricity supply to consumer of Sourthern district of the Komi Energy System and to increase transit capacity.
- We commissioned 250 MVA transformer capacities for the 330 kV Gatchniskaya Luzhskaya OHL with 330 kV Luzhskaya SS. These capacities will help improve reliability of power supply to consumers of the Luzhsky district in Leningradskaya oblast.
- The Company commissioned 94.7 km of transmission lines relating to the 330 kV Leningradskaya NPP-2 OHL - Gatchinskaya SS. The implementation of the whole project will ensure delivery of the capacity of the 1st Poser Facility of the Leningradskaya NPP-2, thereby significantly increasing the possibilities for, and increasing the reliability of power supply for Leningradskaya oblast.
- Our Company commissioned 74.7 km "Reconstruction of 220 (500) kV Tarko-Sale - Urengoy OHL. This line will support delivery of capacity of Urengoy HPP Power Facility No 1. This project is part of another, large-scale project to supply electricity to the Vankor oil and gas field.
- We commissioned 18.1 km of transmission lines under the project "220 kV Approaches of Transmission Lines to Vladimir Combined Heat and Power Plant-2. Technological connections of electric plant of JSC TGK-6". Implementation of this project will ensure distribution of the capacity of Vladimir Combined Heat and Power Plant-2.
- We put into operation main substations designed to provide electricity for consumers of the Skolkovo Innovation Centre (Moscow).
- 8. As part of the effort to create a system of reliable electricity supply to the Valaam archipelago, we commissioned a 13.5 km cable line supplying power to the island
- Under the project aimed to provide external energy supply to support the expansion work at the East Siberia - Pacific-1 pipeline (to increase the throughput of the pipeline to 50 million tons per year) we commissioned 150 MVA of transformer capacity and 17. Construction was completed of approach 483.4 km of transmission lines.
- 10. As part of implementation of the Federal Targeted Programme "Economic and Social Development of the Far East and Transbaikal for the Period to the year 2013", we commissioned 132.75 km of transmission lines under the project "Construction of Dual-Circuit 220 kV Tautarovo - Goryachin-

- skaya Barguzin OHL with 220 kV Goryachinskaya SS, 220 kV Barguzin SS and reconstruction of 220 kV open switchgear at the 220 kV Tataurovo SS". When the project is fully implemented, it will provide electric power supply to the Baikal Haven Special Economic Zone.
- 11. The Company commissioned 801 MVA of capacity under the project "Reconstruction of 500/220/35 kV Kyibyshevskaya SS". Upon the completion of the reconstruction, this substation will be a power facility of a new generation equipped with modern automated systems and high-technology machinery that can provide electricity to most of the consumers of the Samara and Samara
- 12. As part of the programme to contain the fallout from the accident at the Sayano-Shushenskaya HPP, the Company commissioned a 500 kV line between substations Aluminiyevaya and Itatskaya (269 km of length), which serves, amongst other things, to increase the transfer capacity between Krasnoyarsk and the Republic
- 13. We commissioned 1,068 MVA of transformer capacities and 7.3 km of approach lines at the Yenisey substation in order to ensure reliability of power transfer between Irkutsk and Krasnoyarsk.
- 14. As part of the comprehensive development programme for the Yamalo- Nenets Autonomous District and the North of the Krasnoyarsk Krai, our Company put into operation the second circuit of high voltage linebetween Urengoy HPP and oil fields of the Autonomous District with the total length of 426.7 km.
- 15. We commissioned 440 MVA of transformer capacities at the Pulkovskaya substation. This substation shall be used to ensure reliable power supply for newly connected consumers at the new terminal of the Pulkovo airport, for facilities supplying electricity to the International Congress and Exhibition Centre ExpoCentre and to serve as a hub to which new 110 kV substations can be connected.
- 16. The Company commissioned the 500 kV Krasnoarmeyskaya – Gazovaya OHL (401.5 km), enabling to increase the grid transfer capacity of the connection Middle Volga – Urals by 500 MW in the direction of the IPS Ural and by over 400 MW in the direction of the IPS Middle Volga.
- lines for the 500 kV Yuzhnaya Shagol OHL (173.8 km) to deliver capacity of the Beloyarskaya NPP-2 (4th Power Facility using a fast-neutron reactor BN-800).

Reconstruction



- s we carried out reconstruction of electric grid complex 220/110/10 kV Svetlaya SS. The reconstruction will significantly improve reliability of power supply of consumers in the city Kamen-na-Obi, eight districts in the North of the region and part of the TransSiberian Railway.

## Long-Term Investment Programme

Federal Grid's Investment Programme for 2015-2019<sup>1</sup> was developed based on the assumption that prices for services provided by natural monopolies in 2014 would remain at the previous year's level, and changes in limits of investment projects' financing due to lower revenue generated by providing electricity transmission services.

The total level of investments planned for the 2015-2019 period is RUB563.7 billion, which will be used to introduce 55,500 MVA of capacity and 12,400 km of transmission lines into the fixed assets of Federal Grid.

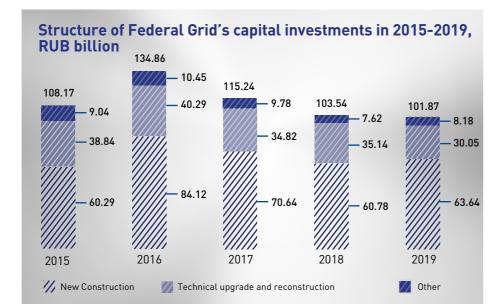
The investment programme for 2015-2019 is supposed to be financed using Federal Grid's own funds, bond issues<sup>2</sup> and funds from the Federal Budget. The programme provides for an even distribution of the investment costs over the 5-year period, which will enable the Company to maintain a balanced structure of its financing sources.

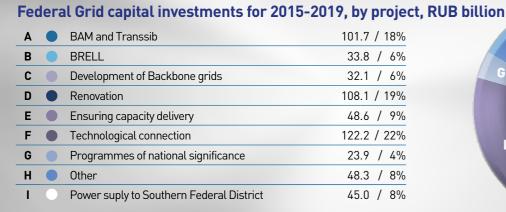
The investment programme for 2015-2019 has been optimised in the view of two requirements: completing grid projects construction started in previous periods and possibilities of financing new investment projects in the current economic environment.

#### The main goals of the long-term Federal Grid's investment programme are:

- Modernisation and reliability improvement of the Unified Energy System
- Providing electricity supply to the facilities of national importance, including developing reliable electricity supply to the South Federal District
- Ensuring failure-free electric power supply in the situation of separate functioning of the Unified Energy System of Russia and power grids of the Baltic States (Estonia, Latvia, Lithuania)
- Ensuring failure-free electric power supply in the situation of separate functioning of the Unified Energy System

- of Russia and the Integrated Power System of Ukraine
- Removing grid restrictions, ensuring the quality and accessibility of services for electricity transmission and technological connection for the consumers
- Synchronisation of the development programmes with the generating facilities and distribution arids
- · Improving the efficiency of the backbone electric grids by reducing the costs and implementing energy efficiency programmes
- Establishing an effective system for the management of UNEG operations







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### **Key Investment Projects**

Federal Grid's Investment Programme envisages the construction and reconstruction of power infrastructure of projects bearing national importance, such

as international forums and important sports competitions, oil transportation projects and programmes of development of Russia's various regions. We under-

stand the importance of such projects and do everything we can to build and reconstruct grid facilities on time and to the highest standards.

#### Development of the electric grids in the Far East and Transbaikal



In the Pribaykalsky District of the Republic of Buryatia we have been continuing the construction of the dual-circuit 220 kV OVL connecting the Goryachinsk substation and the Tataurovo substation, which is currently being reconstructed.

These substations will supply power to the facilities under construction in the Baikal Harbor special economic zone, such as the Centre for Eastern Medicine, port and sports and recreation and hotel complexes. Additionally, there will be a significant increase in the reliability of the electricity supply to the Barguzinsky, Kurumkansky, and Pribaykalsky Districts of the Republic with a population of 72 thousand people, as well as the East-Siberian Railway and the Pribaykalsky National Park.

The total cost of construction under the project will be RUB7.6 billion. In 2010-2014 the construction was financed with Federal Grid's own investment funds as well as those from the Federal

We plan to commission the first start-up facility in 2015; the deadline for the completion of the whole project has been postponed to 2022.

#### Yakutia

We have been continuing the construction of a 220 kV Neryungrinskaya HPP - Nizhny Kuranakh - Tommot-Maya OHL and 2 substations: 220 kV Tommot and 220 kV Maya. Implementation of the project will enable to connect the isolated central energy district of Yakutia with the to the IPS East electric grid Unified East Power System and to abandon the costly independent power supply sources. In addition, conditions will be created for connecting new consumers and economic development of South

In 2011 – 2014, 711.77 km of transmission lines and compensating installations (200 MVAr) were commissioned. We plan to commission 440 MVA of transformer capacity during the subsequent periods.

The total cost of the construction is RUB19.3 billion. The project is scheduled to be completed in 2016.

In order to ensure parallel operation of IPS Siberia and IPS East, we plan to carry out the project Amur Transformer Complex at Khani substation, which has design capacity of 200 MW and is scheduled to be completed in 2019.

#### Programme to contain the fallout from the accident at the Sayano-Shushenskaya HPP

In 2014, equipment at substations Novokuznetskaya and Oznachennoye was technically upgraded, the Company also carried out works at its facilities in the Krasnoyarsk Krai relating to the reconstruction of an outdoor switchgear at the Sayano-Shushenskaya HPP.

In 2014, we completed the construction of 500 kV Aluminiyevaya - Abakan - Itatskaya No 2 OHL with the total length of 270 km, which will be used to deliver the blocked capacity of the Sayano-Shushenskaya HPP and shall improve reliability of power supply to Sayansky and the Khassy Aluminium Plants.

Under Federal Grid's investment programme, in 2015 – 2019 a new substation

Voskhod and overhead lines with the total length of 41 km shall be constructed. These facilities are scheduled to be commissioned in 2016.

In total, under the Programme to contain the fallout from the accident at the Savano-Shushenskava HPP. Federal Grid commissioned 501 MVA of transformer capacity and 632 km of transmission lines.

Steps taken to ensure power transit via the Kurgan - Ishim - Voskhod connection enabled to increase reliability of electricity supply to consumers of the Omsk Energy System and consumers in the south of Tyumen oblast, due to these measures the maximum level of flow of capacity was increased between IPS Siberia and IPS Ural



<sup>&</sup>lt;sup>1</sup> Approved by the Order of the Russian Ministry of Energy No. 807 dated 31 October 2014

<sup>&</sup>lt;sup>2</sup> Subject to market conditions

**Compensatory measures** relating to separate functioning of the Unified **Energy System of Russia and** the Integrated Power System of Ukraine

In order to ensure reliable power supply of the North-West part of the Rostov power system, Federal Grid's investment programme envisages installation of an autotransformer with the capacity of 125 MVA at Pogorelovo substation and construction of electricity transmission line between the cities of Shakhty and Donetsk (Rostov oblast) with the total length of 80 km. The facilities are scheduled to be commissioned in 2016.

#### Improving the accessibility of electric grid infrastructure of the Krasnodar Krai

One of the key objectives in the area of regional infrastructure is to enable technological connection of consumers from the city of Krasnodar, including a large-scale housing construction project. In order to meet this objective, we plan to build in Krasnodar East Industrial Zone substation. Commissioning of capacity of 560 MVA and 16 km of overhead transmission lines is scheduled for 2017. The cost of this invest-

between the Administration of the Krasnodar Krai and Federal Grid on matters relating to the development, ensuring efficient operation and improved reliability Krai, we have recently signed a Co-operation Agreement for the period 2015-2020 in respect of the construction of the East Industrial Zone substation.

### Development of electric grid infrastructure in the area of BAM and TransSib This macroproject involves construction and reconstruction of UNEG electric grid

infrastructure in the Siberian and Far East Federal Districts. The objective of the project is to ensure the additional load on railway networks and system reliability of the backbone electric grid in the area of the Eastern Poligone, JSC Russian Railways.

Technical upgrade and reconstruction, as well as construction of new power facilities will increase the transformer capacity by 3,518 MVA and the length of electricity transmission lines by 3,691 km.

The Russian Government confirmed the strategic importance of this project. By this time, Federal Grid has prepared

a comprehensive justification for the project and has also conducted the pricing and technological audit in its respect.

ment project is RUB2.4 billion.

In order to facilitate efficient interaction of the UNEG grid complex in the Krasnodar (No. 000000343113 dated 24 February 2015)



#### **Ensuring reliable operation of the Unified Energy System of Russia** separately from the energy systems of the Baltic States (macroproject BRELL)

This macroproject represents a set of measures designed to compensate the consequences of the lowered transfer capacity of electric connections in the unified energy systems of the Centre and North-West as parts of the UES of Russia and changes in operations of the energy ring of the BRELL countries (Belarus - Russia - Estonia - Latvia - Lithuania).

In this area, our investment programme includes reconstruction of the Talashkino substation, modernisation of the existing emergency control automatics at the substations Leningradskaya, Chudovo and Pskov, construction of overhead transmission lines Novosokolniki - Talashkino, Leningradskaya - Belozerskaya, Pskov - Luzhskaya and construction of 330 kV OHL approach lines to the Kingisepskaya substation.

#### Ensuring power delivery from generation facilities

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Our long-term investment programme provides for the commissioning of facilities with the total capacity of 125 MVA and construction of 521 km of electricity transmission lines. Currently we are working on the implementation of power

delivery schemes for Novovoronezhskaya NPP-2, Leningradskaya NPP-2, Nizhnebureyskaya HPP, Zagorskaya PSPP, Zelenchukskaya HPP, Chelyabinskaya HPP, Huadian - Teninskaya CHP, Perm HPP.

#### Development of grid infrastructure co-financed by consumers

Currently, Federal Grid is implementing a project to build a 220 kV Razdolinskaya -Taiga OHL and 220 kV Taiga substation based on the principles of co-financing by the consumer, CJSC Polyus. Under the deal structure, the consumer is supposed to set up a special-purpose vehicle (SPV)

to carry out construction and to raise funds. Federal Grid, in its turn, shall provide technical supervision over the implementation of the project and, upon the completion of the facilities, shall buy them out in installments over a long period of time.

Federal Grid is currently in negotiations with JSC Norilsk Nickel regarding the construction of electric grid infrastructure of Bystrinsky Mining and Processing Plant under similar conditions.

#### Basic parameters of the key investment projects

Project	Project implementation timeframe		Commissioned	Design capacity	Financing in 2015-2019,
	start	completion	in 2014		RUB billion
Development of electric grid infrastructure at BAM and Transsib	2014	2024	0	3,518 MVA 3,691 km	101.7
BRELL	2015	2019	250 MVA	2,071.5 MVA approach lines 1 km	33.8
Ensuring power delivery from generation facilities	2015	2019	806.5 km	125 MVA 521 km	48.63
Development of the grid complex in Rostov oblast	2015	2016	0	125 MVA 80 km	1.11
Development of the grid complex in Krasnodar	2015	2017	0	560 MVA 16 km	2.4
Development of the grid complex in Buryatia	2010	2022	132.75 km	1 stup – 2x125 MVA 2 stup – 2x132.3 km	35.14
Development of the grid complex in Sakha (Yakutia)	2009	2016	282 MVA	1st stage - 275 km 2nd stage - 2x63 MVA 2x125 MVA 2x16 MVA 2x16 MVA 2x100 MVAr 45.5 km 434.6 km	10.46
Measures to contain the fallout from the accident at the Sayano-Shushenskaya HPP	2010	2016	269.6	668 MVA Controlled shunt reactor [180+60] MVAr Shunt reactor [180+60] MVAr 382.97 km 332.04 km Shunt reactor [180] MVAr	1.83

#### How can the current economic environment in Russia influence the implementation of Federal **Grid's investment programme?**

"The current economic environment is characterised by higher borrowing cost, limited financial market, growth of inflation and currency exchange rates, non-payments by consumers for electricity transmission and technological connections. In view of this environment, Federal Grid established the limits for financing of investments for 2015 at RUB76 billion.

In order to meet this limit, the priority in our investment programme is given to such projects as prevention of accidents at the Grid's facilities, improving reliability of the Grid's operation, developing

facilities included in the plan of measures designed to meet target reliability and quality indicators and a number of other projects developed in accordance with the Scenario-Based Conditions for Developing Investment Programmes.

Nikolay Pozdnyakov Deputy Chairman of the Federal

Despite the reduced level of financing, the implementation of Federal Grid's investment programme shall ensure that all key objectives in the area of maintaining

Grid's Management Board

the technical conditions of the Unified National Electric Grid and objectives of national importance, such as supporting the operation of the most important and socially significant facilities, will be met.



## Adjustments to the Investment Programme

In accordance with the "Rules for approval of investment programmes for electric power companies that include the State as a participant in their authorised share capital and grid companies", adopted by the Resolution of the Russian Government No. 977 dated 1 December 2009, as amended by the Decree of the Russian

Government No. 132 dated 16 February 2015, Federal Grid Company has drafted changes to its investment programme for the period 2015-2019 (adjustments to the investment programme for the year 2015) and has prepared a draft of the investment programme for the period 2016-2020. These documents envisage

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downward adjustments of the investment programme parameters (including financing, commissioning of fixed assets) for the purpose to maintain high financial reliability of the Company in the environment of volatile financial markets, higher borrowing costs and deterioration of payment discipline.

# IINNOVATIVE DEVELOPMENT PROGRAMME Innovative Technology for Better Reliability

Federal Grid Company's innovative development is aimed at enhancing the reliability, quality and economy of the supply of electricity to consumers by upgrading the electric grids of the Russian Unified Energy System with the use of innovative technology to turn them into an intellectual core of the technology infrastructure of the national electric energy sector.

Our Management Board and the Board of Directors' Strategy Committee have approved key provisions of Federal Grid's Innovative Development and Modernisation Policy, which, once implemented, will result in the creation of a smart grid based on innovative solutions.

In order to achieve the goals and objectives of our innovation policy, we have developed a comprehensive Innovative Development Programme for the years 2013-2017 with an outlook through 20201.

Our innovative development programme will improve the efficiency of utilisation of Russian's energy potential, facilitate the development of new technologies, contribute to further development of the national industry, reduce the percentage of imported equipment, and create favourable conditions for procuring the maximum benefits for the national economy.

As part of its Innovative Development Programme, Federal Grid is carrying out works aimed at fulfilling UNEG modernisation and development tasks, creating conceptual, technology and production fundamentals and favourable conditions for building a smart grid, and improving Federal Grid's business processes and organisational mechanisms to achieve the goals and objectives of innovative development.

#### **Key Areas of the Innovative Development Programme**

#### **Development of New Technologies** and Release of Innovative Products

- Development of the concept of a smart energy system
- Development, testing and commercialisation of new technologies
- Development of new energy market services
- Energy efficiency improvement programme
- Programme to improve the environmental impact of Federal Grid Company
- · Collaboration with institutions of higher education and scientific organisations
- Programmes to develop partnerships with innovative small and medium businesses
- Interaction with venture capital businesses and the Skolkovo Institute of Science and Technology

#### **Development of New Technologies**

- Integrated pilot projects to create a smart grid
- Development, modernisation, and improvement of the energy efficiency of UNEG
- Building of a production base for modernisation of UNEG

#### **Innovative Business Processes**

- Improvement of business processes and introduction of new management methods
- Development of a system of innovation activities

#### Which results have been achieved today in the area of Federal Grid's innovative development?

"Innovations are a key component of Federal Grid's technological reliability formula, so we have been implementing a comprehensive Innovative Development Programme since 2011.

As part of our efforts to implement that Programme, we are developing, testing and commercialising new technologies, preparing and implementing pilot projects to create a smart grid, and are aggressively taking steps to modernise and improve the energy efficiency of the Unified Energy System as a whole.

Our research and development works have resulted since 2011 in more than 220 certificates and patents obtained, including 10 international ones, for various utility models and inventions in the area of electric energy, such as our achievements in high-temperature superconductivity, steel multifaceted supports and fundamental structures for power transmission lines, electric grid monitoring systems and systems for protection of electric grids against

> Pavel Korsunov Deputy Chairman of the Management Board of Federal Grid Company

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external impacts, etc. Prototypes of those solutions are currently used in various pilot projects being implemented at Federal Grid's facilities.'



<sup>1</sup> As approved by a resolution passed by the Management Board of Federal Grid Company (Minutes No. 1167/2 dated 26 April 2013)

## 2014 Results of the Innovative Development Programme

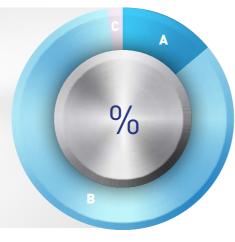
Our continued focus on activities to introduce innovations and related activities became a key systemic outcome of our efforts to implement the Innovative Development Programme in 2014. That outcome was reached thanks to the fact that considerable results meeting the innovativeness criteria were achieved during the years 2010-2013 in implementing various R&D projects and programmes, i.e. in re-

spect to implementation of the Smart Grid Concept and due to the objective need for practical approbation and introduction of innovative solutions at UNEG facilities.

Given the completion of the main scope of construction and installation works as part of the ongoing innovative projects and reduction of Federal Grid's Investment Programme due to the change of the

growth scenario for electricity transmission tariffs, only RUB1,280,400,000 were spent to implement the Innovative Development Programme instead of the planned RUB11,389,500,000. Nevertheless, thanks to an increase in the efficiency of our investment activities, we were able to fulfil most of the key performance indicators of that Programme in the reporting year.

Α •	R&D programme	419.4 / 14%
В	Integrated pilot projects to create an active-adaptive grid with the use of innovative technologies and energy efficiency	2,598.8 / 84%
С	Creation of training centres for Federal Grid's operating staff	76.6 / 2%



# Meeting Key Performance Indicators of Federal Grid's Innovative Development Programme in 2014

	2013 actual	2014 target	2014 actual	Assessment of whether or not the KPI has been met
Trend of reducing the cost of repair of a unit of grid equipment relative to the cost level of 2010, %	1	2	2.5	Met
Share of the spending on equipment purchased from domestic manufacturers in the total spending on equipment purchasing, %	38	35	44.5	Met
Share of electricity lost in the total volume of electricity transmitted through the grid, $\%$	4.28	4.47	4.13	Met
Number of company staff per 100 km of power transmission lines (number of people)	14.76	15	14.56	Met
Area of land in metropolitan areas freed from the grid infrastructure, ha	200	400	0	Not met
Share of undersupply of electricity to consumers in the total volume of electricity transmitted through UNEG, $\%$	0.0006	0.0027	0.0002	Met
Number of exclusive rights documents (patents and registration certificates) obtained through the R&D work for the year	55	20	56	Met
Number of technologies and products developed and introduced into production through the R&D work, pcs.	4	2	9	Met
The share of R&D expenditure at FGC's own expense relative to the revenue (from electricity transmission through UNEG), $\%$	1.1	1.1	0.25	Not met
Share of funds secured from external sources in the total financing, %	0	2.0	0	Not met
Share of expenditures on R&D performed by universities relative to the total R&D expenditure, $\%$	2.4	1.0	6.7	Met

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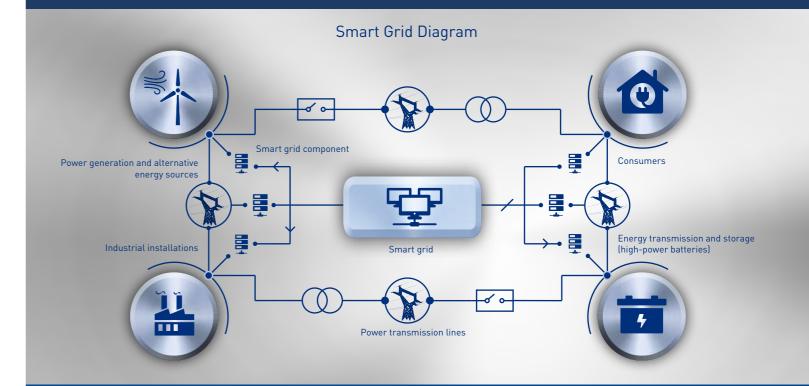
### **Smart Grid**

In the future, our efforts to implement the Innovative Development Programme are expected to result in the creation of an electric energy system with a smart grid differing from the existing grid by the following innovative elements:

- Automated electricity transmission systems
- Active grid elements with variable parameters
- Current grid status monitoring system

 Automated real-time systems to keep the operation of the energy system within the limits set as part of a uniform analysis and decision-making system

The smart (active-adaptive) grid and the principles of management of the energy system will be built on the priority of systemic factors and conditions – reliability and economy of the system as a whole.



# New Principles and Technologies Underlying the Smart Energy System with Active-Adaptive Grid

- The smart grid is rich with active components that allow changing its topological parameters
- Sufficient number of sensors to measure current mode parameters for monitoring the grid condition in various operation modes of the energy system
- Data collection and processing system and controls for grid active components and consumer electric installations
- Necessary actuators and mechanisms for real-time measurement of grid topological parameters and interaction with adjacent power assets
- Tools for automatically assess the current conditions and preparing grid operation forecasts
- High-performance control system and fast data exchange

#### R&D

Federal Grid's Innovative Development Programme includes R&D works to develop and test breakthrough and enhancing innovative technologies. The breakthrough technologies includes digital substation, electric equipment based on high-temperature superconductivity, multi-agent control systems, and energy accumulation.

We are currently implementing our R&D Programme for the Years 2014-2018. It is designed to ensure stable, long-term funding of our efforts to develop state-of-the-art technologies, equipment and devices and is aimed at enhancing the reliability, quality and economy of consumer power supply by upgrading the Russian UES grids and turning them into a smart core of the future power technological infrastructure.

# Target Subprogrammes under the R&D Programme

- Digital substation
- New materials and designs
- Process Management
- Operation and monitoring
- Digital design
- Power conversion and transmission

#### **Russia's First Digital Substation**

In 2014, we completed our work to build Russia's first digital substation, which, in addition to performance of its designed functions, also serves as a test ground for development of new innovative solutions in this field.

Our new digital substation will enable us to implement the following tasks:

 Test next-generation digital monitoring, protection and con-

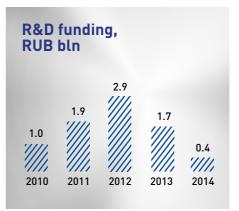
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trol devices based on IEC 61850-9.2 and IEC 61850-8.1 as well as develop and test the optimum structure of a "process bus" based on IEC 61850-9.2

- Comprehensively the test digital substation equipment in both normal and emergency operation conditions of the simulated electric grid
- Make electric grid operation more reliable and begin migrating to "unattended" substations

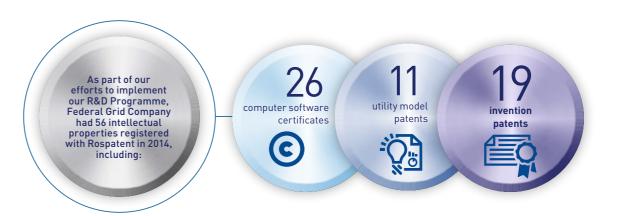


In accordance with our Investment Programme, we spend RUB419 mln to implement our R&D Programme in 2014. The reduction of the R&D funding volume compared to the previous year was caused by some adjustments we made to our Investment Programme in line with a change of the power transmission tariff growth scenario.



As part of our efforts to implement the R&D Programme, we reached the following key results in 2014:

- We developed a prototype of a 220-kV, 63-MVA power gas-insulated transformer that will reduce substation maintenance and fire-extinguishing system costs as well as land-use costs by providing a more efficient substation setup.
- We developed and built a pre-production model of a thyristor-controlled phase-shifting device designed to be installed on the 500-kV Voskhod substation that will eliminate overload on the 220-kV Tatarskaya-Voskhod overhead transmission line and control the Ural-Siberia power flow by re-distributing power among the relevant links; prevention of loop power flows is likely to yield 200-300 MVA in potential reduction of power losses in the grid adjacent to the 500-kV Voskhod substation.
- We developed a prototype of a remote temperature control system for contact joints and some components of a overhead transmission line (such as loop joints and terminal and connecting clamps), which system is designed for collection, storage and online transmission of overhead transmission line technical condition data.
- We developed sets of documents on aesthetic single-circuit and twin-circuit supports for 220-kV overhead transmission lines sufficient for use in high-voltage power transmission line new construction and reconstruction projects; those supports are designed to be installed in metropolitan centres, at entrances to cities and towns, along ring and bypass roads, and at approaches to substations within the precincts of cities and towns to improve the aesthetic appearance of backbone power transmission lines.



## Longer-term Plans

Given the limited funding in the years ahead, we intend to concentrate on improving the quality and efficiency of planning and implementation of our R&D Programme and focus our efforts on the most advanced and critical areas of our innovative activities.

We also plan to further actualise our "open innovation" tools for working with our partners in innovative development in the following areas:

 Development and popularisation of Federal Grid's public documents and Internet resources concerning innovative development, oriented to our partners and counterparties and setting out goals and objectives, key requirements and technologies, and other important information related to modernisation of UNEG, building of a smart grid and other areas of our innovative development

 Further development of innovative competencies centres established with participation or support from Federal Grid Company on the premises of university labs, chairs, departments and small innovative "subsidiaries" and based on innovation contests

- Development of public-private partnership mechanisms
- Development of management mechanisms for Federal Grid's knowledge, competencies and production system to maximally use our internal reserves for innovative development

# MANAGEMENT'S DISCUSSION AND ANALYSIS FINANCIAL PERFORMANCE

FINANCIAL PERFORMANCE

Operational Efficiency Leads to Better Financial Performance

#### What were the implications of the changes in the country's economic environment in 2014 for Federal Grids's performance results?

"Responding to changes in the economic situation, at the end of the year Federal Grid took immediate steps to ensure that we maintain liquidity and are able to repay our financial liabilities with our own funds, which included reduction in investment cash outlay by 20%, we also stepped up measures to enforce repayment of overdue receivables.

In the current recession environment our key priority is cost cutting, which in 2014 was rather successful:

 Above-target reduction of operating expenditure – by 21.7% from the 2012 level – following the guidance in the Strategy of the Electric Grid Complex Development of the Russian Federation, under which the target for reduction is 15% by 2017  Reduction of administrative and management expenses by 15% compared to the 2013 level – in compliance with the Directive of the Russian Government No. 2454p-P13 dated 23 April 2014

Timely measures taken by the Company's management in response to dramatic change in the Russian economic environment in 2014 enabled to minimise the impact of negative factors on Federal Grid's operations and achieve strong performance results for that year.

In 2014, for the first time in recent years, Federal Grid earned net profit of RUB5.1 billion, and a proposal was made to pay out dividends."

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Does, in your view, Federal Grid have sufficient funds available to finance the implementation of further development plans in 2015?

"In 2015, in the environment of declined paying capacity of electricity transmission services consumers, Federal Grid is not planning to raise any additional loans or other debt finance; we are going to use our own funds for exercising bond put options thus continuing to reduce our loan portfolio. Currently, the levels of financing under the investment programme approved by the Ministry of Energy of the Russian Federation for 2015-2019 are being reviewed in the light of the objective to maintain the Company's financial stability while ensuring fully reliable operation of its facilities. Along with the reduction of the investment programme, we use measures aimed at raising finance with the government support, including issuing infrastructure bonds."



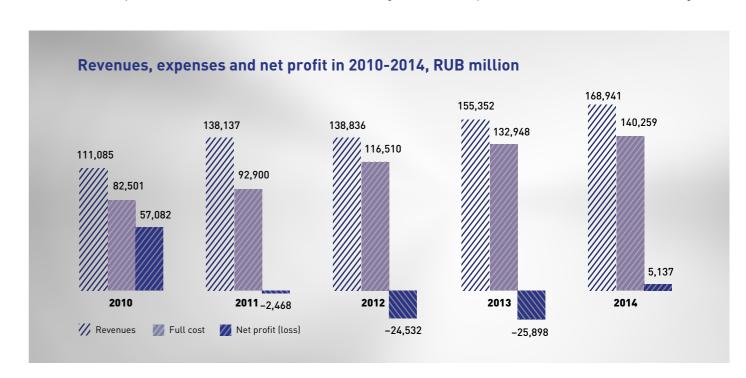
#### Federal Grid's key financial performance indicators

RUB million	2010	2011	2012	2013	2014
Revenues, including:	111,085	138,137	138,836	155,352	168,941
Electricity transmission services	109,510	134,875	136,581	152,710	159,881
Other operations	1,574	3,262	2,255	2,642	9,060
Full cost (costs and management expenses)	82,501	92,900	116,510	132,948	140,259
Sales profit	28,584	45,236	22,326	22,404	28,682
Other income*	150,765	175,670	113,556	61,125	35,058
Other expenses**	112,037	209,463	150,152	101,201	49,402
Profit (loss) before tax	67,312	11,444	- 14,270	-17,672	14,338
Deferred tax assets	- 33	46	-55	1,776	-816
Deferred tax liabilities	- 1,181	-5,545	- 8,736	- 9,977	- 8,367
Current profit tax	- 9,264	- 8,390	- 1,471	-	-
Other similar mandatory payments	43	- 3	- 0,3	- 5	- 18
Profit tax adjustment for the previous periods	206	- 21	-	- 20	-
Net profit (loss) for the period	57,082	- 2,468	- 24,532	- 25,898	5,137
Adjusted EBITDA ***	68,301	84,683	82,809	96,296	99,603

<sup>\*</sup> Other Income includes income from participation interest in other organisations and interest receivable

Based on the results of the Federal Grid's financial performance analysis, it should be noted that there was an upward trend in revenues over the period 2010-2014.

Federal Grid's performance results for 2014 indicate an increase in the Company's operating efficiency confirmed both by income growth and cost optimisation under the restriction on tariff growth.



<sup>\*\*</sup> Other Expenses include interest payable

<sup>\*\*\*</sup> Not including entries re charging and recovery of doubtful debts, revaluation of assets and revenue relating to technological connection

#### Revenue structure in 2010-2014

RUB million	2010	2011	2012	2013	2014	Change in 2014/2013	Change in 2014/2013, %
Revenues, including:	111,085	138,137	138,836	155,352	168,941	13,589	8.7%
Revenues from electricity transmission services	109,510	134,875	136,581	152,710	159,881	7,172	4.7%
Revenues from technological connection services	609	2,127	1,077	986	7,002	6,016	610.2%
Revenues from other operations	965	1,135	1,178	1,656	2,058	402	24.3%

#### Revenues

During 2014, Federal Grid's revenues grew from the 2013 level by 8.7%, including revenues relating to electricity transmission through UNEG by RUB7,172 million (4.7%) and relating to providing services under agreements on technological connection for the amount of RUB6,016 million. The reasons for this included stepped-up work to chase payments of applicants, including in respect of generation facilities, taking into account the investment expenses for constructing new and developing the existing grid infrastructure to provide generating capacity in line with the Amendments to the Federal Law On Electric Power Industry No. 35-FZ dated 26 March 2003 effective from 6 November 2013.

#### **Production costs**

The key factors for a decrease in production costs in 2014 compared to 2013 are:

- a RUB1,524 million (28%) decrease in the volume and cost of the work performed by third-party contractors on repairs and maintenance under the programme for improving the Federal Grid's operational efficiency;
- a RUB267 million (16%) increase in expenses relating to electricity transit services due to rouble weakening (transit of electric power is effected via foreign grids) and indexation of the transit service tariff.

#### Management expenses

The key drivers for lowering management expenses in 2014 compared to 2013 are the following:

- expenses relating to consulting services increased by RUB418 million (337%) due to the entering into a service contract with JSC Rosseti for arranging operation and developing the electric grid complex;
- software purchase and maintenance costs were reduced by RUB270 (18%)

# Cost and management expenses in 2010-2014

RUB million	2010	2011	2012	2013	2014
Full cost (cost and management expenses), including	82,501	92,900	116,510	132,948	140,259
Production costs*	43,953	44,390	47,657	51,056	49,974
Management expenses	4,647	6,940	7,326	7,412	6,843
Depreciation and property tax	33,901	41,570	61,527	74,480	83,442

\* includes part of administrative expenses

within the programme for increasing the Federal Grid's performance efficiency and effectiveness;

- labour costs, social charges and insurance payments decreased by RUB223 million (8%) as a result of the headcount optimisation;
- property lease payments were reduced by RUB190 million (26%) as a result of acquisition of an office building at Belovezhskaya Street.

#### Depreciation and property tax

The key factors for the changes in costs and expenses in 2014 compared to 2013 are the following:

- depreciation payments increased by RUB7,156 million (10%) due to adding new electric grid facilities to fixed assets as part of the implementation of the investment programme, and to the revaluation of fixed assets carried out by the Company;
- property tax increased significantly by RUB1,807 million (50%) due to introduction of a large number of new fixed assets from prior years and to the repeal of property tax benefits relating to power transmission lines.

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#### Cost optimisation

In order to increase efficiency of the Federal Grid's operations and to optimise the volume and structure of production costs and management expenses, the Company developed a comprehensive Programme for Improving Efficiency of Operations approved as part of the Federal Grid's business plan for 2014-2018.

The results of our efforts designed to improve the Company's performance in 2014 were the following:

- purchasing costs decreased by 10-25%;
- cost of purchases under long-term agreements (supply of transformer oil, protective clothing, inputs, provision of service maintenance of compressor machinery, cleaning of transmission line paths, technical maintenance and repairs of by Elektrosetservis) was reduced;
- fees under agreements on providing security services for facilities were reduced;
- fees under agreements for IT services were reduced (supplement agreements were entered into that provided reduction of fees at the current volume of services);

disposition of personnel was optimised with a partial release of office space (a lease agreement relating to non-residential space in Moscow at the address Nametkina Street, bldg 12A,

was terminated; currently, some of the Company's subdivisions are moving to the building at Belovezhskaya Street, bldg 4) optimisation of headcount was conducted.

In the future, Federal Grid will continue to implement the adopted programmes for improving performance efficiency. The Company is also planning to carry out projects of internal and external benchmarking, which will enable to establish cost optimisation target values – both for MES branches and for Federal Grid as a whole.

# Federal Grid's key operating and financial performance indicators (reflecting measures implemented under the Cost Management Programme)

	2012	2013	2014	Chan; 2014/	
Expenses included in the basis of the Cost Management Programme (in 2012 prices), RUB million *	37,534	36,708	32,343	-5,191	-13.8%
Amount of equipment in maintenance, c.u**	1,139,492	1,227,400	1,254,789	115,297	10.1%
Increase in c.u. relative to the 2012 level (with account of the elasticity coefficient of operating expenses by volume of assets, Q = 0.75)	-	1.058	1.076	-	-
Adjusted fixed expenses per 1 c.u. (in 2012 prices), RUB '000/c.u.	32.9	29.9	25.8	-7.2	-21.7%
Reduction in unit operational expenditure, %	-	-9.2%	-21.7%	-	-
Adjusted fixed expenses (with account of increase in c.u. and consumer price index), RUB '000/c.u.	37,534	34,700	30,062	-7,472	-19.9%

\*controlled expenses (excluding electricity bought to cover losses, transit of electricity, depreciation of fixed assets and amortisation of intangible assets, taxes and charges, etc.)

The results of 2014 show that the Company has fulfilled all assignments in respect of improving its operational efficiency:

- Administrative and management expenses were reduced by 15% compared to the 2013 level, in compliance with the Directive of the Russian Government No. 2454p-P13 dated 23 April 2014, to RUB11,427 million in 2014
- The Company achieved a reduction of operating expenditure (OPEX) compared to the 2012 level, which was above the target set by the Strategy of the Electric Grid Complex Development of the Russian Federation (21.7% in 2014 vs. target of 15% in 2017); the effect from the implementation of the programme was RUB7,472 million
- Unit investment expenditure (CAPEX)
  was decreased by 17.03% as compared
  with the 2012 level, in accordance with
  the recommendations of the Strategy of
  the Electric Grid Complex Development
  of the Russian Federation
- The Company earned net profit in the amount of RUB5,137 billion
- The Company's debt remains within sustainable limits as established by our debt policy, i.e. at 3.0\*EBITDA, for 2014 the debt level was RUB 257,8 billion (2.6\*EBITDA)

#### Other income and expenses

In 2014, Federal Grid's other income and expenses decreased as compared with 2013 by RUB27,239 million and RUB55,894 million respectively – due to the decrease in transactions for purchase/payment of bank promissory notes as part of measures for placement of temporarily disposable monetary resources in the amount of RUB45,811 million, and due to the increase, in the reporting year, in recovered doubtful debt reserves of RUB17,539 million, decrease in the amount of provisions for impairment of investments (including in shares of JSC INTER RAO UES) and provisions for doubtful debts in the amount of RUB18,424 million, and an increase in expenses due to the writedown of fixed assets by RUB1,093 million.

#### **EBITDA**

Adjusted earnings before interest, tax, depreciation and amortisation (EBITDA) increased by RUB3,307 million (3%) as compared with the same period of 2013, to RUB99,603 million

#### Net profit (loss)

In 2014, for the first time in recent years, Federal Grid earned net profit in the amount of RUB5,137 million

In the light of dividends paid out for Q1 2014 in the amount of RUB437 million and net profit earned, the management will propose to the Board of Directors to recommend to the General Meeting of Shareholders to pay out dividends for 2014 in accordance with the adopted business plan and Federal Grid's dividend policy

<sup>\*\*</sup> based on data provided by Federal Grid's operating units (actual data may be adjusted based on evaluation by a special organisation)

#### 2010-2014 Net Profit Distribution

	2010	2011	2012	2013	Q1 2014	2014*
RUB million	GMS Minutes dated 04.07.2011 No 11	GMS Minutes dated 02.07.2012 No 12	GMS Minutes dated 02.07.2013 No 13	GMS Minutes dated 30.06.2014 No 15	GMS Minutes dated 30.06.2014 No 15	target
Retained net profit (loss) for the reporting period is allocated as follows:	58,088	-2,468	-24,532	-25,898	437	4,700
Reserve fund	2,904	-	-	-	-	257
Development	18,578	-	-	-	-	-
Covering of previous years' losses, remuneration of Board members	34,028	-	-	-	-	3,596
Dividends	2,578	-	-	-	437	847

<sup>\*</sup> The decision on the allocation of 2014 earnings is to be made by the General Meeting of Shareholders scheduled for June 2015

#### CASH FLOW

#### Net cash flows

RUB million	2010	2011	2012	2013	2014
Net cash flows	-69	6,004	281	-3,196	22,149
Net cash flows from operating activities	77,582	99,194	100,494	86,688	106,499
Net cash flows from investing activities	-121,712	-163,742	-173,183	-163,485	-59,335
Net cash flows from financial activities	44,061	70,552	72,970	73,601	-25,015

Net cash flows from operating activities consist of the following:

- Cash inflows from electricity transmission services via UNEG in the amount of RUB150,992 million
- Cash inflows from technological connection via UNEG in the amount of RUB5,384 million
- Cash inflows in the form of return of funds under bank guarantees in the amount of RUB1,920 million under contracts for work and services relating to the construction, technical upgrade and reconstruction of Federal Grid's capital facilities due to the contractors' failure to perform / perform properly their contractual obligations
- Cash inflows resulting from leasing the Company's property in the amount of RUB1,000 million
- Payments within operating activities, material expenses, labour and insurance payments, cash outlays relating to maintaining property and other operating outflows – for the total amount of RUB 41,694 million
- Payments to cover electricity transmission losses in the amount of RUB12,002 million
- Net cash flows from investing activities are the result of the following:
- Placing temporarily disposable funds in bank accounts as deposits in the amount of RUB39,346 million

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- Receipts from the sale of long-term financial investments for RUB2,779

  million
- Payments for acquisition, construction, upgrading, reconstruction and preparation for operation of non-current assets in the amount of RUB 77,198 million
- Interest payments relating to bond issues in the amount of RUB22,321 million

Net cash flow from financial activities in the amount of RUB25,015 million resulted from repayment of long-term loans totalling RUB24,578 million (buy-out of bond issues of the 15th and 18th series).

#### FINANCIAL POSITION

#### **Asset and Liability Structure**

RUB million	31.12.2010	31.12.2011	31.12.2012	31.12.2013	31.12.2014
Total assets	902,110	1,037,493	1,122,995	1,214,291	1,231,217
Non-current assets	767,152	919,501	1,011,667	1,092,629	1,117,921
Current assets	134,958	117,992	111,328	121,662	113,296
Total liabilities	902,110	1,037,493	1,122,995	1,214,291	1,231,217
Shareholders' equity	794,192	853,079	849,125	842,975	854,490
Long-term liabilities	52,668	138,054	209,360	282,429	267,435
Short-term liabilities	55,250	46,360	64,509	88,887	109,292

The above evolution of the balance sheet items indicates that both assets and liabilities increase every year.

Federal Grid's total assets as at 31 December 2014 were higher than those at the end of 2013 by RUB16,926 million [1.4%], which was due to the following factors (amongst other things):

- Increase in the value of non-current assets by RUB25,292 million (2.3%), which was caused by large-scale investments in the construction of large fixed assets under the Federal Grid's investment programme and decrease in the level of construction in progress and advances paid out for the acquisition of non-current assets
- Decrease in current assets by RUB8,366 million (6.9%) because of the decrease in short-term financial investment compensated by the increase in cash balance in the Company's settlement account and in the accounts receivable

As at 31 December 2014, the asset structure did not change compared to 31 December 2013: the shares of non-current and current assets were 91% and 9% respectively.

On the other side of the balance sheet, the greatest part is shareholders' equity at 69.4%, whereas short-term and long-term liabilities represent 30.6%.

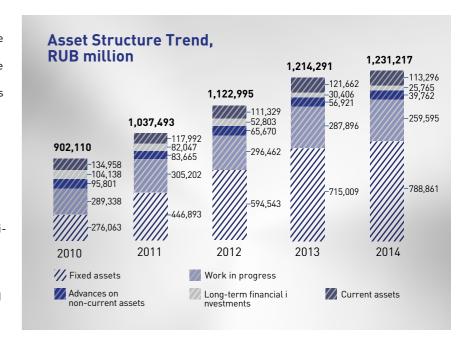
Federal Grid's shareholders' equity increased during the reporting period by RUB11,514 million (1.4%), which was due to reflecting in the accounts

retained earnings of RUB4,700 million (the amount was calculated taking into account interim dividends for Q1 2014), increase of the share capital by the amount of a new share issue for 2013 in the amount of RUB3,762 million registered by the Bank of Russia, and reflection of the revaluation of the Company's fixed assets (RUB2,562 million).

Thanks to measures taken to increase its operating efficiency, Federal Grid

managed to exercise put options in respect of its bond issues (series 18: RUB14,890 million and series 15: RUB9,688 million) using the Company's own funds without raising any additional finance to refinance the debt under the current debt market deterioration.

As a result, the level of Federal Grid's loans (excluding any interest accrued) decreased during the reporting period by RUB24,578 million to RUB257,771 million as at the end of 2014.



#### Net asset value

RUB million	2010	2011	2012	2013	2014
Nominal net asset value *	794,470	853,354	849,400	842,975	855,251
Net asset value (calculated with account to contributions to the authorised capital) **	805,617	855,573	852,647	846,731	855,251

<sup>\*</sup> Estimate based on annual accounts with retrospective adjustment

#### **Accounts receivable**

RUB million	31.12.2012	31.12.2013	31.12.2014
Accounts receivable, including	61,254	53,842	60,163
with maturity over 12 months from the reporting date:	6,177	1,710	1,111
trade receivables	3,670	5	5
notes receivable	-	-	-
cash advances	-	-	-
other accounts receivable	2,507	1,705	1,106
with maturity within 12 months of the reporting date:	55,077	52,132	59,052
trade receivables	18,442	22,061	37,501
notes receivable	-	-	-
amounts payable by subsidiaries and affiliates in respect of dividends	-	-	-
amounts payable by shareholders as contributions to the authorised capital	-	-	-
cash advances	1,696	1,933	1,559
other accounts receivable	34,939	28,138	19,992

In 2014, the Company's pre-trial activities and legal proceedings were based on the following documents:

- Procedures for claim-related work in the Corporate Headquarters of Federal Grid Company approved by the Order No. 393 dated 04 July 2011
- Procedures for interaction between the Legal Department and MES branches in the area of claim-related work approved by the Order No. 394 dated 04 July 2011
- Regulation on claim-related work in the Corporate Headquarters and MES branches f Federal Grid Company approved by the Order No. 402 dated 16 September 2014

- Procedures for interaction between Federal Grid and its subsidiaries and affiliates when performing claim-related work approved by the Order No. 516 dated 18 November 2014
- Procedures for managing Federal Grid's receivables and payables approved by the Order No. 383 dated 09 September 2014

In 2014, Federal Grid was a party in 1,123 court cases, as a result of which payment of RUB7,876 million for the Company's benefit was enforced and court rulings were passed to decline claims against the Company for the total of RUB5,099 million.

Within the pre-trial activities, the Company filed 604 claims to its counterparties

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in respect of failure of the latter to fulfil their obligations towards the Company for the total amount of RUB1,019,309,685.8, of which claims for RUB38,988,948.56 were settled. During the same period the Company received 257 pre-trial claims for the total amount of RUB381,280,635.5 and paid RUB18,818,304.59 out of this amount to settle the claims.

During the reporting period, the Company wrote off RUB834 million of unrecoverable receivables, of which RUB29 million were written off as a charge to the profit (loss) account and RUB805 million as a charge to the previously accrued provision

#### Accounts payable

RUB million	31.12.2012	31.12.2013	31.12.2014
Accounts payable, including	40,017	58,051	77,551
trade payables	19,676	41,424	67,206
notes payable	-	-	-
wages/salaries payable	212	205	221
accounts payable to the State non-budget funds	104	55	84
taxes and charges payable	544	961	1,326
advance payments received	11,481	8,498	6,085
dividends payable	11	13	9
other accounts payable	7,989	6,895	2,620

#### **Key financial indicators**

RUB million	2010	2011	2012	2013	2014
Liquidity indicators					
Absolute liquidity ratio	1.31	1.00	0.68	0.67	0.39
Quick liquidity ratio	2.73	2.24	1.58	1.29	0.93
Current liquidity ratio	3.08	2.71	1.83	1.43	1.04
Financial stability indicators					
Equity to total assets ratio	0.88	0.82	0.76	0.69	0.69
Total debt/EBITDA*	0.7	1.3	2.3	2.8	2.2
Current assets coverage ratio	0.53	0.54	0.37	0.3	0.03
Profitability indicators					
Return on equity (ROE)*	3.4%	4.1%	1.6%	2.0%	1.6%
Return on total assets (ROTA)* (based on profit before tax)	3.4%	4.4%	1.3%	2.8%	1.9%
EBITDA margin*	60.7%	61.3%	59.6%	62.0%	59.0%
Business activity indicators					
Receivables/payables growth ratio	1.27	1.45	1.48	1.17	0.84
Total receivables/payables ratio	1.48	1.42	1.53	0.93	0.77
Most liquid receivables/payables ratio	0.62	0.51	1.12	0.53	0.56

<sup>\*</sup> For the calculation of this indicator, EBITDA, net profit or profit before tax was not adjusted to reflect impact of external factors outside of of the Company's management competence

As at 31 December 2014, the actual liquidity ratios are within the statutory values, that proves the Federal Grid's ability to meet its short-term liabilities by using its current assets.

The Company's absolute liquidity ratio (recommended value: 0.2-0.5) shows that there remains a share of short-term liabilities that can be covered by cash and other highly liquid assets (securities or bank deposits).

The quick liquidity ratio (recommended value: > 1) demonstrates a sufficient level of Federal Grid's ability to repay short-term liabilities with the more liquid assets (cash, receivables, short-term investments).

The current liquidity ratio (recommended value: 1-2) demonstrates that the Company has retained its ability to repay its short-term liabilities with current assets.

The equity to total assets ratio (recommended value: 0.5-0.8) shows that Federal Grid's dependence on external borrowings is within normal range and demonstrates that the risk of insolvency is low and that there is no risk of cash shortage.

Therefore, Federal Grid can be described as a financially sound company with a low level of financial dependence and capable of meeting its obligations.

<sup>\*\*</sup> In 2012 and 2013, the authorised capital of Federal Grid Company was increased through an additional share issue. It led to the reporting of accounts payable to the shareholders on their contributions to the authorised capital in the Company's accounting statements. Upon registration of the placement report with the Russian FFMS, these accounts will be included in the Federal Grid Company's authorised capital. An evaluation of net asset value was made with regard to this inclusion: in the amount of RUB2,219 million for 2011, RUB3,247 million for 2012 and RUB3,755.6million for 2013.

#### TARIFF REGULATION

## Tariff policy

Tariffs for technological connection and electricity transmission services over UNEG are regulated by the federal government and are approved by the Federal Tariff Service (FTS) of Russia. Transmission services provided over distribution grids are regulated on the regional level.

## Tariffs for electricity transmission via UNEG

Since 2010, tariffs for Federal Grid's electricity transmission services over UNEG have been set using a method based on return on invested capital ("RAB regulation")

In order to calculate tariffs for each year of the regulatory period, the required gross revenue is determined by summing the following: recovery of invested capital, return on invested capital and expenses required to provide power transmission services via UNEG. In order to avoid any sharp increases in tariff rates, the RAB-based method includes a smoothing mechanism, which involves redistributing the required gross revenue over the whole long-term period under regulation. For the purposes of tariff calculation, the invested capital payback period is set at 35 years.

Under the FTS's tariff policy, Federal Grid must maintain the level of reliability and quality of service indicators. Indicators of reliability of electricity transmission are related primarily to the occurrence of process disturbances and their consequences for the consumers, whereas indicators of quality of service provided to consumers are related primarily with the timeliness of sending technological connection agreements.

# Key long-term parameters for Federal Grid's RAB regulation approved by the FTS of Russia

First long-term regulation period	2010	2011	2012	2013	2014
Rate of return on capital invested before 01.01.2010	3.9%	5.2%	6.5%	7.8%	10.0%
Rate of return on capital invested after 01.01.2010	11.0%	11.0%	11.0%	10.0%	10.0%
Capital invested by Federal Grid, RUB billion	647.6	-	-	-	-
Indicator for reliability of services provided	-	0.049	0.0483	0.0475	0.0468
Indicator for quality of services provided	-	1.2599	1.241	1.2224	1.204

Second long-term regulation period	2015	2016	2017	2018	2019
Rate of return on capital invested	10%	10%	10%	10%	10%
Base level of operating expenses, RUB billion	35,02	-	-	-	-
Index of operating expenses efficiency	-	3%	3%	3%	3%
Net working capital, RUB billion	11,42	11,92	12,43	12,97	13,52
Indicator for reliability of services provided	0,03602	0,03548	0,03495	0,03443	0,03391
Indicator for quality of services provided	1,23908	1,22049	1,20219	1,18415	1,16639

In accordance with Government Resolution No. 1045 dated 12 December 2009, differential tariff rates were set for electricity

transmission services to maintain electric grid facilities of UNEG for regions of the North Caucasus Federal District of Russia.

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# Tariff rates for electricity transmission services to maintain electric grid facilities of UNEG

Period	For all Russian region exclud Federal Dis		For Russian regions in the N Distri	
	RUB/MW per month	growth rate	RUB/MW per month	growth rate
First long-term regulation period				
2010	87,868.77	51.1%	37,845.23	-
01.01.2011-31.03.2011	116,782.52	32.9%	46,029.88	21.6%
01.04.2011-30.06.2012	111,083.35	- 4.9%	43,783.55	- 4.9%
01.07.2012-30.06.2013	123,328.44	11.0%	48,540.01	10.9%
01.07.2013-30.06.2014	134,964.06	9.4%	53,119.60	9.4%
01.07.2014-31.12.2014	134,589.17	- 0.3%	52,923.13	- 0.4%
Second long-term regulation period				
01.01.2015-30.06.2015	134,589.17	0%	52,923.13	0%
01.07.2015-30.06.2016	144,686.52	7.5%	56,868.70	7.5%
01.07.2016-30.06.2017	152,648.99	5.5%	59,998.32	5.5%
01.07.2017-30.06.2018	159,516.24	4.5%	62,697.48	4.5%
01.07.2018-30.06.2019	166,687.69	4.5%	65,516.20	4.5%
01.07.2019-31.12.2019	174,208.71	4.5%	68,472.32	4.5%

# Tariffs for electricity transmission via distribution grid facilities

Federal Grid's services to transmit electricity over distribution grids are provided with the use of their facilities built under the Federal Grid's investment programme by the State-owned company Olimpstroy and other distribution grid facilities that were leased or provided for use without

compensation by Federal Grid in accordance the requirements of the relevant Resolutions of the Russian Government.

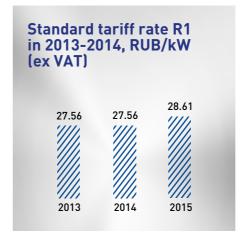
In accordance with the decisions of regional authorities, the required gross revenue of the distribution grids' facilities

in 2015 shall be RUB1,780.5 million in the Krasnodar Krai and RUB33.2 million in the Primorskiy Krai.

### Tariffs for technological connection

The FTS of Russia established a procedure for applying two calculation methods for technological connection: approval of an individual fee for a particular applicant and a formula calculation based on standard tariff rate R1.

Standard tariff rate R1 has been set on the same level for consumers in all regions of the Russian Federation irrespective of the level of capacity connected or the voltage level



Starting from 6 December 2013, payments for technological connection of generation facilities to UNEG, in addition to expenses relating to construction of new grid facilities include investment costs relating to expanding the existing grid infrastructure for the delivery of generation capacity (irrespective of the generation type).

In 2014, payments for technological connection under individual projects was used in settlements with 25 consumers. The total level of such payments was RUB34.4 billion (ex VAT). Applicants with the largest payment amounts include:

Jaymem am	ounts include:
RUB 14.2 bn	JSC Boguchanskaya HPP
RUB 10.7 bn	JSC Rosenergoatom – Leningradskaya NPP-2, block No 1
RUB 1.49 bn	JSC Fortum - Nyaganskaya HPP, Block No 1
RUB 1.45 bn	JSC OGK-2 – Chererepovetskaya HPP, Block No 4
RUB 1.1 bn	LUKOIL- Astrakhanenergo LLC
RUB 1 bn.	JSC Fortum – Nyaganskaya HPP, Block No 2

#### DEBT PORTFOLIO

During 2014, Federal Grid was working on reducing its debt portfolio through exercising put options under the Company's outstanding bond issues. As a result, the debt portfolio decreased compared to the previous year by RUB24.6 billion to RUB257.8 billion. In case of financing requirements and positive market trends, the Company can place a repurchased portion of the bond issues through a secondary bond placement. The Company meets its obligations on servicing its debt portfolio and debt repayment in full and on time.

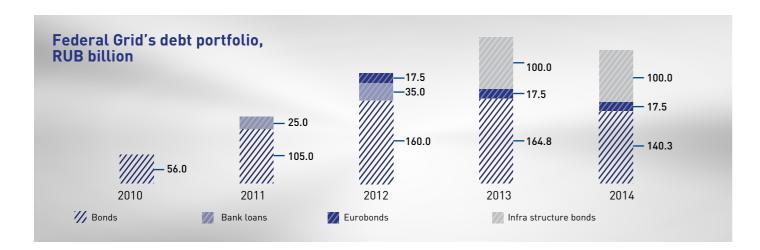
Federal Grid's local bonds are listed on the MICEX and its Eurobonds are traded at the Irish Stock Exchange.

# Federal Grid's Debt Portfolio as at 31 December 2014

Type of debt	Amount, RUB bn	Time to maturity, years
Bond issues	140.3	1.5 - 8
Infrastructure bonds	100.0	32 - 34
Eurobonds	17.5	4.25
TOTAL	257.8	-

In addition, the Company has revolving and non-revolving credit facilities opened with major Russian banks (Sberbank of Russia, Gazprombank, Alfa-Bank, NOMOS-Bank, Promsvyazbank, AB Russia and Bank Saint Petersburg) with maturities of 5–15 years.

In 2015, we expect to exercise put options for the total amount of RUB 25 billion under the following bond series: exchanged-traded bonds of BO-01 series, bonds of 10 and 07 series).



#### CREDIT RATINGS

Starting from the first quarter of 2014, highly reliable indicators of the Federal Grid's credit quality assigned by international rating agencies have been under pressure as Russian sovereign ratings appeared likely to be downgraded in the environment of growing geopolitical risks related to the events in Ukraine, slower economic growth due to sanctions imposed by foreign countries, dramatic fall in the international oil prices, weaker national currency and significantly higher Rouble cost of borrowing in the capital markets. Despite that, financial position of our Company remains strong and stable, which is

confirmed by evaluation of Federal Grid's credit on a stand-alone basis, i.e. without factoring in the state support component.

During the period from the end of 2014 to the time of preparation of the Annual Report, rating agencies carried out additional actions in relation to Federal Grid's ratings, including actions performed as part of the procedures on reviewing for downgrade the Russia's sovereign rating.

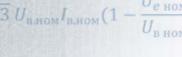
At the date of preparation of the report, Federal Grid's ratings are in line with the sovereign levels and are in investment category under Fitch Ratings' scale and in speculative category under Standard & Poor's and Moody's scales. It should be noted that our Company remains financially highly stable, the change in its ratings is due to lowering of the country ceiling, and the assumption made by the agencies' analysts that the likelihood of the Company's receiving state support in the event of significant deterioration of its performance has decreased.

#### Information on Federal Grid's credit ratings

Rating agency	as at 31.12.2014	as at the date of the preparation of the Annual Report	preparation of the as at 31.12.2014			
	Internati	onal scale	Nation	ational scale		
STANDARD &POOR'S	BBB- / under review for downgrade	BB+ / outlook: negative	ruAAA / under review for downgrade	ruAA+		
Moody's	Baa3 / under review for downgrade	Ba1 / BB+ / outlook: negative	Aaa.ru / under review for downgrade	Aa1.ru		
Fitch Ratings	BBB / outlook: negative	BBB- / BB+ / outlook: negative	AAA(rus)	AAA(rus)		

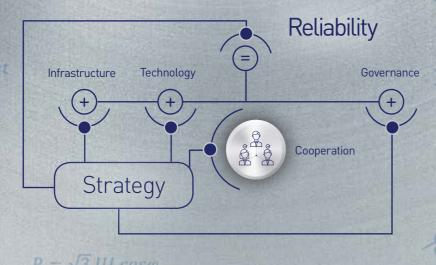
# Social responsibility and sustainable development

Long-term sustainability and reliability of Federal Grid Company depend on creating favourable conditions for HR development and maintaining a constructive dialogue with all stakeholders



$$= \frac{1}{\sqrt{3} (U' - jU'')}$$





SUSTAINABLE DEVELOPMENT PRINCIPLES

Constructive Dialogue with Stakeholders

We consider the sustainable development policy to be an effective tool for delivering our strategic objectives - rational use of resources and ensuring the reliable

The main principles of the Federal Grid's sustainable development policy are maintaining a balance between social and economic interests in the Company's activities and focusing on those aspects of sustainable development that are of high priority for our stakeholders.

Strategic priorities of Federal Grid's sustainable development

- Innovative development of domestic energy industry
- · Building a talent pool for the smart energy system
- Developing responsible human resource management practices
- Health and Safety improvement

- Ecologisation and improving energy efficiency of electric grids
- Fair distribution of value created and evaluation of economic efficiency of innovations and new technologies
- Integrating the social responsibility strategy into internal business processes

Regular, open communication with stakeholders plays an important role, as it allows us to better understand their expectations and to use a target-oriented approach for shaping the corporate social responsibility agenda. The communication channels we use for the dialogue include congress and exhibition arrangements, multilateral discussions, raising awareness through mass media.

Since 2008, Federal Grid Company has published annual reports on social responsibility and corporate sustainability (Social Report). Reports are prepared in accordance with international standards for non-financial statement disclosure: GRI Guidelines, the GRI energy protocol, AA 1000 SES standard.

As part of preparing the Social Report, the Company discusses its key topic with stakeholders and collects disclosure requests. Prior to publication, the text of the Report is discussed publicly in the form of hearings held either in absentia or

Our Social Reports are registered with the National Registry of Corporate Non-Financial Reports, which is maintained by the Russian Union of Industrialists and

#### Stakeholder Engagement

#### Stakeholders Understanding of Social Responsibility Progress in 2014 The State • Meeting obligations under the investment programme Ensuring the reliable and uninterrupted power • Signing several cooperation agreements with public authorities (Rosreestr, regional agencies) • Implementing priority public sector projects · Drafting, approving and implementing the import substitution programme • Transparency and efficiency of operations, meeting with the needs of the economy • Creating and arranging meetings of the Consumer • Supporting the domestic power plant industry, encouraging import substitution • Distributing SPV mechanism to accelerate consumer • Openness and flexibility in consumer relations access to UNEG • Signing cooperation agreements with Rosneft, RZD and other companies • Holding General Meeting of Shareholders **Shareholders and Investors** • Arranging meetings of Federal Grid's senior • Transparency of business processes executives with analysts from investment banks and funds, rating agencies · Growth in shareholder value · Holding consultation meetings with minority shareholders - individuals **Employees** • Taking measures for attracting and retaining young specialists • Creating decent working conditions • Implementing a Corporate Housing Programme • Health and Safety • Doors Open Days • Providing opportunities for professional and personal growth • Holding professional skill competitions Social support • Ensuring professional training, including within the " Knowledge Days" **Suppliers and Contractors** • Signing agreements with Russian and foreign • Creating transparent competitive environment · Using a market based pricing model • Supporting domestic suppliers in access to foreign Local Communities and • Signing a first (among electric power companies) cooperation agreement with the World Wildlife Fund (WWF) on conservation of oriental storks and • Reducing negative impact on the environment prevention of bird death on power lines · Participation in Earth Day **Science and Education** • Promoting industry-specific science and education Cooperating with scientific organisations, placing orders for R&D • Personnel training and ensuring generational Organising practical training, Days of Federal Grid Company in education institutions Applying innovative technologies that reduce environmental impact • Organising students' teams Mass Media • Holding media events (briefings, press-points, and • Transparency of business processes • Ensuring information accessibility of the Company's • Distributing press releases on a timely basis activities

#### HR POLICY

# Developing Human Capital

Our employees are those who ensure a reliable operation of UNEG facilities. Our objective is to create and sustain conditions for optimal use of workforce capacity and to ensure the availability of qualified personnel with the minimum level of employee turnover.

Federal Grid's HR Policy aims to increase productivity, strengthen social protection of employees, create favourable social climate and ensure that employees and other stakeholders have a positive perception of the Company's image.



Professional competency of employees is one of the key components of the formula for reliability of Federal Grid Company. What efforts does the Company make to attract young talent under conditions of manpower shortage in the market?

"To attract the best graduates, to help them with adaptation and to increase their interest in a long-term development within the Company, we implement a number of projects, from engagement with higher-education institutions and specialised secondary schools to social programmes for young specialists.

Federal Grid develops close relationship with industry-specific education institutions. Today, cooperation agreements are in force with 50 higher-education institutions of our country and 13 specialised secondary schools. The main areas

of cooperation are improving the structure and content of educational programmes for power engineers, developing topics for graduation works and thesis researches for students and postgraduates, organising the traditional annual Day of Federal Grid Company in education institutions, practical and pre-graduation practical training for students, training for teaching staff at the Federal Grid facilities.

In the reporting year, more than 640 students undertook practical and pre-graduation training at the Federal Grid's facilities. The Company hires more than 400 graduates of higher-education institutions annually.

Federal Grid has a number of social programmes targeted at

# Natalia Ozhegina

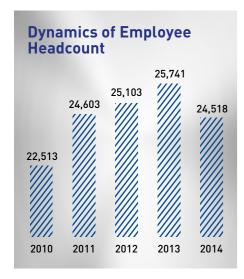
Deputy Chairman of the Management Board of Federal Grid Company young specialists. For example, the Company compensates them rental cost and provide corporate housing for young specialists in remote regions."



· Handling requests from mass media

### Headcount and Personnel Structure

At the end of 2014, the headcount of Federal Grid Company was 24,518 employees, a 5% decrease on 2013. Headcount optimisation was made under the policy for increasing productivity that involves a 10% decrease in the number of administrative and managerial personnel compared with 2013 figures.

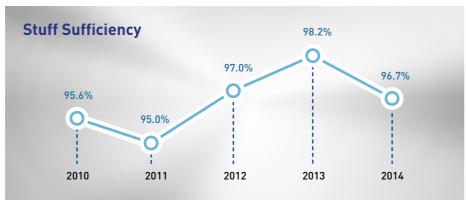


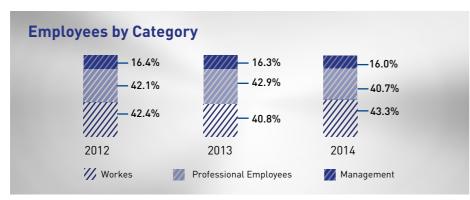
In the second half of the reporting year, a project was launched for auditing and improving the functional organisational structure of the Company, which is expected to result in a 15% reduction of administrative and managerial staff.

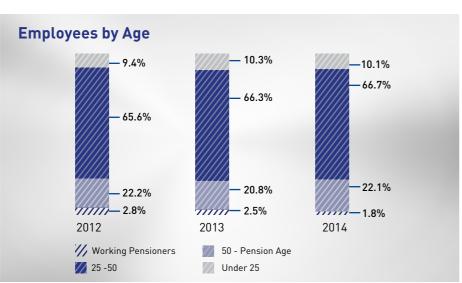
The employee turnover rate decreased by 1.3% to 6.5% compared with 2013. In 2014, 3,152 employees were hired and 4,415 employees were fired by Federal Grid Company.

Over the last few years, a tendency has been observed towards a decrease in average age of the Company employees. During the period from 2012 to 2014, the average age has decreased from 39.6 to 39.3 years. The majority of the Company's staff (57%) are employees of the age below 40 years. Thus, the Company has achieved an optimal balance of young, enthusiastic employees and experienced, highly qualified staff members who ensure the continuity of generations and the transfer of professional knowledge and skills.

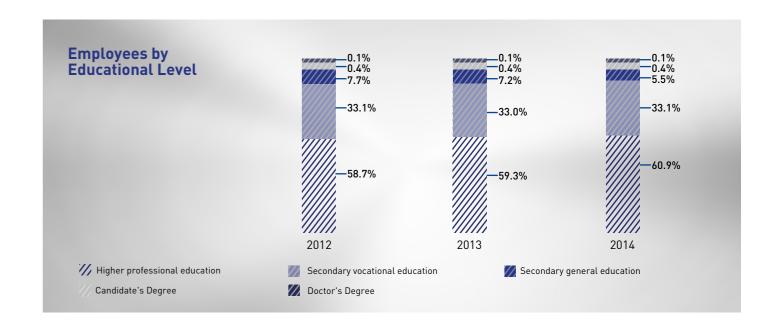








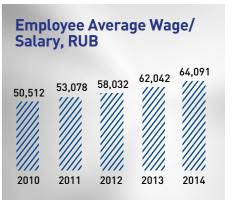
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### Material incentives

A compensation system in Federal Grid Company takes into account the position categories, performance results of the Company branches and structural divisions, specifics of regional labour markets and individual contribution of each employee.

To retain a certain income level of key personnel, the Company provides wage indexation for employees under "workers" category by the value of actual growth in the consumer price index in accordance with the provisions of the Electricity Industry Tariff Agreement. Over the period of 2010-2014, the average wage level has increased almost by 27% up to RUB64 thousand.



### Succession pool

Two types of succession pool have been created in Federal Grid Company: "tactical" and a pool for the position of PMES' director.

A tactical succession pool for the production and technical facilities of Federal Grid - MES (backbone electric grids),was created under five key areas of the Company's activities for the positions of heads and deputy heads of structural units of the Company branches. In order to develop the professional competencies of the succession pool members, a mentorship programme was launched which required each member to complete his individual training plan under the supervision of his mentor within nine months.

A succession pool for the position of PMES' Director was created to minimise HR risks related to professional level of directors of PMESs (backbone electric grid enterprises).

### Appointments of succession pool members to superior positions in 2014

	Number of members	Number of members appointed to superior positions, persons		Sufficiency of succession	
Type of succession pool	in 2014, persons	Target positions	others	pool for managerial positions	
Tactical succession pool for the production and technical facilities of Federal Grid – MES	412	25	15	108%	
Succession pool for the position of PMES' Director	92	2	8	162%	

### Personnel Training and Development

Having personnel with a high level of professional qualification is one of the key factors driving the reliable operation of UNEG. In this context, issues of developing a comprehensive and continuous system of personnel training become a high priority.

In 2014, 15,440 employees, 62% of total headcount, were involved in various types of training, retraining and professional development. Training of operating personnel (12,648 employees) made up the largest part of all programmes (82%). Since operating personnel are involved in

operation of hazardous facilities, training under the Rostechnadzor's programmes became one of the focus areas in the reporting year.







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In 2014, within one of the Company's strategic activity areas on creating conditions for import substitution development and localisation of electrical manufacturing in the territory of the Russian Federation. the training was organised for the Company's specialists at the production sites of the largest Russian manufacturers of power equipment, such as Energomash (Ekaterinburg) - Uralelectrotyazhmash, and Tolyattinsky Transformator, Besides, the joint corporate training programmes were successfully implemented with the equipment suppliers Ekra, Energoinnovations, Uralenergoservice, Prosoft-systems, RT Soft, Siemens, Alstom Grid, GE, ABB.

In 2014, a special attention was paid to training technical specialists from the succession pool of Federal Grid Company. Practical training at the manufacturers' premises, including foreign manufacturers, became the most significant event. A trip to Prague was organised under the project on creating a single communication network for electric power industry, where the Company employees were trained on the Marconi equipment.

Since the opening of training centres in the Company branches – MES in 2011, an internal training system has been formed in Federal Grid. It allows us to manage the quality of personnel training according to the Company's requirements, to update the existing professional development programmes and develop new ones, to optimise costs and time within the training process.

Today, the licensed Personnel Training Centres of Federal Grid Company appear to be comprehensive educational complexes. They include training simulators, laboratories with relay protection and emergency automatic equipment, and electric grid training areas equipped with advanced technical training aids and prototype equipment. The simulation classes are made as scaled-down models of dispatch control centres and allow us to organise emergency response exercises for operators of Grid Control Centres of the Company branches.

In 2014, active simulator training was arranged at Personnel Training Centres, 287 exercises were organised. 6,700 employees were trained in the Company's personnel training centres under the various professional development programmes that take into consideration knowledge, skills and expertise of trainees.

In August 2014, the Federal Grid's Personnel Training Centres moved to a new professional level – they received a license for educational activity. The license increases the Company's opportunities and enables not only to train our employees, but also to implement serious education projects for outside clients.

In order to build a knowledge management system, and taking into account the necessity to train a great number of employees from the Company branches to work with new production, technological and management standards, an educational project "Day of Knowledge" has been implemented in Federal Grid Company since 2011. Day of Knowledge is held in the form of video conference, that is the most accessible way to get knowledge for all employees regardless of their location and facilitates the adaptation of young

specialists. In 2014, 8,755 employees participated in the training events held by the personnel training centre within this project.

Federal Grid Company continues to extend the scope of cooperation with the leading industry-specific higher education institutions in all regions where the Company operates. The cooperation programme aims to address issues of improving education in the power industry in order to bring knowledge and skills of graduates closer to the current production requirements of the Company. Our employees were actively involved in the institutions' educational process with regard to improving the programmes/ courses for electric power engineering and developing topics for early essays and graduate theses. Practical training for students was ogranised at the Federal Grid's facilities and personnel training centres, and the projects Applied Bachelor's Programme and School for Young Engineers were implemented.

In 2014, 383 employees of Federal Grid Company were trained under retraining and professional development programmes at the premises of higher-education institutions. Training was provided within the cooperation agreements with such higher-education institutions as National Research University Moscow Power Engineering Institute (MPEI). St. Petersburg Polytechnic University, Samara State Technical University, Ural Federal University, Far East State Transport University, Surgut State University, and others. Under the federal programme "Training and Retraining of Executive Talent Pool", one of the Company's mid-level executives received training at Lomonosov Moscow State University. The team of 10 young specialists from the Federal Grid's succession pool took part in the 3rd International Forum "Energy Saving and Energy Efficiency" ENES 2014.

### Non-Governmental Pension Programme



A non-governmental pension programme for the Company employees was approved in 2004. Since the programme launch, a non-governmental pension from Federal Grid funds has been granted to 4,295 employees.

Implementing this programme has a great motivational effect and allows us to provide our employees with decent non-governmental pensions.

In 2014, RUB327 million was allocated for the non-governmental pension fund.

### **Awards Policy**

Employees are entitled to awards if they have rendered great service to the State, to the fuel and power industry or to the Company, and if they demonstrate high production and management efficiency, or achieve great results in the operation, construction and re-construction of electric grid facilities.

In 2014, awards were given to 4,981 employees of Federal Grid Company, its subsidiaries and associates, and contractors, including:



employees received State awards of the Russian Federation and the Government of the Russian Federation for their services to the State, including their major contribution to the construction and ensuring reliable operation of the Olympic electric grid facilities in



employees received industry awards of the Russian Ministry of Energy



employees were given the Honourary Certificate of the CIS Electric Power Council





was awarded the title "Best Enterprise of Federal Grid Company -PMES" in 2014

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was awarded the title "Best Branch of Federal Grid Company - MES" in 2014

#### **SOCIAL POLICY**

### Socially Responsible Approach

### Social Programmes for Employees

A benefits package in Federal Grid Company is based on a principle of social partnership between the employer and employees. It is a tool for employee motivation and social security and includes voluntary medical insurance, accident insurance, non-governmental pension, financial assistance to employees in need (connected with marriages, childbirths, etc), wage/salary advance.

The Company has a Corporate Housing Programme. To provide qualified personnel for power facilities that are in remote areas or under construction, a corporate housing stock of Federal Grid Company has been created, numbering 647 living accommodations. In 2014, 193 company-owned apartments were commissioned and provided for rent to the Company employees. Our corporate housing stock covers such regions as the Khanty-Mansi Autonomous Okrug - Yugra, Yamalo-Nenets Autonomous Okrug, the Tyumen and Amur Regions, Primorsky Krai, the Khabarovsk and Krasnoyarsk Regions, Zabaykalsky Krai, Chechen Republic, Stavropol Krai, Krasnodar Krai, the Moscow, Saratov and Leningrad Regions.

In addition, Federal Grid provides corporate assistance according to its commitments assumed in 2011-2013 under the programme for improving employees' housing conditions. In 2014, corporate assistance in the form of



interest-free loans and compensations was rendered to 788 employees, including 328 young specialists.

To attract high quality specialists and the youth, whose activities involve moving to another place, the Company compensates the employees' rental costs. In 2014, we helped 526 employees, including 355 young specialists, with housing rent.

In order to execute the assignment of the RF President, in 2014 we implemented an initiative on organising health-improving rest of employees of the Company branches in the Republic of Crimea. 314 employees and their family members rested in health resorts and children's health camps of the Republic of Crimea. Federal Grid partially compensated expenses for sanatorium and preventive treatment.

### Strengthening Corporate Culture

The Company's corporate culture brings employees together as a united team, providing motivation for fruitful work, encouraging their initiatives and facilitating communications. We are developing the corporate culture with the support of the key employee groups: young specialists, family labour dynasties, veterans. We have specific corporate programmes and events for each of the above groups.

The Code of Corporate Ethics serves as a core document that establishes a framework for our corporate culture. The Code is publicly available, and each employee is aware of its content.

Since 2010, the Company has implemented the Dynasty Programme aimed at fostering labour traditions and

ensuring generational continuity. In 2014, a traditional Doors Open Day was organised within this Programme in all regions where the Company operates. The event included guided tours to the Company's most important substations for more than 1400 children of the Company employees.

Children of Federal Grid's employees took an active part in a children's drawing contest organised by JSC Russian Grids: "Rosseti: Children are Drawing" devoted to the Company Day. On the eve of Power Engineers' Day, a children's drawing contest "Lightful Profession" was organised with participation of more than 450 employees' children from four to twelve years old. Federal Grid Company actively engages with and provides assistance to the Council of Electric Power Industry Veterans. In

2014, we organised celebrations for more than 300 veterans dedicated to Victory Day and the Power Engineers' Day.

To improve professional qualification, promote creativity and innovative thinking and develop technological culture, since 2013 young specialists of Federal Grid Company have participated in the International forum of young power engineers "Forsazh". In 2014, the Federal Grid's team included representatives from Federal Grid branches and the Corporate Headquarters.

A healthy lifestyle, sport and physical activities are promoted among the Company employees. Federal Grid offers them partial reimbursement of gym membership and organises trainings for those who want to do sport.

The Company's volleyball and indoor soccer teams participate regularly in competitions between the companies of the Fuel and Energy Complex. Since 2011, Federal Grid, together with JSC R&D Centre of FGC UES, has organised a chess tournament in memory of Mikhail Botvinnik.



### Youth Policy

To develop a talent pool for the industry, Federal Grid is implementing initiatives to provide young employees with the opportunities for professional growth, and to attract talented and active youth into the industry.

The Company's team of 10 young specialists from our succession pool took part in the III International Forum "Energy Saving and Energy Efficiency" ENES 2014. Employees of MES branches were engaged in the Youth Round Table of JSC Russian Grids within the XVIII St Petersburg Economic Forum.

In 2014, Federal Grid Company continued to develop mutually beneficial relationships with industry-specific higher-education institutions and specialised secondary schools. Today, the Company cooperates on various aspects with 51

Russian higher-education institutions and 13 specialised secondary schools. The main area of cooperation with educational institutions is still the organising practical and pre-degree training for students. Over the course of 2014, more than 640 students got practical skills at the Company's facilities; temporary jobs with time wage were created for 200 of them. In 2014, 50 students were involved in the Company's target scholarship programme. Upon graduation, 41 students, who had been trained at the Company's facilities, were hired by Federal Grid Company. Annually, we hire 400 graduates from higher-education institutions.

In April – May 2014, a traditional annual Day of Federal Grid Company was organised in 34 leading higher-education institutions and 3 specialised secondary schools involving more than 2,100 students.

In the reporting year, 28 senior power engineering students received additional theoretical and practical knowledge in the "School of Young Engineer" organised at the premises of the Personnel Training Centre "Bely Rast" of MES Centre.

In autumn 2014, the Chairman of the Federal Grid's Management Board Andrey Murov held a meeting with students of MPEI. They discussed the development prospects of the Russian grid complex and the related issues of personnel training.

In summer 2014, there was a fifth season of Federal Grid's student construction teamwork. The MPEI sent 10 student teams with the total number of 121 students to work on 10 projects under construction.

### Charity

Traditionally, Federal Grid Company provides charity support within the following areas: :

- Support of the activities in the educational, scientific and cultural fields, public awareness campaigns
- Support of the activities in the field of physical culture and sport
- 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 under conditions of hardship
- Support of the activities in the field of health care, healthy lifestyle promotion, improvement of moral and psychological condition of citizens
- · Assistance for those who have suffered

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from natural disasters, environmental or industrial disasters or other catastrophes

 Support of individuals who need a surgery to protect the life and health (including for prevention of disability and long-lasting rehabilitation), and those who need treatment of serious disease

#### **HEALTH AND SAFETY**

### Creating Safe Working Conditions

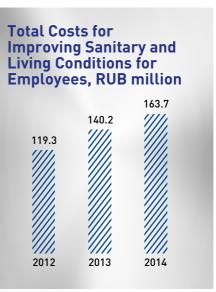
### **Labour Protection**

Our health and safety measures are aimed at eliminating workplace injuries and occupational diseases, promoting safe conduct and developing accident-prevention skills among employees, as well as improving working conditions. By the end of 2014, the number of accidents was reduced to four, which is 33% less than in

the previous year. The number of injures was reduced from 12 to 4 people. We aim to prevent fatal accidents, though there was one fatal accident in 2014.



Since 2002, no cases of occupational diseases have been registered in Federal Grid Company. Health screening and health checks are provided to monitor employee health. Since 2012, a comprehensive programme has been implemented to improve working conditions at the facilities of MES branches.



To improve production safety, we take precautions to safeguard our employees before conducting any kind of repair work, assess risks to employee safety and develop corrective actions, and

conduct regular safety checks on work carried out by our repair teams. Furthermore, during the reporting year we implemented the following health and safety initiatives:

- A behavior-based safety programme was implemented aimed at changing attitude of employees to conscious observance of safety practices, which resulted in improving employee safety behaviour
- We use mobile video recorders aimed at recording the most dangerous actions of employees working on electrical installations with further corrective action
- Labour Protection Days and Road Traffic Safety Months were organised

In 2014, Federal Grid Company operated

278 hazardous industrial facilities (HIFs)

porting year, we were licensed to operate

explosive and flammable and chemically

hazardous industrial facilities of I, II and

of III and IV hazard classes. In the re-

**Industrial Safety** 

- Efficient operation of 50 permanent and 17 mobile health and safety offices was organised to promote safe working conditions and to train personnel to use safe practices, taking account of up-todate requirements
- Stress-release rooms for substation personnel are in operation
- A review competition was conducted for the best organisation of work in the area of health and safety among the Company's MES and PMES branches
- A scheduled assessment of working conditions was performed at 5,935 workplaces

The Company developed an accident management plan for hazardous industrial facilities, and received approval from Rostechnadzor for its Regulations on

investigation, record and analysis of acci-

dents at hazardous industrial facilities.

During 2005-2014, no accidents and incidents were registered at the Company's HIFs. We meet all industrial safety requirements in accordance with the procedure established by the legislation.

### Fire Safety

III hazard classes.

During 2014, three fires occurred at the Company's substations, two of which owing to the fault in high-voltage bushings of the autotransformers, and one due to the fault

in cable sleeve locating at the Company's substation but belonging to another owner. No fires due to violation of fire safety rules occurred at Federal Grid Company.

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\*Burning means an uncontrolled combustion beyond a special point and entailing no losses

The improvement of fire safety over the last few years has been the result from the implementation of the Programme for enhancing and upgrading fire safety at the Company's facilities for the period of 2011–2017 for a total amount of RUB1.06 billion. As of the end of 2014, RUB301.5 million was spent within the Programme.

#### **ENVIRONMENT**

### Environmental Protection

Our Company's responsible approach to environmental protection aims to increase environmental safety level and to ensure the reliable and environmentally safe transmission and distribution of power.

# What are the main components of the formula for environmental safety of Federal Grid's operations?

"Our Company is pursuing a comprehensive approach to addressing issues of ensuring the environmental safety and rational use of natural resources. It helps us to be successful in achieving our environmental goals, to minimise environmental risks, and to improve corporate social responsibility.

Our approach is underpinned by implementation of the environmental policy. In March 2015, a Programme for implementing the environmental

policy of Federal Grid Company for the period from 2015 to 2019 was approved by the Chairman of the Management Board.

Implementing the environmental management systems at our facilities is an important component of our environmental policy. In the reporting year, the compliance audits of such systems at the Company Head-quarters and four branches were successfully performed and resulted in the issuance of ISO 14001:2004 compliance certificates.

Furthermore, with the scope of reconstruction and renovation programmes, we continue to implement innovative and energy efficient technologies and to improve technological processes, which help to reduce harmful environmental impact."

Nikolay Shvets
Deputy Chairman of the
Management Board of

Federal Grid Company

Matters of environmental management are considered at all levels of governance. In 2014, the Board of Directors approved the revised version of the Environmental Policy and decided to draft the Programme for implementing the environmental policy of Federal Grid Company for the period 2015-2019. The Environmental Policy includes technical and organisational measures intended to mitigate the negative environmental impact of the Company's operations.

The principles and tools of environmental activities of Federal Grid, mid- and long-term milestones are defined in the Concept of Environmental Development of the Electric Grid Complex.

To ensure a high level of environmental management, we are committed to embed voluntary international environmental standards in our practices. Since 2011, the Company Headquarters and branches have been working on the systematic implementation and certification of the Environmental

ronmental Management System (EMS) for compliance with the requirements of the international standard ISO 14001:2004.

In 2014, the EMS was implemented in the MES East branch. Auditors from the independent international certification company Bureau Veritas confirmed its efficiency, effectiveness and suitability for continuous improvement. During the reporting period, a compliance audit of the Environmental Management

Systems of the Corporate Headquarters and the branches MES South, MES North-West and MES Centre was also performed, and their certification status was confirmed.

Within the cooperation with the World Wide Fund for Nature (WWF), at the last Saturday of March 2014, our Company took part in a worldwide event Earth Hour, by turning off power for one hour at more than 207 facilities.

The total amount of the Company's environmental costs and investments in 2014 was RUB225.8 million, of which RUB127 million for capital expenditures and RUB98.8 million for current environmental costs.



Water Consumption in 2014 was **reduced** by

9.6%

Decrease

in volume of waste disposed in landfills, compared to 2013, was by

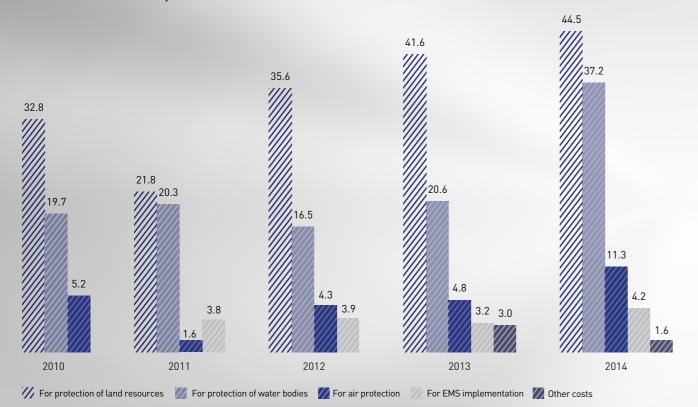
4.8%

limit payments

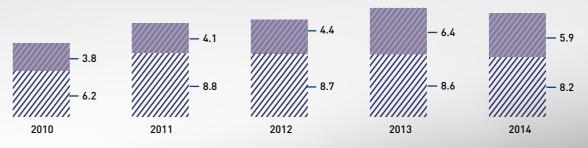
for negative environmental impact were reduced by

7.8%

#### **Environmental Costs, RUB million**



#### Waste Transferred. thousand tonnes



Waste Generation,

thousand tonnes

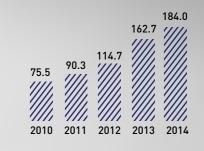




#### Water Consumption, million m<sup>3</sup>



#### Air Emissions, tonnes



Total volume of air emissions has increased annually owing to the extended inventory of new sources of emissions (SF6 insulated equipments, welding stations, garages, workshops, etc.).

Since 2012, an annual decrease in water consumption has been observed due to the reduction of water loss resulted from the measures taken for the maintenance and repair of water supply facilities in the Company branches – MESs and PMESs.

the commissioning of new facilities, as well as various maintenance and repair activities at the Federal Grid's facilities.

of waste transferred for further disposal in landfills, which indicates the reduction of negative environmental

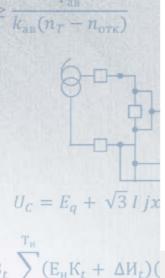
The key factor for waste generation is The Company pays a special attention to utilisation of equipment containing trichlorobiphenyl. In the reporting year, Federal Grid handed over 4,134 static capacitor banks containing trichlorobiphenyl to specialised institutions for There is an annual increase in volume recycling. Reconstruction and re-equipping of the Company's facilities involve a mandatory replacement of such equipment. By now, a quarter of the equipment containing trichlorobiphenyl has been removed and utilised.

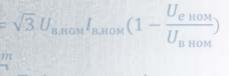
#### **Priorities for 2015**

- Approve the Programme for implementing the environmental policy for 2015-2019
- Improve environmental control and reporting
- Implement the Environmental Management System in MES Siberia, MES Ural, MES Volga, MES Western
- Siberia, get certification of the Company and receive ISO 14001:2004compliance certificate
- Develop corporate standards for environmental safety at all life cycle stages of electric grid facilities

### **Corporate governance**

Effective governance system and qualified leadership team play a key role in determining and delivering Federal Grid Company's strategy, thus providing a sound framework for successful achievement of the Company's strategic objectives

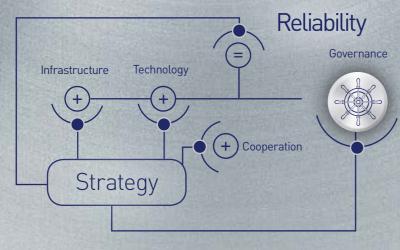




$$P-jQ$$

$$\sqrt{3} \left( U' - jU'' \right)$$





$$S_t \sum_{t}^{T_H} (E_H K_t + \Delta M_t)$$

#### **TRANSPARENCY**

ensuring timely and accurate disclosure of all material information on the Company's operations, and free access to the information for all stakeholders



**GOVERNANCE SYSTEM** 

Ensuring the effectiveness and reliability

principles of the Federal Grid's Corporate

of the Company's corporate governance

Governance Code and are guided by the

system, we strictly comply with the

Corporate governance principles of Federal Grid Company

CORPORATE GOVERNANCE PRINCIPLES

Commitment to Best Practices

#### **ACCOUNTABILITY**

the Board of Directors is accountable to all shareholders in accordance with the applicable legislation, and the Company executive bodies are accountable to the General Meeting of Shareholders and the Board of Directors



system and practices.

rules of positive engagement between

shareholders, the Board and the Com-

Federal Grid's corporate governance

pany's executive bodies in improving the

#### **FAIRNESS**

protecting shareholder rights and treating all shareholders equally



#### **RESPONSIBILITY**

recognising the legal rights of all stakeholders for the purpose of the Company growth and financial stability

### Board of Directors' Statement of Compliance with Corporate Governance **Principles**

Federal Grid Company follows advanced corporate governance standards, gradually integrating new requirements and recommendations into its governance system and constantly improving mechanisms and procedures for its implemen-

On 21 March 2014, a significant event happened in the Russian system of corporate governance: the Board of Directors of the Bank of Russia approved the new Corporate Governance Code<sup>1</sup>. In accordance with the assignments of the Russian Government<sup>2</sup>, Federal Grid Company has been included in the list of state-owned companies in which principles and provisions of the new Code should be implemented as a matter of priority.

As a first step, in the reporting year the Company conducted a review of the compliance of its corporate governance system with the provisions of the new Code. The review was conducted using, among other things, the guidance materials available on the website of Rosimuschestvo and aimed at evaluating corporate governance quality in state-owned companies.

Following the review, we concluded that Federal Grid Company complies with the majority of principles set by the Code.

<sup>1</sup> Letter of the Bank of Russia "On the Corporate Governance Code" No. 06-52/2463 dated 10 April 2014. <sup>2</sup> Assignments No. DM-P36-46pr dated 28 May 2014 and No. ISH-P13-5859 dated 31 July 2014

To put new recommendations of the Code into the Company's practice, we have developed an action plan¹ that covers all aspects of the Federal Grid's corporate governance system (model) and practices:

- Updating the Articles of Association to take account both of certain recommendations of the Corporate Governance Code, and the last amendments to the Civil Code
- Updating the Regulations on the General Meeting of Shareholders, Board of Directors and its committees

- Adopting new version of the Corporate Governance Code of Federal Grid Company
- Improving the remuneration policy applied to members of the governing and control bodies
- Establishing position of Corporate Secretary
- Expanding the Audit Committee's role and developing internal audit function

- Improving the internal control and risk management systems
- Refining the Federal Grid's information policy, including with the account of new requirements of the Bank of Russia to securities issuers.

As a result, the Company has been committed to comply with the majority of provisions of the Corporate Governance Code, and started to implement new standards in 2014.

What are the Company's priorities in the area of corporate governance following the adoption of the new Corporate Governance Code in 2014?



"In 2014, we conducted a review of the compliance of our corporate governance standards to the provisions of the Russian Corporate Governance Code.

Following the review, we have developed an action plan – 'road map', which provides for the gradual integration of new requirements and recommendations into our corporate governance system, and takes into account the recent trends in the regulation of corporate relations.

All these measures will allow us to ensure, among other things, compliance of our corporate governance system with the requirements of the new Listing Rules of the Moscow Stock Exchange in order to maintain the Federal Grid's shares in the Level I quotation list."

#### Maria Tikhonova

Deputy Chairman, member of the Management Board of Federal Grid Company

The main elements of the Federal Grid's corporate governance system (model) and practice are as follows:

- Mechanisms to ensure and protect shareholder rights
- Governance and control structure, ensuring the effective interaction between the governing and control bodies and clear division of their responsibilities
- Timely, accurate and fair disclosures, including in the area of financial reporting
- Effective risk management
- Corporate culture and ethics

## Corporate Governance Rating

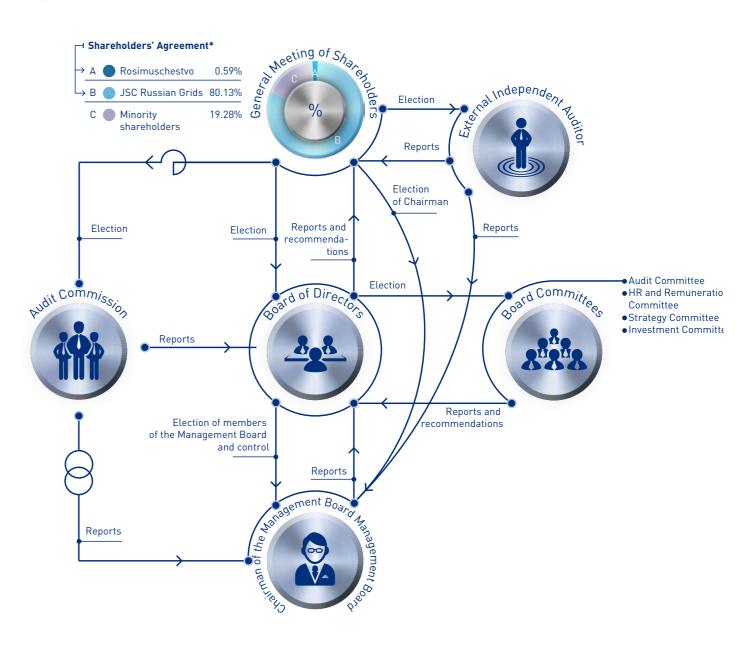
Since 2012, an independent consultant – the Russian Institute of Directors (RID) – has been monitoring the corporate governance practice of Federal Grid Company and assigns a National Corporate Governance Rating Score.

The current rating score proves that the Company complies with Russian corporate legislation, follows the majority of recommendations of the Russian Code of Corporate Conduct<sup>1</sup> and a number of best international practices and its owners have a low risk of experiencing losses related to the quality of corporate governance.

In 2015, a re-evaluation of the Company's corporate governance practice will be performed under the updated rating methodology, which takes into account the requirements of the new Listing Rules and recommendations of the Russian Corporate Governance Code.



#### **Corporate Governance Scheme**



<sup>\*</sup> Shareholders' Agreement Pursuant to the Decree of the RF President No. 1567 dated 22 November 2012, an agreement was signed by the Federal Grid's shareholders – the Federal Agency of State Property Management (Rosimuschestvo) and JSC Russian Grids – regarding the managing and voting in Federal Grid Company. By its legal nature, the document signed is a shareholders' agreement, which is provided for by the Article 32.1 of the Federal Law "On Joint Stock Companies" and regulates issues of the Company's shareholders' interaction regarding the exercise of rights attached to shares. In particular, in order to retain the State control over the operations of the strategic Company, the Federal Grid's shareholder JSC Russian Grids is committed to vote as instructed by Rosimuschestvo on matters reserved to the General Meetings of Shareholders and certain matters reserved to the Board of Directors.

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<sup>&</sup>lt;sup>1</sup> The score has been assigned under the methodology in force at the time, which did not cover the recommendations of the new Russian Corporate Governance Code and the amendments to the Listing Rules.

<sup>1</sup> The action plan was approved by the RF Government and the Federal Grid's Board of Directors on 12 March 2015 (Minutes No. 255 dated 16 March 2015)

#### GOVERNING AND CONTROL BODIES

### General Meeting of Shareholders

The General Meeting of Shareholders (GMS) is the supreme governing body of Federal Grid Company. Its competence is defined by the Federal Law "On Joint Stock Companies" and the Company's Articles of Association, and includes, among other things, such serious matters as payment of dividends, approval of annual reports and annual financial statements. election of an external auditor, reorganisation and liquidation of the Company, election of members of the Board of Directors and the Audit Commission and termination of their powers, approval of large transactions and related party transactions.

Federal Grid Company strives to create most favourable conditions for its share-holders enabling them to participate in the GMS, and complies with the majority of recommendations of the Russian Corporate Governance Code, related to the preparation for and holding of the General Meeting of Shareholders.

The Company ensures that its shareholders can timely and freely receive materials on all issues of the GMS agenda, and makes them available on its corporate website. The procedures for holding the GMS set by the Company's internal documents, provides an opportunity for

the shareholders to ask questions about the matters on the agenda, and the voting results are announced at the Meeting.

#### **Annual General Meeting of Shareholders**

The 2014 Annual General Meeting of Shareholders of Federal Grid Company was held on 27 June 2013. In accordance with the AGM agenda, the shareholders adopted the following resolutions:

- To approve the Company's annual report and annual financial statements for 2013
- To pay no dividends on common shares for 2013, and no remuneration to the Board members, since the Company incurred a loss in the accounting period

- To elect members of the Board of Directors and the Audit Commission
- To approve the external auditor for 2015
- To approve a related party transaction involving Directors' and Officers' liability insurance
- To pay dividends for the first quarter of 2014

### **BOARD OF DIRECTORS**

# Professionalism and Responsibility

The Board of Directors is responsible for the general oversight of the Company and its business, and plays a key role in the Federal Grid's corporate governance system

The main functions of the Board of Directors are as follows:

- To shape the Company's strategy and monitor its implementation
- To ensure the exercise and protection of rights and legal interests of Federal Grid's shareholders; to protect the Company's assets

- To maintain sound internal control and risk management system
- To monitor activities of the executive bodies, to undertake regular performance evaluation of senior managers and to establish and maintain effective incentive schemes and development programmes for them
- To ensure timely disclosure of full and fair information on the Company's operation
- To establish a system for managing subsidiaries and associates

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In accordance with Clause 16.1 of Article 16 of the Federal Grid's Articles of Association, the Board shall include 11 members. This number of Board members best fits the Company's goals and objectives, and allows us to ensure a required balance of knowledge, professional skills and experience on the Board.

The Company also aims to maintain a balance on the Board with respect to all shareholders' interests: the Board of Directors includes representatives of minority shareholders.

### Composition of the Board of Directors 1

elected by the General Meeting of Shareholders on 27 June 2014 (as of 31 December 2014)

### Oleg

### **Budargin**

- Chairman of the Board of Directors<sup>2</sup>
- Non-executive Director
- Board member since 2010

#### **Born in 1960**

In 1982, graduated from Norilsk Industrial Institute with a degree in Industrial and Civil Engineering; PhD in Economics

#### Experience:

**2007-2009** – Assistant to the Plenipotentiary Representative of the Russian President in Siberian Federal District

**2009-2013** – Chairman of Federal Grid Company's Management Board

since 2013 - General Director of JSC Russian Grids

since 2012 – member of the Presidential Commission for Strategic Development of Fuel and Energy Secor and Environmental Security

### Positions in governing bodies of other organisations:

Chairman of the Supervisory Board of Non-Profit Partnership Association of Solar Energy Enterprises Chairman of the Board of Directors of JSC Moscow United Electric Grid Company and PJSC Federal Test Centre

Member of the Supervisory Board of JSC Russian Regional Development Bank; member of the Board of Directors of JSC Russian Grids and JSC INTER RAO, member of the Supervisory Board of the North-Caucasus Federal University, member of the Board of Trustees and the Academic Council of the National Research University "Moscow Power Engineering Institute"

Share in the Company's ordinary stock: 0.0006440%

#### Vyacheslav Kravchenko

- Deputy Chairman of the Board of Directors<sup>2</sup>
- Non-executive Director
- Board member since 2012

#### **Born in 1967**

**In 1995**, graduated from Lomonosov Moscow State University with a degree in Jurisprudence

#### Experience:

2006-2008 – Director of the Department of Structural and Investment Policy in Industry and Energy of the Ministry of Industry of the Russian Federation

**2008-2010** – General Director of RN Energo LLC

**2010-2012** – General Director of JSC United Energy Service Company

2012-2013 – Chairman of the Management Board of Non-profit Partnership Market Council and Chairman of the Management Board of JSC Trade System Administrator of the Wholesale Energy Market

since 2013 – Deputy Minister of Energy of the Russian Federation

### Positions in governing bodies of other organisations:

Chairman of the Board of Directors of JSC Financial Settlements
Centre, member of the Board
of Directors of JSC INTER RAO,
JSC Russian Grids, JSC System
Operator of Unified Energy System,
JSC Moscow United Electric Grid
Company, and JSC RusHydro, state
representative in the Supervisory
Board of Non-Profit Partnership
Market Council

Holds no shares in the Company

### Maxim Bystrov

- Member of the HR and Remuneration Committee
- Non-executive Director
- Board member since 2014

#### Born in 1964

In 1986, graduated from Moscow Civil Engineering Institute named after V.V.Kuibyshev with a degree in Hydraulic Engineering of River Installations of Hydroelectric Power Plants; in 1998 - from the Russian Academy for Foreign Trade with a degree in World Economy

#### Experience:

2009-2010 – Deputy Director of the Department of Industry and Infrastructure of the RF Government

**2010-2013** - Deputy Plenipotentiary Representative of the Russian President in North Caucasian Federal District

since 2013 – Chairman of the Management Board of JSC Trade System Administrator of the Wholesale Energy Market

since 2013 – acting Chairman of the Management Board, since May 2014 – Chairman of the Management Board of Non-profit Partnership Market Council

### Positions in governing bodies of other organisations:

Chairman of the Board of Directors of JSC Northern Caucasus Resorts, JSC International Airport Mineralnye Vody

Member of the Supervisory Board of Non-profit Partnership Market Council Non-profit Partnership Market Council, member of the Board of Directors of JSC RusHydro, JSC System Operator of Unified Energy System

Holds no shares in the Company

<sup>&</sup>lt;sup>1</sup> Here and elsewhere, personal information about members of the governing and control bodies is disclosed with their consent.

<sup>&</sup>lt;sup>2</sup> Decision of the Board of Directors dated 23 July 2014 (Minutes No. 223 dated 24 July 2014)

### Andrey Demin

- Chairman of the Strategy Committee
- Non-executive Director
- Board member since 2014

#### **Born in 1974**

In 1996, graduated from Zaporozhye State University with a degree in Applied Mathematics; in 1999, graduated from Zaporozhian Institute of Economics and Information Technologies with a degree in Finance

#### **Experience:**

**2007-2010** – Deputy Chairman of the Management Board, member of the Management Board of Federal Grid Company

**2010-2012** – Adviser to the General Director on strategic development of Mezhregionsbyt LLC

**2012-2013** – Advisor to the Chairman of the Management Board of Federal Grid Company

since 2013 - First Deputy General Director for Economic Affairs and Finance of JSC Russian Grids

Positions in governing bodies of other organisations:

Chairman of the Board of Directors of JSC Tyumenenergo

Member of the Board of Directors of JSC Far East Energy Management Company, JSC Moscow United Electric Grid Company

Holds no shares in the Company

#### Boris Kovalchuk

- Member of the Audit Committee
- Non-executive Director
- Board member since 2012

#### **Born in 1977**

In 1999, graduated from St Petersburg University with a degree in Jurisprudence; in 2010, graduated from the Institute of Advanced Training for Executives and Experts of Fuel and Energy Sector, and the non-profit partnership Corporate Educational and Research Centre of UES

#### Experience:

2006-2009 - Head of the Department of National Priority Projects of the Russian Government, Assistant to the First Deputy Prime Minister of the Russian Federation

since 2009 – Deputy Director General for Development of State Nuclear Corporation ROSATOM

**2009-2010** – Acting Chairman of the Management Board of JSC INTER RAO UES

**since 2010** – Chairman of the Management Board of JSC INTER RAO UES

Positions in governing bodies of other organisations:

Chairman of the Board of Directors of JSC First Generating Company of Wholesale Electricity Market, CJSC Kambaratinskaya Hydro Power Plant-1, JSC Third Generating Company of Wholesale Electricity Market

Member of the Board of Directors of JSC INTER RAO UES, RIG RE-SEARCH PTE Ltd, member of the Supervisory Board of JSC Russian Regional Development Bank

Member of the Management Board of the Russian Union of Manufacturers and Entrepreneurs

Holds no shares in the Company

### Sergey Mironosetsky

- Chairman of the Audit Committee and the HR and Remuneration Committee
- Non-executive Director
- Board member since 2014

#### **Born in 1965**

In 1989, graduated from Novosibirsk State University with a degree in Economic Cybernetics

#### Experience:

2005-2011 - Deputy General Director, member of the Management Board of JSC Siberian Coal Energy Company (SUEK)

2009-2013 - General Director, member of the Management Board of Management Company SUEK LLC (since 07.09.2011 - Siberian Generating Company LLC)

Positions in governing bodies of other organisations:

Member of the Board of Directors of JSC Inter-regional Distribution Grid Company of Siberia, SUEK LLC, JSC Russian Grids

Holds no shares in the Company

### Andrey Murov

- Executive Director
- Board member since 2013

#### **Born in 1970**

In 1993, graduated from St Petersburg State University with a degree in Jurisprudence; in 1998, took a special retraining course in Financial Management at the Inter-disciplinary Institute of Advanced Training and Retraining for Executives. In 2009, graduated from the State University of Civil Aviation with a degree in Freight Regulation and Air Transport Management. PhD in Economics

#### Experience:

**2007–2012** – General Director of JSC Pulkovo Airport

2012-2013 - Deputy General Director, Acting General Director, Executive Director, member of the Management Board of JSC Holding of the Inter-regional Distribution Grid Companies (since 04.04. 2013 - JSC Russian Grids)

**since 2013** – Chairman of the Management Board of Federal Grid Company

Positions in governing bodies of other organisations:

Member of the Board of Directors of JSC Russian Grids and JSC INTER RAO UES

Holds no shares in the Company

#### Georgy Nozadze

- Member of the Strategy Committee
- Non-executive Director
- Board member since 2014

#### **Born in 1979**

Graduated from Lomonosov Moscow State University with a degree in Physics

#### Experience:

2008-2012 – Assistant, Head of the Department of Oil and Gas Industry Development, Deputy Director of the Department of State Regulation of Tariffs, Infrastructural Reforms and Energy Efficiency of the RF Ministry of Economic Development

**since 2012** – Assistant of the Expert Directorate of the Executive Office of the RF President

Holds no shares in the Company

#### Denis Fedorov

- Member of the Audit Committee and the HR and Remuneration Committee
- Non-executive Director
- Board member since 2011

#### **Born in 1978**

In 2001, Graduated from Bauman Moscow State Technical University with a degree in Economics and Management. In 2003, completed postgraduate studies at Moscow Power Engineering Institute with degrees in Economics and Industrial Heat Power Engineering. PhD in Economics

#### Experience:

**since 2007** – Head of the Department of Electric and Thermal Power Industry Development of JSC Gazprom

**since 2009** – General Director of GazpromEnergoholding LLC, General Director of JSC Centerenergoholding

Positions in governing bodies of other organisations:

Board Chairman of JSC Second Generating Company of the Wholesale Electricity Market, JSC Tumen Energy Service Company, CJSC Mezhregion-Energostroy, Non-Profit Partnership Council of Power Producers

Member of the Board of Directors of JSC TJC-1, JSC Centerenergoholding, JSC Mosenergo, JSC INTER RAO UES, Heat Retail Company LLC, Non-Profit Partnership Centre of Innovative and Energy Technologies, JSC Moscow United Energy Company, CJSC Gazprom Armenia

Holds no shares in the Company

 $<sup>^{1}</sup>$  Decision of the Board of Directors dated 23 July 2014 (Minutes No. 223 dated 24 July 2014)

#### Sergey Shmatko

- Non-executive Director
- Board member in 2008-2010, and since 2013

#### **Born in 1966**

In 1992, graduated from the Faculty of Political Economy of the Ural State University; in 1992, studied Economy at Marburg University in the FRG. In 2004, completed Advanced Academic Courses in Defence and Security of the Russian Federation of the Military Academy of the General Staff of Armed Forces of the Russian Federation. PhD in Technical Sciences

#### Experience:

**from 06.2008 to 05.2012** – Minister of Energy of the Russian Federation

since 2012 – member of the Presidential Commission for Strategic Development of the Fuel and Energy Sector and Environmental Security of the Russian Federation

since 2013 – Special Representative of the President of the Russian Federation on International Cooperation in the Electric Power Industry of the Executive Office of the RF President

Positions in governing bodies of other organisations:

Chairman of the Board of Directors of JSC Russian Grids

Chairman of the Supervisory Board of Non-Profit Partnership Scientific and Technological Council of Unified Energy System

Holds no shares in the Company

### Nikolay Shulginov

- Chairman of the Investment Committee and member of the Strategy Committee
- Non-executive Director
- Board Member since 2013

#### **Born in 1951**

In 1973, graduated from Novocherkassk Polytechnic Institute. PhD in Technical Sciences

#### Experience:

**since 2009** – First Deputy Chairman of the Management Board of JSC SO UES

Positions in governing bodies of other organisations:

Member of the Supervisory Board of Non-Profit Partnership Scientific and Technological Council of Unified Energy System

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Holds no shares in the Company

In 2014, there were no dealings in the Company's shares by the Board members.

#### Composition of the Board of Directors acting from 27 June 2013 to 27 June 2014

(positions as of the election date)

1.	Oleg Budargin	Board Chairman, Non-executive Director	Chairman of the Federal Grid Company's Management Board
2.	Vyacheslav Kravchenko	Deputy Chairman, Non-executive Director	Chairman of the Management Board of Non-Profit Partnership Market Council
3.	Georgy Boos	Non-executive Director	President of BOOS LIGHTING GROUP MC LLC
4.	Pavel Grachev	Independent Director	General Director of JSC Far East and Baikal Region Development Fund
5.	Boris Kovalchuk	Independent Director	Chairman of the Management Board of JSC INTER RAO UES
6.	Andrey Murov	Executive Director	First Deputy Chairman of the Management Board of Federal Grid Company
7.	Sergey Serebryannikov	Independent Director	Rector of Moscow Power Engineering Institute
8.	Denis Fedorov	Independent Director	General Director of JSC Centerenergoholding, General Director of Gazprom Energoholding LLC
9.	Ernesto Ferlenghi	Non-executive Director	Head of the Representative Office of Eni in the Russian Federation and CIS
10.	Sergey Shmatko	Non-executive Director	Member of the Presidential Commission for Strategic Development of the Fuel and Energy Sector and Environmental Security of the Russian Federation
11.	Nikolay Shulginov	Non-executive Director	First Deputy General Director of JSC SO UES

#### Board of Directors' Performance Report on the Company's Business Priorities

In the reporting year, the Board of Directors continued its work on creating favorable conditions for delivering the Company's key objectives – improving system reliability of electric power infrastructure, ensuring high-quality and accessible power for customers in the Russian Federation.

### Some documents approved by/ discussion points of the Board of Directors in 2014

Topics	Document approved/Discussion points
Updating the long-term strategy of Federal Grid Company	<ul> <li>Long-Term Development Programme of Federal Grid Company for 2015-2019 and Prospects through 2030</li> <li>Standard for establishing and updating key performance indicators (KPIs) of Federal Grid Company</li> </ul>
Business planning	<ul> <li>Standard for Business Planning</li> <li>Business Plan of Federal Grid Company for 2014 and forecasts for 2015-2018</li> </ul>
Improving the employee motivation system	Methodology for Calculation and Evaluation of Key Performance Indicators for Federal Grid's Senior Management for 2014
Corporate social responsibility and sustainable development	<ul> <li>Revised version of the Environmental Policy of Federal Grid Company</li> <li>Society, Customer and Government Relations Policy</li> </ul>
Investment policy	Standard for Conducting Public Technological and Pricing Audit of Investment Projects
Updating the Federal Grid's internal documents	<ul> <li>Revised version of the Regulations on the Strategy Committee of the Board of Directors of Federal Grid Company</li> <li>Revised version of the Regulations on the Investment Committee of the Board of Directors of Federal Grid Company</li> </ul>
Other matters	<ul> <li>Pre-approval of transactions which may entail liabilities denominated in foreign currency</li> <li>Consideration of information on eliminating the faults noted in the comments made upon the on-site audits of the RF Ministry of Energy of the Federal Grid's investment projects</li> </ul>
	<ul> <li>Consideration of related party transactions (321 transactions)</li> <li>Consideration of matters related to defining position of the Federal Grid's representatives in the governing bodies of subsidiaries and associates</li> </ul>

<sup>&</sup>lt;sup>1</sup> Board members with independent status met, as of the election date, the independence criteria set by the Russian Code of Corporate Conduct and the Listing Rules of the Moscow Stock Exchange, which were in force until 08 lines 2017.

The Company plans to conduct performance evaluation of the Board of Directors and its committees with the assistance of an independent external facilitator.

#### The Board focuses on the oversight of the implementation of the Federal Grid's strategy

on the development of UNEG infrastructure, improvement of the Company management's efficiency, and maintaining its financial stability.

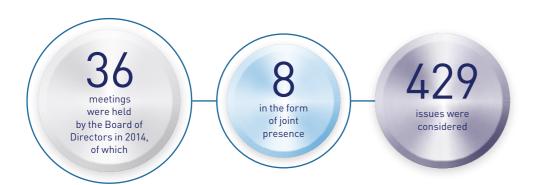
The Federal Grid's Long-Term Development Programme, approved in 2014, includes a list of

gic guidance, the Board of Direc- according to the Company's strategic based on the results achieved. tors regularly deals with matters objectives, specific aspects of its activities, as well as industry-wide strategic objectives and priorities.

> The Board of Directors will monitor KPI status using, among other things, will be expanded in 2015 in terms the reports of the independent auditor engaged to review the achievement of targets set in the Long-Term Development Programme. Following

Being responsible for the strate- key performance indicators produced the review, decisions may be made

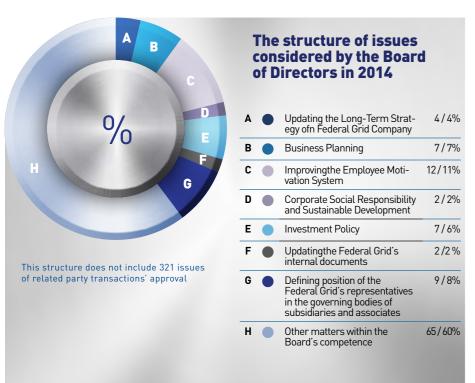
Furthermore, pursuant to recommendations of the Corporate Governance Code, the role of the Audit and Strategy Committees of the assessment of the Company's long-term performance.



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#### Attendance of Board members at Board meetings and Committee meetings during 2014

	The Board of	Directors	Investment Committee	Strategy Committee	HR and Remuneration Committee	Audit Committee
Oleg Budargin	32/36	89 %				
Boris Kovalchuk	33/36	91 %			100%	80%
Vyacheslav Kravchenko	27/36	75 %				
Denis Fedorov	35/36	97 %	100%		100%	100%
Andrey Murov.	30/36	83 %				
Sergey Shmatko	34/36	94 %	100%			
Nikolay Shulginov	35/36	97 %	100%	50%		
			Board members unti	l 27 June 2014 .		
Ernesto Ferlenghi	12/13	92%	100%			
Georgy Boos	1/13	8%				
Pavel Grachev	10/13	77%				
Sergey Serebryannikov	13/13	100%			100%	100%
			Board members sind	ce 27 June 2014		
Maxim Bystrov	21/23	91 %			100%	
Andrey Demin	23/23	100 %		100%		
Georgy Nozadze	22/23	96 %		50%		
Sergey Mironosetsky	23/23	100 %	100%		100%	100%





#### COMMITTEES OF THE BOARD OF DIRECTORS

The committees are established to assist the Board of Directors in performing its key functions. Such assistance includes preliminary discussions on the most important matters which are reserved for the Board, and development of recommendations for the Board on these matters.

Members of the committees have skills, knowledge and experience in the areas of the committees' responsibility. The committee members have strong working relationships and actively engage with the Company's management team and external auditor, they also have may retain outside consultants.

Federal Grid's Board of Directors has four permanent committees: for Audit, HR and Remuneration, Strategy, and Investment.

Activities of the committees are regulated by their terms of reference, approved by the Board of Directors.

### **Audit Committee**

#### **Role and Functions**

The key role of the Audit Committee is to assist the Board of Directors in providing oversight of the Company's financial and business activities.

- Evaluates candidates for the Company's external auditors and drafts recommendations to the Board of Directors regarding the appointment of external auditors, the conduct of annual independent audit and external auditors' fees
- Reviews the Company's financial statements and results of the external audit of the financial statements with respect to their compliance with RF legislation, International Financial Reporting Standards, Russian Accounting Standards, other legal regulations
- Reviews the internal control system and drafts recommendations to the Board of Directors on its improvement
- Approves internal audit plans in the Company
- Considers quarterly reports of the internal audit unit

#### Membership

#### Members elected by the Board of Directors on 28 November 2013

- 1. Denis Fedorov, Chairman, Independent Director
- 2. Boris Kovalchuk, Independent Director
- 3. Sergey Serebryannikov, Independent Director

#### Members elected by the Board of Directors on 29August 2014

- 1. Sergey Mironosetsky, Chairman, Non-executive Director
- 2. Denis Fedorov, Non-executive Director
- 3. Boris Kovalchuk, Non-executive Director

#### Activities in 2014

#### The Committee held 5 meetings in absentia and considered 19 matters, including:

- Review of the Federal Grid's RAS financial statements for 2013, the audit report and the Audit Commission's report
- Recommendations to the Board of Directors with respect to the preliminary approval of the Company's Annual Report and Accounts 2013
- Review of the Federal Grid's IFRS financial statements for 2013
- Recommendations to the Board of Directors regarding a candidate for external auditor for 2014 and external auditor's fee
- Review of the new versions of the Company's Internal Control Policy, Risk Management Policy and Key Operational Risk Register, recommendations to the Board of Directors with respect to the approval thereof
- Review of the Report on the Internal Control and Risk Management Effectiveness following the Results of 2013
- Recommendations to the Board of Directors with respect to the approval of the adjusted business plan for 2014, business plan for 2015, and forecast indicators for 2016-2019
- Review of the Standard for Auditing the Implementation of the Federal Grid's Long-Term Development Programme, and recommendations to the Board of Directors with respect to the approval thereof
- Approval of the plan for conducting internal audits for the first and the second half of 2014.

### HR and Remuneration Committee

#### **Role and Functions**

The key role of the HR and Remuneration Committee is to assist the Board of Directors in establishing efficient and transparent remuneration practices and developing HR and succession policies.

The HR and Remuneration Committee:

- Develops principles and criteria for remuneration and material incentives of members of the Board of Directors, the Management Board and the Audit Commission
- •Develops recommendations regarding the material terms and conditions of contracts with members of the Board of Directors, the Chairman and members of the Management Board
- • Develops criteria for selecting potential nominees to the Board of Directors, the Management Board and conducts preliminary evaluation of the said candidates
- Regularly assesses performance of the Chairman and members of the Management Board, and drafts recommendations to the Board of Directors regarding their possible reappointment

#### Membership

#### Members elected by the Board of Directors on 28 November 2013

- 1. Denis Fedorov, Chairman, Independent Director
- 2. Boris Kovalchuk, Independent Director
- 3. Sergey Serebryannikov, Independent Director

#### Members elected by the Board of Directors on 29August 2014

- 1. Sergey Mironosetsky, Chairman, Non-executive Director
- 2. Maxim Bystrov, Non-Executive Director
- 3. Denis Fedorov, Non-Executive Director

#### Activities in 2014

#### The Committee held 5 meetings in absentia and considered, among other things, the following matters:

- Recommendations to the Board of Directors with respect to the approval of the Standard for establishing and updating key performance indications (KPIs) of Federal Grid Company and the Methodology for calculating and measuring these KPIs, including their target values for 2014
- Recommendations to the Board of Directors with respect to the amendments to employment agreements with and determination of remuneration and compensation to the Federal Grid's senior managers
- Recommendations to the Board of Directors with respect to the approval of the Methodology for Calculation and Evaluation of Key Performance Indicators for Federal Grid's Senior Management for 2015

### **Strategy Committee**

#### **Role and Functions**

The key role of the Strategy Committee is to assist the Board of Directors in improving the Company's performance efficiency in the long term.

The Strategy Committee develops recommendations to the Board of Directors on the following matters:

- Measures and programmes for the development of the Unified Energy System (UES) of Russia, including developing the Unified National (all-Russian) Electric Grid (UNEG), including isolated energy systems
- Measures to carry out technological connections to the electric grids
- Processes related to the effective functioning of the wholesale electric energy market, the technological management of electric grids that are part of the UES of Russia
- · Control over implementation of investment projects to develop electric grids and the UES of Russia
- Innovative technologies applied for the decision making process under the activity on electricity transmission via UNEG to the wholesale market participants
- Information disclosure by the Company as a subject of natural monopoly in the electric power industry, and other issues related to the development of UNEG

#### Membership

#### Members elected by the Board of Directors on 30 January 2014

- 1. Vyacheslav Kravchenko, Chairman, Non-Executive Director
- 2. Ernesto Ferlenghi, Non-Executive Director
- 3. Nikolay Shulginov, Non-Executive Director
- 4. Andrey Demin, First Deputy General Director of JSC Russian Grids
- Anatoly Dyakov, President of the Unified Energy Complex Corporation and the Non-Profit Partnership Scientific and Technical Council of UES
- 6. Vladimir Dikoy, Deputy Chairman of the Management Board Chief Engineer of JSC FGC UES
- 7. Andrey Kazachenkov, First Deputy Chairman of the Management Board of JSC FGC UES
- Alexander Kalinin. First Vice-President of All-Russian Public Organisation of Small and Medium businesses OPORA ROSSII
- Viktor Kydryaviy, Adviser of the President of CJSC Eurocement Group
- Sergey Lebedev, Director of Strategic Development of JSC Russian Grids
- 11. Evgeny Miroshnichnko, Director for Strategic Development of the Strategy and Investment Block of JSC INTER RAO UES
- 12. Alexey Molskiy, Deputy Chairman of the Management Board of JSC FGC UFS
- 13. Alexander Pirozhenko, Director for Priority Programme
  Development of the Agency for Strategic Initiatives, Chairman of
  the Supervisory Board of the Council of Retail Consumers of Energy
  Resources, Chairman of the Consumer Council of JSC Russian
  Grids
- 14. Alexander Rogov, Head of the Energy Sector Development Department at the Energy Sector and Energy Marketing Development Division of JSC Gazprom
- 15. Petr Sinyutin, General Director of JSC MOESK
- 16. Pavel Snikkars, Director of the Department of the Electric Energy Industry Development of the Russian Ministry of Energy
- 17. Alexey Sukhov, Deputy Chairman of the Management Board of JSC

#### Members elected by the Board of Directors on 27 August 2014

- 1. Andrey Demin, Chairman, Non-Executive Director
- 2. Georgy Nizadze, Non-Executive Director
- 3. Nikolay Shulginov, Non-Executive Director
- 4. Stanislav Ananiev, First Deputy Chairman of the Management Board of JSC ATS
- 5. Oleg Isaev, General Director of JSC IDGC of Centre
- 6. Andrey Kazachenkov, First Deputy Chairman of the Management Board of JSC FGC UES
- Sergey Lebedev, Director of Strategic Development Department of JSC Russian Grids
- 8. Valentin Mezhevitch, Deputy General Director for Strategic Communications of JSC Russian Grids
- 9. Evgeny Miroshnichnko, Director of Strategic Development of the Strategy and Investment Block of JSC INTER RAO UES
- 10. Alexey Molskiy, Deputy Chairman of the Management Board of JSC
- 11. Evgueny Olkhovitch, Deputy Director of the Department of State Regulation of Tariffs, Infrastructure Reforms and Energy Efficiency of the RF Ministry of Economic Development and Trade
- 12. Alexander Rogov, Head of the Energy Sector Development Department at the Energy Sector and Energy Marketing Development Division of JSC Gazprom
- 13. Petr Sinyutin, General Director of JSC MOESK
- 14. Pavel Snikkars, Director of the Department of the Electric Energy Industry Development of the Russian Ministry of Energy
- 15. Pavel Shpilevoy, Director of Strategic Development of JSC Russian  $\mbox{\rm Grids}$

#### Activities in 2014

#### Two meetings were held: one in person and one in absentia. The following matters were considered:

- Long-Term Development Programme of Federal Grid Company for 2015-2019 and Prospects through 2030
- Priority areas of the Company's activity, ensuring accessibility of energy infrastructure and quality of technological connection to the Company's electric grids
- Recommendations to the Board of Directors with respect to the approval of the Methodical Guidelines for determining reserve capacity at power supply sources of the Company with consideration of the comments of the Strategy Committee members

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· Review of standard documents on technological connection submitted to the Board of Directors for consideration

#### Investment Committee

#### Role and Functions

The key role of the Investment Committee is to assist the Board of Directors in improving and developing the Company's investment policy.

The Investment Committee:

- Performs expert evaluation of new investment projects and programmes, submitted for consideration of the Company's Board of Directors
- Timely informs the Company's Board of Directors about risks in the area of investment activity, to which the Company and its subsidiaries and associates are subjected

#### Membershi

#### Members elected by the Board of Directors on 30 January 2014

- 1. Sergey Shmatko, Chairman, Non-Executive Director
- 2. Ernesto Ferlenghi, Non-Executive Director
- 3. Svetlana Balaeva, Deputy General Director for Investments of JSC Russian Grids
- 4. Dan Belenkiy, First Deputy General Director for Investment Activity of JSC Russian Grids
- 5. Valery Goncharov, Deputy Chairman, member of the Management Board of JSC Russian Grids
- 6. Oleg Isaev, General Director of JSC IDGC of Centre
- 7. Michael Kolesnikov, member of the Presidium of the Management Board of OPORA ROSSII
- 8. Vitaliy Korolev, Head of Electric Energy Industry Supervision Department of the Federal Antimonopoly Service of Russia
- 9. Leonid Mazo, member of the Management Board of JSC FGC UES, General Director of JSC CIUS UES
- 10. Alexey Makarov, member of the Russian Academy of Sciences
- 11. Ilnar Mirsiyapov, member of the Management Board, Head of the Strategy and Investment Unit of JSC INTER RAO UES
- 12. Alexander Pirozhenko, Director for Priority Programme
  Development of the Agency for Strategic Initiatives, Chairman of
  the Supervisory Board of the Council of Retail Consumers of Energy
  Resources, Chairman of the Consumer Council of JSC Russian
  Grids
- 13. Alexander Rogov, Head of the Energy Sector Development Department at the Energy Sector and Energy Marketing Development Division of JSC Gazprom
- 14. Ivan Selivakhin, Adviser to the Chairman of the Management Board of Non-Profit Partnership "Market Council"
- 15. Pavel Snikkars, Director of the Department of the Electric Energy Industry Development of the Russian Ministry of Energy
- 16. Alexander Fedorov, Head of the Infrastructural Project Department of JSC FGC UES
- 17. Svetlana Cherkaeva, Head of the Department for Investment Planning in Electric Energy Industry of the Russian Ministry of Energy

- Members elected by the Board of Directors on 27 August 2014
- 1. Nikolay Shulginov, Chairman, Non-Executive
- 2. Sergey Mironosetsky, Non-Executive Director
- 3. Denis Fedorov, Non-Executive Director
- 4. Svetlana Balaeva, Deputy General Director for Investments of JSC Russian Grids
- 5. Dan Belenkiy, First Deputy General Director for Investment Activity of JSC Russian Grids
- 6. Valery Goncharov, Deputy Chairman, member of the Management Board of JSC Russian Grids
- 7. Michael Kolesnikov, member of the Presidium of the Management Board of OPORA ROSSII
- 8. Vitaliy Korolev, Head of Electric Energy Industry Supervision Department of the Federal Antimonopoly Service of Russia
- 9. Leonid Mazo, member of the Management Board of JSC FGC UES
- 10. Alexander Rogov, Head of the Energy Sector Development Department at the Energy Sector and Energy Marketing Development Division of JSC Gazprom
- 11. Ivan Selivakhin, Adviser to the Chairman of the Management Board of Non-Profit Partnership "Market Council"
- 12. Ilnar Mirsiyapov, member of the Management Board, Head of the Strategy and Investment Unit of JSC INTER RAO UES
- 13. Vladimir Vashkevitch, Deputy General Director for Grid Development and Services of the Federal Grid branch MES North-West
- 14. Konstantin Zavizenov, Deputy Director of the Department of the Electric Energy Industry Development of the Russian Ministry of Energy
- 15. Viktor Lebedev, Assistant to the Deputy Chairman of the Government of the RF Arkadiy Dvorkovitch  $\!^1$
- 16. Khasan Likhov, Deputy General Director for special projects of JSC Russian Grids
- 17. Evgueny Olkhovitch, Deputy Director of the Department of State Regulation of Tariffs, Infrastructure Reforms and Energy Efficiency of the RF Ministry of Economic Development and Trade

#### Activities in 2014

#### Eight meetings were held, and the following matters were considered:

- Elimination of faults noted in the comments made upon the on-site audits of the RF Ministry of Energy of the Federal Grid's investment projects
- $\bullet \ \ \text{Making a Summary of consolidated indices of construction (reconstruction) costs of substations and transmission lines \\$
- Determination of specific indices of construction costs of Federal Grid's facilities from 201 to 2019 in the context of the delivery of the RF Electric Grid Complex Strategy on reducing specific investment costs by 30% as compared to 2012, broken down by voltage level of substations, overhead and underground power lines
- Regulations on Investment activity of Federal Grid Company and/or Procedure for developing and adjusting the Federal Grid's investment programme and reporting on its delivery
- Preliminary approval of the Federal Grid's investment programme for 2015-2019
- Progress report on the technological and pricing audit of the investment projects with an estimated cost of RUB1.5 billion and more each

<sup>&</sup>lt;sup>1</sup> On 12 January 2014, the Board of Directors decided to remove the Investment Committee member Viktor Lebedev and to reduce the number of Committee members to 16 persons (Minutes No. 240 dated 15 January 2014).

#### REMUNERATION OF THE BOARD OF DIRECTORS AND ITS COMMITTEES

#### **Board of Directors**

The procedure for determining the amount of remuneration and compensation due to the Board members is set by the Regulations on Remuneration and Compensation to the Members of the Board of Directors of Federal Grid Company, as approved by the Annual General Meeting of Shareholders on 29 June 2012.

In accordance with the above Regulations, the amount of remuneration to each Board member for his/her contribution to the operations of the Board of Directors depends on the following factors:

- total number of Board of Directors' meetings held during the corporate year;
- number of meetings attended by the Board member; and
- the Company's revenues for the respective fiscal year.

Remuneration for the Chairman of the Board of Directors is increased by 30%. Increase is also set for members of the Board for their work in committees: the Chairman of the Committee receives a 20% bonus, and a Committee member receives 10%.

No compensation for expenses of members of the Board of Directors is provided.

The total remuneration for each Board member, given all premiums, cannot exceed RUB900 thousand.

Since the Company incurred a loss for the 2013 fiscal year, the GMS held on 27 June 2014 resolved to pay no remuneration to the Board of Directors for 2013.

The 2015 General Meeting of Shareholders will resolve on remuneration to the members of the Board of Directors for 2014

During the reporting year, no loans (credits) were provided to the Board members by the Company.

#### **Board Committees**

The Regulations on Remuneration of Members of the Committees of the Board of Directors of Federal Grid Company, approved by the Board of Directors on 16 December 2010, cover matters of paying remuneration to members of the Board committees who are not members of the Board of Directors or the collective executive body and/or the sole executive body of the Company.

On a quarterly basis, committee members shall be paid remuneration for each meeting attended. The amount of remuneration is equal to three minimum monthly wage rates for a first category worker. Remuneration to the Chairman of the Committee is increased by 50%.

The total amount of remuneration paid to members of the Board committees for 2014 was RUB810.6 thousand.

#### Membership of the Management Board as of December 31, 2014

#### Andrey Murov

- Chairman of the Management Board, member of the Federal Grid's Board of Directors
- Management Board member since 2012

#### Areas of Responsibility:

Managing the day-to-day operations of the Company, leading the work of the Management Board

#### **Born in 1970**

In 1993, graduated from St Petersburg State University with a degree in Jurisprudence; in 1998, took a special retraining course in Financial Management at the Inter-disciplinary Institute of Advanced Training and Retraining for Executives. In 2009, graduated from the State University of Civil Aviation with a degree in Freight Regulation and Air Transport Management. PhD in Economics

#### Experience:

**2007-2012** – General Director of JSC Pulkovo Airport

2012-2013 – Deputy General Director, Acting General Director, Executive Director, member of the Management Board of JSC Holding of the Inter-regional Distribution Grid Companies (since 04.04. 2013 – JSC Russian Grids)

**since 2013** – Chairman of the Management Board of Federal Grid Company

Positions in governing bodies of other organisations:

Member of the Board of Directors of JSC Russian Grids and JSC INTER RAO UES

Holds no shares in the Company

#### Valery Goncharov

- First Deputy Chairman of the Management Board
- Management Board member since 2013

#### Areas of Responsibility:

Developing customer relations

Managing telecommunications and information technologies

Investment planning and procure-

Engineering, construction and reconstruction

#### Born in 1963

In 1987, graduated from Leningrad Shipbuilding Institute. PhD in Economics.

#### **Experience:**

**2006-2012** – Deputy Director for Economics and Finance of JSC Roszheldorproject

**2012-2013** – Deputy Chairman of the Management Board of Federal Grid Company

**since 2013** – First Deputy Chairman of the Management Board of Federal Grid Company

Holds no shares in the Company

#### Andrey Kazachenkov

- First Deputy Chairman of the Management Board
- Management Board member since 2010

#### Areas of Responsibility:

Economics and Finance, property management, managing subsidiaries and associates

HR management and development

#### **Born in 1980**

Graduated from St Petersburg State Engineering and Economic University with degrees in Management and Economics and Management in Engineering Industry. Received an MBA at the University of Wisconsin (Madison, USA) and was trained at the IMD (Switzerland) and INSEAD (France) business schools under special programmes in Economics and Finance.

#### Experience:

**2009-2012** – Deputy Chairman of the Management Board of Federal Grid Company

**since 2012** – First Deputy Chairman of the Management Board of Federal Grid Company

### Positions in governing bodies of other organisations:

member of the Board of Directors of JSC Non-Government Pension Fund of the Electric Energy Industry

Share in the Company's ordinary stock: 0.000549%.

### MANAGEMENT BOARD

## Effective Leadership



The Management Board and the Chairman of the Management Board – collective and sole executive bodies – are responsible for the day-to-day operations of the Company and play a key role in the delivery of strategic objectives of Federal Grid Company.

The Federal Grid's Articles of Association set the competence of the executive bodies and provide for their accountability to the Board of Directors and the General Meeting of Shareholders.

### Changes to the membership of the Management Board in 2014

Directors decided to terminate the authorities of the following members of the Federal Grid's Management Board: Leonid Mazo, Valery Sedunov and Vladimir Shukshin (Minutes No. 233 dated 27 October 2014).

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On 24 October 2014, the Board of Directors decided to terminate the authorities of the following members of the Federal Grid's

New members of the Management Board were elected: Alexander Vasiliev, Alexander Zaragatsky, and Nikolay Pozdnyakov.

### Alexander Vasiliev

- Deputy Chairman of the Management Board
- Management Board member since 2014

#### Areas of Responsibility:

Security issues

#### **Born in 1958**

In 1982, graduated from Leningrad Mechanical Institute with a degree in Mechanical Engineering; in 2003, graduated from St Petersburg State University of Economics and Finance with a degree in Economics; in 2007, graduated from St Petersburg Institute of Foreign Economic Relations, Economics and Law with a degree in Jurisprudence

#### Experience

**2003-2010** – Head of Moscow Region Department of the RF State Committee for Control over Drug and Psychotropic Trafficking

**2010-2011** – Deputy Director, Director of Security Department of JSC MMC Norilsk Nickel

**2011-2014** – Deputy Head of the Federal Customs Service

**since 2014** – Deputy Chairman of the Management Board of Federal Grid Company

Holds no shares in the Company

### Vladimir Dikoy

- Deputy Chairman of the Management Board - Chief Engineer
- Management Board member since 2013

#### Areas of Responsibility:

Maintenance and Repairs

#### **Born in 1954**

In 1981, graduated from Moscow Power Engineering Institute with a degree in Electric Power Supply of Industrial Enterprises, Cities and Agriculture. PhD in Technical Sciences.

#### Experience:

**2008-2009** – Deputy Director General for Production of JSC Glavsetservice of UNEG

**2010-2013** – Deputy Chief Engineer of Federal Grid Company

**since 2013** – Deputy Chairman of the Management Board – Chief Engineer of Federal Grid Company

### Positions in governing bodies of other organisations:

Chairman of the Board of Directors of JSC Mobile Gas Turbine Electric Power Plant and JSC Dalenergosetproekt

member of the Board of Directors of JSC Electrosetservice of UNEG and JSC Tomsk Trunk Grids

Share in the Company's ordinary stock: 0.000022%

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### Alexander Zaragatsky

- Deputy Chairman of the Management Board
- Management Board member since 2014

#### Areas of Responsibility:

Legal and general administrative matters

#### **Born in 1976**

In 2001, graduated from St Petersburg Law Institute of the General Prosecutor Office with a degree in Jurisprudence; in 2002, graduated from St Petersburg Institute for Management and Economics with a degree in State and Municipal Management. PhD in Economics

#### Experience:

**2007-2013** – Chief of Staff of the Chairman of St Petersburg Legislative Assembly

**since 2013** – Deputy Chairman of the Management Board of Federal Grid Company

Holds no shares in the Company

### Nikolay Pozdnyakov

- Deputy Chairman of the Management Board
- Management Board member since 2014

#### Areas of Responsibility:

Engineering, construction and reconstruction

#### **Born in 1979**

Graduated from Moscow State University with a degree in Physics and Higher School of Economics with a degree in Economics

#### Experience:

2009-2013 – Head of Investment Project Monitoring, Head of Investment Planning and Reporting Department of Federal Grid Company

**2013-2014** – Deputy General Director for Investments of JSC Russian Grids

**since 2014** – Deputy Chairman of the Management Board of Federal Grid Company

### Positions in governing bodies of other organisations:

General Director of JSC Centre for Engineering and Construction Management of UES

Share in the Company's ordinary stock: 0.0000938%

#### Maria Tikhonova

- Deputy Chairman of the Management Board
- Management Board member since 2013

#### Areas of Responsibility:

Corporate governance

#### Born in 1980

Graduated from Volga-Vyatka Academy of Public Service with a degree in Public and Municipal Administration, Higher School of Economics with MBA Finance. PhD in Economics.

#### Experience:

2008-2012 – Head of Corporate Management and Economic Analysis Unit of the Department, Director of the Department for Economic Regulation and Property Relations in the Fuel and Energy Complex of the Russian Ministry of Energy

**since 2013** – Deputy Chairman of the Management Board of Federal Grid Company

Holds no shares in the Company

## **Dmitry Shishkin**

- Internal Control Director
- Management Board member since 2013

#### Areas of Responsibility:

Internal Control and Risk Management

Operational controlling and compliance procedures

#### Born in 1967.

In 1992, graduated from the Higher School of the KGB of the USSR named after Dzerzhinsky with a degree in Jurisprudence

#### Experience:

**2009-2012** – Deputy Director for Security of Gazprom EP International Services B.V., Moscow

**2013** – Security Director of JSC Moscow Unified Electric Grid Company

**since 2013** – Internal Control Director of Federal Grid Company

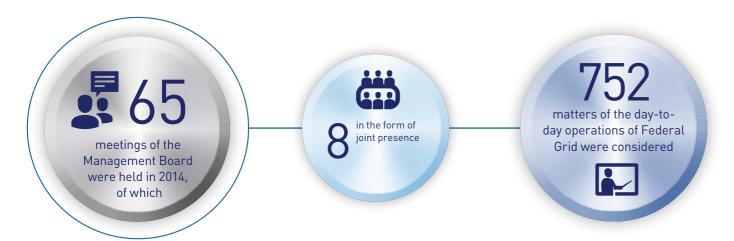
### Positions in governing bodies of other organisations:

member of the Board of Directors of JSC Energostroysnabkomplekt and JSC Centre for Engineering and Construction Management of UES

Holds no shares in the Company

In 2014, there were no dealings in the Company's shares by the members of the Management Board.

### Activities of the Management Board in 2014



In order to improve the Federal Grid's internal efficiency and minimise the impact of risks that can affect the Company's performance, in the reporting year the Management Board approved an Action Plan ('road map') for ensuring financial stability and improving economic efficiency of the Company's operation for 2014-2015, which includes, among other things, a set of crisis response measures.

The Management Board has devoted its special attention to managing subsidiar-

ies and associates. To set a unified policy for managing subsidiaries and associates, all matters of business planning and main areas of the development strategies of subsidiaries and associates for 2014-2018 have been preliminarily considered by the Management Board. Following changes in the Russian corporate legislation, in order to set a unified approach, the Management Board approved standard Articles of Association for a subsidiary whose voting shares are 100% owned by Federal Grid.

In the reporting year, the Management Board continued to monitor the implementation of the technical maintenance and repair programme, as well as the programme for managing the Company's non-core assets.

Besides, the Management Board has made decisions on charitable assistance and has considered matters of social assistance to Federal Grid's employees.

### Remuneration of the Management Board

In accordance with the Regulations on Terms and Conditions of Employment Agreements and Determination of Remuneration and Compensation for Senior Managers of Federal Grid Company approved by the Board of Directors on 17 June 2010, remuneration for senior managers is determined by their employment agreements. Remuneration includes a fixed component (salary) and a variable component (bonuses). Bonuses are tied to key performance indicators (KPIs) of senior managers.

In 2014, the Board of Directors approved the Methodology for Calculation and Evaluation of Key Performance Indicators for Federal Grid's Senior Management that included KPI targets for 2014.

The major changes to the 2014 Methodology compared with the same methodology for the prior year were as follows:

1. The Methodology was developed in line with the provisions of the KPI Guidance for state-owned corporations, companies, unitary enterprises, as well as business entities where the Russian Federation or a subject of the Russian

Federation has a majority interest (issued pursuant to the Assignment of the RF President No. Pr-1474 dated 5 July 2013). In accordance with the above Guidance, the following mandatory indicators were included in the Methodology: ROIC (return on invested capital) and TSR (total shareholder return). The last one was indicative in 2014 and was not included in the senior management bonus plan.

- 2. Pursuant to the decision of the Federal Grid's Board of Directors (Minutes No. 303 dated 5 November 2013), an indicator was included in the Methodology for measuring reliability of services provided. The target value was set in accordance with the Order of the Federal Tariff Service No. 486-e/3 dated 28 December 2012.
- 3. Pursuant to the assignment of the Russian Government (Directive No. 5533p-P13 dated 17 September 2013) and the decision of the Federal Grid's Board of Directors (Minutes No. 207 dated 16 December 2013), an annual indicator Meeting Deadlines for Technological Connection was included in the Methodology.

- 4. In accordance with the Development Strategy for the Russian Electric Grid Complex approved by the Russian Government (Resolution No. 511-r dated 3 April 2013), the following indicators were included in the Methodology: Reduction in Unit Investment Costs, Reduction in Operational Expenditure, and Preventing Increase in the Number of Injured in Accidents.
- 5. In order to improve the operating control over the Company's activities, we have changed the annual and semi-annual senior management bonus plan to the quarterly and annual bonus plan.

In case any of the KPIs is not met, then the bonuses of all members of the Management Board, including the Chairman, are decreased by a certain percent depending on the indicator significance level. The most significant quarterly KPIs are No major accidents (40% weighting) and Preventing Increase in the Number of Injured in Accidents (40% weighting). The most significant annual KPIs, with a 15% weighting each, are ROIC, Electric Energy Losses, Achieving Reliability Level of Services, and Meeting Schedules for Commissioning.

In 2014, all KPIs were met, and consequently, quarterly and annual bonuses for the Management Board members were 100% of those determined by employment agreements

Quarterly KPI	2013 actual		2014 target	2014 actual			
			quarterly	1 quarter	2 quarter	3 quarter	4 quarter
Reliability indicator: no major accidents	O per year		0	0	0	0	0
Preventing Increase in the Number of Injured in Accidents		-	no increase	no increase	no increase	no increase	no increase
Financial stability indicator. i.e. the financial leverage ratio	0.33 first half of the year	0.44 second half of the year	≤ 1.5 or a value determined in business plan	0.44	0.43	0.43	0.44

Annual KPI	2013 actual	2014 target	2014 actual
Indicative indicator: TSR (Total Shareholder Return)	-	> of average value of MICEX index PWR (3.08 %)	- 50.5%
ROIC (Return on Invested Capital)	-	≥ 1 (0.9 % under business plan)	1.77 (1.6% under business plan)
Cost reduction for the acquisition of goods (work. services)	10.25%	≥ 10%	18.49%
Reduction in operational expenditure	-	≥ 15%	21.7%
Electricity losses	4.28% of supply	≤ 100% (4.34% of supply)	95.16% (4.13% of supply)
Achieving reliability level of services	-	1	1
Reduction in unit investment costs	-	≥ 10%	17.03%
Meeting schedules for commissioning	99.6%	≥ 95%	100.9%
Meeting deadlines for technological connection	-	≤ 1	0.72

## Remuneration of members of the Management Board in 2014, RUB thousand

## Remuneration of the Chairman of the Management Board in 2014, RUB thousand

Chairman of the

	all members including Chairman*	
Remuneration for contributions to the Management Board's operations	0	Remuner Managen
Salary	93,344	Salary
Bonuses	140,152	Bonuses
Commission	0	Commiss
Benefits	0	Benefits
Reimbursement of expenses	0	Reimbur
Other types of remuneration	32,438	Other typ
Total	265, 934	Total

	Management Board
Remuneration for contributions to the Management Board's operations	0
Salary	26,506
Bonuses	33,724
Commission	0
Benefits	0
Reimbursement of expenses	0
Other types of remuneration	15,007
Total	75,237

<sup>\*</sup> Including remuneration paid to all members of the Management Board in 2014 taking into account changes in the composition of the Management Board.

### **Audit Commission**

The Audit Commission is a permanent body which is elected annually by the General Meeting of Shareholders and is responsible for exercising control over the Company's financial and operational activities, its governing bodies and structural units.

In its operations, the Audit Commission is governed by the Articles of Association and the Regulations on the Audit Commission of Federal Grid Company.

The main tasks of the Audit Commission are as follows:

- confirmation of the reliability of data contained in the Company's annual report, accounting balance sheet, and profit and loss statement;
- analysis of the Company's financial position, identification of ways for improving the financial position of the Company, and developing recommendations to the governing bodies;
- organisation and performance of audits (revisions) of the Company's financial and operational activities.

### Members of the Audit Commission

#### Elected by the Annual General Meeting of Shareholders on 27 June 2014

Name	Year of birth	Education	Position
Nikolay Varlamov	1974	Higher	Deputy General Director for Control and Audit of JSC Russian Grids
Anna Drokova	1985	Higher	Head of the Department of organisations of Fuel and Energy Sector of the Department of Property Relations and Privatisation of the Federal Agency of State Property Management
Marina Lelekova	1961	Higher	Head of the Control and Internal Audit Department of JSC Russian Grids
Vladimir Skobarev	1952	Higher	Director General of MOORE STEPHENS RUS, Ltd
Alan Khadziev	1981	Higher	Director on Internal Audits of JSC Far East Energy Management Company

Current members of the Audit Commission hold no shares in Federal Grid Company and hold no positions in the Company's governing bodies.

#### Acting from 11 November 2013 to 27 June 2014

Name	Year of birth	Education	Position
Anna Drokova	1985	Higher	Head of the Department of organisations of Fuel and Energy Sector of the Department of Property Relations and Privatisation of the Federal Agency of State Property Management
Leonid Naganov	1972	Higher	Minister of Energy of Moscow Region
Karim Samakhuzhin	1988	Higher	Deputy Head of the Secretariat of the Chairman of the Board of Directors of JSC Russian Grids
Vladimir Khvorov	1947	Higher	leading expert of the Department of state regulation of tariffs infrastructural reforms and energy efficiency of the Ministry of Economic Development of Russia
Anna Nesterova	1982	Higher	Deputy Director for Social Projects branch of Non-Profit Autonomous Organisation Agency for Strategic Initiatives

Former members of the Audit Commission held no shares in Federal Grid Company and held no positions in the Company's governing bodies.

### Remuneration of the Audit Commission members

The amount of and the procedure for paying remuneration and compensation to the members of the Audit Commission of Federal Grid Company are established

by the Regulations on Remuneration and Compensation to Members of the Audit Commission of Federal Grid Company approved by the General Meeting of Shareholders on 30 June 2008. The total remuneration paid to the members of the Federal Grid's Audit Commission in 2014 amounted to RUB324.0 thousand.

#### **Auditor**

Federal Grid Company annually engages an external independent auditor to perform a statutory audit of its RAS and IFRS financial statements.

#### **Auditor Selection Process**

#### Tendering Commission

Evaluates bids submitted by audit organisations and selects a winner of open tender

### Audit Committee

Evaluates a

candidate for the position of the Company's auditor and makes recommendations to the Board of Directors

Members of the Committee sit in the Tendering Commission

## Board of Directors

Makes a decision on the proposal of a candidate for an approval of the General Meeting of Shareholders

## General Meeting of Shareholders

s a decision Approves an external auditor andidate for proval of the

On 27 June 2014, the General Meeting of Shareholders approved RSM Top-Audit LLC (renamed RSM RUS LLC on 20 August 2013) to conduct an independent audit of the Company's accounting statements prepared under RAS, and the consolidated financial statements prepared under IFRS. RSM RUS LLC is a full member of the leading international auditing and consulting organisation RSM International and a member of the self-regulatory organisation of auditors, Non-Profit Partnership Auditor Association Sodruzhestvo

The candidate for the position of the Company's auditor was proposed based on the results of the open tender conducted under the Federal Law "On Placing Orders for Goods, Works and Services for State and Municipal Needs" No. 94-FZ dated 21 July 2005.

We used the selection criteria that are provided by the above mentioned Law and the Russian Government Resolution No. 722 dated 10 September 2009 "On the Rules for Evaluating Bids under Tenders for Procurement of Goods. Works and Services".

In the execution of the decision made by the Federal Grid's Board of Directors on 30 December 2014 (Minutes No. 245 dated 31 December 2014), JSC Russian Grids will conduct a centralised procurement of services on performing a statutory audit of the Federal Grid's accounting statements prepared under the Federal Law No. 402-FZ dated 06 December 2011 "On Accounting", and IFRS consolidated financial statements of Federal Grid Group, for 2015, 2016 and 2017.

### **Auditor Remuneration**

The amount of remuneration of the Auditor RSM RUS LLC paid for the auditing the Company's financial statements under RAS and IFRS for 2014 was RUB13,887.5 thousand including VAT.

During the reporting period, the external auditor did not provide any non-audit services to the Company.

#### **CONTROL SYSTEM**

## INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

# Comprehensive Approach to Control and Risk Management

The internal control and risk management system of Federal Grid Company is an important component of the Company's governance system. It includes a set of procedures, methods and tools used by the authorised bodies and employees and aimed at obtaining reasonable assurance that the Company achieves its objectives in the following areas:

- Effectiveness and efficiency of activity arrangements
- Compliance with applicable legislation and internal regulations of the Company
- Prevention of illegal actions of employees and third parties with respect to the Company assets
- Accuracy, completeness and timeliness of all types of the Company reporting.

To ensure the effective operation of the internal control system (ICS) in compliance with the best international practices, the Board of Directors approved the Regulations on Internal Control System of Federal Grid Company (Minutes No. 170 dated 3 August 2012).

The above Regulations set the objectives, tasks and operating principles of the Internal Control System, as well as the structural components of the internal control framework including the risk management system. According to the Regulations, the risk management system includes:

- analysis of business processes aimed to identify events that can negatively affect the achievement of the Company's objectives;
- risk assessment with regard to their significance and probability;
- planning of risk treatment actions.

Our risk management framework is documented through a comprehensive set of internal documents of Federal Grid Company, including the Risk Management Policy and the Procedure for Applying the Risk Management Policy.

In accordance with the Risk Management Policy, a major objective of the risk

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management system is to reduce risks to an acceptable level set by the Company's Management Board. Federal Grid's Risk Management Policy is aimed at improving the Company's short and long-term performance, as well as ensuring the sustainable and continuous operation and development of the Company through the timely identification, assessment and treatment of risks that threaten its efficient economic operation and good standing, the health of its employees, the environment and the property interests of shareholders and investors.

The Procedure for Applying the Risk Management Policy provides for the following risk response strategies (risk management practices):

- · Risk acceptance.
- Risk mitigation.
- Risk transfer (for example, insurance).
- Risk aversion.
- Combined strategies.

The choice of risk response strategy is within the competence of an appropriate risk owner. Strategy types (risk management practices) shall be approved by the Company's Management Board.

#### Roles and Responsibilities of the Participants of the Internal Control System

Audit Commission	<ul> <li>Confirms the reliability of data contained in the Company's annual report, accounting balance sheet, and profit and loss statement; performs audits of the Company's financial and operational activities</li> </ul>
Board of Directors	Builds up the Internal Control System, sets its policy and monitors performance of the ICS, considers results of the internal control, performs regular evaluation of the ICS's effectiveness and ensures constant improvement of the internal control procedures
Audit Committee	<ul> <li>Carries out reviews of the Company's Internal Control System, develops recommendations to the Board of Directors on its further improvement; plans the internal audit schedule and considers audit results; performs the Company's financial statement analysis and the analysis of the external audit results; assesses candidates for the position of the Company's auditor, develops recommendations to the Board of Directors regarding the appointment of external auditors, the conduct of annual independent audit and external auditors' fees</li> </ul>
Chairman of the Management Board	<ul> <li>Provides organisational support and scheduling of internal controls, makes decisions based on the outcomes of the controls; makes proposals to the Board of Directors regarding the improvement of internal control procedures</li> </ul>
Internal Control and Risk Management Department	<ul> <li>Plans and performs audits of business processes, governance system, internal control and risk management system, and organisation design of the Company and its subsidiaries and associates</li> <li>Plans and performs audits of financial and operational activities of the Company and its subsidiaries and associates</li> <li>Plans and performs construction audit and review of projects within the Company's investment programme</li> <li>Analyses risks and operational and investment efficiency enhancement potentials in the course of long-term planning of operating and investing activities.</li> <li>Organises effective internal control and risk management system, evaluates the effectiveness of risk management in the Company and its subsidiaries and associates.</li> <li>Plans and conducts audit of information systems, identifies and assesses risks of IT Strategy implementation and operation.</li> </ul>
Other units that perform control functions	<ul> <li>The Corporate Headquarters performs strategic, guidance and control functions subject to the Company's HR Management Policy</li> <li>Pursuant to the Order No. 180 dated 10 April 2014 "On the Organisational Structure of the Corporate Headquarters", members of the Management Board and Deputy Chairmen of the Management Board perform activity-specific control functions with respect to the Federal Grid branches, subsidiaries and associates</li> </ul>
Owners of Control Procedures	Organise and implement control procedures within business processes in accordance with job descriptions and provisions of the Company's regulatory and administrative documents

#### Roles and Responsibilities of the Participants of the Risk Management System

Management Board	Considers and approves a Risk Matrix, Risk Summary and risk minimisation actions
Risk Owners members of the Management Board, Deputy Chairmen of the Management Board and the Heads of the Company's structural units	Ensure efficient risk management including risk identification and assessment, and provision in the budget and business-plans of the amounts required for financing the risk management actions
Owners of Control Procedures Staff of the Company's structural units	<ul> <li>Organise and implement control procedures within the business processes</li> <li>Identify and assess risks, plan and implement measures on reducing risk probability and/or risk implications</li> </ul>
Internal Control and Risk Management Department	<ul> <li>Plans and performs internal audit of the risk management system</li> <li>Analyses risk factors and operational and investment efficiency enhancement potentials in the course of long-term planning of operating and investing activities</li> <li>Organises the risk management system and evaluation of its efficiency</li> </ul>

### Internal Audit

The Federal Grid's internal audit function is performed by the Internal Control and Risk Management Department (Internal Auditor) in accordance with the Federal Grid's Internal Audit Guidelines approved by the Internal Control Director.

In accordance with the professional standards of the Institute of Internal Auditors, the Programme has been developed in the Company for assessing and improving the internal auditing, which establishes the procedure for ongoing monitoring, periodic internal assessments (self-assessments) and preparation for external assessment of the performance of the internal audit activity, and includes a set of measures for developing the internal audit, including:

- Changing organisational and functional
- Improving the internal audit procedures
- Stakeholder engagement
- Automation of the internal audit activity

· Maintaining qualification and developing competencies of internal auditors

In addition, the above Programme provides for drafting the Federal Grid's Internal Audit Policy with its further approval by the Board of Directors. The Policy should set, in accordance with the Corporate Governance Code recommendations, the internal auditor status within the Company (including functional and administrative reporting lines), scope of activity (including the existing restrictions), and internal auditor rights and obligations.

#### What important innovations were implemented in 2014 in the area of internal control of Federal Grid Company?



"The successful delivery of the Company's long-term strategy depends largely upon the effectiveness of our internal control. Therefore, in 2014 we developed a Programme for enhancing the quality of the internal control system. The Programme includes measures aimed at improving not only internal control but also internal audit function, risk management system and control environment of business processes.

### **Dmitry Shishkin**

Internal Control Director Member of the Management Board of Federal Grid Company

Within the implementation of the above Programme we have drafted policies and guidelines such as Internal Control Policy, Risk Management Policy, and Internal Audit Policy. The above drafts cover the provisions of the Russian Corporate Governance Code and new requirements of the Listing Rules of the Moscow Stock Exchange. The Management Board and the Audit Committee considered the draft documents and recommended them for approval by the Board of Directors.'

### Highlights of 2014

- Internal assessment of the effectiveness of the internal control system was performed; the system weaknesses and risks were identified. The results were reviewed by the Audit Committee (Minutes No. 33 dated 28 November 2014).
- Review of the risk management system was conducted within the preparation of Key Risk Report 2013. Upon consideration of the Report, the Management Board made decisions aimed at improving the efficiency of the risk management in the Company (Minutes No. 1239 dated 06 June 2014).

#### Board of Directors and Risk Management in 2014

Upon the preliminary consideration by the Management Board and the Audit Committee, the Board of Directors approved the Key Operational Risk Register (Minutes No. 248 dated 27

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January 2015). The Register aims to integrate the risk management system into the business planning system of Federal Grid Company, which will be implemented in 2015.

### Plans for 2015

When making efforts toward further developing and improving the internal control and risk management system we will take into account the results of the implementation of the assignments of

the RF President No. Pr-3013 dated 27 December 2014 and of the RF Government No. ISH-P13-54 dated January 13 2015 on drafting a list of the Company's internal documents that regulate, among

other things, internal audit functions, risk management system and quality control system, as well as guidelines for drafting the above documents and a schedule for their approval.

### Key Risk Factors and Information about Risk Management Actions

#### Level of risk relevance

Critical



Significant





Relevance unchanged

Risk relevance trend

in the reporting year

Higher relevance

Lower relevance

Risk

**Risk Description** 

#### Risk Mitigation Actions (control procedures)

#### **Industry risks**

risks

Risk Relevance and Its Trend



- 1 Tariff regulation The amount of investable funds in the tariff was reduced relative to the tariff sources of funds for the Company's Investment Programme that has been taken into account when tariffs for electricity transmission were approved. The reduction was caused by an increased cost of debt
  - Actual revenues from electricity transmission services were lower due to a changed order of payment for services; this change had not been taken into account when tariffs were set
  - The costs of electricity transmission services via foreign energy systems increased due to changes of foreign currency rates
  - The actual average tariff on electricity transmission deviated from the one that was included in the business plan

- Draft proposed changes to the corporate Investment Programme and the structure of sources of financing and changes in the structure of tariff decision in terms of tariff sources of financing for the corporate Investment
- Draft and submit proposed amendments to laws and regulations on tariff setting and on defining indicators that are used in setting the tariffs, including proposals about the procedure of payment for electricity transmission services by the customers (the way customers pay for the reserved maximum capacity) and other changes
- Given the current macroeconomic parameters, and in order to minimise the impact of the abovementioned risks the Company is working on proposals to include lost revenues (caused by a reduced volume of services and increased costs of electricity transmission services via foreign energy systems) in the gross revenues. These proposals will be submitted to the Federal Tariff
- Implement actions targeted at improving the efficiency of the Company's operations and investments, consistent implementation of the approved parameters of RAB regulation and at drawing up well-balanced and economically justified proposals about how to adjust and set these parameters.
- Improve the quality of budget planning and develop a system of budget control through improving the corporate Budget Code and integrating the risk management processes in the system of medium-term and long-term business planning.

Risk

#### **Risk Description**

#### **Risk Description** Risk Mitigation Actions (control procedures)

Country and regional risks

2 Risks related to technological connection

**Risk Relevance** and Its Trend



 Risks related to the untimely meeting of contractual obligations under contracts for technological connection, including deviation of the actual quality level of the technological connection services from the level established during tariff regulation. The quality level is measured as per Section 3 of Executive Order No. 718 dated 14 October 2013, issued by the Ministry of Energy, as the aggregate impact by the quality parameters of reviewing applications for technological connection: execution of contract for technological connection, compliance with the antimonopoly legislation and the quality of customer service

 Insufficient sources of financing of technological connection operations

· Deviation of overdue accounts

transmission services from the

amount established in the business

receivable for electricity

Federal Grid Company's Management Board approved the Programme for Improving the Efficiency of Technological Connection to Electric Grids of Federal Grid Company and Increasing Transformer Capacity Utilisation. It includes actions targeted at initiation of amendments to the Russian laws (law-making) and organisational actions.

Risk Mitigation Actions (control procedures)

Law-making activities in the context of these risks include the drafting of proposed amendments to laws and regulations that govern relations of the parties in the process of technological connection (including those that regulate the fundamentals of pricing when individual tariffs for technological connection are set) and responsibility of grid organisations and counterparties for complying with the material terms and conditions of contracts for technological connection. These proposals are to be communicated to the regulators (the Federal Tariff Service and Ministry of Energy).

Institutional actions of the Programme are targeted at improving the efficiency of Federal Grid's operations when the Company provides technological connection services if tariff sources of financing are insufficient, including:

- Drafting and implementation of template documents in order to unify the document flow in the process of technological connection of customers
- Actions to increase capacity utilisation by identifying equipment which is not consistent with UNEG criteria and by identifying and decommissioning inefficient capacities
- Drafting of template case proposals about consumer co-financing of operations related to technological connection, except the fee for technological connection (upon agreement with the customers)
- Setting of 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

Information about transformer capacity which is free for technological connection of customers and generation facilities in all main substations is monitored and updated in order to make it more transparent; this information is made available on the corporate website.

3 Risks related to an increase of overdue and bad accounts receivable

> Risk Relevance and Its Trend



In order to mitigate risks related to an increase of overdue and bad accounts receivable the Company approved the Receivables and Payables Management Procedure. It establishes the procedures of taking decisions about accounts receivable by contract managers. Besides, the Receivables and Payables Management Committee has been established and is operating. Its goals are to make cash management in the Company more efficient, manage risks related to overdue accounts receivable and payable, and improve cash turnover. The Committee responsibilities include but are not limited to the following issues:

- Review aggregate reports about the status of accounts payable and receivable and explanatory notes of contract managers
- Take decisions about ways of recovering accounts receivable that have been overdue for more than three months and accounts receivable that were submitted for the Committee's decision by contract managers
- Take decisions to write off bad debt
- Selectively assess the performance of employees who manage accounts payable and receivable

Take decisions that proposals about disciplinary measures against delinquents should be brought for approval by the Chairman of the Management Board in cases when the procedure of handling overdue accounts payable and receivable is breached

4 Risks related to the political and economic situation in the country and region

Risk

#### **Risk Relevance** and Its Trend

Impact of political factors



Impact of economic factors



Unexpected political events in 2014 include the government crisis in Ukraine, followed by armed hostilities in that country and increased tensions in relations between Russia and the USA and many EU members. Economic sanctions against Russia brought about substantial deterioration on the capital and bank debt markets, and could cause problems with entering into new contracts with companies from these countries. The overall economic environment also changed unexpectedly in 2014. The most significant changes were a rapid drop in oil prices and devaluation of the ruble on the background of rising inflation. In the context of (and, to some extent, in relation to) political developments these changes began making a moderate financial effect on the Company's operations toward the end of the reporting year. The combined impact of political and economic factors brought about a regulatory risk. Tariff decisions taken in 2014 resulted in a decline of the Company's revenues.

In order to mitigate the impact of country and regional risks the Company approved an Anti-Crisis Programme and cost-cutting programmes in operational

Besides, it drafted a Long-Term Development Programme of Federal Grid Company for 2015-2019 with a forecast though 2030. The Programme was approved by the Board of Directors and previously approved by the Government of the Russian Federation on 25 September 2014. The Log-Term Programme priorities are to improve the efficiency of Federal Grid's operations, reduce operational costs by 25% by 2017 and investment costs by 30% relative to the 2012 level, improve reliability of electric power supply and implement projects that are important for the national economy.

While drafting the Long-Term Programme, the Company analysed risks that might affect its operations. It intends to monitor and assess these risks continuously. The Long-Term Programme also includes a set of risk

5 Risks related to the geographical characteristics of the country or region, including an increased risk of natural disasters and possible discontinuation of transport services

#### Risk Relevance and Its Trend



Federal Grid Company has a distributed network of structural units, and its assets are located on the whole territory of the Russian Federation. Therefore, risk factors for the Company are distribution of its facilities and their remoteness from repair stations, as well as a possible impact of natural events on these facilities

Federal Grid Company operates in compliance with the Unified Technical Policy of the Electric Grid Complex that was approved by the Board of Directors of JSC Russian Grids (Minutes No. 138 dated 23 October 2013) and put in place as the Company's internal document by a decision of Federal Grid's Board of Directors dated 27 December 2013 (Minutes No. 208 dated 27 December 2013). The aim of the Unified Technical Policy is to identify the key technical areas that enhance the electric grid complex's reliability and efficiency in the short and medium terms with an appropriate industrial and environmental safety based on innovative principles that provide non-discriminatory access to electric grids for all market participants. This includes:

- An increased number of offroad vehicles and use of air drones in the process of operating the overhead lines and arranging post-accident inspections
- Higher readiness for repair and recovery works

**Risk Description** Risk Risk Mitigation Actions (control procedures)

Financial risks

#### 6 Liquidity risk

#### Risk Relevance and Its Trend



This risk is related to possible losses that may be caused by the Company's inability to meet its obligations in full due to the following factors:

- CBR's monetary policy
- Exchange rate fluctuations Changes of interest rates
- Inflationary pressure

In order to meet its targeted metrics, the Company is implementing an Action Programme ("road map") to ensure financial sustainability and enhanced economic efficiency of Federal Grid Company in 2014-2015, including a package of anti-crisis actions approved by the Management Board (Minutes No. 1263/2 dated 10 October 2014). The goals of this Programme are to achieve the best balance between objectives of the Company's investment growth, the level of its shareholder value and profitability; ensure financial sustainability; and conduct efficient and high-performance business operations.

The Company approved priority objectives of its financial and economic policy for 2015 and outlined key implementation mechanisms.

In 2014, the Company developed and implemented actions that are included in the programmes and have an impact on the outcomes of the Company's operations. These include:

- Investment Efficiency Programme which envisages a reduction of investment
- Programme for Substitution of Imported Equipment, Technologies, Materials and Systems for 2015-2019
- Maintenance and Repair Costs Efficiency Programme
- Payroll Efficiency Programme
- Programme for Improving Efficiency of Technological Connection to Federal Grid's Electric Grids and Increasing Utilisation Ratio of Transformer Capacities.

The Company also implements other actions to minimise the financial effect of the abovementioned factors:

- It continuously monitors and manages risks related to changes of the regulatory framework (this is done by departments of finance and economy)
- It takes actions to improve management of the Company's working capital and ensure profit from cash flow, including via stronger financial discipline of counterparties. The Company also implements its policy which envisions gradual reduction of advances paid to contractors
- Federal Grid Company handles claims and bad debt recovery, and manages accounts receivable in order to reduce overdue accounts receivable or prevent their accumulation by counterparties.
- The Company drafts proposals for the federal executive authorities on how to change the process of calculation of fines for untimely fulfillment of contractual obligation (the CBR key rate should be used for this purpose instead of the CBR refinancing rate)
- The Company conducts negotiations with entities that provide cross-border electricity transmission services (Kazakhstan, Belarus, the Baltic countries). The aim of these negotiations is to achieve an agreement not to increase the cost of transit due to exchange rate changes and synchronyse the parameters of tariff indexation between the countries
- The Board of Directors established a foreign currency limit on FX transactions in order to control operations in foreign currency

7 Legal risks

Risk

#### **Risk Relevance** and Its Trend



These are risks related to changes in legislation and to regulation of Federal Grid's operational areas. including but not limited to:

**Risk Description** 

- · relations with other owners of UNEG facilities;
- calculation of the justified value of maximum capacity for technological connection of applicants;
- · the procedure for defining the declared capacity to be used for setting of the electricity transmission tariffs and calculation of service costs;
- · technological connection to the Company's facilities having voltage below 110 kW:
- · coordination of electricity market participants' programmes for development of the electric power industry in the longer term;
- customers' liability for the untimely payment for services;
- relations with the third parties in technological connection.
- Risks related to public law and pertaining to:
- changes of court practices on issues related to the Company's operations;
- balance of interests with other entities operating in the electric power industry

Risk Mitigation Actions (control procedures)

#### Legal risks

The Company continuously contributes to the drafting of rules and regulations at the federal level, takes part in the work of inter-ministry panels on the regulation of the electric power industry, and cooperates with the relevant committees of the Federal Assembly of the Russian Federation. The following actions were taken in the reporting year as part of this work:

- Federal Grid Company drafted proposed amendments to the Federal Law "On Electric Power Industry" (about relations with other owners of UNEG) and submitted them to the Russian Ministry of Energy
- Federal Grid Company offered proposals to the draft Government resolution about introduction of "power grid reserve capacity" and using this concept in calculations, and submitted them to the Russian Ministry of Energy. Another proposal was to include full costs (including the costs of enhancement / development of the existing electrical grid network) in the fee for technological connection and extend this principle to all applicants for technological
- Based on the Company's proposals, the Ministry of Energy is drafting a Government regulation on extending the list of exceptional cases of technological connection to federal Grid's facilities
- The Company contributes to federal executive authorities' rule-making and methodological work on defining a mechanism for the approval and adjustment of investment programmes run by the electric power industry entities with due regard of the need to comply with the Government Regulation No. 132 dated 16 February 2015 (on amending Resolution No. 977)
- Federal Grid's position on balancing the interests of electric power entities was communicated to the State Duma.

The Company monitors the key trends in court practices pertaining to its main operational areas. In the reporting period, there were no changes in the court practices on issues related to Federal Grid Company's core business that could have a significant adverse effect on its performance and on the outcomes of court trials in which the Company is a party.

#### Risks related to Federal Grid's operations

8 Operational and technological risk

#### Risk Relevance and Its Trend



This risk is related to high physical wear and obsolescence of electricity grid assets, violations of service conditions and operational regimes of electric grid equipment, damages of equipment, wrong performance of relay protection of automatic controls and automatic emergency response system, the use of inefficient and obsolete technologies and failure to implement the repairs programme in full.

System-wide interruptions in performance and failures to supply electricity to customers, either due do equipment failures or to natural disasters could eventually cause significant economic and reputational losses for the Company Besides, they could affect the volume of losses in its electric grids.

Federal Grid Company operates in accordance with the regulation on the Unified Technical Policy in the Electric Grid Complex. The aim of its implementation is to enhance the electric grid complex's reliability and efficiency in the short and medium terms with an appropriate industrial and environmental safety based on innovative principles of development.

Implementation of the corporate Investment Programme, which includes projects (including those that are part of the programme of renovation and comprehensive refurbishment of facilities) that aim to achieve the following goals:

- Reduce the degree of wear of fixed assets
- Renovate electric grid facilities
- Ensure delivery of capacity by power plants and reliability of cross-regional electric power exchanges
- Upgrade switchgear equipment; upgrade and develop automated process control systems
- Improve grid manageability and observability; clear the routes for overhead transmission lines (OHTLs)
- Improve energy efficiency
- Expand the pool of backup electric power sources, vehicles and specialpurpose machinery for post-accident repairs
- Implement an action plan to prevent an increase of accident rate at highvoltage lines and substations
- Maintain the existing number of repair employees that provide maintenance and repair of substations and high-voltage lines
- Sign contracts for the servicing of substation equipment with the producers of electrical equipment
- Educate, oversee and certify employees who operate process equipment
- Conduct emergency response drills and onsite inspections in the Company's branches
- Implement the Property Insurance Coverage Programme
- Oversee operational and technological risks via technical oversight and maintaining the quality of construction control which is exercised by the Technical Supervision Centre as Federal Grid's branch
- Operations of permanent duty teams in the regions. These teams are to conduct emergency and recovery work at the grid facilities. Establish emergency reserve of equipment

See details in Sections: Improving Reliability (p. 27) / Investing Activities (p. 41)



#### Risk

#### **Risk Description**

#### Risk Mitigation Actions (control procedures)

#### 9 Investment risk

Risk Relevance and Its Trend



Failure to meet the parameters of the Investment Programme which is approved by the Ministry of Energy and taken into account in tariff decisions results in a decline of gross revenues when tariffs are adjusted for the upcoming period of regulation (in accordance with the RAB-based regulation methodology). Resolution No. 159 of the Government of the Russian Federation (dated 27 February 2013) "On Making Amendments to the Rules of Approval of Investment Programmes of Electricity Sector Facilities with State

Participation, and Grid Organisations" became effective. This Resolution may

expose the Company to risks because

facilities that are not included in the

regional plans may be excluded from

this Investment Programme.

Actions to enhance federal Grid's investments are implemented as part of the following programmes

- Investment Efficiency Programme (reduction of investment costs)
- Programme for Substitution of Imported Equipment, Technologies, Materials and Systems for 2010-2014 and 2015-2019.
- Programme for Improving the Efficiency of Technological Connection to Federal Grid's Electric Grids and Increasing Transformer Capacity Utilisation
- Discusses issues of energy policy, reliability of electric power supply and its costs with the government bodies and public organisations
- Implements measures toward fulfillment of an Action Plan ("road map") to establish and develop mechanisms of public control over natural monopolies (in which the power consumers will take part), as approved by Directive No. 1689-r of the Government of the Russian Federation (dated 19 September
- Implements an anti-corruption policy in order to avoid exposures to fraud in procurement during implementation of the Investment Programme; actions are taken to assess the good faith and reliability of counterparties

See details in Sections: Investing Activities (p. 41) / Procurement (p. 33) / Inti-Corruption Activities (p.115)



### Tariff risks Investment risk Risks related to technological connection Risks related to an increase Operational and of overdue and bad accounts technological risk 0 receivable O Moderate Risks related to the political Legal risks and economic situation Significant in the country and region Critica Risks related to the geographical Liquidity risks characteristics of the country or region

### ANTI-CORRUPTION ACTIVITIES

### Fighting Corruption Effectively

We consider corruption to be one of the systemic threats to the stability and reliability of the Company's operations, and fighting corruption is among the priority tasks of the Long-term Development

anti-corruption activities aim to design and implement consistent measures to prevent corruption, eliminate or minimise its root causes and conditions, to build a

Programme of Federal Grid Company. Our zero tolerance attitude among employees, governing bodies, shareholders, investment community and counterparties towards corruptive practices.

### Principles and Tasks of the Anti-Corruption Policy of Federal Grid Company

The implementation of our Anti-Corruption Policy is based on principles which are in line with the best Russian and international anti-corruption standards and practices.

Following changes in anti-corruption legislation in 2014, the Board of Directors approved a new version of the Anti-Corruption Policy of Federal Grid Company.

#### Main principles

- Full compliance of Anti-Corruption Policy with applicable legislation and generally accepted rules
- Strict observance of rights and legitimate interests of employees, partners and counterparties when implementing anti-corruption measures
- A "tone at the top" set by senior managers and directors when creating a culture of zero tolerance towards corruption and building an anti-corruption
- Employee involvement in the design and implementation of anti-corruption standards and
- Proportionality of anti-corruption procedures and corruption risks
- Liability for corruption of all employees irrespective of their position, length of service or other conditions
- Continuous control over, and regular monitoring of, the effectiveness of anti-corruption standards and procedures

#### Main tasks

- To ensure compliance with the requirements of Article 13.3 of the Federal Law "On Anti-Corruption" and other laws and regulations in the anti-corruption
- To perform compliance control, including anticorruption compliance control
- To establish an effective legal mechanism to prevent and fight corruption
- · To establish an effective mechanism for implementing measures to prevent and fight corruption
- To prevent corrupt practices and to ensure liability for corruption offences
- To build awareness and uniform understanding among employees, shareholders, members of the governing and control bodies, partners and counterparties of the Company's position of zero tolerance towards corruption in all its forms and manifestations
- To minimise the risk of the Company's involvement in corrupt activities

### Implementation of the Anti-Corruption Policy in 2014

In the reporting year, there were several areas we focused on in further implementation of the Anti-Corruption Policy of Federal Grid Company.

#### **Automation of activities**

- In order to computerise the process of counterparty verification, we designed and commissioned a specialised information retrieval system that performs an automatic verification in government databases.
- We conducted training videoconferences for the staff of the Corporate Headquarters and branches devoted to anti-corruption activities, transparency of the Company's business and operations of the related computer-aided systems.

#### **Anti-Corruption Measures**

• In order to implement the assignments of the Russian Government aimed at ensuring transparency of financial and operational activities of Federal Grid and its subsidiaries and associates, we reported monthly to the Russian Ministry of Energy, the Federal Financial Monitoring Service (Rosfinmonitoring) and the Federal Tax Service of Russia

**Department of Operational** 

**Control and Compliance** 

**Economic effect** 

- all information on the contracts made, including the chain of ownership of our counterparties; and performed monitoring of timely and proper fulfillment of the above assignment of the Russian Government.
- To examine how our employees perceive corruption and understand the

Anti-Corruption Policy and to assess the effectiveness of its implementation, we organised a Company-wide employee survey.

- We monitored the Company's requests for payment under bank guarantees due to the failure of its counterparties to perform their contracts obligations. In 2014. 206 requests were submitted for the total amount of RUB20.8 billion.
- Within the procurement activities in 2014, we performed an anti-corruption review of documents under 9.489 transactions, including procurement procedures, followed by specific actions aimed at preventing and/or compensating losses and missed profit under these transactions.

The efficiency of anti-corruption activities of Federal Grid Company is achieved by strong teamwork of all participants of anti-corruption management structure

### Board of

determines the Anti-Corruption Policy and monitors its implementation

is responsible for

Corruption Policy

implementation

organising the Anti-

### **Internal Control**

organises activities that underpins coordinates the implementation of the Anti-Corruption Policy, monitors their its branches.

control functions of the Company, subsidiaries and associates

#### **General Directors** of branches, subsidiaries and associates

are responsible for implementing the Anti-Corruption Policy in branches, subsidiaries and associates

#### Central Commission for Compliance Chairman of the with Corporate Ethical Standards and Resolution of Conflict of Management Board Interests

considers issues that relate to the observance of the provisions of the Code of Corporate Ethics and standards of corporate conduct, as well as issues relating to resolution of conflict of

### of anti-corruption measures in procurement in 2014 is

### Development of anti-corruption activities in 2015

At the beginning of 2015, Federal Grid Company joined the Anti-Corruption Charter of the Russian Business. The Official Certificate (No. 2041 dated 13 March 2015) was handed to the Federal Grid's representatives at the International Scientific and Practical Conference "Business and Government against Corruption", organised by the Chamber of Commerce and Industry of the Russian Federation, the United Nations Office on Drugs and Crime, and the International Anti-Corruption Academy.

legislation and the adoption of the new Russian Code of Corporate Governance, in 2015 our Company plans to implement the following measures aimed at improving its anti-corruption activities:

- Participating in collective anti-corruption initiatives
- · Revising and improving the existing anti-corruption policies and guidelines
- Developing a list of corruption risks and procedures for their assessment

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- procedures, applicable anti-corruption legislation and relevant local regulations
- and other measures promoting anti-corruption compliance among employees
- categories of officers to report on all gifts received in connection with their official position or performance of their official duties

#### SHARE CAPITAL

#### SHARE CAPITAL STRUCTURE

As of 31 December 2014, the charter capital of Federal Grid Company amounted to RUB637,332,661,531 and 50 kop and was divided into 1,274,665,323,063 ordinary registered non-documentary shares with a nominal value of RUB0.50 each. No preferred shared 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 RUB0.50 each and a total nominal value of RUB36,070,250,384. Authorised ordinary shares offer the same rights as outstanding ordinary shares.

On 20 February 2014, the additional ordinary share issue was completed with a price of RUB0.50 per share. During the additional issue, 7,524,307,067 shares (79.78% of the total number of securities of the additional issue to be placed) were placed. As a result of the placement, the Company received funds in the amount of RUB3.762 billion.

The Russian Federation, which was the main participant in the additional issue, acquired shares to the amount of RUB3.756 billion. The remainder of the outstanding shares, in the amount of RUB6 million, was acquired by minority

shareholders. The Company has allocated funds received from the additional issue for constructing and commissioning electricity transmission lines to improve the reliability of power supply in the Republic of Sakha and Buryatia, as well as facilities for the Winter Olympics in Sochi.

### Share Capital Structure

The Company has more than 400,000 shareholders. The JSC Russian Grids, which owns 80.6% of the share capital, is the Company's majority shareholder. The Russian Federation, represented by the Federal Agency for State Property Management (Rosimushchestvo), owns 0.59% of the authorised capital.

In June 2013, JSC Russian Grids and Rosimushchestvo signed a shareholders' agreement regarding the managing and voting in Federal Grid Company. The parties have signed the agreement with respect to all, present and future, voting shares in Federal Grid Company.

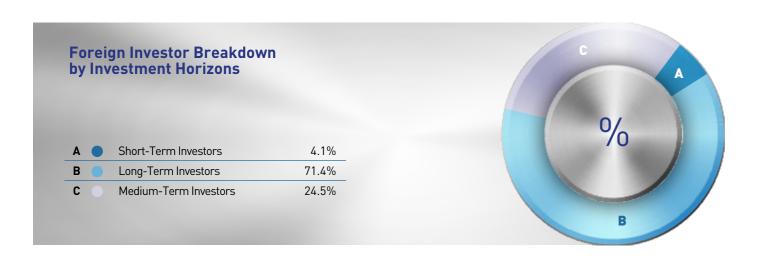
The analysis of shareholder register, annually performed by the Company to improve interactions with shareholders. identified the key groups of holders of ordinary shares and depository receipts. As of the end of 2014, the Company's free float was 18.2%. The main minority shareholders of the Company are institutional investors and holding structures, with retail investors accounting for 3.36%.

Following changes in anti-corruption

- Training employees on anti-corruption
- · Implementing organisational, educational
- Establishing a procedure for specific



The share of **foreign institutional investors**, including major funds, whose assets under management exceed USD1 billion: Kopernik Global All-Cap Fund, Vanguard International Equity Index Fund, MarketVectors ETF Trust Russia ETF. BlackRock funds is



#### STOCK MARKET

Shares of Federal Grid Company are traded on the "Level 1" quotation list of the MICEX Stock Exchange, which is a member of JSC Moscow Exchange Group, and are included in the list of securities traded at the St.Petersburg Exchange. The Company shares are included in the index calculation base of key Russian and foreign indices.

## Federal Grid's Share Information

Share category	Ordinary registered non- documentary
Nominal value	RUB0.50
MICEX Ticker	FEES
SPBEX Ticker	FEES
LSE Ticker	FEES
ISIN	RU000A0JPNN9
Bloomberg Code	FEES RX

## Federal Grid's Share Weighting in Key Share Indices, %

MICEX Index	0.19
MicexPWR	10.76
RTSI	0.19
Russian Traded Index (Vienna Stock Exchange)	0.20
The RTX Energy (Vienna Stock Exchange)	13.56

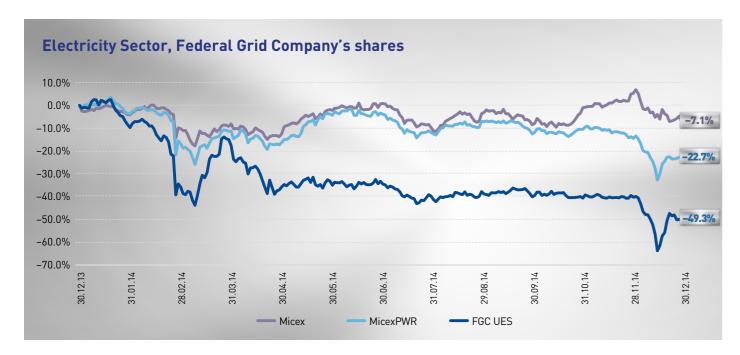
(as of 31 December 2014)

### 2014 Share Performance

Global equity markets closed mixed in 2014: the index of developed countries MSCI World has increased by 2.9%, while the index of emerging MSCI EM declined by 4.6%.

In the reporting year, the Russian market lost 7.1% under the MICEX index, which is looks worth than MSCI World and MSCI EM behaviour. The main negative factors for the Russian market were a sharp decline in oil

prices in the second half of the year (as of the end of the year Brent Oil quotes fell by 48%) and economic sanctions of Western countries against Russia.



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In 2014, electricity industry equities were major underperformers – the Micex PWR sector index went down by 22.7%. The industry indicator declined quicker than the MICEX Index, largely due to low investment attractiveness of companies in the industry against the background of restraining tariff policy, including zero indexation of tariffs in 2014.

In 2014, Federal Grid Company's shares lost 49.3%, underperforming the Micex PWR sector index. The following factors had an additional adverse impact on the Company's shares:

- Slowdown in Russia's economic growth, ruble devaluation, inflation rate, affecting the attractiveness of internal market-oriented companies
- USA and EU sanctions against Russia that have affected credit ratings and outlooks of the Russian Federation and the State-owned companies
- The need to implement a large-scale investment programme under tariff restraints
- Regulator's proposals to switch to

- settlements with consumers based on actual capacity
- Uncertainty with the recovery of costs for technological connection by generating companies
- The sharp rise in funding costs
- Exclusion of the Company's shares from the MSCI Russia index in June 2014

#### **Key Parameters of Federal Grid Company Share Trading**

		2011	2012	2013*	2014
Volume	units	476,111,513,800	619,919,120,000	989 348 930 000	1,068,425,610,000
votume	RUB	159,370,754,044	147,513,331,183	116,812,022,883	65,320,385,915
Number of deals	units	2,043,606	2,698,318	3,235,854	2,390,457
Low	RUB	0.21111	0.1513	0.07508	0.02900
High	RUB	0.481	0.3768	0.226	0.09389
Period end	RUB	0.2811	0.20104	0.09016	0.04402
Number of shares	mln, shares	1,255,948	1,260,387	1,267,141	1,274,665
Capitalisation at year end	RUB, mln	351,163.1	253,904.89	114,600.23	56,110.77

<sup>\*</sup> T+2 trade results are calculated from 2 September 2013 – date of Moscow Exchange's switch to this trading mode as a basic one.

Source: Moscow Exchange website, / moex.com

### Plans to improve investment attractiveness

Implementation of measures aimed at maintaining and improving the investment attractiveness of Federal Grid Company is one of

the priorities of our financial and economic policy for 2015 and includes the following:

• With respect to corporate governance, implementing an action plan ('road

map') on introducing key provisions of the new Russian Corporate Governance Code

 With respect to financial and economic activity, ensuring the Company's operating profitability at a level not below the target value, implementing the Programme for ensuring financial stability and increasing economic efficiency of the Company's operations for 20142015, updating the dividend policy, the delivery of the Long-Term Development Programme

 With respect to our investment programme, improving the efficiency of investing activities through the investment cost optimisation under tight liquidity conditions, revising volumes and sources of financing

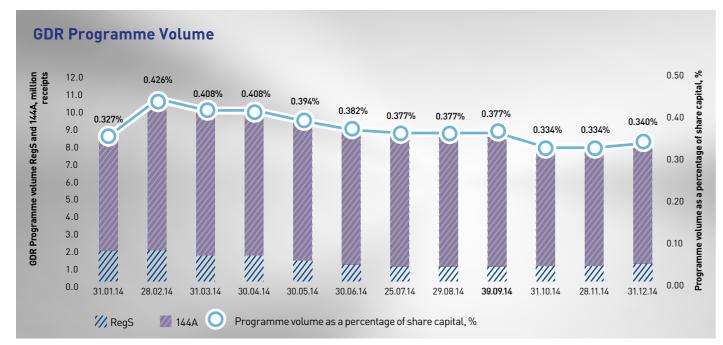
### Global Depository Receipt Programme

On 30 June 2008, Federal Grid Company launched a global depository receipt (GDR) programme, which was not listed under Regulation S and Rule 144A. In 2011, the Company completed a technical listing of depository receipts on the Main Market of the London Stock Exchange (LSE), which began trading Federal Grid Company GDRs on 28 March. From 1 July 2013, the Programme's depository bank is the Bank of New York Mellon (BNY Mellon).

As of 31 December 2014, the GDR programme had 8.7 million receipts, representing 0.34% of the Company's share capital.

#### **GDR Programme Highlights**

	Regulation S	Rule 144A
Ratio	1 GDR : 500 shares	1 GRD : 500 shares
International Code	Common Code: 036273577 ISIN: US3133542015	-
	Common Code: 0362733372 ISIN: US3133541025	-
Price per GDR as of 31 December 2014	USD 0.79	-
Number of GDRs as of 31 December 2014	1,252,623	7,425,700





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#### DIVIDEND POLICY

Our dividend policy strikes a balance between shareholders' interests, the Company's business needs, and the need to enhance its investment attractiveness and capitalisation.

All the dividend policy principles, mechanisms for determining the size of dividends, procedure, period and form of dividend payment are set in the Regulations on Dividend Policy of Federal Grid Company approved by the Board of Directors.

The General Meeting of Shareholders resolves on dividend payment based on recommendations of the Board of Directors with respect to dividend amount. The recommended dividend payout amount is determined by the Board of Directors on the basis of the Company's financial results and, in accordance with the Dividend Policy, shall not be less 10% of net profit under RAS. The table below shoes the profit distribution and dividend payment in accordance with the resolutions of the Annual General Meetings of Shareholders:

2011 AGM (for 2010) – Minutes No 11 dated 4 July 2011

2012 AGM (for 2011) – Minutes No 12 dated 2 July 2012

2013 AGM (for 2012) – Minutes No13 dated 2 July 2013

2014 AGM (for 2013) – Minutes No 15 dated 30 June 2014

#### 2010-2014 Net Profit Distribution, RUB thousand

	for 2010(2011 AGM)	for 2011(2012 AGM)	for 2012(2013 AGM)	for 2013(2014 AGM)	for the 1st quarter of 2014 (2014 AGM)
Retained net profit (loss) for the reporting period:	58,088,388	- 2,468,359	- 24,501,917	- 25,897,521	1,210,472
Reserve Fund	2,904,419	-	-	-	-
For development	18,578,192	-	-	-	-
Dividends	2,577,664	-	-	-	436,803
Covering losses from prior years	34,028,113	-	-	-	-

#### 2010-2014 Dividend History

	for 2010(2011 AGM)	for 2011(2012 AGM)	for 2012(2013 AGM)	for 2013(2014 AGM)	for the 1st quarter of 2014 ( 2014 AGM)
Dividend per share, kop.	0.21	-	-	-	0.034
Total amount of dividends declared, RUB mln	2,577.7	-	-	-	436.8
Share of net profit allocated for dividends, %	4.44%	-	-	-	36%
Total paid, RUB mln	2,569.3*	-	-	-	434.8**
Paid to declared dividend ratio, %	99.67%	-	-	-	99.54%
Deadline for paying accrued dividends	28.08.2013	-	-	-	20.08.2014***

No dividends were declared for 2011, 2012 and 2013.

<sup>\*</sup> Dividends were paid in full to all shareholders registered in the Company's shareholder register excluding the amount of RUB 8,383,793.57 to those shareholders who had not timely informed about changes in their personal data or who had submitted incorrect payment details

<sup>\*\*</sup> Dividends were paid in full to all shareholders registered in the Company's shareholder register excluding the amount of RUB 1,969,379.12 to those shareholders who had not timely informed about changes in their personal data or who had submitted incorrect payment detail.

<sup>\*\*\*</sup> For nominees the deadline for dividend payment is 20 July 2014.

### 2014 Dividends

In accordance with Clause 2 of Article 42 of the Federal Law "On Joint Stock Companies" and Clause 7.5 of Article 7 of Federal Grid Company's Articles of Association, dividends shall be paid out from the Company's net income determined under the Company's accounting statements.

In 2014, the Company's Annual General Meeting of Shareholders will make a Resolution on the 2014 dividend payment will be made by the Annual General Meeting of Shareholders that will be held in 2015.

# Other shareholder income received from the Company

In 2014, Federal Grid Company and its majority shareholder JSC Russian Grids entered into service contracts for arranging operation and developing the electric grid complex, as well as for providing technical supervision of electric grid facilities of Federal Grid Company. The contracts were approved by the Federal Grid's Board as related-party transac-

tions (Minutes No 208 dated 27 December 2013 and Minutes No 211 dated 30 January 2014).

The total cost of services of JSC Russian Grids is RUB609.4 million, including VAT (18%). The period of services is from 1 January 2014 to 31 December 2014.

#### 2013 Annual Report of Federal Grid Company was among the winners of the best Russian and international competitions

- II position in the Annual Report Rating of Expert RA rating agency
- Nomination in the "The Best Annual Report (Non-financial Sector)" category in the Expert RA competition
- Platinum winner in the "Writing/Annual Report"and"E-Communication/E-Annual Report" categories of MarCom Awards 2014
- Gold winner in the "Annual Report/ Utility" category of MarCom Awards 2014
- «Silver award in the "Print: Annual Report" category of The Spotlight Awards competition

# INFORMATION POLICY Informational Openness

The corporate information policy of Federal Grid Company is one of the key instruments to ensure an extensive stakeholder support of the Company's activities and to strengthen effective stakeholder engagement.

Federal Grid provides prompt and full disclosure of all material information, including the financial and operating results, ownership structure, notices of material facts, and other information in accordance with the legislative requirements and corporate governance best practices.

When providing information to stakeholders, the Company strictly observes the rules for the handling of inside information, trade secrets and other information protected by law.

### Regulations on Information Policy

The Regulations on Information Policy of Federal Grid Company approved by the Company's Board sets the main principles and provides a comprehensive company framework for information disclosure.

In accordance with the Action Plan ('road map') on implementing the Russian Corporate Governance Code provisions, it is expected to approve a new version of the Information Policy in 2015. In particu-

lar, changes will be made in the list of additional information which the Company undertakes to disclose on its corporate website.

### **Public Relations**

Federal Grid Company closely engages with stakeholders on a regular basis, including government authorities, public organisations and Mass Media. To implement the Company's policy in this area, a Department of External Communications and Government Relations has been created and operates actively.

An open discussion of the Federal Grid's Investment Programme for the years of 2015-2019 became one of the key events of the reporting year. Thanks to publishing all the necessary information on the Company website experts and consumers had an opportunity to familiarise themselves with the draft Programme and to make proposals for its improvement. In February 2014, the public hearing was successfully held at the meeting of the RF Open Government, and in November, the RF Ministry of Energy approved the Federal Grid's Investment Programme for five years.

During the reporting year, quarterly meetings of the Consumer Council were held led by the Chairman of the Federal Grid's Management Board, Andrey Murov. They discussed issues related to the implemen-

tation of the strategy of the Russian electric grid complex, including the accessibility of energy infrastructure, efficiency of the Company's operating and investing activities, its informational openness and public control.

#### Meetings with foreign partners

#### Kazakhstan

During the meeting with Kazakhstan Electricity Grid Operating Company KEGOC an agreement was reached to expand cooperation in the area of parallel operation of the energy systems in Kazakhstan and Russia.

#### Georgia

At the working meeting attended by the Chairman of the Federal Grid's Management Board, Andrey Murov, and the Vice-Prime Minister, the Minister of Energy of Georgia, Khaha Kaladze issues were discussed on the cooperation between Federal Grid Company, GruzRosenergo and INTER RAO, potential construction of crossborder electricity transmission line and building an infrastructure to extend

electricity supply to Georgia and its transit to third countries.

#### India

At the working meeting of Federal Grid executives with the representatives of Power Grid Corporation of India Ltd. matters were considered on engagement with the Russian manufacturers of electrical equipment.

#### Finland

Several meetings were held between the Federal Grid representatives and a Finnish company Fingrid Oyj and agreements were signed on technological and organisational aspects of two-way trade in electricity between Russia and Finland.

### Disclosure channels

In compliance with the principles of timeliness and availability of disclosure, Federal Grid Company uses various disclosure channels, primarily electronic, which ensure free and easy access to information for all stakeholders without any specific procedures (getting password, registration and other technical restrictions).

We regularly update our corporate website <a href="https://www.fsk-ees.ru">www.fsk-ees.ru</a> which appears to be our main disclosure channel. The website presents data on the Federal Grid's areas of activity, information for shareholder and investors, customers,

suppliers, and employees, the latest news and press-releases, financial statements, annual reports and reports on sustainable development.

In addition to mandatory disclosures, our website contains other information useful for stakeholders. We also strive to improve the structure of this information source by developing new interactive tools for user convenience.

In addition to publishing significant information on its website, the Company discloses information on the website of <a href="Interfax agency">Interfax agency</a>, on the home pages of the

Moscow Exchange, London Stock Exchange, and in the print edition of Rossiyskaya Gazeta, as well as disseminating price-sensitive information through the RNS portal.

Our annual and social reports appear to be not less important tool for the Company to communicate with its shareholders, investors and other stakeholders. The reports have links to the corporate website, which ensure a common information area where the users may easily navigate and find what they are looking for quickly.

### Participation in Forums and Conferences

In February, the Federal Grid delegation took part in the 2014 Krasnoyarsk Economic Forum, where the government of Krasnoyarsk Krai, Federal Grid Company and Polyus Gold Mining Company signed a tripartite cooperation agreement on implementation of the global project "Angar-Yenisey Cluster".

The Chairman of the Management Board, Andrey Murov, held a number of meetings at the St. Petersburg International Economic Forum, including with the heads of the companies Schneider Electric and ABB, and signed an agreement with the Federal Service for State Registration, Cadastre and Cartography.

In August 2014, Federal Grid took part in the 45th Session of the International Council on Large Electric Systems CIGRE. During the forum, the Federal Grid Scientific and Technical Center signed a few agreements with the companies KEMA and Alstom Grid and KEMA. Meeting were also held with the companies Siemens and Alstom Grid, where the matters were discussed on import substitution and implementation of joint projects on constructing energy facilities.

At the International Investment Forum Sochi-2014, the round tables were held with participation of the Chairman of the Federal Grid's Management Board on the role of Fuel and Energy Complex in the Russian economy and the development of Far East infrastructure.

In November, at the Third International Forum on Energy Saving and Energy Efficiency ENES 2014, Andrey Murov told about the improvements in the Company's governance system, reduction of transmission losses and new developments for transmission facilities.

#### INVESTOR RELATIONS

### Dialogue with Investment Community

Federal Grid Company is a public company, one of the top blue chips of the Russian energy sector. Our IR Team strives to maintain strong relationships with the investment community, actively communicates with analysts and investors.

Our main task in engaging with the investment community is to provide all community representatives with accurate and up-to-date information on the Company's operational and financial performance, as well as its development prospects.

We consider an active dialogue with the investment community to be important also for getting feedback from this audience, to understand how certain decisions may impact the investors' assessment of the Company, and how investors perceive the Company, its strategy and operations.

In 2014, Federal Grid's management held a series of one-on-one meetings with investors in line with the Company's policy on improving investment attractiveness among the financial market participants.

During the reporting year, the Company specialists held conference calls with investors following the publication of the IFRS financial statements for 2013 financial year and the first half of 2014. The First Deputy Chairman of the Management Board, Andrey Kazachenkov, who is responsible for financial matters in the Company, acted as a speaker.

In December 2014, the Chairman of the Management Board of Federal Grid Company, Andrey Murov, held a meeting with investors. At the meeting, Mr. Murov told investors about the 2015-2019 electric grid complex development strategy. The meeting was held for the second time, and we expect them to become a tradition.

#### **IR Awards**

In November 2014, our Company was included in the list of nominees for IR Society Best Practice Awards 2014 in the categories «Best Annual Report» and «Best Use of Digital Communications»

#### 2015 Investor Calendar

Date	Event /Location
25 March	2014 Annual Results (RAS)
2-3 April	FY2014 Annual Financial Report (FSA), FY 2014 Financial Results (IFRS)
April	Sberbank CIB Russia Investment Forum / Moscow
on or before 30 April	Q1 2015 Financial Results (RAS)
19-20 June	St. Petersburg International Economic Forum 2015 / St. Petersburg
26 June	Annual General Meeting of Shareholders
on or before 30 July	H1 2015 Financial Results (RAS)
on or before 29 August	H1 2015 Financial Results (IFRS)
beginning of October	VI VTB Capital Investment Forum RUSSIA CALLING / Moscow
on or before 30 October	Q3 2015 Financial Results (RAS)
November	Third meeting of the Chairman of the Management Board, Andrey Murov, with investors / Moscow

#### **IR Team**

Phone: 8 (800) 200-1881 Fax: +7 (495) 710-96-41

#### **Egor Toropov**

phone: 8 (800) 200-1881 ext. 2275 e-mail: toropov-ev@fsk-ees.ru

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#### **Alexey Novikov**

phone: 8 (800) 200-18-81 ext. 2143 e-mail: novikov-as@fsk-ees.ru

### **Additional information**

#### **DISCLAIMER**

This annual report (hereinafter – the Annual Report) was prepared based on information available to Federal Grid Company and its subsidiaries and associates at the time this Report was compiled.

The Annual Report includes, among other things, statements regarding the Company's future operations based on management's current forecasts and assessments. There are a number of objective factors that could cause actual results to differ materially from the above forecasts and assessments.

The Annual Report contains certain forward-looking statements regarding business operations, economic and financial indicators of the Company, its business plans, projects and expectations. The Annual Report may also contain estimates of price changes, production and consumption volumes, costs, expenses, development prospects and other similar factors, as well as forecasts on industry and market development, beginning and end dates of certain projects of the Company.

Such forward-looking statements can be identified by the use of the terminology such as "intend", "strive", "project", "expect", "estimate", "plan", "anticipate", "assume", "may", "could be", "will be", "continue" or similar words and expressions or variation thereon.

By their nature, forward-looking statements involve risks and uncertainties, both general and specific, that may cause the relevant assumptions, forecasts, projections and other forward-looking statements do not materialise. In view of the above risks, uncertainties and assumptions, the Company cautions that its actual results may differ materially from those expressed or implied in such forward-looking statements.

These statements are neither promises nor guarantees, and the Company shall not be liable for any losses incurred by legal entities and individuals who relied on forward-looking statements. Such forward-looking statements represent, in each case, only one of many possible scenarios and should not be viewed as the most likely scenario.

Except as required by applicable legislation, the Company does not undertake any obligation to release publicly any updates and revisions of such forward-looking statements whether as a result of new information or future events.

#### CONTACTS

#### **FGC UES, JSC**

Open Joint Stock Company Federal Grid of Unified Energy System	Company
Actual and postal address:	5A Academica Chelomeya str., Moscow 117630, Russia
Call centre:	8 800 200 1881
For calls from neighbouring countries and beyond:	+7 (495) 710 9333
Fax:	+7 495 710 9655
E-mail	info@fsk-ees.ru
Website:	http://fsk-ees.ru
For shareholders:	8 800 200 1881
Fax:	+7 (495) 710 9641

#### **Company Auditor (RAS)**

RSM RUS Limited Liability Company (RSM RUS LLC)	
Address:	4 Pudovkina str., Moscow 19285, Russia
Phone:	+7 495 363 2848
Fax:	+7 495 981 4121
E-mail	mail@top-audit.ru
INN:	7722020834
OGRN:	1027700257540

SRO Membership:

Full name: self-regulatory organisation Non-for-Profit Partnership "Audit Association "Sodruzhestvo"

Address: 21/4 Michurinsky prospect, Moscow 119192, Russia

According to the terms of the dealer agreement in respect to the bond issue programme entered into by Federal Grid Company and Federal Grid Finance Limited, one of the following companies: PricewaterhouseCoopers, Ernst&Young, Deloitte, KPMG or one of its affiliates shall be appointed as an auditor for Federal Grid Company IFRS consolidated financial statements. According to this requirement, KPMG CJSC was appointed as Auditor for Federal Grid Company's IFRS consolidated financial statements for 2014 (as adopted by the EU).

SR0 Membership:

Full name: Non-for-Profit Partnership "Audit Chamber of Russia"

Address: building 3, 3/9, 3rd Syromyatnichesky pereulok, Moscow 105120, Russia

### **Company Auditor (IFRS)**

Closed Joint-Stock Company KPMG (CJSC KPMG)		
Legal address:	office 3035, 18/1 Olympic prospect, Moscow 119192, Russia	
Postal Address:	Tower Complex Block, 10 Presnenskaya Naberezhnaya, Moscow 123317, Russia	
Phone:	+7 495 937 4477	
Fax:	+7 495 937 4499	
E-mail:	moscow@kpmg.ru	
INN:	7702019950	
OGRN:	1027700125628	

### **Company Registrar**

Joint-Stock Company «Registrar Society STATUS» (CJSC STATUS)		
Address:	building 1, 32 Novorogozhskaya str., Moscow 109544, Russia	
Phone:	+7 495 974 8350	
Fax:	+7 495 678 7110	
E-mail:	info@rostatus.ru	
License number:	10-000-1-00304	
Issue date:	12.03.2004	
Validity period:	non-expiry	
Issuing authority:	FFMS of Russia	

#### **Depositary**

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Non-Banking Credit Organisation Closed Joint-Stock Company National Settlement Depository (CJSC NSD)		
Address:	building 12, Spartakovskaya str., 105066	
Phone:	+7 495 234 9960	
E-mail:	sales@nsd.ru	
License number:	177-12042-000100	
Issue date:	19.02.2009 г.	
Validity period:	non-expiry	
Issuing authority:	FFMS of Russia	

#### **GLOSSARY**

#### **Abbreviations**

APCS	Automated Process Control System			
ASEPCR	Automated Systems of Electric Power Control and Rrecording			
BRELL	Belarus, Russia, Estonia, Latvia and Lithuania			
CCGT	Combined-Cycle Gas Turbine			
CEO	Chief Executive Officer			
СНР	Combined Heat and Power			
CIMS	Corporate Information-based Management System			
CIS	The Commonwealth of Independent States			
CIS EPC	CIS Electric Power Council			
DECT	Digital European Cordless Telecommunications			
DSS	Digital Substation			
EBITDA	Earnings before Interest, Taxation, Depreciation & Amortisation			
EMS	Environmental Management System			
ESUPCN	Energy System's Unified Process Communications Network			
FFMS	Federal Financial Market Service			
FOCN	Fibre-Optic Communications Network			
GDR	Global Depository Receipt			
GLONASS	Global Navigation Satellite System			
GMS	General Meeting of Shareholders			
GRI	Global Reporting Initiative			
GRES	State District Power Plant			
НРР	Hydro Power Plant			
HIFs	Hazardous Industrial Facilities			
HR	Human Recourses			
HVL	High Voltage Line			
IFRS	International Financial Reporting Standards			
IDR	Issuer Default Ratings			
IDGC	Inter-regional Distribution Grid Company			
ICS	Internal Control System			

IPS	Integrated Power System			
JSC	Joint Stock Company			
KPI	Key Performance Indicator			
LED	Light Emitted Diode			
LLC	Limited Liability Company			
MES	Backbone Electric Grid			
MICEX	Moscow Interbank Currency Exchange			
MPEI	Moscow Power Engineering Institute			
NGPP	Non-Governmental Pension Program			
NPP	Nuclear Power Plant			
OHL	Overhead Line			
OHTL	Overhead Transmission Line			
RAS	Russian Accounting Standards			
PABX	Private Automated Branch Exchange			
PMES	Backbone Electric Grid Enterprise			
PSPP	Pumped Storage Power Plant			
PTL	Power Transmission Line			
R&D	Research and Development			
RAB	Regulatory Asset Base			
RPD	Rate of Process Disturbances			
RUIE	Russian Union of Industrialists and Entrepreneurs			
SS	Substation			
TPP	Thermal Power Plant			
UES	Unified Energy System			
UNEG	Unified National Electric Grid			
VAT	Value Added Tax			
WECM	Wholesale Electricity and Capacity Market			
VRP ACS	Voltage and Reactive Power Automatic Control System			
WWF	World Wide Fund for Nature (formerly World Wildlife Fund)			

#### Units of measure

bn	billion	ι	litre
Gcal	gigacalorie	mln	million
GW	gigawatt	MVA	megavolt-ampere
km	kilometer	MVAr	megavolt-ampere reactive
kv	kilovolt	MW	megawatt
kW	kilowatt	p.p.	Percentage point
kWh	Kilowatt-hour		

## **Appendices**

- Additional Information by Section of the Annual Report
- RAS Annual Financial Statements
- Information on Compliance with the Russian Corporate Governance Code
- Information about Transactions
- Information on the Actual Performance of Assignments of the President and the Government of the Russian Federation
- Information about the Structure of the Property Portfolio of Federal Grid Company
- Information on Disposal of Non-Core Assets of Federal Grid Company in 2014
- Management Report 2014
- IFRS Consolidated Financial Statements

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Following the best disclosure practices,
Federal Grid Company provides all
stakeholders with an interactive version of
the 2014 Annual Report. It includes userfriendly functions for data analysis, interactive
elements and all Appendices to the Report.