

JSC "RAO Energy System of East"  
**ANNUAL REPORT 2014**  
Summary



# CONTENTS

<b>Addresses of the Management</b> .....	<b>1</b>
<b>About Company</b>	
- Geographic reach and description of assets .....	5
- Key performance indicators .....	8
- Financial and economic indicators .....	9
<b>Company strategy</b> .....	<b>13</b>
<b>Operation results</b>	
-Electricity production and transmission .....	14
-Heat production and transmission .....	16
<b>Tariff policy</b> .....	<b>17</b>
<b>Sales activity</b> .....	<b>18</b>
<b>Financial results</b> .....	<b>20</b>
<b>Investments</b> .....	<b>23</b>
<b>Innovations</b> .....	<b>25</b>
<b>Corporate governance</b> .....	<b>27</b>
<b>Management bodies</b> .....	<b>28</b>
<b>HR policy</b> .....	<b>30</b>





## ADDRESS OF THE CHAIRMAN OF THE BOARD OF DIRECTORS OF JSC "RAO ENERGY SYSTEM OF EAST"



Evgeniy DOD  
Chairman of the Board of Directors  
JSC "RAO Energy System of East"

### DEAR SHAREHOLDERS,

2014 has become an important stage for the electric energy branch of the Far East and for JSC "RAO Energy System of East", giving a stable ground for further development of the industry. In the challenging times the company was steadily achieving its goals adjusting itself to the changing conditions and finding the new points of development.

In 2014 JSC "RAO Energy System of East" worked hard to complete the series of inspections and approvals for the four top-priority heat generation projects implemented within the frames of the presidential decree for further development of JSC "RusHydro". During the year Holding "RAO Energy System of East" managed to finally approve parameters of the projects being implemented, identify contractors and equipment suppliers, obtain a permit to start spending budget funds and commence construction on all the four project sites. It is important to bear in mind that all the aforesaid activities were performed under close attention of the public, mass media, industry related ministries and agencies. The capacities that JSC "RAO Energy System of East" is building on Sakhalin, in Yakutia, Amur and Khabarovsk Regions are in urgent need today. Commissioning of the plants will benefit reliability of energy supplies in the Far Eastern Federal District and contribute to better performance of the company.

In the report period the company continued successful implementation of other investment projects, first of all Vostochnaya CHPP in Vladivostok, which is constructed using company's own and borrowed funds.

JSC "RAO Energy System of East" also continues pursuing its program for the development of renewable energy sources (RES) based generation in isolated energy areas. Thus, in 2014 four solar power plants (SPP) were commissioned in Yakutia and jobs were started to construct a SPP in Bagatai village, which will become the largest power facility of the kind beyond the Polar Circle.

It is also noteworthy that, JSC "RAO Energy System of East" projects raise interest of foreign partners, Asian companies first of all. Not only APR businesses participate in alternative

energy projects, they also offer their expertise in retrofitting the existing capacities and implementation of the new energy supply formats in the region, such as cogeneration. The portfolio of promising export projects of JSC “RAO Energy System of East” is expanding as well. Along with the preliminary survey for the Sakhalin – Japan energy bridge, negotiations began in 2014 for electricity delivery to DPRK. This means that the company has proved to be a promising partner for foreign business.

Management of JSC “RAO Energy System of East” and “RusHydro” Group has worked efficiently through the year to deliver weighted optimal solutions. Due to this cooperation, the construction tempo of current new generation projects is maximized.

The company operates in close contact with its shareholders and Board of Directors. In the report year the Board of

Directors held 13 meetings to deal with the key issues of the company’s activity and strategically important aspects of its development. The decisions made by management and governing bodies contributed to secure fulfillment of consumer commitment and successful implementation of the investment projects.

Plans for 2015 include commissioning of the first generation capacities commenced by JSC “RAO Energy System of East” after its joining “RusHydro” Group. I am sure that the commissioning will open the way to some new, more challenging projects, which are needed urgently by the power industry of our rapidly developing region.

**Evgeniy DOD**  
**Chairman of the Board of Directors**  
**JSC “RAO Energy System of East”**

## ADDRESS OF JSC "RAO ENERGY SYSTEM OF EAST" DIRECTOR GENERAL



S.N. Tolstoguzov  
Director General  
JSC "RAO Energy System of East"

### DEAR SHAREHOLDERS,

In 2014 JSC "RAO Energy System of East" proved again to be one of the most important actors of the social and economic development of the Russian Far East.

Today, the company successfully implements the largest infrastructure projects essential for the region. Primorye, Yakutia, Khabarovsk Region, Sakhalin and Amur Region will receive new large generation facilities in the nearest years. This is a long-expected stage in the Far East power industry renewal, but only the first one. The ongoing projects for construction of Vostochnaya CHPP, Yakutsk TPP-2, CHPP in Sovetskaya Gavan, Sakhalin TPP-2 and the second phase of Blagoveshchensk CHPP will give a powerful boost for further retrofitting of regional energy systems on a larger scale.

In this connection, the physical commencement of the construction projects is the most prominent achievement of 2014. In the report year we followed a strict schedule to complete the entire cycle of inspections and approvals for the top priority projects being implemented in cooperation with JSC "RusHydro", and to choose equipment suppliers and contractors. Builders are active on all the construction sites. These undertakings will result in the commissioning of two facilities as soon as in 2015: Vostochnaya CHPP and Blagoveshchensk CHPP (phase 2).

Vostochnaya CHPP is the closest to completion, being built by JSC "RAO Energy System of East" through its own efforts, using the company's own and borrowed money. In 2014 all the necessary equipment was delivered to the construction site to assure timely launching of the new urban power source.

In 2014 the Holding continued to pursue its alternative energy program in small isolated energy areas. JSC "RAO Energy System of East" confirmed again its reputation of the key regional player in the sphere of RES projects implementation. In 2014 we managed to double the number of solar power plants in the distant villages of Yakutia (there are 8 of them now) and to complete preparations for a 1 MW SPP project implementation in Bagatai village. Construction of the plant will mean a shift from the RES program

experimental phase to commercial operation.

The considerable enlargement of capital construction investment portfolio and advanced projects has not affected current activities of the Holding's S&A. Preparation for the autumn and winter season 2014-2015 was effective and timely, so the company was able to ensure proper consumer service level last winter.

In 2014 energy companies of the Holding were operated consistently to satisfy FEFD regions needs for electricity and heat. Last year electricity output increased up to 31,155.9 mln kW/h or by 3.9% as compared to 2013. The output growth is due to the reduction of net supply from Far Eastern HPPs owned by JSC "RusHydro" and the increase in electricity consumption by 0.6% within the UES of East territories as compared to the previous year. Heat output from electricity plants and boiler energy companies of Holding "RAO Energy System of East" amounted to 31,165 thousand Gcal in 2014, which is a 2% reduction as compared to 2013 due to the warm winter.

Naturally, in spite of the overall growth of the electricity output, changes in the economic conditions in the report year influenced the financial performance. Due to the low-flow

period, increase in condensation output, negative dynamics of the exchange rates and some other factors consolidated net loss of Group "RAO Energy System of East" according to IAS amounted to 2,181 mln rubles as compared to 4,681 mln rubles of profit earned in the previous year. Nevertheless, the operating performance figures show that JSC "RAO Energy System of East" reliably fulfills the functions of electric and heat energy supplier for all the consumer categories in the Far East Federal District and effectively retrofits the electricity infrastructure in the region.

**S.N. Tolstoguzov**  
**Director General**  
**JSC "RAO Energy System of East"**



## ABOUT COMPANY

Open Joint Stock Company “RAO Energy System of East” (hereinafter JSC “RAO Energy System of East”, Holding, Group or Company) is the largest electric and heat energy supplier in the Far East. JSC “RAO Energy System of East” manages energy companies involved in electric and heat energy production, dispatch, distribution, transmission and sale throughout the Far Eastern Federal District (FEFD) territory.

JSC “RAO Energy System of East” was established as a result of reorganization of JSC RAO UES of Russia. From October 28th 2011 the Company is a part of JSC “RusHydro” Group.

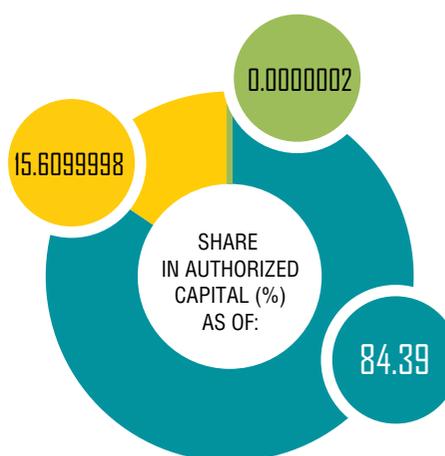
From 2014, under the Trust Agreement, the Company performs fiduciary management of shares (to the extent of rights vested in the shares) in the following companies owned by JSC “RusHydro” and involved in the implementation of electric and heat generating facilities in the Far East:

- CJSC “Blagoveshchensk CHPP”;
- CJSC “Sakhalin TPP-2”;
- CJSC “CHPP in Sovetskaya Gavan”;
- CJSC “Yakutsk TPP-2”.

“RAO Energy System of East” Holding comprises companies of the Unified Energy System of East (UES of East), isolated AO-energo, energy service and non-core companies.

## SHARE CAPITAL STRUCTURE.

31.12.14



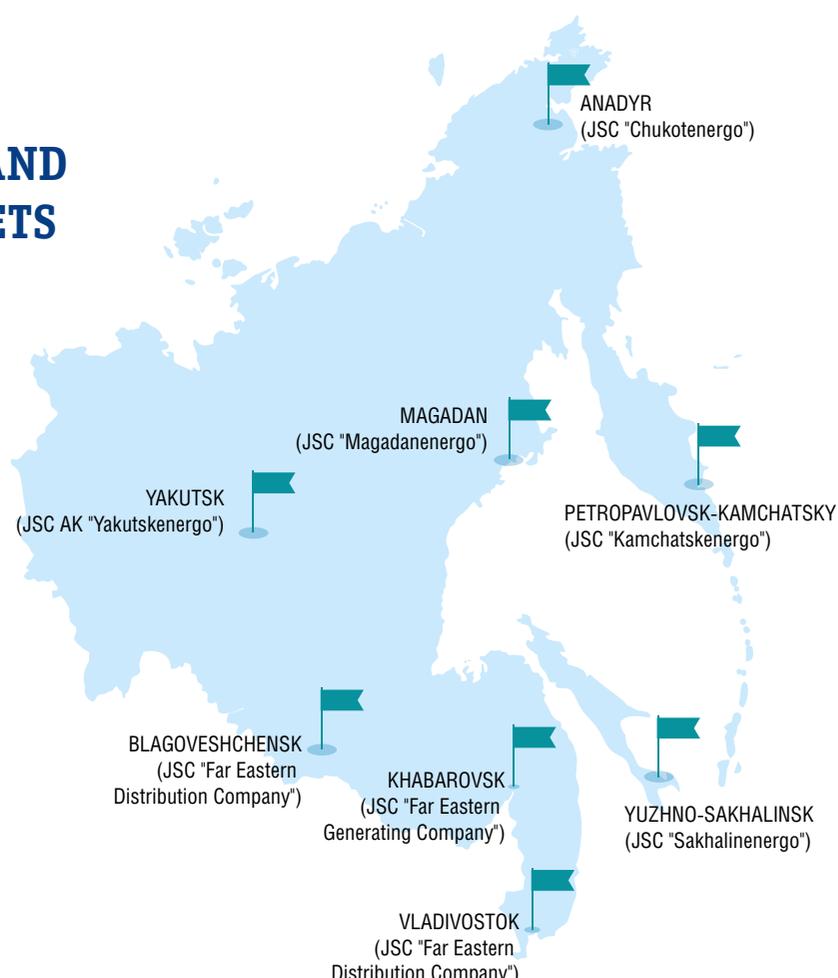
### SECURITY HOLDERS

- JSC “RusHydro”
- Natural persons, other legal entities and nominal holders
- Property of the Russian Federation constituent territories

## GEOGRAPHIC REACH AND DESCRIPTION OF ASSETS

Subsidiaries of JSC “RAO Energy System of East” operate in all the nine territories of Far Eastern Federal District.

The following companies operate within the UES of East:



The following companies operate within the UES of East:

• **JSC “Far Eastern Energy Company”**

is a guaranteeing supplier of electricity in the Primorsky and Khabarovsk Regions, the Jewish Autonomous Region, and the Amur Region. It also holds a status of the unified purchaser involved in purchase and sales of electricity (capacity) in the interests of the wholesale market participants in the non-price areas of the Far East. In addition, JSC “FEEC” owns 100% of shares in JSC “FEGC” and JSC “FEDC”, as well as some non-core S&A (repair, construction, and other companies).



• **JSC “Far Eastern Distribution Company”**

transmits and distributes electricity through the grids of 110 kV and below in the south of the Republic of Sakha (Yakutia), the Primorsky and Khabarovsk Regions, the Amur Region, and the Jewish Autonomous Region. It has no S&A.



• **JSC “Far Eastern Generating Company”**

is the largest producer of heat and electricity in the Far East. It incorporates major generating facilities in the south of the Republic of Sakha (Yakutia), the Primorsky and Khabarovsk Regions, the Amur Region, and the Jewish Autonomous Region. JSC “FEGC” also functions as heat retailer for the end consumers.



JSC “RAO Energy System of East» Holding comprises some AO-energo isolated from the UES of East:

• **JSC “Sakhalinenergo”** is the major entity producing, transporting, and selling electricity and heat in the Sakhalin Region. JSC “Sakhalinenergo” provides the centralized electricity supply to 17 of 21 administrative units (all except Kurilsk, South and North Kurilsk, and Okha municipalities), as well as heat supply to Yuzhno-Sakhalinsk city and Vostok village.



• **JSC “Magadanenergo”** is involved in electricity and heat production, transmission and sale to the end consumer, repairs and maintenance in the power facilities. JSC “Magadanenergo” provides electricity and heat supply in the Magadan Region, the Chukotka Autonomous District, and part of Oymyakon and Nizhnekolymsk settlements in the Republic of Sakha (Yakutia). It provides heat for Magadan, Anadyr and Pevek cities, Myaundzha and Egvekinot villages. JSC “Magadanenergo” owns a 100% stake in JSC “Chukotenergo” (AO-energo operating in three isolated power areas of the Chukotka Autonomous District), as well as JSC “Magadanenergoemont”, JSC “Magadanelektrosetremont”, and JSC “Magadanenergonaladka”



• **JSC “Kamchatskenergo”** operates in the Kamchatka Territory as the main supplier of electricity capacity and a grid operator. JSC “Kamchatskenergo” owns the 100% stake in JSC “Kamchatka South Energy Network”, which operates as a separate market entity and the only supplier in the electricity generation and sales market within the serviced residential areas.



• **JSC AK “Yakutskenergo”** provides electricity supply in the Republic of Sakha (Yakutia), being a leader in terms of service area (the Republic comprises 1/5 of the Russian territory). The energy system has the largest number of diesel generator units nationwide, there are 168 of them in JSC AK “Yakutskenergo”, and 125 of the units are comprised by subsidiary JSC “Sakhaenergo”.



• **JSC “Mobile Energy”** provides the electricity supply to hard-to-reach areas of the North by operating power plants based on gas-turbine units. The main area of the company’s operations covers the Khanty-Mansi, Yugra, and Yamalo-Nenets Autonomous Districts.



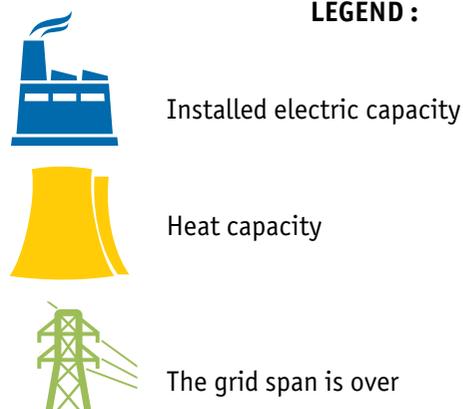
• **In addition, the structure of the JSC “RAO Energy System of East” Holding comprises JSC “Daltekhenergo” and JSC “Mobile Energy”.**

**Another line of business for the company is the introduction of innovative approaches to power generation in the Holding’s entities; in particular, the company builds multi-function power plants using alternative energy sources in Kamchatka and Yakutia. The company functions as a key RES project operator in RAO “Energy System of East” Holding.**

• **JSC “Daltekhenergo”** was acquired in 2010 from JSC “FEEC” to centralize the management of construction and maintenance companies within the Holding. JSC “Daltekhenergo” performs fiduciary management of shares of several maintenance companies.

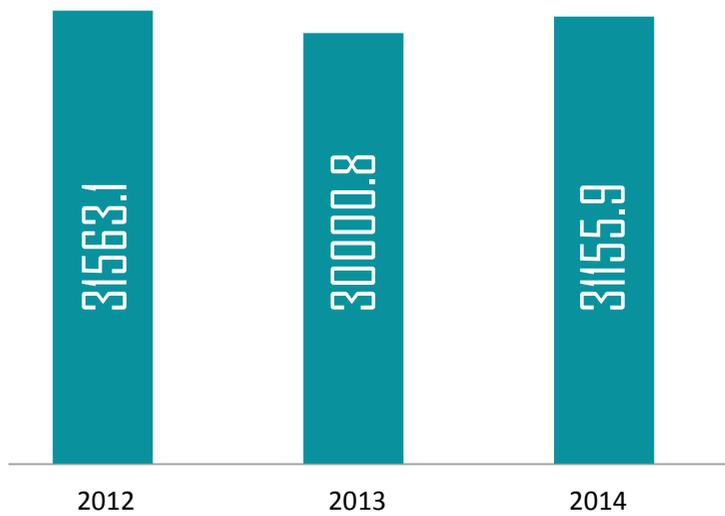
On November 28th 2014 the Board of Directors of JSC “RAO Energy System of East approved termination of the Company membership in JSC “Daltekhenergo” by selling JSC “Daltekhenergo” shares held by JSC “RAO Energy System of East” at an auction. On March 23rd 2015 the Company terminated its membership in JSC “Daltekhenergo” by selling 100% of the stock.

**LEGEND :**

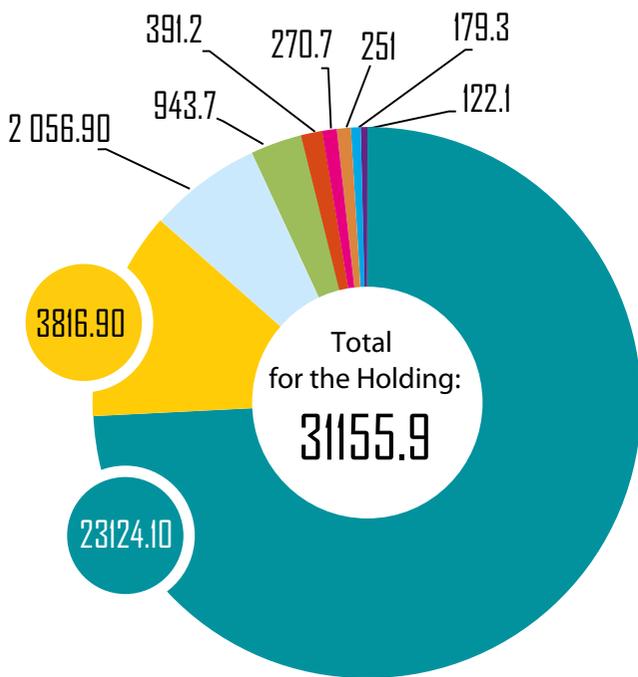


## KEY PERFORMANCE INDICATORS

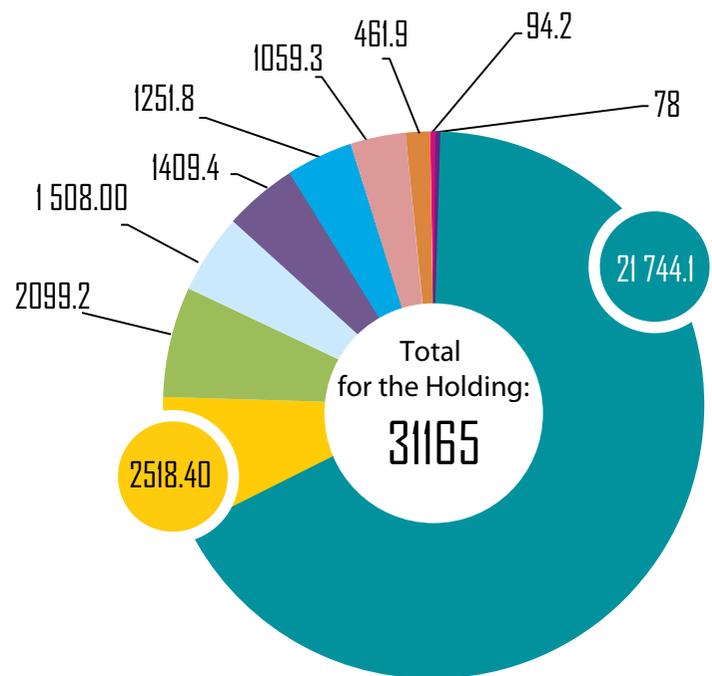
ELECTRICITY GENERATION BY "RAO ENERGY SYSTEM OF EAST" HOLDING PLANTS IN 2012-2014, mln kW/h kW/h



## PRODUCTION PERFORMANCE

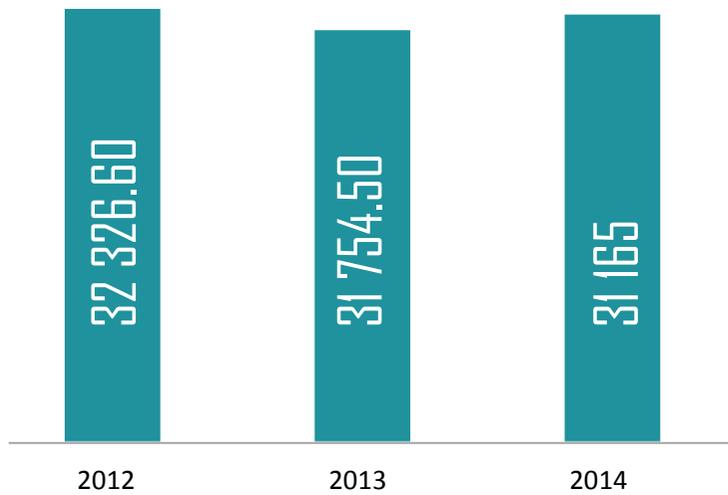


ELECTRICITY GENERATION PROFILE 2014 (kW/h)

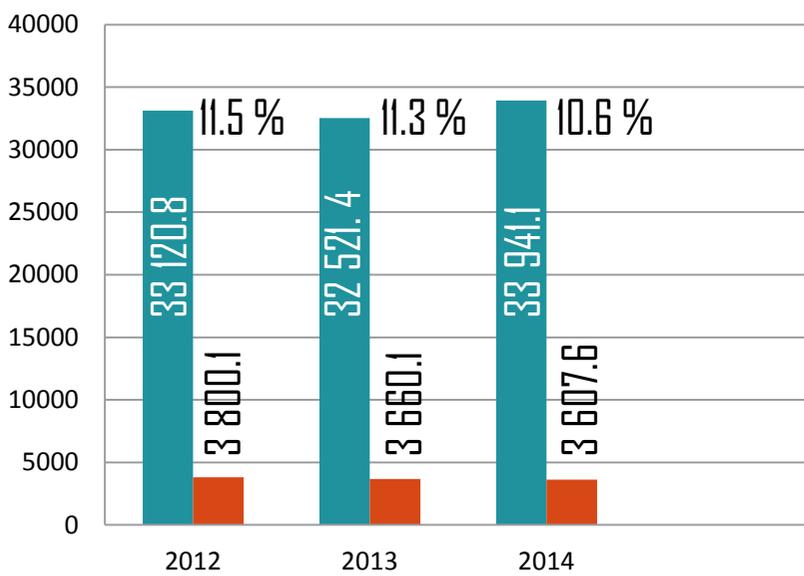


HEAT GENERATION PROFILE 2014, thsd. Gcal

JSC "FEGC"	JSC "South Electric Grids of Kamchatka"	JSC "Chukotenergo"
JSC AK "Yakutskenergo"	JSC "Magadanenergo"	JSC "Sakhalinenergo"
JSC "Sakhaenergo"	JSC "Magadanenergo"	JSC "Mobile Energy"
JSC "Kamchatskenergo"		JSC "South Electric Grids of Kamchatka"



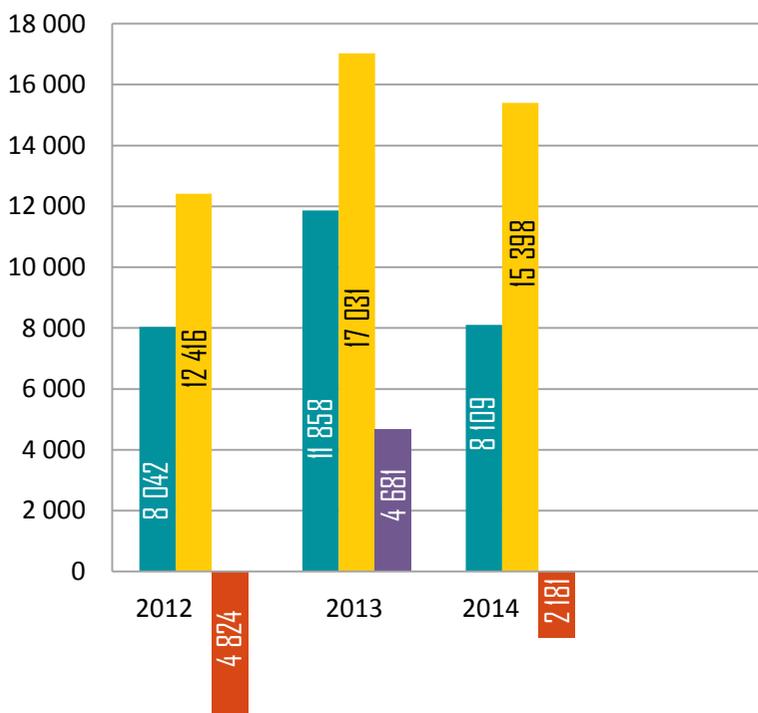
**ELECTRICITY GENERATION BY "RAO ENERGY SYSTEM OF EAST" HOLDING PLANTS IN 2012-2014, mln kW/h**



**ELECTRICITY OUTPUT AND LOSS IN JSC "RAO ENERGY SYSTEM OF EAST" S&A**

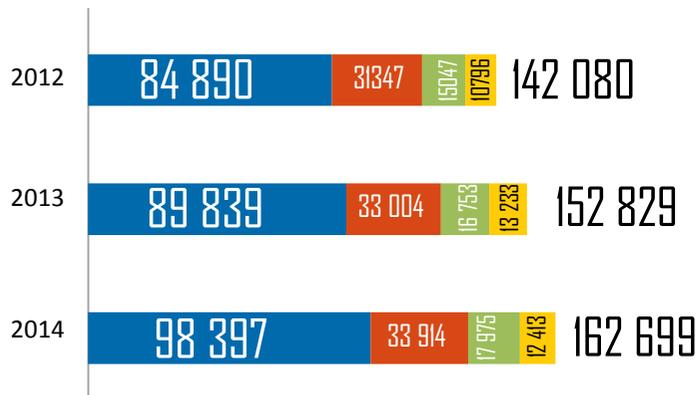
- Electricity output
- Electricity loss
- % Electricity loss to grid output

**FINANCIAL AND ECONOMIC INDICATORS**



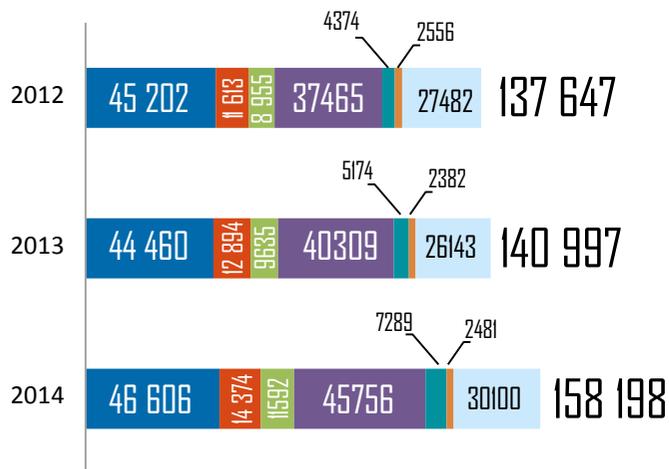
**NET PROFIT AND EBITDA (mln rubles)**

- Profit from operating activity
- EBITDA
- Profit for the period
- Loss



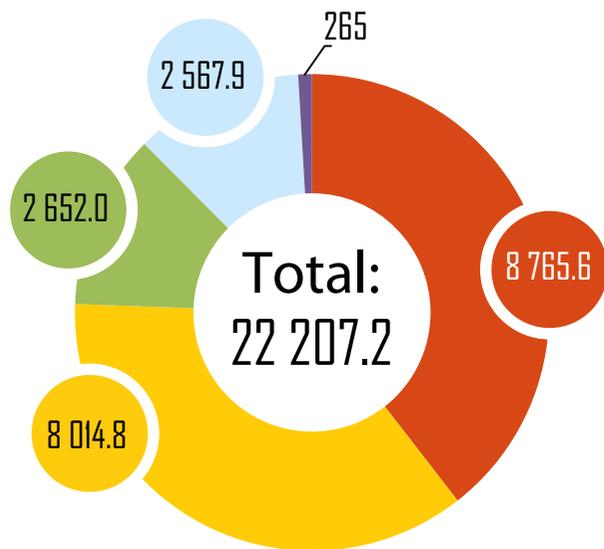
REVENUE STRUCTURE (mln rubles)

- Electricity and power sale
- Heat and hot water sale
- Other revenues
- Government subsidies



OPERATING COSTS STRUCTURE (mln rubles)

- Fuel costs
- Electricity distribution costs
- Purchased electricity and power
- Employee benefits (including taxes and pension security costs)
- Fixed asset depreciation
- Other
- Repairs and maintenance



STRUCTURE OF CAPITAL INVESTMENT FINANCING BY BUSINESS LINES OF "RAO ENERGY SYSTEM OF EAST" HOLDING IN 2013-2014, mln rubles, VAT INCLUDED

- Generation
- Heat networks
- Electric grids
- Sale
- Other

## MAJOR ACHIEVEMENTS 2014

### JANUARY

- JSC “RAO Energy System of East” completed the tendering process for the selection of general contractor for Vostochnaya CHPP construction in Vladivostok. CJSC “Energoremont” won the contract with the bid of 4.65 bln rubles, VAT included.

- JSC “RAO Energy System of East” completed the open tendering process for the right to make a general contractor agreement for the construction of Yakutsk TPP-2 phase 1. The right was awarded to JSC “Heat energy company Mosenergo”.

- CJSC “Yakutsk TPP-2” and GE Packaged Power inc. signed a contract for the major equipment supplies for the new CPP in Yakutsk. The contract provides that General Electric division will manufacture and deliver to the construction site for gas turbine units (GTU) in building block form-factor.

### FEBRUARY

- JSC “RAO Energy System of East” and the Khabarovsk Region started cooperation in the field of alternative energy. The parties agreed to jointly work on the development of public energy services using RES technologies.

### MARCH

- JSC “RAO Energy System of East” and JSC “VTI” signed an agreement for cooperation in the field of scientific, technical and innovation development. The companies will proceed to the implementation of Holding’s innovation development program, as well as R&D aiming at the solution of the urgent engineering and technology problems of the Holding companies.



### APRIL

- JSC “RAO Energy System of East” obtained a positive opinion of the Federal autonomous establishment “Glavgo-sekspertiza of Russia” in respect of the engineering part of the CPP construction project in Sovetskaya Gavan city in the Khabarovsk Region.

### MAY

- JSC “RAO Energy System of East” commenced construction of two frame gas boiler houses in Elizovo city of the Kamchatka Region with the capacity of 40 Gcal/h and 30 Gcal/h respectively.

### JUNE

- JSC “RAO Energy System of East” completed the open tendering process for general contracting for the CPP construction in Sovetskaya Gavan. The contract was awarded to JSC “Globalelektroservis”.

- JSC “RAO Energy System of East” commissioned a new solar power plant in Toyon-ary village of Khangalass settlement.

## JULY

- JSC “RAO Energy System of East” started commercial operation of Russia’s first arctic wind power plant in Labytnangi village.

## AUGUST

- Construction of the branch railway to the CPP in Sovetskaya Gavan construction site started. The 3.85 km long local railway will connect the CPP in Sovetskaya Gavan main construction site to the new railroad station Mys Marii in the eastern part of the Baikal-Amur mainline.

## NOVEMBER

- JSC “RAO Energy System of East” signed agreements for cooperation with the National Research University “Moscow Power Engineering Institute” and North-East Federal University named after M.K. Ammosov (NEFU). The agreements are intended to coordinate efforts of the parties for highly qualified specialist training for the electricity industry and engaging them in the research and innovation activities within “RAO Energy System of East” Holding.

- JSC “RAO Energy System of East”, the Government of the Kamchatka Region and Japanese governmental organization NEDO signed a memorandum of understanding. The memorandum implies implementation of a wind power complex construction in Ust-Kamchatsk village, which is remote from the central energy system of the Kamchatka Region.



## SEPTEMBER

- JSC “RAO Energy System of East” and Government of the Republic’s of Sakha (Yakutia) signed an agreement for power industry development and reliable electricity supplies to the Republic’s consumers. The agreement determines the basic lines for the power industry development up to 2025. The total volume of investments within the frame of agreement will reach 122 bln rubles.

- JSC “RAO Energy System of East” proceeded to the installation of equipment at Vostochnaya CHPP construction site in Vladivostok.

## OCTOBER

- JSC “RAO Energy System of East” obtained a permit for the construction of Sakhalin TPP-2. In early 2015 general contractor commenced preparation of the construction site, establishment of the production facilities and rotation camp for the construction and production personnel.

## DECEMBER

- JSC “RAO Energy System of East” chose a general contractor for the construction of Sakhalin TPP-2 phase 1. The winner is JSC “HEC Mosenergo”.

- JSC “RAO Energy System of East” commissioned a new solar power plant in Dzhargalakh village in Eveno-Bytantay settlement. The 15 kW solar powerplant comprises three different types of solar modules. Performance of each of the three sections will be closely examined within a year. The analysis data will help to choose equipment for the implementation of future RES projects.

- JSC “RAO Energy System of East” proceeded to construction of two new wind power plants in Novikovo village in the Sakhalin Region. The wind power unit will have become “RAO Energy System of East” Holding’s first RES project in the Sakhalin Region, enabling the isolated energy system of Novikovo village to save 227 tons of diesel fuel annually.

## COMPANY STRATEGY

**The strategy of the JSC "RAO Energy System of East" Holdings is based on the Strategic Plan of JSC "RusHydro" until 2015 as projected to 2020 and approved by the Board of Directors of JSC "RusHydro" on June 16, 2010 (the minutes No. 100), and the RysHtdro Group Long-Term Development program approved by the Board of Directors of JSC "RusHydro" on November 20, 2014 (the minutes No. 206).**

**By 2020, JSC "RAO Energy System of East" and its subsidiaries will have become a vertically integrated holding company, a key producer and supplier of electricity and heat in the Far Eastern Federal District.**

**Strategic goals of the Holding include the following:**



**1. Providing reliable and uninterrupted supply of electricity and heat to consumers.**

As the major producer of electricity and heat in the FEFD, the Holding is fully aware of its social responsibility and makes every effort to ensure sustainable and efficient development of the electricity industry in the region, to create and maintain a consistent governance structure, implement the state policy on the development of the energy sector of the region as specified in federal and regional policy documents, and, first and foremost, to ensure reliable and safe operation of equipment and facilities.



**2. Entering new markets.**

The Holding is focused both on the existing lines of business and expansion into new markets. One of the prospects is the development of the heating business in the Holding's operating regions.



**3. Ensuring long-term steady growth of the fundamental value.**

The Holding strives to maximize its own fundamental value and to add value for shareholders, employees, and the community. The instruments for attaining this objective include gradual vertical integration, streamlining of the Holding's operations, as well as increasing

efficiency of business processes and governance system development.

Improvement of the Holding's operations is contributed by the pursued policy on higher energy efficiency of electricity and heat production through applying state-of-the-art technologies in retrofitting of the existing generating facilities and construction of the new ones, reduction of loss in heat networks and electricity grids, and development in renewable energy.



**In order to implement the strategy, the Holding will focus on the following:**

- performing tasks related to modernizing the energy industry in the FEFD and its innovative development through employing state-of-the-art technological and managerial solutions for the Holding's investment projects;
- building up on the promising lines of business, including renewable energy, permitting to increase energy efficiency of the Holding and ensure long-term reduction of the use of solid fuel and hydrocarbons;
- creating strategic alliances with key players in other industries within the FEFD to implement joint projects;
- developing foreign economic relationships with the Asia-Pacific Region in the fuel and energy sector;
- implementing best practices in building the governance system.

**While accomplishing the strategy the Company is guided by the following long-term development programs of “RAO Energy System of East” Holding:**

**1.** The Innovative Development Program of “RAO Energy System of East” Holding until 2015 as projected to 2020 and approved by the Board of Directors of JSC “RAO Energy System of East” on April 30, 2013;

**2.** The Special Modernization Program for “RAO Energy System of East” Holding’s Energy Facilities 2014–2025 approved by the Board of Directors of JSC “RAO Energy System of East” on April 29, 2014;

**3.** The Program for Energy Complex Prospective Development in FEFD within the scope of responsibility of “RAO Energy System of East” Holding until 2025.

**OPERATION RESULTS**

**Electricity production and transmission**

JSC “RAO Energy System of East” S&A are operated in the Far East Federal District. Besides, JSC “RAO Energy System of East” subsidiary JSC “Mobile Energy” provides electricity for the isolated energy area of Labytnangi town in the YNAD (Labytnangi mobile powerplant, hereinafter MPP) and

consumers of UES of Ural (Kasym MPP, Urengoy MPP).

In 2014 electricity output from “RAO Energy System of East” Holding’s plants amounted to

**31,155.9 mln kW/h, which is 3.9% more than in 2013 and 1.3% less than in 2012.**

**The reasons for increased output in 2014 as compared to 2013:**

**for JSC “FEGC”:**

- consumption volume in UES of East increased in 2014 by 0.6% against 2013;
- electricity output by Zeyskaya HPP and Bureyskaya HPP decreased by 7.1% against 2013.

**for JSC “Magadanenergo”:**

- increased scope of repairs within the year and operation mode of the electric grids connecting Kolymskaya HPP, Ust-Srednekanskaya HPP and Magadan,

**for JSC AK “Yakutskenergo”:**

- growth in electricity consumption by public and industrial enterprises.

**Electricity output from “RAO Energy System of East” Holding’s plants in 2012–2014, mln kW/h**

Item No	Index	2012	2013	2014
1	<b>Total for the Holding</b>	<b>31 563.1</b>	<b>30 000.8</b>	<b>31 155.9</b>
2	JSC “FEGC”	23 093.8	22 033.6	23 124.1
3	JSC AK “Yakutskenergo”	3 799	3 732.1	3 816.9
4	JSC “Sakhaenergo”	260.5	266.1	270.7
5	JSC “Kamchatskenergo	986.7	964.9	943.7
6	JSC “South Electric Grids of Kamchatka”	122.8	121.5	122.1
7	JSC “Magadanenergo”	145.7	160.5	179.3
8	JSC “Chukotenergo”	231.9	255.2	251.0
9	JSC “Sakhalinenergo”	2 116.8	2 077.2	2 056.9
10	JSC “Mobile Energy”	805.8	389.7	391.2



Electricity loss in electric grids of JSC “RAO Energy System of East” S&A in 2014 amounted to 3,607.6 mln kW/h (10.6% against electricity grid output) and, thus, reduced by 52.5 mln kW/h (1.4%) against 2013 and by 192.5 mln kW/h (5.1%) against 2012. In relation to grid output, loss is reduced by 0.7% in 2014 against 2013.

### Electricity output and loss in JSC “RAO Energy System of East” S&A

Index	Measurement unit	2012	2013	2014
Electricity output	Mln kW/h	33 120.8	32 521.4	33 941.1
Electricity loss, including:	Mln kW/h	3 800.1	3 660.1	3 607.6
rated process loss	Mln kW/h	3 429.4	3 356.5	3 496.8
excessive loss	Mln kW/h	370.7	303.6	110.9
Electricity loss, % to grid output	%	11.5 %	11.3 %	10.6 %

### The reduction in electricity loss (including excessive loss) was due to the following events:

- replacement of electricity meters;
- timely inspection of electricity meters;
- replacement of current transformers to lower power ones;
- installation of input boards equipped with metering devices on the outer sides of individual residential buildings for 1-4 subscribers to ensure free access to the metering devices for retail supplier’s staff and to prevent off-the-meter consumption;
- installation of advanced accuracy metering devices;
- other measures in accordance with RD 34.09.254 “Instruction for reducing electricity process consumption for the transmission in energy system and power pool grids”.

## Heat production and transmission

Heat output from power plants and boiler houses of “RAO Energy System of East” Holding in 2014 amounted to 31,165.0 thsd. Gcal, which is 2% less than 2013 output. The reduction in heat output in JSC FEGC by 1% and heat output by isolated energy systems by 3% in average was due to higher ambient air temperatures throughout 2014.

### Heat output from “RAO Energy System of East” Holding plants and boiler houses in 2012-2014, thsd. Gcal

Item No.	Index	2012	2013	2014
1	Total for the Holding	<b>32 326.6</b>	<b>31 754.5</b>	<b>31 165.0</b>
2	JSC “FEGC”	22 357.6	22 011.8	21 744.1
3	JSC AK “Yakutskenergo”	2 497.9	2 471.2	2 518.4
4	JSC “Sakhaenergo”	104.8	103.6	94.2
5	JSC “Teploenergoservis”	1 456.8	1 388.9	1 409.4
6	JSC “Kamchatskenergo”	2 326.7	2262	2 099.2
7	JSC “Magadanenergo”	1 355.9	1 322.65	1 251.8
8	including heating stations	1 115.7	1090.7	1 059.3
9	JSC “Chukotenergo”	518.3	492.7	461.9
10	JSC “Sakhalinenergo”	1 642.7	1 629.85	1 508
11	JSC “South Electric Grids of Kamchatka”	65.9	71.8	78

Heat loss in the networks of JSC “RAO Energy System of East” S&A in 2014 amounted to 7,519.6 mln kW/h (23.9% in relation to heat network output). Relative loss as compared to previous years: a 1.6% increase against 2013 and a 1.0% increase against 2012.

#### The main reason for the overall increase in loss in the Holding was higher loss in JSC FEGC due to:

– longer terms of hydraulic testing and larger scope of repairs because of heat pipeline ruptures in the Primorsky and Sakhalin Regions;

– arrangement of circulation for heat pipelines in several buildings in Khabarovsk to bring hot water temperatures in the draw-off point to the norms required by SanPiN;  
– reduction in heat output from collectors because of higher average daily ambient air temperatures in all the regions.

## Heat network output and heat loss in JSC “RAO Energy System of East” S&A

Index	Measurement unit	2012	2013	2014
Heat network output	thsd. Gcal	32 254.0	31 735.1	31 478.2
Heat loss	thsd. Gcal	7 384.7	7 079.3	7 519.5
Heat loss, % to network output	%	22.90 %	22.31 %	23.9 %

## TARIFF POLICY

Companies of the “RAO Energy System of East” Holding operate in non-price and isolated areas. The activities are performed at the tariffs determined by federal executive authority (Federal Tariff Service of Russia) and executive authorities in the Russian Federation constituent territories responsible for government tariff regulation (regional regulatory authorities, RRA) in compliance with the principles and rules of electricity and heat tariffs government regulation in the Russian Federation. FEFD has no free price area.

Federal Law of 26.03.2003 No. 35-FZ “On the electricity industry” establishes the basic principles and methods of government regulation in electricity industry and powers of the regulatory authorities.

The procedure for calculation and approval of electricity

and power tariffs, and terms are prescribed by the RF Government Decree of 29.12.2011 No. 1178 “On pricing in the sphere of regulated prices (tariffs) in electricity industry”.

Federal Law of 27.07.2010 No. 190-FZ “On heat supply” establishes the basic principles for prices (tariffs) regulation in the sphere of heat supply and powers of the regulatory authorities for price (tariff) regulation in the sphere of heat supply.

The procedure for calculation and approval of heat tariffs, terms and procedure for the regulation method selection are prescribed by the RF Government Decree of 22.10.2012 No. 1075 “On pricing in the sphere of heat supply”. In 2014–2015 the Decree allows for the application of the economically feasible expense (costs) method regardless of the requirements of Pricing Principles for Heat Supply.

## Companies of the “RAO Energy System of East” Holding are involved in the following regulated activities:

### Electricity sale to end consumers

The tariff is established by RRA within the limits prescribed by FTS of Russia, in compliance with the approved procedural guidelines for calculation of regulated tariffs and prices for electric (heat) energy on retail (consumer) market.

### Electricity and power production

Within the non-price area of the FEFD, tariff is established by the FTS of Russia by indexation method. The basis calculated in 2007 is adjusted annually in accordance with the consumer price index calculated by RF Ministry of Economic Development. This method also applies to the new plants beginning with the second year of plant operation.

### Electricity transmission

Tariffs for electricity transmission within the non-price area of the FEFD (except for the Republic of Sakha (Yakutia)) on JSC “FEDC” grids are approved by RRA using the RAB (regulatory asset base) method as agreed by the FTS of

Russia. The current long-term regulation period ends in 2017. This method ensures recovery of and return on investments.

### Heat production in the combined generation mode

The tariffs are approved by RRA by economically feasible expense (costs) method within the limit tariffs for heat produced in a combined heat and power generation mode.

### Heat sale to end consumers

The tariffs are approved by RRA by economically feasible expense (costs) method within the limit tariffs for heat supplied to consumers by heating supply companies.

## SALES

### Electricity sales on electricity (power) wholesale market

UES of East has introduced the wholesale market model with a unified purchaser (UP). Electricity and power suppliers sale electricity and power to the unified purchaser at the set tariffs. Buyers on the wholesale market purchase electricity and power from the unified purchaser at the prices calculated by Commercial Market Operator (JSC “ATC”) with the reference to indicative consumer prices established the FTS of Russia.

In accordance with the clause 170 of the RF Government Decree No. 1172 of 27.12.2010, the functions of unified purchaser are vested with an energy sales organization, which is established as a result of reorganization of former local energy and electrification joint stock companies and supplies to the retail market more than a half of the electricity consumed in the Far East. The unified purchaser is JSC “FEFC”, a guaranteeing supplier in the Amur Region, the Jewish Autonomous Region, the Khabarovsk and Primorsky Regions. The total volume of supplies by JSC “FEFC” for the retail market makes up 90% of UES of East consumption, and more.

JSC AK “Yakutskenergo” is a guaranteeing supplier in the south of the Republic of Sakha (Yakutia).

JSC “FEGC” is a large Russian generating company, owner of all the heat generation facilities in UES of East with the installed capacity of 5,843.3 MW as of the beginning of 2014.

According to JSC “FEFC” results as a unified purchaser, 29,818.94 mln kW/h were purchased on the wholesale electricity (power) market (WEPM) in the non-price area of the Far East in 2014.

The cost of product purchase (electricity and power) on the WEPM for JSC “FEFC” as a unified purchaser amounted to 40,930.27 mln rubles.

Actual average weighed price of the electricity and power purchase for JSC “FEFC” was 1,372.63 rub./mW\*h.

According to the operating activity results of JSC “FEGC”, consolidated balance forecast of energy (generation) made by the FTS of Russia was accomplished in the amount of 23,134.5 mln kW/h, or 99.6%, including 279.6 mln kW/h of Nikolaevskaya CHPP output to retail market, within the second non-price area of the Far Easton the wholesale electricity (power) market (WEPM).

Finally, the cost of product (electricity and power) supplied to the WEPM in 2014 amounted to 38,985.36 mln rubles.

The fuel component in WEPM plants was 1,122.68 rub./MW\*h with the average sales price for electricity 1,103.67 rub./MW\*h, and formed negative marginal profit (loss) in the amount of 374.13 mln rubles.

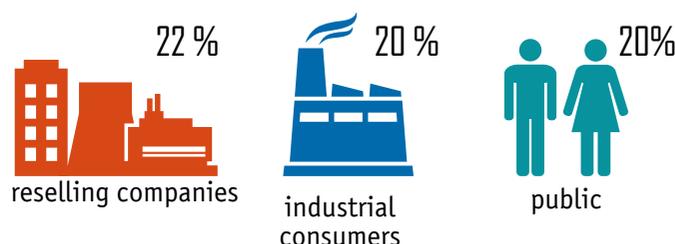
Item No.	Index	Measurement unit	2012	2013	2014
1.	Electricity purchased by JSC “FEFC” on the WEPM	Mln kW/h	30 719.74	31 657.07	29 818.94
2.	Cost of product purchase by JSC “FEFC” on the WEPM	Mln rubles	39 424.49	40 918.11	40 930.27
3.	Electricity output by JSC “FEGC” plants	Mln kW/h	23 103.20	22 041.20	23 134.46
4.	Cost of product supply by JSC “FEGC” to the WEPM	Mln rubles	34 595.35	35 761.88	38 985.36

## Retail electricity market

In 2014, the overall productive electricity supply in the “RAO Energy System of East” Holding amounted to 33,496.7 mln kW/h, which is 56.9 mln kW/h below the 2013 figure. The revenue amounted to 111,214.0 mln rubles and exceeded the 2013 figure by 7,764,5 mln rubles.

Cash flow received from the electricity supplied in 2014 amounted to 108,276.9 mln rubles, which is 4,759.8 mln rubles more than the cash receipts 2013. Payment to revenue ratio 2014 was 97.4%.

The primary shares in the productive electricity supply structure are made up by:



Item No.	Index	Measurement unit	2012	2013	2014
1.	Productive electricity supply	Mln kW/h	34 440.1	33 553.7	33 496.7
2.	Revenue from electricity	Mln rubles	100 247.6	103 449.5	111 214.0
3.	Cash receipts from electricity	Mln rubles	101 087.4	103 517.1	108 276.9

## Heat sales

For the 12 months 2014, the overall productive heat supply in JSC “RAO Energy System of East” S&A amounted to 23,260 thsd. Gcal, which is 968 thsd. Gcal below the 2013 figure. The revenue amounted to 40,590.6 mln rubles and exceeded the 2013 figure by 947.5 mln rubles. In 2013 companies of JSC “RAO Energy System of East” supplied 24,228 thsd. Gcal of heat. The revenue amounted to 39,643.1 mln rubles.

Cash flow received from the heat supplied in 2014 amounted

to 38,967.8 mln rubles, which is 688.2 mln rubles more than the cash receipts 2013. Payment to revenue ratio 2014 was 96.0%, which is 0.6% below the 2013 figure.

The primary shares in the productive electricity supply structure are made up by public, homeowners associations, housing associations, and property management companies (58% of the total consumption).

Item No.	Index	Measurement unit	2012	2013	2014
1.	Productive heat supply	thsd. Gcal	24 458.0	24 228.5	23 260.0
2.	Revenue from heat	Mln rubles	37 462.3	39 643.1	40 590.6
3.	Cash receipts from heat	Mln rubles	34 733.2	38 279.6	38 967.8

## Financial results

Consolidated financial result of the “RAO Energy System of East” Group for 2014 is presented in the audited financial statements prepared in accordance with the International Accounting Standards (IAS).

Financial result of the “RAO Energy System of East” Group for 2014 is presented in the financial statements prepared in accordance with Russian Accounting Standards (RAS)



## Key financial performance indicators (mln rubles)

Index	Year			Unit.
	2012	2013	2014	%
Revenue subject to government subsidies	142 080	152 829	162 699	6%
Operating expenses	(137 647)	(140 997)	(158 198)	12%
(Loss)/profit from operating activities	(1 827)	7 028	2 819	-85%
Profit from operating activities (adjusted) <sup>1</sup>	8 042	11 858	8 109	-32%
EBITDA	12 416	17 031	15 398	-10%
Financial costs, net	(4 751)	(5 167)	(5 513)	7%
Profit before tax (adjusted) <sup>1</sup>	3 300	6 800	2 586	-62%
(Loss)/profit for the period	(4 824)	4 681	(2 181)	-
Profit for the period (adjusted) <sup>1</sup>	5 045	9 511	3 109	-67%

## Revenues structure of the “RAO Energy System of East” Group (mln rubles)

As a result of 2014, total revenue of the Group (subject to the government subsidies) increased by 6% and amounted to 162,699 mln rubles.

**The key factors influencing the changes in total revenue 2014 as compared to 2013 included:**

- increase in electricity production by 4%;
- growth of the average output tariff for the electricity sold by energy companies of the Group to the end consumer by 7% against 2013, up to 3.46 rub./kW\*h due to indexation of the tariffs for electricity;
- increase in JSC “FEDC” (a member of FEEC subgroup) revenues by 3,923 mln rubles (+101%), which is due to the

renewal of the last mile agreements in the Amur Region and the Jewish Autonomous Region;

- reduction of the government subsidies amount by 6% down to 12,413 mln rubles.

Income from electricity and power sales (60%) and income from heat sales (21%) have the greatest specific weight in the Group revenues 2014. Other revenues make up 11% of the total revenues and include income from electricity and heat transportation, capital construction jobs, technological connection to the grid, product resale, rent service and transportation service sale. The share of government subsidies is 8% of the total revenue of the Group.

<sup>1</sup> Profit from operating activities, profit before tax, and profit/loss for the period are adjusted to the receivables impairment reserve accrual, loss from fixed assets retirement, as well as the income related to

reduction of payments to pensioners and pension security system shrinking, loss from revaluation of the retirement asset group and loss from fixed assets depreciation.



### Revenues structure (mln rubles)

Revenue indicators	Year		Unit
	2013	2014	%
Electricity and power sale	89 839	98 397	10%
Heat and hot water sale	33 004	33 914	3%
Other revenues	16 753	17 975	8%
Total revenues	139 596	150 286	8%
Government subsidies	13 233	12 413	– 6%
Revenue subject to government subsidies	152 829	162699	6%

### Operating expenses (mln rubles)

Operating expenses of the Group in 2014 increased by 12% against 2013 and amounted 158,198 mln rubles.

#### Semi-variable expenses

Fuel expenses 2014 increased by 5% up to 46,606 mln rubles. This figure was influenced by a 4% growth in electricity generation as well as growth of price for fuel. Average cost of a consumed ton of conditional fuel in 2014 increased by 3% up to 3,187 rubles due to the raised prices for “Sakhalin gas”. Conditional fuel specific consumption of (CFSC) per electricity output in the Group reduced by 3 cfg/kW/h

down to 380 cfg/kW/h due to CFSC reduction in the Sakhalin energy system by 41 g/kW/h upon commissioning of the new 4th block of Yuzhno-Sakhalinsk CHPP-1. As a result, fuel consumption 2014 measured in conditional fuel tons increased by 2% up to 14,622 thsd. cft.

The increase in expenses on purchased electricity by 20% is due to electricity purchase by JSC AK “Yakutskenergo” from JSC “Vilyuskaya HPP-3 for further reselling as a guaranteeing supplier.

Semi-variable expenses (mln rubles)	2012	2013	2014	mln rubles	%
				2014/2013	
Fuel costs	45 202	44 460	46 606	2 146	5 %
Electricity distribution costs	11 613	12 894	14 374	1 480	11 %
Purchased electricity and power	8 955	9 635	11 592	1 957	20 %
Heat purchase and transportation costs	2 572	2 699	2 878	179	7 %
Water use costs	1 686	1 743	1 789	46	3 %
Cost of petroleum products for resale	6	718	425	-293	-41 %
<b>Total</b>	<b>70 193</b>	<b>72 149</b>	<b>77 664</b>	<b>5 515</b>	<b>8 %</b>

### Semi-fixed expenses

Employee benefits increased by 14% up to 45,756 mln rubles due to the indexation of tariff rates and salaries of the Group employees.

The growth of fixed assets depreciation by 41% up to 7,289 mln rubles in 2014 is mostly due to the resuming of JSC "FEDC" fixed assets depreciation from January 1, 2011 related to the declassification of JSC "FEDC" assets and liabilities out of the retirement group assets and liabilities intended for sale.

Semi-fixed costs (mln rubles)	2012	2013	2014	mln rubles	%
				2014/2013	
Employee benefits (including taxes and pension security costs)	37 465	40 309	45 756	5 447	14%
Other materials	7 128	7 059	7 571	512	7%
Fixed asset depreciation	4 374	5 174	7 289	2 115	41%
Repairs and maintenance	2 556	2 382	2 481	99	4%
Subcontractor services	1 845	3 364	1 605	-1 759	-52%
Security costs	1 086	1 159	1 274	115	10%
Rent costs	1 430	1 095	1 267	172	16%
Cost of consulting, legal and information services	833	688	984	296	43%
Other outsiders' services	4 740	4 598	5 087	489	11%
Taxes, except for profit tax	1 547	1 618	2 063	445	28%
Other costs	1 000	1 376	1 549	173	13%

Accrued receivables impairment reserve	3 133	1 778	3 635	1 857	104%
Loss (profit) from fixed assets retirement, net	476	(143)	474	617	—
Income related to reduction of payments to pensioners and pension security system shrinking	0	-1609	-501	1 108	-69%
<b>Total</b>	<b>67 613</b>	<b>68 848</b>	<b>80 534</b>	<b>11 686</b>	<b>17%</b>

### Financial position of the “RAO Energy System of East” Group (mln rubles)

Group assets value as of December 31, 2014 increased by 10% up to 150,821 mln rubles against 137,678 mln rubles as of December 31, 2013. The increase in assets value is due to growth of the fixed assets by 7% up to 90,890 mln rubles, as well as the following current assets:

- cash and cash equivalents - by 66% up to 12,572 mln rubles;
- inventories – by 12% up to 19,384 mln rubles;
- receivables – by 1% up to 23,137 mln rubles.

Capital of the Group as of December 31, 2014 amounted to 27,088 mln rubles, which is 4% below the level as of December 31, 2013, due to increase of the uncovered loss amount by 3% up to 13,214 mln rubles.

Liabilities of the Group as of December 31, 2014 increased by 13% as compared to December 31, 2013 and amounted to 123,733 mln rubles.

### Thereby:

- financial debt (sum of long-term and short-term loans) increased by 21% up to 77,994 mln rubles;
- net debt (financial debt less cash and cash equivalents) increased by 15 % up to 65,422 mln rubles;
- long-term borrowings reduced by 9% down to 45,524 mln rubles;
- short-term borrowings increased by 121% up to 32,470 mln rubles due to approaching of the deadlines for some large long-term loans;
- payables reduced by 1% down to 29,592 mln rubles.

## INVESTMENTS

### Main events in “RAO Energy System of East” Holding in 2014:

• JSC “RAO Energy System of East” is in the active phase of implementation of a large investment project “Construction of Vostochnaya CHPP”. Implementation of the project is aimed at securing reliable power supply of the south of Primorsky Region, cover of electrical load growth in Vladivostok and liquidation of electricity deficit. Completion of the construction and commissioning of the object is planned for 2015.

• In this financial year JSC “RAO Energy System of East” completed developing project documentation on infrastructural investment projects necessary to secure construction of 4 plants in the Far East provided for by RF President Decree No. 1564 dated November 22, 2012. Project papres and estimate documents on most projects

for the related infrastructure received positive opinions of the state expertise; general contractor agreements for construction were made.

• In 2014 a general contractor agreement for construction of the largest solar electric plant beyond the Polar Circle in v. Bagatai of Verkhoyansk settlement in the Republic of Sakha (Yakutia) with a capacity of 1 mW was made.

• Construction of a boiler house in v. Nekrasovka and first-order boiler house in Volochaevsky Town of the Khabarovsk Region was completed. Total capacity commissioning amounted to 39.7 Gcal/h. The projects are aimed at improvement of consumer heat supply quality in v. Nekrasovka, as well as at securing possibility of connecting new construction objects (JSC “FEGC”).

• Implementation of the project “Construction of HM-35 (heating main) from KhHPP-3 in Khabarovsk KhHS” (conduct of design and survey works) began. The project

is aimed at securing heat supply of new areas in Khabarovsk (JSC “FEGC”).

- Works on implementation of projects aimed at use of renewable energy sources were continued. Works on construction of a wind-diesel complex with a capacity of 450 kW in v. Novikovo of the Sakhalin Region were performed. Within the frames of the project 2 wind-diesel power plants were installed. Works are continued in the current year (JSC “Mobile Energy”).

Projects on construction of solar electric plants in inhabited localities Toion-Ary, Dzhargalakh, Aiik and Kuberganya were implemented, and solar power plant in Batamay was expanded. Total capacity of new generation on the basis of RES amounted to 125 kW.

- Works on technological connection of power receivers of major applicants were completed, including connection of power units of Ust-Srednekanskaya HPP, JSC “Minery named after Matrosov”, “Pavlik” mine (JSC “Magadanenergo”); internal electric supply of “Udachny” underground mine JSC AK “ALROSA” (JSC AK “Yakutskenergo”).

- Works on construction of substation “Araliya” were performed within the frames of technological connection of perinatal center Public Health Facility “Sakhalin Regional Hospital” (JSC “Sakhalinenergo”), as well as reconstruction of 110/35/6 kW “Krashennikov” substation within the frames of an agreement for individual technological connection with JSC “Oboronenergo” (JSC “Kamchatskenergo”).

- A considerable scope of works on reconstruction and construction of distribution grid complex was performed, aimed at securing connection to electric grids of beneficiary category of applicants, and applicants’ payment for which is calculated at a standardized rate (JSC “FEDC”, JSC “Sakhalinenergo”, JSC AK “Yakutskenergo”, JSC “Magadanenergo”, JSC “Kamchatskenergo”).

**Investment program of “RAO Energy System of East” Holding for 2014 is formed in the amount of 21,548.5 mln rubles, VAT included.**

**Financing plan for 2014 meets the parameters of investment programs of the Holding’s S&A that have passed the procedures of coordination and approval in accordance with provisions of RF Government Decree No. 977 dated December 01, 2009.**

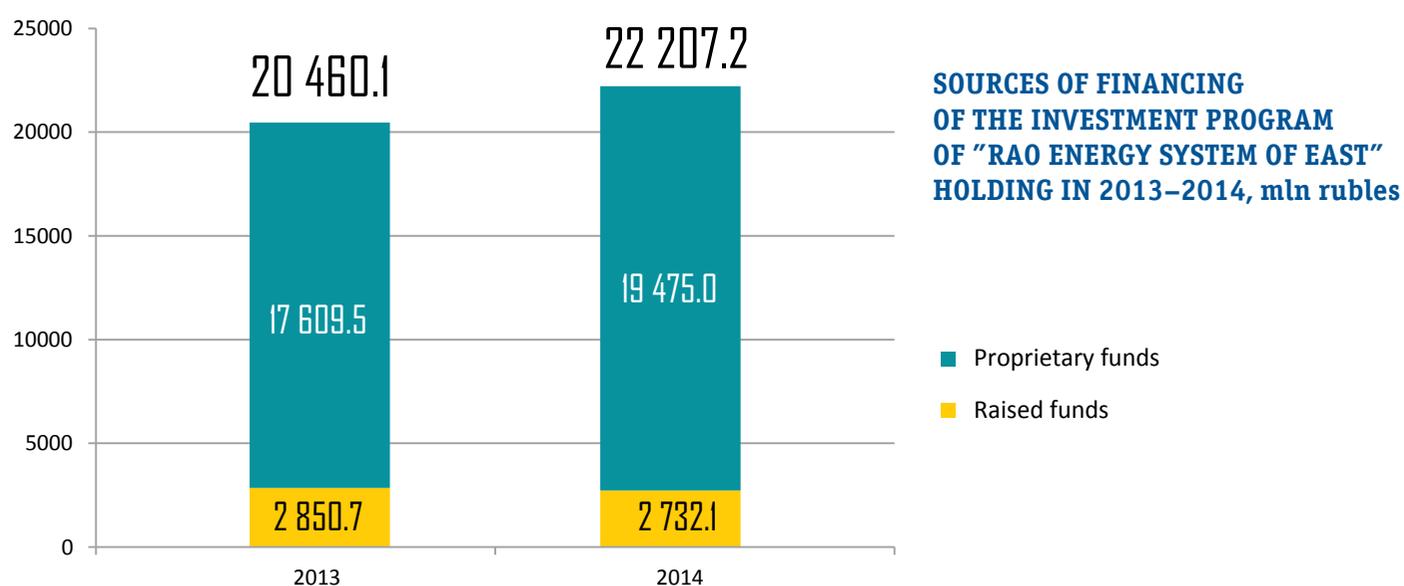
**Actual financing of the investment program of “RAO Energy System of East” Holding in 2014 amounted to 22,207.2 mln rubles, including VAT, which makes 103% of the plan of the financial year, including individual companies of the Holding.**

### **Dynamics of capital investments financing by “RAO Energy System of East” Holding in 2013–2014, mln rubles, VAT included**

No.	Name	2013 (actual)		2014 (actual)	
		mln rub.	%	mln rub.	%
	<b>Total for “RAO Energy System of East” Holding, including:</b>	<b>20 460.1</b>	<b>100%</b>	<b>22 207.2</b>	<b>100%</b>
	Generation	7 319.3	36%	8 765.6	39%
	Heat networks	1 376.9	7%	2 652.0	12%
	Electric grids	7 510.5	37%	8 014.8	36%
	Sales	972.2	5%	206.8	1%
	Other	3 281.1	16%	2 567.9	12%

## Structure of capital investment financing by business directions of “RAO Energy System of East” Holding in 2013–2014, mln rubles, VAT included

No.	Name	2013 (actual)	2014 (actual)
		mln rub.	mln rub.
1	<b>Total for “RAO Energy System of East” Holding, including:</b>	<b>20 460.1</b>	<b>22 207.2</b>
2	Generation	7 319.3	8 765.6
3	Heat networks	1 376.9	2 652.0
4	Electric grids	7 510.5	8 014.8
5	Sales	972.2	206.8
6	Other	3 281.1	2 567.9



## INNOVATIONS

In 2014 the Company continued implementation of activities under the Program of innovation development of “RAO Energy System of East” Holding for a period till 2015 with a perspective till 2020 approved by Resolution of the Board of Directors dated April 30, 2013, Minutes No. 92 (hereinafter referred to as PID).

The main goal of innovation activity is securing development of “RAO Energy System of East” Holding (hereinafter referred to as Holding) due to gain in efficiency, performance and quality of power supply of consumers on the basis of innovative technologies, and modern methods and mechanisms of management.

### Goals of innovation development of the Holding are:

- Securing technological leadership in the Far Eastern Federal District in key competences (generation and distribution of electric and heat power).
- Bringing specific capital and operational costs, as well as energy production efficiency, to a level of the world leaders in the branch.
- Compliance with high international standards of environmental and industrial safety

## PRIORITIES OF INNOVATION DEVELOPMENT

### In sphere of construction and modernization of generating capacities:

- development and implementation of multifunctional power complexes of electric- and heat supply of local generation centers using energy accumulators and renewable energy sources;
- development and implementation of technologies for reduction of environmental emissions;
- development and implementation of innovative technologies for solid fuel combustion;
- development and implementation of systems of dry ash and slag disposal;
- development and implementation of systems for automatic start and stop control of turbo generators, controlling security and efficiency parameters in operational areas;
- development and implementation of load distribution systems between power units (aggregates) on the basis of fuel efficiency;
- development of engineering solutions for reconstruction (manufacturing) of boiler units aimed at adaptation of burning installations for stable combustion of the whole specter of coals in the Far Eastern Region (including Transbaikal);
- development of low-toxic burner devices increasing start-stop characteristics of TPP boiler units.

### In sphere of transmission and distribution of electricity:

- implementation of energy accumulation systems with increased capacity;
- development of (implementation of standard) frequency controlled drive systems for main mechanisms for own needs of power plants.
- development and implementation of innovative activities aimed at increase of maximum permitted power exchange in electric grids;
- development of innovative activities aimed at securing work of power equipment in complex climate conditions;
- implementation of SmartGrid technologies;
- development and implementation of technologies and equipment using composite materials;
- technologies of remote inspection of 0.4-220 kW power lines using air drones.

### In sphere of heat supply:

- use of innovative materials and technologies (foam polyurethane insulation) to recover and extend service life of pipelines of heat networks and to reduce losses.

### In sphere of electric and heat power sale:

- development of intellectual systems for electric and heat power accounting.

### In sphere of repair and service of power equipment:

- development of technologies for durability increase of elements in thermal plants' equipment;
- implementation of a system for manufacturing assets control.

### In sphere of exploitation of electrical equipment:

- development of systems for control of parameters securing safe and reliable exploitation of electrical equipment;
- development of (implementation of standard) frequency controlled drive systems for main mechanisms for own needs of power plants.

### Scope and sources of financing of the Innovation program

In 2014 innovation activities were financed using proprietary funds of companies belonging to "RAO Energy System of East" Holding (92%) and using attracted funds (8%).

**Total costs of implementation of activities from the Program of Innovation Development in the Holding amounted to 4,533.3 mln rubles, net of VAT, which made up 3.4% of total revenue of Holding companies participating in implementation of the Program. Costs of innovation development of JSC "RAO Energy System of East" in 2014 amounted to 569.5 mln rubles, net of VAT.**

Total costs of Research and Advanced Development of the Holding in 2014 amounted to 383.8 mln rubles, net of VAT, including Research and Advanced Development of JSC “RAO Energy System of East” amounted to 132.8 mln rubles, net of VAT.

## Main innovation projects

### The most important projects implemented in 2014:

- Using innovative technologies (gas turbine units - GTU) during implementation of the project “Construction of GTU-CHPP on CSWBH site (Vostochnaya CHPP)”;
- Design of the Program on perspective power complex development on the territory of the Far Eastern Federal Region in the area of JSC “RAO Energy System of East” Holding responsibility till 2025;
- R&D unit “Development of a functional expansion of a wind-diesel complex (WDC) design and mathematical model of WDC”;
- R&D unit “Development and implementation of pilot-industrial installation for extraction (sampling) of a floating fraction of furnace dust from a pulp flow in a hydraulic sluicing system”;
- R&D unit “Selection of optimal technical solutions for an autonomous installation using RES in arctic form-factor”;
- R&D unit “Examination of possibilities of using ash dumps

of coal TPPS and development of a technology for production of complex binding and inert materials in construction”;

- R&D unit “Development of intermediate supports made of composite materials for HV power lines of 0.4 kV and 6-10 kV voltage class” (performed by JSC “FEDC”).

In a result of Research and Advanced Development implementation in the Holding in 2014 four useful model patents and two certificates of state registration for ECM were obtained, including one patent and two certificates obtained by JSC “RAO Energy System of East”.

In 2014 JSC “RAO Energy System of East” was awarded with “Technological Innovation of the Year” prize at the prestigious All-Russia contest “Innovation Time” for implementation in 2013-2014 of the project “Development of an innovation automatic system of wind-diesel complex control”.

## CORPORATE GOVERNANCE

Efficient corporate management of the Company is a means to enhancing efficiency of JSC “RAO Energy System of East” operation, consolidation of its reputation and increase of its capitalization. Corporate management of the Company is performed in accordance with requirements of RF Law and the Code of Corporate Management recommended to be used by the Federal Financial Markets Service.

### Corporate management is based on the following principles:

- observance of legal interests and rights of shareholders;
- subordination of executive authorities to the Board of Directors, and subordination of the Board of Directors to the General Shareholders’ Meeting in accordance with current Law;
- disclosure of information;
- permanent improvement of corporate management system.

### The General Shareholders’ Meeting

The General Shareholders’ Meeting is the highest managerial authority in the Company making decisions on the most important business issues. Shareholders execute their right to participate in Company management by means of participation in the General Meeting.

Only one General Shareholders’ Meeting was held in 2014; it took place on June 18, 2014.

### The Board of Directors

In 2014 there were held 13 meetings of the Board of Directors; no meeting in a form of joint attendance was held. 211 issues were considered at the meeting of the Board of Directors.

### Current Board of Directors elected at the annual General Shareholders’ Meeting of JSC “RAO Energy System of East” on June 18, 2014 is the following:

- Dod Evgeny Vyacheslavovich – Chairman of the Board of Directors, Chairman of the Board of JSC “RusHydro”.
- Stanyulenaite Yanina Eduardovna – Deputy Chairman of the Board of Directors (Nonexecutive Director), Director of JSC “RusHydro” Department of Corporate Governance and Property Management.
- Desyatov Evgeny Valeryevich – member of the Board of Directors, admitted as withdrawn (Nonexecutive Director).
- Kirov Sergey Anatolyevich – member of the Board, First Deputy Director General of JSC “RusHydro”.
- Kozhemyako Oleg Nikolaevich – acting Governor of the Sakhalin Region (Nonexecutive Director).
- Posevina Irina Olegovna – Director of JSC “Rus-Hydro” Department of Internal Audit, Control and Risk Management (Nonexecutive Director).
- Savelyev Ivan Vyacheslavovich – Director for strategic transactions and capital markets, Deputy Chairman of JSC “RusHydro” Board (Nonexecutive Director).
- Tolstoguzov Sergey Nikolaevich – Director General of JSC “RAO Energy System of East”.
- Yanson Sergey Yuryevich – Director General of JSC “Trest Hydromontazh” (Nonexecutive Director).

## The Board

As of December 31, 2014, the existing Board is the one elected under the resolution of the Board of Directors of JSC “RAO Energy System of East” dated November 28, 2014.



Tolstoguzov Sergey Nikolaevich – Director General (functions of the Chairman of Company Board in accordance with part 1 article 69 FZ “On Joint Stock Companies”)



Zapryagaeva Nina Lipatovna – First Deputy Director General – Executive Director



Borodin Viktor Nikolaevich – Deputy Director General for Technical Policy – Chief Engineer



Kaplun Aleksey Aleksandrovich – Deputy Director General for Strategy and Investments



Zhadovets Evgeny Mikhailovich – Deputy Director General for Production

## DIRECTOR GENERAL

Director General is a sole executive authority in the Company performing management of current activity of the Company in accordance with resolutions of the General Shareholders' Meeting and Company Board of Directors passed within their competence. Director General heads the Board of the Company.

**In accordance with the resolution of the General Shareholders' Meeting held of November 30th 2011, Tolstoguzov Sergey Nikolaevich was elected to the office of JSC «RAO Energy System of East» with effect from December 1, 2011.**

Year of birth	1964
Education	Higher (in 1992 graduated from Magnitogorsk Mining and Smelting Institute named after G.I. Nosov, specialty: Power supply of industrial enterprises, cities and agricultural sectors, qualification: Electrical Engineer)
Data on a principal place of work and positions occupied during the last 5 years in other organizations	<p>Period: 2011 – present Organization: JSC “RAO Energy System of East” Position: Director General</p> <p>Period: 2014 – present Organization: JSC “RusHydro” Position: Deputy Director General for the Far East</p> <p>Period: 2013–2014 Organization: JSC “RusHydro” Position: member of the Board</p> <p>Period: 2011–2011 Organization: JSC “RAO Energy System of East” Position: First Deputy Director General–Operational Director</p> <p>Period: 2011–2011 Organization: JSC “Technopromexport” Position: Deputy Director General</p> <p>Period: 2007–2011 Organization: JSC “INTER RAO UES” (before 2008 – CJSC “INTER RAO UES”) Position: Manager of the Sector for Assets Management of the Moscow branch of JSC “INTER RAO UES”; Manager of the Sector for Assets Management JSC “INTER RAO UES”; member of the Board – Manager of the Sector for Assets Management, member of the Board –Manager of the Sector for Production Activity; Deputy Director General for Assets Management, Manager of the project group on assets integration (as a second job)</p>
	0,000220%
Share of participation in Company authorized capital	0,000231%
Share of Company ordinary shares owned	Does not own shares of JSC “RAO Energy System of East” S&A
Share of participation in authorized capitals of Company S&A	In 2014 no transactions with shares of JSC “RAO Energy System of East” were made
Data on transactions on procurement or carve-out of Company shares	There are no such relations

Data on a character of any family ties with other persons composing managerial bodies of the issuer and/or authorities controlling financial and economic activity of the issuer	Was not brought to these types of responsibility
Data on bringing to administrative responsibility related to a breach of law in the sphere of finances, taxes and levies, securities market, or criminal responsibility (conviction) for crimes in the sphere of economics, or for crimes against public authorities	Did not occupy such positions
Data on occupation of positions in managerial bodies of commercial organizations in a period when a case on bankruptcy was brought against these organizations and/or one of the procedures provided for by Russian Federation Law on Insolvency (Bankruptcy) for bankruptcy was implemented	

In accordance with resolution of an extraordinary General Shareholders' Meeting dated November 30th 2011, Tolstoguzov Sergey Nikolaevich was elected Director General of JSC "RAO Energy System of East" with effect from December 1st 2011.

## PERSONNEL POLICY AND SOCIAL RESPONSIBILITY

The Company pays considerable attention to implementation and use of modern HR tools, increasing of motivation and professional level of its employees, and promotion of corporate culture.

The main target of personnel policy of the Holding is active involvement of personnel in the process of implementation of operational and strategic goals and tasks of the Holding by providing favorable labor conditions and possibilities of career, professional and personal growth of the employees, and use of a balanced approach to their interests and needs.

The main principle of personnel policy of the Holding is maintenance of efficient functioning and dynamics of Holding development due to preservation and development of an optimal personnel composition, a solid, responsible, highly-developed and high-performance team necessary for solution of tasks of the Holding.

### The main goals of personnel policy of the Holding:

- increase of attractiveness of working positions in order to attract employees with a higher qualification and manning of Holding companies;
- increase of specific weight and promotion of youth stay within personnel of Holding companies;
- enhancement of employees' satisfaction by combining material and non-material factors of personnel labor motivation;
- implementation of social policy aimed at enhancement of living standards of the employees and their families;

### Manning table of the Holding, persons

- implementation of a systematic approach to personnel training in order to secure stable qualification growth and create conditions for personnel development.

Personnel policy of the Company is carried out in accordance with the following principles:

The systematicity principle. According to personnel policy of the Company, HR managers and line supervisors treat personnel potential of the Company as a whole, interrelated dynamic system covering all categories of employees.

The principle of equal opportunities. The main criterion for assessment of a Company employee is his/her professional qualities.

The principle of team unity. All members of a team have equal conditions and bear collective responsibility for results of the team activity.

The principle of effective use of personal potential of an employee. The Company encourages progress of its employees and their personal contribution into achieving goals and targets of the Company, as well as provides opportunities for creative and professional growth.

The principle of legal security. This principle supposes strict compliance with laws and other legal acts, and norms of administrative, civil, labor and economic law.

The principle of social partnership. Personnel policy of the Company supposes mutual respect, coordination of actions and responsibility of the parties in relations among employees and administration of the Company.

