ANNUAL REPORT 2009

Federal Grid Company
of Unified Energy System

RELIABILITY
MODERNISATION
INNOVATION

2009

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CHAIRMAN OF THE BOARD OF DIRECTORS AND CHAIRMAN OF THE MANAGEMENT BOARD STATEMENTS

- **Chairman of the Board of Directors**
- **Chairman of the Management Board**

CHAIRMAN OF THE BOARD OF DIRECTORS

Federal Grid Company is one of the fundamental pillars of the economy of the Russian Federation. The Company is responsible for the dependable operation and day-to-day functioning of Russia's unified electric energy grid. Indeed, the grid is a unique infrastructure that, along with the country's transportation routes and pipelines, comprises the tangible economic framework of Russia, uniting the majority of the country's regions. Federal Grid Company plays a major role not only in the electric energy industry, but also in the social and economic growth of the country as a whole.

In 2009, the Company achieved impressive production results and laid a solid foundation for continued growth. The achievements were mostly a result of the favourable collaboration between management and the government, with the goal of gradually overcoming the infrastructure limitations of the Russian economy. Two decisions taken at the government level are of particular importance, and they have substantially increased the potential to modernise Federal Grid Company in the immediate future.

First and foremost, Federal Grid Company was given the green light to switch to a new tariff system for billing electric-energy transmission services rendered within the backbone grids. Prior to and including 2009, the cost-plus method used for billing stalled the attraction of necessary investment in grid development, and did not provide incentives for cost saving. Today, in accordance with the decision of the government of the Russian Federation, the Company has fully switched to the Regulatory Asset Base (RAB) regulation of tariffs, which guarantees a fair rate of return on invested capital, increases the Company's efficiency, as well as improves the reliability and quality of consumer services. The promising outlook of this model of regulating tariffs has already been demonstrated worldwide.

The importance of the government's other decision and its effect on the future growth of Federal Grid Company cannot be overstated: in 2009, the Russian government approved the Company's 519.4 billion rouble investment programme for 2010–2012. These funds are earmarked for the technological renovation and modernisation of the Unified National Electric Grid (UNEG) units, the creation of the possibility of connecting new generation units and consumers to the grid, as well as the development of innovative technology.

The revival of growth in the Russian economy following the economic crisis will lead to an increase in demand for electric energy. In line with this, I am certain that Federal Grid Company is fully ready to meet the demand and continue to be a sturdy pillar supporting Russia's economic surge.

Sergey Shmatko,
Chairman of the Board of Directors
Minister of Energy of the Russian Federation

CHAIRMAN OF THE MANAGEMENT BOARD

My first year as the Chairman of the Management Board of Federal Grid Company coincided with a rather challenging economic period for Russia. This meant great responsibility for Federal Grid Company and for me personally, because the Company is part of the backbone of the Russian economy directly responsible for strengthening the country and assisting domestic companies in overcoming the aftereffects of the economic crisis. Today, we can confidently say that we handled the challenge that was set before us by the government in 2009 well, and placed the Company squarely on the path to continued growth and improvement.

We moved forward significantly in all of the top-priority areas of our activity, from increased reliability of electric energy transmission to technical modernisation and innovation and improved economic efficiency. We continued to grow the Company, which, on the one hand, should anchor the country's economic growth and modernisation, and, on the other hand, should meet the expectations of our shareholders and investors.

Federal Grid Company finished 2009 with positive production and financial results. Indeed, total real output of electric energy from the UNEG to distribution grid companies, direct consumers and players on the wholesale electricity market (WECM), as well as unreformed energoes, was 452,662.172 mln kWh. Also according to the results of 2009, the UNEG transmitted a total of 13,628.309 mln kWh of electric energy to neighbouring countries. Total energy loss in the UNEG for 2009 was 22,120.61 mln kWh. Federal Grid Company's 2009 revenue increased by 24% (by RUB 16.6 bln) vis-à-vis RUB 85 bln in 2008.

One of the Company's 2009 operating highlights was its 15.9-bln-rouble operating profit, which exceeded the 2008 operating profit three-fold by RUB 10.7 bln. We firmly believe that these financial results strengthen the Company's growth platform going forward.

The key developments determining the growth prospects of Federal Grid Company were the switch to RAB regulation of tariffs as well as the Russian Federation Government's approval of the Company's 2010–2012 investment programme. Jointly, these provide us with a powerful instrument for planned development and modernisation, lowering wear-and-tear and depreciation, and improving the reliability and quality of electric energy transmission throughout the UNEG. Consequently, the Company's overall length of transmission lines is expected to increase by 10% on the back of the 2010–2012 investment programme.

During the fiscal year, we invested significantly in the country's economic growth as well as in the completion of important national projects. Facilities to supply energy for the XXII Winter Olympic Games in Sochi in 2014 were constructed at a quick pace. Backbone electric grid (MES) South, a Company branch, brought the 220-kV Poselkovaya substation on line, with transmission lines from Psou to Poselkovaya. The MES North-West branch continued construction on the Northern Transit to Karelia and completed the project to supply electricity to Valaam Island, which is an important religious centre in Russia. MES West supplied electricity to the first stage of the East Siberia-Pacific Ocean oil pipeline (ESPO). The 500-kV Far East-Vladivostok transmission lines were connected with the Vladivostok substation, providing the southern area of the Primorsk Territory with 350 MW of additional capacity.

We continued delivering power from new generating sources: reconstruction was completed at MES Centre, Moscow Region, on the 500-kV outdoor switchgear at the Kashirskaya state regional power plant (Kashirskaya GRES), with the formation of the 500-kV Novokashirskaya substation. Work was begun on new power units to deliver reliable electricity supplies in the large industrial and oil-production centres of the Urals and West Siberia. Particularly, construction was completed on the 500-kV Emelino substation in the Sverdlovsk Region, and the 500-kV Somkinskaya-Peresvet line was put into service in the Khanty-Mansiisk autonomous region.

In order to improve economic efficiency and decrease the Company's dependence on foreign manufacturers of electricity equipment and facilities, we have begun establishing innovation centres to produce such equipment in Russia's regions. To this end, the Company has signed cooperation agreements with 65 leading domestic manufacturers of electricity facilities in Siberia, Urals, Volga, North-West and Centre regions of Russia.

As an electric energy company, we were put to a serious test last year as a result of the tragic accident that occurred at the Sayano-Shushenskaya hydro-electric power plant (HPP). The Russian government required Federal Grid Company to re-route power from other regions at the same time as the autumn-winter peak-demand period of power transmission in Siberia. In order to fulfill this task, we built the 220-kV Beya-Askiz transmission lines in short order and put into operation capacitor banks at the 500-kV Oznachennoe and Alyuminievaya substations in the Republic of Khakassia. Additionally, we organised the operation of mobile quick-response teams and provided for enhanced emergency supplies. A mobile gas-turbine electric power plant was set up in Kyzyl. Consequently, the autumn-winter period was a resounding success.

I thank all the employees of Federal Grid Company for their highly professional and single-minded effort. The results demonstrated by the Company in 2009 are the direct result of their hard work, and the solid professional potential of our entire team lets us look to the future with confidence.

We see our priorities in 2010 as providing reliable and uninterrupted operation of the backbone electric grids, the continued modernisation of the entire grid via technical innovation, and the improvement of the Company's economic and operating efficiency. We have also set ambitious long-term goals and priorities for 2010–2020, such as the set-up and completion of a 'Smart Grid' that will significantly improve the reliability and efficiency of the UNEG.

Oleg Budargin,
Chairman of the Management Board

KEY DEVELOPMENTS IN 2009

KEY DEVELOPMENTS IN 2009

12.02.2009

Federal Grid Company shares included in the MSCI Russia and MSCI Emerging Markets indices

On 11.02.2009, MSCI Barra – a leading provider of investment decision support tools, as well as securities markets indices – included Federal Grid Company's shares in the MSCI Russia and MSCI Emerging Markets indices. Correspondingly, the Company's shares comprise 0.8036% of MSCI Russia and 0.045% of MSCI Emerging Markets. This event demonstrates the international investment community's recognition of the Company, thus ensuring an increase in its attractiveness for many foreign institutional investors.

03.04.2009

Construction completed on the 220-kV Poselkovaya substation to supply electricity for the 2014 Winter Olympic Games in Sochi, Russia

Federal Grid Company continues preparations for the Sochi 2014 Winter Games. The new substation is intended to supply electricity to the Krasnaya Polyana resort village, which is set to be the main venue for the Games. Specifically, the substation will provide electricity to the skiing, sledding and bobsled facilities, as well as the mountaintop Olympic village, the cross-country (Nordic) skiing trail, and the Krasnaya Polyana complex.

30.04.2009

Construction completed on the 500-kV Emelino substation with overhead transmission lines of 500 and 220 kV

The 500-kV Emelino substation became the most vital source providing electric energy to the short-supply Ekaterinburg-Pervouralsk power district in the Sverdlovsk Region. Putting the substation in service assisted in expanding electric-furnace steelmaking production at the Pervouralsk new-pipe and Nizhneserginsky metallurgical plants, as well as increasing power at the Revdinsky metallurgical and Sredneuralsk copper-smelting plants. The new power facility met the requirements of these metallurgical companies, which, in line with their growth, will be 400 MW. Additionally, the Emelino substation has helped reduce the burden on the 500-kV Yuzhny substation, which is Yekaterinburg's main one and is currently working at full capacity.

22.08.2009

The 500-kV Sayano-Shushenskaya HPP outdoor switchgear put into operation

Federal Grid Company signed an agreement with RusHydro on putting the Company's 500-kV Sayano-Shushenskaya hydro-electric power plant (HPP) outdoor switchgear into operation.

15.09.2009

Government approves the Company's 2010–2012 investment programme

The investment programme for 2010–2012 is RUB 519.4 bln and will be financed from the Company's own funds, the federal budget and the sale of RAO Unified Energy System of Russia (RAO UES of Russia) shares. Funds will also be earmarked from payment for technological connection, debt and borrowing.

16.10.2009

Construction begins on the transmission line to supply electricity to the East Siberia-Pacific Ocean oil pipeline

Federal Grid Company installed the first 100 towers for the 220-kV Neryungrinskaya-Nizhny Kuranakh (Sakha Republic, Yakutia) transmission lines. Construction was carried out as part of the second section of the 275-km transmission line. The new line is slated for activation in October 2010 and will improve the supply of electricity to consumers in the Neryungrinsk and Aldansky regions in Yakutsk, including the republic's large gold mining companies, and will supply electricity to the oil pumping station under construction for the East Siberia-Pacific Ocean oil pipeline. Total investment in the construction is RUB 4.8 bln.

19.10.2009

Agreements signed with a number of domestic producers and developers of electricity equipment

This was an important step in the Company's innovation. Cooperation agreements were signed with CPEL, Sevkabel Holding, Positron, Energomekh, Streamer Electric Inc., Elektroapparat, Electronmash System Solutions, Newelectro, and NFenergo.

27.10.2009

New Chairman of the Management Board elected

Mr Oleg Budargin was elected as the Chairman of the Management Board of Federal Grid Company at the Extraordinary General Shareholders Meeting.

05.11.2009

Federal Financial Markets Service (FFMS) registers the Company's 50-bln-rouble bond issue

The Board of Directors approved the decision for the bond offering on 21.09.2009. The funds generated from the offering will be earmarked to finance the Company's large-scale investment programme.

16.12.2009

Major reconstruction completed on the 500-kV Klyuchiki substation in the Ulyanovsk Region

The substation transmits power between the Volga, Centre and Urals interconnected power systems (IPS). Even though the capacity of the substation backbone remained the same, reliability of delivery to Mid-Volga consumers was substantially improved, and the transmission connection with the electric energy systems of Russia's central regions and the Urals was solidified. Total investment in the reconstruction was RUB 3 bln.

22.12.2009

New transmission line in the Republic of Khakassia put into operation

The new line became indispensable because of the intensely concentrated increased use of available power in Khakassia, following the tragic accident at the Sayano-Shushenskaya HPP. Putting the new transmission line into operation significantly reduced the risk of having to limit the use of electricity of the 850,000 people living in the republics of Khakassia and Tyva.

22.12.2009

Federal Tariff Service (FTS) approves the conditions of the Company's switch to RAB regulation of tariffs for 2010–2012

RAB tariffs guarantee investors a return on investment, and also intertwine service reliability and quality with the tariff level for consumers.

25.12.2009

Russia's first superconducting transmission line successfully tested

The superconducting transmission line is a prospective and innovative technology that improves the quality and reliability of the electricity supply.

25.12.2009

Completion of additional share placement

The actual number of placed securities is 80,047,137,190 ordinary shares with a nominal value of 50 kopecks per share.

28.12.2009

Increase in voltage class from 220 kV to 500 kV in the south of the Primorsky region

The new 500-kV Vladivostok substation and 500-kV Far East-Vladivostok (Primorsky region) transmission lines were put into operation.

ABOUT THE COMPANY

- Our Business
- Strategic Priorities
- Structure
- Key Performance Indicators
- Key Financial Indicators

3–1. OUR BUSINESS

Federal Grid Company transmits electric energy throughout the UNEG.

Federal Grid Company is a natural monopoly operating in Russia. This means that the Company owns and operates an infrastructure that is impossible for other organisations to duplicate. Providing the service of electricity transmission is entrusted to Federal Grid Company at the legislative level, and, as a monopoly, the Company is regulated by the government. The Company is one of the main pillars of infrastructure in the Russian economy. Consequently, its business activity directly influences the economic growth potential of the country.

The Company transmits electric energy to consumers via a unified grid, and also connects the power receivers of consumers to the UNEG. The main consumers of Federal Grid Company's services are distribution companies, energy-sales organisations, as well as large industrial companies.

The number of consumers using the unified-grid transmission services of Federal Grid Company increases with each year. As of December 2009, there are 121 companies connected to the UNEG. In order to increase this figure, the Company is concentrating on the technological connection of new consumers to the grid, resulting in 54 contracts being completed in 2009.

Background

Federal Grid Company was founded as per the decision of the government of the Russian Federation in the summer of 2001 as part of restructuring the electric energy sector, which stipulated the division of the industry into natural monopolies (transmission and distribution of electric energy, dispatching) and competitive enterprises (production and sale of electric energy, repair and service). This was done in order to improve electric energy company efficiency and seek private investment to develop the sector more fully.

Federal Grid Company was registered by the government in June 2002 and was granted the management of assets to transmit electric energy throughout the country in the form of backbone transmission grids that today unify the country's main electric power plants and load nodes and transmit electricity between them and are also connected to the electric energy transmission systems of other countries. Given the Company's leading role in restructuring Russia's electric energy industry, representatives from the government and RAO Unified Energy System of Russia (RAO UES of Russia) were included in the Board of Directors.

Unified National Electric Grid (UNEG):
In accordance with Federal Law No. 35-FL, titled On the Electric Energy Industry, dated 26.03.2006, the UNEG comprises a network of electricity grids and other electricity-grid facilities; belonging to electric energy engineering units on the basis of ownership rights, or on the basis of other rights, as stipulated by federal law; and providing for the constant supply of electric energy to consumers, a functioning wholesale market, as well as the simultaneous operation of Russia's electric energy system and electric energy systems of foreign countries.

When the Company was founded, RAO UES of Russia, which was then a monopoly on the Russian generation and electric energy transmission market, owned 100% of its shares. Considering Federal Grid Company's keystone position in the sector, the government's participation in the Company's charter capital was legislatively set at a minimum of 75% + 1 voting share.

From 2007 through 2009, the Russian Federation benefited from additional share issues of Federal Grid Company, using funds from the federal budget to purchase the shares. In turn, the Company used the funds received from the budget to finance the investment programme and complete federal target programmes. At this time, the government's share in Federal Grid Company's charter capital is 79.11%.

While restructuring measures in the electric energy industry were being carried out, electric grid units in the UNEG under the management of Federal Grid Company were being consolidated. During the reorganisation of the parent company, RAO UES of Russia, 56 transmission companies (TC) were created from the units of the national electric grid. The TC shares owned by RAO UES of Russia were transferred to pay for an additional issue of Federal Grid Company shares.

The reorganisation of RAO UES of Russia was completed in 2008, when 54 of the 56 TC were integrated in Federal Grid Company, with the other two TC remaining subsidiaries of the Company. As a result, 470,000 former shareholders in RAO UES of Russia and the TC became shareholders in Federal Grid Company.

RESTRUCTURING OF THE ELECTRIC ENERGY SECTOR IN RUSSIA

As early as the 1980s, it was clear that the country's electric energy industry was stagnating. Production capacity was upgraded noticeably more slowly than the demand for electric energy rose. Moreover, while demand for electric energy decreased substantially in the 1990s, capacity upgrades came to a virtual halt. According to technology indicators, Russian electric companies lagged their peers in developed countries, and there was a lack of incentive to improve operating efficiency and follow an intelligent plan of production and electric energy usage. Blackouts became a regular occurrence in a number of regions, while the absence of payment discipline placed the very possibility of electric companies being able to function properly into question. The sector was not transparent from a financial or information point of view, while entry was closed to new market players. Consequently, it was paramount to restructure the electric energy industry. Sector restructuring provided the incentive to improve the efficiency of electric companies and also created the conditions for development. The structure of the industry changed: natural monopoly functions, such as transmission and dispatching, were isolated from potentially competitive ones, such as the production and sale of electricity. As a result, companies concentrating in individual types of operation were created to replace the previous vertically integrated companies that had fulfilled all these functions at the same time.
While conditions were created to develop a competitive electric energy market, with prices based on supply and demand and players who were interested in improving efficiency, the prerequisites were also created in the natural monopoly sphere for infrastructure development and upgrades via effective government regulation and disclosure for outside investors.

3–2. STRATEGIC PRIORITIES

We are striving to improve our contribution to the development of Russia's economy and to become one of the main drivers in the modernisation of the country's infrastructure. Our three strategic priorities are integral to one another and are aimed at fulfilling our stated goals.

Reliability

Federal Grid Company's fundamental importance to the Russian economy determines our main strategic priority, which is to transmit electric energy reliably throughout the entire country. Our technical policy complements the government's technical regulation, and it guarantees the use of a technical solution to deliver a reliable and efficient electricity supply. Our large-scale investment programme is aimed squarely at further improvement in reliability. Consequently, we are instituting a unified technical policy both within Federal Grid Company and at all of the national electric grid units, which is the main component in dependable electric transmission.

Modernisation and Innovation

The condition of the UNEG has a direct effect on the rate of economic development in Russia. Therefore, we are bringing the electric grid in line with a new technological level by modernising obsolete facilities and through innovation. The creation of smart grids – efficient and blackout-proof, steadfast to hazardous natural phenomena and economically sound in use – is our most important strategic goal.

Operating Efficiency

The financial standing and steady growth of Federal Grid Company guarantee that the Company will meet the expectations of its shareholders, investors, partners and employees. The size of the Company and its position as a monopoly provide it with a number of advantages, such as financial stability and the ability to manage risks effectively. Our strategic priority is to continue using these advantages to improve operating efficiency.

3–3. STRUCTURE

The General Shareholders Meeting is the supreme management body of Federal Grid Company. The Board of Directors gives the Company strategic direction and oversees the functions of the Management Board, which, in turn, is entrusted with operating the Company.

Federal Grid Company comprises 44 regional branches.

Federal Grid Company Organisational Structure:

GENERAL SHAREHOLDERS MEETING

BOARD OF DIRECTORS

MANAGEMENT BOARD

FEDERAL GRID COMPANY REGIONAL BRANCHES - BACKBONE ELECTRIC GRIDS (MES)

MES Centre	MES North-West	MES Volga	MES South	MES Urals	MES West Siberia	MES Siberia	MES East
Federal Grid Company regional branches - subsidiaries of backbone electric grids (PMES)							
Valdaiskoe	Bryanskoe	Lower Volga	Kaspiiskoe	Permskoe		Zabaikalskoe	Amurskoe
Upper Don	Vyborgskoe	Mid-Volga	Kubanskoe	Sverdlovskoe		West Siberia	Primorskoe
Volga-Don	Karelskoe		Rostovskoe	South Urals		Krasnoyarskoe	Khabarovskoe
Volga-Okskoe	Leningradskoe		Stavropolskoe	Auto-transport enterprise MES Urals		Kuzbasskoe	
Vologodskoe	Novgorodskoe					Omskoe	
Moscow	Auto-transport enterprise MES North-West					Tomskoe	
Nizhegorodskoe						Khakasskoye	
Priokskoe							
Chernozemnoe							
Special purpose production centre Bely Rast							

In addition, as on 31.12.2009, the Company has 31 subsidiaries and branches operating in various areas, including the operation of electric energy supply units. Two of these subsidiaries are MES Tomsk and MES Kuban.

Subsidiaries:

SUBSIDIARIES AND BRANCHES PERFORMING VARIOUS TYPES OF ACTIVITY, INCLUDING THE OPERATION OF ELECTRIC ENERGY SUPPLY UNITS OF FEDERAL GRID COMPANY (SHARE IN THE CHARTER CAPITAL)

Scientific and Technical Centre of Electric Power Industry (S&T Elektroenergetika)	Centre of Energy	IT Energy Service
100%	98.56%	39.99%
Energy Forecasting Agency (APBE)	Nurenergo	ENIN
100%	77%	38.24%
Verificatory Centre of Electronic Digital Signatures for Energy (UC Energetika)	MES Tomsk	Urals Energy Management Company (UEUK)
100%	52.025 %	33.33%
Elektrosetservice UNEG	GruzRosenergo IPS	Volga Territorial Generation Company (TGC-7)
100%	50%	32.18%
Moscow Communication Centre of Electric Power Industry (MUS Energetika)	GVC Energetiki	TGC-11
100%	50%	27.45%
Glavsetservice UNEG	Mid-Volga Interregional Management Company for Energy (SMUEK)	TGC-6
100%	50%	23.58%
Energostroisnabkomplekt UES	Severovostokenergo	Bashkirenergo
100%	49%	21.27%
Engineering and Construction Management Centre of Unified Energy System (CIUS EES)	Energotechkomlekt	
100%	49%	
Mobile GTES (gas turbine electric power plant)	MES Kuban	
100%	48.99%	
Central Scientific Research Institute NPKenergo (NPKenergo)	Schekinskie PGU (steam gas units)	
100%	45.21%	
Volgaenergosnabkomplekt	WGC-1	
100%	40.17%	
Index of Energy-FGC UES		
100%		
Chitatekhenergo		
100%		

Number of substations

2009 _ _ **761**
2008 _ _ 758
2007 _ _ 150

Transformer capacity (MVA)

2009 _ _ **298,457.6**
2008 _ _ 286,184.7
2007 _ _ 139,330

Total length of electric energy transmission lines (thousand kilometres)

2009 _ _ **118**
2008 _ _ 118
2007 _ _ 47

Electric energy output from the UNEG to the distribution companies, direct consumers on the WECM and independent energoes (mln kWh)

2009 _ _ **452,662.2**
2008 _ _ 471,985.1
2007 _ _ 464,045.5

Electric energy output throughout the UNEG to neighbouring countries (mln kWh)

2009 _ _ **13,628.3**
2008 _ _ 16,704.8
2007 _ _ 11,345.2

Total real electric energy loss (mln kWh)

2009 _ _ **22,120.6**
2008 _ _ 21,865.7
2007 _ _ 21,401.1

Customer contract demand (MW)

2009 _ _ **94,636**
2008 _ _ 90,042
2007 _ _ 87,731

In 2009, the calculation of substation transformer capacity factors in the capacity for auxiliary power requirements.

Revenue from operating activities (RUB mln)

2009 _ _ **85,078**
2008 _ _ 68,485
2007 _ _ 61,385

EBITDA* (RUB mln)

2009 _ _ **40,379***
2008 _ _ 32,718*
2007 _ _ 22,742

EBIT* (RUB mln)

2009 _ _ **16,962***
2008 _ _ 11,869*
2007 _ _ 6,592

Profit/(loss) before taxation (RUB mln)

2009 _ _ **-54,049**
2008 _ _ 6,177
2007 _ _ 3,900

Net profit /(loss) for the period (RUB mln)

2009 _ _ **-59,866**
2008 _ _ 4,465
2007 _ _ 2,296

Net asset value (RUB mln)

2009 _ _ **579,746**
2008 _ _ 666,471
2007 _ _ 204,786

Debt and borrowing (RUB mln)

2009 _ _ **13,000**
2008 _ _ 32,980
2007 _ _ 30,000

Market capitalisation (RUB mln)

2009 _ _ **367,971**
2008 _ _ 141,882
2007 _ _ –

* In order to calculate this figure, external factors are not taken into consideration in terms of the responsibilities of the Company management (revaluation of financial investments, creation of provisions for doubtful debts).

Financial Performance Indicators

Revenue from electricity transmission services

The Company's revenue grew during 2007–2009. Specifically, revenue for electric energy transmission for the past year increased by 21.2% versus 2008, to RUB 14,044.5 mln. According to 2009 results, revenue for electric energy transmission was 94.2% of the total revenue. The main factors contributing to revenue growth were an increase in production capacity on the back of completing the RAO UES of Russia restructuring and the transfer of shares to the Company's balance sheet, as well as a rise in the volume of grid service and tariff increases.

Profit/(loss) before taxation and net profit/(loss)

According 2009 operating results, the Company had a net loss of RUB 59,866 mln, resulting from the following factors:

- Write-off of the negative difference resulting from the re-evaluation of the Company's financial investments in securities at market value. As on 31.12.2009, the Company's balance sheet included investments in shares quoted on the market during 2009. As on 31.12.2009, financial investments are entered in the balance sheet according to market quotes on the indicated date. The amount of the loss because of the change in current market value was RUB 79,905.9 mln.
- Loss of RUB 7,017 mln owing to the sale of financial investments (sale of TGC-12 shares).
- Creation of provisions of RUB 3,502.6 mln in the event of a decrease in the value of financial investments.

EBITDA and EBIT

EBITDA and EBIT grew steadily for the calculated period. The main factors were an increase in profit before taxation (without taking external factors into consideration) and an increase in the amortisation expense because of a capacity injection on the back of fulfilling the Company's investment programme.

Net asset value (NAV)

Net asset value dipped by RUB 86,725.2 mln vis-à-vis 2008 due to depreciation in the value of the financial investments, leading to a net loss in 2009. In addition, the changes in the accounting policy of Federal Grid Company when calculating the creation of provisions for doubtful advance accounts and other debt caused the reduction in net assets.

BUSINESS OVERVIEW

- _ Production
- _ Innovation
- _ Investments
- _ Commercial and Operating Activity

BUSINESS OVERVIEW

4–1. PRODUCTION

Delivering a Dependable Supply of Electricity

Federal Grid Company's main strategic priority is to deliver a reliable electricity supply. As part of the backbone of the Russian economy, the Company has to perform this weighty responsibility successfully for the entire country, from large companies to individuals. Consumers must be assured that they will receive electricity via the backbone grid at full capacity and that they will be able to fulfill their own obligations to partners. Consequently, the Company's technical policy and efficient process management deliver reliable electric energy transmission.

Technical Policy

Federal Grid Company's technical policy stipulates that electricity transmission has to be delivered reliably year-round throughout the entire UNEG. The main goals of the Company's technical policy are the following:

- develop the electric connections of the UNEG to provide stable concurrent operation in all the main UES of Russia service areas and to integrate them with other interconnected electric systems in Europe and Asia;
- deliver capacity from electric energy stations to the grid and create equal opportunities for wholesale market players to connect to the electric grid;
- create grid and technological infrastructure to allow for the efficient operation of a competitive electric energy market in Russia and to provide for integration in the international electric energy markets;
- improve the reliability and manageability of the UNEG by using new, highly efficient equipment and technology during both new construction and re-equipment and reconstruction of the electric grid units;
- develop information and telecommunication platforms and centralised process management of the electric grids;
- improve the operating efficiency of the UNEG via proven optimization of the main electric grid connections and reduce the occupied territory, operating costs, and auxiliary power requirements;
- automate the UNEG substations; and implement and develop the latest troubleshooting and monitoring systems for technological equipment, relay protection and emergency control systems (RPEC), engineering systems, and commercial and technical metering of electric energy;
- refine operating technology as well as maintenance and servicing;
- minimise the effects of new construction, reconstruction, operation and repair of the UNEG units on the environment.

Provision on Technical Policy

The Federal Grid Company's Provision on Technical Policy governs the Company in this area. Indeed, this document determines the total technical requirements that supplement the current regulatory documents, emphasising the very latest technical solutions, as well as providing a list and scope to apply one or the other technical solution, equipment and technology.

The current Provision was prepared in accordance with the instruction of the Management Board of RAO UES of Russia in 2005. The document is updated on a regular basis and is directly linked to the results of scientific research in the area of electric energy. The Provision is valid until 2012, and is slated for amending in November 2010.

In addition to Federal Grid Company and its branches, the following organisations are obligated to adhere to the requirements of the Provision:

- R&D, engineering, maintenance and servicing, construction and mounting and testing organisations working at the UNEG units;
- Generation companies, industrial enterprises, R&D and engineering institutes, and maintenance and servicing, construction and mounting and testing organisations working at the electric stations and substation distribution facilities of consumers connected to the UNEG.

The Company's technical policy is applied to new construction projects, reconstruction and technical upgrading of existing units, installation of new technology, as well as when rendering scientific and technical services and regulatory and technical support. The Coordinating Scientific and Technical Board of Federal Grid Company oversees the technical policy and provides recommendations. In order to improve reliability and efficient operation of the UNEG units, the Company forms a comprehensive research and technical programme for the following year by October of the current year at the latest.

Automatic Control Systems (ACS)
Automation of the UNEG substations is one of the main focuses of Federal Grid Company's technical policy. The Technological Process ACS provides a unified system of measurements and registration of technological parameters, as well as controls transfers remotely and monitors and performs troubleshooting on the equipment.
Consequently, it is much simpler to monitor the condition of the grid connections in real time and for operating personnel to take decisions. Installation of the automatic system improves productivity and reduces the number of personnel. In addition, the system lowers the likelihood of damage resulting from personnel error. Additionally, the automatic system performs required maintenance and servicing based on the technical condition of the equipment rather than according to a schedule.

Relay protection and control equipment (RPCE) –
The RPCE technical policy is aimed at the stable operation of the UNEG. RPCE lessens the effects of damage to the grid equipment and damage to the electric grid system during emergencies. RPCE systems remain in full working order and worn-out and obsolete ones are replaced. RPCE systems are installed at all new units.

Technical Monitoring of the Condition of Electric Grid Units

Federal Grid Company has created a functioning internal monitoring system (IMS), which oversees organisational and technical, informational and procedural, monitoring and preventative operations at the Company's branches and the UNEG units in order to improve the operating efficiency of the equipment, develop personnel, as well as decrease emergencies and the probability of fire and injury.

The multi-level IMS clearly defines and delineates functions and responsibilities at the various levels of technical monitoring, and in 2009 was organised as follows:

1. Technical Monitoring and Audit Department of Federal Grid Company
The uppermost echelon of the ITMS which oversees the technical and functional management of all levels of the system. The Department manages the process to develop measures to improve the efficiency and quality of electric power transmission, as well as increase the dependability of the supply of electricity to consumers of the UNEG. The Department also carries out planned and special audits of the Company's branches as part of administrative audits.

2. Subdivisions of the Federal Grid Company branches technical inspection – MES

3. Structural subdivisions for occupational safety and reliability at the branches and subsidiaries of Federal Grid Company

4. Production supervision

Continuous monitoring of personnel in the production structural subdivisions of MES, PMES and subsidiaries and affiliates of the line (party responsible for the direct management of the immediate fulfillment of a type of activity) or functional ('central service') management

5. Production self-monitoring

The basic level of ITMS which the individual employees fulfill during the course of their job responsibilities.

In 2009, a number of measures were taken to improve the efficiency of the IMS. Foremost, a procedural and functional management body was organised at the branches and subsidiaries of Federal Grid Company. The current regulatory documents on system management were reviewed with an eye to the structural changes that have occurred in the Company, while new regulatory documents were developed. Additionally, informational and analytical system functional requirements (IMS Information Field) and a multi-level efficiency assessment system were developed.

The Technical Monitoring and Audit Department conducted all planned events in 2009, including comprehensive technical audits of the Company's branches; a targeted audit of organisations that are bringing transmission lines up to standard at a number of branches (MES Volga, MES East, MES Urals); as well as an environmental audit of MES East, which was conducted in conjunction with the Technical Regulation and Environment Directorate. As a result of the audits, system fluctuations from specified requirements and typical risks were identified, which, in turn, led to developing recommendations to improve the operating reliability of the UNEG units and to minimise risks.

Electric Grid Equipment Troubleshooting

In order to improve the energy safety and energy efficiency of the UNEG (by order of the Russian Federation Government), Federal Grid Company in October 2009 organised the Monitoring of Grid Technical Status and Troubleshooting Directorate.

The Directorate's main function is to create a unified policy on organising, monitoring, fulfilling and improving the troubleshooting system of the Company's electric grid equipment. Consequently, a working group was formed as part of the Directorate to develop a troubleshooting system. The working group includes dedicated experts, directors from the troubleshooting departments of the branches, and representatives from the Company's scientific and technical bodies.

Technical troubleshooting encompasses monitoring the working capacity and efficiency of an object by spot testing, measuring, inspecting and anticipating problems. Technical troubleshooting of the electric grid equipment is performed either on a regular or specific (target) basis.

Regular troubleshooting encompasses testing and measuring in accordance with the current regulatory documentation. Specific (target) troubleshooting is conducted to assess the technical condition of the electric grid equipment not encompassed in regular troubleshooting and to specify the level and nature of defects discovered during regular troubleshooting.

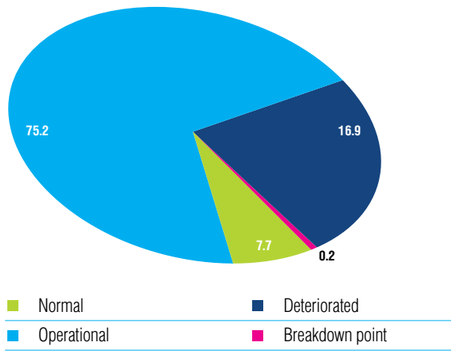
Regular Troubleshooting in 2009

Substation equipment troubleshooting in 2009 was performed as follows:

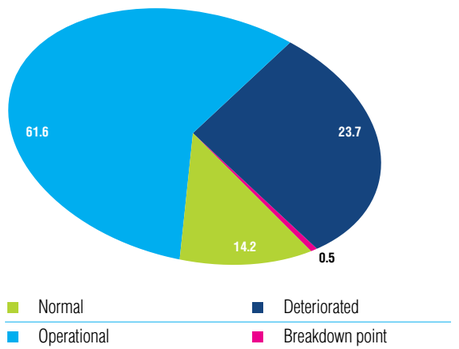
- Autotransformers (AT); and power transformers: 2,990 units
- Shunt reactors: 457 units;
- High-voltage circuit breakers: 4,184 units;
- Current transformers: 3,759 units;
- Voltage transformers: 3,111 units.

According to the data, the technical condition of equipment following troubleshooting work in 2009 breaks down as follows:

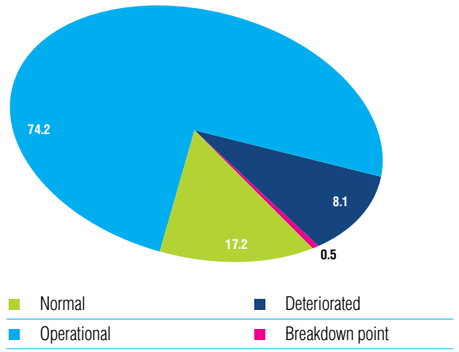
Technical condition of power transformers (autotransformers), %



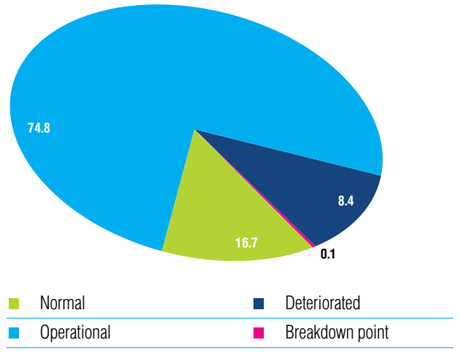
Technical condition of shunt reactors, %



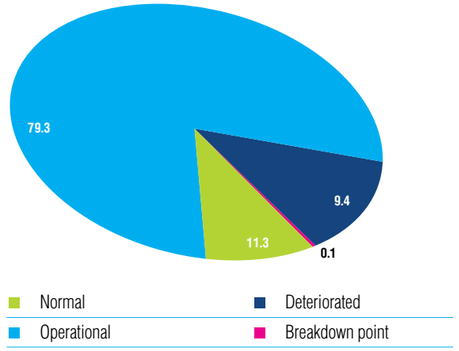
Technical condition of circuit breakers, %



Technical condition of current transformers, %



Technical condition of voltage transformers, %



Special Troubleshooting Programmes in 2009

Federal Grid Company has developed and implemented specific target programmes for comprehensive troubleshooting to assess the technical condition of electric grid equipment not encompassed in regular troubleshooting, as well as to specify the level and nature of defects discovered during regular troubleshooting.

Electric grid overhead transmission line special troubleshooting programme

As of today, the programme is virtually the only tool for troubleshooting overhead transmission lines, identifying the start of defects (hidden from view) and providing data for evaluation in the government monitoring bodies.

The programme is aimed at compiling complete and qualitative information on the condition of the most important parts of overhead transmission line towers in order to take measures to thwart damage to the transmission lines.

Information on the condition of the tower parts and recommendations allow for timely decisions to be taken on exact repairs to the tower parts or the comprehensive reconstruction of the overhead transmission lines based on their actual condition.

In 2009, comprehensive inspections were carried out on 10,942 towers at overhead transmission lines, including 7,322 towers at MES South and 3,620 towers at MES Volga.

- 247 defective parts have been discovered at MES South, with 52 parts slated for repair in 2010 and 195 parts in 2011;
- 86 defective parts have been discovered at MES Volga, with 66 parts repaired in 2009 and 20 slated for repair in 2010.

Top-priority special troubleshooting programme for overhead transmission line parts

The troubleshooting programme is carried out on the following overhead transmission lines:

- lines located in hard-to-reach areas, including low temperatures (permafrost);
- lines with the largest number of technological breakdowns during the year;
- backbone lines;
- lines supplying large consumers;
- lines involved in export transmission.

The programme is designed to repair technological breakdowns in connection due to the unsatisfactory condition of the overhead transmission line nodes, including falling transmission towers, thereby improving the operating reliability of the UNEG.

In 2009, 7,237 overhead transmission line parts were fixed as part of the programme, including 4,051 at MES West Siberia, 1,309 at MES Siberia, and 1,877 at MES Urals.

- At MES West Siberia, 310 defective parts were identified, and 310 parts are slated for repair in 2010–2011.
- At MES Siberia, 495 defective parts were identified, and 435 are slated for repair in 2010, and 60 are slated for repair in 2011.
- At MES Urals, 237 defective parts were identified, and 124 are slated for repair in 2010, and 113 are slated for repair in 2011.

Comprehensive inspection programme for substation grounding

The main goals of the grounding systems are:

- protect electric energy equipment from thunder storms;
- protect electric energy equipment from short-circuit currents;
- protect substation personnel (electricity safety) from contact voltage;
- protect dispatch and process management systems (including RPEC, automated revenue-metering system (ARMS), automated process-management system (APMS), the Technological Process ACS).

Regular grounding troubleshooting can not fulfill any of the goals or bring grounding into standard condition, thus requiring a specific target programme.

In 2009, comprehensive inspections were completed on 189 substations, including MES Siberia (72); MES Volga (50); MES North-West (38); MES South (24); and MES Centre (5). Repairs are planned on the grounding systems of the inspected substations as follows:

- MES Siberia: 100% (72 substations) slated for 2010;
- MES Volga: 8% (4 substations) slated for 2010; 92% (46 substations) slated for 2011–2012;
- MES North-West: 34.2% (13 substations) slated for 2010; 65.8% (25 substations) slated for 2011;
- MES South: 8.3% (2 substations) slated for 2010; 91.7% (22 substations) slated for 2011;
- MES Centre: 100% slated for 2010.

Special troubleshooting programme for equipment or units in the worst condition

The special troubleshooting programme for equipment in the worst condition is implemented with the following goals:

- lower substation equipment breakdown because of overhead transmission line nodes by conducting standard routine inspections as well as following manufacturer recommendations and the instructions of the regulating bodies;
- improve equipment operating reliability by conducting timely target inspections with a subsequent return to the nominal operating parameters;
- improve the reliability of the consumer electricity supply by providing an equipment operation breakdown warning.

The units in the inspection programme are the most capital-intensive types of equipment, for example, power, switching, measuring and protective equipment.

In 2009, special troubleshooting was conducted as follows:

- power equipment: 192 units;
- switching equipment: 1,392 units;
- measuring equipment: 69 units;
- overhead transmission line towers: 929 units.

The Company assesses the overall amount of troubleshooting in 2009 to be adequate. In order to improve the troubleshooting efficiency of electric grid equipment in 2010, the following measures are planned:

- inventory and complete troubleshooting means for proper and timely completion of preventative measures and tests;
- modify and update the standards for troubleshooting;
- improve the qualifications of the troubleshooting personnel;
- create an internal information resource to automate the organisation and monitoring of troubleshooting in the Company;
- delineate responsibility for the collection and updating of information on the technical condition of equipment based on the results of troubleshooting;
- organise efficient monitoring of the troubleshooting system operation at all levels of the Company's management;
- create an innovative environment for technical troubleshooting in Federal Grid Company.

Efficient Process Management

The main goal of Federal Grid Company's efficient process management is to fulfill our obligations of delivering electric energy to the market by adhering to the requirements of delivery quality and reliability, and to minimise losses when transmitting electric energy via the UNEG. The Company's efficient process management is built on a hierarchical approach, with a concise allotment of equipment as per levels of efficient implementation.

The following goals are part of efficient process management:

- provide for the dependable operation of the UNEG units and fulfill the process schedule specified by the System Operator dispatch centres;
- provide adequate quality and safety during operation of the UNEG units;
- create a single training system for the operating personnel;
- minimise the number of technological breakdowns due to personnel errors;
- participate in the development and implementation of the UNEG development programme in conjunction with the System Operator dispatch centres;
- plan measures for repairing, activating, modernising/reconstructing and maintaining equipment;
- develop a timetable for emergency restrictions on electric energy usage and the implementation of emergency restriction by order of the System Operator dispatch centre;
- connect the consumer grid and power receiver units to the emergency control system.

These goals were completed successfully in 2009. In particular, the efficient process management body produced the following results:

- The number of standard violations due to exceeding the permitted voltage level in the UNEG reduced to 3 in 2009 versus 9 in 2008 and 71 in 2007;
- 73 'bottlenecks' placing restrictions on the regular and maintenance and servicing schedule of the grid were identified (71 in 2008);
- An optimisation system was developed based on KOSMOS drive end (DE). The system is designed to reduce the loss of real power in the Company's grids and minimise the loss of electric energy by regulating the voltage and current redistribution of reactive power in the grid;
- Lines of communication were improved between System Operator and the personnel of Federal Grid Company;
- A PSI Control-based hardware and software package to display the current processes to the operating personnel was put into test use in the North-West Grid Control Centre;

- An UNEG efficient process management concept was developed and approved;
- A grid transfer capacity was expanded at MES South and MES West Siberia by specifying the maximum allowable current load of the overhead transmission lines depending on weather conditions;
- Training seminars titled Emergency Control and Emergency Control System were held for the personnel at the UNEG grid management centres.

Federal Grid Company is designing and implementing new-generation substations (at the end of 2009, the figure was 5.1% of all Federal Grid Company substations), which use modern automated equipment-management systems, allowing for efficient servicing of the substations without requiring personnel to be on constant duty.

Introducing the new systems enables the transfer of substation efficient-servicing functions to the personnel at the grid management centres working at each of the Company's branches. Additionally, the transfer will reduce service costs, shorten the time required to eliminate technological breakdowns, and allow for a situation analysis at the unit and in the grid adjacent to the substation simultaneously.

In 2010, as part of implementing the UNEG efficient process management concept, the operating functions of Kuzbasskoe grid management centre and MES Priokskoe subsidiary are slated for approval.

Also in 2010, the North-West grid management centre's Expert and Analytical System is slated for commercial operation. The system will permit a wide range of calculation and analytical tasks to be completed.

Technical Refitting and Reconstruction Prospects

The renovation programme for the UNEG for 2010–2014 includes plans to reconstruct units fully, replace individual parts of equipment, make target investment and compile an emergency reserve.

Unreliable, obsolete and inefficient equipment will be replaced with modern technology as part of the programme. Other plans include increasing grid transfer capacity, lowering the effect of electric energy installations on the environment, as well as optimising expenditures and improving the quality of technical servicing. The 2010–2014 renovation programme calls for the full reconstruction of 180 units, including 163 substations and 17 transmission lines. Additionally, there will be an overall increase in capacity to 38,885 megavolt-amperes (MVA) by 2014 (an increase in transformer capacity to 5,389 MVA), and an increase in the comprehensive reconstruction of transmission lines, around 800 km.

The 2010–2014 renovation programme also envisages the installation of reactive power sources with aggregate capacity of more than 1,600 megavolt-amperes reactive (MVAR). The objective increase in the reactive capacity throughout the UNEG will be more than 1,100 MVAR (taking into consideration the deactivation of a number of current reactive power sources of 500 MVAR, while the UNEG units are being reconstructed).

The following units and their capacity are slated for the completion of comprehensive reconstruction in 2010:
- 500-kV Lipetsk substation (MES Centre);
- 500-kV Zlatoust substation (MES Urals);
- 220-kV Novometallurgical substation (MES Urals);
- 220-kV Vitaminkombinat substation (MES South).

The renovation programme envisages the beginning of financing projects on 36 objects (substation and overhead transmission lines) as part of the comprehensive reconstruction units for 2013–2016. New technology will be used as part of the programme, including:
- implementation of multi-faceted towers and increased-capacity lines (the 220-kV Central-Shepsi overhead transmission lines, the 220-kV Shepsi-Dagomys overhead transmission lines);
- installation of STATCOM (400/330-kV Vyborg substation);
- installation of controlled shunt reactors (500-kV Magnitogorskaya substation, 500-kV Tomskaya substation);
- implementation of switch-disconnectors at Federal Grid Company units (220-kV Dmitrov substation).

The section on Innovation contains more detailed information on the latest equipment and technology.

Results of the 2009–2010 Autumn-Winter Period

The autumn-winter period places maximum capacity load on Russia's electric energy system, and the harsh weather conditions increase the risk of damage to the grid units. Consequently, Federal Grid Company pays particular attention to the transmission of electricity during this season.

Inspections of the Company's branches to verify their respective preparedness for the 2009–2010 autumn-winter period were carried out in accordance with the corresponding Provision approved by the protocol of the Governmental Commission in September 2008. The main goals defined in the Provision stipulate the steady and dependable operation of the Federal Grid Company's electric grid units, the uninterrupted supply of power to consumers, as well as the preparation of personnel to work during the autumn-winter period.

An analysis conducted in 2009 demonstrated that the Company's branches fulfilled their respective duties in preparing for and completing the autumn-winter period. Particular attention was paid to the Unified Energy Systems of Siberia, as well as to Kuban, Tyumen and Primorye energy systems in preparing for this difficult season. The Company built and reconstructed a number of energy units in these regions. For example, helicopter flyovers of the 220/500-kV transmission lines were organised and mobile fast-response teams were set up for the round-the-clock monitoring of the technical condition of the energy units and the timely repair of malfunctions along the backbone grids of the Republic of Khakassia, Kemerov Region, and the Altai and Krasnoyarsk regions.

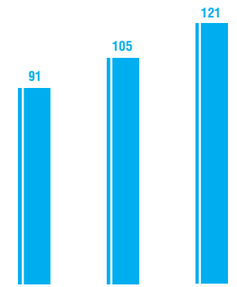
As previously stated, the most complicated situation occurred in Siberia, where the supply of electric energy was seriously affected by the accident at the Sayano-Shushenskaya HPP. Correspondingly, Federal Grid Company took additional measures to increase the reliable transmission of electricity in this region, which included the formation of an enhanced emergency reserve, the installation of reactive power sources, and the increase in the number of production centres to operate equipment. As a result, the backbone transmission lines in Siberia operated stably and consumers received electricity supplies at full capacity during the autumn-winter period.

Power Transmission and Technological Connection Services

Power Transmission Services

The transmission of electric power throughout the UNEG is the main function of Federal Grid Company, and payment for these services is the main source of revenue. Federal Grid Company is a natural monopoly, and the number of the Company's consumers in the UNEG increases on an annual basis. Indeed, there were 121 organisations connected to the UNEG as of December 2009.

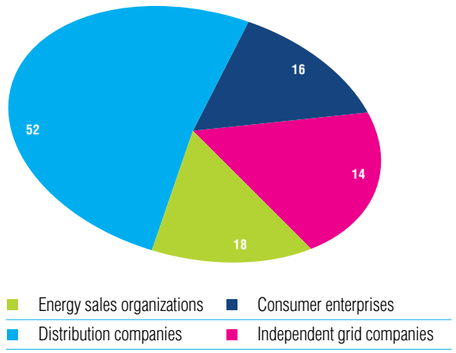
The number of consumers (number of organisations) of Federal Grid Company services in 2007–2009



There are four types of organisations that use the Federal Grid Company's energy-transmission services:
- distribution companies (DC);
- independent grid companies (IGC);
- energy sales organisations (ESO);
- large consumer enterprises of electric energy.

Share breakdown of standard organisations in the overall number of consumers presented in the chart:

Breakdown of Federal Grid Company counterparties in 2009 according to party (share in total):



The following chart shows the shares of the largest consumers of Federal Grid Company services in revenue from power transmission in the UNEG for 2009:

№	Counterparty	Share, %
1	Tyumenenergo	11.0
2	Moscow United Electric Grid Company (MOESK)	7.4
3	MRSK Urals - Sverdlovenergo	5.2
4	MRSK Siberia - Krasnoyarskenergo	4.4
5	Lenenergo	4.2
6	Far East Distribution Company	3.8
7	MRSK Siberia - Kuzbassenergo	3.6
8	MRSK Urals - Chelyabenergo	3.0
9	Kubanenergo	2.9
10	MRSK South - Rostovenergo	2.7

Technological Connection Services

The number of Federal Grid Company's consumers for the transmission of electric energy via the UNEG is increasing mostly as a result of the Company's drive for the technological connection of new UNEG consumers. Technological connection is a comprehensive service that is designed to deliver electric energy to legal entities as well as to individuals and provides for the actual connection of consumers' power receivers to the grid units.

Technological connection services are rendered to new consumers as well as to current ones who require a boost in power consumption.

Technological connection includes the following:

- preparation and delivery of the technical specifications for technological connection;
- implementation of the technical specifications for technological connection (construction/reconstruction of substations, construction of high-voltage power lines, etc);
- inspection of technical specification implementation;
- actual connection of the consumers' power receivers to the electric grid units;
- drawing up of the Act on Technological Connection.

Areas of Responsibility of Grid Companies during Technological Connection

Federal Grid Company renders technological connection services to consumers to the backbone electric grids that meet the approved criteria of the UNEG and are proprietary owned or used by the Company. The executive body of Federal Grid Company or the MES branches is responsible for providing technological connection to the grids and monitoring the use, if a client's request meets the following criteria:

	Executive Body of Federal Grid Company	Branches of Federal Grid Company – MES
Technological connection at the voltage level	220 kV and higher	up to and including 110 kV

The Company's executive body is responsible for technological connection associated with an increase in transfer capacity, an alteration in the connection format of the current transmission lines or those under construction, including voltage of 220 kV and higher.

Timeframes and Stages to Complete Technological Connections

A technological connection is a complicated process that envisages, in individual cases, the substantial reconstruction of the backbone grid, including the construction of high-voltage power lines of additional transformer power, as well as an alteration to the connection format of the current high-voltage transmission lines.

A standard technological connection project is carried out in four stages:

At the first stage, a client issues a request and Federal Grid Company reviews it. If a consumer's request does not contain all of the required information, the Company informs the consumer of this fact within six working days. Once a review is finished – which could require up to 15 days in the event of a simple technological connection and up to 40 days in the event of a complicated technological connection – the Company presents contract drafts to the consumer, and also description of technical specifications in the event of a simple technological connection.

At the second stage, an agreement on completing the technological connection is prepared and signed, establishing the conditions for all procedures during the project and the obligations of the parties to fulfill them.

The third stage involves interaction with the Federal Tariff Service to set the amount of payment for the technological connection.

At the fourth stage, the Client's power installations are connected to the electric grids as per the agreed-upon conditions and in accordance with the approved procedure plan. If other deadlines are not stipulated in accordance with the investment programme or an agreement of the parties, the deadline for completing the procedures for technological connection can not exceed:

- 1 year for clients whose total connected capacity of the power receivers does not exceed 750 kVA;
- 2 years for clients whose total connected capacity of the power receivers exceeds 750 kVA, if other deadlines (but not in excess of four years) are not stipulated in accordance with the investment programme or an agreement of the parties.

In order to expedite the document-agreement process, the Automatic Request System for technological connection was set up within Federal Grid Company and its branches in 2009. The system substantially expedites the relay and agreement process of a request and all of the attached documentation between the executive body and the Company's branches.

Improving Energy Efficiency and Mitigating Losses

The programme to decrease electric energy losses in the UNEG for 2009, as approved by the Federal Grid Company Management Board, included three major provisions: optimising operation conditions and management of the electric grids, lowering auxiliary power requirements as well as implementing energy-saving equipment.

As part of optimising the operation conditions and management of the electric grids, optimum operation for reactive power and voltage was maintained, electric-grid equipment was shut off during light-load operation, and the duration of repair and maintenance and servicing of the main grid equipment was shortened. Consequently, Federal Grid Company's MES Volga branch decreased losses by 16 mln kWh in 2009. In particular, special operations were implemented with the shunt reactors at the 500-kV Veshkaim, Penza-2 substations. Also, a number of transmission lines and power transformers were shut off at the 220-kV substations.

In order to decrease auxiliary power requirements, the use of cooling fans for transformers and autotransformers, as well as heating and lighting resources at the buildings managing the substations, have to be optimised. For example, in 2009 MES East was able to save 23 mln kWh by optimising auxiliary power requirements while MES Centre saved 15 mln kWh, and MES North-West saved 22 mln kWh. Indeed, these measures implement throughout the entire UNEG reduced electric energy losses by more than 65 mln kWh in 2009.

Energy efficiency is a top priority as the equipment is upgraded at the respective UNEG units. Indeed, the Company has concentrated on decreased loss, improved transmission line transfer capacity, as well as lower operating expenditures. Consequently, MES South had the high-temperature wire repaired on the 220-kV Afipsky-Crimea transmission lines, with a length of 210 km. The new wires have a unique construction and do not corrode and ice up, which is especially important, given the weather conditions in the south of Russia that are characterised by sudden drops in temperature and high humidity. As a result of the work completed, the transfer capacity was increased from 200 to 360 MW, thus not only improving the dependability of the supply of electricity in the Abinsk, Crimea and Seversky regions of the Krasnodar Territory, but also decreasing the loss of electric energy transmitted by 15%.

Energy-efficiency Measures for 2009:

Energy-efficiency measures	Starting date	Quantitative effect as on 31.12.2009	
		In RUB	Corresponding amounts (in MWh*)
optimisation of electric grid steady-state conditions (per reactive power, per voltage level)	01.01.2009	62,842,586	140,161
switch-off during light-load of electric grid equipment	01.01.2009	11,370,409.6	25,360
reduction in the length of time for repair and maintenance and servicing of the main grid equipment (including hot-line work)	01.01.2009	3,797,160.8	8,469
decrease auxiliary power requirements (including the optimisation of the duration of work and the number of cooling fans for transformers and autotransformers, as well as of heating and lighting resources at the substation management buildings)	01.01.2009	30,756,150.9	68,597
installation and activation of power factor correction units in the electric grid	01.01.2009	3,773,397.8	8,416
replacement of overloaded and installation and activation of additional power transformers at operating substations	01.01.2009	4,477,323	9,986
Total for all measures	01.01.2009	117,017,028	260,989

Aleksander Sukhorukov [Head of Ochakovo 500 kV substation]

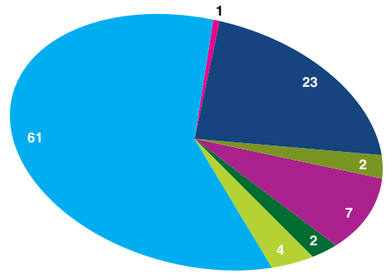
Implementation of innovative technologies gives us confidence in our bright future.

Energy Losses in 2009

The total actual loss of electric energy in 2009 in the UNEG was 22 120.61 mln kWh.

Electricity load losses were 13,436.192 mln kWh; electric energy off-load loss on transformers and autotransformers was 1,629.666 mln kWh; electric energy loss on auxiliary power requirement of the UNEG was 990.737 mln kWh; corona discharge electric energy loss on overhead transmission lines was 4,990.09 mln kWh, on compensating devices was 232.89 mln kWh, on shunt reactors was 466.268 mln kWh; electric energy loss due to fault currents on transmission line isolators, frost, current transformers, voltage transformers, excess voltage suppressors, connecting wires and bus-bars of substation distribution units, high frequency connection units and meters was 374.768 mln kWh.

Breakdown of energy losses for 2009, %



- Loss on auxiliary power requirements
- Load loss
- Loss on compensating devices
- Loss to corona discharge via overhead transmission lines
- Loss on shunt reactors
- Off-load loss on transformers and autotransformers
- Other electric energy losses

Comparison of electric energy loss in the UNEG for 2007, 2008 and 2009 in the following table:

Comparison of electric energy (ee) loss in the UNEG, mln kWh

Type of loss in the UNEG,	2007	2008	2009
Total loss of electric energy in the UNEG, including:	21,401.1	21,865.7	22,120.6
Load loss	13,580.3	13,517.5	13,436.2
Off-load loss of electric energy on transformers and autotransformers installed at the substations of the UNEG	1,566.2	1,681.9	1,629.7
Loss of electric energy on auxiliary power requirements of the UNEG	929.3	951.8	990.7
Loss of electric energy to corona discharge via overhead transmission lines	4,264.4	4,599.5	4,990.1
Loss of electric energy compensating devices and shunt reactors installed at the substations of the UNEG	709	754.9	699.2
Loss of electric energy due to fault currents on transmission line isolators, frost, current transformers, voltage transformers, excess voltage suppressors, connecting wires and bus-bars of substation distribution units, high frequency connection units and meters	351.9	360.1	374.8

Federal Grid Company obtains electric energy independently on the wholesale market in order to compensate for the actual net output loss in the UNEG, minus the losses taken into account and paid by participants in the market. Electric energy is obtained in Russian regions that are combined in price zones, as well as in territorial subjects of the Russian Federation that are not combined in price zones. The type of region determines the calculation of value to remunerate the loss of electric energy and capacity. As of April 2009, a multiplying factor is used to value electric energy obtained on the wholesale market to compensate for loss in the UNEG, in the event that Federal Grid Company does not adhere to the amount and deadlines of maintenance and servicing as agreed upon in the established procedure with the System operator. The FTS approves the multiplying factor, which is determined in accordance with the Agreement on Accession to the Wholesale Market Mercantile System. In 2009, the multiplying factor was applied to the cost of electric energy obtained by Federal Grid Company to compensate for loss in the UNG, and it fluctuates from 1 to 1.029.

The cost of electric energy and capacity obtained by Federal Grid Company in 2009 to compensate for loss was RUB 13,432,595,654, excluding VAT: RUB 2,567,545,152 for electric energy, excluding VAT, and RUB 10,865,050,503 for capacity, excluding VAT.

Maintenance and Servicing

Concise organisation of maintenance and servicing is necessary to provide the dependable transmission of electric energy, as well as improved efficient use of equipment and other Company resources. Maintenance and servicing are performed at Federal Grid Company based on the following guidelines:

- minimise technological and economic risks;
- analyse technological breakdowns;
- refer to the results of previously performed maintenance and servicing;
- adhere to the legislative and legal requirements established for electric companies;
- follow the requirements of the standard technical documents;
- attain the key performance indicators;
- stay within budget limitations.

The maintenance programme is formulated as per a rolling schedule with a planning horizon of three years and one year forward. In 2009, maintenance work conducted as part of the target programmes cost RUB 3,554 mln, and RUB 10,774 mln, as per the maintenance and servicing plan. In 2009, the plan was 99.8% completed.

Technical policy on maintenance and servicing

The technical policy stipulates the procedure for maintenance and servicing. The following factors are the main goals and objectives in this area:

– complete maintenance and servicing of equipment in accordance with the Industry Environmental Protection Regulations;
– improve quality-control system;
– develop and implement automated method to assess the technical condition of equipment, integrated with the automated maintenance and repair management (AMRM) database;
– formulate long-term (three to five years) plans for maintenance and servicing;
– automate the planning and monitoring of maintenance and servicing based on AMRM;
– specialise maintenance work;
– apply new technology for the maintenance of substations, transmission lines and new materials that deliver high quality and lower costs;
– mechanise work on substation transmission lines, foremost on the most labour-intensive types of work;
– increase the amount of maintenance on overhead transmission under tension (without switching off);
– improve monitoring on the part of the Company's executive body to complete maintenance and servicing;
– improve and implement operating technology and maintenance of overhead lines by applying new types of technical equipment.

In order to improve maintenance efficiency in the Company, the position of chief engineer was created to manage the block to organise and complete maintenance, and the preventative maintenance system based on actual condition was improved. Automation of equipment condition analysis is also underway.

Also in the interest of improving maintenance efficiency, the functions of maintenance and servicing of substations and transmission lines were transferred in 2009 from Glavsetservice UNEG to the MES branches of Federal Grid Company. Having the branches' own personnel perform the maintenance allows for quickly receiving reliable data on the technical condition of the equipment and planning maintenance steps accordingly, as well as shortens the timeframes and improves the quality of work.

Workplace Safety

Occupational Safety

Keeping personnel safe and healthy is the main function of occupational health and safety activity at Federal Grid Company. In accordance with the requirements of the national standards of the Russian Federation GOST ISO 12.0.230-2007 OSS, the Company's health and safety system was redesigned, and in March 2009, the Provision on the Safety Management System was implemented and is being adopted in stages. The Provision stipulates the following measures:

- the Occupational Health and Safety Board's main function is to generate concerted solutions and proposals on issues concerning workplace safety conditions;
- develop standard documents on workplace safety;
- provide additional training to employees of the workplace safety division in the executive bodies of the branches;
- optimise the staff schedule for workplace safety.

The number of accidents at Federal Grid Company branches reduced to four in 2009 vis-à-vis six in 2008. The number of accidents decreased from three to one at Elektroservice UNEG in 2009, while the number of accidents actually increased at Glavsetservice UNEG from two to 10 instances. This included three people being fatally wounded from the maintenance company on overhead transmission lines. Based on the results of the investigations of the accidents, direct and indirect reasons for their occurrence were established.

In 2009, the condition of working stations was evaluated at all of Federal Grid Company's branches and executive body. Upon the conclusion, measures were designed to improve the conditions.

In order to improve the safety of personnel at their respective working stations, an analysis of conducted on the wearing of industrial clothing, resulting in the test wearing of the following types of industrial clothing:

- combination uniform for protection against electric arcs and tick bites and other bloodsucking insects;
- full protective from electrocution while working in direct-voltage areas;
- anti-encephalitic footwear.

Additionally, training seminars were held in all of the Company's branches on the use of the new industrial clothing.

In total, expenditures on occupational health and safety measures in 2009 grew by 12.4% versus 2008, with expenses for one employee increasing by 11.3%.

Industrial Safety

In 2009, there were 224 production units in use at Federal Grid Company that were registered in the Government registry of hazardous production units. The increased danger of a number of grid units requires the Company to have a full-scale insurance programme in place. In 2009, the Federal Grid Company carried third-party liability insurance for injury and health as well as third-party liability insurance for damage to property and the environment in the event of an accident at all of the hazardous production units. In addition, personnel were actively trained and certified in industrial safety, and a plan-of-action was developed for the localisation and liquidation of the aftermath of possible emergencies.

Federal Grid Company developed instructional guidelines for conducting periodic inspections of the UNEG electric machinery as well as of overhead lines, and then the Federal Service for Environmental, Technological, and Nuclear Oversight (Rostekhzadzor) approved said instructions in 2009. The Company also developed and had Rostekhnadzor approve the 2010–2012 plan for the identification and registration in the government registry of storage areas for residual fuel oil, areas for diesel substations and transformer areas.

Fire Safety

In 2009, there were 11 technological outbreaks of fire, of which 10 cases involved substation equipment and one occurred in the buffer area around overhead transmission lines.

The Company has begun work on a declaration of fire safety that is intended to assess the fire risk at the Company's units, as well as develop comprehensive measures to save people during a fire.

Federal Grid Company personnel pass fire-safety instruction, fire-safety basics as well as a check of knowledge within a set schedule. Once a year, fire-safety training and instruction is held with the fire-fighting unit to impart practical experience in extinguishing fires at all substations.

A review competition was held in 2009 to select the unit with the best fire-safety measures. The results showed that all the UNEG units have a high level of fire safety, but the best branch was MES Centre.

Environmental Policy

Maintaining a responsible relationship with the environment is the key principle to Federal Grid Company's environmental policy.

The Company considers the following areas of environmental policy development to be important:

- adhere to Russian environmental protection legislation (fundamental document is the Environmental Doctrine of the Russian Federation);
- continuously improve the Company's Environmental Policy and environmental management;
- develop and implement in-house documents on adhering to environmental standards and principles of a responsible relationship with the environment;
- listen to the opinions of the leading environmental protection organisations and experts on operations and planning activity;
- introduce modern environmental standards in the Company's day-to-day operations;
- conduct in-house and external environmental audits;
- conduct planned technical measures on protecting the environment in a timely manner;
- take into consideration environmental aspects of activity in the Company's Investment Programme;
- train and improve the qualifications of all of the Company's personnel on environmental issues, as everyone is responsible;
- inform the public on steps to protect the environment by the socially relevant units;
- maintain openness and transparency in the Company's environmental activity, and provide the public with reliable information on the Company's impact on the environment.

Impact on the Environment

The Federal Grid Company's main area of business – the transmission of electric energy – has less of an impact on the environment than the production of electric energy. However, it is important to the Company to fulfill its responsibility to the environment in order to minimise any negative impact and to improve environmental policy.

The Company recognises the following substantial types of impact:

- impact on soil;
- impact on biological diversity.

The following are less substantial types of impact:

- effect on water bodies;
- effect on the atmosphere.

The impact on the soil is related to an electric grid company's covering of a rather large area with transmission lines, substations and other grid units. In order to minimise the impact on the soil, Federal Grid Company considers the following areas to be of importance:

- responsible use of the land;
- prevention of transformer oil leakage;
- storage and recycling of waste.

The impact on wildlife is the subject of ongoing discussion with the environmental and scientific community. For the Company, the most immediate issue is the nesting of large birds on the transmission lines. Indeed, the impact of the electric and magnetic field on wildlife is an important environmental aspect of the Company's business. Consequently, Federal Grid Company takes the following measures:

- Steps to protect birds;
- Establishment of protective zones for potentially hazardous units;
- Adherence to environmental standards, sanitary rules and regulations.

Essential Documents

Federal Grid Company relies foremost on the Environmental Doctrine of the Russian Federation in its activity. The Company's fundamental in-house documents on environmental protection are the Environmental Policy of Federal Grid Company and the 2008–2010 Environmental Policy Implementation Programme of Federal Grid Company.

Main goals of the Federal Grid Company's environmental policy are:

- increase the level of environmental protection;
- increase the investment attractiveness of the Company by being environmentally responsible and delivering a high level of environmental safeguards.

The main goal of the Environmental Policy is to reduce the negative impact of the electric grid companies on the environment, including by creating organisational mechanisms. The Company's 2008–2010 Environmental Policy Implementation Programme stipulates completing organisation and technical measures:

1. Organisational measures:

- implement an environmental management system;
- develop corporate standards for environmental protection;
- implement industrial environmental monitoring and conduct environmental audits;
- hold environmental training for personnel;
- improve the documentation of environmental activity.

Protection of birds

One of the problems associated with Federal Grid Company's operations is the impact on wildlife, specifically on the nesting of large birds on the transmission lines. The landing of birds and the falling of their waste products on the transmission line equipment occasionally causes short circuits and electricity failure for consumers. At the same time, the Company does not wish to harm the birds, and special care is paid to the white stork, which nests in the Amur Region and the Khabarovsk Territory. These birds are in the endangered species list and are protected.

Since 2006, in the Far East, the nests of the Far-East stork, which are located next to high-voltage lines on the transmission towers, have been moved to specially built metal platforms on the same towers, but in safe locations. At the same time, bow-shaped structures are being installed to thwart the birds' landing on the hazardous areas of the transmission line towers, with the consultation of ornithologists (bird experts). Consequently, the electricity supply to consumers is becoming more dependable, and the danger to the birds is being brought to a minimum.

In 2009, twelve wire frames costing RUB 38,351 were installed.

In total in 2009, there were seven shutdowns in electric energy transmission as a result of stork activity (in 2007 there were 22, nine in 2008). There were no reported deaths of birds in 2009.

2. Technical measures:

- formulate and implement target programmes to replace and recycle trichlorodiphenyl-containing equipment;
- repair (reconstruct) the oil-container systems and units;
- equip areas for the temporary storage of waste;
- build and reconstruct sewage systems, wastewater treatment facilities, and service-utility and rainwater runoffs.

In 2009, the following environmental documents were approved:

- Provision on Industrial Environmental Monitoring;
- Provision on the Second Phase of the Target Programme on the Recycling of Trichlorodiphenyl-Containing Equipment;
- a standard instruction on the handling of hazardous waste.

Measures Completed in 2009

In accordance with 2008–2010 Environmental Policy Implementation Programme, environmental protection activity in 2009 was completed in the following areas:

- organise and monitor the fulfillment of the requirements of the Russian Federation legislation, corporate standard and technical as well as organisation and management document for environmental protection;
- arrange environmental protection management in the Company;
- fulfill the technical measures of the Environmental Policy Implementation Programme aimed at decreasing the risk of polluting the environment;
- carry out the regulatory and technical provisions for environmental protection;
- collaborate with subsidiaries and branches, monitoring bodies, and environmental non-governmental organisations.

Organisation Measures Conducted in 2009:

- Environmental audits were conducted at MES East, MES North-West, MES Centre and MES South; and functional (environmental) self-audits were organised and conducted at MES Siberia and MES West Siberia;
- Industrial environmental monitoring was organised at all of the Company's units; the Provision on Industrial Environmental Monitoring was developed and approved;

Recycling equipment containing trichlorodiphenyl

Federal Grid Company completed the first stage of the 2009 target programme for the replacement and recycling of trichlorodiphenyl-containing equipment, which is the main element in fulfilling the Company's environmental policy programme for 2007-2009. In fact, 18,200 static condenser canisters were recycled, weighing 652 tonnes, and at a cost of RUB 39,400,000.

Trichlorodiphenyl was widely used last century as a dielectric liquid in the production of power transformers and condensers because of its unique thermophysical and electroinsulating features, fire resistance and explosion safety. However, trichlorodiphenyl is a virulent poison and poses a high-threat danger.

The Company's environmental policy envisages the replacement and recycling of trichlorodiphenyl-containing equipment. An expert organisation – selected via a tender and possessing a licence to handle hazardous waste and having the necessary experience and facilities to recycle trichlorodiphenyl – will handle the recycling of the deconstructed equipment.

Currently, a quarter of the trichlorodiphenyl-containing equipment has been deconstructed and recycled. The Company will continue the process till all trichlorodiphenyl is eliminated from production.

- Representatives from scientific institutes and environmental organisations conducted an external environmental impact assessment on four environmental protection standards of electric grid units, testing all stages of the life cycle;
- Interaction was organised with the coalition of environmental non-governmental organisations on issues concerning improvement in the Company's environmental policy, fulfillment of the programme, and preparation for the assessment on social responsibility and corporate stability.

In terms of handling hazardous waste, the following measures were completed:

- the first stage of the target programme on recycling trichlorodiphenyl-containing equipment was completed;
- standard instruction on the handling of hazardous waste was approved;
- environmental training on the handling of hazardous waste was organised for employees of the Federal Grid Company branches – at the MES and MES subsidiaries, 134 people completed training.

The following measures were completed as part of the 2008–2010 Environmental Policy Implementation Programme:

- repaired oil-container systems and units at 141 units, totalling RUB 124,284,600;
- equipped areas for the temporary storage of waste at 91 units, totalling RUB 1,344,850;
- reconstructed sewage systems, wastewater treatment facilities, and service-utility and rainwater runoffs at 55 units, totalling RUB 76,975,200.

Goals for 2010

The Company envisages the following main environmental protection goals for 2010:

1. Organisational goals:

- improve the organisation structure of environmental protection management;
- receive ISO 14001 certification of the environmental protection management system;
- conduct internal environmental audits at the Company's branches.

2. Goals to develop the environmental policy and improve nature conservation:

- approve and implement standards on environmental protection at the electric grid units at all stages of their life cycle;
- organise and conduct, in accordance with the requirements of Russian Federation legislation, the environmental training of all employees of the Company's executive body and the directors of the Company's branches;
- continue ongoing fulfillment of the target programme on recycling trichlorodiphenyl-containing equipment.

4–2. INNOVATION

Federal Grid Company firmly believes in the absolute need to develop Russia's infrastructure technologically, and is striving to become one of the main innovative drivers of the Russian economy. Consequently, the Company has directed its activity to improving the management, reliability, efficiency and safety of the electric energy units, which encompasses the creation and implementation of cutting-edge technology, materials, equipment, and management and monitoring systems in the UNEG.

Innovation directly affects improving the reliability of the UES. In fact, innovation increases quality and efficiency of electric energy transmission. Introducing the latest technology allows for more efficient inter-system functions; improves adaptability of the grid to unexpected increases in load and capacity; and renders the grid safer. Innovation provides more dependable delivery of electricity for cities and large load centres, as well as provides capacity to large power plants. Decreasing the effect of grid limitations on the functioning of the electric energy wholesale market is another area of innovation.

Innovation in the grid assists in the export of electric energy. The latest technology in the industry develops other integrated platform projects, too, such as oil, gas and coal supplies, as well as the railway and automobile networks. In addition, innovation supports the development of the key branches of industry.

Federal Grid Company has organised a number of meetings with the leading Russian scientists and engineers to drive progress in all areas. Indeed, the best world practices have been studied and used to determine and develop the main innovation of the UES through 2020. In 2009, the Company signed an agreement with the leading companies of the Centre Region, North-West Region, Urals, Volga Region and Siberia Region as part of implementing the Company's plan to create electric technology innovation centres to develop and implementation the latest solutions for the electric grid field.

Regional Innovation Centres and Import Substitution

In order to fulfill the innovation programme in 2009, a new structure of the Company interaction with the science and technology community was suggested, based on the regional innovation centres, which unite scientific, design and production organisations that have the potential to develop innovative technology in the electric energy field.

The regional innovation centres have been tasked with completing the following goals:

- create and develop the regional industry innovation sector, taking into consideration the existing competency;
- train and retrain staff for innovation work;
- attract investment to finance innovation;
- coordinate the work of the science, education, production and financial sectors to develop innovation;
- work on tariff regulation and improving competitiveness and high-tech production.

The regional centres have to create the foundation for stable innovative growth of the electric energy and electrical engineering industries in Russia. In 2009, the competency of the regional centres was determined and cooperation agreements were signed with all general participants in the regional centre to provide science and technology services. In addition, the proposals were evaluated, followed by the most relevant objectives being set for 2010.

Federal Grid Company intends to conduct the innovation policy by using Russian technology as much as possible. Therefore, a programme to replace imports is planned for 2010, taking into consideration the Company's requirements for innovative wares. Development of domestic electrical technology also decreases the Company's dependence on currency risks and cost overruns when fulfilling the investment programme.

Coordinating Scientific and Technical Board

The Coordinating Scientific and Technical Board (CSTB) – a continuously operating collective body – has been formed to manage the innovation, technical and operation policy; development and implementation of the latest equipment and technology to the new construction projects; and reconstruction and technical reequipping to improve operating reliability and efficiency at the UNEG grids as well as to save on operating costs. The Board comprises the leading experts from research and development and design institutes of the Russian Academy of Sciences; directors of the executive body, branches and subsidiaries of Federal Grid Company; as well as the representatives of System Operator, MRSK Holding, and domestic manufacturers of electric energy equipment.

The Board's main functions include the review and assessment of the comprehensive innovation projects and programmes, taking into consideration the best world practises:

- prospective areas and programmes for the innovation of Federal Grid Company;
- efficiency of the basic scientific research being conducted, and the pilot and applied work affecting the Company's activity, including the economic area; and assessment of the practical use of the results;
- proposals on applying the research and development breakthroughs and best practises of other countries to resolve the Company's production goals;
- proposals on improving the provision of resources for the Company's innovation.

Organisational work and the creation of a collaboration structure will allow the Company in 2010 to transfer to a qualitatively new level of innovation. In 2009, the CSTB and the Company's Management Board approved the innovation and modernisation policy. A decision was rendered on implementing the innovation programme to create a next-generation Smart Grid. The goal of research and development and design and engineering in 2010 is to create and use the technology and elements of Smart Grid. By implementing this technology, Russian electric energy will move to a new level of technical quality, and a positive ripple effect will grow the Russian economy as a whole.

Smart Grid

Smart Grid is a synergy of those connected to the generation sources and the consumers of electric energy transmission lines, electromagnetic convertors, communication devices, protection and automated devices, and IT and management systems. The network is replete with active devices to restore the electricity supply to consumers automatically during any difficulties or emergencies. Smart Grid differs from the usual electric grid by offering:

- ACS for electric energy demand;
- active network elements with controlled parameters;
- network current condition evaluation systems;
- central load control systems;
- quality monitoring and management systems;
- automated electric energy balance support system, monitoring of the backbone line transfer load;
- meteorological monitoring with preventative alterations in the network operation parameters.

Smart Grid provides consumers with beneficial conditions for electricity supply; adapts in real time to various discrepancies in the settings; provides for the transfer of generation source capacity in the UNEG, including alternative electric energy sources and low generation; as well as predicts and warns about the occurrence of 'bottlenecks' and critical situations.

The creation of Smart Grids is a worldwide trend, as work is conducted in this area in the USA, Japan, India and China. The European Union is developing the European Electric Network of the future concept. Russia also has some experience in this field, with Federal Grid Company launching pilot projects to implement innovation in the network: flexible transmission line, back-to-back schemes (BtB), ACS, and unified electric energy grid. Creating Smart Grid could become the main driver of technical progress in the electric energy industry, inspiring the following areas:

- development of innovative technology for transmission and transformation of electric energy;
- fundamental R&D;
- development of domestic production, and subsequent decrease in the share of imported equipment in the industry;
- increase in energy resource efficiency, and subsequent reduction in the emission of carbon dioxide and hazardous substances into the atmosphere in the name of economic production;
- development of alternative sources of electric energy and low generation;
- training and profession development of qualified staff.

Creation of the Smart Grid is important, as it assists in the general economic growth of the country, by increasing the technical potential of Russian industry and lowering power consumption.

The project envisages the use of various types of innovative equipment and technology, including:

- static flexible devices with versatile features;
- short circuit current limiting devices (switches, superconductors, semiconductors);
- various types and uses of electric energy storage (large energy consumption accumulators, flywheel energy storage, superconductor, storages and others);
- equipment based on high-temperature superconductivity (generators, transformers, alternate current and direct current (AC DC) cable lines, reactive power capacitors, reactive, short circuit current limiters, and others);
- semiconductor devices (high-power transistors, including silicon carbide ones); second generation high-power superconductors;
- on-line self-test systems;
- optical electrical parameter measuring systems;
- bundled software and information management systems.

Research and Development (R&D), Project and Technological Activity in 2009

The main areas of Federal Grid Company's R&D in 2009 were focused on fulfilling the innovative equipment creation programme, as well as creating equipment and technology for industrial construction methods of transmission lines, such as:

- create flexible transmission line technology and equipment;
- create superconductor material-based equipment;
- ensure the explosion safety of high-voltage, oil-filled electrical equipment;
- develop lightening protection for 220-kV overhead transmission lines, based on multi-chamber insulator-arresters (MCIA);
- develop constructive solutions, equipment, and monitoring systems and methods for the creation of substations and transmission lines.

Expenses (purchasing budget) in 2009 for research and development (R&D) were RUB 388.68 mln (270% of the 2008 amount).

Creation of Flexible Transmission Line Technology and Equipment

In order to improve the manageability of electric grids, flexible alternating current transmission systems (FACTS) are used throughout the world. They are equipped with various substation units in order to stabilise voltage, increase stability, control power flow, and decrease loss in the electric grid. The implementation of FACTS is one of the most important strategic areas in the innovation of the UNEG.

FACTS are not only used for alternating current transmission with power electronics, but also for direct current transmission lines and BtB.

The widespread application of FACTS qualitatively alternates the energy system features by improving stability, increasing control flexibility, reliability and efficiency of electric grid operation, and raises the quality of electric energy.

The following Russian R&D institutes are responsible for implementing the programme to create the flexible transmission lines and equipment: Energosetproekt Institute, Federal State Unitary Enterprise All-Russia Electro-Technical Institute (FSUE AEI), ENIN, R&D Institute of Direct Current Transmission, and others under the general scientific and technical management of NTC-Power.

The following results were achieved in 2009:

> STATCOM

The first domestic STATCOM, with a capacity of 50 MVAR, was assembled and tested at the NTC-Power facilities. STATCOM is slated for use at the end of 2010 at the 330/400-kV Vyborg substation, and its implementation will end the limitation on electric energy export when repairing synchronous capacitors, as well as reduce the limitation during emergency shut-down of 330-kV overhead transmission lines. STATCOM is the main unit in completing a number of innovative projects, such as the creation of the asynchronous interconnects of the interconnected power system (IPS) Siberia and IPS East, respectively, at the 220-kV Mogocha substation and the 220-kV Khani substation;

> SVC

SVC with capacities of 100 and 160 MVAR, each, were installed at the 500-kV Novo-Anzherskaya and Zarya substations, MES Siberia; and SVC with capacities of 50 MVAR, each, were installed at the 220-kV Slavyanskaya, Kirillovskaya, Bryukhovetskaya substations, MES South. The assembler was Enercomserv Research & Design Centre. In December 2009, the SVC of another domestic producer, Ansaldo-AEI, was certified;

> ASC

Two 100 MVAR ASC were installed at the 500-kV Beskudnikovo substation, MES Centre, and were manufactured at the Power Machines factory, under the scientific and technical guidance of NTC-Power. ASC have generation capabilities and can be used broadly for reactive power, as well as have high overload capabilities in order to provide stability for adjacent electric energy systems during emergencies;

> MCSR

MCSR with capacities of 25 to 180 MVAR, and produced by ZTR, Ukraine, were installed at the following Federal Grid Company units: 180 MVAR MCSR at the 500-kV Tavricheskaya, Barabinskaya, Irtysh substations, MES Siberia; 100 MVAR MCSR at the Chita, Khekhtsir, Khabarovsk substations, MES East; 63 MVAR MCSR at the 330-kV Sovietskaya substation; and 25 MVAR MCSR at the 110-kV Dvurechenskaya, Igolskaya substations, MES West Siberia.

Electrozavod Holding developed and assembled a 180 MVAR MCSR according to Federal Grid Company technical specifications. The reactor is the domestic equivalent of the MCSR delivered by Zaporozhtransformator (ZTR). As a result of the innovative solutions, loss in the new reactor is 30% lower than in the ZTR-produced MCSR. The reactor was installed at the 500-kV Nelym TP, MES West Siberia.

Structures used when developing flexible alternating current transmission systems (FACTS)

Structure	Usage
vacuum controlled reactors (VR)	Compensates for the charge capacity of transmission lines and in the load nodes in order to maintain the voltage within the permissible limits in the set operation
magnetically controlled shunt reactor (MCSR)	Seamlessly regulates voltage regularly (not exceeding the norm) flowing through the transmission lines
static VAR capacitors (SVC)	Regulates high/low voltage in transmission lines
synchronous static capacitors (STATCOM); asynchronous capacitors (ASC)	Dynamically stabilises voltage, increases transmission line capacity, decreases voltage fluctuations, improves stability during power-frequency transients
series capacitor (SC)	Increases power transmission capacity and transient stability
thyristor controlled series capacitor (TCSC)	Regulates transmission line impedance, increases capacity and other functions
phase-shifting transformer (PST)	Optimises power flow along parallel transmission lines
Back-to-back voltage sourced converters (BtB VSC); asynchronous electromechanical frequency converter (AEFC)	Asynchronously connects all electric energy systems that require widespread regulation of reactive power
unified power-flow controller (UPFC)	Comprehensively regulates active and reactive power and transmission line impedance

Enercomservis Research & Design Centre has developed a new type of MCSR that is equivalent to the SVC group, which uses as a reactor special transformer leakage inductive reactance to provide direct connection to the high-voltage grid. The first two MCSR of this type, with a capacity of 25 MVAR each, were installed at the 110-kV Kogalym and Progress substations, MES West Siberia. There are plans to create reactors of this type at 220 kV and higher.

> VR

Vacuum reactors (VR) with a capacity of 4x45 MVAR were installed at the 500-kV Balashovskaya substation, MES Centre, thereby normalising the voltage in the adjacent grid during times of minimum load.

- A large volume of research and development (R&D) was completed, leading to the development of proposals on using FACTS in the UES of Russia.

Also in 2009, completion variations for the Leningrad nuclear power plant (Leningrad NPP)-Vyborg energy transmission via underwater cable along the bottom of the Finnish Bay were developed. Upon completion of the feasibility study, a decision was taken to complete the transmission with a capacity of 1000 MW and a direct current of ±300 kV.

Project completion will result in the:

- improvement in the reliability of the St Petersburg electricity supply;
- improvement in the reliability of exporting electric energy to Finland;
- reduction in the loss of electric energy in the St Petersburg (80 MW) power system;
- St Petersburg grids shedding transit cross flows (600–800 MW), and the possibility of additional connections of consumers in the quickly growing eastern section of the city.

As part of the project, all the main technology needed to set up Smart Grid is slated to be created and developed:

- operation management technology in the concentrated power systems, containing active elements;
- circuit designs to control the commutation of rectifier tubes;
- joint operation of a large number of converters, located in one power centre (Vyborg converter complex, Leningrad NPP-Vyborg DC transmission);
- next-generation automated control system;
- methods and equipment for active filtration.

Experience and results obtained from work will be fully used when creating Smart Grid.

Use of direct current transmission and BtB (DC transmission and BtB VSC) is one of the most efficient ways to improve manageability and adaptability of the electric grid. Indeed, more than a hundred of these units are in use today around the world. In addition to the improved manageability, there are also other advantages of DC transmission, such as electric energy transmission over long distances, negotiation of water obstacles, and the prevention of emergency situations arising in large power systems.

Developing Superconductor Equipment

Over the past decade, much attention has been paid to the research and development of superconductor equipment. Increasing electric current density, improving specific capacitance, as well as special, specific features that are available only via superconductors, creates opportunities for the development of highly efficient types of electric energy equipment.

Particular attention should be paid to modeling and testing power equipment for electric systems that use high-temperature superconductor (HTS – liquid nitrogen level) material.

The commercial profitability of superconductor electric energy equipment is attained by using second-generation high-temperature conductors. At liquid nitrogen temperature, these conductors can compete with low-temperature superconductors (helium level); and, when mass produced, they are cheaper than copper conductors. Today, a number of countries are completing work on developing second-generation HTS, on the back of which it is planned in the near future to begin releasing superconducting electric energy equipment. When mass produced, the new equipment will be technically as well as commercially superior to traditional electric energy equipment. To this end, the USA, Japan, Germany, Switzerland, China, and a number of other countries, are actively developing this technology, with

Thyristor controlled series compensator (TCSC) at the Sayano-Shushenskaya HPP

In 2009, technical requirements and development proposals for the TCSC for the 500-kV transmission lines of Sayano-Shushenskaya HPP-Novokuznetsk were developed. Installation of this unit will help increase the transfer capacity of the overhead transmission lines and distribute power to Sayano-Shushenskaya HPP following restoration to 600 MW.

Using the unit is especially important during flood season, as this increases the safety of using the Sayano-Shushenskaya HPP facilities.

companies from the USA showing the most success, where there is significant federal and state support.

It is worth noting cables, inductive storage, current-limiting devices and transformers among the currently developed superconducting power equipment. The current limiters and cables use HTS, while inductive storage uses low-temperature magnetic systems. There is also interest in developing HTS-based synchronous capacitors.

RAO UES of Russia has developed the programme to create and apply superconductor-based technology and equipment in the electric energy industry, and Federal Grid Company has continued the endeavour. In 2009, the following work was completed in this area:

- A 20-kV, 2000-A, 200-m HTS cable transmission line was developed and assembled; an HTS cable transmission line was tested on the territory of NTC-Power, created in 2008;
- A cryogenic system, with a capacity of 8 kV in the cold, was designed, assembled, and tested. The system provides the possibility of creating an HTS cable transmission line with a length up to 5 km;
- In agreement with MRSK Holding, the 110-kV Dynamo substation of MOESK was selected as the test site for the HTS cable. The HTS cable transmission line will be installed along with the newly developed cryogenic system;
- Technical proposals on creating HTS current limiters up to 20 kV were developed.

The complex is slated for endurance testing in 2010 on the territory of NTC-Power in order to develop the approved proposals and gain experience in the expanded use of the HTS cable transmission line equipment. Consequently, a cryogenic, current feed-through system and an ACS, which will provide maximum facilitation in testing the HTS cable transmission line, will be assembled and delivered to the 110-kV Dynamo substation.

The following Russian R&D institutes are responsible for implementing the programme to create and supply superconductor-based technology and equipment to the electric energy industry: ENIN, NTC-Power, All-Russia R&D, Engineering and Technological Institute for the Cable Industry (VNIIKP), and others.

Coordination of Short Circuit Currents in the Electric Energy Systems

For the goal-oriented integrated use of the current-limiting devices, a draft concept project has been developed to decrease short circuit currents in the electric energy systems of metropolises, along with a number of other measures to lower short circuit currents. The concept envisages the intelligent use of the current-limiting devices, including power equipment and superconductivity. It will be possible to develop a grid and retain the breaking capacitance of the switching equipment of the electric facilities in operation.

Explosion Prevention of High-voltage, Oil-filled Electric Energy Equipment

Explosion prevention is one of the main issues in ensuring safe operation of the electric energy equipment in large cities. In 2009, Federal Grid Company completed a number of projects to develop explosion and fire warning measures, as well as create explosion-proof equipment:

- the programme and analytical structure Flow Analysis of Transformer Oil and Products of Its Decomposition in High-Voltage Electric energy Equipment under Pressure Increase Owing to a Short Circuit or an Energy Explosion Release' was developed;
- A 110-kV transformer was tested for explosion safety under arcless pulse pressure sources;
- A mathematical model and experimental method to test high-voltage oil-filled electric energy equipment for permissibility and explosion safety during pulsed increase in pressure with the use of arcless pulse pressure sources was developed.

In conjunction with ZTR, standard tests were conducted on the explosion safety of 110/220-kV upgraded oil-filled cable trunking on the territory of the Makeevsky State Research and Development Institute for Mining Industry Safety, Ukraine. The constructional features of the new trunking significantly reduce the risk of the frame exploding when internal short circuits occur.

The cable trunking is a section of the power transformers and connects the cable entries of the transmission lines and the autotransformer. The manufacturer presented upgraded trunking that met the high demands of Federal Grid Company for explosion safety, and standard tests were conducted to confirm the stated features of the cable trunking, testing the mechanical resistance of the frame, as well as the durability of the bursting disks installed on it.

An alternative method was developed and applied as a result of the direct tests of the trunking being extremely difficult owing to the absence of special expensive panels. The essence of the method lies in the creation of excess pressure within the cable trunking with the help of an explosive substance charge, whose energy is the equivalent of what occurs in trunking during an internal short circuit. The Makeevsky Institute selected the explosive substance. The charge was set in a special bracket that was attached inside the trunking. The charge was detonated once the trunking had been filled

with transformer oil. This was the first time the method was applied in the Commonwealth of Independent States (CIS).

Work on improving the applied cable trunking and its testing was conducted in accordance with the Federal Grid Company's implementation plan to improve the explosion and fire safety of transformers and their chambers at the 500-kV substations of the Moscow Ring. Following the successful testing in 2009–2010, there are plans to replace around 300 of the installed cable trunking with the upgraded version, upon which the reliability of the electric grid units will improve, including substations delivering electricity supplies to Moscow and the Moscow Region.

Development of Multi-chamber Insulator-arrester-based (MCIA) Lightening Protection for 220-kV Overhead Transmission Lines

MCIA is an innovative development of Russian scientists, which is intended to protect overhead lines from lightening strikes, and combines the properties of insulators and arresters. The new insulator-arrester is unique in that it discharges the energy of lightening surges and suppresses power flow currents by using many small consecutive blowout chambers that efficiently limit discharge current.

Using MCIA electric grids will enable forgoing the use of protective grounding wires, which will reduce the cost of line construction, reduce operating costs and increase the reliability of electricity supplies, resulting in a very low number of lightening outages along transmission lines.

In 2009, the first stage of development of this innovative device was completed. Consequently, special climatic tests were conducted to check the capabilities of MCIA in icing conditions. The Swedish laboratory STRI – among a limited few in the world where such testing can be conducted – was chosen as the test location. The insulator-arrester was placed in a special chamber that simulates icing conditions, and a 30-mm thick layer of ice was placed on the test device. The results of the test confirmed that various degrees of icing do not affect the insulator properties, nor do they affect the discharge features of the MCIA.

There is a particularly high need for innovation of the Northern Caucasus transmission lines, which experience on average ten times more hours of lightening than Russia's midland area.

Strings of 220-kV insulator-arresters are slated for further testing in 2010 at a number of testing centres. Once the design features have been approved, the advanced design will be tested in the Rostov Region on 220-kV transmission lines at a length of 140 km. The line will be fully equipped with MCIA, and the traditional overhead protection cable will be dismantled. Development is planned for analogous systems at 330 kV.

Development of Structural Solutions, Equipment, Systems and Methods of Monitoring for the Creation of Substation Transmission Lines

Using innovation will reduce capital expenditures, deliver high speed and quality when installing transmission lines, as well as improve the reliability of electricity supplies. One such innovation is multifaceted transmission line towers.

The multifaceted tower reaches the installation site via ready-fitted sections with a minimal number of bolted connections. In addition, when compared to a standard lattice, a new tower occupies considerably less space, has better stability and corrosive resistance. The construction of a multifaceted tower permits the highly efficient use of the latest foundation engineering under difficult roadway conditions, for example, using a boring piles, pile shells and bored piles.

The Company has used multifaceted towers since 2005, with the first one of this type being installed in the Kostroma Region on the 110-kV Manturovo-Kronostar transmission lines. Multifaceted towers will be installed for the first time on 500-kV lines. Indeed, Federal Grid Company is currently implementing a pilot project to install these towers for the 500-kV Krasnoarmeiskaya-Gazovaya transmission lines that pass through the agricultural lands of the Samara and Orenburg regions. Using the multifaceted towers with significantly reduce the amount of land allotted for commercial purposes, and improve the reliability of the transmission lines as well as agricultural work safety.

The multifaceted tower for the 500-kV Krasnoarmeiskaya-Gazovaya overhead transmission lines is lighter than a standard lattice by 9%, comprises 35 parts instead of 916 (26 times less); and has 206 fitting bolts instead of 1,508 (7 times less). Consequently, labour output and duration of assembly, which requires the most time, are reduced by 10 times.

In 2009, the 330-kV Vostochnaya-Volkhov-Severnaya overhead transmission lines were constructed and put into operation with multifaceted steel towers and bored-pile foundations. Additionally, feasibility studies were conducted and construction was planned on the multifaceted towers of the 500-kV Krasnoarmeiskaya-Gazovaya overhead transmission lines; the 330-kV Irganaiskaya HPP-Chiryurt overhead transmission lines; the 500-kV Kostromskaya GRES-Nizhny Novgorod overhead transmission lines; the 220-kV Zeleny Ugol-Russkaya overhead transmission lines with the development of the three-segment multifaceted column of the 220-kV Centralnaya-Shepsi overhead transmission lines; and the 220-kV Shepsi-Dagomys overhead transmission lines. In order to deliver electricity supplies to the APEC summit, Federal Grid Company is specifically developing a 220-kV three-segment multifaceted tower that can transmit electricity to cities with a minimum land allotment.

The newly designed towers have been constructed jointly with North-West Electric Company as part of the Federal Grid Company Target Programme. In order to implement the tower and foundations, all standard technical documents have been worked out, and there are plans in 2010–2011 to conduct professional development courses for the design engineers and constructors. Additionally, work is planned to expand the number of base series of multifaceted towers and to upgrade the standard lattice and foundations of the older models to bring it in line with current requirements.

Main Areas of Activity as Part of the Single Innovation Policy for 2010

In order to improve the reliability, efficiency and quality of electric energy transmission through the use of innovation, Federal Grid Company in 2010 has planned work in the following areas:

- develop conceptual provisions of Smart Grid;
- develop and implement new types of power equipment, including those assembled from new materials and technology;
- implement new RPEC, diagnostic equipment and energy meters, respectively;
- improve the monitoring, and network and equipment operation systems, respectively;
- develop and implement technology to protect grids from outside forces, such as lightening strikes, and ice and wind;
- improve the operating efficiency and safety of the electric grids.

Regulatory and Engineering Provisions for Innovation

In 2009, Federal Grid Company represented the electric grid industry during the amending of the Russian Federation regulatory acts on technological regulation. Specifically, the Company assisted in developing and evaluating three technical regulations:

- on safety at power plants and grids;
- on the safety of electric installments;
- on the safety of high-voltage equipment.

The Company prepared and sent its conclusions on the three regulations to the Russian Federation State Duma (parliament). In addition, the Company's specialists reviewed, prepared and sent their evaluations on the design of two Eurasian Economic Community technical regulations to the Russian Federation Energy Ministry:

- on requirements for electromagnetic compatibility;
- on safely using electric grids

The experts represented the interest of the electric grid industry, as well as assisted in developing a coordinated position on the issues of technical regulation in the electric energy sector. Particularly, the specialists were part of the Working Group on Technical Regulation Issues in the Electric energy Industry, which was created by order of the Russian Federation Energy Ministry in June 2009.

In 2009, the regulatory internal documents were amended and updated, with 32 being approved and registered as organisation standards. Another 29 documents were prepared for approval, and 61 are currently under development. The corporate information portal contains a section on regulatory and engineering documents, while an e-library of the documents has been created.

In 2010, the Company has set the following goals for completion in the area of regulation of the electric grid industry:

- monitor, assess and administer the technical regulation at the final stages of passage in the State Duma (parliament) of the Russian Federation Government;
- monitor the regulatory acts under development in the area of technical regulation, as well as federal standards, codes of conduct and other documents in the sphere of interest of the electric grid industry;
- prepare and approve the Federal Grid Company Programmes on the development and review of the regulatory documents for 2010–2012, as well as the planned implementation;
- prepare for approval 92 corporate-level regulatory documents that have been developed in 2009–2010;
- develop a function e-registry for the regulatory documents on the topic of electric grids;
- continue to improve the performance level of the information resources for the regulatory and engineering documents on the corporate website.

Certification of Equipment, Technology and Materials

As part of creating a certification system, the Company is assessing the possibility and practicality of using new types of equipment, technology and materials of various manufacturers. The certification process verifies the manufacturing conditions, adherence to the standard requirements of the sector and corporate regulatory documents, taking into consideration the length of time the equipment has been available to use. In addition, attention is paid to service, such as the availability of hot reserve, and quick-response specialists.

The procedure ensures that poor quality or outdated equipment will not be selected for use at the UNEG units. In 2009, 726 requests for certification and extensions were reviewed. There were 112 positive findings for use in the Company, including 57 for Russian and 55 for imported equipment, respectively. There were unfavourable findings for 13 types of equipment.

NTC-Power heads the organisation and conduct of certification for equipment intended for use in Federal Grid Company. To optimise the process for 2010, the following steps are planned:

- update the Procedures and Methods section on the corporate site;
- approve the schedule for certifying equipment;
- post the general technical requirements as per type of equipment and the price limits for certification on the corporate site;
- update the Depository on Equipment Certification;
- approve the compositions of the certification commissions.

4–3. INVESTMENTS

The main investment goal of Federal Grid Company is the technological renovation and modernisation of the UNEG units. The large-scale investment programme being carried out by the Company is necessary to maintain the grid in working condition, improve its reliability, remove grid limitations and create the possibility of additional load capacity.

Development of the Unified National Electric Grid (UNEG)

Development of the Unified National Electric Grid (UNEG) is one of Federal Grid Company's top priorities. The strategy to devleop the UNEG determines the main areas and mechanisms for modernising the electric grid infrastructure, considering the establishment of market relations within the electric energy industry. The main areas of development are set in accordance with the Development Plan of Unified Energy System, including the Development Plan of UNEG and the Development Programme of UES of Russia for seven years. The documents are developed as per the Decree No. 823 of the Russian Federation government, dated 17.10.2009, titled On Timeframes and Programmes of Prospective Electric energy Development. These documents are the basis for the Company's relations with the ministries of the economic block, as well as with government bodies responsible for the regulation and development of electric energy.

The following points are the main strategic goals and tasks to develop the UNEG up to 2016:

1. provide for the energy safety of Russia; safeguard the country, its citizens, society, the state and economy by developing the UNEG; provide for the dependible function and clear development of the energy infrastructure; do not permit the critical depreciation of production facilities; and stimulate the attraction of investment to upgrade the system;
2. set up a highly integrated and intelligent backbone and a new-generation electric distribution grids in UES of Russia (Smart Grid);
3. build ultra-high AC DC transmission lines for the Siberia-Urals-European part of Russia;
4. construct lines using the lastest composite materials to increase current-carrying capability and decrease maintenance expenditures for transmission lines;
5. organise the production of HTS-based material and equipment;
6. develop power equipment and units, mostly of various grid-management types (FACTS);
7. set up a highly integrated information control package for real-time dispatching, with expert systems for taking decisions;
8. create highly reliable channels of communication between the different levels of dispatching, and create backup digital channels to exchange information between the units and control centres;
9. construct and widely implement centralised emergency control systems, encompassing all levels of UES of Russia;
10. deliver reliable connections to the UNEG for consumers and power plants (power distribution scheme for power generation facilities as per (N-1) and (N-2) criteria;
11. provide maximum capacity to attain technological and economic advantages for the operation of the regional electric grids in UES of Russia, including the provision of mutual assistance, depletion of reserves and requirements in the station capacity, improving their structure as part of UES of Russia, handling energy resources during times of sharp domestic and external fluctuations in the fuel market, functioning of the wholesale electric energy market, and others);
12. connect the isolated electric energy regions to the UNEG.

The key indicators of the UES of Russia Develoment Programme for the next seven years in the interconnected power system (IPS) and UES of Russia, as a whole, are presented in the following chart:

№	IPS Russia		2010–2016	
		km	MVA	MVAR
1.	IPS East	5,827.8	4,460	
	220 kV	1,276.3	668	900
	500 kV			
2.	IPS Siberia	3,311.6	10,550	1,456
	220 kV	4,032.2	15,219	4,210
	500 kV			
3.	IPS North-West	976	1,184	
	220 kV	2,744	7,662	1,500
	330 kV	587.5	3,200	
	750 kV			
4.	IPS Mid-Volga	1,191.5	1,895	1,620
	220 kV	1,667.6	5,677	
	500 kV			
5.	IPS South	894.2	6,330	1,592
	220 kV	934.8	2,132	
	330 kV	2,490.8	4,575	
	500 kV			
6.	IPS Urals	3,541	8,462	230
	220 kV	710	8,474	
	500 kV			
7.	IPS Centre	1,122.7	8,428	200
	220 kV		400	
	330 kV	958.2	21,166	540
	500 kV	355	5,757	
8.	UES of Russia	32,906.1	115,359	12,248
	220 kV	17,149.7	40,429	5,098
	330 kV	3,678.8	10,194	1,500
	500 kV	11,135.1	55,779	5,650
	750 kV	942.5	8,957	

Investment Programme

The Federal Grid Company's investment programme is based on the principles of efficient use of capital, which first and foremost means investing efficiently in every project. Additionally, the principles prioritise projects and the integral efficiency in the Company's investment activity as a whole. Projects to develop the following main areas are priorities in grid construction and in ensuring the Company's financial standing:

- dependable supply of electricty to consumers;
- functioning of the electric energy wholesale market;
- reliable output of power plants;
- implementing an intersystem operation of all unified energy systems in UES of Russia;
- eliminating bottleneck intersystem limitations in electric energy transmission;
- simultaneous collaboration with foreign electric energy systems and export of electric energy and capacity to the electric energy systems of neighbouring countries.

Capital Investment in 2009

In 2009, actual financing of the Federal Grid Company's investment programme was RUB 106,043.5 mln, while actual capital investment in 2009 was RUB 98,208.6 mln, which was 5% higher than 2008.

Implementation of the investment programme in 2009, RUB thousand:

Overall total of investment programme required in 2009	106,043,500
Completed investment at end-2009, including VAT	98,208,600

Completion of Programme for Additional Capacity and Reconstruction of Grid Units in 2009

In 2009, construction was completed and production capacity was switched on at 34 units, including four units introduced over those previously planned (external electricity supply, Valaam Island – 44.6 MVA, 100.8 km; installment of the AT-2 at the 220-kV Bachatskaya substation – 125 MVA; 220-kV Oznachennoe (Beya)-Askiz overhead transmission lines – 50.1 km; installation of the capacitor bank at the 500-kV Oznachennoe substation – 208 MVAR). In total in 2009, 6,096.6 MVA of transformer power, 1,768 MVAR of reactive power, and 769.6 km of overhead transmission lines were commissioned. The decision No. 796/2 – as rendered by the Management Board on 30.12.2009 – has established the deadlines for completing the acts on commissioning as per form KS-14, and for transfer to the fixed assets.

Most Important Units Energised in 2009

• Comprehensive reconstruction of the 500-kV Ochakovo substation

The substation is part of the 500-kV Moscow transformer ring, and its reconstruction resolved the issue of the increasing shortage of electric energy in the Moscow Region and connecting new consumers. Transformer power increased by 1,748 MVA and was 3,650 MVA.

• 220-kV Tataurovo substation autotransformers 1 and 2, capacitor bank

The technical re-equipment of the substation increased reliability of the electricity supply to consumers in the Baikal, Barguzinsky and Kurumkansky regions in the Republic of Buryatia, including the East Siberian railway, and has enabled the possibility of developing the infrastructure of the tourist areas along the shores of Lake Baikal.

• 220-kV Oznachennoe (Beya)-Askiz overhead transmission line

The work became necessary following the intense electric energy conditions in the Khakassia power system in the wake of the accident at Sayano-Shushenskaya HPP. Activation of the new transmission lines significantly reduced the risk of having to limit electricy supply to the republics of Khakassia and Tyva with a total population of 850,000.

• Installation of the capacitor bank at the 500-kV Oznachennoe substation

The largest consumers of electric energy in the Khakassia power system are the aluminium smelters, which require both active and reactive power. When the Sayano-Shushenskaya HPP could not provide generation, the voltage level in the electric grid could have dropped sharply, resulting in a temporary limitation in the electric supply to domestic and industrial consumers. In order to resolve this issue, Federal Grid Company installed a capacitor bank at the 500-kV Oznachennoe substation, which is a source of reactive power and signficantly increased the reliability of the electricity supply in the republics of Khakassia and Tyvan with a total population of 850,000.

• Reconstrucion of the 220-kV East-Volkhov-North double circuit overhead transmission line

Modernising the line improved the reliability of the electricity supply to the consumers in the northern regions of St Petersburg, while the switch to 330 kV increased the capacity. Following reconstruction, the 330-kV East-Volkhov-North transmission line became the region's most advanced overhead transmission line.

• 500-kV Far East-Vladivostok overhead transmission lines with the 500-kV Vladivostok substation

Implementing the project eliminated the shortage of electric energy in the southern area of the Far East power system and improved the reliability of the power supply to consumers in the Primorsk Territory. In addition, the new Far East-Vladivostok transmission line and the 500-kV Vladivostok substation will become the main source of electricity to the East Siberia-Pacific Ocean oil pipeline. The line will serve a group of buildings and technical structures that are slated for construction in the Primorsk Territory in connection with the 2012 Asia Pacific Economic Cooperation summit in Vladivostok.

• 500-kV Emelino substation with 220/500-kV overhead transmission lines

The 500-kV Emelino substation is the most important main substation in the Yekaterinburg-Pervouralsky power district of the Sverdlovsk Region, which suffered from a shortage of electric energy. The substation's commissiong enabled the creation of new electric-furnace steelmaking at the Pervouralsk new-pipe and Nizhneserginsky metal and metallurgical plants, as well as an increase in power at the Revdinsky metal and metallurgical and Sredneuralsk copper-smelting plants. The new power facility meets the requirements of these metallurgical companies, which, in line with their growth, will be 400 MW. Additionally, the Emelino substation has helped reduce the burden on the 500-kV Yuzhny substation, which is Yekaterinburg's main one and is currently working at full capacity.

• The 500-kV Peresvet substation with the 500-kV Surgutskaya GRES-2-Ilkovskaya overhead transmission lines and the 220-kV overhead transmission lines. 500-kV Somkinskaya-Peresvet overhead transmission lines.

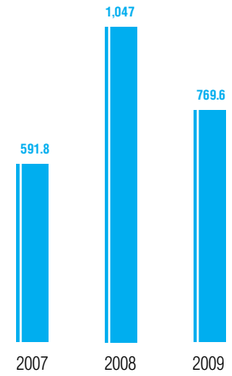
When the substation was constructed, the reliability of the electricity supply to the companies on the right embankment of the Priobsky and Lyantorsky fields of Surgutneftegaz rose significantly. New transformer power also optimises the load at the 500-kV Somkinskaya substation, which currently exceeds the normal indicator by 30-35%.

• Reconstruction of the 220-kV Slavyanskaya substation. Installation of the AT-2

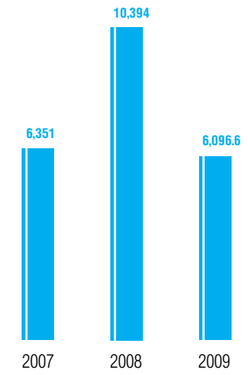
Commissioning of the additional power increased reliability of the electricity supply to consumers (among whom are Slavyansky Clothes Factory , Slavyansky Cannery, Slavyansky Creamery, Slavyansky Cereal Products and others) in the Slavyansky Region of the Krasnodar Territory with a total population of 135,000, as well as the Anastasievsko-Troitsky oil and gas field.

Comparative data on capacity increases for the past three completed fiscal years are presented in the following charts:

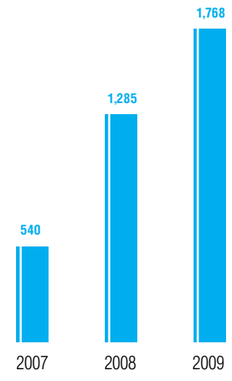
Transmission line length increase, km



Transformer capacity increase, MVA



Reactive capcity increase, MVAR



Metal towers were used for the first time with the East-Volkhov-North overhead transmission lines in the North-West Region. The towers are distinctive, as they do not require assembly at the working area, which simplifies installation significantly.

Investment Programme for 2010–2012

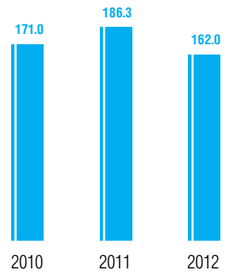
The Federal Grid Company's 2010–2012 investment programme was approved by the Russian government in September 2009, and it is geared toward development asscociated with fulfilling top-priority government programmes, including:

- construction of electricity supply units needed for the 2014 Olympic Winter Games in Sochi;
- development of the Far East and Trans-Baikal regions, including construcion of electricity supply units for the 2012 Asia Pacific Economic Cooperation summit in Vladivostok;
- electricity supply to Transneft units (East Siberia-Pacific Ocean oil pipeline, Baltic Pipeline System-2);
- delivery of power to power station, foremost to those under construciton in NPP power-generating units (Kalinin NPP, Volodonsk NPP);
- elimination of the intersystem limits and of the bottlenecks in the electric grid (for example, the 500-kV Voskhod-Ishim overhead transmission lines with the 500-kV Voskhod substation, the 500-kV Frolovskaya-Shakhty-Rostovskaya overhead transmission lines with the 500-kV Ростовская substation and others);
- development of a plan to supply electric energy to the regions, including Moscow, St Petersburg, West Siberia, Krasnodar Territory;
- delivery of power from the Boguchanskaya HPP (1,000 MW) start-up facility, which will improve the reliability of the electricity supply to Siberia in the wake of the interuption in the power generation of the Sayano-Shushenskaya HPP;
- construction of the Zeiskaya HPP lines at the Russia-China border to supply electric energy to China;
- fulfillment of contractual obligations signed by RAO UES of Russia with the administrations of the territorial subjects of the Russian Federation in those units of the UNEG where dependability has substantially decreased at this moment or where there are substatial limitations in the connection of consumers (for example, the 500-kV Krasnoarmeiskaya substation, the 220-kV outdoor switch-gear at the 750-kV Belozerskaya substation, with a transmisson there of

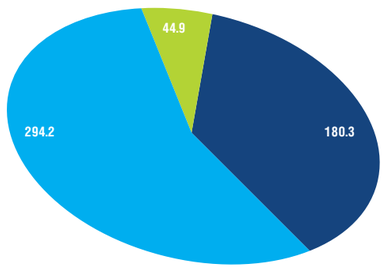
part of the 220-kV overhead transmission lines with the 500-kV Cherepovetskaya substation, expansion of the 500-kV Crimea substation, the 500-kV Crimea-Centralnaya overhead transmission lines, the 220-kV Tikhoretskaya-Vitaminkombinat overhead transmission lines and others).

The 2010–2012 investment programme totals RUB 519.4 bln, and will be financed from Federal Grid Company's own funds and funds from the federal budget (including for the Federal Target Programme for Economic and Social Development of the Far East and Trans-Baikal up to 2013, as well as the Electric Grid Development Programme in the Sochi Region), as well as funds from the sale of RAO UES of Russia assets. Funds from payments for technological connection, loans and credit will be earmarked for implementing the investment programme.

Financing for the 2010–2012 investment programme, RUB mln



Breakdown of financing for the 2010–2012 investment programme by type of activity, RUB mln



- Asset development
- Technological connection
- Technical re-equipment and reconstruction

PREPARATIONS FOR THE 2014 WINTER OLYMPIC GAMES IN SOCHI

Preparation for the dependable supply of electric energy during the Winter Olympic games is one of the main goals of the Federal Grid Company's investment programme.
In total, the Company plans to construct, upgrade and reconstruct 21 backbone electric grid units in the Sochi Region of the Krasnodar Territory by 2014.

In 2007-2008, 170 megavolt-amperes (MVA) of additional transformer power were added and 60 km of transmission lines were built. In 2009, the Company completed construction on the first Olympic units: the 220-kV Poselkovaya substation with a capacity of 170 MVA, and the 220-kV Psou-Poselkovaya transmission lines with a length of 60 km. In addition, ground was broken on the 110-kV Laura and Rosa Khutor substations, in total, with a capacity of 160 MVA. Activation of the substations, as well as the second circuit of the 220-kV Psou-Poselkovaya transmission lines, is slated for 2010.

At the beginning of 2010, Federal Grid Company began construction on the 110-kV Imeretinskaya and Ice Palace substations, in total, with a capacity of 320 MVA. In the second half of the year, construction is planned on the 110-kV Veseloe, Vremennaya, Izmrudnaya and Mymta substations, in total, with a capacity of 360 MVA, as well as 10-kV distribution grids to supply electricity to the Rosa Khutor ski resort. Power supply of the new electric energy units will come from the 220-kV Psou substation, whose capacity will increase from 300 to 400 MVA by the end of 2010. In order to connect the substations as well as the generation units (Adlerskaya, Dzhubginskaya and Kudenstinskaya thermal power plants) together, there are plans to build around 100 km of cable and overhead transmission lines.

Currently, as part of the investment programme, the Company is reconstructing the 500-kV Central, and 220-kV Dagomys and Goryachy Klyuch substations. Upon reconstruction completion, the Krasnodar Territory electric energy system will receive an additional 260 MVA of transformer capacity. Along with this, power will be supplied to the Stavropolsky GRES, Inguri HPP and Adlerskaya TPP in the Sochi Region electric energy system. Innovative technical solutions will be used to construct the Olympic units: cross-linked polyethylene-insulated Aerial cable lines, which will connect with a 110-kV substation under construction, will operate more environmentally friendly, safely and dependably than transmission lines.

Use of gas-insulated switch-gear (GIS) will significantly reduce the area of substations, and render their operation more quiet. The close, compact area where the GIS is installed will minimise the impact of the equipment on the environment and fully enclose the equipment from outside effects. The transmission lines will have a unique system to thwart and control icing.

Financing of investment programme areas

Areas of financing	Amount of financing, RUB mln			
	2010	2011	2012	Total for 2010–2012
1. Overall requirement throughout the investment programme (including additional requirements) (section 2 + section 3 + section 4):	170,952.5	186,326.4	162,083.1	519,362.1
2. Requirement per top-priority sections of the investment programme, including:	72,944.0	84,262.6	81,381.4	238,588.0
Construction units delivering power to NPP, HPP and TPP	14,430.0	32,519.8	30,739.6	77,689.4
FTP economic and social development of the Far East and Trans-Baikal up to 2013	2,662.1	0.0	0.0	2,662.1
Requirements for the units in the 2008–2014 electric grid development programme for the Sochi region are financed from Federal Grid Company funds	2,980.3	1,711.6	942.2	5,634.1
Design and development work	635.0	635.0	700.0	1,970.0
Renewal of the fixed assets	32,461.0	33,377.9	39,917.1	105,756.0
Construction of units built with funds from technological connection, including:	19,775.6	16,018.3	9,082.5	44,876.4
Units to improve electricity supply dependability in Moscow, St Petersburg and Tyumen	1,609.6	1,170.0	0.0	2,779.6
Units included in the agreements with the Regional Administrations (except Moscow, St Petersburg and Tyumen)	8,208.6	10,577.4	6,436.4	25,222.4
Technological connection units not included in the other sections of the investment programme	9,957.4	4,270.9	2,646.1	16,874.4
3. Requirement per the remaining sections of the investment programme, including:	84,675.9	86,977.3	72,307.6	243,960.7
Units to improve the reliability of the electricity supply in Moscow, St Petersburg and Tyumen	39,274.2	20,740.4	18,727.4	78,742.0
Units included in the agreements with the Regional Administrations (except Moscow, St Petersburg and Tyumen)	19,167.6	20,415.9	6,703.6	46,287.0
Development of backbone grids not included in the agreements	17,088.9	36,845.2	32,413.4	86,347.6
Technological connection units not included in the other sections of the investment programme (Federal Grid Company funds)	591.2	199.5	266.1	1,056.8
Technological management, information system development and additional target programmes	8,353.9	8,576.3	13,997.1	30,927.3
Infrastructure units	200.0	200.0	200.0	223.9
4. Construction of units financed by federal budget funds, including:	13,332.7	15,086.6	8,394.1	36,813.3
Construction units included in the FTP for the Economic and Social Development of the Far East and Trans-Baikal by 2013. Funds come from the federal budget.	6,616.1	12,282.8	8,275.0	27,173.8
Requirements to construct units as part of the 2008–2014 electric grid development programme for the Sochi region for the Olympic sport facilities	6,716.6	2,803.8	119.1	9,639.5

The largest volume of funds – RUB 105.8 bln – will be earmarked for the grid complex. There are plans to earmark RUB 81.5 bln to improve the reliability of the electricity supply in Moscow, St Petersburg and Tyumen; and RUB 77.7 bln to construct units to deliver power of generation plants. The electric grid development programme in the Sochi region to construct and outfit the Olympic sport facilities, taking into consideration the needs of the peripheral facilities, will receive RUB 15.3 bln in financing. To develop the Far East grids – RUB 29.8 bln.

Overall, within the next three years, construction is planned on: 59 new substations generally installed with a capacity of 31,313 MVA, construction of 70 new high-voltage transmission lines with a length of 9,170 km, as well as extend the grid by 10%.

Plans for 2010 include the commissioning of 70 units, including transmission lines with an overall length of 3,823.6 km and 220-kV substations and higher with a transformer capacity of 9,536 MVA and reactive capacity of 2,100 MVAR, among which are:

- MES Centre - 10 units;
- MES North-West - 7 units;
- MES Volga – 1 unit;
- MES South – 22 units;
- MES Urals – 5 units;
- MES West Siberia – 16 units;
- MES Siberia – 5 units;
- MES East – 4 units.

Important investment programme projects:

Project	Solution
Delivery of power to power generating unit No. 2 (1,000 MW) Volgodonskaya NPP delivery date: 2010	Build infrastructure to increase the power exchange between the IPS Centre and Northern Caucasus
Delivery of power to the Boguchanskaya HPP start-up facility, with a capacity of 1,000 MW (the 220-kV Boguchanskaya HPP-Razdolinsk overhead transmission line with reconstruction and expansion of the 220-kV Razdolinsk substation and construction of the 220-kV Priangarskaya substation) delivery date: 2010	Improve dependability of IPS Siberia following the interruption at Sayano-Shushenskaya HPP
Delivery of power to power generating unit No. 4 (1,000 MW) Kalininskaya NPP delivery date: 2012	Resolve the issue of the energy shortage in the North-West of Moscow Region
Construction of the 220-kV Neryungrinskaya GRES-Nizhny Kuranakh-Tommot-Maiya overhead transmission line with the 220-kV Tommot substation and the 220-kV Maiya substation delivery date: 2013	Deliver electricity supplies to pipeline units of East Siberia-Pacific Ocean, develop electricity supply in Sakha Republic
Construction of the 500-kV Zeiskaya HPP-Amurskaya-state border overhead transmission line delivery date: 2013	Transmit electric energy to China
Substation 500-kV City-2 (500-kV wing) with the 500-kV Ochakovo-City-2 cable transmission line delivery date: 2014	Supply power to the Moscow international business centre, Moscow-City

Development of IT network

Unified Electrical Power Technological Network

The latest IT network technology is integral to the production activity of electric energy companies and the management of the technological processes throughout the entire grid. Therefore, Federal Grid Company pays particular attention to creating and developing a unified electrical power technological network (UEPTN), dedicated to the interactivity of the companies at all management levels.

UEPTN is based on the widespread use of up-to-date digital communication lines and is delivered by the creation of fiber optic communication networks, radio relay links (RRL), modernisation of high-frequency communications, expansion of the sattelite communication system, digital mobile radio, wavelength-division multiplexing (WDM), synchronous digital hierarchy (SDH), time division multiplexing (TDM), and Internet protocol (IP) communications. The technology guarantees the quality exchange of audio, video and data information.

The creation and updating of the electric grid units communication lines based on digital technology allows for:

- the functioning of the technology system, centralisation and efficient technological management of the electric grids;
- corporate telephony, data transfer, as well as video conferences at the branches of Federal Grid Company;
- the implementation of automated dispatcher, tehcnological and corporate management systems, respectively;
- set-up of Smart Grid, implementation of “digital substations”;
- the Company communication with other parties on the electric energy wholesale market.

Strategic Planning for Communication

In 2009, the Company developed a telecommunications management strategy for 2009–2015. In line with the strategy, the key goals of managing telecommunication are providing consumers with reliable service connection, switching the UEPTN to digital mode, and optimising capital expenditures to develop the communication network as well as optimising expenses on operation and modernisation.

The set-up and development of the UEPTN is taking place in four stages, as per the relevant schedule (General Schedule of UEPTN Set-up and Development until 2015) approved by Federal Grid Company’s Management Board and the Government Commission. The first stage was completed from 2005 to 2008, and involved setting up a digital backbone network for Federal Grid Company based on proprietary telecommunications platforms, as well as setting up of a unified electrical power digital network (UEPDN) on leased circuits.

At the second stage (2009–2010), the digital communications backbone network is being finished, which will ultimately allow the Company’s MES branches (including MES subsidiaries) to communicate and use digital lines of communication at 277 different substations.

The third stage (2011–2013) envisages the creation of a digital distribution network in order to switch the MES East electric grid units (69 substations) and North-East (103 substations) fully to a digital format (digitise). In addition, it is planned to set up digital lines of communication for the electric grid units of other regions (184 substations).

At the fourth stage (2014–2015), work on setting up the main telecommunications platforms of the electric energy industry is slated for completion, with 86 electric grid units in line to be digitised.

Structure of UEPTN and Applied Technology

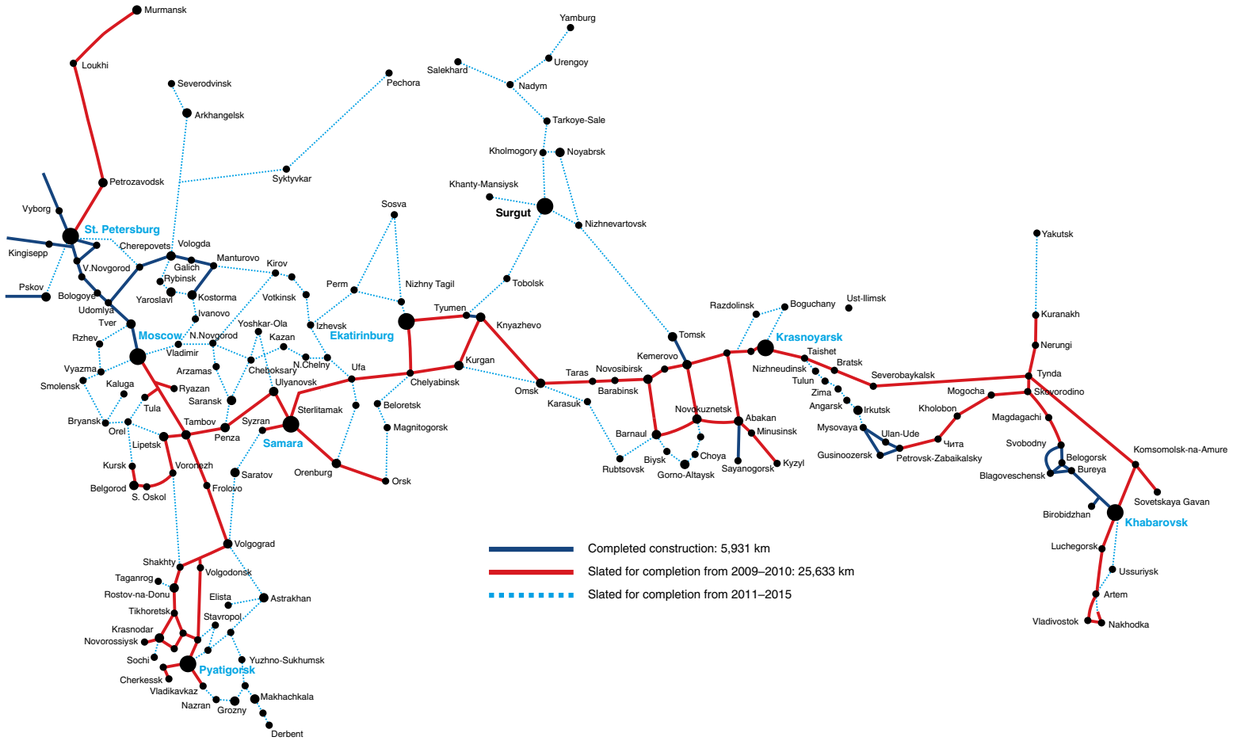
Fiber optic line

A fiber optic line is the main backbone network of the electric energy industry and is intended to operate the enterprise resource planning system (ERPS) as well as the technological systems. The fiber-optic communications network is being completed as part of the following investement programmes:

- comprehensive technological refitting and reconstruction of the electric grid units;
- new construction of electric grid units;
- creation of the UEPTN.

The fiber optic line is being created by using a fiber optic cable suspension on overhead transmission lines. At the same time, there are plans for the large-scale use of third party operators, based on long-term cross lease agreements.

Planned scheme of the fiber optic line for Federal Grid Company for the period ending 2015



In 2009, the following fiber optic line delevopment steps were taken:

- work was completed on setting up the digital communication systems (DCS) using fiber optics obtained for the right of passage via the electric energy infrastructure on the territory of Chelyabinsk-Krasnoyarsk and Khabarovsk-Vladivostok (fiber-optic line drivers 1 and 3 of Chelyabinsk-Novosibirsk-Taishet-Vladivostok);
- construction was completed on fiber optic line as part of the fiber optic line driver 5 of Chelyabinsk-Novosibirsk-Taishet-Vladivostok on the territories of 500-kV Zarya substation, 500-kV Yurga substation, 500-kV Novo-Anzherskaya substation, and 1,150-kV Itatskaya substation;
- work was completed on setting up the DCS as part of the fiber optic line driver 1 of Moscow-Rostov-on-Don on the territory of Moscow-Tambov-Samara and the fiber optic line of Samara-Chelyabinsk;
- open tenders were held to select a contractor to set up the DCS as part of 2, 3 and 4 fiber optic line drivers of Moscow-Rostov-on-Don. Construction is slated for completion in the first quarter of 2011.
- open tenders were held to select a design company to create fiber-optic lines along:
  - Surgut-Khanty-Mansiisk;
  - Surgut-Nizhnevartovsk, Surgut-Noyabrsk;
  - Surgut-Tyumen;
  - Samara-Orenburg;
  - Tikhoretsk-Salsk;
  - Nevinnomyssk-Pyatigorsk-Vladikavkaz;
  - Kostroma-Kirov;
  - Vologda-Archangelsk;
  - Razdolinsk-Nazarovskaya GRES.

Design documentaton development and the start of implementation are slated for 3-4 quarters of 2010.

By the end of 2010, the total length of the backbone and distribution fiber-optic lines will be 26,564 km, of which:

- 14,964 km – own construction;
- 7,000 km – resources obtianed by right of passage via the transmission line;
- 4,600 km – resources leased from third parties.

Mobile radio network

The mobile radio network is intended for operational service, emergency repair teams and setting up alternate lines of communication. In 2009, construction continued on the TETRA-standard networks in the Moscow and Nizhny Novgorod regions. In 2010–2011, a TETRA-standard network will be commissioned in Moscow, St Petersburg, Nizhny Novgorod and the Nizhny Novgorod region, as well as in the Chuvash Republic.

In 2009, permission to use the radio frequency or radio frequency channels was extended and reissued for the VHF radio facilities of the line maintenance service in three areas: Vladimir Region, the Republic of Karelia, and the Republic of Komi.

Radio relay network

The radio relay network is used in the backbone and distribution networks to record the UEPTN, either mainly where it is not economically sensible to install a fiber optic line or where a telecommunication network is required urgently.

In 2009, permission was received to use the radio frequency or radio frequency channels for the radio relay network, when setting up “the last mile” of the UEPTN in a number of areas: Bryansk, Vladimir, the Republic of Dagestan, the Republic of Kalmykia, the Republic of Karachevo-Cherkesia, the Republic of Karelia, Syktyvkar. Permission was reissued to use the radio frequency or radio frequency channels for further use in the UEPTN of the radio realy connection in eight cities and regions: Barnaul, Belgorod Region, Krasnodar Territory, the Republic of Komi, Tver, Udmurt Republic, and Khanty-Mansiysk autonomous region.

In 2010, there are plans to upgrade the radio relay communication lines either by digitising them or replacing them with fiber-optic lines.

Satellite network

The transmission of telemechanics and voice data via the satellite network improves reliability and observability of the electric grid units. The satellite network has been built using terminals installed at all of the 220-kV grid units, as well as at a number of the Federal Grid Company’s GMC and at the distpatcher centres of System Operator in the area of MES Siberia operational responsibility.

In 2009, the UEPTN Coordinating Board approved the main development principles and areas of the satellite network, based on VSAT technology, such as:

- strict quality control of the satellite network channel indicators;
- transfer of the VSAT-based satellite network channels to reserve, following implementation of fixed links;
- regional development of the satellite network, based on one operator and a single technology;
- improvement of the operation technology.

In 2010, as part of Federal Grid Company’s transferring to a new efficient process-management concept for the UNEG units, digital communication channels are slated to be set up in the zones of MES Centre, North-West, West Siberia, East and Urals, respectively, operational responsibility, based on the satellite network.

Carrier communication system (CCS) along transmission lines

CSS is currently the main telecommunication network delivering dispatcher phone connection, transmitting telemechanics data, processing automated measuring and information systems for electric energy fiscal accounting (AMIS EPFA), and transmitting RPCE and RPEC systems. This is a specific type of wire connection that uses phase conductors and suspension strands of overhead transmission lines or electric conductors and covers of cable transmission lines to transmit signals

In recent years in Russia, multifunctional equipment has appeared that integrates voice, data, and command signal transmissions. Each CSS of 8 kHz frequency can reach two-way transmission of 64 kBps. IP development, especially for CSS via high-voltage overhead transmission lines, signficantly improves transmission capacity. Today, technology is being developed to increase bandwidth and, consequently, transmission speed up to 256 kBps.

Clearly, CSS via overhead transmission lines have to be upgraded. The goal of reconstruction is to replace obsolete and undependable equipment with new digital versions that meet up-to-date requirements and fit in the overall framework of the unified technological network for electric energy connection UEPTN. The main principles and development direction of the CSS lines were approved in 2009 by the Coordinating Board on UEPTN.

Information on the activation of CSS is presented in the following table:

Federal Grid Company branches	Total CCS installed in 2009	Total CCS as on 01.01.2010	Total CCS hooked up in 2009	Total CCS as on 01.01.2010
MES Centre	24	882	19	880
MES Volga	52	340	93	414
MES South	-	229	-	288
MES Siberia	36	838	60	1,206
MES Urals	256	1,556	259	1,927
MES West Siberia	-	513	-	594
MES North-West	236	982	601	1,556
MES East	-	364	-	641
Total	634	5,704	1 032	7,506

Telecommunication network

The electric energy telecommunication network provides reliable lines of communication for the dispatcher and the administration of electric energy services. The network has been built on the hub principle and delivers intercommunication with System Operator.

The main aim of moderising the telecommunications network is to create an electric grid backbone control network by gradually moving from an analog-digital network to a fully digital one. In addition to other integrations, development of the telecommunications network envisages the implementation of VoIP technology, as well as bringing into use commutation equipment that allows for radio access on individual lines. In addition, updating the network involves implementing new management principles and maintenance systems.

In 2010, the latest technology is slated to be integrated into the electric grid units as part of the new construction, re-equipment and reconstruction programmes.

Management Systems

Enterprise resource planning system (ERPS)

ERPS is an automated business-process and technological management system (AS). As part of the business-process management system, ERPS is built as a centralised system to provide users remote access to the resources of the unified Storage and Data Processing Centre. As part of the technological management system, ERPS is an infrastructure comprised of a set of various interconnected application systems across many regions. At the same time, ERPS closely interconnects the automated business-process and technological management systems.

In 2009, the following steps were taken as part of the ERPS project:

- As part of the mySAP Business Suite- and SAP BusinessObjects-based repair and maintenance management AS:
  - an application was implemented for planning and accounting management (first stage);
  - a number of new module systems to automate the workstations of key substation personnel were developed.
- AS for design documentation archive was developed; the system was pilot tested;
- installation software packages to detect the location of damage on transmission lines were developed;
- Personnel Management subsystem was updated to SAP ERP 6.0;
- transfer of the Company's branches to SAP-based software to calculate employee salaries using a single planning and record of working time method was completed;

Business-process management systems launched as part of the ERPS project:

- Automated maintenance and repair systems, including Company Assets Registry;
- software for calculating balance and loss;
- software to calculate microelectronic protection settings;
- software to coordinate the shutdown of electric energy (DE Tender);
- automatic request system for technological connection;
- accounting, tax accounting and reporting AS;
- planning and budgeting AS;
- Company property management AS;
- automated purchasing system;
- e-trading floor;
- personnel management system;
- payroll system;
- key performance indicator (KPI) management system;
- document management AS;
- corporate portal.

A number of systems are at the experimental stage, including:

- Asset Management System (AMS);
- Information analysis system for electric energy accounting and calculating.

- a single automated accounting system for Federal Grid Company and its branches was developed to consolidate all financial activity into a single information system on the SAP ERP platform. The system was prepared for operation by 01.01.2010;
- work started on the preparation and release of the first automated investment management system for productive operation from the beginning of the second quarter of 2010.

Additonally, an information security audit was conducted at the Company's executive body units, resulting in an action plan to improve the security level of the information and telecommunications infrastructure.

For 2010, solutions are in the pipeline for the following top-priority goals to develop ERPS:
- set up the Company holistic IT strategy in accordance with the latest business requirements;
- create a Reserve Centre to process data;
- implement a single automated accounting system, as well as develop its functionality;
- implement an automated investment activity management system, as first, second, and third releases;
- set up a single classifier for materials and technical resources and equipment of the Company;
- implement planning applications and records of work fulfilled using own resources (second stage);
- distribute maintenance and repair management AS;
- distribute design and estimate documentation archive AS;
- develop a programme to select the operation parameters of the RPCE and dead-end transmission lines;
- create a wage expenditure planning subsystem;
- expand the functionality of the ERPS purchasing system;
- create and integrate in commercial operation an automated record-keeping system for the electric grid units as part of the UNEG registry;
- further develop the automatic request system for technological connection;
- further grow ERPS resources in accordance with the requirements of the automated systems;
- implement a project package to ensure ERPS information safety.

Automated technological management system (ATMS)

ATMS is being created as a single distribution hierarchical system to integrate the facilities and subsystems of the existing and independently developing automatic and automated management systems.

These systems include: APMS, telemetry and SCADA (supervisory control and (technological) data acquisition) system, automated dispatch and technological management system (ADTMS), AMIS EPFA, RPEC, and other technological subsystems as well as ERPS subsystems.

ATMS is based on the UNEG centre for information management (CIM) and the integrated information exchange model (IEM), which uses an ATMS hardware and software package (H&SP).

In 2009, the following work was conducted in this area:
- source data necessary to create the single information system of the UNEG were compiled and processed;
- the second start-up grid management centre (GMC) of North-West (ADTMS) was tested;
- a set of operations were completed to create the first phase of the H&SP telemetry and SCADA system, encompassing 17 substations equipped with APMS and management centres (GMC, MES and the Federal Grid Company information agency); developed and approved the technical goal for project development of the second phase;
- H&SP for APMS units, created as part of the programmes to renovate the main assets and for new construction of the UNEG units, was launched at 51 substations;
- the dependability and monitoring improvement programme (DMIP) was updated in accordance with Federal Grid Company's priorities;
- technical process monitoring and mangement packages were put in commercial operation at six of the Company's pilot units;
- systems to compile and transfer information were put in commercial operation at 20 substations of MES North-West (as part of the Stage 1 DMIP);
- designs to upgrade the telemechanics and transmission of infromation throughout the units of the Stage 2 DMIP (153 substations) were finished.

For 2010, the following goals have been set:
- complete work on setting up the single information system of the UNEG and system-level ATMS H&SP and put it in commercial operation;
- put the 2nd H&SP package launch in commercial operation at the North-West GMC and complete work on the 3rd package launch;
- develop and complete the pilot projects to set up the Priokskoe GMC and MES Kuzbasskoe subsidiary, taking into account the implementation of the operation and technological management;
- put the 1st phase of the telemetry and SCADA H&SP system in commercial operation;
- design the 2nd phase of the telemetry and SCADA system with the application systems;
- put technical processes monitoring and management packages in commercial operation at six of Federal Grid Company's pilot units;
- implement the Stage 2 DMIP projects to upgrade the telemechanics and transmission of information systems at the UNEG units (153 substations);
- implement the Stage 3 DMIP (247 substations) projects to upgrade the teleautomatic and transmission of information systems.

Automated measuring and information system for electric energy fiscal accounting (AMIS EPFA)

AMIS EPFA is one of the key automated management systems integrated in the ATMS package.

In 2009, development of the system, which began in 2006, continued, specifically:
- the first and second AMIS EPFA package launches were accepted for commercial operation at the UNEG substations;
- designs to replace the current and voltage measuring transformers and upgrading of the secondary circuits not adhering to the requirements of the electric energy wholesale market for 330 - 1,150-kV substations were developed;
- designs to expand the information compilation system for 330 - 1,150-kV substations were developed;
- a partial spot-check of the current and voltage measuring transformers at the 220-kV substations was conducted;
- tests of the operating capacity of the software package for the automated revenue metering data compilation system along the border of the UNEG were conducted.

In 2010, the following work is in the pipeline:
- accept the third AMIS EPFA package launch for commercial operation at the UNEG substations and the system as a whole;
- continue inspection of the current and voltage measuring transformers at the 220-kV substations;
- conduct design and development work to replace and install the current and voltage measuring transformers at the 220-kV substations;
- conduct construction and installation work to install and replace the current and voltage measuring transformers at the 330 - 1,150-kV substations.

4–4. COMMERCIAL AND OPERATING ACTIVITY

Tariff Regulation

Electric energy transmission to consumers via the UNEG is a natural monopoly, thus tariffs are set according to government regulation.

Federal Grid Company tariffs approved up to 2009 for the transmission of electric energy via the UNEG were calculated using a cost-plus method. Tariffs covered Company expenditures to support the networks and a profit level necessary to finance the investment programme. Loss of electric energy during transmission via the grids was compensated through the tariffs of the Federal Tariff Service (FTS), which were adjusted as per the territorial subjects of the Russian Federation.

Year	Tariff for electric energy transmission within the electric grid, RUB MW/month	Tariff increase, %
2007	44,072.09	9.6
2008	48,170.26	9.3
2009	58,159.01	20.7

Federal Law No. 35-FL of the Russian Federation, titled On the Electric energy Industry, stipulates a switch to the Regulatory Asset Base regulation, or RAB, method of tariff regulation. The main principle of RAB regulation is that the capital invested in a natural monopoly should generate enough return to attract new investment and develop the enterprise, as well as correspond to the level of investment risk. The procedure to set tariffs using RAB regulation encompasses declaring operating expenses, determining the amount of investment and setting the rate of return on investment. This tariff regulation system guarantees investors a return on their investment, while also delivering reliable service in correlation to the tariff level, which attracts investment in the industry and qualitatively improves operations within it.

In accordance with law No. 261-FL, dated 23.11.2009, as on 01.01.2010, Federal Grid Company has switched to long-term tariff regulation using RAB regulation.

In December 2009, as per the order of the FTS, the long-term regulation (2010–2012) of tariffs, based on the return on invested capital method, were approved for electric energy transmission services rendered by Federal Grid Company via the UNEG. The following tariff rates for electric energy transmission via the UNEG have been set for the next three years*:

Year	Tariff amount, RUB MW/month	Tariff increase versus previous year, %
2010	87,868.77	51.1%
2011	116,733.72	32.85%
2012	145,591.13	24.72%

*For all regions of the Russian Federation except North Caucasus and Stavropol regions. For the republics of North Caucasus, as well as for Stavropol region, the tariff is set at 37,845.23 RUB/ MW per month for 2010, 50,277.42 RUB/ MW per month for 2011, and 62,706.36 RUB/ MW per month for 2012. The increase in tariffs for electric energy transmission via the UNEG will be 49.2% in 2010, 32.85% in 2011, and 24.72% in 2012.

Previously, the FTS confirmed the rate of return on the Company's new invested capital in the first long-term, three-year new-tariff regulation period. The return on new capital has been approved at 11%.

Over the next three years, the following main tariff regulation indicators have been set for return on invested capital of Federal Grid Company:

№	Indicator	2010	2011	2012
1.	Depreciated value of invested capital as on 01.01.2010, RUB bln	647.6		
2.	Return on existing capital as on 01.01.2010, %	3.9%	5.2%	6.5%
3.	Return on new invested capital, %	11%	11%	11%
4.	Period of return, years	35	35	35

The new tariff regulation fosters conditions to attract capital for the development and support of the Company's assets, as well as provides a financial incentive to improve the quality of customer service and efficiency of operations. RAB regulation directly correlates profits with the reliability of the electricity supply and the level of customer service. Based on the reliability and quality indicators, Company revenues will be adjusted in the +/- 3% range.

Cost Optimisation

The sharp global financial downturn of 2008 put into stark relief the need for cost-optimising measures at Federal Grid Company. The Company's strategic priority of reliably operating the UNEG while reducing costs was reflected in the Comprehensive Cost-Cutting Programme in 2009. The programme's main objectives included:

- Achieving savings in 2009 by bringing the UNEG technology in line with world standards through extensive use of modern equipment and solutions;
- Improving efficiency by cutting operational and running costs, reducing energy losses in the grid, and implementing innovative approaches in the operation, service and maintenance of the grid;
- Retaining the qualified specialists required to keep the business running while at the same time optimizing payroll costs;
- Reducing administrative costs by implementing process-management systems.

The Company has implemented a series of cost-optimising steps aimed at improving operational efficiency, reducing operational and administrative overheads and optimizing the spending structure. These measures enabled Federal Grid Company to achieve savings of 3% (RUB 1.74 bln) in 2009 compared to budget projections.

Operational and administrative spending cuts in 2009:

Overall costs and spending on administration	
As on 01.01.2009 (RUB thousand)	58,149,296*
As on 31.12.2009 (RUB thousand)	56,414,314*

* Expenses on administration in 2009 are different from the actual administrative costs by the amount of payment for energy services to cover for energy loss (RUB 13,433 mln), and by the amount of taxes on other expenses (RUB 639 mln).

Key savings mechanisms	Savings areas:
	Tangible costs – RUB 40,396,700 Savings resulting from a competitive supply process
	Repair and maintenance costs – RUB 749,373,700 Savings achieved through competitive supply process
	Payroll (including the unified social tax and corporation tax) – RUB 431,604,900 Savings achieved by optimizing staff numbers
	Running costs – RUB 513,607,700 Savings achieved by reducing spending on property maintenance and other running costs through competitive supply process and other cost-optimising measures.

Procurement

Procurement Management

Federal Grid Company conducted all procurements in 2009 in accordance with the Federal Grid Company Provision on Regulated Procurement of Goods and Services, approved in 2005. In May 2007, in February 2008, and then in July 2009, the Company's Board of Directors approved the most recent revisions to the document. The Provision sets out a uniform procedure for the procurement of goods and services, which relies on modern, competitive forms of sourcing, predominantly on the basis of open competition. The procedure complies with the requirements specified in the Russian Federal Government's regulation No. 1158, dated 13.10.1999, titled On Enforcement of the Economically Sound Principles of Product (Services) Pricing by Natural Monopolies.

The uniform procurement procedure helps ensure the efficient spending of funds as intended, as well as secure, economically sound and competitive prices from the suppliers. This procedure is based on the following basic principles:

- Transparency

The procurement procedure is set out on the corporate website. Information about any departures from this procedure can be sent to the Company's Central Tender Committee (CTC). The list of CTC members is also available on the website. It includes representatives of the Energy Ministry and the Federal Antimonopoly Service. Therefore, all decisions made by the commission are in line with the position of the government. The annual procurement programme is published on the corporate website and on the TZS-Elektra electronic trading site. A considerable share of the contracts is awarded through open tenders and other forms of open competition. Bids for these contracts are solicited via the corporate website, the electronic trading site and the mass media.

• Competition

The procurement system is designed to give preference to open bidding, ensuring that the best offer wins. Any decision to restrict the competitive process requires serious substantiation and the approval of the Company's regulatory bodies. Any decision to award a supply contract on the basis of single sourcing requires authorization.

• Substantiation

The procurement procedure requires every decision to be substantiated and delivered in writing, which helps to make the process more efficient and restricts the preconditions for corruption.

The Provision on the Regulated Purchase of Goods and Services for Federal Grid Company allows for the following sourcing procedures:

Procedure	Application
Open competition	The most preferable method, used by default.
Open request for proposal	Can be used for supply contracts of less than RUB 10 mln, including VAT, mostly for straightforward products and services.
Open request for price offer	Can be used for contracts of less than RUB 5 mln, including VAT, mostly for straightforward products and services.
Open competitive negotiations	Can be used for very complex equipment and services.
Single sourcing	The decision about the choice of supplier is taken by the Central Procurement Department of the corporation based on market analysis done by the customer.
Closed procedures	Can be used only if direct talks with possible suppliers are required to ensure confidentiality in the interests of the customer.

The circumstances under which each of the above procedures might be applicable are listed in Chapter 7 of the Provision, which is available on the Federal Grid Company website.

TZS-Elektra Electronic System for Competitive Procurement

The Federal Grid Company Central Tender Commission has approved TZS-Elektra as the electronic trading site recommended for use. The system is designed to facilitate competitive and regulated non-competitive purchases using Internet technology.

The system can be used for:

> open/closed one-stage competition;
> open /closed one-stage competition for the right to sign a framework agreement;
> open /closed one-stage competition with a preliminary qualification round;
> open /closed request for proposal;
> open /closed request for price;
> tender.

The platform for each procurement procedure is chosen by the Company's regulatory bodies during the procurement planning stage as part of the Annual Comprehensive Procurement Programme (ACPP). Detailed information about TZS-Elektra can be found in the Procurement section of the corporate website.

The ACPP is drafted by various departments of the Company's administrative office and its branches. The draft is then finalised using the procedure outlined in Annex 6 to the Provision on Regulated Purchases of Goods and Services. The finalised draft is then submitted for the approval of the Company's regulatory bodies, including the standing tender commissions and the Central Tender Commission, as per their individual remit.

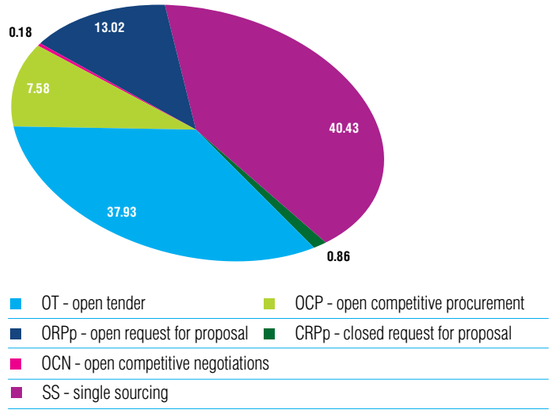
The ACPP specifies the time frame and the exact procedure of choosing the supplier for each procurement contract to be signed during the year. The document is available in the Procurement section of the corporate website. The following is the summary of Federal Grid Company's procurement in 2009:

Competitive procurement

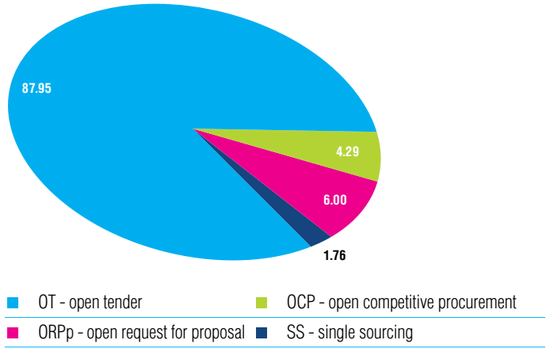
	Volume, RUB thousand	Share of total procurement, %
Contracts awarded on a competitive basis	49,550,834	59.6

Abbreviations used in the diagram:
OT – open tender
CRPp – closed request for proposal
ORPp – open request for proposal
CRPr – closed request for price
PCN – private competitive negotiations
OCN – open competitive negotiations
CT – closed tender
ORPr – open request for price
OCP – open competitive procurement
SS – single sourcing

Share of each regulated procurement method in the 2009 total (%)



Share of each regulated procurement method in the 2010 total (projected) (%)



Key priorities of corporate procurement policy in 2010:

> Reducing costs by achieving savings on the procurement programme;
> Making sure that deliveries under the supply contracts awarded by Federal Grid Company and other grid companies are:
  – up to the specified quality standards;
  – priced competitively;
  – delivered on schedule.
> Using best practices to achieve further improvements in the procurement system.

Import Replacement Policy

Import replacement is an economic strategy aimed at replacing imports that are in high demand in the domestic market with domestically produced goods. The social and economic goal of this strategy is to create jobs and keep added value in Russia, as well as to foster innovation.

In 2009, about 30% of the electrical equipment used in the construction or refurbishment of grid facilities was Russian-made.

Federal Grid Company has identified the following ways of implementing the national import replacement policy in electrical-equipment manufacturing:

> Increasing the number of Russian manufacturing facilities that meet all the latest requirements;
> Substituting imports with equipment assembled in Russia from imported components;
> Setting up joint ventures or signing licensing deals with leading foreign manufacturers;
> "From an idea to a sale" (innovation model) - design and production of equipment by introducing cutting-edge technologies:
  – Developing Smart Grids and using them to formulate new technical requirements and specifications for designing new equipment, materials, technologies and systems, as well as upgrading the existing technology;
  – Launching a sustained R&D effort in new innovative areas of the electrical-equipment sphere.

Federal Grid Company is developing an import replacement programme that aims to give Russia's electrical-equipment industry a boost and increase the share of Russian suppliers in the Company's large investment programme. The programme planned until 2020, which is designed to rely on the Electrical Equipment Production Centres, includes three sub-programmes:

> Short-term – for the period until 2012. This component relies on making greater use of Russian-made equipment which

is already being mass-produced and has obtained industrial certification, as well as broadening the range of services offered by the Russian manufacturers;
- Mid-term – until 2015. Bringing the specifications of Russian-made equipment up to world standards in those areas where the domestic manufacturers are lagging behind; setting up joint ventures and licensed production facilities;
- Long-term - until 2020. Developing new innovative technologies which surpass all the current Russian offerings, and launching their mass production.

In 2009, Federal Grid Company launched a programme of setting up new technology centres, which will develop and implement innovative solutions for the electricity grid in five Russian regions (St Petersburg, Moscow, Novosibirsk, Samara and Yekaterinburg). Five meetings and discussions have been held with manufacturers in those regions. They have resulted in the signing of the following cooperation agreements:

- In the North-West Region with: NII ZAI, NF-Energo, Novaya Era, Elektroapparat, Pozitron, Sevkabel, Energy Mechanics Plant, SK Impuls, Elektronmash, and NPO Strimer;
- In the Urals Region with: Energomash (Yekaterinburg) - Uralelektrotyazhmash, YuAIZ, SverdlovElektro Group, Promenergo, ELIZ, Kirskabel, High Voltage Union, UralEnergoService, Electrochemical Equipment Combine FGUP, Sverdlovsk Electrical Transformer Plant, Yu.M.E.K., Intera, Prosoft-Sistemy, Areva Transmission and Distribution;
- In the Volga Region with: Tsvetlit, Saranskabel, Konvertor, NPP Kontakt, Electroshield - TM Samara Companies Group, Orbita, Electrovypryamitel, NPP Ekra, Samara Cable Company, ABB Avtomatizatsiya, Chuvashkabel Plant, VNIIR;
- In the Siberia Region with: NAIZ, ELSI, Fenix-88, Polymer Insulator, EMA, Kometa-Energomash;
- In the Central Region with: Elektrozavod Holding, Eurocontract High Voltage Equipment, Soyuz High Voltage Equipment, Moscow Plant Electroshield, Radius Avtomatika, ROSIZOL, Gidromontazh Experimental, Enercomservis R&D, RETZ Energia, Energo GBI, Muromenergomash, Konvertor, Energostalkonstruktsia, Elektrokabel Kolchuginskiy, Serpukhov Capacitor, Stroienergoservis-Kovrov, and Amper.

As per the agreements signed with Federal Grid Company, these manufacturers undertake to ensure high standards of service and maintenance of their equipment, maintain an emergency stock of their products, and train Federal Grid Company staff in their use. The agreements will also facilitate prompt exchange of information in the event of potential or actual emergencies at energy grid facilities resulting from any problems with these suppliers' equipment.

For its part, Federal Grid Company has declared its willingness to purchase these suppliers' electrical equipment on a competitive basis and in compliance with the corporate procurement procedures. The Company will also consider participating in the domestic manufacturers' investment programmes aimed at upgrading their technology and boosting their R&D capacity.

The goals pursued by the Company's programme of cooperation with domestic electrical-equipment manufacturers and R&D facilities include facilitating the development of the Russian electrical-equipment sector, improving its competitiveness and reducing the Russian energy grid's dependence on foreign suppliers. The national manufacturers will be able to channel the proceeds from the Federal Grid Company supply contracts upgrading their technology, developing their model range and creating new jobs.

Risk Management

Federal Grid Company currently identifies the following main risks:

State Regulation of Tariffs on Services Delivered by the Company

As a result of the government of the Russian Federation restricting tariff increases on the output and services offered by natural monopolies, there are risks that the regulatory authorities could set rates at levels lower than those that would be considered economically viable. Consequently, the Company manages risks associated with tariff regulation by interacting closely with the regulatory authorities, when establishing the economic viability of tariff rates, as well as by working with the players in the electric energy market as part of the non-profit partnership Market Council Non-profit Partnership (NPP).

Production Risks

Risks associated with physical deterioration, misuse and abuse and critical parameter changes in the operation of the power supply grid could cause breakdowns (accidents) and structure collapses. System-related accidents could result in power-system separation, rolling blackouts, and heavy overuse. The intensive operation of the main power supply grid results in an accelerated aging process. Thus, the deteriorated and obsolete condition of the facilities is the main cause of production risks.

In order to prevent the negative impact of these factors, the Company has developed an investment programme for two reasons: to implement a technical re-equipping and reconstruction programme to warn when there is a malfunction of the high-voltage power line and substation main technological facilities; and to set up new production facilities to ensure delivery of power to electric power plant and the reliability of interregional transmission of electricity. Risks associated with decreasing the amount of the investment programme could at a minimum result in a decrease in expenditures while retaining the operating level; and they could require a maximum of optimising expenditures by altering the operation means, meaning a partial transfer of non-competitive operations to competitive ones. In May 2009, Order No. 691 of the Russian Federation Government, dated 19.05.2009, titled On Approving the Competitive Development Programme in the Russian Federation and the Action Plan for Implementation for 2009–2012, was approved. It is assumed that the measures stipulated in the order will simplify the procedure for administrative control over the operations of natural monopolies, including the business of the Company.

Technological Risks

In terms of technological risks, the most substantial factors to consider are the sparsely populated, expansive territory across which the power lines stretch as well as the possible occurrence of an unfavourable, force-majeure, physical impact. In the event of an unfavourable physical impact, the Company has a corresponding insurance policy on overhead transmission lines and substations. Furthermore, in order to prevent technological interruptions and emergencies, the following steps have been taken:

- Federal Grid Company has implemented a new management system for operation and repairs;
- Resurgence of the Federal Grid Company Chief Engineer institution, whose main functions are to:
  - ensure the stable operation of the electrical grid, first and foremost performing timely repairs and renovation;
  - ensure the reliable technological management of the UNEG;
  - ensure that emergency repairs are performed when required.
- The technical and engineering services have improved: the UNEG operating and technological management model has been reviewed and an integrated protective relay and emergency control system unit has been implemented;
- Maintenance and repair functions have been reassigned to the Company's branches (MES, PMES);
- Preparation is underway to co-ordinate the smooth transition of the autumn-to-winter seasons with the regions, large consumers and other energy companies. Specifically, cooperation agreements have been signed with System Operator, Russian Railways, Rosatom State Corporation, Russian Technologies State Corporation, MRSK Holding, Transneft, and other parties;
- Special attention is being paid to ensuring reliability in the Siberia Region.

Environmental Risks

Environmental risks are primarily associated with completing the investment programme that has been approved by the Company's Board of Directors, and they concern adhering to standards and norms when constructing new substations as well as when reconstructing operating power lines and constructing new ones. When a violation of the environmental protection legislation occurs, the Company could possibly face heavy fines in line with Federal laws. The possibility of these risks arising is considered minimal with negligible repercussions for the Company's operations. The Company's environmental policy, as approved by the Board of Directors, serves to diminish environmental risks.

Environmental safety and the efficient use of natural resources are important factors in the Company's operations. When new facilities are in the planning stage, the section on the environment is drawn up separately, and it takes into account all the requirements of the environmental protection legislation of Russia. Additionally, all construction projects and reconstruction of the power grid facilities go through a state environmental evaluation. The Board of Directors has approved the Programme for Implementing Environmental Policy for 2008–2010, which stipulates organisational and technical measures to decrease the negative impact on the environment by the enterprises within the grid network.

Possible Changes in Prices for Raw Materials and Services Used by the Company

The Company's operations are not substantially affected by these risks, as the Company is an infrastructure enterprise of wholesale electric energy market and is not involved in the generation and consumption of electricity, except for its own requirements. Maintenance of the UNEG to assure the reliable transmission of electricity is not substantially dependent on the regular use of raw materials typically used by enterprises that generate electric energy.

The price forecast for services offered by outside organisations as well as for supplies and materials used by the Company does not pose a significant risk of increasing in the short term. The Company seeks to diminish these risks in order to create a competitive environment for the purchasing of work and services, cost optimising for repair and operating requirements and major construction and eliminating cross purchases.

Country-specific Risks

Federal Grid Company is registered as a major taxpayer and operates throughout the entire territory of the Russian Federation. Given that electric energy is an infrastructure industry within the economy, there are country risks associated with the overall economic and political situation in the Russian Federation. Russia's economy is not immune to market downturns and slowdowns in economic growth in other countries, as well as to large-scale economic crises similar to the current worldwide financial crisis. Financial issues or risk aversion to investing in countries with developing economies could cause a decrease in the amount of foreign investment in Russia and have a negative effect on the Russian economy. Furthermore, given that Russia produces and exports large volumes of oil and natural gas, the Russian economy is particularly exposed to fluctuations in the world prices for these commodities. Consequently, a drop in the price for oil and natural gas could lead to a slowdown in the development of the Russian economy. There also currently remains the issue of price fluctuations for consumer goods in the country.

According to the leading ratings agencies Standard & Poor's (S&P), Moody's and Fitch, the Russian Federation's current sovereign rating (the key measure of country risk) remains at investment grade, with the afore-stated agencies noting that there was improvement in the country's risk performance in the fourth quarter of 2009:

- S&P upgraded Russia to stable outlook from negative outlook.
- Moody's reported that it does not see any factors that could cause a downgrade in Russia's rating in the short term.
- Fitch reported a reduction in Russian banks' short-term solvency risk in the last months of the year on the back of some signs of stabilisation in the Russian economy.

Another indicator of the improvement in country risk and the upgrade in investment attractiveness of the Russian Federation is the decrease in credit default swap (CDS), which assesses country default risk. Currently, CDS contracts for Russian Eurobonds are traded over-the-counter (OTC) with maturity dates of five years. To illustrate: when the domestic stock market hit rock-bottom in mid-January 2009, the five-year CDS spread exceeded 700 basis points (bps). As on 30.09.2009, this indicator had reached 209 bps, and it eventually reached 185 bps on 31.12.2009.

Meanwhile, if instability persists in the world economic recovery, the Company may face difficulties in gaining access to capital markets, and this situation could also have an unfavourable influence on the buying power of those consumers who purchase the Company's services.

In order to minimise the aforementioned risks, the Company is working on reducing internal costs and optimising the investment programme, as well as suspending the raising of loans.

Political Risks

In line with goals of modernising Russia's banking, judiciary, tax, administrative, and legislative systems, the Russian government continues with numerous reforms to strengthen the country's economy and better integrate it into the world economic system. Some risks remain in this process, such as national currency liquidity risk, risks related to access to long-term financing, and the risk of inflation above the level of developed countries.

Financial Risks

Currency

The Company's revenue from services rendered for the transmission of electric energy are calculated in the currency of the Russian Federation, the Russian rouble (RUB). The Company's current loan and debt obligations are also calculated in the RUB. In terms of exchange fluctuations for foreign currencies, they affect the Russian economy as a whole and indirectly influence the business activity of the issuer itself.

Possible Increase in Accounts Receivable

There is a financial risk associated with a possible increase in accounts receivable because of the financial incompetence on the part of counterparties to remit payment for the Company's services. The following measures are applied to minimise this risk:

- expense optimising;
- monitoring of the current market situation;
- stiffening of payment terms for consumers;
- negotiations with consumers on the timely payment of debts;
- reduction of advance payments as per agreements;
- ongoing work of the Accounts Receivable and Payable Management Committee;
- confirmed policy to manage accounts payable and receivable.

Liquidity

As illustrated by the Company's current stable liquidity situation, the risk of the Company not fulfilling its loan and debt obligations in the set timeframes and in full is negligibly low.

The global liquidity crisis that began in mid-2007 is coming to an end. Consequently, there is a noticeable decrease in liquidity risks that could limit the attraction of financing on money markets at rates acceptable to the Company. This is a result of the overall increase in liquidity in the Russian banking sector and a significant decrease in rates for interbank loans.

Inflation

The current rate of inflation does not significantly affect the Company's financial standing. In line with the inflation forecast, the rate of inflation should not significantly affect the Company's ability to remit payment on its obligations. A rate of inflation in excess of 30% is the level critical to the Company.

Changes in Tax Legislation

An analysis of the latest trends in the development of the tax legislation of the Russian Federation does not give a clear picture of the overall direction of tax reforms. Thus far, it is possible only to note that overall the latest legislative initiatives on the part of the state governing bodies have been directed at lowering the tax burden and creating a more flexible system of tax laws.

At the same time, the rate of earnings and returns in individual Russian industries has reduced somewhat as the result of a number of amendments to the tax laws. Russian legislation in the area of tax liabilities in individual circumstances

allows for fairly liberal interpretation. In recent years, the tax authorities have clearly demonstrated that they do not often side with the taxpayer in circumstances of permissible dual interpretation of the tax law. This could mean additional risks for practically any commercial entity in the Russian Federation. Sanctions taken against companies or individuals working in management positions could negatively reflect upon the Company's operations. The Company believes that its overall understanding of the tax legislation is in line with the position of the tax authorities, where the Company is registered as a taxpayer; however, a possible divergence in these matters could not be entirely excluded. As of 2009, the profit tax rate has decreased from 24% to 20%, thereby reflecting positively on the financial results and financial position of the Company. There are not any other substantial changes for the Company that could affect the activity of an issuer.

Operational Risks

As a result of the number of projects being completed as part of the Company's investment programme, risks involved in dealing with counterparties constitute the bulk of operational risks. Consequently, the Directorate for Managing Counterparty Risks has been formed to handle this risk category, whose responsibilities include the following:

- analyse the reliability and solvency of the counterparties, particularly banks and insurance companies;
- prevent or diminish possible losses or damages by hedging risks associated with the business of the counterparties.

In order to meet the first goal, the Company has developed and implemented a method for assessing the financial stability and solvency of its counterparties. This method is based on the best practices in integrated risk management. The Company has also defined the main criteria and procedures for selecting prospective contractors to perform work. Additionally, the Company minimises risks by collaborating closely with credit and insurance organisations to ensure that counterparties fulfill their respective contractual obligations.

At the same time, the Company has formed and implemented clear and concise requirements for financial and credit organisations in order to ensure that they fulfill their contracts. In order to optimise the balance of risk and collateral quality, limits have been approved for working with banks and insurance companies. The Company continuously monitors its counterparties to identify and efficiently respond at the very beginning to negative changes in the financial stability and solvency of the contracting organisations.

Risk Management System

The Federal Grid Company's risk management policy sets uniform rules for risk management, including approaches to identifying risks, exchanging information necessary to assess and manage risks, as well as developing steps to react to risks. The main aim of the risk management system is to allow the Company:

- to decrease the possibility of and minimise the consequences of events that negatively affect the achievement of goals;
- to make decisions and set priorities in its business activity in accordance with the available alternatives and the threats and variants associated with them, as well as to take into consideration the financial implications;
- to use available resources efficiently;
- to fulfill planned performance indicators;
- constantly improve operating efficiency in all areas as a result of more in-depth analysis and understanding of existing threats;
- to deliver reliable technological operation of the grids.

In order to efficiently manage risks, modern risk management mechanisms are integrated in all key business processes. The Company's risk management system is based on best practices in this area. Key principles of risk management are identified and responsibility for managing risks is attributed to business units and staff members. In some of the Company's branches, a risk management system is implemented that encompasses all business processes and operations, and allows for efficient mitigation of risk impact on the Company's business.

As part of the current risk management system, the business units of Federal Grid Company are responsible for regularly analysing possible negative events. When an analysis is complete, an assessment is conducted on the possible financial impact, possibility and manageability of the identified risks. Based on the results of the assessment, the Company decides which measures to take to react to the risks.

Specifically, Federal Grid Company applies the following strategies to respond to risks:

- Risk acceptance – if the risk level, prior to taking additional measures to manage it, is within a level satisfactory to the Company or if the cost of measures to minimise the consequences of the risk exceeds the amount of the financial impact of the risk;
- Minimisation of consequences – if it is possible to take measures to decrease the severity of the financial fallout or the possibility of risk realisation;
- Risk assignment to a third party (for example, to an insurer) – if the remaining risk (following the assignment) is considered acceptable;
- Combined measures – any combination of the above-outlined measures.

In terms of risks associated with transgressions in the area of electric energy transmission, labour safety, industrial safety, environmental protection and other similar risks, Federal Grid Company takes measures to minimise the consequences irrespective of the possibility and amount of the financial impact of the risk.

Furthermore, the Company employs an efficient monitoring system to carry out decisions relating to measures taken to implement the strategy selected to react to risks. The responsible business units of Federal Grid Company conduct regular audits, which include the monitoring of the actual fulfillment of the approved measures for reducing risks.

FINANCIAL PERFORMANCE OVERVIEW

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FINANCIAL PERFORMANCE OVERVIEW

5–1. FINANCIAL HIGHLIGHTS

Financial Management Framework

Federal Grid Company has adopted a multi-tiered budgeting structure as its key financial management tool, with financial and economic planning spanning three hierarchical levels:

- Long-term planning involves a five-year financial plan broken down into one-year steps. This involves establishing guidelines for implementing a government-mandated policy concerning the management of the UNEG, as well as the Company's own strategic plans, subject to acceptable risk levels and with an eye on financial sustainability.
- Mid-term planning is built around a three-year business plan, also divided into one-year steps. The goal is to set mid-term financial and operating targets, to develop a production programme, and to identify the necessary resources while balancing the economic interests of the Company and its investors, customers, shareholders, and creditors.
- Short-term, or current, planning translates into an annual budget with quarterly interim steps. Budgeting helps management align their day-to-day activity with mid-term targets described above.

In order to devise a financial management system meeting advanced corporate governance standards, Federal Grid Company has taken the following steps:

- As part of implementing a process-based management model, business processes were described and regulated, the Business Planning and Budgeting processes were singled out, and implementation of the model got underway;
- Financial responsibility centres were identified to form a core financial structure;
- A cash flow control system was set up;
- A management accounting system was developed and implemented;
- A budgeting system was implemented, involving the efforts of the Company's and its branches' management bodies to draft and review budgets, approve and execute budgets, control budget execution, maintain budgeting records, and to compile, get audited, review, and approve budget reports.

The financial analysis system operates by way of comparing actual performance to set targets.

Cash flow management involves a mechanism whereby cash is accumulated centrally as proceeds from operations, financing, and investment, to be subsequently used to finance operations and capital expenditures. Operations are financed by distributing funds to the Company branches.

During 2009, the Company's financial management personnel were busy maintaining an optimal level of financial sustainability while keeping within the leverage limits. Streamlining of expenses was a top financial priority, the goal being to cut operating costs per unit of equipment without sacrificing efficiency or the reliability of grid servicing.

Financial Performance

The Federal Grid Company reported the following financial performance for FY 2009 (RUB mln):

Indicator	2009	2008	2007
Revenue	85,078	68,485	61,385
COGS	64,080	58,977	52,030
Profit (loss) on sales	15,870	5,156	6,280
Other income	113,770	38,377	2,681
Other expenses	183,688	37,356	5,062
Profit (loss) before tax	-54,049	6,177	3,900
Deferred tax assets	-180	7	3
Deferred tax liabilities	-722	-217	-403
Current tax on profit	-4,876	-3,225	-1,208
Other similar compulsory payments	-39	1724	4
Net profit (loss) for the reporting period	-59,866	4,465	2,296

Revenue increased in each of the years from 2007 through 2009. In 2009, revenue rose by RUB 16,593 mln, or by 24.2% compared to 2008. The increase was mainly driven by growth in electric energy transmission revenue by RUB 14,044.5 mln (+21.2% YoY) thanks to expanded production capacity and a hike in the UNEG transmission rates. Transmission revenue accounted for 94.2% of total revenue in 2009.

COGS rose by RUB 5,103 mln (8.7% YoY) in 2009 to reach RUB 64,080 mln. At 8.7%, the COGS growth pace is considerably lower than the revenue growth pace (24%), and well under the average inflation rate.

The Company posted a RUB 59,866 mln loss in 2009, which was attributed to the following:

- A charge taken to write off a negative difference from marking to market of investments in securities. As on 31.12.2009, the Company carried financial investments in equities that traded at stock exchanges during 2009. Book values reflect end-of-year market quotes of those investments. The loss from changes in current market value of the securities in 2009 amounted to RUB 79,905.9 mln;
- A RUB 7,017 mln loss on sale of financial investments, i.e., the divestment of TGC-12 stock;
- Establishment of a financial investment impairment provision of RUB 3,502.6 mln.

The table below shows the key asset, equity, and liability numbers in 2009 (RUB mln):

Indicator	2009	2008	2007
Total assets	660,517	723,940	296,632
Fixed assets	437,915	511,588	235,867
Current assets	222,602	212,353	60,765
Total liabilities	660,517	723,940	296,632
Equity	579,467	666,177	204,785
Long-term liabilities	7,440	18,622	23,002
Short-term liabilities	73,609	39,141	68,845

The numbers for 2008 and 2007 have been gleaned from end-of-year financial statements approved by Annual General Shareholders Meetings.

The data demonstrate an increase in assets in 2007 and 2008, followed by an insignificant decrease that occurred in 2009.

Equity grew at a higher pace in 2008 for the following reasons:

- The charter capital was increased after the Federal Grid Company conducted an equity placement and RAO UES of Russia was restructured;
- The surplus capital was increased in 2008 by the amount of a share premium as well as of surplus capitals of merged subsidiaries as a result of RAO UES of Russia restructuring as well as PP&E revaluations.

2009 saw a reduction in equity because of a RUB 59,866 mln loss reported for that year. The procedure for creating a bad-debt provision for advances and other indebtedness was amended in 2009. The Company is now required to establish a special provision to cover receivables that are not regular trade receivables. This change in accounting policy led to a reduction in net assets.

Fixed assets also suffered a downturn in value in 2009 mainly as a result of a revaluation of long-term financial investments as market values of trading securities held by the Company plummeted and some of its long-term investments were reclassified as short-term ones. This reduction was in part offset by the Company's capital expenditure programme, such as a RUB 66,155.6 mln, or 44%, increase in construction-in-progress.

Federal Grid Company's current assets expanded considerably in 2009. This is attributed to reclassification of financial investments (promissory notes) from long-term to short-term, as well as to an increase in accounts receivable and cash in bank. Current assets were composed in 2009 of short-term receivables (52.6%), short-term financial investments (31.1%), and long-term receivables (9.2%).

Financial Ratio Calculation

Federal Grid Company's charter capital grew in 2009. This has resulted in payables to founders for RUB 40,177.9 mln in contributions to charter capital being reported as short-term liabilities in the accounts. This amount was subtracted from short-term liabilities and then added to charter capital in order to present a fair picture of the Company's financial position, given that those payables will effectively become part of the charter capital upon registration of the report on the results of an additional equity placement by FFMS.

The analysis below is based on the accounting records adjusted for the above assumption.

Financial Ratios, 2007–2009

Indicator	2009	2008	2007
Cash ratio*	2.41*	1.41	0.65*
Quick ratio*	5.91*	5.01	2.62*
Current ratio*	6.66*	5.43	2.83*
Equity to total assets**	0.94**	0.92	0.85**
Profit margin***, %	18.65***	7.53***	10.23***
Return on equity (ROE)****, %	1.33****	1.33****	1.59
Accounts receivable dynamic*****, %	16.45*****	254.67	94.76
Accounts payable dynamic*, %	13.37*	59.44	155.80*
Ratio of accounts receivable to accounts payable*	5.37*	6.73	3.02*

* For 2007 and 2009, payables were reduced by any amounts owed to shareholders for equity contributions.
** For 2007 and 2009, charter capital was increased by any amounts owed to shareholders for equity contributions.
*** The calculation for 2007–2009 involved dividing operating profit by sales revenue from goods, work, and services.
**** The calculation methodology was approved by the Company's Management Board. The impact of any factors extraneous to the Company management's competencies is not taken into account when calculating net profit or equity.
***** The calculation takes into account a change in the opening balance as on 01.01.2009, owing to an amendment of the bad-debt provision accounting policy.

With equity contributions taken into account, liquidity ratios in 2009 indicate that the Company is capable of meeting its short-term obligations. Overall, the Company has maintained a high level of liquidity and a low level of financial dependency, with 94% of total assets financed from equity.

The cash, current, and quick ratios were all high during the reporting period, which is considered a positive given that the current ratio has a normal range of between 1 and 2, while, for the quick ratio, the range is 0.7 to 0.8. The reported values point to a reasonably high level of both liquidity and solvency.

The growth in the current, quick, and cash ratios in 2009 came as a result of an increase in the percentage of short-term financial investments, such as short-term promissory notes, as well as a reduction in the share of short-term liabilities coupled with a slight increase in receivables.

The equity to total assets ratio demonstrates the extent of financial independence from creditors. This ratio has not shown a clear-cut trend. Over the period under review, the ratio speaks to the financial stability of the Federal Grid Company.

The profit margin rose by a factor of more than 2.4 in 2009 versus the previous year as revenue outperformed COGS.

Return on equity, adjusted for elimination of extraneous factors' impact, grew year on year, driven by an increase in contingent net profit (without accounting for the creation of provisions or a negative difference resulting from revaluation of financial investments caused by the financial crisis).

The ratio of accounts receivable to accounts payable demonstrates a satisfactory balance between the two.

5–2. NET PROFIT DISTRIBUTION

Federal Grid Company's after-tax earnings (net profit) as per accounting statements are the source for accumulating a reserve fund and for paying dividends. The Company reported a RUB 59,866 mln loss in 2009.

The table below shows net profit performance and distribution for 2007–2009.

Net profit allocation

(RUB mln):

	2009	2008	2007
Retained earnings (loss) for reporting period:	-59,866	4,465	2,296
Distributions:			
Reserve fund*	-	223	1,916
Development**	-	4,242	-
Dividends	-	-	380

*Existing legislation mandates that the Company create a reserve fund equivalent to 5% of its charter capital. At least 5% of net profit has to be contributed to the reserve fund annually until it reaches the required amount.

**Company development as part of Federal Grid Company's capital expenditure programme.

5–3. LOAN PORTFOLIO AND LIQUIDITY

Cash Management

Cash position management aims to achieve maximum return on investment while maintaining a reasonable risk/return ratio. The Company earned returns on financial investments by depositing temporarily available cash with Russia's largest and most reliable financial and credit institutions with impeccable market credentials. Banks were selected on the basis of a valuation of their financial and operating performance, with risk limits established for each. Depending on maturities, cash was placed in deposits, maintained on current accounts, or kept in bank promissory notes.

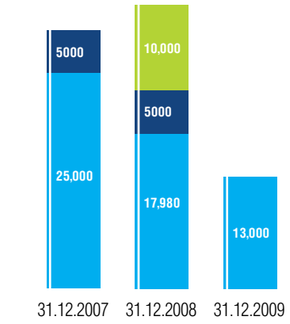
A balanced approach to liquidity management, optimization of placement structure in terms of returns, and minimization of accompanying risks ensured strong results. Despite a broad-based trend towards a reduction in market interest rates paid on bank deposits and promissory notes, cash management ensured returns in excess of RUB 3 bln, on par with 2008.

The safeguarding of the Company's and its shareholders' interests as well as the setting of limits on counterparty banks are effected in accordance with Federal Grid Company Regulations on the Procedure for Placement of Temporarily Available Cash, as approved by the Company's Management Board on 28.04.2008, Minutes of the Meeting No. 528.

Loans and Credits

Federal Grid Company's loan portfolio had decreased by 61% YoY towards 2009 year-end. During 2009, the Company obtained RUB 4 bln in short-term loans as part of a credit line opened by Alfa-Bank. The reduction in loan portfolio by the end of 2009 was owing to an early repayment of an EBRD loan on 14.04.2009, repayments of short-term Alfa-Bank loans over the course of 2009, and a repayment of the Federal Grid Company's Series 05 bond on 01.12.2009. As on 31.12.2009, the Company's RUB 13 bln loan portfolio was entirely composed of bonds, including RUB 7 bln worth of Series 02 bonds with maturity on 22.06.2010, and RUB 6 bln worth of Series 04 bonds with maturity on 06.10.2011.

The chart below shows the loan portfolio dynamic between 2007 and 2009:



Bonds

Bond Issues

Series	01	02	03	04	05
Securities description	Non-convertible interest-bearing bearer's documentary bonds with mandatory safekeeping at a centralised depository				
Registration No.	4-01-65018-D	4-02-65018-D	4-03-65018-D	4-04-65018-D	4-05-65018-D
Issue amount, RUB mln	5,000	7,000	7,000	6,000	5,000
Size, mln units	5	7	7	6	5
Par value, currency	1000, RUB	1000, RUB	1000, RUB	1000, RUB	1000, RUB
Maturity period, years	3	5	3	5	3
Coupon rate	8.80%	8.25%	7.10%	7.30%	7.20%
Issue state registration date	02.12.2004	11.05.2005	24.11.2005	07.09.2006	07.09.2006
Issue report state registration date	18.01.2005	23.08.2005	24.01.2006	08.11.2006	26.12.2006
Placement date	21.12.2004	28.06.2005	16.12.2005	12.10.2006	05.12.2006
Maturity date	18.12.2007	22.06.2010	12.12.2008	06.10.2011	01.12.2009
Coupon income per bond	43.88	41.14	35.4	36.4	35.9
Exchange	MICEX	MICEX	MICEX	MICEX	MICEX
Quotation lists	B	unlisted	B	unlisted	unlisted
Amount outstanding as on 01.01.09, RUB mln	0	7,000	0	6,000	4,980
Amount outstanding as on 31.12.09, RUB mln	0	7,000	0	6,000	0

20,000 (twenty thousand) Series 05 bonds with an aggregate par value of RUB 20,000,000 (twenty million) were redeemed ahead of schedule on 03.06.2008, after they were presented for redemption in accordance with paragraph 6, Article 15 of Federal Law No. 208-FL, titled On Joint-Stock Companies, dated 26.12.1995.

Bond Issues in 2009

The Federal Financial Market Service (FFMS) registered Federal Grid Company bond issues with a combined volume of RUB 50 bln on 05.11.2009. The Company had decided to place the bonds on 21.09.2009 (Minutes of the Meeting No. 89 of 24.09.2009).

The programme comprises six bond issues:

Securities description	Non-convertible interest-bearing bearer's documentary bonds with mandatory safekeeping at a centralised depository, redeemable ahead of maturity date at the request of holders or at the issuer's discretion					
Series	**06**	**07**	**08**	**09**	**10**	**11**
State registration No.	4-06-65045-D	4-07-65045-D	4-08-65045-D	4-09-65045-D	4-10-65045-D	4-11-65045-D
Issue amount, RUB mln	10,000	5,000	10,000	5,000	10,000	10,000
Maturity period, years	10	10	10	10	10	10
Number of bonds	10 mln	5 mln	10 mln	5 mln	10 mln	10 mln
Number of coupons	20	20	20	20	20	20
Coupon period	182 days					
Placement price	RUB 1,000					
Placement method	Open subscription					

The bonds will be placed on the MICEX on open subscription. The placement is scheduled to take place in 2010 depending on the market situation.

5–4. CREDIT RATINGS

Federal Grid Company's solid creditworthiness and financial stability have been confirmed by credit ratings conferred by the leading international ratings agencies.

The Company's current credit ratings are all investment-grade, and indicate that its key performance indicators are at a level required to meet financial obligations in full as they fall due.

Credit ratings as on 31.12.2009:

Ratings Agency	Ratings	
	International scale	National scale
Standard & Poor's (S&P)	BBB/outlook stable	ruAAA
Moody's	Baa2/outlook stable	AAA.ru

The Federal Grid Company's credit rating history over the past three years:

22.12.2009

S&P upgraded the outlook for Federal Grid Company from negative to stable. The long-term credit rating is confirmed at BBB, and the national scale rating at ruAAA.

14.04.2009

S&P confirmed its long-term credit rating at BBB, and the national scale rating at ruAAA, outlook negative.

08.12.2008

S&P downgraded the outlook for Federal Grid Company from stable to negative, to reflect the sovereign rating outlook. Long-term credit rating was confirmed at BBB.

28.10.2008

S&P removed Federal Grid Company's long-term ratings, on both foreign and national currency obligations, from the CreditWatch list, with a positive outlook. At the same time, S&P confirmed Federal Grid Company's long-term ratings on foreign and national currency obligations at BBB, and at ruAAA on the national scale, outlook stable.

31.10.2007

S&P placed the long-term BB+ rating and the ruAA+ national-scale rating on the CreditWatch list, outlook stable.

20.04.2007

Moody's confirmed its credit rating at Baa2 (outlook stable), as well as the Aaa.ru on the national scale.

02.02.2007

S&P upgraded its long-term rating to BB+, and the national-scale rating to ruAA+, outlook positive on all ratings.

CORPORATE GOVERNANCE AND MANAGEMENT

- **Corporate Governance Principles**
- **Board of Directors**
- **Management Board**
- **Compensation of Members of the Board of Directors and the Management Board**
- **Internal Control**
- **HR Policy**

CORPORATE GOVERNANCE AND MANAGEMENT

6–1. CORPORATE GOVERNANCE PRINCIPLES

The supreme governing body of Federal Grid Company is the General Shareholders Meeting. The Board of Directors sets the overall objectives for the Company and oversees the performance of the Management Board, which runs the Company on a day-to-day basis. The Management Board is appointed by the Board of Directors. The sole executive body of the Company is the Chairman of the Management Board, who is elected by the General Shareholders Meeting. The General Shareholders Meeting annually elects the Audit Commission, which oversees the Company's operations and finances.

Federal Grid Company abides by the following key principles of corporate conduct:

01. The Company works in pursuit of profit and aims to increase the return on its equity;
02. The Company abides by the law of Russia and follows, inasmuch as this law allows, international best practices in corporate governance;
03. The Company clearly defines and communicates to the public its strategy and objectives;
04. Information about the Company's outlook, objectives and ways of their achievement, as well as possible risks and external factors, is made available to the shareholders and other interested parties;
05. The Company's business model pursues a long-term strategy;
06. The Company guarantees equal treatment of all its shareholders;
07. All the key corporate decisions are made with the participation of the shareholders by means of voting at the General Shareholders Meeting;
08. The shareholders have the option of casting their votes at the General Shareholders Meeting, personally or via a representative;
09. The Company provides its shareholders with all the information required to exercise their vote at the Shareholders Meeting;
10. Shares of the same type confer equal rights;
11. The Company guarantees the right of its shareholders to vote according to the principle of 'one share, one vote';
12. The Company abides by the principle of transparency: the role and the functions of each management body are clearly defined in writing, and the Company discloses all significant information about its operations;
13. The Company provides accurate, impartial, timely and freely available information required to make informed decisions;
14. The Company always remains in close contact with its shareholders, providing them with all the necessary information and documents;
15. The Company's operations and finances are regularly submitted to audit and inspections by the Audit Commission;
16. The Company's Board of Directors acts in the interests of and is accountable to all its shareholders. Members of the Board of Directors act in the Company's interests. Members of the Board are expected to meet stringent standards of fairness, reasonable judgment, honesty and loyalty;
17. The Company recognises its responsibility for the environment, work safety and the social welfare of its staff.

Federal Grid Company has a special Provision on the Governance of Subsidiaries and Branches, which:

- Regulates the procedures for exercising Federal Grid Company's shareholder rights in its subsidiaries and branches, as documented by the shares it holds in these subsidiaries and branches, with the purpose of ensuring productive participation of Federal Grid Company representatives in the general shareholder meetings, boards of directors and audit commissions of these entities;
- Regulates corporate interaction between Federal Grid Company and its subsidiaries and branches on issues including corporate planning, organisation and supervision in those areas where decisions by the subsidiaries and branches require Federal Grid Company approval, in accordance with the Federal Grid Company Charter.

Key Documents Regulating Corporate Governance

01. Federal Grid Company Charter, approved by a resolution of the General Shareholders Meeting on 30.06.2009;
02. Provision on the preparation and conduct of the General Shareholders Meetings, approved by a resolution of the Board of Directors of Federal Grid Company on 06.11.2002 (Minutes of the Meeting No. 131);
03. Provision on Federal Grid Company Management Board, approved by a resolution of the Annual General Shareholders Meeting (AGM) on 30.06.2009;
04. Provision on the Audit Commission of Federal Grid Company approved by a resolution of the Board of Directors on 06.11.2002 (Minutes of the Meeting No. 131);
05. Provision on the payment of compensation to members of the Audit Commission approved by the AGM on 30.06.2008 (Minutes of the Meeting No. 6);
06. Board of Directors rules of procedure approved by a resolution of the AGM on 30.06.2009 (Minutes of the Meeting No. 162);
07. Provision on the payment of compensation to members of the Board of Directors of Federal Grid Company, approved by the Board of Directors of RAO UES of Russia on 10.03.2004 (Minutes of the Meeting No. 162);
08. Code of corporate governance approved by a resolution of the Federal Grid Company Board of Directors on 28.02.2008 (Minutes of the Meeting No. 55);
09. Provision on information policy approved by a resolution of the Federal Grid Company Board of Directors on 28.02.2008 (Minutes of the Meeting No. 55);
10. Provision on the dividends policy approved by a resolution of the Federal Grid Company Board of Directors on 15.02.2008 (Minutes of the Meeting No. 54);
11. Provision on insider information approved by a resolution of the Federal Grid Company Board of Directors on 28.02.2008 (Minutes of the Meeting No. 55).

The full text of these documents is available at: http://www.fsk-ees.ru/investors_corporate_doc.html

Key Areas for Improvement in Corporate Governance Standards

Federal Grid Company views improvement in corporate governance as a way of rendering the Company more attractive to investors. Good corporate governance reduces the risk of crises and improves the possibility of an expedited resolution when such crises arise.

As part of its commitment to protecting the interests of its shareholders and investors, the Company abides by the following key corporate governance principles:

01. The rights of shareholders and interested parties have to be protected;
02. There has to be an effective supervisory body;
03. There has to be a clear division of powers and responsibilities between the governing bodies, and an effective system of accountability to the supervisory body;
04. The Company policy has to be transparent and formalised in official corporate documents, with an open system of appointment, reappointment and compensation of the directors and top managers;
05. All relevant information has to be disclosed to shareholders and interested parties;
06. There has to be an effective system of internal control and internal audit;
07. The Company has to strive continuously to improve corporate standards;
08. The Company has to be in full and unconditional compliance with the legislation, and deal in a fair and reasonable manner with its shareholders;
09. Shareholders have to be given every opportunity to exercise and defend their rights and interests;
10. The Company has to pursue high standards of business ethics in its relations with other market players.

As part of its efforts to strengthen accountability to its shareholders, Federal Grid Company is building a comprehensive framework of corporate governance, which includes a system of relations between the owners and investors, and a system of internal control and risk management, as well as internal audit.

6–2. BOARD OF DIRECTORS

The Board of Directors of Federal Grid Company is responsible for the overall management of the Company, with the exception of issues that fall under the remit of the General Shareholders Meeting, as defined by the Federal Law titled On Joint-Stock Companies and the Federal Grid Company Charter.

The Board of Directors acts in compliance with the Federal law titled On Joint-Stock Companies and other Russian laws and regulations, as well as the corporate Charter and the Rules of Procedure of the Board of Directors.

In 2009, the attendees of the Annual General Shareholders Meeting (AGM) approved the new composition of the Board of Directors. The previous Board, appointed during the Extraordinary General Shareholders Meeting (EGM) on 27.12.2008, remained in place until 30.06.2009. Its composition was as follows:

No	Name	Position
1	Sergey Shmatko	Chairman
2	Dmitriy Ponomarev	Deputy Chairman
3	Boris Ayuyev	member
4	Mikhail Kurbatov	member
5	Aleksey Makarov	member
6	Andrey Malyshev	member
7	Sergey Maslov	member
8	Mikhail Susov	member
9	Vladimir Tatsiy	member
10	Ernesto Ferlenghi	member
11	Rashid Sharipov	member

On 30.06.2009, the Annual General Shareholders Meeting approved the new composition of the Board of Directors, as follows:

No	Name	Position
1	Sergey Shmatko	Chairman
2	Andrey Malyshev	Deputy Chairman
3	Boris Ayuev	member
4	Evgeniy Dod	member
5	Mikhail Kurbatov	member
6	Aleksey Makaro	member
7	Sergey Maslov	member
8	Dmitriy Ponomarev	member
9	Vladimir Tatsiy	member
10	Ernesto Ferlenghi	member
11	Rashid Sharipov	member

Background information of the members of the Board of Directors

(Positions correct as on the day of election to the Board)

Sergey Shmatko:
Minister of Energy of the Russian Federation
Born: 1966
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Andrey Malyshev:
Deputy CEO of the Russian State Nanotechnologies Corporation (Rosnanotech)
Born: 1958
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Boris Ayuyev:
Chairman of the Management Board of System Operator of Unified Energy System (SO UES)
Born: 1957
Education: tertiary
Share of participation in the charter capital of the Company (%): 0.007352
Share of ordinary company shares held (%): 0.007352

Yevgeniy Dod:
Chairman of the Management Board of Inter RAO UES
Born: 1973
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Mikhail Kurbatov:
Department Director of the Ministry of Economic Development
Born: 1981
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Alexey Makarov:
Director of the Institute of Energy Studies of the Russian Academy of Sciences
Born: 1937
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Sergey Maslov:
President of the St Petersburg International Commodity Exchange
Born: 1960
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Dmitriy Ponomarev:
Chairman of the Management Board of Market Council
Born: 1967
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Vladimir Tatsiy:
First Vice-President of Gazprombank
Born: 1960
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Ernesto Ferlenghi:
Head of Eni Russia and CIS offices
Born: 1968
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Rashid Sharipov:
Deputy CEO of KFK-Konsalt
Born: 1968
Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Board of Directors Committees

There were four committees under the Board of Directors in 2009:
1. HR and Compensation Committee;
2. Strategy Committee;
3. Audit Committee;
4. Investment Committee.

HR and Compensation Committee

(Positions held at the time of election)

Members:
1. Dmitriy Ponomarev
Chairman, member of the Federal Grid Company Board of Directors, Chairman of the Board of Market Council;
2. Vladimir Tatsiy
member of the Federal Grid Company Board of Directors, First Vice-President of Gazprombank;
3. Rashid Sharipov
member of the Federal Grid Company Board of Directors, Deputy CEO of KFK-Konsalt.

Responsibilities:
> Developing the principles and criteria for compensation of:
  – Members of the Board of Directors and Chairman of the Board of Directors;
  – Members of the Management Board and Chairman of the Management Board;
  – Members of the Audit Commission and its Chairman.
> Developing proposals for the substantial terms of contracts with members of the Board of Directors, members of the collegial executive body and Chairman of the Management Board;
> Developing criteria for selecting candidates for membership of the Board of Directors and the collegial executive body, as well as candidates for the position of the sole executive body; preliminary assessment of those candidates;
> Regulatory assessment of the performance of the Chairman of the Management Board, who also acts as the sole executive body (chief executive), and of members of the Management Board; preparation of recommendations for the Board of Directors on the reappointment of the Chairman and members of the Management Board.

Strategy Committee

(Positions held at the time of election)

Members:

1. Aleksey Makarov
Chairman, member of the Federal Grid Company Board of Directors, Director of the Institute of Energy Studies of the Russian Academy of Sciences;
2. Yuriy Lipatov
Chairman of the Energy Committee in the Russian Duma;
3. Valentin Mezhevich
First Deputy Chairman of the Commission for Natural Monopolies in the Federation Council of the Russian Federal Assembly;
4. Nikolay Shvets
CEO of MRSK Holding;
5. Boris Ayuyev
member of the Federal Grid Company Board of Directors, Chairman of the Management Board of System Operator of Unified Energy System (SO UES);
6. Sergey Beloborodov
member of the Supervisory Council of Market Council;
7. Sergey Ivanov
First Deputy Chairman of the Federal Grid Company Management Board;
8. Roman Berdnikov
Head of the Department of Customer Relations and Markets of Federal Grid Company;
9. Vladimir Sitnikov
CEO of Energosetproekt Institute;
10. Viktor Kudryaviy
retired;
11. Anatoliy Dyakov
President of the United Electric Energy Complex of Russia (a not-for-profit organisation);
12. Vladimir Dorofeev
retired;
13. Andrey Malyshev
member of the Federal Grid Company Board of Directors, Deputy CEO of Rosnanotech;
14. Yevgeniy Dod
Chairman of the Management Board of RusHydro.

Responsibilities:

In a number of areas, decisions by the Board of Directors have to be preceded by a discussion at the Strategy Committee, which then submits its recommendations to the Board. These areas include:

- Development of Unified Energy System of Russia, including the UNEG and isolated energy grids;
- Technological connection to electricity grids;
- The workings of the wholesale electricity market and technological management of electricity grids that are part of Unified Energy System of Russia;
- Supervision of investment in the development of electricity grids and the UES of Russia;
- Innovative technologies that formalise the decision-making process in the Company's relations with wholesale operators;
- Disclosure of information under the national monopolies provision;
- Any other issues that concern the development of the UNEG.

Audit Committee

(Positions held at the time of election)

Members:

1. Rashid Sharipov
Chairman, member of the Federal Grid Company Board of Directors, Deputy CEO of KFK-Konsalt;
2. Vladimir Tatsiy
member of the Federal Grid Company Board of Directors, First Vice-President of Gazprombank;
3. Ernesto Ferlenghi
member of the Federal Grid Company Board of Directors, Head of Eni Russia and the CIS.

Responsibilities:

- Evaluating candidates for the external auditor position and developing recommendations for the Board of Directors regarding the selection of candidates. Members of the committee participate in the work of the Selection Commission, which selects the audit company to carry out the annual independent audit of Federal Grid Company accounts, in compliance with Russian laws and taking into account the candidates' qualification, the quality of their work and their suitability with regard to requirements of independence;
- Developing recommendations for the Board of Directors regarding the annual independent audit of Federal Grid Company accounts;
- Providing analysis of Federal Grid Company accounts and of the findings of external audit to ensure compliance with Russian laws, international financial reporting standards, Russian accounting standards and other regulations. The committee provides its own assessment of Federal Grid Company accounts and of the findings of external audit, and develops recommendations for the Board of Directors on improving the Company's accounting procedures;
- Preliminary review, analysis and recommendations (conclusions) on the following issues that fall under the remit of the Board of Directors:
  - approving the annual report;
  - approving the annual financial accounts;
  - selecting the auditor;
  - determining the size of the auditor's remuneration;
- Providing analysis of internal control procedures, including control of the Company's compliance with the legislation and regulations; evaluating these procedures and developing recommendations on their improvement for the Board of Directors;
- Approving the schedule of external audit proposed by the Financial Control and Internal Audit department;
- Reviewing quarterly reports by the Financial Control and Internal Audit department in accordance with the approved schedule of internal audit.

Investment Committee

(Positions held at the time of election)

Members:

1. Andrey Malyshev
Chairman, member of the Federal Grid Company Board of Directors, Deputy CEO of Rosnanotech;
2. Boris Ayuyev
member of the Federal Grid Company Board of Directors, Chairman of the Management Board of SO UES;
3. Anatoliy Dyakov
President of United Electric Energy Complex of Russia (a not-for-profit organisation);
4. Sergey Ivanov
First Deputy Chairman of the Federal Grid Company Management Board;
5. Igor Kozhukhovskiy
CEO of Energy Forecasting Agency (APBE);
6. Dmitriy Ponomarev
member of the Federal Grid Company Board of Directors, Chairman of the Board of Market Council;
7. Vyacheslav Kravchenko
CEO of RN-Energo
8. Viktor Lebedev
Department Head of the Ministry of Economic Development;
9. Aleksey Maslov
member of the Federal Grid Company Board of Directors;
10. Sergey Maslov
member of the Federal Grid Company Board of Directors;
11. Vladimir Sitnikov
CEO of Energosetproekt Institute;
12. Vladimir Tatsiy
member of the Federal Grid Company Board of Directors, First Vice-President of Gazprombank;
13. Maria Tikhonova
Deputy Head of Economic Regulation and Ownership Relations Department of the Energy Ministry.

Responsibilities:

- Evaluation and expert analysis of new investment projects and programmes submitted for the Board of Directors' approval;
- Providing the Board of Directors with timely information about investment risks facing the Company as well as its subsidiaries and branches;
- Performing other tasks at the Board of Directors' request.

A total of 19 meetings of the Board of Directors were held in 2009; including three meetings in the presence of all members of the Board. The Board approved decisions on a total of 209 items on the agenda.

6–3. MANAGEMENT BOARD

Management of day-to-day operation of Federal Grid Company is performed by the sole Executive – the Chairman of the Management Board – and the collegial executive body, the Management Board. The Board and its Chairman are accountable to the General Shareholders Meeting and the Board of Directors.

The Management Board and its Chairman act in accordance with the Charter and the Provision on the Management Board. The remit of the Management Board is defined in the Federal Grid Company Charter, which is available at: http://www.fsk-ees.ru/eng/investor_governance_doc.html

Oleg Budargin
Chairman of the Management Board

Responsibilities:
The Chairman of the Management Board formulates the Company's strategy and development objectives on economic and financial issues, accounting and reporting, operational and commercial activities, personnel, R&D, investment and corporate policy. He is also responsible for health and safety policy, the legal framework of the Company's business and the day-to-day operation of the Company.

Background:
Born 16.11.1960, Mr Budargin graduated from Norilsk Industrial Institute cum laude in 1982 with a degree in Industrial and Civil Engineering. From 1984-1995 he worked at Norilskstroi PSMO (Production Construction and Assembly Association), in Promstroi Trust of Norilsk Mining and Metallurgical Works (NGMK), in the Capital Construction Department of NGMK, and served as Deputy CEO of NGMK. Mr Budargin was mayor of Norilsk from 2000–2002, and Governor of Taymyr (Dolgano-Nenetskiy) Autonomous District from 2003–2006. In 2007, he was appointed assistant to the plenipotentiary representative of the Russian President in the Siberian Federal District. On 11.07.2009, the Federal Grid Company Board of Directors appointed Mr Budargin Acting Chairman of the Management Board, and on 27.10.2009, he was elected Chairman of the Federal Grid Company Management Board by the Extraordinary General Shareholders Meeting.

Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Dmitriy Troshenkov
First Deputy Chairman of the Management Board

Responsibilities:
Management of the Company's economic and financial operations, financial efficiency measures, implementation of corporate policy and legal framework, human resources management, organisational strategy and development of the Company and its subsidiaries and branches, formulation and implementation of investment policy.

Background:
Born 07.01.1966, Mr Troshenkov graduated from the Economics Department of St Petersburg State University with a degree in Financial Accounting and Auditing. He also holds a degree in Banking Financial Accounting and Auditing from St Petersburg Banking Institute. From 2000–2001, he served as Deputy CEO of Economics and Finance at Petroelektrosbyt. From 2001–2005, he was Deputy CEO of Economics and Finance at Lenenergo, and he was Deputy CEO of Economics and Finance at OGK-1 from 2005–2006. From 2006–September 2009, he was Vice-President of Finance at TNK-BP, and in September 2009, he was appointed First Deputy Chairman of the Federal Grid Company Management Board. Mr Troshenkov has been on the Federal Grid Company Management Board since October 2009.

Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Valeriy Chistyakov
First Deputy Chairman of the Management Board

Responsibilities:
Management of R&D, customer relations, IT & telecommunications, operation, repairs and maintenance of the UNEG, grid monitoring and diagnostics, technological supervision and audit.

Background:
Born 18.05.1955, Mr Chistyakov graduated from Vladimir Polytechnic Institute in 1977 with a degree in Mechanical Engineering, and the Financial Academy of the Russian Government in 1996, with a degree in Economics. In 2003, he took an MBA course in Business Management at the State Management University, and he holds a PhD in Economics. From 1999–2009, he held various positions in the electricity sector, including Deputy CEO for Sales at Vladimirenergo, CEO of Udmurtenergo, Director of the Upper Volga Branch of MRSK Centre and North Caucasus, CEO of Lenenergo, and First Deputy CEO of the UES Engineering Centre. In September 2009, he was appointed Deputy Chairman of the Management Board, and was elected as a member of the Management Board in October 2009. Mr Chistyakov has served as First Deputy Chairman of the Management Board since November 2009.

Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Sergey Ivanov

First Deputy Chairman of the Management Board

Responsibilities:

Formulation and implementation of Company investment policy, liaison with CIUS EES.

Background:

Born 06.07.1961, Mr Ivanov graduated from Moscow Institute of Engineering and Physics in 1984 with a degree in Theoretical Nuclear Physics, and a professional qualification as an engineer and physicist. He holds a Doctorate in Economics. From 1994–2002, he worked for the Russian Energy Company as First Deputy CEO, then as CEO. From 2002–2006, he held senior positions in Rosenergoatom. From 2007–2008, he served as Deputy CEO for Strategy and Investment at Inter RAO UES. Mr Ivanov has been a member of the Federal Grid Company Management Board since July 2008.

Share of participation in the charter capital of the Company (%): 0

Share of ordinary Company shares held (%): 0

Viktor Vasilyev

Deputy Chairman of the Management Board

Responsibilities:

Formulation and implementation of R&D and technology policy, diagnostics of the technical condition of electricity grids.

Background:

Born 05.02.1944, Mr Vasilyev graduated from Tomsk Polytechnic Institute in 1966 with a degree in Electrical Engineering, and a PhD in Technical Sciences.

From 1988–2002, Mr Vasilyev served as the chief engineer of the Tyumen Energy System, contributing substantially to the Company's development. He oversaw the launch of the 800-MW Nizhnevartovskaya GRES, and of the 24-MW reserve thermal power plant of the Urengoy GRES. Also during this time, the Company continued the construction of 110/500-kV transmission lines, which facilitated the development of remote oil and gas fields and provided electricity to the towns and villages in the harsh climate of the Yamal-Nenets Autonomous District, including Yugra and Tyumen Region.

In 2002, Mr Vasilyev was appointed Deputy Chairman of the Federal Grid Company Management Board. In January 2003, he was elected as a member of the Management Board in charge of the Company's technology policy, making an important contribution to the reform and development of Russia's electricity transmission sector and the UNEG, which serves as the backbone of UES of Russia.

For his service to the country and industry, Mr Vasilyev was awarded the medal For the Development of Natural Resources and the Oil and Gas Sector of West Siberia, and the state award Honoured Energy Sector Worker of the Russian Federation, as well as departmental titles of Honoured Staff Member of the Fuel and Energy Ministry and Honoured Energy Sector Worker.

Viktor Vasilyev, Deputy Chairman of the Federal Grid Company Management Board, passed away on 07.03.2010.

Share of participation in the charter capital of the Company (%): 0.00003%

Share of ordinary Company shares held (%): 0.00003%

Roman Berdnikov

Member of the Management Board, Director of Development and Customer Relations

Responsibilities:

Formulation of customer relations and market development policies, strategic development of the grid, technological connection to the Company's grids.

Background:

Born 14.08.1973, Mr Berdnikov graduated from Moscow Energy Institute with a degree in Electrical Stations Technology. From 1997-1998, he served as a senior electrician at Mosenergo. From 1998-1999, he worked as a specialist in the RAO UES Tariffs and Operational Indicators Department. From 1999-2002, he worked for RAO UES of Russia, first as a specialist in the SDC Department of the Federal National Wholesale Electric Power Market (FOREM), and later as a leading specialist in the Department of electric energy market development. He attained the position of Leading Specialist of the Federal Grid Company Strategic Planning Department in October 2002. In 2003, he was promoted to Deputy Head of the Strategic Planning Department, and in 2005 to Head of the Services and Grid Reliability Development Department, which was subsequently reorganised into the Customer and Market Relations Department. In 2009, he was appointed Director of Client Relations Development of Federal Grid Company. He was elected as a member of the Management Board in October 2009. Mr Berdnikov was appointed Deputy Chairman of the Federal Grid Company Management Board in February 2010.

Share of participation in the charter capital of the Company (%): 0.0000002%

Share of ordinary Company shares held (%): 0.0000002%

Dmitriy Gurevich

Member of the Management Board, Director of IT and telecommunications

Responsibilities:

IT and Telecommunications, development and implementation of the UEP TN of the Electricity Grid, coordination of fibre-optic lines construction.

Background:

Born 22.07.1971, Mr Gurevich graduated from Leningrad Electric Technology Institute in 1993 with a degree in Radio Technology. In 1997, he received an MBA from St Petersburg International Management Institute and a Master Certificate in Project Management from George Washington University, and then joined AT&T (Lucent Technologies). In 1997, he was appointed Projects Director at Lucent Technologies. In 2003, he joined Rostelecom as head of the Project Management Department and later as Deputy CEO and a member of the Management Board. He was appointed Federal Grid Company Director of Telecommunications in February 2008 and Director of Telecommunications and Information Technologies in October 2009. Mr Gurevich was elected as a member of the Federal Grid Company Management Board in October 2009.

Share of participation in the charter capital of the Company (%): 0

Share of ordinary Company shares held (%): 0

Misrikhan Misrikhanov
Member of the Management Board,
Director of MES Centre

Responsibilities:
Managing MES Centre, a branch of Federal Grid Company; taking decisions on all operational matters at the branch.

Background:
Born 02.03.1951, Mr Misrikhanov graduated from Moscow Energy Institute in 1974 with a degree in Hydro-electric Engineering, and from Moscow State University with a degree in Engineering and Mathematics. He is a member of the Russian Academy of Energy Sciences, and holds a Doctorate in Technical Sciences. He began his career in 1974 as an engineer at the Kazakh Energy Research Institute Glavniiproekt of the Soviet Energy Ministry. From 1979–1984, he served as Head of the Central Controller Service at REU Dagenergo of the Soviet Energy Ministry. From 1984–1987, he managed the construction of the Irganaysk and Miatlinsk hydro-electric power plants. From 1987–1997, he served as Director of the Chirkeysk hydro-electric power plant. From 1997–2002, he held senior positions in the North Caucasus ODU, in the Yuzhenergo branch of RAO UES of Russia, and in an independent regional subsidiary of RAO UES of Russia, Central InterSystem Electricity Grids. In 2002, he was appointed CEO of MES Centre, a subsidiary of Federal Grid Company. Mr Misrikhanov was elected as a member of the Federal Grid Company Management Board in October 2009.

Share of participation in the charter capital of the Company (%): 0.0162%
Share of ordinary Company shares held (%): 0.0162%

Mikhail Tuzov
Deputy Chairman of the Management Board,
member of the Management Board

Responsibilities:
Setting up corporate training centres, facilitating the development of corporate strategy.

Background:
Born 18.09.1966, Mr Tuzov graduated from Moscow Energy Institute in 1989 with a degree in Technology Design and Engineering. From 2001–2002, he worked for RAO UES of Russia as a director in charge of setting up Federal Grid Company. In August 2002, he was elected as a member of the Federal Grid Company Management Board. Mr Tuzov was appointed Chief Counsel to the Chairman of the Federal Grid Company Management Board in November 2009.

Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Andrey Demin
Deputy Chairman of the Management Board, member of the Management Board

Responsibilities:
In the first half of 2009, his responsibilities included the organisation of financial and economic processes in the Company and ensuring its financial efficiency.

Background:
Born 28.04.1974, Mr Demin graduated from Zaporizhye Institute of Economics and Information Technologies with a degree in Economics in 1999. In 2004, he joined RAO UES of Russia as a lead expert of the Business Planning Department at Corporate Centre. From 2005–2007, he served as Head of the Federal Grid Company Department for Regional Grids and Head of the Federal Grid Company Inter-regional Grids Control Centre. Mr Demin was elected as a member of the Federal Grid Company Management Board in April 2007.

Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Aleksey Maslov
Member of the Management Board

Responsibilities:
In the first half of 2009, his responsibilities included investment and construction (up until July 2009).

Background:
Born 13.05.1975, Mr Maslov graduated from Moscow State Bauman University of Technology with a degree in Engineering and Mechanics. From 1998–2000, he studied at the Financial Academy of the Russian Government, and he holds a PhD in Economics. Mr Maslov was elected as a member of the Federal Grid Company Management Board in October 2005.

Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Changes in the composition of the Management Board in 2009

The following is the list of members of the Federal Grid Company Management Board who served until 26.06.2009:

1. Andrey Rappoport
2. Viktor Vasilyev
3. Andrey Demin
4. Sergey Ivanov
5. Aleksey Maslov
6. Mikhail Tuzov
7. Aleksandr Chistyakov
8. Viktor Pryadein

On 26.06.2009, the Board of Directors relieved Viktor Pryadein of his duties as member of the Management Board and Director of Development and Customer Relations (Minutes of the Meeting No. 82).

Andrey Rappoport, former Chairman of the Federal Grid Company Management Board, was relieved of his duties owing to the expiration of his contract on 01.07.2009.

On 11.07.2009, the Board of Directors approved the decision (Minutes of the Meeting No. 85) to set up a temporary sole executive body of Federal Grid Company: Acting Chairman of the Management Board. The decision was made in accordance with Paragraph 4, Article 69 of the Federal Law titled On Joint-Stock Companies, dated 26.12.1995 (No. 208). The Board of Directors appointed Oleg Budargin to the newly created position of Acting Chairman of the Management Board.

Aleksandr Chistyakov, former Deputy Chairman of Federal Grid Company Management Board, was relieved of his duties by the decision of the Board of Directors on 06.08.2009 (Minutes of the Meeting No. 86).

On 21.10.2009, the Board of Directors elected the following new members of the Management Board (Minutes of the Meeting No. 89):

1. First Deputy Chairman: Dmitriy Troshenkov;
2. Deputy Fhairman: Valeriy Chistyakov;
3. Director of Development and Customer Relations: Roman Berdnikov;
4. Director of Telecommunications and Information Technology: Dmitriy Gurevich;
5. CEO of MES Centre, a Federal Grid Company branch: Misrikhan Misrikhanov.

On 27.10.2009, an Extraordinary General Shareholders Meeting elected Oleg Budargin Chairman of the Federal Grid Company Management Board.

6–4. COMPENSATION OF MEMBERS OF THE BOARD OF DIRECTORS AND THE MANAGEMENT BOARD

Compensation Paid to Members of the Board of Directors

Compensation of members of the Board of Directors is based on the Provision on Payment of Compensation and Compensations to Members of Federal Grid Company Board of Directors, which was approved by the Board of Directors of RAO UES of Russia on 10.03.2004. Compensation level is determined according to the following criteria.

The size of compensation paid to each member of the Board of Directors for participation in a meeting of the Board (regardless of the form of the meeting) amounts to three times the size of the minimum monthly wage of a first-rank specialist, as determined in the Industrial Rates Agreement currently in force in the Russian electricity sector. The money is paid within seven calendar days of the date of the meeting.

The total amount of compensation paid to each member of the Board of Directors is calculated based on the number of Board Meetings he or she has attended, and on the size of the dividends paid on ordinary shares of the Company following the announcement of annual financial results (or quarterly, six-month or nine-month results). The decision about the size of the dividends paid on ordinary shares is made by the General Shareholders Meeting.

Since the Annual General Shareholders Meeting held on 30.06.2009 decided not to pay any dividends for 2008, compensation paid to members of the Board of Directors in 2009 was calculated based solely on the number of Board meetings they had attended.

Information about remuneration, benefits and compensation paid to members of the Federal Grid Company Board of Directors:

Total compensation paid to members of the Board of Directors in 2009	RUB 4,497,029
Including:	
Bonuses	0
Commission	0
Benefits	0
Other personal compensation (Voluntary personal liability insurance)	RUB 2,766,617
Compensation for participation in meetings of the Federal Grid Company Board of Directors	RUB 1,730,412

Compensation Paid to Members of the Management Board

Compensation paid to members of the Management Board in 2009 was based on the Provision on the Terms of Employment Contracts and the Amount of Compensation and Remuneration Paid to the Top Managers of Federal Grid Company, as approved by the Federal Grid Company Board of Directors on 24.12.2007 (Minutes of the Meeting No. 52). The document stipulates that the amount of compensation paid to the top managers of the Company is based on key indicators of their performance. The specific nature of these indicators and their target values are determined by the Board of Directors.

In 2009, the following indicators were used to rate the performance of top managers (Minutes of the Meeting No. 93 of the Board meeting of 30.11.2009).

Quarterly indicators:

- Relative share of restrictions and limitations on energy transmission services, %;
- Work-safety record (there have to be no incidents with fatalities and no incidents in which several people are injured, at least one of them seriously);
- Ratio of capital investment utilisation, %.

Annual indicators:

- Return on equity (ROE), %;
- No accidents;
- Losses in the transmission lines operated by Federal Grid Company, %;
- Efficiency in the implementation of the investment programme, %.

All quarterly and annual indicators in 2009 were on target. The reports for Q1, Q2 and Q3 have been approved by the Board of Directors (Minutes of the Meeting No. 98 of 10.03.2010). The report for the fourth quarter and the annual report in 2009 have been submitted for approval by the Board of Directors.

Information on remuneration, benefits and compensation paid to members of the Federal Grid Company Management Board:

Total compensation paid to Management Board members in 2009	RUB 98,301,058.56
Including:	
Salary	RUB 44,936,369.58
Bonuses	RUB 50,991,855.00
Commission	0
Benefits	0
Other personal compensations (Voluntary personal liability insurance)	RUB 2,372,833.98

6–5. INTERNAL CONTROL

The internal control system of Federal Grid Company includes the Controls and Audit Department (Financial Controls and Internal Audit Directorate) and the Internal Control Directorate.

The remit of the Controls and Audit Department includes:

- Devising and implementing financial and operational control procedures at the Company and its subsidiaries with the aim of preventing, identifying, putting an end to and eliminating the consequences of any irregularities in the management of financial and material resources;
- Devising and implementing a system of selective inspections of financial and economic operations at the Company and its subsidiaries to establish the compliance of these operations with legal requirements;
- Conducting investigations of any possible irregularities (fraud);
- Facilitating cooperation with external inspections agencies;
- Supporting the corporate Audit Commission and ensuring the implementation of its decisions and recommendations.

The remit of the Internal Control Directorate includes:

- Continuous monitoring and analysis of the accounting process at the Company and its subsidiaries and branches;
- Devising and implementing the internal control system, preventing any negative consequences of the Company's operations and identifying internal reserves for bolstering financial stability;
- Devising and implementing continuous operational control of the Company's accounting procedures;
- Developing proposals for improving the existing accounting and financial management mechanisms;
- Devising and implementing procedures for continuous internal verification of accounting and operational information;
- Devising and implementing continuous internal monitoring of compliance of corporate financial and economic operations with the Russian legislation.

The Internal Control Directorate is accountable to the Deputy Chairman of the Board. It is not connected in any way to the Board of Directors.

The Audit Commission is also responsible for monitoring the Company's financial and economic operations, and it is elected every year by the General Shareholders Meeting. The remit of the Audit Commission is defined by the Charter of the Federal Grid Company, which is available at www.fsk-ees.ru/eng/investor_governance_doc.html.

In 2009, the Company had Audit Commissions of two convocations (of the 2008 and 2009 convocation).

The Audit Commission, elected by the General Shareholders Meeting of 30.06.2008. was dissolved on 30.06.2009. Below is a list of the members:

Name	Main position held
1. Tatiana Zlydareva	Consultant at the Federal Agency for State Property Management
2. Victor Lebedev	Head of the Energy Sector Restructuring Department of the Ministry of Economic Development
3. Lyudmila Matyunina	First Deputy Head of the Internal Audit Department of MRSK Holding
4. Maria Tikhonova	Head of Division at the Economic Regulation and Ownership Relations in TEK Department of the Russian Energy Ministry
5. Marina Lelekova	Head of the Federal Grid Company Financial Controls and Internal Audit Directorate

The Annual General Shareholders Meeting held on 30.06.2009 elected the new members of the Audit Commission, including (Positions held at the time of the election):

1. Tatiana Zlydareva – Consultant at the Federal Agency for State Property Management
   Born: 1983
   Education: tertiary
   Share of participation in the charter capital of the Company (%): 0
   Share of ordinary Company shares held (%): 0
2. Viktor Lebedev – Head of the Directorate at the State Tariff Regulation and Infrastructure Reform Department of the Ministry of Economic Development
   Born: 1980
   Education: tertiary
   Share of participation in the charter capital of the Company (%): 0
   Share of ordinary Company shares held (%): 0
3. Maria Tikhonova – Department Head of the Energy Ministry
   Born: 1980
   Education: tertiary
   Share of participation in the charter capital of the Company (%): 0
   Share of ordinary Company shares held (%): 0
4. Dmitriy Kozlov – Deputy Director of the Energy Ministry Department
   Born: 1981
   Education: tertiary
   Share of participation in the charter capital of the Company (%): 0
   Share of ordinary Company shares held (%): 0
5. Yevgeniy Krylov – Department Head of Rosimushestvo (Russian State Property Management Agency)
   Born: 1972

Education: tertiary
Share of participation in the charter capital of the Company (%): 0
Share of ordinary Company shares held (%): 0

Compensation to members of the Audit Commission is paid on the basis of the Provision on the Payment of Remuneration and Compensation to Members of the Audit Commission approved by the Federal Grid Company AGM on 30.06.2008.

No compensation was paid to members of the Audit Commission in 2009.

6–6. HR Policy

The objective of the corporate HR policy is to ensure the availability of skills and expertise in the Company and its subsidiaries, and to facilitate the productive use and development of human resources.

Staff Numbers and Structure

The total number of staff employed by the Company as on 31.12.2009 was 11,933 people.

Over the reporting period, the total number of employees increased by 6.7%. This rise resulted from the implementation of the programme of launching new energy facilities and taking over existing facilities from MRSK.

Federal Grid Company staff numbers in 2009:

Branch	Numbers as on 31.12.2007	Numbers as on 31.12.2008	Numbers as on 31.12.2009
Executive bodies	756	669	838
MES Centre	2,693	2,715	2,767
MES Centre Repair and Management	2,886	3	0
MES North-West	1,167	1,036	1,100
MES North-West Repair and Management	701	0	0
Auto-transport Enterprise MES North-West	0	155	147
MES Volga	761	756	783
MES Volga Repair and Management	949	4	0
MES South	947	974	1,067
MES South Repair and Management	927	0	0
MES Urals	1,523	1,166	1,240
Auto-transport Enterprise MES Urals	0	369	366
MES West Siberia	862	872	939
MES Urals and West Siberia Repair and Management	1,630	1	2
MES Siberia	1,498	1,617	1,878
MES Siberia Repair and Management	1,639	5	0
MES East	565	808	806
MES East Repair and Management	730	31	0
Elektrosetservice UNEG	785	0	0
Total	**21,019**	**11,181**	**11,933**

The decrease in the number of staff employed by Federal Grid Company in 2008 compared to 2007 was the result of employee transfers from Federal Grid Company to the following subsidiaries and branches established in accordance with the decision of the Federal Grid Company Board of Directors on 13.11.007:

- Main Electricity Grid Service Company of the Unified National Electric Grid (Glavsetservice UNEG);
- Specialised Electricity Grid Service Company of the Unified National Electric Grid (Elektrosetservice UNEG);
- Engineering and Construction Management Centre of Unified Energy System (CIUS EES).

Federal Grid Company staff structure:

Staff category	2008	2009
Total	**11,181**	**11,933**
Administrative and managerial staff	3,815	4,640
Staff structure by specialisation		
Grid operation staff	10,613	11,418
Including production staff	6,242	6,900
Maintenance staff	44	2
Mechanisation and transport staff	524	513

One of the key objectives of the Company's HR policy is to improve the skills and expertise of the staff. To this end, the Company is developing comprehensive training programmes aimed at improving technical skills and fostering innovative thinking. More than 40% of the employees particpate in corporate training programmes every year.

Another objective of the corporate HR policy is to attract young specialists. As part of this effort, the Company has a number of programmes for technology students, including stipends, internships and open day events. The Company has created a reserve pool of qualified specialists.

The Company encourages professionalism, dedication and commitment with the help of various corporate, industrial and state awards. More than 250 staff members have received such awards.

HR Management

The Company views its human resources as a core asset. Retaining and developing talent is, therefore, one of the top corporate priorities.

HR management includes maintaining staff numbers at an optimum level, as well as effective planning of those numbers. The electricity sector is a high-tech industry, so the requirements to Federal Grid Company staff are very high. Some 68 per cent of the employees have higher education, and 28 per cent have taken specialised vocational education. Specialists and managers make up 46 per cent of the Company's workforce – that percentage is higher than the share of low-skilled employees. Some 75 per cent of the workforce is in the 30-to-50-year-old age group.

One of the key goals of HR policy is staff retention. In 2008, the staff turnover rate was 7.5 per cent, falling to 4.4% in 2009. It is especially important for the Company to retain the most experienced and qualified specialists, ensure the availability of skills and expertise in the key areas, and attract young talent.

Fair compensation policy forms the cornerstone of the Company's HR policy. Decent wages and a system of financial bonuses help Federal Grid Company retain leading industry specialists and form the basis of economic efficiency. The Company operates a uniform system of compensation and rewards for good performance. This system takes into account the following factors:

- Nature of different job categories;
- Regional differences in the labour market;
- Performance and productivity figures for each subsidiary, branch and individual staff member.

In order to maintain the required level of skills and expertise, the Company also operates a system of staff appraisal and training.

The appraisal system is an important instrument of HR policy, as it enables the Company to:

- Have a clear picture of the skills and expertise available to it;
- Form a reserve pool of specialists;
- Formulate the corporate training requirements;
- Provide a clear career path and room for growth for its employees.

Appraisals of the Company's managerial staff are held every two years. Some 2,431 staff members were appraised in 2009.

Staff Training and Development

The Federal Grid Company corporate training system was created to:

> Train skilled specialists;
> Formulate a reserve pool of specialists;
> Facilitate staff members' professional and personal growth.

There are two main types of training in the Company:

> Compulsory training;
> Career development training.

Compulsory training courses in areas such as work safety, industrial safety and other workplace requirements are taken by each staff member once every three years.
Career development training courses are delivered by specialised training facilities and include the following areas:

- Special professional training to improve staff members' skills and qualifications;
- Refresher courses to improve staff performance;
- Training of young specialists;
- Training of the reserve pool of specialists;
- Managerial training.

In 2009, a total of 4,905 staff members (42% of the total) took various corporate training courses.

New training courses were developed and launched in 2009 for the following groups of employees:

> Operational staff at all new electricity substations

All operational staff of new substations operated by all subsidiaries and branches took a pilot training course.

> Substation managers

A specialist training course was held for the managers of the substations operated by MES South branch.

> Chief substation engineers

The School of Chief Engineers course, which is the first part of the training programme for this category of staff, was held at the Moscow Energy Institute.

The Company continues its programme of training specialists for the reserve pool. It includes managerial and HR training, economics and finance courses, and a personal managerial efficiency course.

The training of young specialists is one of the top corporate HR priorities. As part of the Young Specialist programme, Federal Grid Company branches have made special arrangements with the leading national universities and colleges. As part of these arrangements, students are offered internships at various Federal Grid Company branches, and the best of them are awarded individual scholarships. Participating students are then invited to apply for Federal Grid Company jobs after graduation.

Another successful way of bringing the young specialists up to speed in their new workplace is to pair them up with more experienced colleagues. This approach facilitates the induction process and caters to individual training needs of each new member of staff. Federal Grid Company is also implementing a separate induction programme for new staff, including young specialists and recent graduates. All these approaches not only provide valuable training for new recruits in their actual workplace duties, but also immerse them in the corporate culture and traditions.

Fostering Employee Innovation

One of the key objectives of the corporate HR policy is to encourage free thinking and generation of new ideas by the employees. In July 2009, the Company launched the Innovator project, which aims to collect, analyse and implement innovative proposals. Employees are encouraged to submit new ideas that can help improve productivity through incremental improvements as well as radical changes. Another goal of the project is to help build up the reserve pool of specialists. A special reward system has been introduced to encourage participation and achievement.

Most of the ideas and proposals collected so far – about 60% – fall under three main categories: operational grid management, management of grid assets, and production and technology management.

Below are the key facts and figures from 2009:

> 5,995 ideas and proposals were submitted;
> 13,000 staff members are involved in generating and implementing innovations;
> 757 experts are involved in assessing the proposals;
> 424 projects were launched;
> 101 proposals were assessed by the regional councils of experts;
> 44 proposals were implemented by the regional branches.

The training and scientific Centre of Federal Grid Company at the Moscow Energy Institute

The main goal of the Centre is to provide in-depth training to young specialists in the areas of science most required by the Company.
The Centre is a modern training platform for current and potential employees of the Company. The equipment is cutting-edge. Classes are held in a computer laboratory, lecture hall, and a so-called "high-voltage" hall where operating models of real substation equipment are installed.

Graduate students from Moscow Energy Institute are eligible to study at the Centre, forming classes that have a specific curriculum geared towards the needs of the Federal Grid Company.

Both Moscow Energy Institute staff and specialists from the Company teach at the Centre.

Innovator Day

In December 2009, Federal Grid Company celebrated Innovator Day on the outskirts of Moscow, with 200 of the top-performing members of the Innovator competition participating. Selection alone to participate in Innovator Day is testimony to the high value placed on a participant's contributions to the project.

Just four of the 28 projects were selected for the finals – the Expert Council for Innovator Day, from which the best innovation was selected.

The winning project was submitted by Andrey Alexeev, Head of Information Technology at the Volga-Don enterprise of MES Centre. His project was titled a System for Collecting Information from Disturbance Recorders. Use of the innovative technology has resulted in electrical equipment operating more reliably.

CORPORATE SOCIAL RESPONSIBILITY AND ACCOUNTABILITY

- **Commitment to Sustainable Development**
- **Social Policy**

CORPORATE SOCIAL RESPONSIBILITY AND ACCOUNTABILITY

7–1. COMMITMENT TO SUSTAINABLE DEVELOPMENT

Sustainable development is the kind of business development that meets the requirements of the present without jeopardizing long-term priorities of the Company, and of the society in general. Federal Grid Company is committed to the principle of sustainable development. In practice this means that the Company realises the need for maintaining a balance between achieving its economic objectives and addressing the social and environmental priorities. The Company recognises its duty to the state and the public, and accepts that the business decisions of today have to contribute to the welfare of future generations.

Reports on Corporate and Social Responsibility

Federal Grid Company first declared its commitment to the principles of sustainable development in 2007, when the Corporate and Social Accountability chapter was included in the 2006 Annual Report. Starting from 2008, Federal Grid Company has been publishing full annual reports on social accountability and sustainability. Two such reports (for 2007 and 2008) have been released to date. The 2009 report is in the pipeline.

The reports are prepared taking into account the Global Reporting Initiative (GRI) G3 recommendations on steady growth, and in cooperation with the stakeholders - the groups, organisations and individuals who are affected by the Company and on whom it depends. This cooperation takes into account the principles and methodology of the AA 1000 SES stakeholder engagement standard.

Engagement of Stakeholders

Federal Grid Company views dialogue with the stakeholders as a cornerstone of the corporate social accountability policy. Analysis of the expectations of the key stakeholder groups to achieve an understanding of their position on the key issues facing the Company forms the basis for improving corporate social accountability standards.

Federal Grid Company aims to engage the following key stakeholder groups:

- Shareholders and investors;
- Federal authorities;
- Regional authorities;
- Local communities;
- Customers;
- Suppliers and subcontractors;
- Employees;
- Not-for-profit organisations.

As part of its interaction with the stakeholders, the Company has held or taken part in various events, including:

- General Shareholders Meetings;
- Meetings between the top managers and various stakeholder groups;
- Publication of various information on the corporate website and the Intranet;
- Exhibitions and conferences;
- Relations with the media;
- Participation in drafting various pieces of legislation;
- Signing cooperation agreements with individual stakeholder groups;
- Cooperation with various organisations and institutions;
- Public hearings;
- Customer surveys;
- Working meetings and talks with individual stakeholder groups;
- Corporate events;
- Participation in social projects;
- Implementation of environmental and social policies.

Key 2009 Events in the Area of Corporate Social Responsibility

- Public hearings on the environmental impact of large grid facilities in the Sochi Region;
- Dialogue with stakeholders on various other aspects of Federal Grid Company environmental policy;
- Submission of Federal Grid Company's Social Accountability and Corporate Stability Report to the National Register of Corporate Non-Financial Reports;
- Federal Grid Company Management Board member Aleksey Maslov's report to the State Duma energy committee on import replacement programme during the construction and refurbishment of grid facilities;
- Formulation of a plan of interaction with external stakeholders;
- A number of cooperation agreements signed with the regional authorities, suppliers and large electricity consumers;
- Implementation of the Information Disclosure Procedure for Technological Connection of Energy Consumers to the UNEG and the publication of a brochure on the technological connection procedure;
- Working visits by the Chairman of the Management Board to various Russian regions and meetings with the regional authorities.

Elena Orlova [Head of 500 kV Chagino substation]

Supporting and developing the Company's corporate culture is every manager's responsibility.

7–2. SOCIAL POLICY

The corporate social policy is based on the following priorities:

- Unconditional compliance with laws and regulations;
- Health and safety of the employees;
- Staff motivation through various social benefits;
- Developing human resources;
- Social partnership;
- Corporate culture;
- Corporate values and principles set out in the Corporate Ethics Code;
- External social policy, including charity and sponsorship.

Social Programmes for Employees

Social programmes foster a long-term relationship between the Company and its employees, and enable Federal Grid Company to achieve its social responsibility goals.

Voluntary medical insurance is the Company's most popular and effective social programme for staff members. It helps retain staff and achieve savings by reducing the number of work days lost to staff sickness by giving employees access to high-quality healthcare.

The voluntary medical insurance programme involves 829 healthcare and medical rehabilitation facilities.

The private pension programme has a long history in the energy industry. It is one of the reasons why many staff members spend their entire careers working in this sector. The Company finances larger pensions for employees who have spent a certain number of years working in the industry. These pensions are awarded for life. In 2009, the Company spent RUB 132.3 mln on private pensions.

Federal Grid Company also offers financial support to staff members in difficult personal circumstances, as stipulated in the Provision on Compassionate Financial Assistance to Individuals.

Corporate Culture

Federal Grid Company's corporate culture is outlined in the Corporate Ethics Code, which sets out the Company's values, traditions and principles. The Code's regulations are compulsory for all employees.

In order to promote corporate culture and foster corporate spirit, the Company holds various corporate events for its employees:

- Celebration of traditional holidays, as well as professional holidays, including Energy Industry Day and Company Day;
- Various events for the children of employees, such as New Year parties and drawing competitions;
- Team-building events;
- Trips;
- Sporting events.

Charity

As part of its commitment to social accountability, Federal Grid Company takes charity and sponsorship very seriously, focusing its efforts on three main areas:

- Supporting education establishments and sector specialists;
- Supporting childcare facilities where the Company operates;
- Supporting medical institutions and facilities.

Gennady Belov [Senior dispatcher at 500 kV Chagino substation]

Reliability is the absolute priority of our Company.

FINANCE

- 2009 RAS Financial Statements and Audit Report
- Management Discussion and Analysis (MD&A)

8–1. 2009 RAS FINANCIAL STATEMENTS AND AUDIT REPORT

The information presented below has been extracted by Federal Grid Company management from a complete set of 2009 financial statements prepared under the statutory Russian Accounting Standards (RAS), audited by PricewaterhouseCoopers Audit. The audit report was issued on a complete set of RAS financials consisting of the statements presented below and notes to financial statements.

Please visit
http://www.fsk-ees.ru/eng/investor_finance_ifrs.html

PRICEWATERHOUSECOOPERS

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AUDITOR REPORT ON STATUTORY FINANCIAL (ACCOUNTING) STATEMENTS 2009
[Translation from the original Russian]

To the shareholders of Federal Grid Company:

Auditor

PricewaterhouseCoopers Audit
State registration certificate No. 008.890, issued by Moscow Registration Bureau on 28.02.1992.
Certificate of inclusion in the Unified State Register of Legal Entities regarding a legal entity registered before 01.07.2002, No. 1027700148431, issued by the Interregional Inspectorate of the Russian Ministry of Taxes and Levies, No. 39 for the Moscow City, on 22.08.2002.
Member of non-profit partnership Audit Chamber of Russia (NP ACR) being a self-regulatory organisation of auditors, registration number 870, in the register of NP ACR members.
Major registration record number (ORNZ) in the register of auditors and audit organisations: 10201003683

Client

Federal Grid Company
5a Akademika Chelomeya Street, Moscow, 117630
State registration certificate No. 21081, series LO-002, issued by Leningrad Region Registration Bureau on 25.06.2002, number in the Unified State Register of Legal Entities No. 00/03124.
Certificate of inclusion in the Unified State Register of Legal Entities regarding a legal entity registered prior to 01.07.2002, No. 1024701893336, issued by the Inspectorate of the Russian Ministry of Taxes and Levies for the Tosno District of Leningrad Region on 20.08.2002.

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AUDITOR'S REPORT
on Statutory Financial (Accounting)
Statements of Federal Grid Company

To the Shareholders of Federal Grid Company:

1 We have audited the attached Statutory Financial (Accounting) Statements of Federal Grid Company (hereinafter – the Company) for the period from 01.01.2009 up to 31.12.2009, inclusive. Statutory Financial (Accounting) Statements of the Company consist of the Balance Sheet, Profit and Loss Account, Statement of Changes in Equity, Cash Flow Statement, Supplement to the Balance Sheet, Explanatory Notes (hereinafter, the statements as a whole are called Statutory Financial (Accounting) Statements). The Statutory Financial (Accounting) Statements were prepared by the management of the Company in accordance with the legislation of Russian Federation applicable to Statutory accounting reports. The Statutory Financial (Accounting) Statements differ to a significant degree from those prepared in accordance with International Financial Reporting Standards (IFRS).

2 Preparation of the Statutory Financial (Accounting) Statements is the responsibility of management of the Company. Our responsibility as auditors is to express our opinion on the fair presentation, in all material respects, of the Statutory Financial (Accounting) Statements based on our audit.

3 We conducted our audit in accordance with The Federal Law titled On Auditing Activity, Federal Auditing Standards, and International Standards on Auditing and Company internal standards.

Our audit was planned and performed to obtain reasonable assurance about whether the Statutory Financial (Accounting) Statements are free of material misstatement. The audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Statutory Financial (Accounting) Statements, assessing compliance with accounting principles, techniques and rules of the Statutory Financial (Accounting) Statements preparation, evaluating significant estimates made by the management of the Company and the overall Statutory Financial (Accounting) Statements presentation. We believe that our audit provides a reasonable basis for our opinion on the Statutory Financial (Accounting) Statements.

PricewaterhouseCoopers Audit
White Square Office Center
10 Butyrsky Val,
Moscow, Russia, 125047
Telephone: +7 (495) 967-6000
Fax: +7 (495) 967-6001
www.pwc.ru

4 In our opinion, the Statutory Financial (Accounting) Statements of the Company attached to this report have been properly prepared to present fairly, in all material respects, the financial position of the Company as at 31.12.2009 and financial results of its operations for the period from 1 January up to 31.12.2009 in accordance with the legislation of Russian Federation applicable for Statutory Financial (Accounting) Statements preparation.

01.04.2010

BALANCE SHEET

		Codes
	Form N1 on OKUD	710001
as at 31 December 2009	Date (year, month, day)	2009/12/31
Company Company Open Joint-Stock Company 'Federal Grid Company of Unified Energy System'	OKPO	56947007
Taxpayer identification number	INN	4716016979
Field of activity Electric power transmission	OKVED	40.10.2
Legal form/property form		
Open Joint-Stock Company/ Russian mixed ownership with state share	OKOPF/OKFS	47/41
Unit of measurement: thousands of RR	OKEI	384/385

Address 117630, Moscow, Ak. Chelomeya st., 5A

Date of approval	
Date of dispatch (acceptance)	30/03/2010

Assets	Line code	At beginning of reporting year	At end of reporting period
1	2	3	4
I. NON-CURRENT ASSETS			
Intangible assets	110	1,535,909	1,396,257
including:			
patent rights, software, trademarks and other similar assets	111	899,364	977,021
other intangible assets	112	636,545	419,236
Fixed assets	120	157,129,616	151,603,670
including:			
plots of land and natural resources	121	39,273	156,495
buildings, machinery and equipment, constructions	122	155,676,946	149,628,614
other fixed assets	123	1,413,397	1,818,561
Construction in progress	130	150,373,965	216,529,585
including:			
equipment for installation	131	13,418,743	18,484,815
investments in fixed assets	132	136,955,222	198,044,770
Income-bearing investments in tangible assets	135	-	-
Long-term financial investments	140	207,778,567	66,970,387
Deferred tax asset	145	-	-
Other non-current assets	150	1,653,608	1,415,088
Total Section I	190	518,471,665	437,914,987
II. CURRENT ASSETS			
Inventories	210	3,305,661	2,427,514
including:			
Raw, materials and other inventories	211	1,728,321	2,262,155
Work in progress	213	-	-
Finished goods and goods for resale	214	84,863	29,993
Expenses related to future periods	216	1,492,477	135,366
Other inventories and expenses	217	-	-
Value Added Tax on goods purchased	220	1,961,283	2,070,794
Accounts receivable (payment expected beyond 12 months of the reporting date)	230	10,871,826	20,492,819
including:			
buyers and customers	231	-	185,910
advances issued	234	14,413	36
other debtors	235	10,857,413	20,306,873
Accounts receivable (payment expected within 12 months of the reporting date)	240	107,347,626	117,170,891
including:			
buyers and customers	241	5,053,894	8,949,413
shareholders indebtness to Charter Capital	242	-	-
advances issued	243	68,970,457	67,036,337
other debtors	244	33,323,275	41,185,141
Short-term investments	250	49,390,019	69,127,725
Cash	260	5,640,064	11,312,141
including:			
cash on hand	261	2,617	2,439
cash at bank	262	5,635,181	11,305,731
foreign currency accounts	263	-	-
financial documents	264	13	9
other cash	265	2,253	3,962
Other current assets	270	-	-
Total Section II	290	178,516,479	222,601,884
TOTAL SECTIONS I and II	300	696,988,144	660,516,871

Equity and liabilities	Line code	At beginning of reporting year	At end of reporting year
1	2	3	4
III. EQUITY AND RESERVES			
Charter capital	410	576,757,098	576,757,098
Own shares buy-back	411	-	-
Additional capital	420	59,502,413	59,386,652
Legal reserve	430	9,910,770	10,134,044
Retained earnings (loss)	460	(6,841,528)	(6,944,397)
Current year loss	475	-	(59,865,994)
Total Section III	490	639,328,753	579,467,403
IV. NON-CURRENT LIABILITIES			
Borrowings and bank loans	510	18,000,000	6,000,000
Deferred tax liabilities	515	517,859	1,435,064
Other non-current liabilities	520	130	5,098
Total Section IV	590	18,517,989	7,440,162
V. CURRENT LIABILITIES			
Borrowings and bank loans	610	16,161,487	7,481,469
Accounts payable	620	22,601,947	65,802,620
including:			
Payable to suppliers and contractors	621	10,175,866	11,018,708
Payable to staff	622	76,713	134,473
Payable to state non-budget funds	623	15,102	18,906
Taxes payable	624	295,113	653,884
Advances received	627	7,096,192	7,114,653
Other creditors	625	4,942,961	46,861,996
Payable to participants (shareholders)	630	84,474	46,898
Income of future periods	640	293,494	278,319
Reserves for future expenses and payments	650	-	-
Other current liabilities	660	-	-
Total Section V	690	39,141,402	73,609,306
TOTAL SECTIONS III, IV, V	700	696,988,144	660,516,871

REFERENCE ON ITEMS ACCOUNTED ON OFF-BALANCE SHEET ACCOUNTS

Narrative	Line code	At beginning of reporting year	At end of reporting year
1	2	3	4
Rented fixed assets	910	3,272,196	6,189,371
thereof by leasing	911	-	-
Working and fixed assets received for storing	920	812,468	633,348
Goods on commission	930	-	-
Bad debts of insolvent debtors written off to losses	940	-	414,819
Securities of liabilities and payments received	950	58,437,451	70,943,984
Securities of liabilities and payments issued	960	1,175,189	30,815
Housing stock depreciation	970	-	-
Depreciation of auxiliary engineering facilities and other similar items	980	-	-
Intangible assets obtained for usage	990	-	-
Registered high-security forms	1000	7	11

PROFIT AND LOSS ACCOUNT

		Codes
	Form N2 on OKUD	710002
for 2009	Date (year, month, day)	2009/12/31
Company Company Open Joint-Stock Company 'Federal Grid Company of Unified Energy System'	OKPO	56947007
Taxpayer identification number	INN	4716016979
Field of activity Electric power transmission	OKVED	40.10.2
Legal form/property form		
Open Joint-Stock Company/ Russian mixed ownership with state share	OKOPF/OKFS	47/41
Unit of measurement: thousands of RR	OKEI	384/385

Narrative	Line code	For reporting period	For the same period of the previous year
1	2	3	4
Income from and expenses on ordinary activities			
Sales of goods, products, work, services (less VAT, excise duty and other similar compulsory payments)	010	85,077,809	68,485,030
including:			
electric power transmission services	011	80,173,317	66,128,765
other sales	012	4,904,492	2,356,265
Cost of goods, products, work, services sold	020	(64,079,927)	(58,977,340)
including:			
electric power transmission services	021	(62,732,093)	(57,107,753)
other sales	022	(1,347,834)	(1,869,587)
Total revenue (loss)	029	20,997,882	9,507,690
Sales expenses	030	-	-
General business expenses	040	(5,128,305)	(4,351,940)
Gross profit (loss) from sales	050	15,869,577	5,155,750
Other income and expenses			
Interest receivable	060	7,291,952	6,806,385
Interest payable	070	(1,717,506)	(2,385,645)
Participation in other companies	080	717,256	223,272
Other income	090	105,760,531	31,347,105
Other expenses	100	(181,970,591)	(34,970,048)
Income (loss) from operations	140	(54,048,781)	6,176,819
Teoretical income tax gain/(charge) (140 x 24% 2008, x 20% 2009)	143	10,809,756	(1,482,437)
Permanent tax liabilities (assets)	200	(16,588,331)	(1,952,589)
Deferred tax assets	141	(180,217)	6,767
Deferred tax liabilities	142	(722,009)	(216,856)
Current income tax	150	(4,876,349)	(3,224,937)
Other similar compulsory payments	151	(4,642)	461,546
Income tax adjustment for previous periods	152	(33,996)	1,262,136
Net profit (loss) for the reporting year	190	(59,865,994)	4,465,475
REFERENCE			
Basic earnings (loss) per share	201	(5,190)	575
Diluted earnings (loss) per share	202	-	-

BREAKDOWN OF SPECIFIC INCOMES AND EXPENSES

Narrative	Line code	For reporting period		For the similar period of the previous year	
		income	expense	income	expense
1	2	3	4	5	6
Fines and penalties recognized by court or those on which there are judgments of a court (or arbitrage court) on their recovery	230	397,323	40,390	152,738	1,861
Profit (loss) of previous years	240	412,431	521,681	115,403	288,008
Compensation for damages caused by default on obligations or by improper fulfillment of obligations	250	-	-	-	
Exchange rate differences	260	26,455	15,949	8,065	15,619
Revaluation reserve	270	X	9,404,732	X	5,028,828
Write-off of debtor and creditor indebtedness on which the period of limitation has expired	280	6,556	9,122	25,169	17,230
		-	-	-	-

Translation from the Russian original. The Russian original is official and has unconditional priority.

FLOW OF EQUITY AND FUNDS

		Codes
	Form N3 on OKUD	710003
for 2009	Date (year, month, day)	2009/12/31
Company Company Open Joint-Stock Company 'Federal Grid Company of Unified Energy System'	OKPO	56947007
Taxpayer identification number	INN	4716016979
Field of activity Electric power transmission	OKVED	40.10.2
Legal form/property form		
Open Joint-Stock Company/ Russian mixed ownership with state share	OKOPF/OKFS	47/41
Unit of measurement: thousands of RR	OKEI	384/385

I. Changes in equity

Narrative	Line code	Charter capital	Additional capital	Reserve capital	Accumulated profit/loss	Total
1	2	3	4	5	6	7
Balance as of 31 December of the year antecedent to the previous year	010	180,691,104	16,994,046	4,657,605	2,442,736	204,785,491
2008 *previous year*						
Changes in accounting policy	011	x	x	x	-	-
Revaluation of fixed assets	012	x	4,099,955	x	1,601	4,101,556
Changes in accounting rules	013	x	-	x	-	-
Balance as of 1 January of the previous year	020	180,691,104	21,094,001	4,657,605	2,444,337	208,887,047
Exchange rate difference	023	x	-	x	x	-
Net profit (loss)	025	x	x	x	4,465,475	4,465,475
Dividends	026	x	x	x	(380,000)	(380,000)
Allocations to reserves	030	x	x	1,916,167	(1,916,167)	-
Increase of capital due to	040	396,065,994	31,663,260	3,336,998	22,138,655	453,204,907
additional shares issue	041	57,482,627	x	x	x	57,482,627
increase of share par value	042	-	x	x	x	-
reorganization of legal entity	043	338,583,367	21,316,409	3,336,998	22,138,655	385,375,429
other	044	-	10,346,851	-	-	10,346,851
Decrease of capital due to	050	-	(159,901)	-	159,901	-
decrease in value of shares	051	-	x	x	x	-
reduction in number of shares	052	-	x	x	x	-
reorganization of legal entity	053	-	x	x	-	-
other	054	-	(159,901)	-	159,901	-
Balance as of 31 December of the previous year	060	576,757,098	52,597,360	9,910,770	26,912,201	666,177,429
2009 *current year*						
Changes in accounting policy	061	x	x	x	(33,836,387)	(33,836,387)
Results of property evaluation	062	x	6,905,053	x	(20,914)	6,884,139
Changes in accounting rules	063	x	-	x	103,572	103,572
Balance as of 1 January of the current year	100	576,757,098	59,502,413	9,910,770	(6,841,528)	639,328,753
Exchange rate differences	103	x	-	x	x	-
Net profit	105	x	x	x	(59,865,994)	(59,865,994)
Dividends	106	x	x	x	-	-
Contributions to legal reserves	110	x	x	223,274	(223,274)	-
Increase of capital due to	120	-	-	x	4,644	4,644
additional shares issue	121	-	x	x	x	-
increase of share par value	122	-	x	x	x	-
reorganization of legal entity	123	-	x	x	x	-
other	124	-	-	-	4,644	4,644
Decrease of capital due to	130	-	(115,761)	x	115,761	-
decrease in value of shares	131	-	x	x	x	-
reduction in number of shares	132	-	x	x	x	-
reorganization of legal entity	133	-	x	x	-	-
other	134	-	(115,761)	-	115,761	-
Balance as of 31 December of the current year	140	576,757,098	59,386,652	10,134,044	(66,810,391)	579,467,403

II. Reserves

Narrative	Line code	Balance b/f	Additions	Disposals	Balance
1	2	3	4	5	6
Legal reserves formed in accordance with legislation					
reserve					
previous year	150	4,657,605	5,253,165	-	9,910,770
current year	151	9,910,770	223,274	-	10,134,044
Legal reserves formed in accordance with foundation documents					
reserve					
previous year	152	-	-	-	-
current year	153	-	-	-	-
Provisions					
Doubtful debt provision					
previous year	160	883,464	2,424,875	(1,722,613)	1,585,726
changes in accounting policy	160a	1,585,726	33,836,387	-	35,422,113
current year	161	35,422,113	5,902,136	(20,017,408)	21,306,841
Provision for impairment of financial investments					
previous year	162	2,474,081	2,690,733	-	5,164,814
current year	163	5,164,814	3,502,596	(75)	8,667,335

REFERENCES

Narrative	Line code	At beginning of reporting year	At the end of reporting period
1	2 2	3	4
1) Net assets	200	639,622,247	579,745,722

	Line code	From budget		From non-budget funds	
		For reporting year	For previous year	For reporting year	For previous year
	2 2	3	4	5	6
2) Received for:					
ordinary activity expenses - total	210	-	322	119	144
capital investments	220	-	-	-	-
other	230	-	322	119	144

Translation from the Russian original. The Russian original is official and has unconditional priority.

CASH FLOW STATEMENT

		Codes
	Form N4 on OKUD	710004
for 2009	Date (year, month, day)	2009/12/31
Company Company Open Joint-Stock Company 'Federal Grid Company of Unified Energ	OKPO	56947007
Taxpayer identification number	INN	4716016979
Field of activity Electric power transmission	OKVED	40.10.2
Legal form/property form		
Open Joint-Stock Company/ Russian mixed ownership with state share	OKOPF/OKFS	47/41
Unit of measurement: thousands of RR	OKEI	384/385

Narrative	Line code	For the current year	For the same period of the previous
1	2	3	4
Cash at the beginning of the reporting year	010	5,640,051	12,991,358
Cash movement - operating activity			
Total cash received from customers and clients	020	94,010,235	80,973,311
Foreign currnecy purchase	030	290,642	200,661
Insurance compensation	040	-	-
Other income	050	13,414,676	59,958,954
Total cash used for:			
payments for purchased goods, work, services, materials and other current assets	150	(43,950,985)	(62,654,338)
wages and salaries payments	160	(5,589,044)	(5,857,276)
dividend paid, interest paid	170	(2,122,038)	(2,427,161)
settlements of taxes and duties	180	(6,142,236)	(26,927,880)
insurance payments	181	-	-
other payments	190	(2,185,427)	(4,756,891)
Net cash from operating activity	200	47,725,823	38,509,380
Cash movement - investing activity			
Sales of fixed assets and other non-current assets	210	307,731	500,929
Sales of securities and other financial investments	220	276,911,503	15,019,375
Dividend received	230	860,603	489,968
Interest received	240	3,118,353	3,805,783
Redemption of loans provided to other entities	250	-	-
Other income	260	-	-
Cash assets used for:			
subsidiaries acquisition	280	(8,499,011)	(2,195,420)
acquisition of fixed assets, income-bearing investments and intangible assets	290	(99,466,324)	(116,779,671)
acquisition of securities and other financial investments	300	(235,405,935)	(15,783,362)
loans granted to entities	310	(6,653)	(780)
other expense	320	(7,611)	(56,126)
Net cash from investing activity	340	(62,187,344)	(114,999,304)
Cash movement - financing activity			
Proceeds from issue of shares and other equity instruments	350	40,180,434	20,424,586
Loans and credits received	360	4,000,000	56,107,063
Other income	380	-	-
Cash assets used for:			
repayment of loans and credits (without interest)	390	(23,980,000)	(7,331,770)
other expense	405	(66,832)	(61,262)
Net cash from financing activity	410	20,133,602	69,138,617
Net increase (decrease) in cash and cash equivalents	420	5,672,081	(7,351,307)
Cash at the end of the reporting year	430	11,312,132	5,640,051
Ruble exchange rate difference	440	-	-

SUPPLEMENT TO THE BALANCE SHEET

for 2009

		Codes
	Form N 5 on OKUD	710005
	Date (year, month, day)	2009/12/31
Company Company Open Joint-Stock Company 'Federal Grid Company of Unified Energy System'	OKPO	56947007
Taxpayer identification number	INN	4716016979
Field of activity Electric power transmission	OKVED	40.10.2
Legal form/property form		
Open Joint-Stock Company/ Russian mixed ownership with state share	OKOPF/OKFS	47/41
Unit of measurement: thousands of RR	OKEI	384/385

INTANGIBLE ASSETS

Narrative	Line code	At beginning of reporting year	Additions	Disposals	At end of reporting period
1	2	3	4	5	6
Intellectual property (exclusive rights to intellectual property)	010	924,746	363,497	-	1,288,243
including the rights: of the patent holder on invention industrial design, utility model	011	-	9,715	-	9,715
of software, database owner	012	924,500	353,782	-	1,278,282
of the integrated circuit layout owner	013	-	-	-	-
of the trademark, servicemark owner, names of origin of goods owner	014	246	-	-	246
of plant patent holder	015	-	-	-	-
Administration expenses	020	-	-	-	-
Goodwill	030	-	-	-	-
Other	040	1,054,619	-	-	1,054,619
Total	045	1,979,365	363,497	-	2,342,862

Narrative	Line code	At beginning of reporting year	At end of reporting period
1	2	3	4
Amortization of intangible assets - total	050	443,456	946,605
including: intellectual property	051	24,946	310,648

Translation from the Russian original. The Russian original is official and has unconditional priority.

FIXED ASSETS

Narrative	Line code	At beginning of reporting year	Additions	Disposals	At end of reporting period
1	2	3	4	5	6
Buildings	110	14,958,688	1,642,214	(57,588)	16,543,314
Constructions and transfer mechanisms	111	164,374,412	1,944,212	(409,707)	165,908,917
Machinery and equipment	112	74,852,470	13,469,164	(1,089,988)	87,231,646
Means of transportation	113	1,453,723	664,044	(51,903)	2,065,864
Production and work appliances	114	974,537	194,973	(36,203)	1,133,307
Working livestock	115	-	-	-	-
Productive livestock	116	-	-	-	-
Perennial plants	117	-	-	-	-
Other types of fixed assets	118	223,570	87,172	(18,929)	291,813
Plots of land and natural resources	119	39,273	117,222	-	156,495
Investments in reclamation	120	-	-	-	-
Total	130	256,876,673	18,119,001	(1,664,318)	273,331,356

Narrative	Line code	At beginning of reporting year	At end of reporting period
1	2	3	4
Depreciation of fixed assets - total	140	99,747,057	121,727,686
including: buildings and constructions	141	74,208,142	88,232,724
machinery, equipment, means of transportation	142	24,918,279	32,655,704
other	143	620,636	839,258
Fixed assets leased out - total	150	8,581,605	4,896,221
including: buildings and constructions	151	6,103,352	4,069,233
machinery, equipment, means of transportation	152	2,301,452	797,993
other	153	176,801	28,995
Fixed assets transferred to conservation	155	2,237	8,354
Fixed assets leased in - total	160	3,272,196	6,189,371
including: buildings and constructions	161	2,026,725	2,437,885
machinery, equipment, means of transportation	162	1,229,600	1,521,222
other	163	15,871	2,230,264
Fixed assets received and being in the process of state registration	165	2,674,939	5,241,196

REFERENCE	Line code	At beginning of reporting year	At beginning of previous year
	2	3	4
Result of fixed assets revaluation:			
historical (recovered) value	170	6,884,139	4,101,556
	171	10,350,330	6,363,381
depreciation	172	3,466,191	2,261,825

	Line code	At beginning of reporting year	At end of reporting period
	2	3	4
Changes in fixed assets value as a result of fitting-out, rigging up, reconstruction, partial liquidation	180	1,465,469	1,873,833

INCOME-BEARING PROPERTY

Narrative	Line code	At beginning of reporting year	Additions	Disposals	At end of reporting period
1	2	3	4	5	6
Property for lease-out	210	-	-	-	-
Property for hiring	220	-	-	-	-
Other	230	-	-	-	-
Total	240	-	-	-	-

	Line code	At beginning of reporting year	At end of reporting period
	2	3	4
Depreciation of income-bearing property	250	-	-

RESEARCH AND DEVELOPMENT COSTS

Narrative	Line code	At beginning of reporting year	Additions	Disposals	At end of reporting period
1	2	3	4	5	6
Total Research and Development costs	310	499,747	357,354	(106,100)	751,001
including:	311	-	-	-	-
research of FACTS systems	312	4,000	-	(2,000)	2,000
other	313	495,747	357,354	(104,100)	749,001

	Line code	At beginning of reporting year	At end of reporting period
	2	3	4
REFERENCE Costs related to Research and Development in progress	320	486,564	677,196

	Line code	For reporting period	For the same period of the previous year
	2	3	4
Costs related to Research and Development without positive outcome which were charged to non-operating expenses	330	-	-

NATURAL RESOURCES DEVELOPMENT COSTS

Narrative	Line code	Balance at beginning of	Additions	Disposals	Balance at end of reporting period
1	2	3	4	5	6
Total natural resources development costs	410	-	-	-	-
including:	411	-	-	-	-
	412	-	-	-	-
	413	-	-	-	-

	Line code	At beginning of reporting year	At end of reporting period
	2	3	4
REFERENCE Expenses attributable to those areas of subsoil where prospecting and evaluation of deposits, exploration and/or hydrological survey and other similar works have not been finalized	420	-	-

	Line code	For reporting period	For the same period of the previous year
	2	3	4
REFERENCE Expenses attributable to natural resources development without positive outcome, which were charged to non-operating expenses of the current period	430	-	-

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FINANCIAL INVESTMENTS

Narrative	Line code	Long-term: At beginning of reporting year	Long-term: At end of reporting period	Short-term: At beginning of reporting year	Short-term: At end of reporting period
1	2	3	4	5	6
Investments in share capital of other entities - total	510	150,897,718	66,194,804	-	-
including subsidiaries	511	120,868,894	58,903,317	-	-
State and municipal securities	515	-	-	-	-
Securities of other entities	520	56,574,551	469,301	48,482,663	44,190,554
including debt securities (debentures, promissory notes)	521	56,574,551	469,301	48,482,663	44,190,554
Loans granted	525	296,461	303,113	887,671	887,671
Deposits	530	-	-	-	24,049,500
Other	535	9,837	3,169	19,685	-
Total	540	207,778,567	66,970,387	49,390,019	69,127,725
Financial investments at current market value from total					
Investments in share capital of other entities - total	550	136,404,713	47,075,372	-	-
including subsidiaries	551	109,406,501	40,338,195	-	-
State and municipal securities	555	-	-	-	-
Securities of other entities	560	-	-	-	-
including debt securities (debentures, promissory notes)	561	-	-	-	-
Other	565	-	-	-	-
Total	570	136,404,713	47,075,372	-	-

REFERENCE	Line code	For reporting period	For the same period of the previous year	For reporting period	For the same period of the previous year
	2	3	4	5	6
Change in value due to measurement adjustments of financial investments at current market value	580	-	(79,905,889)	-	-
Difference between acquisition cost and par value of debt securities is charged to financial results of the current period	590	-	-	-	-

ACCOUNT RECEIVABLE AND ACCOUNTS PAYABLE

Narrative	Line code	At beginning of reporting year	At end of reporting year
1	2	3	4
Accounts receivable:			
Short-Term	610	107,347,626	117,170,891
including:			
receivables from customers and clients	611	5,053,894	8,949,413
advances given	612	68,970,457	67,036,337
other	613	33,323,275	41,185,141
Long-Term	620	10,871,826	20,492,819
including:			
receivables from customers and clients	621	-	185,910
advances given	622	14,413	36
other	623	10,857,413	20,306,873
Total	630	118,219,452	137,663,710
Accounts payable			
Short-Term	640	38,763,434	73,284,089
including:			
payables to suppliers and contractors	641	10,175,866	11,018,708
advances received	642	7,096,192	7,114,653
tax and duties payments	643	295,113	653,884
credits	644	10,156,891	-
loans	645	6,004,596	7,481,469
other	646	5,034,776	47,015,375
Long-Term	650	18,000,130	6,005,098
including:			
credits	651	5,000,000	-
loans	652	13,000,000	6,000,000
other	653	130	5,098
Total	660	56,763,564	79,289,187

EXPENSES INCURRED IN ORDINARY

Narrative	Line code	For reporting year	For previous year
1	2	3	4
Materials	710	30,035,110	24,481,538
Wages and salaries expenses	720	6,758,157	6,723,873
Obligatory social payments	730	1,084,984	1,216,059
Fixed assets depreciation	740	23,417,508	20,849,262
Other expenses	750	7,912,473	10,058,548
Total by expense type	760	69,208,232	63,329,280
Changes in the balance (increase [+], decrease,[-]):			
Work in progress	765	-	-
Expenses of future periods	766	(1,656,251)	1,358,444
Reserves of future expenses	767	-	-

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COLLATERAL

Narrative	Line code	At beginning of reporting year	At end of reporting year
1	2	3	4
Received	810	58,437,451	70,943,984
including:			
promissory notes	811	-	1,231,579
Property in pledge	820	-	-
including:			
fixed assets	821	-	-
securities and other financial investments	822	-	-
other	823	-	-
Issued	830	1,175,189	30,815
including:			
promissory notes	831	1,144,374	-
Property given for pledge	840	-	-
including:			
fixed assets	841	-	-
securities and other financial investments	842	-	-
other	843	-	-
		-	-

GOVERNMENT GRANTS

Narrative	Line code	For reporting period	For the same period of the previous year
1	2	3	4
Budgeting funds received - total	910	-	322
including:	911	-	-
other	912	-	322
		-	-
		-	-
		-	-
		-	-

	Line code	At beginning of reporting year	Received in reporting period	Returned in reporting period	At end of reporting period
	2	3	4	5	6
Credits from budget - total	920	-	-	-	-
including:	921	-	-	-	-
Other	922	-	-	-	-

8–2. MANAGEMENT DISCUSSION AND ANALYSIS (MD&A)

This report represents a review of the financial position and performance of Federal Grid Company and should be regarded together with the Company's accounting reports for 2009, as prepared in accordance with Russian Accounting Standards (RAS).

Overview of Operations

Federal Grid Company owns, manages and ensures the operations of the Unified National (All-Russian) Electric Grid (UNEG), which implies the integrity of technological control and provision of services to electricity market participants for value on a contractual basis. Such services include energy transmission via the UNEG, whose length as on 31.12.2009 is 118 thousand km. The Company became the legal successor of RAO UES of Russia upon restructuring on 01.07.2008.

The Company owns 44 branches. The Company's Head Office is located in Moscow, and the average number of staff for 2009 is 11,302 people (for 2008 – 14,526 people). The Company's shares are listed on the Russian Trade System (RTS) and Moscow Interbank Currency Exchange (MICEX), as of July 2008.

The Company's major activity in the Russian electricity market is providing consumers with services related to electricity transmission via the UNEG. In accordance with Russian legislation, services for electricity transmission via the UNEG are the prerogative of the Federal Grid Company. Such services relate to monopolistic activities and are regulated by the state. The cost of the Company's services for electricity transmission is based on tariffs set by the Federal Tariff Service.

The number of consumers of the Company's electricity transmission services grows every year, which partially results from activities related to new consumers' technological connection to the UNEG. In 2009, the Company's consumers numbered 121 companies technologically connected to the UNEG, including distribution grid companies (DGCs); independent grid companies (GCs); energy sales companies (ESCs); and major electricity-consuming companies.

The Company continues to invest significantly in property, plants and equipment for the purpose of development and reliable functioning of the UNEG. The volume of construction, reconstruction and renovation of property, plant and equipment in 2009 was RUB 106,044 mln (2008 – RUB 136,221 mln).

In 2009, the Company used the following sources to finance its investment activities:

- RAO UES funds from the sales of assets owing to restructuring – 36%;
- funds included in the electricity transmission tariff – 25%;
- placement of treasury shares – 20%;
- other sources – 19%.

Together with electricity transmission services, the Company renders services for technological connection of new consumers to the UNEG. In 2009, the Company's revenue from the provision of such services was RUB 3,053 mln (2008 – RUB 45 mln).

Key Factors Impacting Performance

Major factors that impacted the Company's economic results for 2009 are as follows:

- consequences of the financial crisis and the resulting impairment of investments received by the Company after RAO UES restructuring;
- growth of the declared capacity, partially owing to technological connection of new consumers;
- change in established tariffs for electricity transmission via the UNEG.

Relations with the Government

As on 31.12.2009, 79.11%* of the Company's ordinary voting shares were owned by the state (as on 31.12.2008 – 77.66%), represented by the Federal Agency for State Property Management.

The Russian Federation has a direct impact on the Company's activity by regulating its tariffs through the Federal Tariff Service (FTS). The investment programme of Federal Grid Company is subject to approval by the Russian Federation Government.

The Company implements target Federal Programmes using federal budget funds. These programmes include the Programme for Electric Grids Development in the Sochi Region for the period of 2008–2014 to support Olympic facilities; Programme for Economic and Social Development of the Far East and Trans-Baikal area for the period up to 2013 (energy supply of the East Siberia-Pacific Ocean oil pipeline; facilities used for the summit of Asia-Pacific Economic Cooperation).

In the course of its day-to-day activities, the Company interacts with other state-controlled entities. In particular, most of the Company's services consumers are controlled by the state.

*Considering the amendments to Federal Grid Company Charter of 11.03.2010 reflecting changes in Charter Capital resulting from additional issue of shares finalised on 25.12.2009.

Regulation and Restructuring of the Utilities Industry

In July 2008 the target model of the Company's operation was completed by merger of RAO UES of Russia and the UNEG trunk pipeline grids into the Company. As a result of the restructuring, the Company is the legal successor of RAO UES of Russia.

The Company owns all the assets it obtained during the restructuring, including cash, promissory notes, and non-core assets, including shares of electricity generating companies that were revalued in 2009 owing to the decrease in their market value caused by the financial crisis of 2008–2009. A part of obtained assets are planned for sale. The Company plans to use funds received from sales of the above assets as a financing source for its investment programme.

Consequences of the Global Financial Crisis

Starting from 2008, the Russian economy was affected by the global financial crisis characterised by decreasing mutual trust in the areas of investment and lending. Increased credit, currency and price risks resulted in negative developments in the economy, particularly significant growth in prices, volatility of exchange quotations of securities, a reduction in industrial production, as well as a rise in the number of loan defaults and bankruptcies.

As a result of the financial crisis, the market value of utilities companies received by the Company after RAO UES of Russia restructuring decreased significantly. The Company recorded these investments at their current market value as on 31.12.2009. A corresponding loss of RUB 79.9 bln was recorded within other expenses.

In addition, the Company analysed its non-marketable value investments for impairment. The analysis took into account changes in the value of companies' net assets over two years. Investment in Sangtudinskaya HPP-1 was assessed based on the discounted cash flows method. In 2009, the Company recorded a provision for investment impairment in the amount of RUB 3.5 bln which was included in other expenses.

Financial difficulties of some of the Company consumers affected the terms of accounts receivable collection. Resulting from the Company's assessment of accounts receivable and probability of their collection in 2009, a doubtful debt provision of RUB 5.9 bln was recorded, including a provision for advances issued in the amount of RUB 2.7 bln. The doubtful debt provision related to the advances issued was recorded with regard to the following major contractors – Svyazstroi (advance for building a private digital mobile radio network for the utilities system of the Mid-Volga Region; provision of RUB 1.1 bln recorded); Interspetsstroi (provision of RUB 1.0 bln recorded).

Financial Results

RUB mln

	2009	2008	Difference, RUB mln	Change,%
Income and expenses from operating activities				
Revenue from operating activities,	85,077.8	68,485.0	16,592.8	24.2%
including:				
Electricity transmission services	80,173.3	66,128.8	14,044.5	21.2%
Other activities	4,904.5	2,356.2	2,548.2	108.1%
Cost of operations,	(64,079.9)	(58,977.3)	5,102.6	8.7%
including:				
Electricity transmission services	(62,732.1)	(57,107.7)	5 624.4	9.8%
Other activities	(1,347.8)	(1,869.6)	(521.8)	(27.9%)
Management and administrative expenses	(5,128.3)	(4,351.9)	776.4	17.8%
Operating profit	15,869.6	5,155.8	10,713.9	3.1-fold
Other income and expenses				
Interest income	7,292.0	6,806.4	485.6	7.1%
Interest expense	(1,717.5)	(2,385.6)	(668.1)	(28.0%)
Gain on investments in other organisations	717.2	223.3	493.9	3.2-fold
Other income	105,760.5	31,347.1	74,413.4	3.4-fold
Other expenses	(181,970.6)	(34,970.0)	147,000.5	5.2-fold
Profit/(loss) before taxation	(54,048.8)	6,176.8	(60,225.6)	9.8-fold
Deferred tax assets	(180.2)	6.8	(187.0)	27.5-fold
Deferred tax liabilities	(722.0)	(216.9)	(505.1)	2.3-fold
Current profit tax	(4,876.3)	(3,224.9)	1,651.4	51.2%
Other similar mandatory payments	(4.6)	461.5	(466.1)	(100%)
Profit tax adjustment for prior periods	(34.0)	1,262.1	(1,296.1)	(103%)
Net profit/(loss) for the period	(59,866.0)	4,465.5	(64,331.5)	14.4-fold

Revenue from Electricity Transmission Services

RUB mln

	2009	2008
Revenue from electricity transmission services,	80,173.3	66,128.7
including:		
Payment for maintenance of electric facilities included in the UNEG	66,682.1	52,564.1
Payment for standard process losses of electricity in the UNEG	13,491.2	13,564.6

Data for the analysed period of 2008–2009 reflect a growth in revenue from providing electricity transmission services. The growth of revenue by RUB 16,592.8 mln, or 24.2%, was recorded for 2009 compared to a similar period for 2008.

In 2009, key factors of revenue growth from electricity transmission services regarding the maintenance of electric facilities were the increase of tariffs for the UNEG facilities maintenance by 21% and volume of declared capacity by 4%.

Based on 2009 results, revenue from the provision of services related to regulated operations (less revenue from technical connection) amounts to 94.2% of total revenue.

Cost of Services Rendered

RUB mln

Cost components	2009	% of the total result	2008	% of the total result	Change,%
Depreciation of property, plant and equipment	22,562	35	20,412	35	10.5
Repairs and maintenance	14,127	22	9,624	16	46.8
Electricity purchase	13,433	21	11,419	19	17.6
Payroll expenses and social expenses	7,028	11	7,244	12	(3.0)
Property insurance expenses	1,094	2	1,185	2	(7.7)
Rental expenses	772	1	3,329	6	(76.8)
Property security expenses	766	1	698	1	9.7
Other expenses	4,298	7	5,066	9	(15.2)
Total cost of provided services	64,080	100	58,977	100	8.7

Depreciation of Property, Plant and Equipment

Increase in the expenses for depreciation of property, plant and equipment in 2009 results from the merge of trunk grid companies' grids as part of the industry restructuring and forming of a unified Company managing the UNEG facilities and revaluation of property, plant and equipment as well as the accrual of depreciation of new facilities commissioned at the end of 2008 and 2009.

Payroll Expenses and Social Expenses

A lower number of the Company's employees versus 2008 give rise to the change in payroll expenses and social expenses by 3%.

Electricity Purchase

In 2009, expenses for electricity purchase increased by 17.6% versus the same period for 2008. Such a growth results from a 16.3% increase in tariffs for electricity and capacity purchased at the wholesale electricity (capacity) market (WECM) and 1.2% increase in volumes of purchased electricity.

Repairs and Maintenance

Repair and maintenance expenses increased by 48.6% compared to 2008. Higher expenses related to this item are owing to the following reasons:

- acceptance of trunk grid companies' grids and higher maintenance expenses;
- restructuring of (spin-off servicing subsidiaries) and corresponding transfer of expenses for repairs from other items (payroll, UST, business trip expenses, raw and other materials);
- increase in the physical scope of work, including work as per target programmes (expanded areas of line route clearance, increased number of replaceable insulators etc.);
- additional expenses for managing the accident at the Sayano-Shushenskaya HPP.

Rental Expenses

These expenses include expenses for rent of production property (UNEG facilities), and expenses for the rent of offices and other administrative property of the Company's production divisions. Rental expenses decreased by 76.8% in 2009 compared to 2008. This related to the restructuring of trunk grid companies (their merger with Federal Grid Company) and consequent decrease in payments for rent of trunk grid companies' grids with a corresponding increase in depreciation charges and tax payments (property and land).

Property Protection Expenses

Increase in protection expenses by 9.7% in 2009 is associated with the transfer of trunk grid companies' grids for maintenance and inflation.

Other Expenses

The decrease in other expenses is explained by a technical factor – cost reallocation to repair and maintenance through the spin-off of servicing subsidiaries as well as taking other steps as per the Cost Reduction Programme.

Management and Administrative Expenses

RUB mln

Line item	2009	as % of total	2008	as % of total	Difference, %
Payroll expenses and social expenses	1,031.6	20	1 114.8	26	(7.5)
Information services and software expenses	937.6	18	851.2	20	10.2
Depreciation of property, plant and equipment and intangible assets	855.1	17	436.9	10	95.7
Production services	561.9	11	328.1	8	71.3
Material-related expenses	469.4	9	304.6	7	54.1
Rental expenses	415.4	8	388.2	9	7.0
Property insurance expenses	5.8	0	21.7	0	(73.1)
Property protection expenses	30.4	1	39.8	1	(23.8)
Communication services	201.1	4	121.6	3	65.4
Advisory services	163.1	3	299.7	7	(45.6)
Other expenses	457.0	9	445.3	10	2.6
Total management and administrative expenses	5,128.3	100	4,351.9	100	17.8

Depreciation of Property, Plant and Equipment

The main reason for increase in depreciation charge in 2009 was new property, plant and equipment (reconstruction of ventilation system in the office located at Bolshoi Nikolovorobinsky Lane.) and implementation of new software (intangible assets – Personnel Management computerised system, computerised management document flow, etc.) that resulted in the increase in depreciation charge by 96% versus 2008.

Payroll and Social Expenses

Decrease in payroll and social expenses by 7.5% in 2009 vis-à-vis 2008 is explained by the structural changes and transfer of personnel to servicing subsidiaries.

Material-related Expenses

Increase in the material expenses is explained by the increase in expenses for communication channels management (put into operation of the third line of Unified Digital Communication Network) and additional expenses for servicing the new ventilation system in the office located at B. Nikolovorobinsky per. and associated expenses for office repair.

Rental Expenses

Rental expenses include the expenses for renting communication systems. Rental expenses increased by 7% in 2009 as compared to 2008 that is associated with the conclusion of the contract for renting optical fibre network within the framework of Unified Digital Communication Network operation project (RUB 41.7 mln). If adjusted for the effect of the above contract, there is a decrease in rental expenses, including those related to the office premises by 4%.

Advisory and Legal Services

Decrease in advisory expenses by 46% is associated with the significant expenses incurred in 2008, within the framework of RAO UES of Russia restructuring support.

Other Production-related Services

Significant increase in the above expenses is explained by the Company's production needs and considers casual works performed in 2009 as per special purpose programmes on property valuation, development of the UNEG development, preparation of the forecasted balances of electricity and capacity. The above expenses decreased by 24% versus 2008 provided the above factors are not considered.

Operating profit

In 2009 operating profit increased by more than threefold as compared to 2008 owing to higher-than-anticipated growth of revenue as compared with cost. The Company's revenue increased by 24.2%; however, the increase in the cost was only 8.7%.

Other income

RUB mln

Description	2009	2008
Repayment of promissory notes	81,068.3	22,629.0
Income from release of bad debt provision (including Index of energy power industry - RUB 17.8 bln)	20,017.4	1,722.6
Income from disposal of investments (in 2009 – mainly the sales of Kuzbassenergo shares)	2,729.3	5,364.2
Other income	1,945.4	1,631.3
Total	105,760.5	31,347.1

The following factors had a significant impact on the above increase: increase in the declared capacity of consumers by 4%, increase in the established tariff by 21.2% in 2009; revenue from technical connection amounting to RUB 3.1 bln.

Interest income/expense

Interest income represents income on debt investments and income from placement of available cash in bank accounts and deposits. A significant part of income-bearing investments was received by the Company as a result of RAO UES of Russia restructuring on 01.07.2008.

In 2009, interest income increased by 7.1% versus 2008 as a result of prolongation of a period for recognising income (in 2008, income on a major part of investments was recognised during the second half of a year).

In 2009, the Company decreased total debt from RUB 34,161 mln as on 01.01.2009 to RUB 13,481 mln as on 31.12.2009 that resulted in the decrease in interest expense by 28% in 2009 as compared to 2008.

Other expenses

RUB mln

Description	2009	2008
Effect of revaluation of equity investment at market value	79,905.9	0
Repayment of promissory notes	79,281.6	22,830.7
Expenses from disposal of investments (in 2009 – mainly the sales of Kuzbassenergo shares)	9,793.5	3,252.1
Doubtful debt provision	5,902.1	2,424.9
Provision for investments impairment	3,502.6	2,603.9
Net book value of the property, plant and equipment and construction in progress written-off	634.9	571.9
Property tax	605.2	481.8
Other	2,344.7	2,804.5
Total	181,970.6	34,970.0

Income/Expenses from Disposal of Investments

The Company's repayment of third-party promissory notes resulted in income of RUB 1,786.7 mln in 2009 (in 2008, this was a loss of RUB 202 mln).

Financial result from disposal of other investments was a loss amounting to RUB 7,064 mln in 2009 including a loss from sales of TGK-12 shares amounting to RUB 7,017 mln (in 2008 – income amounting to RUB 2,112 mln).

Impairment of Investments

As on 31.12.2009, the Company recorded a loss related to the revaluation of equity investments at market value amounting to RUB 79,906 mln within other expenses. Also, in 2009, the Company accrued the provision for impairment of non-quoted investments, for which the market value is not determinable amounting to RUB 3,502 mln, including investments in Sangtudinskaya HPP-1 – RUB 2,479 mln, investments in Mobile Gas-Turbine Electric power plants – RUB 941 mln. In 2008, the Company did not record revaluation of quoted equity investments; the accrued provision for impairment of investments for which the current market value is not determinable amounted to 2,604 mln, including the investments in Mobile Gas-Turbine Electric power plants amounting to RUB 2,584 mln.

Doubtful Debt Provision (for the impairment of accounts receivable and advances issued)

As a result of the assessment of accounts receivable and their collection prospects, the Company accrued a doubtful debt provision amounting to RUB 5,902 mln; in addition, the Company accrued the provision amounting to RUB 2,734 bln related to the advances issued owing to the changes in the accounting policies for accruing the provisions (in 2008, no provision on advances issued was accrued). The deterioration in the counterparty's financial standing and respective deterioration of payment discipline had an impact on the accruing doubtful debt provision on the advances paid.

Current Profit Tax

The current profit tax for 2009 increased by 51% versus 2008 and amounted to RUB 4,876 mln. According to tax accounting data, the 2009 taxable profit amounted to RUB 24,381 mln. In 2008, the taxable profit amounted to RUB 13,437 mln. At the same time, the reduction of profit tax rate from 24% in 2008 to 20% in 2009 resulted in the respective decrease in profit tax in 2009.

Net Profit (loss) for the Reporting Year

The Company's net financial result for 2009 was a loss amounting to RUB 59,866 mln (in 2008 – profit amounting to RUB 4,465 mln). As described above, the main reason for the negative financial result was the recording of a loss resulting from changes in the current market value of quoted equity investments. The analysis performed shows that with regard to operating activities the Company experienced an increase in the operating profit by more than 3 times, but at the same time the external factors (decrease in the shares quotation, non-payment of counterparties) did not allow Federal Grid Company to generate net profit in 2009.

Company Net Assets

RUB mln

Description	2008	2009	
		nominal	Taking into account the contributions in the Charter Capital*
Net assets	666,470.9	579,745.7	619,923.6

* In 2009, Federal Grid Company was in the process of increasing its charter capital owing to the issue of the additional capital. As a result, the accounts payable (other current liabilities) of the 2009 accounting reports includes the current payables to the founding parties related to the contributions in the charter capital amounting to RUB 40.2 bln. In the first quarter of 2010, following registration of the report on the results of the additional issue of shares in the Russian Federal Service for Financial Markets, these payables were reclassified as charter capital of Federal Grid Company.

According to the accounting reports, the net assets of Federal Grid Company for 2009 decreased by RUB 86,725.2 mln vis-à-vis the similar period for 2008 and by RUB 46,547.3 mln, if the latest contribution in the charter capital is taken into account. The decrease in the net assets is mainly explained by impairment of investments that resulted in a net loss for 2009. In addition, the changes in the accounting policies of Federal Grid Company related to the accrual of doubtful debt provisions on the advances issued and other liabilities had impact on the decrease in net assets. As on 31.12.2009, the accrued provision on the advances issued and other liabilities amounted to RUB 18,804 mln (as on 31.12.2008 – RUB 33,836 mln).

Company Investment Activity

Property, Plant and Equipment Put into Operation in 2009

In 2009, the Company put into operation the following property, plant and equipment:

RUB mln

Property, plant and equipment commissioned in 2009* введенных в эксплуатацию в течение 2009 г.*	Capacity commissioned	Useful life of property, plant and equipment (years)	Cost (RUB mln net of VAT)
Reconstruction of 220 kV Cherepet-Orbita high voltage line	38.4 km	45	474
Construction of high voltage line 330 kV Kolskaya NPP-Knyazhegubskaya HPP-PS; 330/110/35 kV Loukhi-Putkinskaya HPP-ORU; 330 kV Ondonskya HPP (second area)	107 km, 2x125 MVA	45	1,292
200 kV Psou-Poselkovaya high voltage line with PS 220 kV Poselkovaya	46.8 km, 2x25 MVA, 3x40 MVA	45	3,111
500 kV Far East -Vladivostok high voltage line with PS 500 kV Vladivostok	501 MVA, 94.6 km, 2x6 km	45	3,506
200 kV Oznachennoe (Beya)-Askiz high voltage line	50.1 km	45	888
220 kV Zarya-Yartsevo High voltage line	8.3 km	45	158
Reconstruction of 220 kV Vostochnaya-Volkhov-Severnaya double-chain high voltage line	18 km	45	512
Expansion of 220 kV Nagornaya (facility AT-3) substation	200 MVA	35	326
220 kV Yablonovskaya substation with 220 kV Krasnodarsksya TEC-Yablonovskaya high voltage line and 220 kV Yablonovskaya-Afipskaya high voltage line	250 MVA, 33+16 km	35	1,272
Reconstruction of 220 kV Slavyanskaya Facility substation of the second AT	125 MVA	35	697
220 kV Kirillovskaya substation (STK)	2x50 MVAp	35	114
500 kV Emelino substation with entries of high voltage line 500 kV, 220 kV	501 MVA, 180 MVAp	35	2,349
500 kV Soboli substation with entries of high voltage line 220 kV, 110 kV (the first start-up stage)	2x250 MVA, 2x5 km	35	1,524
Severnaya substation (AT No. 2)	125 MVA	35	153

Property, plant and equipment commissioned in 2009*	Capacity commissioned	Useful life of property, plant and equipment (years)	Cost (RUB mln net of VAT)
220 kV Taturovo Complex substation technical upgrading and reconstruction	2x63 MVA, 2x25 MVAp	35	941
500 kV Tomskaya substation (CSR facility)	240 MVAp	35	520
AT-2 facility with capacity of 125 MVA at 220 kV Bachatskaya substation	125 MVA	35	178
Expansion of 500 kV Trachukovskaya (facility AT 3) substation	501 MVA	35	668
500 kV Peresvet substation with entries of high voltage line 500 kV Surgutskaya GRES-2-Ilkovskaya and high voltage line 220 kV, high voltage line 500 kV Somkinskaya-Peresvet	2x501 MVA, 180 MVAp, 50 km (entries 500), 66.8 km (entries 220), 57.5 km (overhead transmission line 500)	35	5,258
Expansion of 220 kV Urengoi (CSR facility 220 kV) substation	100 MVAp	35	222
Expansion of 220 kV Nadym (CSR facility 220 kV) substation	100 MVAp	35	240
Reconstruction of PS 500 kV Irtysh CSR facility	180 MVAp	35	430
Expansion and reconstruction of outdoor switchgear 500 kV Kashirskaya GRES-4 with AT 500/220 kV facility	500 MVA	35	1,327
Reconstruction of 220 kV Psou substation	200 MVA	35	1,984
Complex reconstruction of 500 kV Ochakovo substation	4 AT 500/220 kV by 500 MVA, 5 AT 220/110 kV by 250 MVA, 4 T 220/10 kV by 100 MVA	35	14,398
Reconstruction of 330 kV Yuzhnaya substation	3x1.3 km AT 330/220 kV 2x250 MVA	35	7,162
Reconstruction of 500 kV Tyumen substation (501 MVA, 125 MVA)	7x167 MVA, 2x125 MVA, 9x60 MVAp	35	4,906
External electricity supply, Valaam	2x16 MVA, 2x6.3 MVA, 2x21.5 km, 2x24.7 km	35	2,203
Entries in high voltage line 220 kV Dagomys-Psou at CSR 220 kV of Sochinskaya TEC	2x3.5 km	45	102
Entries of high voltage line 220 kV Magistralnaya- Yuzhno-Balykskaya GPKh at substation 220 kV Sredniy Balyk	48 km	35	354
Replacement of CS by CTK at substation 500 kV Zarya	160 MVAp	35	347
BSK and CSR at 220/110 kV Kogalymskaya substation	2x25 MVAp, 25 MVAp	35	142
BSK and CSR at 220/110 kV Progress substation	2x25 MVAp, 25 MVAp	35	142
BSK at 500 kV Oznachennoe substation	2x104 MVAp	35	353

(*) Assets are subject to acceptance and state registration procedures and, subsequently, they are included in property, plant and equipment for accounting purposes.

Investments in Financial Assets

The Company has a number of long-term investments in the Company's subsidiaries and associated companies and shares of other organisations, the ownership interest in which does not provide for control or significant influence.

Investments in subsidiaries

RUB mln

Company name	Activity	31.12. 2009		2009 revenue	Net assets as on 31.12. 2009, as per RAS
		Share in the charter capital, %	Book value (including the provision)		
S&T Elektroenergetika	R&D	100.00	3,895.8	514.8	1,161.8
APBE	System-wide forecast and analytical works in electric energy	100.00	3.5	479.3	172.0
Volgaenergosnabkomplekt	Supplies of materials and equipment	100.00	0.0	0.0	
Glavsetservice UNEG	Technical servicing and repairs of electricity supply grid facilities	100.00	1.0	8,970.4	(343.3)
Mobile GTES	Generation of electricity	100.00	10,594.3	1,166.1	10,153.7
Power Generation Centre	Communication services	100.00	20.0	1,107.9	120.7
Power Generation IM	Electronic and Digital Technologies	100.00	55.1	7,9	47.8
CIUS EES	Functions of a developer and constructor related to the capital construction, reconstruction and technical upgrading of electricity supply grid facilities	100.00	833.0	1,707.6	936.5
NPKenergo	No activity	100.00	0.0	0.0	6.7
Elektrosetservice UNEG	Technical servicing and repairs of electricity supply grid facilities	100.00	953.8	3,728.2	1,126.3
ESSK	Agency activity related to purchases	100.00	133.9	130.4	118.1
Index of Energy-FGC UES	Sales of securities	100.00	0.0	454.4	(11,037.7)
Chitatekhenergo	Communication services, r econstruction of UNEG facilities and communication lines maintenance	100.00	4.1	196.1	26.3
Power Generation Centre	Maintenance engineering service of buildings, facilities and premises	98.56	97.4	0.0	5.7
Nurenergo	Transmission, distribution and sales of electricity	77.00	0,0	2,188.2	(2,037.0)
Tomsk Backbone Grid	Transmission, distribution of electricity	52.03	866.4	114.4	1,224.9
GVC Energetiki	Lessor	50 plus 1 share	0.2	51.1	319.1
GruzRosenergo IPS	Electricity transmission services	50.00	763.2	214.6*	7,116.1*

Company name	Activity	31.12. 2009		2009 revenue	Net assets as on 31.12. 2009, as per RAS
		Share in the charter capital, %	Book value (including the provision)		
SMUEK	Energy company management	50.00	0.0	**	**
DESP	Comprehensive design in electric energy industry	1 share ***	0.0	1,069.0	170.6
Investments in subsidiaries			18,221.6	22,100.5	9,288.4

*At the following exchange rate: RUB 100 = 5.8 lari

**The company was liquidated on 15.02.2010

***Other shares of the DESP are owned by NTTs of electrical power industry, wholly owned subsidiary of the Company

Index energy power industry – Federal Grid Company is the owner of minority interest of energy companies

Investments in associated companies

RUB mln

Company name	Activity	31.12. 2009	Выручка	2009	Net assets as on 31.12. 2009, as per RAS
		Share in the charter capital, %	Book value (including the provision)		
Kuban Backbone Grid	Transmission, distribution of electricity	49.00	134.1	100.7	459.2
Severovostokenergo	Generation and sale of electricity and heat	49.00	9.8	0.0	133.0
EnergoTekhKomplekt	Renting out of warehouses	49.00	0.1	2.7	0.4
Schekinskie PGU	Construction and technical upgrading of electric energy industry facilities	45.21	0.0	0.0	0.0
OGK-1	Electricity and heat generation	40.17	13,164.4	42,504.0	30,071.0
IT Energy Service	IT services	39.99	198.4	85.3	195.9
ENIN	R&D	38.24	1.0	471.1	89.6
UEUK	Energy company management	33.33	0.1	0.0	164.4
TGC-7	Electricity and heat generation	32.14	13,262.8	41,817.3	45,967.1
TGC-11	Electricity and heat generation	27.45	2,463.6	17,091.3	13,834.0
TGC-6	Electricity and heat generation	23.58	4,304.3	21,741.9	27,596.5
Bashkirenergo	Generation, transmission and sale of electricity and heat	21.27	7,143.1	59,693.5	38,788.4
Investments in associated companies			40,681.7	183,508.0	157,299.5

Investments in the shares of other companies

RUB mln

Company name	31.12. 2009	
	Share in the charter capital, %	Book value (including provision), RUB mln
Sangtudinskaya HPP-1	14.48	551.256
OGK-6	9.60	2,317.319
Energomarket	8.50	0.001
Trest SVES	6.14	0.000
SOVASATOM	3.38	0.001
Mosenergo	3.37	4,419.858
Natsnenergo	1.90	0.040
IVStend-Ivanovskaya GRES	0.83	3.000
Sibenergoholding	0.00072	0.006
Tsentrenergoholding	0.00066	0.006
Investments in the shares of other companies		7,291,487

The majority of investments in the shares of companies listed in the table above were received by the Company as a result of RAO UES of Russia restructuring. The Company is considering the possibility of selling the investments.

Debt securities

As on 31.12.2009 and 31.12.2008, promissory notes of the following entities are accounted for within debt securities:

RUB thousand

Issuer	31.12.2009	31.12.2008	Due for repayment	Annul rate,%	Note
VTB Bank	-	41,460,006	09.2010	discount	*
SO -TsDU UES	469,300	508,899	12.2012	7	
MOESK	-	3,013,006	03.2009	17	
Otkrytiye Finance	-	6,228,604	09.2010	discount, 2	**
Glavsetservice UNEG	-	152,872	12.2009	14	
Otkrytiye Financial Corporation	-	5,211,164	11.2009 01-05.2010	discount	**
Total	469,300	56,574,551			

*Reclassification in short-term investments

** Novation in interest-free promissory notes, the amounts are recorded within the accounts receivable

As on 31.12.2009 and 31.12.2008, the short-term promissory notes include the promissory notes of the below companies:

RUB thousand

Issuer	31.12.2009	31.12.2008	Annul rate,%	Notes
VTB Bank	43,925,294	47,324,927	discount	*
Glavsetservice UNEG	150,000	90,400	14	
Bank Alemar	-	1,007,336	discount	
Kaustik	55,260	-	15	
GVC Energetiki	60,000	60,000	17	
Total	44,190,554	48,482,663		

* reclassification from long-term promissory notes

Cash Flows

As on 31.12.2009, the Company's cash amounted to RUB 11,312 mln (as on 31.12.2008 – RUB 5,640 mln).

Actual cash inflow in 2009 amounted to RUB 226,985 mln, which was by RUB 37,294 mln more than in 2008. Actual payments decreased by RUB 51,129 mln versus 2008 and amounted to RUB 195,668 mln.

In 2009, the Company financed the investments primarily by cash received from operational activities, note repayment and sales of investments received as a result of RAO UES of Russia's restructuring and additional shares placement.

SHAREHOLDERS AND INVESTORS

- _ Equity
- _ Stock Market
- _ Dividend Policy
- _ Taxation Matters for Shareholders
- _ Investor Calendar 2010

SHAREHOLDERS AND INVESTORS

9–1. EQUITY

According to Federal Grid Company's Charter, as on 31.12.2009, the charter capital amounted to RUB 576,757,098,181, divided into 1,153,514,196,362 ordinary registered non-documentary shares with a par value of RUB 0.50 each. There are 193,291,627,469 authorised ordinary registered shares with a par value of RUB 0.50 each, for a total par value of RUB 96,645,813,734.50.

Issues and classes (types) of shares:

- Class of shares: Ordinary;
- Type of shares: Registered, non-documentary;
- Par value per share: RUB 0.50;
- Number of shares outstanding (shares that have not been redeemed or cancelled): 1,153,514,196,362;
- Number of additional shares placed as on 31.12.2009: 80,047,137,190 ordinary registered shares with a par value of RUB 0.50 each, for a total par value of RUB 40,023,568,595;
- Number of authorised shares: 113,244,490,279 ordinary registered shares with a par value of RUB 0.50 each, for a total par value of RUB 56,622,245,139.50;
- Number of shares held by Federal Grid Company as treasury stock: 0;
- Number of additional shares that may placed as a result of conversion of outstanding securities convertible into stock, or as a result of exercise of the Company's options: 0.

State registration numbers and state registration dates of initial and additional equity placements:

1-01-65018-D of 10.09.2002

1-01-65018-D-001D of 21.03.2006

1-01-65018-D-002D of 23.08.2007

1-01-65097-D-097D of 03.07.2008

1-01-65098-D-098D of 03.07.2008

1-01-65018-D-101D of 25.12.2008*

* The report on the results of the additional securities placement was registered on 26.01.2010.

An additional placement of Federal Grid Company ordinary registered non-documentary shares was completed on 25.12.2009:

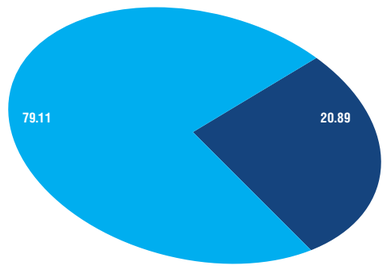
	Number of ordinary registered non-documentary shares.	Total par value amount, RUB
Charter capital according to the Charter as on 31.12.2009	1,153,514,196,362	576,757,098,181
Number of additionally placed securities under state registration number 1-01-65018-D-101D as on 25.12.2009*	80,047,137,190	40,023,568,595
Total number of outstanding securities as on 31.12.2009	1,233,561,333,552	616,780,666,776

*The report on the results of the additional securities placement was registered on 26.01.2010.

Shareholder Information

The Russian Federation, represented by the Federal State Property Management Agency (Rosimuschestvo), holds 79.11% of the Company's shares, with another 20.89% of the Company's equity owned by over 470,000 minority shareholders:

Shareholder Information %



Information on shareholders holding at least 5% of the Company's charter capital (as on 31.12.2009):

Full name: the Russian Federation, represented by the Federal State Property Management Agency (Rosimuschestvo);

- Registered address: 9 Nikolsky Pereulok, 109012 Moscow
- Stake in the Company's charter capital: 79.11%
- Stake in the Company's ordinary stock: 79.11%

Federal Grid Company shares constituting at least 5% of its charter capital and at least 5% of its ordinary stock have been entered in the Company's shareholder register as being held by the following nominees:

1) Depository and Clearing Company:
   - Registered address: 13 1st Tverskaya-Yamskaya Street, 125047 Moscow;
   - Percentage of the Company's ordinary shares held: 5.75%.
2) Depository and Corporate Technologies:
   - Registered address: 17 Ramenki Street, Bldg. 1, 119607 Moscow;
   - Percentage of the Company's ordinary shares held: 5.66%.

Registrar Information

The registrar is an organisation that maintains a register of holders of an issuer's registered shares.

- Full name: Central Moscow Depository (CMD);
- Registered address: 34 Bolshaya Pochtovaya Street, Bldg. 8, 105082 Moscow;
- Postal address: 34 Bolshaya Pochtovaya Street, Bldg. 8, 105082 Moscow;
- Phone: (495) 221-13-33 Fax: (495) 221-13-83;
- E-mail: dr@mcd.ru;
- License information:
- License No.: 10-000-1-00255;
- Issued on: 13.09.2002;
- Valid until: Unlimited;
- Licensing authority: Federal Commission for the Securities Markets of Russia;
- Date the registrar started maintaining the Federal Grid Company's register: 27.11.2002.

9–2. STOCK MARKET

Securities Trading

Since July 2008, Federal Grid Company shares have been traded on the MICEX and the RTS stock exchanges in Russia. The listing of its shares coincided with the completion of electric energy industry reform, which resulted in more than 470,000 shareholders owning Federal Grid Company stock. The shares started trading simultaneously on the MICEX and the RTS, where they were included in the V-level quotation lists.

By the end of 2008, a sufficient track record had been built for the stock to be upgraded to a higher-level quotation list. However, because of legislation that limits the minimum state stake at 75% plus one share, Federal Grid Company stock does not qualify for inclusion in the A-level quotation list on either exchange. Effective December 2008, the primary-issue shares (state registration number 1-01-65018-D of 10.09.2002) have been included in the B-level quotation list on both the MICEX and the RTS.

Stock Exchanges and Securities Tickers

Exchange	Ticker	ISIN code	Quotation list	Bloomberg ticker	Thomson Reuters ticker	Date trading was allowed
MICEX	FEES	RU000A0JPNN9	B			16.07.2008
RTS	FEES	RU000A0JPNN9	B	FEES RU	FEESS.RTS	16.07.2008
	FEESG			FEESS RU	FEES.RTS	
				FEESG RU	FEESG.RTS	

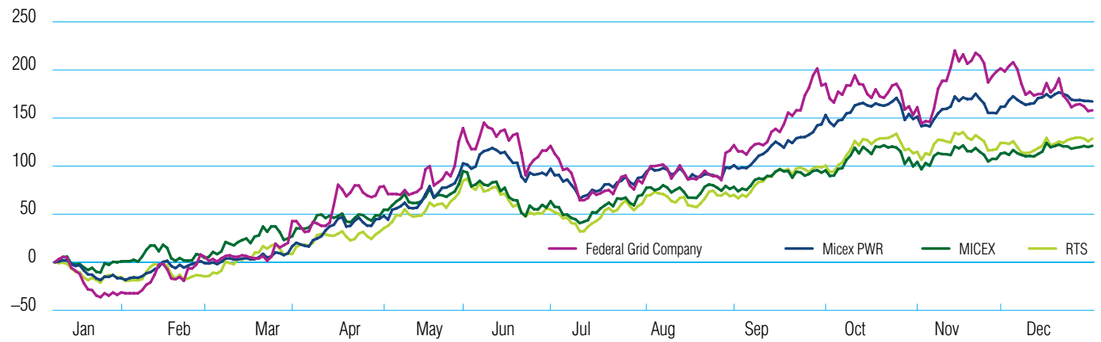
The fact that the Company's shares have been included in leading international and Russian stock indices is a testament to the recognition of their impact on the stock market at large. In the most meaningful development in 2009, Federal Grid Company stock was included in the MSCI Russia the MSCI Emerging Markets indices by MSCI Barra, a leading international agency. This has provided the Company with access to a wide range of professional investors, whose respective investment activity restricts operations to highly reliable securities that are part of the key stock indices.

The Federal Grid Company Stock Weightings in Key Stock Indices:

Index	Inclusion Date	Federal Grid Company weighting, % (current data)
MSCI Russia	28.02.2009	1.43
MSCI Emerging Markets	28.02.2009	0.045 – as on inclusion date
MICEX	27.04.2009	1.56
PMICEX10	12.01.2010	9.54
MICEX PWR	27.08.2008	13.24
MICEX LC	15.07.2009	1.94
RTSI	15.09.2008	1.72
RTSeu	15.09.2008	21.75

In 2009, Federal Grid Company shares placed among the top-ten most-liquid Russian securities, and were included in the MICEX10 Index (top-ten most-liquid stocks traded on MICEX).

Federal Grid Company stock performance compared to the key stock indices, %:



Summary of Federal Grid Company's stock performance on the MICEX in 2009:

MICEX	Low	High	Period-end	Volume (shares)	Volume (RUB)	Number of trades
1Q09	0.074	0.154	0.149	82,161,416,200	9,802,130,260.20	171,162
2Q09	0.149	0.325	0.268	141,173,824,900	32,605,155,019.70	308,969
3Q09	0.196	0.386	0.352	112,393,576,700	31,047,527,393.20	272,936
4Q09	0.296	0.409	0.319	117,171,087,800	41,039,565,469.80	418,551
Total:	0.074	0.409		452,899,905,600	114,494,378,142.90	1,171,618

Summary of Federal Grid Company's stock performance on the RTS in 2009:

RTS	Low	High	Period-end	Volume (shares)	Volume (RUB)	Number of trades
1Q09	0.0738	0.15227	0.14201	3,466,599,364	379,161,118	586
2Q09	0.14917	0.30674	0.27066	1,436,101,845	322,148,592	326
3Q09	0.17	0.38336	0.3515	1,802,145,891	470,642,431	384
4Q09	0.3	0.4008	0.3195	1,344,759,452	470,301,466	342
Total:	0.0738	0.4008		8,049,606,552	1,642,253,606	1,638

Federal Grid Company Stock Prices in 2009

The weighted average price per Federal Grid Company share on the MICEX rose by 159% in 2009, to RUB 0.319 as on 31.12.2009.

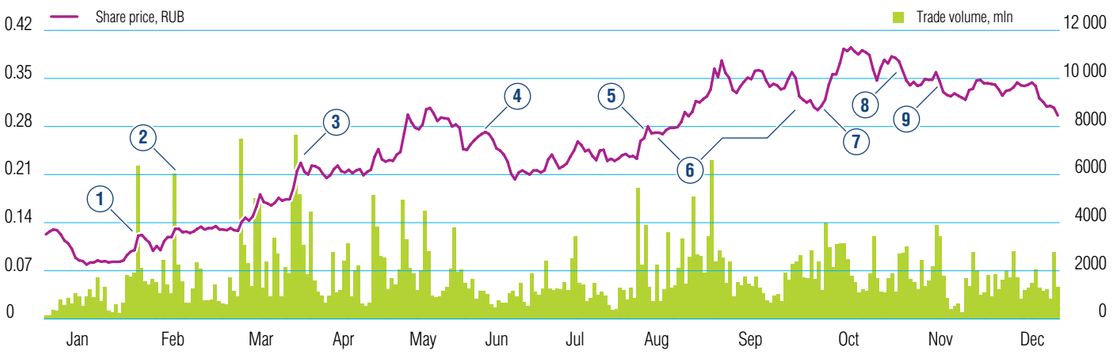
The Impact of Company and Market Newsflow on Federal Grid Company Stock Prices in 2009

The developments that influenced the Company's share price included the following:

- Inclusion of Federal Grid Company shares in the MSCI Russia and the MSCI Emerging Markets in February;
- Disclosure of the Company's financials for 2008 in early April and for 1Q09 in mid-May;
- A decision by the Russian government to implement RAB regulation at power-grid companies, effective as of 2010, and the passing by the State Duma of the energy-efficiency legislation in November;
- Approval by the Federal Tariff Service of Russia of rates of return for the Federal Grid Company to calculate electricity transmission fees;
- Approval of rates and the initial invested capital for the Federal Grid Company.

The chart below presents the Federal Grid Company stock price performance (rhs) and trading volume (lhs) on the MICEX in 2009. The chart also shows the key events that impacted the stock price the most. The table below the chart explains those events, referenced by the number, in more detail.

Federal Grid Company stock price performance and trading volume on the MICEX:



	Date	Price change	Notes
1	12.02.09	12.04%	Report of Federal Grid Company stock inclusion in the MSCI Barra
2	27.02.09	10.74%	One day before inclusion in the MSCI
3	15.04.09	13.14%	Report of a CAPEX programme cut, and disclosure of a forecast of RAB parameters and 2009–2011 financials
	16.04.09	13.13%	
4	Early July	A decline by 25.5% in the space of 8 days	Press reports on electricity rates for 2010 and a possible cut to Federal Grid Company's investment programme, with subsequent approval of tariff rate hike caps by the government
5	28.08.09	15.22%	The day after initial reports appeared of the government's intention to imminently transfer power-grid companies to RAB regulation
6	September – October		A number of reports corroborating an imminent transition of Federal Grid Company to RAB regulation
7	11.11.09		The State Duma passes the energy efficiency legislation requiring the Federal Grid Company to adopt RAB regulation effective 2010
8	07.12.09	A decline by 11.2% in the space of 3 days	The Federal Tariff Service approves a RAB-based return for Federal Grid Company – 11% for new invested capital, and 3.9% for initial invested capital in 2010, 5.2% in 2011, and 6.5% in 2012
9	22.12.09	A decline by 10.5% in the space of 3 days	Tariff decisions and initial invested capital for Federal Grid Company are announced

At RUB 0.395, the consensus target price set by analysts at 15 major investment banks has been 24% above the weighed average price of RUB 0.319 per Federal Grid Company share. Experts are thus expecting Federal Grid Company stock to continue rising, albeit at a slower pace than in 2009.

Global Depository Receipts (GDR)

On 24.06.2008, the FFMS authorised Federal Grid Company to place and cause circulation outside of Russia of emission securities based on all currently registered issues of its ordinary shares in an amount not exceeding 287,269,492,431 ordinary shares.

Federal Grid Company' Global Depository Receipt programme devised following the reorganisation of Federal Grid Company and RAO UES of Russia and comprising depository receipts conferring rights to underlying ordinary shares that were not listed in accordance with the Regulation S or Rule 144A, was launched on 30.06. 2008.

As on 31.12.2009, the total amount of Federal Grid Company' GDR programme was equivalent to 0.2% of the Company's charter capital.

GDR Programme Highlights

	Regulation S	Rule 144A
Ratio	1 GDR : 500 shares	1 GDR : 500 shares
International code	ISIN: US3133542015 Common Code: 036273577	ISIN: US3133541025 Common Code: 0362733372
Depository bank	Deutsche Bank	Deutsche Bank
Programme launch date	30.06.2008	30.06.2008
Market price as on 31.12.2009	USD 5.30	USD 5.30
Amount of GDRs as on 31.12.2009	4,001,007	689,852

9–3. DIVIDEND POLICY

Federal Grid Company's dividend policy is based on its Dividend Policy Regulations that were developed in compliance with existing Russian law and approved by the Board of Directors on 15.02.2008. The Board would recommend dividends based on financial performance while maintaining a balance between the Company's development needs and shareholders' financial interests.

A general shareholders meeting would determine the amount of dividends to be paid on ordinary shares based on the Board's recommendation, but in no event may it approve a payout above this recommendation.

In order to maintain the Company's financial stability amid a financial crisis, the Board of Directors recommended the general shareholders meeting allocate 2008 net profit to development. A general meeting resolution of 30.06.2009 approved the allocation of RUB 4,242,201,000 (95% of 2008 net profit) to development, and RUB 223,201,000 (5% of 2008

net profit) to the Company's reserve fund. The money allocated to development was used to finance specific projects to the extent determined by a separate Board resolution as part of the Company's priority activities:

	Unit	2006	2007	2008
Total dividend accruals	RUB '000	587,847.4	380,000	0
Per ordinary share	RUB	0.001626664	0.0007977370096	0

The reserve fund and dividends are to be accrued from after-tax (net) profit recognised in financial statements. Federal Grid Company incurred a RUB 59,866 mln loss in 2009. No dividends will therefore be paid for that year.

9–4. TAXATION MATTERS FOR SHAREHOLDERS

The taxation of income from the Company's emission securities that have been or are in the process of being issued is regulated by the Tax Code of the Russian Federation, as well as other regulations passed in compliance with the Tax Code.

Tax rates:

Type of income	Legal entities		Individuals	
	Resident	Non-resident	Resident	Non-resident
Dividends	9%, 0%*	15%	9%	15%
Bond coupons	20%	20%	13%	30%
Income from sale of securities	20%	20%	13%	30%

* In accordance with paragraph 3, Article 284 of the Russian Federation Tax Code, the 0% tax rate shall be applied to dividend income received by Russian organisations provided that at the date the dividend payment decision is made, the organisation receiving the dividends had continuously owned, over a period of not less than 365 days, at least a 50% contribution (stake) in the charter (equity) capital (fund) of the organisation paying the dividend, or depository receipts conferring the right to receive dividends equivalent to at least 50% of total dividends paid by the organisation, provided further that the cost of acquisition of the contribution (stake) in the charter (equity) capital (fund) of the organisation paying the dividend, or depository receipts conferring the right to receive the dividends, exceeds RUB 500 mln; otherwise, the 9% rate shall be applied.

9–5. INVESTOR CALENDAR 2010

Dates	Events
December 24	Presentation of preliminary 2010 results
November 15	Publication of the 3Q10 quarterly report
November 2	Publication of 9M10 RAS financial statements
October 2	Publication of a list of affiliates for 3Q10
August 14	Publication of 1H10 RAS financial statements Publication of the 2Q10 quarterly report
July 30	Publication of audited 2009 IFRS financial statements
July 3	Publication of a list of affiliates for 2Q10
June 29	Annual General Shareholders Meeting
May 15	Publication of the 1Q10 quarterly report
May 5	Publication of 1Q10 RAS financial statements
April 15	Publication of audited 2009 RAS financial statements
April 3	Publication of a list of affiliates for 1Q10
February 15	Publication of the 4Q09 quarterly report
February 3–5	Participation in Troika Dialog's Russia 2010 investment forum
February 4	Publication of interim 1H2009 IFRS financial statements
January 27–28	Participation in Deutsche Bank's Russia One-on-One investment conference in London
January 12	Publication of a list of affiliates for 4Q09

ATTACHMENTS

- Subsidiaries
- Transactions
- Audit Commission Conclusion on the Veracity of Information in the Annual Report
- Branches

10

10–1. SUBSIDIARIES

Branches and subsidiaries of Federal Grid Company as of 31.12.2009

Full name	Federal Grid Company share of the charter capital	Ordinary shares owned by Federal Grid Company
Branches and subsidiaries in which Federal Grid Company has a 100% share of the charter capital		
Energy Forecasting Agency (APBE)	100.00%	100.00%
Volgaenergosnabkomplekt	100.00%	100.00%
Glavsetservice UNEG	100.00%	100.00%
Index of Energy-FGC UES	100.00%	-
Mobile GTES	100.00%	100.00%
MUS Energetika	100.00%	100.00%
S&T Elektroenergetika	100.00%	100.00%
UC Energetika	100.00%	100.00%
CIUS EES	100.00%	100.00%
NPKenergo	100.00%	100.00%
Chitatekhenergo	100.00%	100.00%
Elektrosetservice UNEG	100.00%	100.00%
Energostroisnabkomplekt UES	100.00%	100.00%
Subsidiaries in which Federal Grid Company has a 75-99% share of the charter capital		
Centre of Energy	98.56%	98.56%
Nurenergo	77.00%	77.00%
Subsidiaries in which Federal Grid Company has a 50-74% share of the charter capital		
Tomsk MES	52.025%	59.881%
GVC Energetiki	50.00% plus 1 share	50.00% plus 1 share
SMUEK	50.00%	50.00%
GruzRosenergo IPS	50.00%	50.00%
Dependent companies in which Federal Grid Company has less than a 50% share of the charter capital		
Kuban MES	49.00%	49.00%
Severovostokenergo	49.00%	49.00%
EnergoTekhKomplekt	48.99%	65.34%
Schekinskie PGU	45.21%	45.21%
OGK-1	40.17%	40.17%
IT Energy Service	39.99%	-
ENIN	38.24%	38.24%
UEUK	33.33%	33.33%
TGK-7 (Volzhskaya)	32.14%	32.14%
TGK-11	27.45%	27.45%
TGK-6	23.58%	23.58%
Bashkirenergo	21.27%	22.29%

Information on Federal Grid Company Transactions in 2009

Below is a list of the transactions completed by Federal Grid Company, acknowledged as interested party transactions, and approved by the Federal Grid Company Board of Directors in 2009:

1. Supplementary agreement No. 2 to the contract for building services between Federal Grid Company and CIUS EES of 01.04.2008 No. Ts/01. Value of the supplementary agreement: RUB 1,041,500,000 (one billion forty-one million five hundred thousand), plus 18% VAT to the sum of RUB 187,470,000 (one hundred and eighty-seven million four hundred and seventy thousand) (Minutes of the Meeting No. 76 of 3.03.2009).

2. Supplementary agreement No. 3 to the contract for building services between Federal Grid Company and CIUS EES of 01.04.2008 No. Ts/01. Value of the supplementary agreement: the price of the services in the first quarter of 2009 will be RUB 544,320,000 (five hundred and forty-four million three hundred and twenty thousand), plus 18% VAT to the sum of RUB 97,977,600 (ninety-seven million nine hundred and seventy-seven thousand six hundred) (Minutes of the Meeting No. 76 of 3.03.2009).

3. Property lease agreement between Federal Grid Company and CIUS EES. The rent consists of: a fixed part, which the sides agreed will not exceed RUB 10,100,780 (ten million one hundred thousand seven hundred and eighty) and ninety-two kopecks for 360 days, in accordance with annexes No. 1-8 to the present agreement; plus VAT as stipulated by the Russian legislation (Minutes of the Meeting No. 76 of 3.03.2009).

4. Equipment rental agreement (with a buyout clause) between Federal Grid Company and MRSK Holding. The value of the contract is as follows: RUB 888,522 (eight hundred and eighty-eight thousand five hundred and twenty-two) and 33 kopecks per month, plus 18% VAT to the sum of RUB 159,934 (one hundred and fifty-nine thousand nine hundred and thirty-four) and 2 kopecks, inclusive of the payment for the lease of items listed in Annex 2 of the contract, which constitutes RUB 226,353 (two hundred and twenty-six thousand three hundred and fifty-three) and 77 kopecks per month, plus 18 % VAT to the sum of RUB 40,743 (forty thousand seven hundred and forty-three) and 68 kopecks. In case of early return of the items listed in Annex 2, in accordance with Paragraph 5.3 of this contract, the price will be reduced to RUB 662,168 (six hundred and sixty-two thousand one hundred and sixty-eight) and 55 kopecks per month, plus 18% VAT to the sum of RUB 119,190 (one hundred and nineteen thousand one hundred and ninety) and 34 kopecks (Minutes of the Meeting No. 76 of 3.03.2009).

5. Trust management agreement between Federal Grid Company and Inter RAO UES. The size of compensation paid to the trust manager is RUB 3,000 per quarter (Minutes of the Meeting No. 76 of 3.03.2009).

6. Contract for repair and maintenance of grid facilities between Federal Grid Company and MRSK Volga. The value of the contract is RUB 10,660,030 (ten million six hundred and sixty thousand and thirty), inclusive of VAT (Minutes of the Meeting No. 81 of 28.05.2009).

7. Contract for repair and maintenance of grid facilities between Federal Grid Company and MRSK Volga. The value of the contract is RUB 73,358,640 (seventy-three million three hundred and fifty-eight thousand six hundred and forty), inclusive of VAT (Minutes of the Meeting No. 81 of 28.05.2009).

8. Supplementary agreement No. 6 to Agent Agreement No. 2 of 12.10.2006 between Federal Grid Company (Customer) and MRSK North-West (Contractor). The size of compensation paid to the Contractor is set at 2% of the volume of utilised capital investment, plus VAT at the rate set forth in Russian legislation, paid out from the agreed sum of funding (Minutes of the Meeting No. 81 of 28.05.2009).

9. Contract for service and maintenance of overhead transmission lines and substations operated by PMES Caspian, signed between Federal Grid Company and MRSK North Caucasus. The value of the contract is set at RUB 16,492,973 (sixteen million four hundred and ninety-two thousand nine hundred and seventy-three) and 28 kopecks, inclusive of VAT (Minutes of the Meeting No. 81 of 28.05.2009).

10. Contract for ongoing repairs of overhead transmission lines and substations operated by the PMES Caspian, signed between Federal Grid Company and MRSK North Caucasus. The value of the contract is set at RUB 20,641,850 (twenty million six hundred and forty-one thousand eight hundred and fifty) and 92 kopecks, inclusive of VAT (Minutes of the Meeting No. 81 of 28.05.2009).

11. Supplementary agreement to purchase of licenses for SAP software and software support services to a contract between Federal Grid Company and MRSK North Caucasus (Minutes of the Meeting No. 81 of 28.05.2009).

12. Additional agreements to purchase of licenses for SAP software and software support services to a contract between Federal Grid Company and MRSK North-West (Minutes of the Meeting No. 81 of 28.05.2009).

13. Additional agreements to purchase of licenses for SAP software and software support services to a contract between Federal Grid Company and MRSK Urals (Minutes of the Meeting No. 81 of 28.05.2009).

14. Sublicensing agreement to purchase of licenses for mySAP Business Suite software and support services between Federal Grid Company and MRSK North-West. The value of the contract is set at RUB 13,495,779 (thirteen million four hundred and ninety-five thousand seven hundred and seventy-nine) and 69 kopecks, including 18% VAT to the sum of RUB 2,058,678 (two million fifty-eight thousand six hundred and seventy-eight) and 26 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

15. Sublicensing agreement to purchase licenses for mySAP Business Suite software and support services between Federal Grid Company and MRSK South. The value of the contract is set at RUB 40,477,815 (forty million four hundred and seventy-seven thousand eight hundred and fifteen), including 18% VAT to the sum of RUB 6,174,581 (six million one hundred and seventy-four thousand five hundred and eighty-one) and 95 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

16. Additional agreements to purchase of licenses for SAP software and software support services to a contract between Federal Grid Company and MOESK (Minutes of the Meeting No. 81 of 28.05.2009).

17. Sublicensing agreement to purchase of licenses for mySAP Business Suite software and support services between Federal Grid Company and Lenenergo. The value of the contract is set at RUB 26,988,384 (twenty-six million nine hundred and eighty-eight thousand three hundred and eighty-four) and 69 kopecks, including 18% VAT to the sum of RUB 4,116,872 (four million one hundred and sixteen thousand eight hundred and seventy-two) and 24 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

18. Sublicensing agreement to purchase of licenses for SAP for Utilities software between Federal Grid Company and Lenenergo. The value of the contract is set at RUB 50,207,321 (fifty million two hundred and seven thousand three hundred and twenty-one) and 73 kopecks, including 18% VAT to the sum of RUB 7,658,744 (seven million six hundred and fifty-eight thousand seven hundred and forty-four). (Minutes of the Meeting No. 81 of 28.05.2009).

19. Sublicensing agreement to purchase of licenses for SAP for Utilities software between Federal Grid Company and MRSK North Caucasus. The value of the contract is set at RUB 6,891,034 (six million eight hundred and ninety-one thousand and thirty-four) and 15 kopecks, including 18% VAT to the sum of RUB 1,051,174 (one million fifty-one thousand one hundred and seventy-four) and 70 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

20. Sublicensing agreement to purchase of licenses for SAP for Utilities software between Federal Grid Company and MRSK North-West. The value of the contract is set at RUB 10,504,727 (ten million five hundred and four thousand seven hundred and twenty-seven) and 21 kopecks, including 18% VAT to the sum of RUB 1,602,416 (one million six hundred and two thousand four hundred and sixteen). (Minutes of the Meeting No. 81 of 28.05.2009).

21. Sublicensing agreement to purchase of licenses for SAP for Utilities software between Federal Grid Company and MRSK Urals. The value of the contract is set at RUB 49,747,418 (forty-nine million seven hundred and forty-seven thousand four hundred and eighteen) and 60 kopecks, including 18% VAT to the sum of RUB 7,588,589 (seven million five hundred and eighty-eight thousand five hundred and eighty-nine) and 29 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

22. Sublicensing agreement to purchase of licenses for SAP for Utilities software between Federal Grid Company and MRSK Centre. The value of the contract is set at RUB 42,217,335 (forty-two million two hundred and seventeen thousand three hundred and thirty-five) and 68 kopecks, including 18% VAT to the sum of RUB 6,439,932 (six million four hundred and thirty-nine thousand nine hundred and thirty-two) and 56 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

23. Sublicensing agreement to purchase of licenses for SAP for Utilities software between Federal Grid Company and MOESK. The value of the contract is set at RUB 141,069,882 (one hundred and forty-one million sixty-nine thousand eight hundred and eighty-two), including 18% VAT to the sum of RUB 21,519,134 (twenty-one million five hundred and nineteen thousand one hundred and thirty-four) and 55 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

24. Preliminary agreement for the lease of optical fibre between Federal Grid Company and MRSK North-West. The rent is calculated on the basis of the tariff per one pair of fibres per 1 km for the term of 25 years, which is set at RUB 47,200 (forty-seven thousand, two hundred), inclusive of VAT (Minutes of the Meeting No. 81 of 28.05.2009).

25. Contract for training services between Federal Grid Company and MRSK Urals. The value of the contract is set at RUB 521,876 (five hundred and twenty-one thousand eight hundred and seventy-six) and 80 kopecks, including 18% VAT to the sum of RUB 79,608 (seventy-nine thousand six hundred and eight) and 32 kopecks for the training of 38 people. (Minutes of the Meeting No. 81 of 28.05.2009).

26. Contract for the lease of earthen dykes under the 500 kV overhead transmission lines of the Vyatka-Votkinskaya hydro-electric power plant between Federal Grid Company and RusHydro. The monthly rent is set at RUB 5,978 (five thousand nine hundred and seventy-eight) and 41 kopecks, including 18% VAT to the sum of 911 (nine hundred and eleven) and 96 kopecks. The total value of the lease contract is RUB 65,762 (sixty-five thousand seven hundred and sixty-two) roubles and 51 kopecks, including 18% VAT to the sum of 10,031 (ten thousand and thirty-one) and 57 kopecks (Minutes of the Meeting No. 81 of 28.05.2009).

27. Agent services contract for the Buguchanskaya hydro-electric plant's power output facilities between Federal Grid Company and CIUS EES. The value of the contract is set at RUB 181,580,000 (one hundred and eighty-one million five hundred and eighty thousand) roubles, including 27,698,644 (twenty-seven million six hundred and ninety-eight thousand six hundred and forty-four) and 7 kopecks of VAT (Minutes of the Meeting No. 81 of 28.05.2009).

28. Agent contract for design and engineering survey services between Federal Grid Company and Inter RAO UES. The value of the contract is set at 2 (two) per cent of the utilised capital investment funding, plus VAT. (Minutes of the Meeting No. 81 of 28.05.2009).

29. Contract of purchase between Federal Grid Company and CIUS EES. The value of the purchase contract is set at no more than RUB 25,440,690 (twenty-five million four hundred and forty thousand six hundred and ninety), plus 18% VAT to the sum of RUB 4,579,324 (four million five hundred and seventy-nine thousand three hundred and twenty-four) and 20 kopecks. (Minutes of the Meeting No. 81 of 28.05.2009).

30. Contract for training services between Federal Grid Company and MRSK Urals. The value of the contract is set at RUB 2,517,188 (two million five hundred and seventeen thousand one hundred and eighty-eight) and 27 kopecks, including 18% VAT to the sum of RUB 383,977 (three hundred and eighty-three thousand nine hundred and seventy-seven) and 87 kopecks for the training of 170 people. (Minutes of the Meeting No. 81 of 28.05.2009).

31. Contract for the repair and maintenance of grid facilities between Federal Grid Company and MRSK Volga. The value of the contract is RUB 13,014,447 (thirteen million fourteen thousand four hundred and forty-seven) and 74 kopecks, including 18% VAT to the sum of RUB 1,985,254 (one million nine hundred and eighty-five thousand two hundred and fifty-four) and 74 kopecks (Minutes of the Meeting No. 81 of 28.05.2009).

32. Property lease contract between Federal Grid Company and Index of Energy-FGC UES. The value of the contract is set at RUB 51,137 (fifty-one thousand one hundred and thirty-seven) and 90 kopecks per month, plus VAT to the sum of RUB 9,204 (nine thousand two hundred and four) and 82 kopecks (Minutes of the Meeting No. 81 of 28.05.2009).

33. Contract for the lease of part of the earthen dykes No. 1 and No. 2 under the VGES-Izhevsk 220 kV overhead transmission line pylons between Federal Grid Company and RusHydro. The monthly rent is set at RUB 1,705 (one thousand seven hundred and five) and 83 kopecks, including 18% VAT to the sum of RUB 260 (two hundred and sixty) and 21 kopecks. The total value of the contract is RUB 18,764 (eighteen thousand seven hundred and sixty-four) and 13

kopecks, including 18% VAT to the sum of RUB 2,862 (two thousand eight hundred and sixty-two) and 33 kopecks (Minutes of the Meeting No. 81 of 28.05.2009).

34. Sublicensing agreement for the SAP for Utilities software between Federal Grid Company and MRSK Volga. The value of the contract is RUB 53,703,228 (fifty-three million seven hundred and three thousand two hundred and twenty-eight) and 82 kopecks (Minutes of the Meeting No. 82 of 26.06.2009).

35. Additional agreements to purchase of licenses for SAP software and software support services to a contract between Federal Grid Company and MRSK Volga (Minutes of the Meeting No. 81 of 28.05.2009).

36. Sublicensing agreement for mySAP Business Suite software and support services between Federal Grid Company and MOESK. The value of the contract is set at RUB 46,827,265 (forty-six million eight hundred and twenty-seven thousand two hundred and sixty-five) and 81 kopecks. (Minutes of the Meeting No. 82 of 26.06.2009).

37. Supplementary agreement No. 4 to the contract for building services between Federal Grid Company and CIUS EES of 01.04.2008 No. Ts/01. The value of the supplementary agreement: RUB 1,435,680,000 (one billion four hundred and thirty-five million six hundred and eighty thousand), plus 18% VAT to the sum of RUB 258,422,400 (two hundred and fifty-eight million four hundred and twenty-two million four hundred thousand) (Minutes of the Meeting No. 83 of 29.06.2009).

38. Contract for operational service and maintenance of electric equipment of the Kauchuk 220 kV overhead transmission line between Federal Grid Company and MRSK Urals. The value of the contract is RUB 272,299 (two hundred and seventy-two thousand two hundred and ninety-nine) and 68 kopecks, including 18% VAT (Minutes of the Meeting No. 87 of 24.08.2009).

39. Contract for technical service and maintenance of high oil pressure 220 kV cable lines AT-5 No. 1, 2 and AT-6 No. 1,2 at the Chagino substation between Federal Grid Company and MOESK. The value of the contract is RUB 405,118 (four hundred and five thousand one hundred and eighteen) and 64 kopecks, plus 18% VAT to the sum of RUB 72,921 (seventy-two thousand nine hundred and twenty-one) and 36 kopecks (Minutes of the Meeting No. 87 of 24.08.2009).

40. Contract for service and maintenance of electric and technical equipment of the 500 kV Ochakovo substation, which is owned by MOESK, between Federal Grid Company and MOESK. The value of the contract is RUB 33,481,956 (thirty-three million four hundred and eighty-one thousand nine hundred and fifty-six) and 62 kopecks (Minutes of the Meeting No. 87 of 24.08.2009).

41. Property lease agreement between Federal Grid Company and RusHydro. The monthly rent is set at RUB 6,000,868 (six million eight hundred and sixty-eight) and 32 kopecks, including 18% VAT to the sum of RUB 915,386 (nine hundred and fifteen thousand three hundred and eighty-six) and 69 kopecks. The value of the rent for the period from 22.08.2009 to 1.04.2010 is RUB 43,941,842 (forty-three million nine hundred and forty-one thousand eight hundred and forty-two) and 22 kopecks, including 18% VAT to the sum of 6,702,992 (six million seven hundred and two thousand nine hundred and ninety-two) roubles and 88 kopecks (Minutes of the Meeting No. 90 of 01.10.2009).

42. Supplementary agreement for the property lease contract between Federal Grid Company and TGC-6. The monthly rent is set at 37,071 (thirty-seven thousand and seventy-one) roubles and 91 kopecks, including 18% VAT to the sum of 5,655 (five thousand six hundred and fifty-five) roubles and 4 kopecks (Minutes of the Meeting No. 90 of 01.10.2009).

43. Property lease agreement between Federal Grid Company and TGC-6. The rent for 11 (eleven) months is set at RUB 107,564 (one hundred and seven thousand five hundred and sixty-four) and 60 kopecks, including 18% VAT to the sum of RUB 16,408 (sixteen thousand four hundred and eight) and 15 kopecks (Minutes of the Meeting No. 90 of 01.10.2009).

44. Agreement signed between Federal Grid Company and SO UES, with the purpose of the latter company's debt restructuring. The value of the agreement is 2,635,681,034 (two billion six hundred and thirty-five million six hundred and eighty-one thousand and thirty-four) roubles and 4 kopecks (Minutes of the Meeting No. 90 of 01.10.2009).

45. Agreement for the purchase of additional shares. The total value of the additional shares in Federal Grid Company transferred to the Russian Federation's ownership under the agreement is calculated by multiplying the total number of shares being transferred under the agreement (14,454,313,725 shares) by the value of one additional share, which is set at 51 (fifty-one) kopecks per share, equalling RUB 7,371,699,999 (seven billion three hundred and seventy-one million six hundred and ninety-nine thousand nine hundred and ninety-nine) and 75 kopecks (Minutes of the Meeting No. 94 of 16.12.2009).

46. Agreement for the transfer of shares in the Company to the Russian Federation in return for investment from the national budget. The total value of the additional shares in Federal Grid Company transferred to the Russian Federation's ownership in return for investment from the national budget is calculated by multiplying the total number of shares being transferred under the agreement (980,392,156 shares) by the value of one additional share, which is set at 51 (fifty-one) kopecks per share, equalling RUB 499,999,999 (four hundred and ninety-nine million nine hundred and ninety-nine thousand nine hundred and ninety-nine) and 56 kopecks (Minutes of the Meeting No. 94 of 16.12.2009).

47. Agreement for special evaluator services between Federal Grid Company and Inter RAO UES. The value of the contract is RUB 50,000 (fifty thousand), including 18% VAT to the sum of RUB 7,627 and 12 kopecks (Minutes of the Meeting No. 94 of 16.12.2009).

48. Agreement for services in the area of protection of state secret between Federal Grid Company and CIUS EES. The value of the contract is RUB 285,000 (two hundred and eighty-five thousand) per quarter, including 18% VAT to the sum of RUB 43,474 and 58 kopecks (Minutes of the Meeting No. 94 of 16.12.2009).

49. Agreement for the lease of non-residential properties between Federal Grid Company and CIUS EES. The value of the contract consists of: fixed rent set at RUB 1,464 (one thousand four hundred and sixty-four) and 40 kopecks per square meter per month, including the VAT rate at the time of the delivery of service and in accordance with Chapter 21 on VAT of the Russian Tax Code, plus utility and maintenance bills. (Minutes of the Meeting No. 94 of 16.12.2009).

50. Agreement for the provision of a standardised set of information services titled Regular Supply of Forecasts for Electricity Consumption in Russia's Regions for the mid-term (seven years) and long-term (15 years) period, signed between Federal Grid Company and APBE. The value of the contract is RUB 57,820,000 (fifty-seven million eight hundred and twenty thousand) (Minutes of the Meeting No. 94 of 16.12.2009).

51. Agreement for the provision of a set of services titled Comprehensive Analysis of the Existing Conditions in the Sector and Development of Proposals on Improving Efficiency at the Current Energy Facilities, Tariff and Balance Solutions for 2010–2012, and Methods of Node-based Forecasts of Electricity Consumption in Russia's Regions, signed between Federal Grid Company and APBE. The value of the contract is RUB 90,860,000 (ninety million eight hundred and sixty thousand) (Minutes of the Meeting No. 94 of 16.12.2009).

52. Agreement for the provision of services in developing proposals on modifications to the General Blueprint of Electricity Facilities Placement in Russia until 2020, with a View Towards 2030 (Modification of the General Blueprint), signed between Federal Grid Company, SO UES and APBE . The value of the contract, in accordance with the Calculations of the Contract Value and the Protocol of Reconciliation of the Contract Value, was set as RUB 103,840,000 (one hundred and three million eight hundred and forty thousand) roubles, including 18% VAT to the sum of 15,840,000 (fifteen million eight hundred and forty thousand) (Minutes of the Meeting No. 94 of 16.12.2009).

10–3. AUDIT COMMISSION CONCLUSION ON THE VERACITY OF INFORMATION IN THE ANNUAL REPORT

Federal Grid Company Audit Commission's report
on the review of the Company's 2009 consolidated financial statements

Moscow 26.04.2010

In compliance with Federal Law No. 208-FL, dated 24.11.1995, titled On Joint-Stock Companies, the Statute of Federal Grid Company, and the decision of the Audit Commission of Federal Grid Company of 15.02.2010 (Minutes of the Meeting No. 2), an audit has been conducted on the 2009 annual reporting by Federal Grid Company.

Based on this audit, and taking into account the findings of the audit of Federal Grid Company financial (bookkeeping) accounts by PricewaterhouseCoopers Audit as on 1.04.2010, the following conclusions were reached:

- Based on selective checks of the documents submitted to the Audit Commission, the information contained in the Annual Report and annual financial accounts of Federal Grid Company can be considered accurate in every significant respect;
- No evidence has been found of any violations of the accounting procedures or financial reporting regulations stipulated in Russian laws.

The Annual Report of Federal Grid Company submitted for the approval of the Annual General Shareholders Meeting contains information specified in Paragraph 3.6 of the Provision on Additional Requirements to the procedure of preparing, convening and holding the Annual General Shareholders Meeting, approved by Resolution No. 17/ps of 31.05.2002 of the Russian Federal Commission for the Securities Market (FCSM), updated in FCSM Resolution No. 03-6 p/s of 07.02.2003.

Considering all of the above, the Audit Commission of Federal Grid Company has sufficient grounds to confirm the veracity, in every significant respect, of the data contained in the Annual Report of Federal Grid Company and the Company's annual financial accounts in 2009.

Chairman of the Audit Commission
Federal Grid Company — Dmitriy Kozlov

Members of the Commission — Maria Tikhonova
Viktor Lebedev

Federal Grid Company branches

1. MES Centre
   1 Tkatskaya Street, Moscow, 105318
2. MES North-West1 Kurchatov Street, St Petersburg, 194223
3. MES Volga
   226 Molodogvardeiskaya Street, Samara, 443100
4. MES South
   2 Darnitsky Lane, Inozemtsevo Settlement, Zheleznovogsk, 357400
5. MES Urals
   6 Tolmacheva Street, Yekaterinburg, 620219
6. MES Siberia
   117 Ada Lebedeva Street, Krasnoyarsk, 660099
7. MES East
   47 Dzerjinskogo Street, Khabarovsk, 680000
8. Nizhegorodskoe PMES
   29 Shlisselburg Street, Nizhny Novgorod, 603600
9. Chernozemnoe PMES
   1 Garazhnaya Street, Kursk, 305026
10. Volga-Okskoe PMES
    31 Egergetikov Street, Energetikov Settlement, Vladimir, 600902
11. Volga-Don PMES
    221a Lenin Prospect, Volgograd, 400006
12. Vologdskoe PMES
    18 Planernaya Street, Vologda, 160023
13. Priokskoe PMES
    101A Timiryazev Street, Tula, 300012
14. Moscow PMES
    Beliy Rast, Dmitrovsky District, Moscow Region, 141870, PS 750 kV
15. Upper Don PMES
    Komsomolets Settlement, Tambov District, Tambov Region, 392543
16. Valdaiskoe PMES
    55 Kalinina Street, Tver, 170001
17. Amurskoe PMES
    101 Shatkovskogo Street, Svododny, Amur Region, 676400
18. Khabarovskoe PMES
    3 Tselinnaya Street, Khabarovsk, Khabarovsk Territory, 680032
19. Primorskoe PMES
    3 Mordovtsev Street, Vladivostok, Primorsk Territory, 690000
20. Krasnoyarskoe PMES
    3A Vesny Street, Krasnoyarsk, 660135
21. Zabaikalskoe PMES
    35B Botanicheskaya Street, Ulan-Ude, Republic of Buryatia, 670045
22. Kuzbasskoe PMES
    25a Kirchanova Street, Kemerovo, 650004
23. Omskoe PMES
    4 Prospect Gubkina, Omsk, 644035
24. West Siberia PMES
    17 Prospect Kalilina, Barnaul, 656002
25. Khakassia PMES
    39 Industrialnaya Street, Sayanogorsk, Republic of Khakassia, 662793
26. Sverdlovskskoe PMES
    3 Pereulok Malakhitovy, Yekaterinburg, Sverlovsk Region, 620085
27. South Urals PMES
    2 Zapadny Proezd Street, Chelyabinsk, 454008
28. Permskoe PMES
    34 Visherskaya Street, Perm, Perm Region, 614058
29. Mid-Volga PMES
    2 Stankostroiteley Street, Ulyanovsk, Zasviyazhsky District, 432945
30. Lower Volga PMES
    40 Sokolovaya Gora Street, Saratov, 410038
31. Stavropolskoe PMES
    Food Industry Estate, Zeleznovodsk, Stavropol Territory, 357400
32. Kuban PMES
    5 Tramvainaya Street, Krasnodar, 350021
33. Rostovskoe PMES
    54/1 Dnepropetrovskaya Street, Rostov-on-Don, Pervomayskiy District, 344093
34. Bryanskoe PMES
    Vygonichi Settlement, Bryansk Region, 243360
35. Vyborgskoe PMES
    Perovo Settlement, Vyborg District, Leningrad Region, 188932
36. Novgorodskoe PMES
    10 Velikaya Street, Veliky Novgorod, 173001
37. Karelskoe PMES
    11 Veterinarny Lane, Petrozavodsk, Republic of Karelia, 185013
38. Bely Rast Specialised Production Base PMES
    PS 750 Bely Rast, Belyi Rast, Dmitrovsky District, Moscow Region, 141870
39. West Siberia PMES
    4 Geologicheskaya Street, Surgut, Khanty-Mansiisk autonomous region, Tyumen Region, 628405
40. Leningradskoe PMES
    1 Kurchatov Street, St Petersburg 194223
41. Tomsk PMES
    1 Energeticheskaya Street, Tomsk, 634062
42. Kaspiiskoe PMES
    73a Dakhadaev Street, Makhachkala, Republic of Dagestan, 367012
43. Auto-transport PMES of Urals
    5 Tolmachev Street, Yekaterinburg, 620041
44. Auto-transport PMES of North-West
    1 Kurchatov Street, St Petersburg, 194223

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GLOSSARY

Company Names and Branches

MES	Backbone Electric Grid
PMES	Enterprise of Backbone Electric Grid

Abbreviations

ACPS	Annual Comprehensive Procurement System
ACS	Automated Controller System
ADCMS	Automated Document Circulation Management System
AEFC	Asynchronised electromechanical frequency converter
ARMMS	Automated Repair and Maintenance Management System
AS	Automation system
ASC	Asynchronised synchronous condenser
ASEFT	Asynchronised Synchronous Electric Frequency Transformer
ASTC	Automated System of Technological Control
ASTPM	Automated System of Technological Process Management
AT	Autotransformer
AWP	Autumn-winter period
BPS	Baltic Pipeline System-2
BtB	Back-to-back scheme
CB	Capacitor bank
CCS	Carrier-communication system
CIMS	Corporation Information Management System
CTC	Central Tender Committee
D	Disturbance
DC transmission	Direct current transmission
DITS	Digital information transmission system
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortisation
ECA	Emergency control automatics
ECECIMS	Automated Commercial Electricity Consumption Information and Metering System

ECECMS	Automated Commercial Electricity Consumption Information and Metering System
ESPO	Eastern Siberia-Pacific Ocean oil pipeline
FACTS	Flexible Alternating Current Transmission Systems
FOL	Fiber-optic line
GIDS	Gas Insulated Distributor System
GRES	State regional power plant
HPP	Hydro-electric power plant
HSC	Hardware and software complex
HTSC	High-temperature superconductors
HTSCTL	High-temperature superconducting cable transmission line
KPI	Key performance indicator
LSTC	Low-temperature superconductors
M&S	Maintenance and servicing
MAI	Multi-chamber Arrestor Insulator
MCSR	Magnetically controlled shunt reactor
MSK	Transmission company
NGO	Non-governmental organisation
NPP	Nuclear Power Plant
OCO	Operational Controller Office
OS	Outdoor switchgear
OTL	Overhead transmission line
PST	Phase shifting transformer
R&D	Research and development
RAB	Regulatory Asset Base
RD	Requirement description
RPA	Relay protection and automatic equipment
RPEC	Relay protection and emergency controls
RRL	Radio relay line
RSK	Distribution company
S&A	Subsidiaries and branches
SC	Synchronous condenser
SC	Series capacitor
SC	Sales company
SS	Substation
STATCOM	Synchronous static compensator
SVC	Static VAR compensator
TC	Technological connection
TCSC	Thyristor controlled series capacitor
TL	Transmission line
TPP	Thermal power plant
TR	Technical requirements
UDGTS	Unified Digital Grid Telecommunications System
UES	Unified energy system
UES of Russia	United Energy System of Russia
UGTS	Unified Grid Telecommunication System
UNEG	Unified National (All-Russian) Electric Grid
UPFC	Unified power flow controller
VRG	Vacuum Reactor Groups
WECM	Wholesale Electricity (Capacity) Market

CONTACT DETAILS

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Federal Grid Company:

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Website: www.fsk-ees.ru/eng
Direct line for shareholders: 8 800 200 1881

Contact details for institutional investors and analysts:
Investor Relations Department
Telephone: +7 495 710-90-64
E-mail: ir@fsk-ees.ru

Information on the auditor (auditors) of Federal Grid Company:
The Annual General Shareholders Meeting on 30.06.2009 approved PricewaterhouseCoopers Audit as the auditor of Federal Grid Company for the period until the next AGM.

The complete and abbreviated names of the Company are: PricewaterhouseCoopers Audit

Address: 10 Butyrskiy Val Street, Moscow, 125047, Russia
Telephone: +7 (495) 967 6000
Fax: +7 (495) 967 6001
E-mail: natalia.gubareva@ru.pwc.com
Website: http://www.pwc.com

Number, date of issue and term of the auditor's licence, name of the issuing authority:
Licence for auditor services: No. E000376, issued by Decree No. 98 of the Finance Ministry of the Russian Federation, dated 20.05.2007, for a term of five years from the date of issue.

No factors have been identified that may affect the independence of the auditor from Federal Grid Company.

Information on the registrar:

Full company name: National Depositary Centre
Abbreviated company name: NDC
Address: 1/13, Building 4, Sredniy Kislovskiy, Moscow,
Postal address: 1/13, Building 4, Mashkova Street, Moscow, 105062
Telephone: (495) 221 1333
fax: (495) 221 1383
E-mail: dr@mcd.ru

Licence information:
Licence number: 177-03431-000100
Date of issue: 04.12.2000
Term of the licence: indefinite
Issuing authority: Federal Commission for the Securities Market