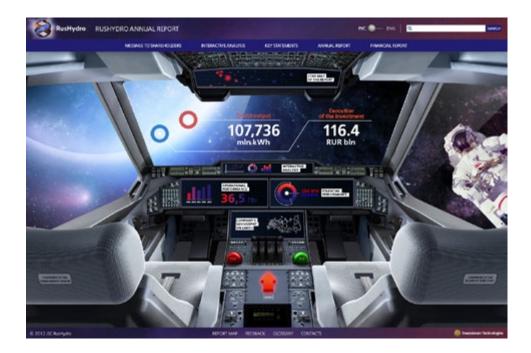


# ANNUAL REPORT 2012 RUSHYDRO CONSTELLATION

### JSC RusHydro offers a new disclosure tool, to ensure maximum ease in searching and analyzing the most important corporate information - the Interactive Annual Report.

### ar2012.rushydro.ru





# JSC RusHydro

# ANNUAL FINANCIAL REPORT 2012

Effectively utilize hydro resources, to create conditions required for the reliable performance of Russia's Unified Energy System (UES) and to enhance renewable energy source (RES) usage to benefit the Company's shareholders and society as a whole.

Chairman of the Management Board

**Chief Accountant** 



Location: 51 Respubliki Street, Krasnoyarsk, the Krasnoyarsk Region, Russia, 660075 INN 2460066195 OGRN 1042401810494 Registration date: December 26th, 2004 The Zheleznodorozhsky Inspectorate of the Ministry of Taxation of the Russian Federation, Krasnoyarsk, the Krasnoyarsk Region

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### Hydra is a constellation in the southern hemisphere.

This is the largest constellation in the sky measuring 1,303 square degrees.

The brightest star, Alphard is of second magnitude.

The best time to observe this constelletion from Russia territory is February and March.

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- See the JSC RusHydro Annual Report 2012 Appendices Book — an integral part of this Annual Report.

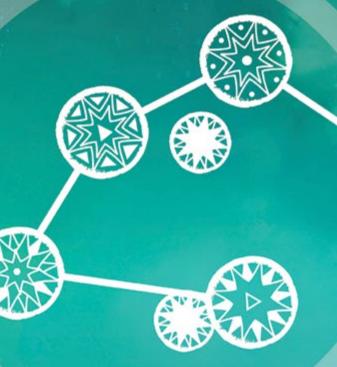
# CHAPTER 1 General Information

- 1.1. A Message to the Shareholders
- 1.2. Key Company Performance Indicators
- 1.3. About the Company
- 1.4. 2012 Key Events and Subsequent Events

Asterism (Head of Hydra constellation) — irregular polygon shape, that includes five stars — z,  $\varepsilon$ ,  $\delta$ ,  $\sigma$  and n. Arabic equivalent of the asterism is called the Pearl Necklace

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RusHydro was chosen as the chair company in the Global Sustainable Electricity Partnership (GSEP) for the 2013-2014 period. The Partnership, founded in 1992, unites thirteen largest electric power companies



### A MESSAGE TO THE SHAREHOLDERS



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Viktor Danilov-Danilyan Deputy Chairman of the Board of Directors of JSC RusHydro



Evgeny Dod, Chairman of JSC Rushydro`s Management Board

### DEAR SHAREHOLDERS,

2012 was a milestone for both RusHydro and the entire Russian energy industry. Its special significance lies in the fact that this year we had the opportunity to set our own qualitative performance targets for decades to come. If before we had inevitably compared our achievements with the achievements of Soviet power engineers, then the past year was a year of our own records — such commissioning volumes have never been seen in the Russian energy industry. RusHydro has become an absolute leader, with more than 4 GW of new capacity. Today, the total installed capacity of our power plants is 36.5 GW. With such a performance, RusHydro is undoubtedly among the top three largest energy companies.

In 2012, despite a difficult hydrological situation, RusHydro significantly improved its performance. During 2012, the Company produced 112,697 million kWh, a more than 5 percent increase compared with 2011. Useful output increased from 79,578 million kWh to 107,736 million kWh. The Company's like-for-like revenue (excluding the investment component) increased 18 percent and reached RUR 94,207 million, compared with RUR 79,994 million in 2011. RusHydro's net profit increased 23 percent to stand at RUR 29,405 million, compared with RUR 23,992 million in 2011. The Sayano-Shushenskaya HPP, the reconstruction of which remains one of RusHydro's priorities, has significantly contributed to achieving these indicators. Today, six hydro-power units with a total capacity of 3,840 MW are in operation. This year, according to the schedule three hydro-power units will be commissioned and work to replace equipment at two hydropower units will be launched. In 2014, the Sayano-Shushenskaya HPP will be fully equipped with completely new and state-of-the-art equipment which will ensure high performance and which will comply with all safety and security requirements.

However, this year, the main event for the Company was commissioning the Boguchanskaya HPP, which is the largest ever and most ambitious energy project implemented in the post-Soviet period. The Boguchanskaya HPP, one of the latest and most hitech projects in the country, is a key element of the State investment program "Integrated development of the Lower Angara area". Implementation of this program will give a strong impetus for regional development, as well as for resource potential development of the entire region. Currently, four hydro-power units with a total capacity of 1,332 MW have been put into operation. The plant already is producing output to the grid of more than 1 billion kWh. The HPP will reach project capacity in 2014.

Along with the flagship construction on the Angara River, RusHydro has continued to construct energy facilities across the country. In December, two hydro-power units with a capacity of 420 MW have been put into operation in test mode at the Zagorskaya PSPP-2, which is designed to ensure the stability of the power system in Moscow and the Moscow Region. In the North Caucasus area, the Company continues to construct the Gotsatlinskaya HPP (100 MW) on the Avarskoye Koisu River. In capacity terms, commissioning the fourth hydro-power plant in Dagestan will significantly reduce the Republic's energy deficit. Work at the Zelenchukskaya HPP-PSPP is underway. In addition, restoration of the Baksanskaya HPP not only increased its capacity from 25 MW to 27 MW, but also transformed it into the most modern hydropower plant in the region. This restoration has now been fully completed.

But perhaps the most critical priority for RusHydro in the coming years will be the development of the Far Eastern energy sector. The Company is implementing several major projects in the region. Thus, this year, RusHydro will complete construction of the first start-up complex of the unique hydro-power structure — the Ust-Srednekanskaya HPP with an capacity of 168 MW (the installed capacity will be 570 MW, the construction is planned to be completed in 2017). This site is being constructed under complex terrain and perma-frost conditions. In addition, construction of the Lower Bureyskaya HPP, with a capacity of 320 MW, in the Amur Region is underway.

RusHydro places heavy emphasis on projects which are literally of great value to the entire region. Thus, RUR 50 billion received under the re-capitalization of RusHydro, in accordance with a decree of the Russian President, will be directed to implementing four investment projects in the Far East: construction of the CHP with a capacity of 120 MW in Sovetskaya Gavan (the Khabarovsk Region); construction of the Sakhalin SDPP-2 with a capacity of 110 MW(the Sakhalin region) (Phase 1); construction of the Yakutskaya SDPP-2 with a capacity of 170 MW (the Sakha Republic (Yakutia) (Phase 1); and construction of the Blagoveshchenskaya CHP with a capacity of 120 MW (the Amur Region) (Phase 2). These facilities have to be commissioned prior to 2016. Currently, RusHydro is actively constructing energy facilities in the Far East. In particular, this year, the Company has started the construction of the Vostochnaya CHP in Vladivostok and the Yakutskaya SDPP-2 (Phase1) has been launched; also, the fifth generating unit of the Yuzhno-Sakhalinskaya CHP-1 has been connected to the grid.

The total capacity of the Company's plants scheduled for commissioning in the next five years is 6,805.27 MW. As a result, RusHydro will be the largest energy holding in the country.

However, the Company's operational geography is not traditionally limited within the territory of the Russian

Federation. Thus, in Armenia, RusHydro is reconstructing and upgrading the Company-owned Sevan-Hrazdan Cascade, as well as constructing a new cascade with a capacity of approximately 200 MW on the Naryn River in Kyrgyzstan. It should be noted that in 2013 RusHydro will become the Chairman of the Global Sustainable Electricity Partnership (GSEP) — the pool of the major energy companies in the global energy sector.

The practical aspects of international cooperation are very important to RusHydro. In particular, the Company and Alstom are actively working on localizing specialized technology production in Russia. The ceremony to lay the foundation for the hydro-power equipment factory was held May 14th, 2012 in Ufa. The launch of the first phase of the factory's construction is planned for late 2013.

The manufacturing of the latest equipment is necessary, including the performance of one of the crucial corporate tasks — to ensure reliable and safe operation of Russia's generating facilities. RusHydro continues to implement the comprehensive modernization of generating units for the period till 2025. Under the program, the largescale projects, such as the comprehensive re-construction of the Volzhskaya, the Zhigulevskaya, the Novosibirskaya and the Saratovskaya HPPs and the Cascade of the Verkhnevolzhskiye HPPs, have been successfully implemented.

RusHydro continues to develop its own competencies with regard to upgrading the efficiency of maintenance and the servicing of its assets. For this purpose, work to establish a single repair and service company that will launch later this year has been started. As part of the re-organization of the repair SDCs, JSC Electroremont-WCC, JSC Turboremont-WCC, JSC SSHGER, and JSC REMIK will merge into JSC Gidroremont-WCC.

RusHydro's willingness to set ambitious goals and to achieve them in a short time period is highly valued by industry experts. Thus, this year, Platts Agency for the first time included the Group in six categories of its rankings and noted that RusHydro is one of the fastest growing companies in the Russian and global energy industries.

RusHydro's crucial competitive advantage is its high level of corporate governance. The Company's management team is working closely with shareholders and the Company's Board of Directors. During the reporting period, the Board of Directors held a total of 28 meetings where key corporate strategic development issues were considered. Among the Board's resolutions is the approval of amendments and supplements to the Regulations on dividend policy, aimed at upgrading the protection of shareholders' interests in terms of dividend payments. In addition, a new version of the Code of Conduct, which takes into consideration provisions of the Federal Law "On Combating Corruption" and aims to offer the maximum protection against fraud and the abuse of its affiliates, has been approved.

Our joint work is based on the principles of: transparency, responsibility, accountability, integrity and justice. Thanks to the Company's commitment to these principles, in 2012, the Expert RA Rating Agency recognized RusHydro's Program for Purchasing Activities Management as one of the best systems in Russia. The Company has been also included in the list of leaders in the rating "Quality of Purschasing Activities in State Companies and Companies with State Participation." The Company's system of purchasing activities management was recognized as one of the most efficient in respect to meeting the requirements of federal legislation and compliance with common business practices in the procurement sphere.

I want to emphasize that RusHydro, regardless of the direction of its activities, strives to build the most transparent business model, allowing the State and shareholders to effectively control target fund expenditures within any project. Ensuring maximum transparency is also important, because today RusHydro has begun a new important stage in its development. Experience, an effective business model and unified shareholder and management interest will allow the Company to realize the growth potential of its value and justly become the leader in the entire Russian energy industry.



### THE MOST ANCIENT WATER ON EARTH

Near the city of Timmins (Canada), at a depth of approximately 2.5 km, scientists have discovered in mine rock pockets filled with water, which has been isolated from the outside world for more than a billion years. Apparently, this is the oldest water on the planet.

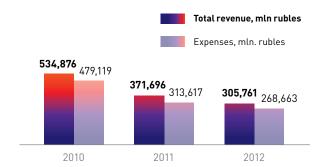
There is the possibility of finding a significant number of micro-organisms in it. The water is saturated with hydrogen and methane, and there are also dissolved inert gases and their isotopes. Scientists suggest that as a result of chemical reactions between the gases, there sufficient energy has been released to ensure the life of organisms isolated from sunlight.

The discovery of this ancient water and the possible presence of living conditions allow us to assume the existence of a similar underground environment for organisms on Mars. KEY COMPANY PERFORMANCE INDICATORS



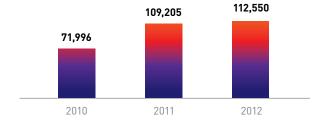
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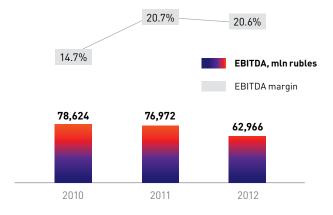
### **FINANCIAL PERFORMANCE (IFRS)**



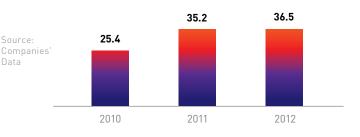
### **PRODUCTION PERFORMANCE**

ENERGY GENERATION, MLN KWH





### INSTALLED CAPACITY, GW



### **CREDIT RATING**

Rating Agency	Fitch Ratings	Standard & Poor's	Moody's	
International rating	BB+	BB+	Ba1	
National rating	ruAA	ruAA+	Aa1.ru	
Outlook	Stable	Negative	Stable	
Outlook revision date	10.09.2012	13.04.2012	27.07.2012	

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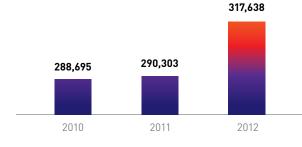
MICEX-RTS

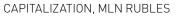
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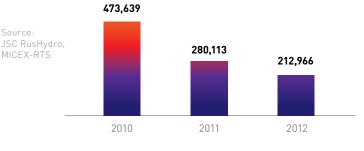
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### AUTHORIZED SHARE CAPITAL AND CAPITALIZATION

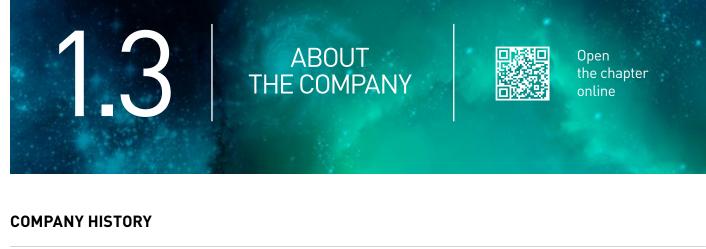
AUTHORIZED SHARE CAPITAL, MLN RUBLES







9



2004	• Company created under Russian Government Decree No. 1254-r (dated 01.09.2003)				
2005-20 <mark>08</mark>	• Hydro-power generation assets of the re-organized OJSC RAO UES of Russia holding united				
2007	• The Russian Federation becomes one of the Company's shareholders via an additional share issue				
200 <mark>8</mark>	<ul> <li>The Company's shares are listed on the Russian stock market</li> <li>A depository receipt (DR) program is launched</li> </ul>				
2009	• Depository receipts (DRs) listed on the London Stock Exchange (LSE)				
201 <mark>0</mark>	<ul> <li>Completion of the first stage of restoration at the Sayano-Shushenskaya HPP</li> <li>Completion of the Kashkhatau HPP and the Egorlykskaya HPP-2 construction</li> <li>Consolidation of existing hydro-power assets in Siberia</li> </ul>				
201 <mark>1</mark>	• Acquisitions of assets in Russia's Far East				
201 <mark>2</mark>	<ul> <li>Implemenation of electricity supply from the first hydro-power units of Boguchanskaya HPP</li> <li>About 500 MW of generating capacity was updated</li> <li>Recapitalization of the Company in compliance with the Russian President's Decree No.1564</li> </ul>				





### **RUSHYDRO GROUP**

RusHydro Group is Russia's largest generating holding based on installed capacity, the leader in renewable energy using: water currents, sea tides, wind and geo-thermal energy.

### Installed capacity Total thermal of power plants capacity 36.5 GW 16,168 Gcal/h

The Company unites more than 70 renewable energy source (RES) facilities, including:

- The Sayano-Shushenskaya HPP (Russia's largest HPP);
- Nine HPPs of the Volzhskaya-Kamskaya Cascade;
- The Zeyskaya HPP;
- The Bureyskaya HPP;
- The Novosibirskaya HPP;

- HPPs in the North Caucasus Region;
- Geo-thermal plants in Kamchatka;
- The Zagorskaya Pumped Storage Power Plant (PSPP) in the Moscow Region;
- The Cascade of the Sevano-Razdansky HPPs in the Republic of Armenia.

In 2011, the Russian Government transferred to the Company 69.3 percent of shares in JSC RAO Energy Systems of East, which includes Far Eastern power companies incorporated under the said company umbrella such as:

- JSC Far Eastern Energy
- Magadanenergo, JSC

• Kamchatskenergo, JSC

Generating Company, JSC

Company, JSC Far Eastern

- Far Eastern Distribution
- JSC Mobile Energy,

Sakhalinenergo,

- Grid Company, JSC
- JSC Daltehenergo.
- Yakutskenergo, JSC

Currently JSC RusHydro plays a key role in the Russian energy sector and ensures energy independence of the state

The RusHydro Group unites R&D and design and engineering facilities, as well as retail energy companies.

Power sales assets are consolidated within RusHydro's subsidiary, JSC ESK RusHydro. RusHydro's sales sector includes guaranteeing suppliers: LLC Energy Supply Company Bashkortostan, JSC Krasnoyarskenerosbyt, JSC Ryazan Energy Supply Company and JSC Chuvaskaya Energy Supply Company.

The Company has high-profile investment projects in various Russian regions. The largest of the new power plant construction projects include:

- The Boguchanskaya HPP (in cooperation with RUSAL) on the Angara River in the Krasnoyarsk Region;
- The Zagorskaya PSPP-2 in the Sergievo-Posadsky District of the Moscow Region;
- The Ust-Srednekanskaya HPP, the Magadan Region;
- The Lower Bureyskaya HPP, the Amur Region;

- The CHP in Sovetskaya Gavan, the Khabarovsk Region;
- The Sakhalin SDPP-2 (Phase-1), the Sakhalin Region;
- The Yakutsk SDPP-2 (Phase-1), the Sakha Republic (Yakutia);
- The Blagoveshchenskaya CHP (Phase-2), the Amur Region.

### INFORMATION ABOUT INCLUDING THE COMPANY IN THE LIST OF STRATEGIC ENTERPRISES AND STRATEGIC JOINT STOCK COMPANIES

On May 21st, 2012 according to a Decree of the President of the Russian Federation No. 688 JSC RusHydro was included in the list of strategic enterprises and strategic joint stock companies as approved by Decree No. 1009 of the President of the Russian Federation (August 4th, 2004).

# **COMPANY'S** GEOGRAPHY **OF OPERATIONS**

18)

4

21 15

Armeni



1,500 MW

3,000 MW

100 MW

3

70

10

60 52

750 MW

6,000 MW

48

17

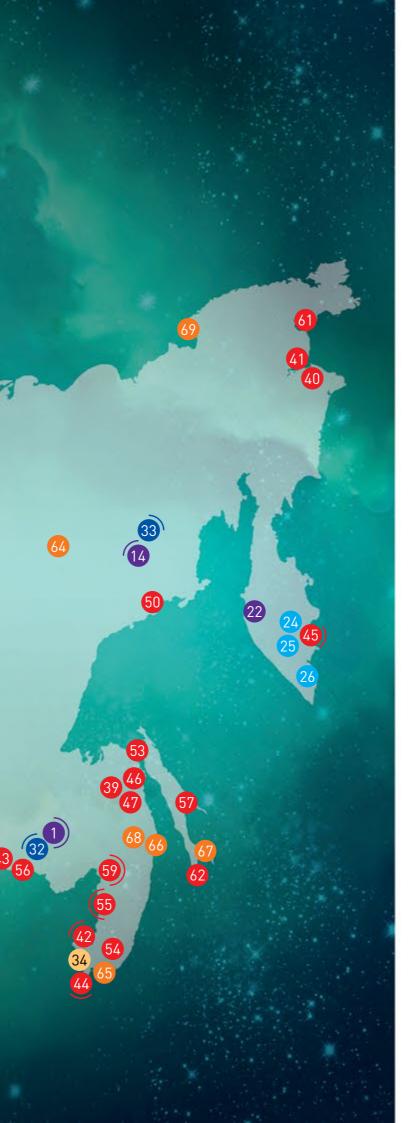
35

19



28

5 12



	Operating HPPs	MW
1.	Byreyskaya HPP	2,010
2.	Cascade of Verkhnevolzhskiye HPPs	466.6
3.	Cascade of Viluysky HPPs	680
4.	Volzhskaya HPP	2,608
5.	Votkinskaya HPP	1,020
6.	Dagestan Branch	1,786
7.	Zhigulevskaya HPP	2,341
8.	Zagorskaya PSHPP	1,200
9.	Zaramagsky HPPs (Operating and in progress)	15+342
10.	Zeyskaya HPP	1,330
11.	Kabardino-Balkarian Branch	158
12.	Kamskaya HPP	531
13.	Karachaevo-Cherkessian Branch HPP	160.6
14.	Kolymskaya HPP	900
15.	Cascade of Kubanskiye HPPs	477
16.	Nizhegorodskaya HPP	520
17.	Novosibirskaya HPP	455
18.	Saratovskaya HPP	1,360
19.	Sayano-Shushensky Branch	6,721
20.	Sevan-Hrazdan Cascade	561
21.	HPP of the Northern Ossetian Branch	92
22.	Tolmachyovskiye HPPs	45.2
23.	Cheboksarskaya HPP	1,370
	GeoPPs	MW

### GeoPPs

24.	Verkhne-Mutnovskaya GeoPP	12
25.	Mutnovskaya GeoPP	50
26.	Pauzhetskaya GeoPP	12+2.5

### HPPs under construction

27.	Boguchanskaya HPP	3,000
28	Verhne-Narynskye Cascade	237.7
29.	Cotsatlinskaya HPP	100
30.	Zagorskaya PSHPP	840
31.	Zelenchukskaya PSHPP	140
32.	Nizhne-Bureyskaya HPP	320
33.	Ust-Srednekanskaya HPP	570

### Retail companies

34.	Far-Eastern Energy Company	
34.	Fai -Eastern Energy Company	

- 35. Krasnoyarskenergosbyt
- 36. Ryazan retail energy company
- 37. Chuvash retail energy company
- 38. Bashkortostan retail energy company

### Thermal PPs

39. Am	urskaya CHPP 285	285
40. Ana	dyrskaya Gas Engine CHPP	29.65
41. Ana	dyr CHPP	56
42. Arty	romovskaya CHPP	400
43. Bla	goveshenskaya CHPP	280
44. Vlac	livostok CHPP	497
45. Kan	nchatskiye CHPPs	406.8
46. Kon	nsomolskiye CHPPs	600
47. Kon	nsomolskaya CHPP	360
48. Kyz	/m Mobile PP	72
49. Lab	ytnangi Mobile PP	73
50. Mag	jadanskaya CHPP	96
51. Mir	ninskaya TPP	72
52. Ner	unginskya	570
53. Nik	olaevskaya CHPP	131
54. Par	tizanskaya TPP	203
55. Prir	norskaya TPP	1,467
56. Ray	chikhiskaya TPP	102
57. Sak	halinskaya TPP	252
58. Ure	ngoy Mobile PP	72
59. Kha	barovskiye CHPPs	1,155
60. Chu	lmanskaya CHPP	48
61. Egv	enkinotskaya TPP	34
62. Yuzl	nno-Sakhalinskaya CHPP	316
63. Yakı	utskaya TPP	320

мw

MW

### Thermal PPs under construction

64.	Arkagalinskaya TPP	224
65.	Vostochnaya TPP	139.5
66.	Maya TPP	92.85
67.	Sakhalinskaya TPP	110
68.	Sovgavanskaya CHPP	120
69.	Chaunskaya CHPP	34.5
70.	Yakutskaya TPP	170

71. Kislogubskaya Tidal PP

72. Kalmykskaya Wind PP

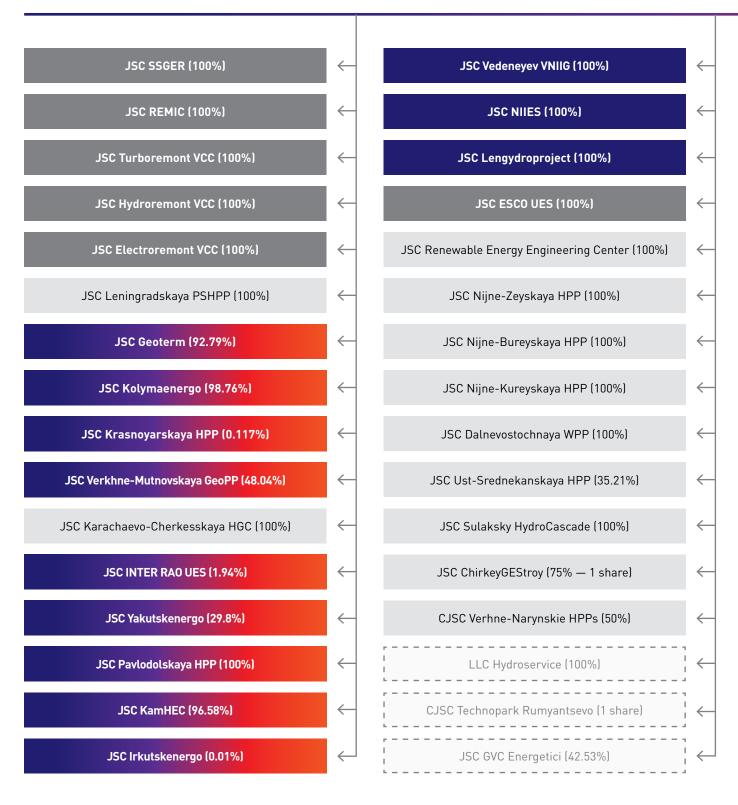
### Research and design organizations

- 73. Mosoblhydroproject
- 74. Vedeneyev VNIIG
- 75. Hydroproject institute
- 76. Lenhydroproject
- 77. NIIES

мw

### THE RUSHYDRO GROUP STRUCTURE <sup>1</sup>

## JSC RUSHYDRO



Institute

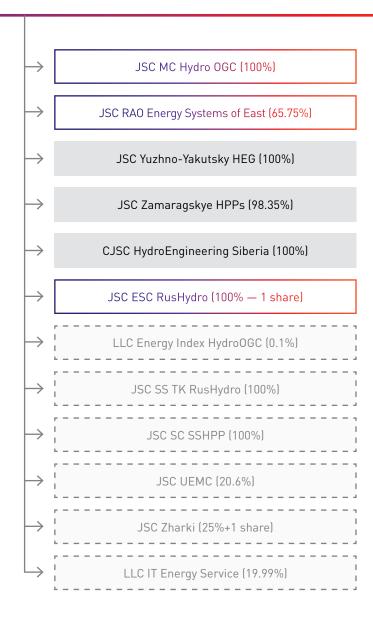
RusHydro Annual Report 2012

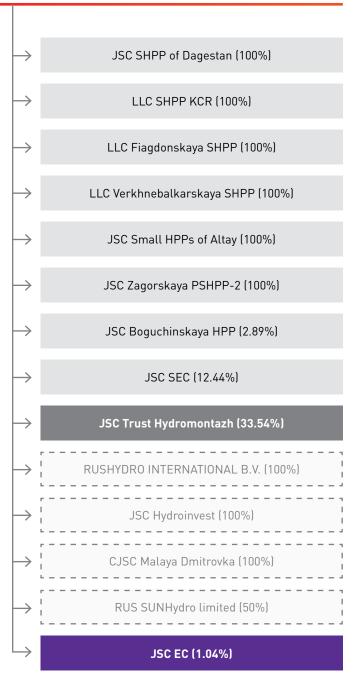
Construction

Generation

Repairs and Construction

### JSC RUSHYDRO





Management Company

Non-Core

н

Supply

<sup>1</sup> Data as of 31.12.2012

### INTERNATIONAL ACTIVITY

JSC RusHydro pays great attention to the development of international relations, the goal of which is attracting foreign investments to new promising projects, exchanging experience and new technologies in the sphere of hydro-power and renewable energy sources (RES), as well as encouraging bilateral cooperation with foreign electric power, design and engineering companies.

JSC RusHydro has participated in the work of inter-governmental commissions for trade and economic relations, as well as forscientificandtechnologiccooperationbetweenRussiaandforeign countries. The Company has also been actively involved in working groups within each of these commissions. In 2012, RusHydro's representatives took part in 24 such events. JSC RusHydro actively participates in inter-state cooperation mechanisms, such as: the Russia-EU Energy Dialog and the Russia-China Dialog.

Moreover, JSC RusHydro has participated in preparing intergovernmental and inter-ministerial cooperation agreements between Russia and foreign countries in the energy sphere and the use of renewable energy sources (RES). In December 2012, a joint agreement between Russia's Ministry of Energy and Chile's Ministry of Energy on renewable energy source cooperation was concluded; RusHydro's specialists contributed to preparing this agreement.

> In 2012, the Company concluded numerous inter-corporate memorandums and cooperation agreements with Voith Hydro, KAZAKHMYS PLC and Degremont

In 2012, the Company concluded numerous inter-corporate memorandums and cooperation agreements with foreign companies:

- A memorandum of understanding with Voith Hydro, an Austrian company, which provides for the basic terms of a joint company which is being formed and which is focused on manufacturing and semi- knockdown assembling of hydro-power equipment on Russian territory;
- A cooperation agreement with KAZAKHMYS PLC, a Kazakh company, aimed at cooperation in the sphere of small scale hydro-power generation;

- A memorandum on cooperation with Degremont, a French company, focused on cooperation in the field of water conditioning and purification;
- A license agreement with Alstom, a French company, providing licensing and sharing operational management practices, as well as technical know-how. The agreement establishes the terms of transfer for Alstom's technological solutions to a joint venture, Alstom RusHydro Holding BV. The companies also concluded a framework agreement which establishes terms and an order for providing services and supplying products to the joint venture. The parties also signed a memorandum on launching the plant's construction; after this, the ceremony for laying the foundation stone took place.

RAO ES of the East, representing Russia, and the Heilongjiang Electric Energy Alliance and the Bank of China, representing China, signed a Strategic Cooperation Agreement related to the Ussurijskaya CHP construction project

RAO ES of the East, representing Russia, and the Heilongjiang Electric Energy Alliance and the Bank of China, representing China, signed a Strategic Cooperation Agreement related to the Ussurijskaya CHP construction project. Moreover, RAO ES of the East signed a memorandum of understanding with Dalkia Eastern Europe S.A.S., a French company. In September 2012, during a visit of the Russian President Vladimir Putin to the Kyrgyz Republic, the Russian-Kyrgyz Intergovernmental Agreement on the construction and operation of the Upper Naryn Cascade of HPP was signed. Pursuant to the Agreement, RusHydro together with JSC Electric Power Plants (the Kyrgyz Republic) founded JSC Upper Naryn HPP's creation on the territory of the Kyrgyz Republic. Each of the parties has a 50% interest in the authorized capital of the created company.

The Upper Naryn Cascade of HPP will unite four hydro-power plants with a total installed capacity of approximately 200 MW. The expected construction terms for each plant -2.5-3 years (simultaneous construction for all plants will be carried out within 4-5 years). The Hydro-Power Plant Cascade can be used to provide for enterprises of the mining and processing branch and the population of the Naryn Region of the Kyrgyz Republic, as well as for exports to bordering countries.

Within the framework of researching opportunities to implement innovative developments related to tidal and wave energy in foreign markets, RusHydro coordinated via its JSC Scientific Research Institute of Energy Facilities cooperation agreements with the following Chilean partners: the University of Austral, Santiago University and Guacolda Energy.

RusHydro's representatives are included into the committees and work groups of numerous non-profit partnerships and international organizations, including:

- The Global Sustainable Electricity Partnership, GSEP;
- The World Economic Forum, WEF;
- The International Hydro-power Association, IHA;
- The International Commission on Large Dams, ICOLD;
- The International Association for Hydro-Environmental Engineering and Research, IAHR.

RusHydro cooperates without being a member in some professional international organizations. Work is conducted via collaborative research activities, participation in expert working groups, and in professional seminars and conferences. Among these organizations, in particular, are:

- The Technology Association of Canada (The Centre for Energy Advancement through Technological Innovation, CEATI);
- The European Small Hydro Association, ESHA;
- The International Council on Large Electric Systems (Conseil International des Grands Réseaux Électriques CIGRE);
- The International Network of Basin Organizations (Réseau International des Organismes de Bassin, RIOB);
- The Union of the Electricity Industry, Eurelectric.

Also, RusHydro fosters cooperation within the work of international governmental organizations and integration associations. Among these are:

- The Electric Power Council of the CIS (EPC of CIS);
- The Eurasian Economic Community (EurAsEC);
- The International Energy Agency (IEA);
- Asia-Pacific Economic Cooperation (APEC);
- The Baltic Sea Region Energy Cooperation (BASREC);
- The United Nations Economic Commission for Europe (UNECE).





## 2012 KEY EVENTS AND SUBSEQUENT EVENTS



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### **2012 KEY EVENTS**

JAN	IUARY
17	A memorandum of strategic partnership and cooperation was signed between the RusHydro -coordinated technology platform "Advanced Technologies of Renewable Energy" and the Russian Foundation for Technological Development (RFTD)
FEB	RUARY
7	Corporate standards for technical regulations were approved and put in place at JSC RusHydro
17	At the 9th Krasnoyarsk Economic Forum, JSC RusHydro and the Krasnoyarsk Region Government signed a memorandum of cooperation to implement the investment project to construct the Lower Kureiskaya HPP
MA	RCH
13	The Internet portal of JSC RusHydro wins the 8th annual reports and websites competition of electric power companies, which was conducted by the "Securities Market" media group.
15	The new hydro-power unit No. 7 was commissioned at the Sayano-Shushenskaya HPP
30	The Board of Directors determined that the number of the Company`s Management Board would be 13 persons and elected Voskresensky S.M. as a Member of the Management Board while he was a CEO of JSC Lengidroproekt
APF	
20	The impeller of hydro-power unit No. 1 of the Zagorskaya PSPP-2 was installed
MA	
14	In Ufa, JSC RusHydro and the French Company Alstom began the joint construction of a hydro-power equipment manufacturing facility. The ground-breaking ceremony for the future facility was held in the presence of acting Russian Deputy Prime Minister Igor Sechin, the President of the Republic of Bashkortostan Rustem Khamitov, the Chairman of RusHydro`s Management Board Yevgeny Dod and the President of the Renewable Energy Sector of Alstom Gerome Pekress
30	JSC Power Machines and JSC RusHydro entered into a turn-key contract to replace 10 hydro-power turbines and 22 hydro-power generators at the Volzhskaya HPP
JUN	IE
4	At the Global Sustainable Energy Partnership (GSEP) Summit, JSC RusHydro was selected as chairman of the organization for the 2013-2014 period. The partnership, established in 1992, brings together thirteen of the world's leading electric power companies
21	GES Investor Services, an independent agency, confirmed a high level of industrial safety and occupational health at the Company's Sayano-Shushenskaya HPP
29	The Company held the Annual General Meeting of Shareholders for 2011, at which the annual report, the annual financial statements and the decision to pay dividends for 2011 were approved
JUL	Y
13	Following the results of Thomson Reuters Extel Europe 2012 voting, JSC RusHydro was recognized as the best company in investor relations among companies with base capitalization in Russia and the CIS
AUC	GUST
1	The impeller of hydro-power unit No. 7 was installed at the Boguchanskaya HPP
28	The payment of dividends on ordinary shares for 2011 was completed. The total amount of dividends paid was RUR 2.5 billion
SEF	TEMBER
6	The generator rotor was installed. It is the largest and heaviest element of hydro-power unit No. 6 at the Boguchanskaya HPP
6	The Russian Federal Financial Markets Service registered the report on the results of the issue of additional ordinary shares (registration number 1-01-55038-E-040D, as of 16.08. 2011)
10	Due to reconstruction, hydro-power unit No. 12 was commissioned and a hydro-power turbine was replaced at the Volzhskaya HPP (a branch of JSC RusHydro)
18	The impeller for hydro-power unit No. 8 was installed at the Boguchanskaya HPP
18	The independent rating agency Reputation, specializing in research in CSR, sustainable development and non-financial business indicators, assigned a high corporate social responsibility rating (CSR) of AA (s) to JSC RusHydro

25 A consortium consisting of Mainstream Energy Solutions, Ltd. (Nigeria) and RusHydro International AG, a subsidiary of RusHydro, won the tender for the right to conclude a concession agreement for two HPPs in Nigeria (Kainji, the Niger state, and Jebba, the state of Kwara) with 1.3 GW of aggregate installed capacity. According to the terms of the concession, the HPPs will be modernized, and their capacity will be increased to their design points

001	TOBER
9	A new well at the Mutnovsky geo-thermal field (Kamchatka) was commissioned, whereby the available capacity of the Mutnovsky GPP-1 reached 47.5 MW
15	The first two new hydro-power units of the Boguchanskaya HPP were commissioned in the Angara Cascade of Hydro-power plants. The ceremony was attended by the Russian President Vladimir Putin
NO	/EMBER
12	After modernization, hydro-power unit No. 2 was commissioned at the Zhigulevskaya HPP
16	JSC RusHydro received a certificate confirming its readiness for the 2012-2013 autumn and winter season
16	The Extraordinary General Meeting of Shareholders made a resolution about increasing RusHydro`s authorized capital by placing 110 billion additional registered ordinary shares. The aim of the issue is to attract funds and consolidate generating assets
22	The installation of a rotor at hydro-power unit No. 2 at the Zagorskaya PSPP-2 was completed
22	Vladimir Putin, Russian President, signed a Decree "On further development of open joint stock company "Federal Hydrogenerating Company RusHydro," pursuant to which RUR 50 billion were invested in the Company's authorized capital for financing JSC RusHydro's Far Eastern plants
26	Hydro-power units No 1, 2 and 3 with a total design capacity of 999 MW for the first stage construction of the Boguchanskaya HPP were commissioned
DEC	CEMBER CONTRACTOR C
3	The Russian Federal Financial Markets Service registered the issue of additional shares placed by open subscription in the total amount of RUR 110 billion. The issue was assigned the State registration number 1-01-55038-E-041D
21	Hydro-power unit No. 9 was put into operation at the Sayano-Shushenskaya HPP
22	Complex reconstruction was completed at the Baksanskaya HPP. Thereafter, with the participation of Russian President Vladimir Putin it was launched. The average annual output of the Baksan HPP is 120 mln kWh
22	JSC RusHydro received RUR 50 billion from the federal budget for electric power industry development in the Russian Far East
26	Construction of the first phase of the Zagorskaya PSPP-2 was completed
27	Successful tests of domestic technology for electricity production at binary cycle geo-thermal power generation plants were carried out at the Pauzhetskaya GTP of JSC RusHydro
~ -	

- 27 The Russian Federal Financial Markets Service registered bond issues of series 07, 08, 09 and 10 totalling RUR 40 billion. Raised funds will be channelled to finance current and investment activities
- 28 The Kamskaya HPP's installed capacity was increased to 531 MW by upgrading hydro-power units through the replacement of turbines, carried out as part of the implementation of the Company's generation facilities modernization program

### SUBSEQUENT EVENTS

### JANUARY

- 1 The Volzhskaya HPP's installed capacity was increased to 2,608 MW by upgrading hydro-power units via turbine replacement, carried out as part of the Company's generation facilities modernization program
- 22 Hydro-power unit No. 4 with an installed capacity of 333 MW of the Boguchanskaya HPP was commissioned

### FEBRUARY

- 4 After reconstruction, hydro-power unit No. 5 was commissioned at the Volzhskaya HPP
- 14 The Company successfully completed placement of its non-convertible ruble bonds Series 7 and 8 for the total sum of RUR 20 billion. The bonds are included in the "A" List Quotation for the first level of the MICEX Stock Exchange. The coupon rate for 1-10 coupons stands at 8.5% per annum.
- 21 As part of the Russian Federation's pre-emptive right to purchase additional shares (registration number of the issue 1-01-55038-E-041D) JSC RusHydro received shares of four companies: JSC RAO ES of the East, JSC SEC, JSC Ust-Srednekanskaya HPP, JSC Irkutsk Grid Company

### APRIL

9 Standard & Poor's Ratings Services has revised its outlook on RusHydro from Negative to Stable and affirmed the BB+ long-term and B short-term corporate credit ratings and the 'ruAA+' Russian national scale rating, as well as ratings on related bond issues.

# CHAPTER 2 Strategy and Investment



2.1. Rushydro's Strategy2.2. Rushydro's Investment



Alphard (Alpha Hydra) — orange bright giant in the constellation Hydra. In Arabic, Alphard is "lonely", as there are no bright stars close to it. It is also sometimes referred to as the Heart of Hydra





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# 

### Main strategic goals

- To ensure the reliable and safe performance of the Company's facilities
- To upgrade energy efficiency by fostering the sustainable development of power generation based on RESTo increase the Company's value



The Company's strategy, as presented in the Strategic Plan till 2015 with future development till 2020, was approved in 2010. The Strategic Plan includes: basic directions for the Company's strategic development and contains the vision, strategic goals and target indicators, as well as key strategic initiatives and key parameters of the Company's Summary Long-term Forecast.

## THE COMPANY'S MISSION

is the efficient use of water resources, the creation of conditions to ensure the reliability of the Unified Energy System (UES) and the expanded use of renewable energy sources (RES) to benefit both shareholders and society as a wholte.



innovative processes in the Company

9. Participating in the high-tech energy equipment business

RusHydro Annual Report 2012

of RusHydro's operational activity

10. Increasing the effectiveness

Implementation of each priority is aimed at achieving the strategic goals; moreover, the implementation of each project effects the growth of the Company's value.

The Strategic Plan outlines a wide range of strategic areas for corporate development and is designed in accordance with the following documents in the field of State strategic planning:

- The Concept for Russia's Long-term Socio-economic Development till 2020;
- The Long-term Development Forecast of the Russian Economy till 2030;

- Russia's Energy Strategy till 2030;
- The General Lay-out of Power Facilities till 2020 (Project till 2030);
- The regional strategies for socio-economic development and energy strategies of the regions;
- Sector strategies and long-term plans for the development of the oil and gas industry, ferrous metallurgy, and transport infrastructure, etc.

### IMPLEMENTATION MECHANISM FOR THE COMPANY'S STRATEGY

The Company has implemented and operates a strategic management system, which integrates strategic management processes with motivation. The main instruments to implement the Strategy are the Company's Growth Priorities for the current year (Priorities) and the Strategy Implementation Plan (SIP). Both documents refer to the annual cycle of strategic management.

Priorities are a formalized list of key strategic goals, projects and programs, the implementation of which ensures the achievement of the Company's strategic goals and maximum synergy during the current year. The purpose of the Priorities is to focus the Company's resources on the most important targets and indicators. Responsibility for implementing Priorities rests on the senior management team, which is jointly responsible for the comprehensive implementation of all Priorities within the framework of the annual bonus.

The Strategy Implementation Plan is a detailed document that includes a set of annual objectives and performance indicators, the accomplishment of which provides for the Company's strategic goals. The SIP is aimed at implementing the strategy within a one-year period. The SIP contains targets and indicators for the current year, indicating which of the Company's officials and departments are responsible for their implementation. The aggregate of the SIP's indicators in their areas of responsibility is one of the annual key performance indicators (KPIs), based on which the Company's employees are rewarded.

## RUSHYDRO'S STRATEGIC PLAN

### STRATEGIC TARGET INDICATORS

### **DEVELOPMENT PROGRAMS FOR KEY DIRECTIONS**

Investment Program, Innovation Program, Complex Modernization Program, Program for Strategic Transactions Business Plan, Budget, Cost Management Program, Management reporting

**Strategic Priorities** 

Annual Strategy Implementation Plan (SIP) SIP techniques List of annual strategic KPIs

### MOTIVATION SYSTEM

Integrated tools: Unified Scenario Terms (UST) Summary Long-term Model of the Company

### 2012 STRATEGY IMPLEMENTATION

The 2012 Growth Priorities, approved by a decision of the Board of Directors January 20th, 2012, are aimed at implementing the following strategically important tasks:

### ENSURING THE RELIABILITY AND MODERNIZATION OF EXISTING ASSETS

Implementation of the Complex Modernization Program for the Company's generating facilities (CMP), as approved by the Board of Directors in December 2011 (Minutes No. 141), continued. In 2012, there was a comprehensive modernization of hydro-generators and hydro-turbines at numerous HPPs. Commissioning additional facilities in the amount of 26.5 MW (the Volzhskaya HPP, the Kamskaya HPP and the Kabardino-Balkaria branch) was the main effect of implementing the 2012 Complex Modernization Program.

In addition, significant attention is constantly paid to a comprehensive restoration project and the commissioning of disposed of facilities at the Sayano-Shushenskaya HPP. In 2012, three hydro-power generating units at the Sayano-Shushenskaya HPP and the power block transformers were put into operation on a permanent basis.

The main effect of implementing the 2012 Complex Modernization Program: commissioning additional facilities in the amount of

26.5 MW

(More information is available in the section "Strategy and Investment", subsection "RusHydro's Investment", page 30)

### UPGRADING THE EFFICIENCY OF ASSET REPAIR AND SERVICE MAINTENANCE

In 2012, work began on re-organizing RusHydro's maintenance SDCs by their affiliation with JSC Gidroremont-VKK. On the basis of the maintenance SDCs, a unified Repair and Service Company (RSC) is created, which will preserve all contractual commitments. State registration is planned for 2013.

In addition, as part of this task, the Company entered into several long-term comprehensive service contracts for the repair and maintenance of main and auxiliary equipment and hydro-power structures, representing 60% of the total volume of contracts for the repair and maintenance of production assets.

### COMMISSIONING NEW FACILITIES BY IMPLEMENTING THE INVESTMENT PROJECTS

Activities planned for commissioning the seventh and eighth hydro-power units of the Zagorskaya PSPP-2 (pumped storage power plant) (420 MW) and the six hydro-generating units (1998 MW) for the Boguchanskaya HPP were implemented in the required volume in 2012.

(More information is available in the section "Strategy and Investment," subsection "Fulfillment of the Plan for Commissioning Capacities", page 30)



# UPGRADING THE COMPETITIVENESS OF THE PROJECT COMPLEX

In 2012, as part of the task to upgrade the competitiveness of the project complex and implement cost-effective projects, a Concept for the Re-organization of the RusHydro Group's Project Complex was developed. The Concept implies a change in the control system for project activities.

The Concept will be implemented in three stages:

Completion of the formation of project activity management and the consolidation of project assets into a single project complex

2

Acquisition of new engineering assets in related energy sectors and industry, depending on the market demand for R & D

Involvement of a foreign partner with a global reputation in the RusHydro Group's project complex, with extensive experience in engineering and which is also proven on the world hydro-power market

### INCREASING THE PROFITABILITY OF RETAIL SUPPLIERS

To increase the profitability of retail business, the 2012-2014 RusHydro Energy Sales Business Development Program was developed. In the process of Program implementation, it was possible to significantly cut expenses incurred by power retail suppliers as a result of undertaking a number of the following measures:

Development and approval of a target organizational structure for JSC ESK RusHydro and the typical organizational structure for a power retail company the guaranteeing supplier, a member of the RusHydro Group

12% staff reduction

Implementation of IT solutions to automate and centralize numerous management business processes (WEM trading, accounting, finance, office management, etc.)

Transfer of the powers of the sole executive body of the power retail companies — the guaranteeing suppliers to the management company, JSC ESK RusHydro

(More information is available in the section "Industry Review", subsection "Production Performance", page 59)

# ENSURING THE CORPORATE CONSOLIDATION OF HYDRO-POWER ASSETS

As part of this Priority area, an additional issue of RusHydro's shares was made. During the course of this issue, the Russian Federation contributed into the Company's share capital equity stakes of hydro-power companies (including a controlling stake of JSC RAO ES of the East) and those of the dam of the Angara Cascade of the HPPs.

In addition, within the framework of the second additional share issue of RusHydro, RUR 50 billion in budgetary allocations were contributed to the Company's share capital in 2012 to finance the investment program for the implementation of projects on the territory of Russia's Far East.

(More information is available in the section "The Company on the Securities Market," subsection "Authorized Share Capital", page 118)



# ESTABLISHING AN EFFECTIVE INNOVATION MANAGEMENT SYSTEM

As part of the task to build an effective innovation management system, the process of creating the Fund for the Scientific and Technical Development of RusHydro began. The first step in the process of establishing the Fund was the development of the Fund's Concept, which defines goals and objectives and the functions and financing scheme of the Fund, as well as the procedure for creating it.

(More information is available in the section

"Innovative Development", page 66)

### DEVELOPING HUMAN RESOURCES POTENTIAL

As part of the Training Program for technical staff at stations, numerous activities were carried out in 2012, including:

Development and implementation of an automated corporate system to check knowledge and perform pre-attestation training for production personnel

Full-time and distance teaching and the evaluation of competency development for the Company's production staff

Test operations of the functional status of the Field Services and Process Control System Services employees at RusHydro's branches

(More information is available in the section "Social Responsibility," subsection "Developing Human Resource Potential", page 130)

# PARTICIPATING IN THE HIGH-TECHNOLOGY EQUIPMENT BUSINESS

In fulfilling this task, a joint venture of JSC RusHydro and the French company Alstom is building a plant that produces hydro-power and auxiliary equipment. The project provides for the localization of high-tech manufacturing of hydro-power equipment in the Republic of Bashkortostan, with the transfer of advanced technologies of a strategic partner in this area to the joint venture.

### INCREASE THE EFFECTIVENESS OF ACTIVITY

Decrease in the unit value purchase cost of goods (work, services):

# 7.54 RUR bln including VAT

The 12 month decrease in the unit value purchase cost of goods (work, services) resulting from the implementation of RusHydro's 2012 Annual Integrated Purchasing Program (except for RAO Power Systems of the East Group) comprised RUR 7.54 billion, including VAT, or 12.75% for total purchases and purchase contracts that are either concluded or planned.

(More information is available in the section "Financial Performance," subsection "Financial Highlights", page 81)

On February 20th, 2013, the Board of Directors adopted the report on the fulfillment of 2012 Development Priorities.

### **2013 DEVELOPMENT PRIORITIES**

Due to the Company's significant importance and the necessity for continuing activity, many of the priority tasks remain current in 2013 as well (ongoing Priorities) and they are included in 2013 Priorities with new target indicators.

## **ONGOING PRIORITIES**

- 1. Ensuring the reliability and modernization of existing assets
- 2. Upgrading the efficiency of assets repair and service maintenance
- 3. Commissioning new facilities by implementing the investment projects
- 4. Corporate consolidation of assets
- 5. Increasing the profitability of retail suppliers and revenues from sales of electric energy and capacity from operating assets
- 6. Upgrading the competitiveness of the project complex
- 7. Establishing an effective innovation management system and forming an uninterrupted innovation process in the Company
- 8. Developing HR potential

## **NEW PRIORITIES**

- 1. Developing activities in the field of the water resource utilization system
- 2. Transitioning to the target structure of capital and roadening sources for implementing the Investment Program
- 5. Expanding the Company's presence in foreign markets

### **CALLISTO**

Callisto is the third-largest moon in the solar system; its surface is covered with a thick layer of ice and rocks, full of cracks and craters. Beneath the surface there are likely oceans of salty water. The period of rotation around its axis equals Callisto's orbital period, which means that it will always face Jupiter's one side (located in tidal locking).

## MISSION OF JSC RAO ES OF THE EAST

RAO ES of the East Holding, as the main producer of electric and thermal energy on the territory of the Far East Federal Region, understands the fullness of its social responsibility towards both society and the State in ensuring a reliable and safe energy supply for consumers in the territory in which it is present. The Holding ensures the realization of State policy focused on the social and economic development of the region via the creation of effective energy infrastructure and it acts as the flagship for generation development and energy efficient technologies on the territory of the Far East Federal Region, allowing for a long-term reduction in the usage of solid fuel and hydro-carbon and minimizing the negative impact of the Holding production activity on the environment.

### STRATEGIC AIMS OF JSC RAO ES OF THE EAST

#### PROVISION OF THE RELIABLE AND UNINTERRUPTED SUPPLY OF ELECTRIC AND THERMAL ENERGY TO CONSUMERS

The Holding Company spends maximum effort on ensuring the reliable and effective development of the electric energy industry on the territory of the Far East Federal Region, the creation and maintenance of a single management path, the realization of State policy in the field of the development of the region's power industry, as stipulated in program documents of the federal and regional level, and, primarily, ensuring the reliability and safety of utilized equipment and facilities

### ENTERING NEW MARKETS

The Holding is focused on both developing existing activities and entering new markets. One prospective direction is the development of thermal business in regions in which the Holding is present

#### ENSURING SUSTAINABLE GROWTH OF THE FUNDAMENTAL VALUE IN THE LONG-TERM

The Holding aims to increase its fundamental value and grow its value for shareholders, employees and the society as a whole. Instruments for achieving this goal include both gradual vertical integration and the optimization of the Holding operational activities, as well as an increase in the effectiveness of business processes and the development of the management system

### KEY DIRECTIONS OF JSC RAO ES OF THE EAST DEVELOPMENT

During the implementation of its strategy, the Holding activity is focused on:

- Resolving tasks in the field of the modernization of the power industry of the Far East Federal Region and its innovative development through the usage of the newest technological and managerial solutions during implementation of the Holding investment projects;
- Developing prospective directions for activity, including renewable energy, allowing an increase in the energy efficiency of the Holding and ensuring a decrease in the usage of solid fuel and hydro-carbon in the long-term;
- Creating strategic alliances with key players in other branches of the industry in the Far East Federal Region, with the aim of implementing joint projects;

- Developing external economic relations with Asian-Oceanic countries in the field of the fuel and energy complex;
- Introducing best practices for governance system development.

One of the key tasks in 2012 was integrating JSC RAO ES of the East into the RusHydro Group, providing for, among other things, the synchronization of business processes and management systems One of the key tasks in 2012 was integrating JSC RAO ES of the East into the RusHydro Group, providing for, among other things, the synchronization of business processes and management systems. Thus, in 2012 in JSC RAO ES of the East, a strategic management system was introduced, which is equivalent to the system implemented by JSC RusHydro and documents were developed that regulate this business process.

The main document determining the strategy of the Holding is the Strategic Plan for the Development of JSC RAO ES of the East for the period till 2016 with a prospective till 2020 (Minutes No. 25 of the Management Board, dated 14.08.2012).

In 2012, in JSC RAO ES of the East, a KPI system was introduced that ensures setting unified corporate responsibility principles to achieve set goals, which is aimed at implementing the strategy: for top managers, an annual KPI "Fulfillment of Development Priorities" (share of 40%) is set, for other categories of employees, an annual KPI "Fulfillment of the Plan for implementing strategy" was set (share of 50-90 %, depending on the category of employee).

One of the instruments for implementing the Strategic Development Plan in the reporting period is the Development Priorities for the Holding, which represents a list of key tasks that are important to fulfill during the current year. The priorities for 2013 are adopted each year by the Board of Directors of JSC RAO ES of the East on 06.03.2013.





### JSC RAO ES OF THE EAST 2013 DEVELOPMENT PRIORITIES



### RUSHYDRO'S INVESTMENT



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### INVESTMENT POLICY PRINCIPLES

The Company's investment policy and the adoption of the related decisions are based on the following principles:

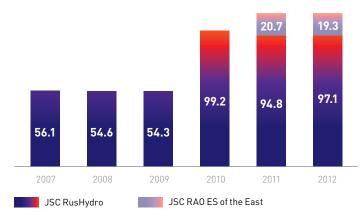
- investment decisions and the project's compliance with legislatively established requirements, building codes and environmental standards;
- following the sequence of steps and stages for investment project implementation;
- investment decisions and the project's compliance with requirements on profitability and risk, established by the Company's Board of Directors;
- analysis of costs and benefits for alternative investment decisions at the end of each investment project stage when basic parameters change;
- funding sources available for all investment projects.

The Company's investment activity is regulated by a single consolidated document — the Regulations on the Investment Management Process in the Form of Capital Investments (approved November 30th, 2010). Approval of the Company's Investment Program is the responsibility of the Company's Board of Directors. At the same time, in accordance with the Procedure for Approving Investment Programs for Electric Power Entities as a State-linked Companies (approved December 1st, 2009, Government Decree No. 977), the investment programs, before being approved by JSC RusHydro's Board of Directors, are agreed upon with executive authorities and approved by the Russian Ministry of Energy.

In accordance with Government Decree No. 1172 (December 27th, 2010) On the Endorsement of the Rules of the Wholesale Electricity and Capacity Market and on Amendments to Some Acts of the Government of the Russian Federation on the Issues

of the Organization of the Functioning of the Wholesale Electricity and Capacity Market, the target investment component has not been set since 2012.

In 2012, a corporate automated information system for investment management processes in the form of capital investments was developed and implemented in JSC RusHydro and its SDCs and auxiliary dependent companies. In 2013, a single Information and Analytical System of the RusHydro Group anticipates a scope of work to automate certain functions of the investment management process in the form of capital investments in Holding JSC RAO ES of the East and its SDCs and auxiliary dependent companies, and the consolidation of JSC RusHydro and Holding JSC RAO ES of the East investment programs.



INVESTMENT DYNAMICS 2007-2012, RUR BILLION

Source: JSC RusHydro, JSC RAO ES of the East

### 2012 INVESTMENT PROGRAM

Implementation of the Company's investment program is one of the strategic objectives.

The Company's 2012 investment program was approved by the Russian Ministry of Energy (28.04.2012 №201) and RusHydro's Board of Directors (22.06.2012, Minutes No.156).

The 2012 investment program of the Holding JSC RAO ES of the East includes:

- The 2012 investment program for JSC RAO ES of the East was approved by Order No. 232 of the Russian Ministry of Energy May 5th, 2012;
- The investment program of JSC Sakhalinenergo was approved by Order No. 233 of the Russian Ministry of Energy May 5th, 2012;
- The investment program of JSC Kamchatskenergo was approved by Order No. 234 of the Russian Ministry of Energy May 5th, 2012;

- The investment program of JSC Magadanenergo was approved by Order No. 235 of the Russian Ministry of Energy May 5th, 2012;
- The investment program of AC Yakutskenergo was approved by Order No. 236 of the Russian Ministry of Energy May 5th, 2012.

The 2012 investment program of the Holding

Execution 116.4 RUR billion (98%) of the investment: Commissioning 2,539.6 MW (100 %)

capacities:

The investment programs of JSCs DRSK, Chukotenergo and UESC were approved by the executive bodies of the Russian Federation.

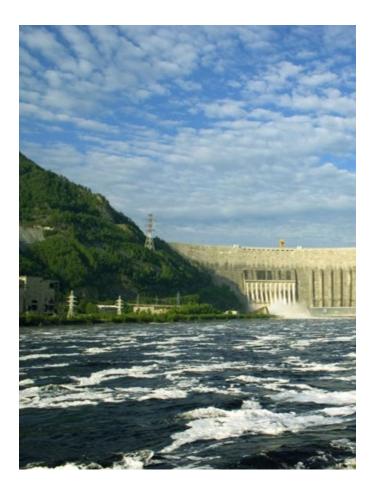
	2012 approved investments, RUR billion	Execution of the Investment Program, RUR billion	Execution of the Investment Program, %	2012 Plan for commissioning capacities, MW	Execution of the 2012 plan for commissioning capacities, MW	Execution of the 2012 plan for commissioning capacities, %
JSC RusHydro	98.3	97.1	99	2,444.1	2,444.5	100
JSC RAO ES of the East	19.9	19.3	97	94.2	95.1	101
Total	118.26	116.4	98	2,538.3	2,539.6	100

Source: Companies' Data

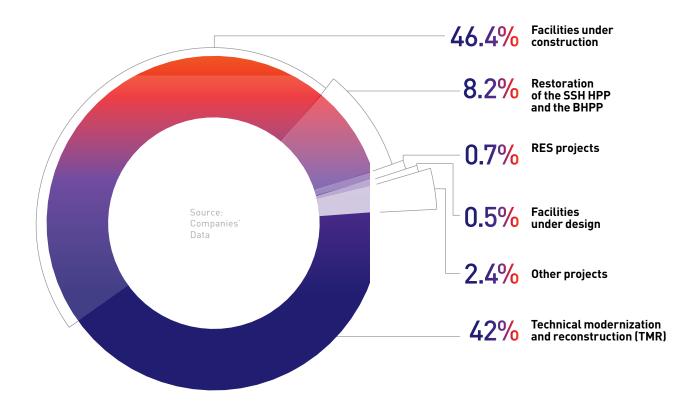
### 2012 MAIN AREAS OF INVESTMENT

In 2012, the main areas of investment were:

- Technical modernization and reconstruction (TMR) 48.9 billion rubles (JSC RusHydro – 33.1 billion rubles, Holding JSC RAO ES of the East – 15.7 billion rubles);
- Facilities under construction 54.0 billion rubles. (JSC RusHydro — 50.4 billion rubles, Holding JSC RAO ES of the East — 3.6 billion rubles);
- Restoration of the SSH HPP and the BHPP 9.5 billion rubles;
- Facilities under design 0.4 billion rubles;
- RES projects 0.8 billion rubles;
- Other projects 2.8 billion rubles (JSC RusHydro: completion of the SSH HPP, the Bureya HPP, the Irganayskaya HPP, the Nizhne-Cherekskie HPP Cascade and the Cheboksarskaya HPP, the R&D program, stopping implementation of the Far Eastern Wind Power Plant and the Chibit Small HPP projects.



### 2012 INVESTMENT STRUCTURE, %



### MAJOR INVESTMENT PROJECTS

### JSC RusHydro

### Restoration of the Sayano-Shushenskaya HPP, 6,400

MW (management of the August 17th, 2009 accident and restoration of the Sayano-Shushenskaya HPP, renovation of hydro-power units with the full replacement of hydrogeneration, hydro-turbine and power equipment, automation and operation systems, alarm systems, safety communications system, defense and devices);

#### Reconstruction of the Baksanskaya HPP

complete replacement of existing and damaged equipment after the 2010 incident. In December 2012, the Baksanskaya HPP was put into operation. In 2012, a capacity of 27 MW was commissioned (a capacity increase of 2 MW);

### The 570 MW Ust-Srednekanskaya HPP

(ensure energy safety and self-sustainability of the region, supply reasonably priced energy to new gold and precious metal mining companies, in particular, to the Natalkinsky GOK — the Matrosov mine; supply energy to the Magadan Region consumers and partially to consumers in the Oymyakon District of the Sakha Republic, and increase in energy supply of the Kolymskaya HPP in the cascade in winter). The network activities schedule has been fulfilled on time and in full;

### The 2,997 MW Boguchanskaya HPP

(construction of the Boguchanskaya HPP and Boguchanks aluminum plant is a key element of the State investment program "Integrated development of the Lower Angara area" providing energy safety in the UES of Siberia and further development of natural and resource potential of the Northern part of the Kransoyarsk region);

### The 100 MW Gotsatlinskaya HPP

(energy and capacity supply to the deficient North Caucasus UES; carrying out the task of the Russian Prime Minister to make efforts to remedy the social and political situation in and to improve the social status of Dagestan);

### The 840 MW Zagorskaya PSPP-2

(streamline the irregular daily load schedule and regulate energy regimes);

# The 2010 MW Bureyskaya HPP and the 320 MW Nizhne-Bureyskaya HPP

(providing energy to industrial facilities of the Amur Region, the Republisc of Sakha (Yakutia) and the Jewish Autonomous Region (iron ore and gold mining plants, ESPO pipeline for oil export, the Vostochny space port, the Elginskoye coal deposit), preventing winter floods in villages located in the lower pool of the Buryeyskaya HPP, protection of the lower pool of the Nizhne-Bureyskaya HPP, including the area bordering the Amur River);

### Small HPPs

(commission new generating units using RES; enhance the sustainable energy supply to the mountainous regions of the North Caucasus);

### The 140 MW Zelenchukskaya HPP-PSPP

(enhance the reliability of the energy supply to the North Caucasus energy system and balance the daily schedule of the Kuban River).

### Holding RAO ES of the East

Construction and renovation of energy grid facilities by the APEC-2012 summit in Vladivostok [JSC DRSK]:

Convert the Vladivostokskaya CHP-1, CHP-2 and TS Severnaya to natural gas combustion [JSC DRSK]:

Convert the Yuzhno-Sakhalinskaya CHP-1 to natural gas combustion

(JSC Sakhalinenergo);

**Convert the Kamchatskaya CHP-1 to natural gas combustion** (JSC Kamchatskenergo);

#### CHP construction in the Sovetskaya Gavan

(replace disabled capacities of the Mayskaya SDPP; meet the energy consumption growth outlook in the Sovetskaya Gavan related to the creation of a new port economic zone) of 120 MW of electric power and 200 Gcal/h of thermal capacity;

### GTP-CHPs construction at the Vladivostokskaya CHP-2 site

(enhance energy supply reliability for the southern part of the Primorsky Region; deficit elimination; meet load growth in Vladivostok) of 93 MW of electric power and 80 Gcal/h of thermal capacity;

### GTP-CHPs construction at the steam water boiler plant

(enhance energy supply reliability for the southern part of the Primorsky Region; deficit elimination; meet load growth in Vladivostok) of 139.5 MW of electric power and 420 Gcal/h of thermal capacity;

#### 1st phase construction of the Yakutskaya DHPP-2

(replace disabled facilities of the Yakutskaya DHPP and meet consumption growth for energy and enhance energy supply reliability) of 170 MW of electric capacity and 160 Gcal/h of thermal capacity;

### 2nd phase construction of the Blagoveshenskaya CHP

(liquidate the existing capacity deficit and meet prospect thermal energy consumption growth; enhance energy supply reliability; meet the irregular part of the load schedule of UES of the East) of 120 MW of electric capacity and 188 Gcal/h of thermal capacity;

#### The Sakhalinskaya SDPP-2 construction

(ensuring the replacement of the disabled SDPP; improving the efficiency of the Sakhalin energy system) of 110 MW of electric capacity and 15 Gcal/h of thermal capacity;

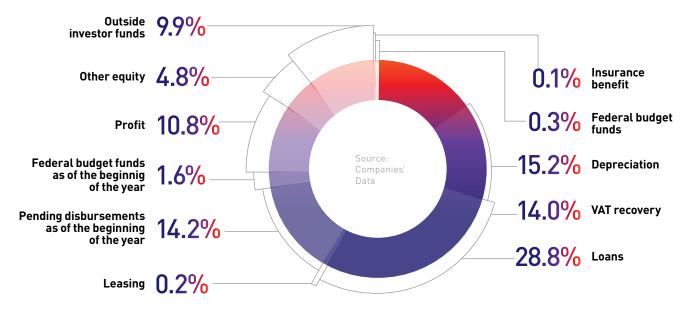
## Construction of the 5th energy unit at the Yuzhno-Sakhalinskaya CHP-1

(cover the capacity shortage within the Sakhalin Regional Energy System and ensure hot reserves in peak load) of 91.2 MW of electric capacity;

#### The Ussurijskaya CHP construction

(liquidate the estimated shortage of thermal power; improve energy security in the southern part of the Primorsk Region) of 370 MW of electric capacity and 560 Gcal/h of thermal capacity;

Construction of distribution grids and substations to supply energy to the mobile radio-telephone system at the Amur Federal Highway Chita-Khabarovsk (provide power supply to cellular base stations on the Amur Federal Highway).



### FULFILLMENT OF THE PLAN FOR COMMISSIONING CAPACITIES

### In 2012, the plan for commissioning capacities was fulfilled at 100%

In accordance with the Company's 2012 Investment Program, 2,444.1 MW of capacity was planned for commissioning, including:

- The Volzskaya HPP 10.5 MW;
- The Aghulskaya HPP (the Dagestan branch) 0.6 MW;
- The Kamskaya HPP 6.0 MW;
- The Boguchanskaya HPP 1,998.0 MW;
- The Saratovskaya HPP 9.0 MW;
- The Zagorskaya PSPP-2 — 420.0 MW.

In 2012, the plan for commissioning capacities was fulfilled at 100%. In 2012, 2,444.5 MW of new capacity was commissioned, including:

- The Volzskaya HPP 15.5 MW;
- The Kamskaya HPP 9.0 MW;
- The Baksanskaya HPP 2 MW;
- The Boguchanskaya HPP 1998 MW.

2,444.5 MW

In 2012, the planned scope of work for commissioning hydropower units No. 1-6 (HUs) at the Boguchanskaya HPP was fulfilled in full. Technical limitations in terms of the scheme for power distribution did not enable the Company to fulfill the plans for commissioning capacity at the Boguchanskaya HPP in the planned scope.

As of December 31st, 2012 Hydro-power units No. 1-4 were activated and since December 1st, 2012, HUs No. 1-3 generate electric power. HU No. 4 was transferred to the regular operating mode. Hydro-power units No. 5-6 run in the idle mode. It was not possible to activate them due to the inavailability of 500 kW networks.

### THE ZAGORSKAYA PSPP-2 - 420.0 MW.

The installation of two 210 MW hydro-power units was fully completed. In December, 2012 the testing start was made. Due to the inavailability of a scheme for the power distribution of JSC FGC UES, as of December 31st, 2012, it is impossible to connect the Zagorskaya PSPP to the UES.

Additionally, in 2012, the capacity of 3 hydro-power units completely restored after the accident at the Sayano-Shushenskaya HPP on August 2009 (1,920 MW) was commissioned, as well as 3 hydro-power units of the Baksanskaya HPP, which were fully restored after the 2010 incident (27 MW).

### FULFILLMENT OF THE PLAN FOR COMMISSIONING CAPACITIES OF JSC RAO ES OF THE EAST

According to the Investment Program of the Holding JSC RAO ES of the East in 2012, the following volume of capacity is planned for commissioning:

- 94.2 MW (generation);
- 402.3 km (grid capacity);
- 899.8 MVA (transformer capacity).

As a result of the fulfillment of the Holding JSC RAO ES of the East's 2012 Investment Program, total capacity commissioning was as follows:

- Generation: 95.1 MW (91.2 MW including "Construction of the 5th electrical power unit at YS TPP-1" — JSC RAO ES of the East; 3.4 MW diesel generators in the Kluchi Village, the Sobolevo Village, the Atlasovo Village — JSC SEGC;
   0.5 MW diesel generators in the Lekechen Village and the Esit Village — JSC Yakutskenergo);
- Grid capacity: 730.0 km.

The main reasons for deviations from the investment program of JSC RAO ES of the East are: commissioning of fixed assets for providing consumers with technological connections to electricity grids that completed according to the actual number of received applications for technological connections to electricity grids of JSC DRSK and implementation of measures to provide applicants with connections to electricity grids under individual contracts;

• Transformer capacity: 730.3 MVA.

The non-fulfillment of the plan for commissioning transformer capacities is driven by a work postponement to 2013 (in particular, the construction and installation work schedule adjustment at the 110/35/6 kV substation Orlinaya; changes in the equipment delivery scheme and additional construction and installation work at the 110/35/6 kV substation Zapadnaya — Primorsky branch), as well as adjustments in the timing of project implementation and the payment schedule for reconstruction of the 110/35/6 kV substation Krasheninnikova (off 50 MVA). Under a concluded agreement, the technological connection of applicant power receivers will be phased through 2013-2014.

### INVESTMENTS WITH THE EXPECTED RATE OF RETURN EXCEEDING 10% PER ANNUM

### THE BOGUCHANSKAYA HPP

This power plant has been under construction since 1980. In November 2012, with participation of President Putin, the hydro-power units of the Boguchanskaya HPP (Phase 1) were put into operation (under plant numbers 1, 2 and 3 and 999 MW aggregate rated capacity, they were put into permanent commercial operation regime). In January 2013, the hydro-power unit No. 4 of the Boguchanskaya HPP was put into permanent commercial operation regime with 333 MW installed capacity.

Completion is critically important for the Nizhny Priangarye Region and the Siberian economic region, in particular, in the Boguchansky and Taishetsky aluminium plants that are under construction.

The main financing sources are loans extended by Vnesheconombank (from December 2010) and the funds of RusHydro and RUSAL.

### RECONSTRUCTION OF THE SAYANO-SHUSHENSKY HPP NAMED AFTER P.S.NEPOROZHNIY

In December 2012, a new hydro-power unit No. 9 was put into operation as a part of the project to completely renovate the Sayano-Shushensky HPP. Previously two other units — No. 7 and 8 — had been put into operation.

### THE GOTSATLINSKAYA HPP

In 2012, the Company continued construction of the Gotsantlinskaya HPP; construction is to supply energy and capacity to end-users within the deficient energy system of the North Caucasus.

### THE ZAGORSKAYA PSPP-2

In 2012, the construction of the 1st Phase of the Zagorskaya PSPP-2 was completed within the framework of the Zagorskaya PSPP-2 project. The Company continues its interactions with Federal Grid Company to provide connections of the Zagorskaya PSPP-2 to the grid after the full completion of construction and assembly work.

### 2013 INVESTMENT PROGRAM

### Investment volume will reach RUR 132,677.6 mln in 2013

JSC RusHydro`s 2013 Investment Program was approved by the Russian Ministry of Energy (28.12.2012. No. 665).

The 2013-2015 investment program of the Holding JSC RAO ES of the East includes:

- The 2013-2015 investment program of JSC RAO ES of the East, as approved by Order No.459 of the Russian Ministry of Energy (September 27th, 2012);
- The investment program of JSC Sakhalinenergo, as approved by Order No.419 of the Russian Ministry of Energy (September 4th, 2012);
- The investment program of JSC Kamchatskenergo approved by Order No.87-0Д of the Regional Tariffs Service of the Kamchatka Territory (July 12th, 2012);
- The investment program of JSC Magadanenergo approved by Order No.474 of the Russian Ministry of Energy (October 8th, 2012);
- The investment program of JSC AC Yakutskenergo approved by Order No.449 of the Russian Ministry of Energy (September 24th, 2012).

The investment programs of JSCs DRSK, Chukotenergo and UESC were approved by the appropriate executive bodies of the Russian Federation.

Thus, the approved 2013 investment volume for RusHydro was RUR 132,677.6 million, including:

- JSC RusHydro RUR 102,863.5 million;
- The Holding JSC RAO ES of the East RUR 29,814.1 million.

At the same time, in compliance with the Russian President's Decree No. 1564 "On further development of open joint stock company "Federal Hydro-generating Company RusHydro" and in connection with receipt of funds from the Russian budget, since 2013, RusHydro will implement priority investment projects in the territory of Russia's Far East:

- construction of the CHP in the Sovetskaya Gavan;
- construction of the of Yakutskaya SDPP-2 (Phase 1);
- construction of the Sakhalin SDPP-2;
- construction of the Blagoveshchenskaya CHP (Phase 2).

The adjusted investment programs are forwarded to Russia's Ministry of Energy, in accordance with the established procedure.

### PLAN FOR COMMISSIONING CAPACITIES

In 2013, according to the approved Investment Program of JSC RusHydro, the Company plans to commission 1,710 MW of capacity including:

- Branch of JSC RusHydro the Volzskaya HPP 21.0 MW;
- Branch of JSC RusHydro the Zhigulevskaya HPP 21.0 MW;
- Branch of JSC RusHydro the Kamskaya HPP 6.0 MW;
- Branch of JSC RusHydro the Saratovskaya HPP 9.0 MW;
- Branch of JSC RusHydro the Novosibirskaya HPP 5.0 MW;
- The Ust Srednekanskaya HPP 169.0 MW;
- The Boguchanskaya HPP 999.0 MW;

- The Gotsatlinskaya HPP 100.0 MW;
- The Zagorskaya PSPP-2- 210.0 MW;
- The Zelenchukskaya HPP-PSPP 140.0 MW;
- The Zaragizhskaya SHPP 28.8 MW;
- The Bolshoi Zelenchuk SHPP 1.2 MW.

In 2013, according to the approved Investment Program of the Holding JSC RAO ES of the East, the Company plans to commission the following capacities:

- 4.5 MW (generation);
- 540.8 km (grid capacity);
- 428.4 MVA (transformer capacity).



### WATER ON MARS

During the time of Suez Canal construction (in the mid-XIX century), the Italian astronomer Schiaparelli discovered that Martian deserts were covered with a network of lines, and it was suggested that a it was a network of Martian channels through which melting polar ice water was delivered to the middle and equatorial latitudes, and that this indicated that there was intelligent life on Mars.

Modern research has shown that there are no channels on Mars and that the polar caps are composed mainly of frozen carbon dioxide. However, space probes of the planet's surface detected numerous dry river beds, which means that there was water on Mars. Also, research confirmed the existence of water vapor in the atmosphere and water ice in the northern polar region of Mars.

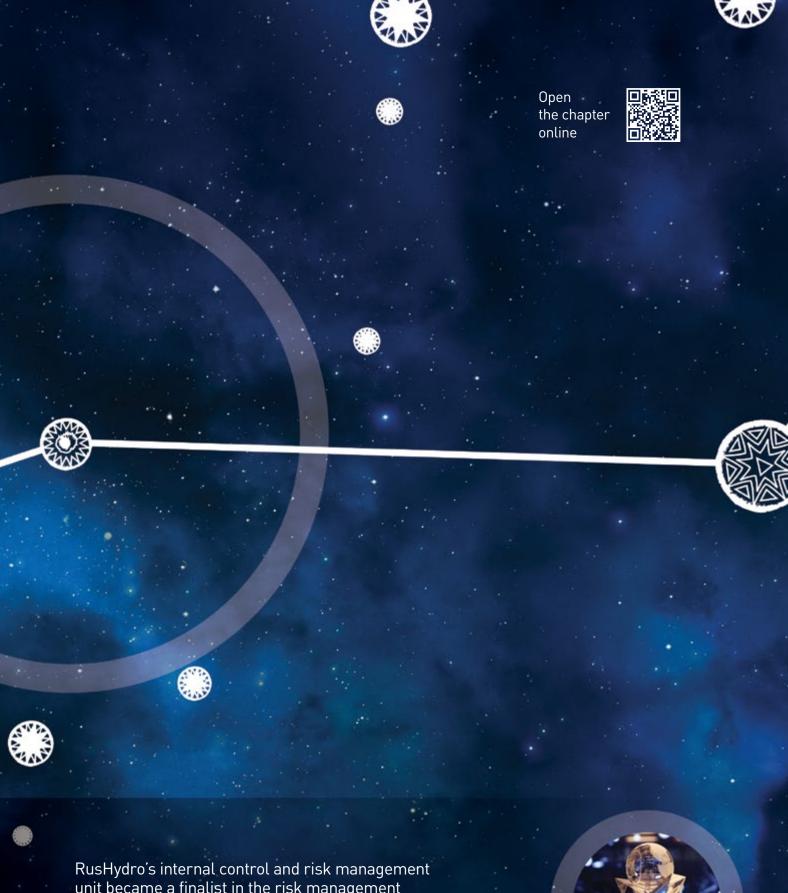
## CHAPTER 3 Risks

- 3.1. Risk Management Policy
- 3.2. Country Risks
- 3.3. Financial Risks
- 3.4. Industry Risks
- 3.5. Risks associated with Corporate Activities
- 3.6. Information about Possible Circumstances that Objectively Hamper the Company's Activity



 $\lambda$  — orange giant in the Hydra constellation, located 112 light-years from Earth. This is one of the brightest stars in Earth's star sky with an apparent visual magnitude of 3.61





RusHydro's internal control and risk management unit became a finalist in the risk management Strategic Risk European competition in three categories, justifying the Company's approaches' compliance with global best practices



### RISK MANAGEMENT POLICY



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### RusHydro`s internal control and risk management unit became a finalist in the risk management Strategic Risk European competition in three categories

The Company's activities are associated with numerous risks, which under certain circumstances may affect the Company's production and financial results, as well as the social and natural environment. To reduce the negative impact of potential risks and optimize valuable opportunities, a risk management system aimed at ensuring implementation of the corporate strategy was created.

To organize risk management processes, the Company has established an internal control and risk management unit. To justify the approaches' compliance with global best practices, in May 2012, JSC RusHydro's internal control and risk management unit became a finalist in the risk management Strategic Risk European competition in three categories and its representative was a winner in the international competition in the category "Best Risk Manager of the Year in Russia and the CIS".

In December 2010, the Company's Board of Directors approved the Policy of internal control and risk management and development of corporate risk management. Within the framework of implementing the Policy, methods for recognizing, assessing and responding to risks were implemented based on best practice, the COSO ERM principles and ISO31000 and ISO31010 international risk management standards.

In 2012, as part of the Company's policy, numerous measures were undertaken:

- an automated internal control and risk management system was implemented. The system is built in strict accordance with ISO 31000 standards and consists of four functional modules: risk recognition, risk analysis, risk assessment and exposure to risk;
- a procedure for regular reporting on the risk management of investment projects to the Company's Management Board was implemented;
- risk assessment for strategic transaction processes was formalized: a strategic transaction Register is being formed and a Strategic Transaction Passport to make decisions on a transaction is being prepared for the approval of the Management Board;
- the draft for JSC RAO ES of East's risk management system was prepared: the internal control and risk management policy of JSC RAO ES of the East, Strategic Risk Registers for JSCs JSC RAO ES of the East (JSC DEC and JSC DGC) and the consolidated Register of Strategic Risks were approved, and work is under way to form and approve the 2013 Strategic Risk Management Consolidated Plan for JSC RAO ES of the East;
- a single Register for the risks of accidents and crashes at RusHydro's hydro-power facilities was formed to expand the base of risk situation scenarios both for operational facilities and facilities under construction and to upgrade efficiency for implementing production programs, as well as other risk management measures that are associated with the operation of the Company's assets.

On an on-going basis, the Company provides independent third party risk assessment. In 2012, a number of SDCs were surveyed by representatives of Willis CIS Insurance Broker LLC. Moreover, numerous survey inspections were held at the Company's branches; representatives of leading international re-insurers took part in the inspections.



The Company operates in the Russian Federation and therefore, it is influenced by economic and political risks that are inherent in Russia. The Russian national economy is vulnerable to market downturns and slowdowns in economic growth in other countries. As a result of the global financial crisis, financial problems or the heightened perception of risks related to investing in emerging economies led to a decline in foreign investment in Russia and negatively impacted the Russian economy. In addition, Russia produces and exports large volumes of natural gas and oil. Therefore, the Russian economy is particularly vulnerable to changes in global prices for natural gas and oil and a fall in natural gas and oil prices can slow or shake Russian economic development. These factors may constrain the Company's access to funding sources and may adversely affect the purchasing power of consumers for the Company's products.

Russia holds investment-grade ratings from leading international rating agencies. In January 2012, the rating agency Fitch revised Russia's rating outlook from BBB "Positive" to "Stable." This event was not essential compared with the serious downgrades that were carried out in Euro-zone countries by the international agency Standard & Poor's.

In addition to economic factors, the political situation in Russia (the State is the Company's largest shareholder), inconsistent and frequent changes in tax and currency legislation, imperfections in the judicial system and high levels of depreciation for infrastructure facilities in the energy and transportation spheres may negatively impact corporate activities.

### WATER IN SPACE

According to recent studies, the water content in our galaxy (the Milky Way) is higher than expected. Water is the third most common molecule (after molecular hydrogen and carbon monoxide). For example, one of the cold galactic clouds, with the mass of a thousand solar masses, contains water (vapor and ice) equivalent to one hundred masses of Jupiter.





The financial risks can be categorized as the risk of growth rates of bank loans, foreign currency risk, inflation risk and liquidity risk. The probability of these risks occurring is not considered to be material to the Company.

Financial condition, liquidity, financing sources and performance of JSC RusHydro are not very responsive to changes in the exchange rate and interest rates because the Company sells energy on the domestic market of the Russian Federation, as well as settles accounts with suppliers of resources, accrues and receives payments from consumers mainly in the national currency of the Russian Federation — Russian rubles. Besides, almost all liabilities of the Company are denominated in rubles, while the liabilities denominated in foreign currency is in total less than 5%.

The Company received several loans with floating interest rates denominated in rubles. To minimize the interest rate risk on financial liabilities, the Company entered into swap contracts; these swap contracts, for the most part, fixed the floating interest rates on all interest payments until the date of maturity.

To minimize the interest rate risk on financial liabilities, the Company entered into swap contracts An inflation rate depends directly on the political and economic situation in the Russian Federation in which the Company operates. The negative impact of inflation on the financial and economic performance of the Company may be due to the following risks:

•risk of losses associated with a decrease in true cost of accounts receivable in case of significant delay or past due payments;

- risk associated with an increase in cost of debt;
- risk associated with an increase in cost of goods, products, works and services due to an encrease in energy prices, transport costs, wages, etc.;
- risk associated with the reduction of true cost of funds raised to finance the investment program;
- risk associated with an increase in cost of borrowings.

At the end of 2012, inflation in Russia was 6.6%, well below critical inflation rate of at least 20% per annum which is considered by the Company as infraction rate which the Company may experience difficulties.

The Company manages liquidity risk by maintaining sufficient cash and marketable securities to fulfill current obligations. Temporarily free funds placed in short-term financial instruments are mainly bank deposits and promissory notes.



The reorganization of RAO UES of Russia, formerly the major state-owned electric power Group, resulted in separation of electric power generation, transmission, distribution and sales of electricity to the end customers, repair and maintenance led to competition between generation, retail, repair and maintenance companies.

The Russian power sector underwent reform, leading directly to the creation of a liberalized electricity market in 2011, where all energy is sold at free market prices, based on market supply and demand. The temporary exception is energy sold to the general population, as well as in non-price and technologically isolated territorial electric energy systems.

Norms regulating the activities of Russian energy companies, including: market liberalization, the establishment of electricity tariffs, power market operations and relationships between electricity producers and consumers, are undergoing significant changes.

Due to on-going reform and uncertainty related to its completion and ultimate scope, the Russian power market has undergone radical changes and continues to operate under relative uncertainty.

The Company takes necessary measures to create a favorable regulatory and legal framework for functioning of the electricity and capacity market The Company is exposed to industry-specific risks primarily due to the possible changes in the power industry. It should be noted that this risk is offset by the adoption of the "target" Rules of the Wholesale Electricity and Capacity Market (Decree No. 1172 of the Government of the Russian Federation as of December 27, 2010). To manage these risks the Company takes necessary measures to create a favorable regulatory and legal framework for functioning of the electricity and capacity market. The Company is actively involved in the process of drafting the regulatory legal acts in the field of electric power industry undertaken by the Ministry of Energy, the NP Market Council and the Federal Tariff Service of Russia.

Under the current market model, risk that the prices achieved on the long-term capacity market may not be sufficient to cover fixed costs, remains relevant.



### RISKS ASSOCIATED WITH CORPORATE ACTIVITIES



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In general, the Company's strategic risks compared with 2011 have not changed. During 2012, some of the risks have a reduced level of priority, including: the risk of delays and errors in management decisions due to the stabilization of the business processes' structure and the availability of liability insurance for the Company's management bodies, as well as inefficiency risk for implemented investment projects. However, the risk of fund shortages from external sources for planned investments moved from the category of significant risks to critical risks for the Company. In addition, there was the emergence of new risks associated with the integration of JSC RAO ES of the East into the RusHydro Group, as well as risks associated with legislative changes, the deterioration of the situation with the return of receivables in the WECM.

### THE RISK OF MAN-MADE ACCIDENTS

The risks are associated with high levels of wear and tear, the breach of exploitation conditions, untimely repairs and re-tooling and modernization. Equipment failure and waterwork destruction can result from these risks.

According to a corporate assessment, the risk probability is at an average level. All major production facilities are insured. A range of measures exist to ensure the reliability of equipment and facilities at an adequate level, including:

- fully implemented repairs;
- the fulfillment of a long-term modernization and reconstruction program, as approved by the Company's Board of Directors;
- the use of modern diagnostic methods without stopping equipment, modern technologies for production asset management, including necessary information technology;
- continuously optimizing the structure and size of spare parts volume;
- continually developing the process of life-cycle management for equipment within the existing HPP system.

### RISK OF REDUCED PROCEEDS FROM THE SALE OF ELECTRICITY AND POWER

The risk is significant because of a growing social burden and State restrictions on growth rates for electricity prices/tariffs and power, as well as the existence of financial liabilities, which impose certain restrictions on corporate activities.

The uncertainty of electricity output has a significant impact on risk because of the risk of reduced water. This risk is the inability to accurately predict the volume of electricity produced over both the medium- and long-term. Basically, this risk impacts the execution of liabilities to supply energy to the Wholesale Electricity and Capacity Market (WECM).

Risk minimization is implemented as part of JSC RusHydro's production and marketing activities via the following measures:

- developing its own hydro-meteorological monitoring system to upgrade the accuracy of forecasting and tracking available water resources at RusHydro's sites, which are not secured by qualitative prognostic information;
- protecting the interests of the HPPs in inter-agency operational groups under the Federal Agency for Water Resources;
- implementing measures under the "Optimization of water resource usage" of JSC RusHydro's Energy Saving Program;
- concluding bilateral hedging DAM related contracts (including purchasing electricity to ensure the execution of obligations).

### **RISKS ASSOCIATED WITH INEFFICIENT INTEGRATION**

In connection with the acquisition of a controlling stake in JSC RAO ES of the East in 2011 there are risks due to the lack of funds to modernize and construct energy infrastructure of the Far East, and therefore operational risks associated with aging equipment and depreciation of acquired fixed assets.

To manage this risk, the Company took measures to integrate JSC RAO ES of the East into the structure of the RusHydro Group. Moreover, the Company works on attraction of additional financing for reconstruction of existing and construction of new generating facilities and electric energy and heat transmission lines, as well s for repair of the fixed assets of JSC RAO ES of the East. In conditions of deficit of funds for implementation of the Company's investment program these risks may become topical for the Company in the future.

### RISKS OF FUND SHORTAGES FROM EXTERNAL SOURCES FOR INVESTMENT

This risk is significant due to possible consequences it may have on the Company, owing to a simultaneous reduction in all or a portion of funding sources. An acute shortage of investment funds may lead to a scenario in which the Company will be forced to stop construction or mothball numerous generating facilities that are under construction, which could affect the economic efficiency of both the Company's investment projects and its financial results as a whole.

Sustainable management of this risk involves maintaining sufficient cash and the availability of financial resources via the provision of credit lines. The Company adheres to a balanced model of financing working capital through both short- and long-term sources. Temporary free funds are placed in short-term financial instruments, principally in bank deposits and promissory notes.

To level out this risk, the Company has implemented a system of monitoring contracts by introducing and applying "standard financial terms", when negotiating with contractors, and has also developed management techniques for interest and currency risks (taking into account the Company's credit policy). The Company is working on preparing flood zones for reservoirs of constructed HPPs from federal budgetary resources and the budgets of constituent entities of the Russian Federation.





### **ENVIRONMENTAL RISKS**

Environmental risks include the possibility of oil leaks into rivers from hydro-power units of the HPPs, as well as the possibility of exceeding marks for the dam (reservoir) in the upper and lower ponds. Excess reservoir levels may flood coastal zones, where production facilities, residential buildings and nature systems are located.

To reduce these risks, the Company is replacing the components and assemblies of the HPPs' hydro-turbines with modern ones; this construction ensures a high degree of ecological compatibility with production. Reservoir-level regulation is carried out in strict accordance with a schedule issued by an inter-agency operational group. To prevent flooding, dyke dams and protective installations are used.

To further upgrade environmental protection activities, the Company has implemented an environmental management system under the ISO-14001-2004 standard.

To further upgrade environmental protection activities, the Company has implemented an environmental management system under the ISO-14001-2004 standard

### **GANYMEDE, A MOON OF JUPITER**

The largest in size and mass satellite in the solar system. Almost half of its surface is covered by an ancient ice core, with a variety of meteorite craters. The outer layer consists mainly of water ice, the thickness of which may reach up to 900 km. It is possible that liquid water is under the ice.

# 3.6

INFORMATION ABOUT POSSIBLE CIRCUMSTANCES THAT OBJECTIVELY HAMPER THE COMPANY'S ACTIVITY



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### ACTS OF TERRORISM

Due to the tense political and social situation, the revival of armed gangs in the North Caucasus region, a high probability of local and regional armed conflict, a growing threat of international terrorism, increased political instability in several developing countries due to the ongoing economic crisis, the activity of radical organizations and the development of industrial terrorism, the Company is concerned about possible risks associated with terrorist activity, including at corporate sites located in this region. To reduce these risks, the Company regularly carries out measures to ensure safety. A comprehensive program to ensure that the Company's facilities are safe and protected from terrorism has been developed and implemented. The Company regularly inspects anti-terrorism protection and conducts staff trainings, including specialized anti-terrorism exercises and trainings for security guards at the Company's facilities.

Power facilities are protected by armed guards of the FSUE Departmental Security Agency of the Russian Ministry of Energy and extra-departmental guards from the Russian Ministry of Internal Affairs. Interaction Plans exist with law enforcement authorities to prevent terrorist acts from being carried out or the threat of terrorist acts at the Company's facilities. On the territory of the enterprises, there are robust access regimes and internal security regimes. In conjunction with law enforcement agencies, theft prevention measures are organized. The most dangerous threats are assessed and plans are developed to eliminate consequences, in conjunction with the Russian Civil Defense and the Emergency Situations Agency at the Company's generating assets.

The Company's fixed assets insurance package includes insurance against acts of terrorism. The Company will held a road-show and take other similar measures to mitigate negative effects on positioning the occurring insured events related to the terrorism and sabotage risk on the international insurance market.

### **EARTHQUAKE-PRONE AREAS**

A number of the Company's facilities are located in seismic areas. This risk is not considered to be material to the Company, with the exeption of several facilities located in the North Caucasus, because the Company's facilities comply with earthquake resistance standards. In addition, there are seismic monitoring stations at a number of corporate facilities.

### SEASONAL FLOODING AREAS

The risk of seasonal floods plays an important role in corporate activities. To manage this, a water regime management, including: forecasting and monitoring hydrological regimes, reservoir regulation, spillway construction and operation and other measures, has been implemented.

# CHAPTER 4 Industry Review



- 4.1. The Electricity and Capacity Market
- 4.2. Key Competitors and Competitive Advantages
- 4.3. Tariff Regulation
- 4.4. Production Performance
- 4.5. Energy Efficiency





Hydra's v — has a brightness of 3.115 m, meaning that it can be seen without telescope. This star is located of 144 light-years from Earth

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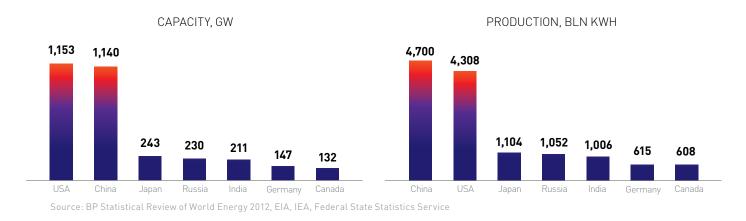
The Company's Key Competitive Advantages:Environmentally friendlyHighly flexible businessMinor fuel component in COGS





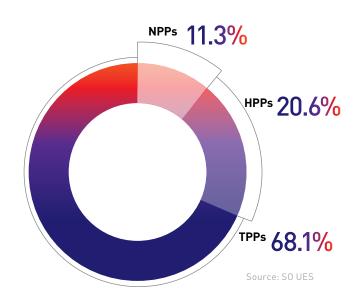
### TOTAL INSTALLED CAPACITY AND GENERATION IN RUSSIA AND WORLDWIDE

Globally, the Russian energy industry ranks fourth in terms of installed capacity and production volume.



As of January 1st, 2013, the installed capacity of Russian UES power plants was 223,070.8 MW. In terms of installed capacity, the share of thermal power plants (TPPs) is approximately 68.1%, the share of hydro-power plants (HPPs) is 20.6% and the share of nuclear power plants (NPPs) is 11.3%.

**6,473** MW In 2012, via the commissioning of new and the modernization of existing generating equipment at power plants the installed capacity of Russian UES

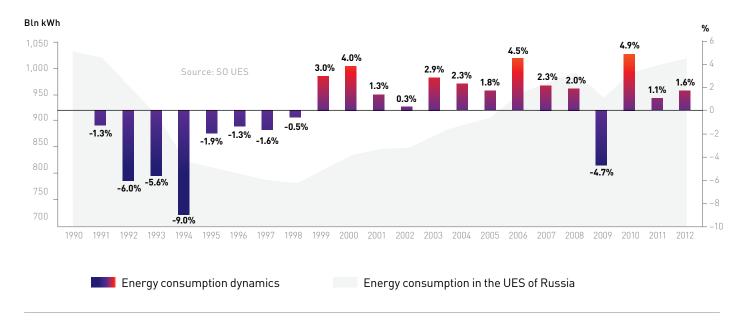


In 2012, the installed capacity of Russian UES power plants increased to 6,473.4 MW via the commissioning of new generating equipment and the modernization of existing generating equipment at power plants. Generating equipment at Russian UES power plants with a total capacity of 1,911.4 MW was decommissioned.

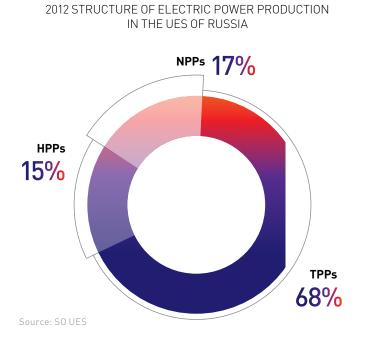
#### DISTRIBUTION BY GENERATION TYPE, AS OF 01.01.2013

### 1990-2012 HISTORICAL ENERGY CONSUMPTION

Since 1998, with the exception of the 2009 crisis, Russia has experienced energy consumption growth.



According to JSC SO UES, in 2012, consumer demand for energy in the UES of Russia increased 1.6% to 1,016.50 kWh and production growth was 1.3% — up to 1,032.30 bln kWh. Approximately 68% of total electric power was produced by TPPs, 17% by NPPs and 15% by HPPs:



### THE STRUCTURE OF THE ELECTRICITY (CAPACITY) MARKET

Currently, the Russian Federation has a two-level (wholesale and retail) electricity and capacity market.

Generating companies, electricity export/import operators, suppliers of last resort, major consumers, energy sales organizations, and Federal Grid Company (in terms of purchasing electricity to cover transmission losses) are both buyers and sellers on the wholesale market.

Except the Federal Wholesale Hydro-Generating Company (JSC RusHydro), most of Russia's generating assets are concentrated in five thermal Wholesale Generating Companies (WGCs, some of them have been renamed), fifteen Territorial Generating Companies (TGCs, some of them have been renamed) and the State Concern Rosatom. Top industry companies also include: JSC INTER RAO UES, an export and import energy operator that owns a range of generating assets, both in Russia and abroad.

The State-owned Federal Grid Company (JSC FGC) operates the main high-voltage transmission lines. State-owned shares of Inter-regional Distribution Grid Companies (IDGCs) were transferred to JSC Russian grids. The system operator (JSC SO UES) performs operational dispatch control within the Russian Unified Energy System (UES). The wholesale electricity and capacity market operates in regions that are incorporated in the pricing zone and non-pricing zones. The first pricing zone covers the territory of European Russia and the Urals, whereas the second zone encompasses Siberia. In non-pricing zones (Arkhangelsk and the Kaliningrad Region, the Komi Republic and the Unified Energy Sustem of the East which includes the Amur Region, the Primorsky Region, Khabarovsk energy system and South Yakutia energy region of the Republic of Sakha (Yakutia), where for technological reasons, the organization of market relationships in the electric power industry is not yet possible, electricity and capacity sales on the wholesale market are regulated by prices/tariffs and (or) sold for agreed upon prices not exceeding the limit established by the Russian Federal Tariff Service for the regulating period.

In isolated power systems, which are not technologically incorporated in Russia's Unified Energy System, the wholesale electricity and capacity market is absent and power delivery is regulated by the retail markets.

The full liberalization of the wholesale and retail electricity and capacity market, which began in January 2007, was completed January 1st, 2011. Since 2011 the structure of the wholesale market was as follows:

### 2012 WHOLESALE ELECTRICITY AND CAPACITY MARKET (WECM)

ELECTRICITY	CAPACITY
Regulated contracts (RCs) for	Regulated contracts (RCs) for
residential delivery volume	residential delivery volume
Day-ahead market (DAM)	Capacity supply contracts (CSCs)
Non-regulated bilateral	
contracts (NCs)	New HPPs / NPPs contracts
	Contracts for the sale of capacity
Balancing market (BM)	with generating facilities delivering capacity under a forced regime
	(FR)
	Free bilateral electricity and
	capacity supply contracts (FECCs)
	Competitive capacity selection (CCS)

Starting January 1st, 2011, power is delivered to the wholesale electricity (capacity) market at free (non-regulated) prices, with the exception of power delivery in areas which are not part of the wholesale market pricing zones, in isolated territorial power systems, including constituent territories of the Russian Federation, combined in a pricing zones of the wholesale market within the boundaries of which the equilibrium price is not formed. In addition, prices for electricity delivered to the population and equivalent consumer categories, as well as to customers in certain Russian federal subjects of pricing zones in the territory of which the Russian Government has established special conditions for the operation of the wholesale electricity and capacity market (in the North Caucasus, in the Republics of Tuva and Buryatia) (in the Republic of Buryatia — until January 1st, 2012) are subject to regulation.

Electric power volumes not covered by regulated contracts are sold at non-regulated prices under free bilateral contracts (FCs), on the day-ahead market (DAM) and on the balancing market (BM).

Capacity volumes not covered by regulated contracts are sold under free electricity and capacity supply contracts (FECCs), including the commodity market and contracts for capacity sales as the result of competitive capacity selection (CCS) conducted by the system operator. In addition, the long-term capacity market includes capacity supply contracts (CSCs), which allow for the financing of new power generation investment. Hydropower plants supplying capacity in the second pricing zone supply all capacity at regulated prices.

In December 2010, the first campaign to CSCs ended. The thermal generating facility, commissioned under a capacity supply contracts, guarantees capacity payments for 10 years (20 years for contracts similar to CSCs signed with NPPs and HPPs), which provide returns on CAPEX and operating expenses (as specified).

CSCs were signed with heat power industry generating companies, which were spun-off from RAO UES of Russia. The list includes constructing energy facilities with a total capacity of 28 GW by 2015. Most new facilities will be located in the European part of Russia, as well as in the Urals and Siberia.

A total of 6,840 CSCs were signed with generating companies from the heat power industry and 3,616 contracts were signed with HPPs/NPPs. Capacity supply contracts, similar to CSCs, were signed with JSC RusHydro and JSC Concern Rosenergoatom. As part of the CSCs, JSC RusHydro will implement the following projects: the Gotsatlinskaya HPP, the Zagorskaya PSPP-2, the Zaramagskiye HPPs, the Zelenchukskaya HPP-PSPP and the Kashkhatau HPP, with a total capacity of approximately 1.5 GW.

Commissioning new facilities will eliminate the problem of the lack of production capacities in experiencing shortages of electricity zones, as well as upgrading sectoral efficiency as a whole.

#### **GRID INFRASTRUCTURE**

The two principal types of activity conducted by grid organizations are: the transmission of electrical power over the electrical grids and the provision of technological connections for electricity consumers, the power plants of generating companies and the transmission facilities of other owners to the electric grid. These activities are both natural monopolies and are thus regulated by the State.

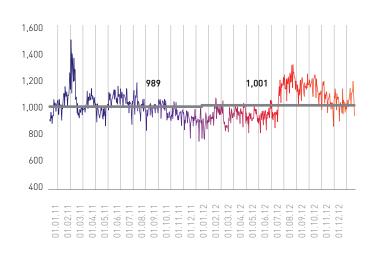
The operation and development of Russia's electrical grid are the responsibility of the operator of the Unified National (all-Russian) Electrical Grid (UNEG), JSC UES FGC, which operates the 110-1150 kV high-voltage transmission networks, and JSC IDGC Holding, which operates the 0.4 - 220 kV distribution networks and territorial network organizations (TNOs), which provide electric power transmission and distribution services via the usage of other transmission facilities than those that are part of the UNEG.

### DAM PRICE DYNAMICS

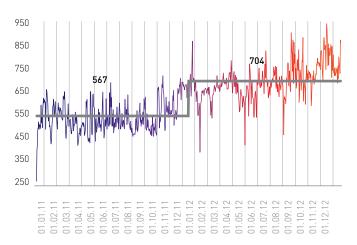
The day-ahead market (DAM) is a competitive selection of price bids from suppliers and buyers for the day before actual electric power delivery; prices and delivery volumes are defined for every hour of the day, and are conducted by the commercial operator, JSC ATS.

DAM prices have relatively high volatility due to, firstly, cyclical fluctuations (daily, weekly and annually), and secondly, due to price fluctuations caused by unpredictable demand- or supply-side changes.

According to the NP Market Council, the average weighted index of equilibrium prices for electric power during 2012 in the European part of Russia and the Urals rose 1.2% compared with 2011 and reached 1,001.2 RUR/MWh. In Siberia, the average weighted index of equilibrium prices during the past year rose 24.2% — to 704.0 RUR/MWh.



THE INDEX OF THE EQUILIBRIUM PRICE FOR THE PURCHASE OF ELECTRIC POWER IN THE 2ND PZ



Source: NP Market Council

The 2012 growth in electric power prices can primarily be attributed to increased fuel costs.

THE INDEX OF THE EQUILIBRIUM PRICE FOR POWER IN THE 1ST PZ

### 2013 CONSUMPTION AND PRICE FORECAST

In 2011, adjustments made to earlier decisions to ensure a moderate increase in prices and tariffs on goods (services) for natural monopolies, namely the shift in indexing the growth in regulated prices and pipeline rates and regulated tariffs for natural monopoly activities in the electric power industry at mid-year (July), will prevent a spike in electricity prices in early 2013.

Based on the 2013 socio-economic development forecast and the 2014-2015 planning period:

- electricity prices for all consumers, except for the general population, will rise 12-14% on average per annum in 2013 and in 2013-2014, 10-12.5% annually;
- the 2013-2015 indexations of regulated electricity tariffs for the population will occur in July. As a result, from July 1st, 2013-2015 tariffs will grow 12-15% per annum;
- the indexation of regulated tariffs for network organizations will also be in July: from July 1st, 2013 — by 10%, from July 1st, 2014 — 2015 — by 9-10% per annum;
- regulated tariffs for natural gas will increase 15% on July 1st of each year.

In non-pricing zones for the wholesale electricity market and isolated territorial electric power systems, tariff growth due to an increase in fuel (coal) costs and other factors can occur from January 1st, 2013.

+4.7%

### In 2013 forecast growth in electricity consumption in Russian UES will be approximately

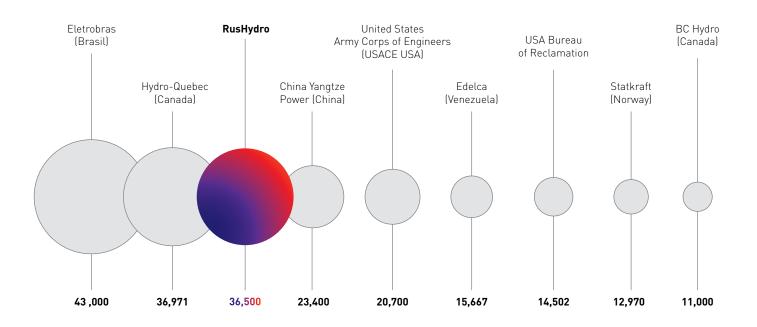
As for consumption, according to changes approved by the FTS to the consolidated balance forecast for electricity energy (capacity) production and supply within the Russian Unified Energy System to constituent Russian entities for 2013, in 2013, Russian electricity consumption will be 1,064.6 bln kWh. Thus, taking into account adjustments, in 2013, forecast growth in electricity consumption will be approximately 4.7% compared with 2012 actual consumption.

### PEER GROUP

There are numerous power companies globally which rely on hydro-power plants for the majority of their capacity and which are also State-owned.

The largest power company in Brazil and Latin America, as a whole. Its assets include: numerous major HPPs, including Itaipu, the world's second largest hydro- power plant (located on the Parana River). The Company is controlled by the State, which owns 52% of its shares.
Canada's largest power company, which played a crucial role in the economic development of the Province of Quebec. The Company's assets include: numerous HPPs, such as major cascades on the Manicouagan River and the La Grande River. The Company is owned by the Government of the Province of Quebec.
The Company has only two HPPs. The Three Gorges Dam is the world's largest hydro-power plant with a project capacity of 22.4 GW, and the downriver Gezhouba Dam has a capacity of 3.1 GW. The Company is controlled by the State.
While this is not a power company, it is a government agency focused on building and operating HPPs (electricity sales are the responsibility of another government agencies)
The Company's main asset is the world's third largest HPP — the Guri Dam — on the Caroni River, with a capacity of 10.2 GW. The Company supplies most of Venezuela's electricity and is wholly owned by the State.
While not a power company, it is a United States government agency that operates numerous HPPs, including the famous Hoover Dam
The largest electricity producer in Norway and the third largest in Scandinavia. The Company owns approximately 150 HPPs. A significant number of these HPPs have long-term storage reservoirs. The Company is wholly owned by the State.
The largest electricity producer in the Province of British Columbia. The Company owns 30 HPPs and is controlled by the provincial government.

Source: Companies' Data





### **EUROPA**

The surface of Europa, a moon of Jupiter, is striated by cracks and streaks that are filled with frozen water that broke from the under-ice ocean into fractures formed by tectonic processes. Under Jupiter's tidal forces, within the moon's depths, energy being released supports the liquid inside ocean, which could potentially serve as a wellspring for extraterrestrial microbial life.

KEY COMPETITORS AND COMPETITIVE ADVANTAGES



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### THE COMPANY'S KEY COMPETITIVE ADVANTAGES

### **ENVIRONMENTALLY FRIENDLY**

Hydro resources represent a renewable energy source that is the most environmentally friendly, allowing for decreased air emissions from thermal and electricity power plants, while preserving hydro-carbon fuel reserves

#### **HIGHLY FLEXIBLE**

HPPs offer the greatest degree of flexibility output within minutes to cover peak loads

### MINOR FUEL COMPONENT IN COGS

Low dependence on energy price volatility, logically offers long-term price guarantees to consumers

### THE COMPANY'S SHARE IN THE MARKET SEGMENT AND PERFORMANCE DURING THE PAST THREE YEARS

The Company's share has increased significantly during the last two years, both by energy generation performance and by the share of total installed capacity across Russia due to integration of the JSC RAO ES of the East.

Parent company	Generators
Gazprom Energoholding	<ul> <li>TGC-1</li> <li>Mosenergo (TGC-3)</li> <li>OGK-2 (integrated with OGK-6)</li> <li>OGK-6 (integrated with OGK-2)</li> </ul>
Rosatom	Concern Rosenergoatom
En+ Group	<ul><li>Irkutskenergo</li><li>The Krasnoyarskaya HPP</li></ul>
IES Holding	• TGC-5 • TGC-6 • TGC-7 • TGC-9
Inter RAO UES	<ul> <li>INTER RAO UES</li> <li>OGK-1</li> <li>OGK-3</li> <li>TGK-11</li> <li>Bashkirskaya Generating Company</li> </ul>
E.ON	• WGC -4
Enel	• WGC -5
SUEK	<ul><li>Kuzbassenergo(TGC-12)</li><li>TGC-13</li></ul>
LUKOIL	• LUKOIL (TGC-8)
UMMC	• Novosibirskenergo
Sintez Group	• TGC-2
Unexim	• Quadra (TGC-4)
Fortum	• Fortum (TGC-10)
ESN Group/ Russian Railways	• TGC-14
TAIF	• TGC-16

Source: Companies' Data

	Electricity			Capacity		
Year	Consumption in Russia, million kWh	Company output, million kWh	Share	Installed capacity of Russian power plants, MW	Total installed capacity of the Company's power plants, MW	Share
2010	988,961	71,996	7.3%	214,869	25,426	11.8%
2011	1,000,069	109,204.6	10.9%	218,146	35,152.9	16.1%
2012	1,016,498	112,550.1	11.1%	223,071	36,500	16.4%

\* Source: SO UES, JSC RusHydro

### 43 TARIFF REGULATION Open the chapter online

Under statutory legal requirements, all plants with an installed capacity exceeding 25 MW can sell electricity and capacity only on the wholesale electricity and capacity market (WECM). A majority of the Company's power plants are WECM operators. Power plants with capacity ranging from 5 MW to 25 MW are entitled to operate both on the wholesale and retail electricity and capacity markets. The Company's plants in this category can sell their electricity and capacity on the WECM. Given that plants with capacity less than 25 MW and operating on the retail market are not regulated by the State and can sell electricity and capacity at unregulated prices, the table below provides a tariff scheme for HPPs which are operating on the WECM.

Electricity and capacity are sold in accordance with tariffs under regulated agreements (RAs). The total value of the RAs may not exceed 35% of the full energy and capacity supply volume to the wholesale market, as set forth in the balance sheet decision for the relevant producer.



		New plants		Existing plants		
		Facilities covered by capacity supply contracts	HPPs not covered by capacity supply contracts	Price Zone 1	Price Zone 2	Non-price Zone
	RA	Tariff	Tariff	Tariff	Tariff	
	Four-lateral agreements					Tariff
city	DAM					
Electricity	Non-regulated bilateral power and capacity contracts	-	THE UNREGULATED WECM SECTOR			
	Non-regulated bilateral agreements	-				WECM
	RA		Tariff	Tariff	Tariff	
	Four-lateral agreements					Tariff
Capacity	Capacity traded on a competitive basis		WECM	WECM	Tariff	
Сар	CSC	WECM				
	Non-regulated bilateral power and capacity contracts		WECM	WECM	WECM	

In Prize Zone 2, capacity traded on a competitive basis is also sold under tariffs that are equal to RA tariffs.

Tariffs for plants that are WECM market players are established by the Russian Federal Tariff Service, in accordance with proprietary guidelines:

- The main tariff calculation methodology for existing plants (including those located in the non-price zone) is the indexation methodology: the base, which was calculated in 2007, is reviewed annually so that it can increase in line with the consumer price index (as published by the Russian Ministry of Economic Development). The above-mentioned method is also applied to new plants starting from their second year of operation (for facilities covered by capacity supply contracts, it applies to electricity only);
- For the first year of a plant's WECM operation, the tariff is based on the economically viable costs method, which helps identify the economically justified amount of financing that a company needs to carry out regulated operations during a specified time period.

In contrast with previous regulatory periods, the tariffs described above do not include the investment component. In 2011 the capacity price, based on competitive trading results, was increased by a rate determined by the Federal Tariff Service, under approved guidelines that ensure the funding needed to construct (rebuild or upgrade) HPPs (PSPPs). For facilities covered by capacity supply contracts, the capacity price is also calculated by the Federal Tariff Service under approved guidelines.

The Russian Federal Law "On the Electric Power Industry" sets forth a legislative framework and government regulation methods, as well as the scope of power for regulatory bodies in the electric power industry.

The procedure for calculating and setting electricity and capacity tariffs and timelines are set by the Rules of Government Regulation and the Application of Tariffs on Electric and Heat Energy in Russia and are approved by the Russian Federal Tariffs Service.

### TARIFF POLICY OF JSC RAO ES OF THE EAST

JSC RAO ES of the East operates in a particular territory of the Far East, where electricity and heat tariffs, in the absence of market mechanisms, are regulated by both federal and regional regulators.

Currently, in establishing tariffs for energy companies, that are part of the Holding, regulators use the following regulation methods:

- return on invested capital method for the tariffs of grid companies located in non-price zones of the wholesale market (JSC Far Eastern Distribution Company, Prymorskie Electrical Grids, Khabarovskie Electrical Grids, and the electrical Grids of the Jewish Autonomous Region);
- long-term indexation method for required gross revenues (JSC Far Eastern Distribution Company, the branch South-Yakutia Electrical Grids);
- indexation method for the electricity (capacity) tariffs of hydro-power plants — subjects of the wholesale market in non-price zones (JSC Far Eastern Generating Company,

branches: Khabarovskaya Generatziya, Prymorskaya Generatziya, Amurskaya Generatziya, Primorskie Heat Network, Neryungrinskaya SDPP, and the Luchegorsk Fuel and Energy Complex);

• method of economically viable costs for other regions.

In accordance with established procedures, the tariffs for electricity and heat supplied by energy companies to consumers (tariffs for end users) are approved by the executive government bodies of the constituent entities of the Russian Federation in the field of the State regulation of tariffs within the threshold levels of tariffs which are approved by the Federal Tariff Service of the Russian Federation for the regulation period.

In 2012, the tariffs for electricity supplied by energy companies of JSC RAO ES of the East to consumers were an average of 101% compared with tariffs from the previous year. The tariffs for thermal energy supplied by energy companies of JSC RAO ES of the East were an average of 100.96% compared with 2011 tariffs.



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# 36.5 GW

In 2012, RusHydro's totaled installed capacity grew 26.5 MW, driven by re-labeling:

- at the Kamskaya HPP- 9.0 MW;
- at the Volzhskaya HPP– 15.5 MW;
- at the Baksanskaya HPP- 2.0 MW.

As of January 1st, 2013, •atthe the RusHydro Group`s total installed capacity

As of January 1st, 2013, the RusHydro Group's total installed capacity was 36.5 GW including: JSC RAO ES of the East, JSC Geoterm, JSC Kolymaenergo, JSC Pauzhetskaya GeoPP, CJSC MEC, JSC Kamchatka GEC, JSC Pavlodolskaya HPP, and the Boguchanskaya HPP (for reference: four hydro-power units have been taken into consideration).

PRODUCTION PERFORMANCE

THE COMPANY'S INSTALLED CAPACITY, MW

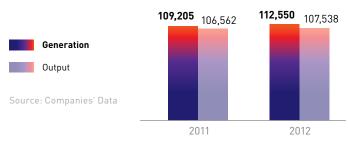
JSC RAO ES of the East		9,088
The Sayano-Shushenskaya HPP		6,721
The Volzhskaya HPP		2,608
The Zhigulevskaya HPP		2,341
The Bureyskaya HPP		2,010
The Dagestan Branch		1,786
The Cheboksarskaya HPP		1,370
The Saratovskaya HPP		1,360
The Zeyskaya HPP		1,330
The Zagorskaya PSHPP		1,200
The Votkinskaya HPP		1,020
JSC Kolymaenergo (the Kolymskaya HPP)		900
CJSC MEC		561
The Kamskaya HPP		531
The Nizhegorodskaya HPP		520
The Cascade of Kubanskiye HPPs		477
The Cascade of Verkhnevolzhskie HPPs		467
The Novosibirskaya HPP		455
The Karachaevo-Cherkessian Branch	1	161
The Kabardino-Balkarian Branch	1	158
The Nothern Ossetian Branch	The second se	92
JSC Geotherm	I contract of the second se	62
JSC Kamchatskatka GEC		45
JSC Pauzhetskaya GeoPP		14
JSC Pavlodolskaya HPP		3

\* Source: JSC RusHydro, JSC RAO ES of the East

The 3.1% increase in RusHydro's electricity output in 2012, year-on-year, is due to increased inflow into the reservoirs of the Cascade of the Volga — Kamsky HPPs (26.4% higher than the average long-term value) and into reservoirs of the Far East (93% above the average long-term value).

Actual electricity output totaled 102.6% of the Company's 2012 target.

### POWER GENERATION AND OUTPUT DYNAMICS, KWH MILLION

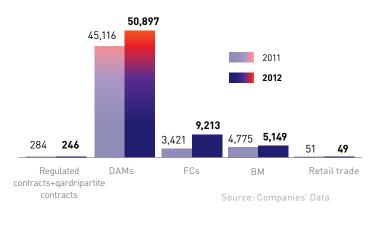


For the twelve months of 2012, the Company's proceeds from the sales of goods, work and systemic services provided by the Company's branches increased slightly (+2%). The removal of the targeted investment component (TIC) in 2012 (in 2011, the TIC was RUR 12.9 billion) in the prices of RusHydro HPP capacity did not allow for significantly increasing proceeds on the WECM.

In 2012, principal revenue growth drivers included:

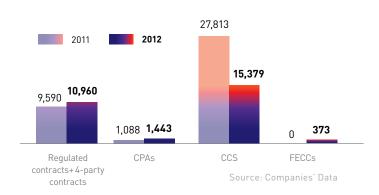
- increased electricity output;
- higher electricity sales prices on the day-ahead market (DAM);
- an increase in the cost of sales under free bilateral contracts (FCs);
- revenue growth on the Ancillary Services Market.

### ELECTRICITY SALES STRUCTURE, RUR MILLION



JSC RusHydro delivers electric power and capacity to the WECM and Retail Energy Market (REM). Thus, buyers, which depend entirely on electricity supply from facilities of JSC RusHydro, are not included in the consumer structure.

The Company's main consumers are guaranteed suppliers and power supply companies.



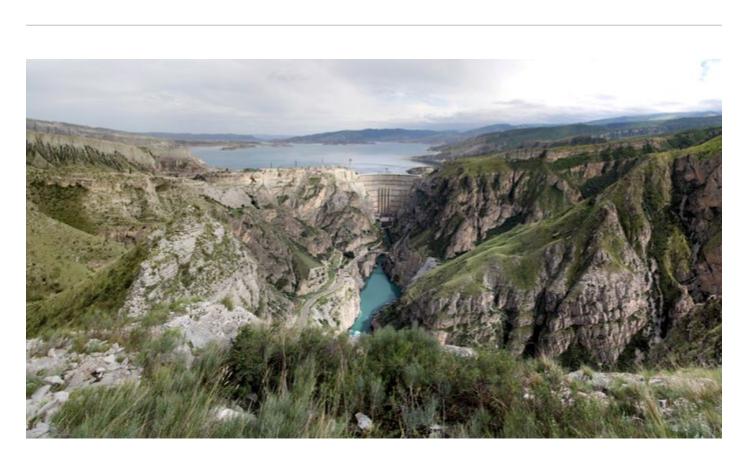
CAPACITY SALES STRUCTURE, RUR MILLION

Revenues from the sales of capacity decreased due to the liquidation of the target investment component (TIC) in prices for capacity generated by RusHydro's HPPs, formed on the basis of competitive capacity selection and due to the use of tariffs for HPP capacity in the second pricing zone, instead of competitive capacity selection prices.

Despite the difficult external business environment (measures undertaken by the Russian Government to prevent price increases for end users which negatively impacted the sales segment) in the reporting period, the Company made significant improvements in this segment. In particular, the sales charge was reduced and the differentiated capacity payment was canceled. In addition, the date for indexation was postponed from January to July. These factors significantly affected the margin for the distribution business.

The Company adopted measures aimed at upgrading the efficiency of the distribution business, significantly reducing costs and maintaining positive margins In response to the change in the situation, the Company took several steps to improve the efficiency of the distribution business, including:

- restructured business and moved to a single management company — JSC ESC RusHydro. As a result, the sales segment is represented by four sales companies, which are controlled by the Company via 100%-owned subsidiary — JSC ESC RusHydro;
- personnel management was significantly reduced. The functions were transferred to a management company;
- introduced a benchmarking practice to reduce costs;
- harmonized the organizational structure and business processes;
- implemented the customer-oriented IT system.



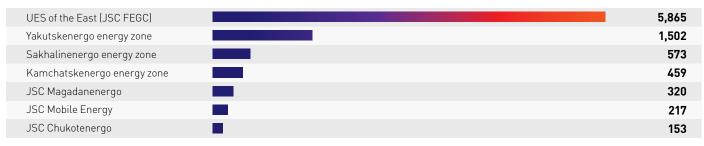
Combined, these measures significantly reduced costs and helped maintain a positive margin for the distribution business. At the end of 2012, the net supply for sales companies was 44.1 TWh and the customer base included 2.9 million customers.

### **JSC RAO ES OF THE EAST**

## 9088.4 MW As of January 1st, 2013, the installed capacity of JSC RAO ES of the East

JSC RAO ES of the East is the largest energy holding, which operates in the Far Eastern Federal District and has been a part of the RusHydro Group since October 2011.

#### INSTALLED CAPACITY OF ENERGY COMPANIES OF JSC RAO ES OF THE EAST



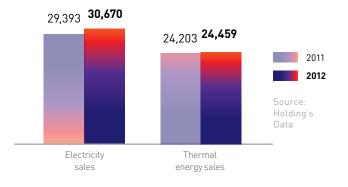
Including all sources in the energy zone regardless of their departmental affiliation.

As of January 1st, 2013, the installed capacity of JSC RAO ES of the East was 9 088.4 MW - an increase of 99.1 MW.

2012 tariffs for electricity supplied to consumers by energy companies of JSC RAO ES of the East were on average 101% compared with tariffs from the previous year.

2012 tariffs for thermal energy generated based on the combined mode by energy companies of JSC RAO ES of the East were on average 100.96% compared with 2011 tariffs.

#### ELECTRICITY (KWH MILLION) AND THERMAL ENERGY (GCAL THOUSAND) SALES





In 2012, JSC RAO ES of the EAST energy company electricity sales to end consumers rose 4.3% compared with 2011 (the growth in electricity sales in 2011 was 2.5% compared with 2010). The share of JSC RAO ES of the East in total Russian consumption for 2012 was 3%, which maintains the level from recent years.

In 2012, thermal energy sales of JSC RAO ES of the East rose 1.1% to 24.46 million Gcal compared with 2011 (the 2011 growth was 3.5% compared with 2010).

### **ENERGY EFFICIENCY**



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Upgrading energy efficiency tops the agenda for companies and regulators in most developed economies. In 2010, RusHydro's Management Board approved the 2010-2015 Program on energy conservation and upgrading energy efficiency (hereinafter the Program). The Program was developed pursuant to 261-FZ Federal Law (23.11.2009) "On Energy Saving and Improving Energy Efficiency and on Amendments to Certain Legislative Acts of the Russian Federation".

JSC RusHydro`s energy efficiency target: For 2011 to 2020, RusHydro's energy efficiency target is to increase electricity output to 3.3 billion kWh (4.04%) The program sets forth three key areas that define energy efficiency measures across the entire Group:

Energy efficiency improvements at existing HPPs

Optimization of water resource utilization

Reduction in energy consumption to meet the Company's own needs

HPP consumption is to a large extent shaped by water supply and generation modes, as established by the system operator. As a result, electricity output growth was chosen as the key indicator for the Program on energy conservation and upgrading energy efficiency and RusHydro's Innovative Development Program.

### **IMPLEMENTATION OF THE PROGRAM IN 2012**

ENERGY EFFICIENCY IMPROVEMENTS AT EXISTING HPPS

### Effect from the Programm implementation: long-term average output growth:

Efforts to upgrade the capacity and efficiency of hydro-power units and to reduce electricity losses at power transformers brought the Company an 81.5 million kWh growth in long-term average output per annum. In value terms, the effect may be approximately RUR 95 million in subsequent periods.

### 81.5 mln kWh per annum

Progress to date has been the result of synergies from the technical rehabilitation and modernization program (technological loss reduction by replacing turbines and units, upgrading the quality and volume of repairs and installing the latest energy-saving equipment and devices).

### KEY RESULTS OF ENERGY EFFICIENCY EFFORTS

Installed capacity growth	Long-term average output growth*	Fuel economy*	Reduction in CO2 air emissions*
MW	million kWh/year	thousand tons of equivalent fuel per year	thousand tons per year
67	81.5	27.8	52.76

\* Note: effects from these efforts will be fully realized in 2013. Efforts are carried out across the following facilities: the Volzhskaya HPP, the Kamskaya HPP, the Cheboksarskaya HPP, the Baksanskaya HPP, the Saratovskaya HPP and the Cascade of Kubanskiye HPPs.

### REDUCTION IN ENERGY CONSUMPTION TO MEET THE COMPANY'S OWN NEEDS

In 2012, the Company carried out energy audits in eight branches of JSC RusHydro and in seven SDCs.

Energy saving in sales activity is achieved by reducing technical and commercial electricity losses and by upgrading energy accounting. Main efforts include:

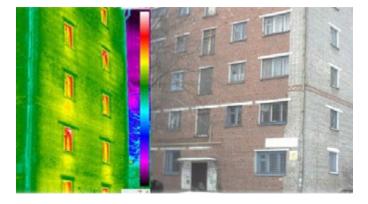
- introducing new methods of forecast consumption;
- introducing the latest metering systems.

Businesses that do not have heavy energy consumption (e.g., design and engineering companies) are predominantly switching from incandescent lamps to energy efficient ones. These companies are also introducing automated control systems to monitor lighting and heating, etc.

### ENERGY EFFICIENT TECHNOLOGIES

In Q4 2012, JSC Energy Supply Company RusHydro commissioned a block modular boiler station in the Pribelskaya Village of the Karmaskalinsky District, Republic of Bashkortostan. The total cost for the construction of the block modular boiler station was 19.87 million rubles. The Charity Fund "Sozvezdie" (Republic of Bashkortostan) was the project investor and JSC Energy Supply Company RusHydro was the agent that performed all functions to organize construction of the boiler station (from design to the commissioning phase). The design capacity of the boiler station was 2.24 Gcal / h and the annual production of heat was more than 5.8 thousand Gcal. The boiler station can operate on natural gas and diesel fuel. In installing the block modular boiler station, modern Byelorussian energy efficient equipment of equal quality to its Western European counterparts was used. The boiler station is equipped with a variable frequency drive to achieve energy saving. Modular burners that reduce fuel consumption were installed on hot water boilers. Thirty-four apartment buildings (housing approximately 1,700 people), two kindergartens, the Center for the Technical Creativity of Children, the rural community center and other non-residential buildings are heat consumers for the block modular boiler station in the Pribelskaya Village.

### ENERGY AUDIT SERVICES



The Company provides energy audit services and issues site energy performance certificates. The service is provided to the Group as well as to external consumers. JSC NIIES, JSC Ryazan Energy Supply Company, JSC Chuvash Energy Supply Company and JSC Krasnoyarskenergosbyt are members of the self-regulatory organization for energy audits, which is entitled to carry out energy audits. Energy supply companies in total carried out 33 energy audits. The cost of the services was more than RUR 29 million.

### EDUCATION IN THE FIELD OF ENERGY SAVING

The Company's educational project "Implementation of Training Programs at RusHydro's Regional Energy Saving and Energy Efficiency Centers" was named a winner in the Energy Efficient Russia — 2012 National Award within the Energy Efficiency Training category. The awards ceremony was held as part of the All-Russian Forum Energy Efficient Russia — 2012. The Forum and awards coincided with the International Day of Energy Saving and were organized with the support of the State Duma of the Russian Federation, the Federation Council of the Federal Assembly of the Russian Federation and the Russian Union of Industrialists and Entrepreneurs.

The Company continued to develop its Energy Saving and Energy Efficiency Centers, which have been established by energy supply subsidiaries of JSC RusHydro in Krasnoyarsk, Novocheboksarsk and Ryazan. During 2012, JSC Chuvash Energy Supply Company employees conducted classes for schoolchildren in the Chuvash Republic via cognitive energy saving lessons. In working with customers (subscribers), energy supply companies hold consultations:

- on organizational, regulatory, technical, financial and economic issues related to energy saving in industry, housing and the utility sector and the public sector;
- on carrying out energy audits of businesses and organizations to determine the reserve of fuel and energy resource saving and producing energy performance certificates;
- on energy services (legal aspects, types of energy service contracts);
- on assistance in working with information databases on energy-saving equipment and technologies.





### VOLUME OF EACH TYPE OF ENERGY RESOURCE USED BY THE COMPANY IN 2012

#### Energy source type

#### Purchase of electric energy on the wholesale market

	Volume, billion kWh	Cost, RUR billion
Multi-point deliveries to suit own needs of HPPs/PSPPs	0.9	0.9
Multi-point consumption of PSPPs (the pumping mode)	2.5	1.9
Total	3.3	2.8

# CHAPTER 5 Innovative Development

- 5.1 The Volume and Sources of Innovative Development Program Financing
- 5.2 JSC RusHydro's Key Innovative Projects
- 5.3 Project Selection Criteria and the System for Assessing Innovative Development Efficiency
- 5.4 2012 Organizational Initiatives to Implement the Innovative evelopment Program of JSC RusHydro
- 5.5 2013 Innovative Development Plans



 $\mu$  — giant in the Hydra constellation. The star is 234 light-years from our planet. This is the 420th brightest star in the star sky with a visual magnitude of 3.83





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RusHydro's Innovative Development Program was recognized as one of the best according to Expert RA agency in five principal directions: the management of innovative activity, the volume and structure of research and development, technological leadership, interactions with the innovative environment, and the efficiency of production processes



On June 28th, 2012, JSC RusHydro's Innovative Development Program was recognized as one of the best in Russia according to Expert RA agency. The study was conducted among the largest companies with State participation. The evaluation of innovation programs at State corporations focused on five principal directions: the management of innovative activity, the volume and structure of research and development, technological leadership, interactions with the innovative environment, and the efficiency of production processes. In the final rating, RusHydro ranked second.

The Company's activity in the field of innovative development is complex and includes forming the internal infrastructure for managing innovations, development and the implementation of innovative technologies and technological solutions, as well as forming the external environment around the Company, which includes the involvement of both Russian and foreign partners, experts and technological leaders in innovative development. Key 2012 achievements in the field of upgrading the Company's innovative development management infrastructure included the following:

- the establishment of the Innovation Project Committee;
- the formation of the Scientific and Technical Council of JSC RAO ES of the East;
- the establishment of an Innovative Development Department within the Scientific and Technical Council of JSC RusHydro;
- the synchronization of the governance systems of JSC RusHydro and JSC RAO ES of the East;
- the establishment of development project management and independent expert assessment systems;
- the establishment of the JSC RBEF Fund, in conjunction with the Republic of Bashkortostan and the Corporate Scientific and Technical Development Fund of JSC RusHydro and the Venture Fund of CSJC Savings and Investments Management Company;
- the launch and implementation of priority projects in all aspects of innovative development.

### **ENCELADUS**

On Saturn's moon — Enceladus — the Cassini space probe discovered water volcanoes. The picture shows vapor and ice crystal emissions rising to a height of 500 km above the surface of the satellite. The crystals partially fall on the surface via snow, which gives the satellite its pure white color, and which partially replenishes the outer ring of Saturn, which exchanges matter with Enceladus. The existence of water volcanoes suggests that beneath the satellite surface there is a liquid water ocean.

# 5.1

THE VOLUME AND SOURCES OF INNOVATIVE DEVELOPMENT PROGRAM FINANCING



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### The aggregate amount of financing exceeded

## RUR 6 bln

2012 innovative initiatives were financed using the Company's own and borrowed funds. The aggregate amount of financing exceeded RUR 6 billion (about RUR 3 billion contributed by JSC RusHydro and more than RUR 3 billion contributed by JSC RAO ES of the East); that makes more than 3% of the revenues of each joint stock company. Based on this indicator, RusHydro is a leader among its foreign peers. Considerable sums invested by the Company in its innovative development stimulate innovative development of the hydropower sector in general, as well as the related industries. RusHydro's systemic influence forms a new market of innovative research and developments in Russia's hydropower sector.





### JSC RUSHYDRO'S KEY INNOVATIVE PROJECTS



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In 2012, the Company was active in innovative project management. Ninety-seven applications to implement innovative projects were reviewed in 2012; 32 projects were selected for implementation. The number of new projects launched by the end of the year was 12 (excluding corporate branches' scientific and research developments and complex the modernization program).

Project name	Completion schedule for the project	Main aims of the project	Expected effect
Development of a vehicle for fulfilling underwater construction and dredging work	June 2015	<ul> <li>Development of underwater work's technologies on the basis of a remote control underwater self-propelled vehicle</li> <li>Conduction of a series of full-scale tests of the vehicle at JSC RusHydro sites where usage of the vehicle is most highly sought.</li> <li>Development of control systems for driving trains, operating mechanisms, and positioning and coordinate orienteering, as well as a system for the tele-monitoring of work spaces.</li> </ul>	<ul> <li>Decrease construction and dredging work time;</li> <li>Decrease in the cost of output;</li> <li>Ability to work with tough soil;</li> <li>Broadening the class of performed technical tasks (broadening the depth range (from 1 to 50 meters), work near hydro-technical constructions, flexibility).</li> </ul>
Methodology for regime optimization at the Volga-Kama Cascade of HPPs	End of 2015	<ul> <li>Development of an optimization model for the impact of the hydro-power system of Volga-Kama Cascade on the environment.</li> <li>Utilization of the model of stream runoff to water reservoirs of the HPPs of the Volga-Kama Cascade.</li> </ul>	<ul> <li>Increase electricity output (from 1 to 5%) at the HPPs of the Volga-Kama Cascade.</li> </ul>
Development and testing of a prototype model for the asynchronous generator of the HPP/PSPP with variable speed for increasing the energy efficiency of the HPP/PSPPs of JSC RusHydro		<ul> <li>Justification of the installation of asynchronized drive- generators at the Leningradskaya PSPP and justification of the usage of asynchronized drive generator technology during modernization of the pump/turbine of the Zagorskaya PSPP-2.</li> <li>Development of recommendations for the implementation and further usage of asynchronized drive generator technology at the power plants included in the development program for the PSPPs of JSC RusHydro.</li> <li>Development of suggestions for the introduction of changes in the technical policy and standards of the organization.</li> </ul>	<ul> <li>Increase the weighted average degree of efficiency for hydro-power units under the variable head.</li> <li>Decrease the space of water reservoirs while preserving the volume of drawdown (filling up).</li> </ul>
Development and manufacturing of a pilot binary power unit with usage of the spent steam at the Pauzhetskaya GeoPP	2014	<ul> <li>Creation of domestic technology for the production of electrical energy at power plants with a binary cycle.</li> <li>Practical implementation of an energy-saving project with energy usage of the spent steam of the Pauzhetskoye deposit.</li> <li>Organization of mass production/construction of generation units at low boiling agents.</li> </ul>	<ul> <li>Increase efficiency (cost efficiency, efficiency factor) of the geo-thermal power unit.</li> <li>Increase the efficiency of the heat transfer agent usage by 26% via secondary utilization.</li> <li>Mass production of binary units, their installation on heat discharges of metal and cement industry production sites.</li> </ul>
Construction of a pump storage power plant with a sub-surface reservoir	End of 2015	<ul> <li>Development of a computational model for determining the stress strain state of the rock mass and the hydro- model for the lower reservoir</li> <li>Optimization of the PSPP parameters using the example of the Leningradskaya PSPP and the suggested variant of a PSPP with a sub-surface reservoir.</li> <li>Selection of prospective sites for the location of PSPPs with sub-surface reservoirs.</li> </ul>	• Ensuring high economic efficiency and minimizing environmental impact by pump storage power plants (PSPPs).

### PROJECT SELECTION CRITERIA AND THE SYSTEM FOR ASSESSING INNOVATIVE DEVELOPMENT EFFICIENCY



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JSC RusHydro has a clear and transparent procedure for selecting, analyzing and assessing the feasibility and expediency of implementing innovative projects. The projects are selected based on the regulation which sets selection principles, procedures and criteria.

The selected projects are rated based on priority. To do so, the portfolios are optimized by rating the projects based on the numerical values for listed criteria, and additional criteria, such as the scientific and technical level of a new project result, compared with existing analogs and the technical feasibility level (taking into account the implementation period), as well as the competitiveness of project results, implementation difficulties, and the project development stage, etc.



#### The projects are selected in stages:

1 stage

assessment of an application for project implementation, selection of a potential customer



development of the Regulations and Technical Specifications



independent evaluation, consideration of the project by RusHydro's Scientific and Technical Council



approval of the Regulations and Technical Specifications by the Project Council for Innovations



preparation of procurement documents and conducting the procurement procedures

32 projects were selected for implementation in the field of innovative development



# 2012 ORGANIZATIONAL INITIATIVES TO IMPLEMENT THE INNOVATIVE DEVELOPMENT PROGRAM OF JSC RUSHYDRO

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# In 2012, JSC RusHydro was successful in numerous initiatives pertaining to the implementation of an updated mid-term plan for corporate development

#### 1. COORDINATING THE PROSPECTIVE RENEWABLE ENERGY PROCESSES' PROCESS PLATFORM FUNCTIONING, PARTICIPATING IN OTHER ROCESS PLATFORMS

• Developing roadmaps for planning and organizing the development of particular renewable energy processes.

Roadmaps have been developed during the preparation of the Strategic Research Program for scientific and technical priorities of the Process Platform.

• Reworking and approving the Strategic Research Program (SRP) for the Process Platform

The Strategic Research Program (SRP) for the Platform has been developed.

In accordance with the approved SRP platform lifecycle, the General Meeting of the Platform recommended that the Platform Expert Board review the SPR, followed by further approval by the Platform's Management Committee.

• Launching the first wave of innovative projects within the framework of the process platform

The platform's proposals on work and the projects which are advisable for implementation within the framework of the Russian State programs, have been prepared and sent to Russian the Ministry of Industry and Trade.

The platform's proposals (47 topics) for the database of "Research and Development in Development Priorities of Russia's Scientific and Technological Complex for 2007-2013", a Federal Target Program has been developed and sent to the Russian Ministry of Education and Science. On the basis of the proposals the technical specifications for six lots of the Federal Target Innovative Development Program have been formed. • Establishing the Process Platform's web-portal

The Platform's documents and related news are published on the Platform's page at http://www.rushydro.ru/activity/ emerging\_technologies/ and on Facebook at http://www. facebook.com/PTofRES

• Participating in Russian and international Renewable Energy Source (RES) initiatives

Events that were held with the participation of Company specialists included the following:

- Hydro Vision Russia Exhibition and Conference in Moscow (membership in the Steering Committee);
- the 6th Global Water Forum in Marseilles, France (delivering a report);
- the hydro-power sector: new developments and processes, the 7th Scientific and Practical Conference in Saint Petersburg (organization and reporting);
- "Possible areas of cooperation with Russian energy companies and R&D centers with French competition poles in the field of energy saving and energy efficiency, taking into account probable support and financing sources", a business mission of the Russian-French Center for Energy Efficiency (reports).

#### 2. INTERACTING WITH EXTERNAL STAKEHOLDERS

• Developing cooperation with the leading education establishments and research organizations

The Company has signed Strategic Partnership Agreements with the following organizations:

- The Far East Federal University, a federal state autonomous establishment for higher vocational education;
- The Moscow State Construction University, a federal state budgetary establishment for higher vocational education;
- The Saint Petersburg State Polytechnical University, a federal state budgetary establishment for higher vocational education.

As assigned by the Government of the Russian Federation, in 2012, the Company transferred RUR 153.1 million to the Target Capital Fund of the Skolkovo Institute of Science and Technology to finance research and development,which is accomplished by Russian and foreign scientists working within the framework of the Institute's educational and research programs.

• Considering the possibility of establishing joint funds involving development institutions and finance organizations

JSC RusHydro launched the "RusHydro Innovation Belt", a project implemented jointly with CJSC Savings and Investments MC. The project implies using a venture to enable the Company to assess, select and finance projects that are in demand within the Company without spending corporate funds. The project also implies co-financing projects jointly with the corporate Scientific and Technical Development Fund of JSC RusHydro.

• Establishing a system that involves research and educational organizations' experts and specialists in the search, selection and assessment of innovative proposals.

The Company has signed a contract with the Far East Federal University to provide for research and technical support for the project to develop a self-propelled unit for underwater construction and bottom dredging. Pursuant to the contract, a University work group assessed the results of the project's first stage. University specialists developed meaningful recommendations that upgraded the quality of the results for JSC RusHydro.

The Company negotiated with the All-Russian Electrotechnical Institute to perform similar functions in regard to high voltage equipment.

#### JSC RAO ES OF THE EAST

During the reporting year, JSC RAO ES of the East (hereinafter referred to as the Holding) implemented initiatives according to the Innovative Development Program (which was approved by the Board of Directors in 2011), and was updated with results of program implementation during 2011 and during the first half of 2012. The main mid-term goal is to form research and technical potential for development based on innovative technologies. The Holding's key innovation priorities include mastering new technologies and management innovations.

Key 2012 innovative projects of the Holding include:

- implementation of innovative technologies during the construction of the Yakutskaya SDPP-2 (1st phase);
- reconstruction of the Vladivostokskaya CHP-2 involving switching over to the burning of natural gas (with the implementation of innovative technologies and solutions in regard to fuel preparation and feeding);

- the development and implementation of a high-technology burning installation of a power boiler for burning natural gas;
- construction of the 550 kW wind power plant on Bering Island;
- development of automated control systems for wind-diesel complexes.

#### INITIATIVES TO IMPLEMENT THE 2012 INNOVATIVE DEVELOPMENT PROGRAM OF JSC RAO ES OF THE EAST

Initiatives implemented by JSC RAO ES of the East in 2012 pursuant to the updated mid-term innovative development plan include the following:

#### 1. ESTABLISHING THE INNOVATIVE DEVELOPMENT MANAGEMENT SYSTEM

• Updating innovative development priorities

The Management Board of JSC RAO ES of the East has developed and approved the Innovative Development Concept (hereinafter referred to as the Concept).

• Updating the Innovative Development Program

The Holding's Innovative Development Program has been updated in accordance with the approved Concept, involving the adjustment of the action plan, and the calculation of values for the Program's target indicators. The updated Program has been sent to industry ministries for reconciliation.

#### 2. ESTABLISHING A KNOWLEDGE MANAGEMENT SYSTEM IN REGARDS TO NEW TECHNOLOGIES, TECHNICAL INNOVATIONS, CONTROL METHODS AND BUSINESS IDEAS

• Forming a management system for research and advanced development activities

The Holding has developed and approved a Policy for the Organization and Accomplishment of R&D Activities for JSC RAO ES of the East, its SDCs and auxilary dependent companies.

\* Since the Innovative Development Programs of JSC RusHydro and JSC RAO ES of the East were not integrated till 2012, we provide information separately.

• Establishing and organizing the activities of the Scientific and Technical Council

The Holding has developed and approved a Policy on the Scientific and Technical Council of JSC RAO ES of the East and a Regulation for organizing their activities.

#### 3. PARTICIPATING IN PROCESS PLATFORMS

• Planning

The Holding has developed and approved a plan for the participation of JSC RAO ES of the East in process platforms. The plan was implemented throughout 2012.

• Formulating suggestions

The Holding has formulated suggestions on organizing the operation of process platforms and implementing particular projects.

# 4. INTERACTING WITH EXTERNAL STAKEHOLDERS

• Developing cooperation with leading higher education establishments and research organizations;

To complement cooperation agreements concluded at the start of 2012, the Holding entered into cooperation agreements with the following organizations:

- The Higher School of Economics (the National Research University);
- The Far East Federal University, a federal State autonomous establishment for higher vocational education;
- The Siberian State Geodetic Academy, a federal State budgetary education establishment.
- Establishing a system to involve experts from research and educational organizations, as well as specialists in the search, selection and assessment of innovative proposals;

Membership in the Holding's Scientific and Technical Council includes representatives of major higher education establishments and research organizations (which make up half of the members of the Council presidium).

The Holding has an established practice of on-going consulting activities, involving specialists from major higher education establishments and research organizations of the Russian Academy of Sciences (RAS).

#### 5. DEVELOPING A SYSTEM TO MANAGE ENERGY SAVING AND TO UPGRADE ENERGY EFFICIENCY

• Forming a system to manage energy saving

The Holding has developed and approved a Procedure for the Formation, Reconciliation, Approval and Implementation of Programs in the Field of Energy Saving and Energy Efficiency Improvements.

# 5.5 2013 INNOVATIVE DEVELOPMENT PLANS



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#### JSC RusHydro

Implementing projects with the participation of international research institutes (MIT, EPRI) and innovative companies;

Integrating RusHydro Group's project search system with the StartBase trading platform (developed by RosNano);

Completing the establishment of the corporate venture fund;

Establishing the non-commercial partnership Renewable Energy Prospective Processes;

Participating in the activities of Russian clusters;

The integration of the innovative development systems of JSC RusHydro and JSC RAO ES of the East, including innovative development programs of the same.

#### JSC RAO ES of the East

Increasing the R&D financing, including R&D performed by educational establishments;

Upgrading the innovative development management system, including legal and methodical provisions;

Searching for and selecting innovative ideas to achieve the Holding's target indicators, and launching the most efficient innovative development projects;

Forming a community of experts (including external ones) to assess innovative projects;

Expanding cooperation with development institutions and State authorities in the field of innovation;

Proceeding with the encouragement of governmental and private investments in research and development, and assisting in the development of norms, regulations and standards that enable the design, construction and operation of generating and grid facilities based on new technologies.







# CHAPTER 6 Financial Performance

- 6.1 Assets, Equity and Liabilities
- 6.2 Financial Highlights
- 6.3 2012 Financial Performance Compared with 2011
- 6.4 Cash Flows

This section is prepared based on the consolidated financial statements of RusHydro Group (hereinafter "the Group") in accordance with International Financial Reporting Standards (IFRS)

The Group's reported data include 2011 financial results of the retail companies (JSC Altayenergosbyt, JSC Mosenergosbyt and its subsidiaries, JSC Saratovenergo, JSC Tambov Energy Sales Company, JSC United Energy Sales Company) prior to the date of disposal — March 28th, 2011, when these companies were transferred as a contribution to the share capital of JSC INTER RAO UES.

ξ Hydra — a yellow giant, exceeding our Sun 10 times in size, 60 times in uminosity and 3 times in stellar mass Open the chapter online



Comparable total revenues grew 16.1 percent to RUR 305,761 mln. Comparable EBITDA rose 10.1 percent to RUR 62,966 mln

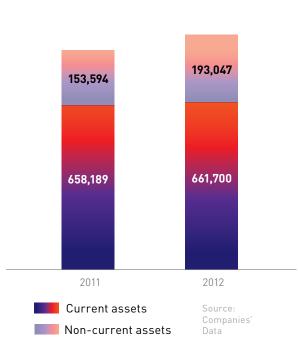


# ASSETS, EQUITY AND LIABILITIES



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RUR million	2011	2012
Total assets	811,783	854,747
Non-current assets	658,189	661,700
Current assets	153,594	193,047
including non-current assets classified as held for sale and subsidiary's assets acquired exclusively with a view to resale	28,470	30,351
Total equity and liabilities	811,783	854,747
Total equity	525,659	538,395
Non-current liabilities	159,965	120,986
Current liabilities	126,159	195,366
including liabilities of subsidiary acquired exclusively with a view to resale	13,093	16,394



STRUCTURE OF ASSETS, RUR MILLION

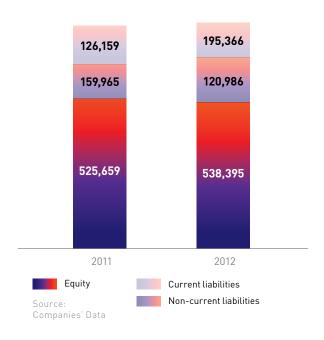
As of December 31st, 2012, the Group's assets increased to RUR 854,747 mln

# In 2012, total assets growth was 5.3%

As of December 31st, 2012, the Group's assets increased by RUR 42,964 million from December 31st, 2011 to RUR 854,747 million. The increase in assets was primarily due to an increase in property, plant and equipment and the Group's assets under construction (mainly the Sayano-Shushenskaya HPP and the Zagorskaya PSPP-2), as well as from receipt of funds in the sum of RUR 50 billion, which were obtained as a result of placing the additional share issue.

The main component of the Group's assets is property, plant and equipment (70.7 percent of total assets or RUR 604,461 million); the share in the structure of assets remained almost flat compared with 2011 (an increase of 0.7 percent).

As of December 31st, 2012, equity comprised 63.0 percent of total equity and liabilities. The Group's equity at the end of 2012 amounted to RUR 538,395 million compared with RUR 525,659 million as of January 1st, 2012.



As of December 31st, 2012, total liabilities amounted to RUR 316,352 million, an increase of 10.6 percent compared with the beginning of the reporting period. The increase in liabilities was primarily due to borrowings from JSC Sberbank of Russia, the European Bank for Reconstruction and Development, JSC Bank of Moscow and UniCredit Bank Austria AG. The current liabilities increased RUR 69,207 million, or 54.9 percent, and non-current liabilities decreased RUR 38,979 million, or 24.4 percent.

The total liabilities to net assets ratio increased from 54.4 percent as of December 31st, 2011 to 58.8 percent as of December 31st, 2012.

In 2012, the structure of accounts receivable did not change significantly. Overall, the Group's accounts receivable decreased RUR 359 million, or 0.7 percent, compared with 2011.

#### STRUCTURE OF ACCOUNTS RECEIVABLE, RUR MILLION



For the reporting period, accounts payable and accruals increased RUR 6,141 million and stood at RUR 46,171 million as of the end of 2012.

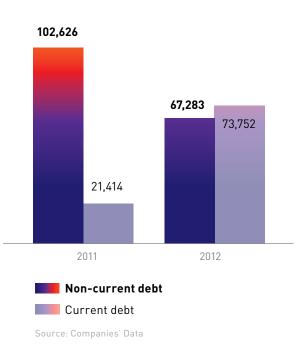
STRUCTURE OF ACCOUNTS PAYABLE AND ACCRUALS, RUR MILLION

	As of 31.12.2011	As of 31.12.2012
Trade payables	22,375	29,739
Advances received	6,101	7,606
Settlements with personnel	5,562	6,317
Dividends payable	54	77
Other accounts payable	5,938	2,432
Total accounts payable and accruals	40,030	46,171

Source: Companies' Data

Changing in "other accounts payable" is due to the fact that as of December 31st, 2011 commitments to the Russian Federation represented by the Federal Agency for State Property Management related to the additional share issue of Group's subsidiaries — JSC Ust-Srednekanskaya HPP (RUR 2,649 million) and JSC RAO ES of the East (RUR 748 million) were included in this item. Issue results were registered on April 26th, 2012 and on February 7th, 2012, respectively.

NON-CURRENT AND CURRENT DEBT, RUR MILLION



During 2012 the sum of long-term loans and borrowings decreased by RUR 35,341 mln During 2012, short-term loans and borrowings increased RUR 52,338 million, and the sum of long-term loans and borrowings decreased by RUR 35,341 million, respectively.

As of December 31st, 2012, the main creditors were:

- JSC Sberbank of Russia (in 2012, RUR 16,480 million were attracted under the loan agreement with a limit of RUR 40,000 million);
- Holders of Eurobonds issued by RusHydro Finance Ltd;
- Holders of Russian bonds issued by the Company;
- JSC Rosbank;
- JSC Bank of Moscow;
- JSC Gazprombank;
- Holders of unsecured bonds issued by JSC Yakutskenergo;
- The European Bank for Reconstruction and Development (in December 2012, the Company received RUR 8,000 million under a loan agreement signed in December 2011. The funds were used to re-pay the short-term borrowings of JSC DGC);
- EM Falcon Ltd (Morgan Stanley Bank International Ltd);
- UniCredit Bank Austria AG;
- The municipal authority of the Kamchatka Region (loan to fund the construction of the Upper Mutnovskoy GeoPP);
- CF Structed Products B.V. (loan to fund the construction of the Kashkhatau HPP).



# The Group's revenue in 2012 RUR 305,761 mln

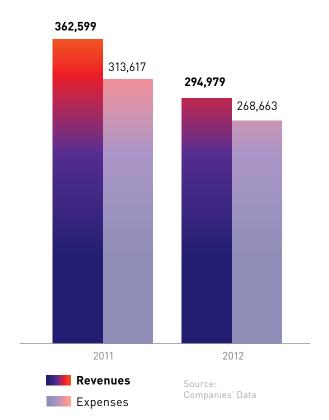
In 2012, the Group's total revenue decreased 17.7 percent to RUR 305,761 million compared with RUR 371,696 million in 2011.

In 2012, several companies of the Group were entitled to government subsidies for the cancellation of crosssubsidization in electricity tariffs, to compensate for the difference between approved economically viable electricity and heat tariffs and actual reduced tariffs and for compensation for losses on purchased fuel. In 2012, the Group received government subsidies in the amount of RUR 10,782 million (compared with RUR 9,097 million for the year ended December 31st, 2011) in the following subsidized territories: the Kamchatsk Region, the Sakha Republic (Yakutia), the Magadan Region and other Far Eastern regions.

In 2012, the Group's revenue from operating activities decreased RUR 67,620 million or 18.6 percent to RUR 294,979 million, compared with 2011. Expenses from operating activities decreased 14.3 percent to RUR 268,663 million compared with RUR 313,617 million in 2011.

The decrease in revenue and expenses in 2012 y-o-y is primarily due to the disposal of retail companies in late March 2011 and the cancellation of the target investment component (TIC) in HPP's tariffs from 2012.

Expenses from operating activities decreased REVENUE AND EXPENSES FROM OPERATING ACTIVITIES, RUR MILLION

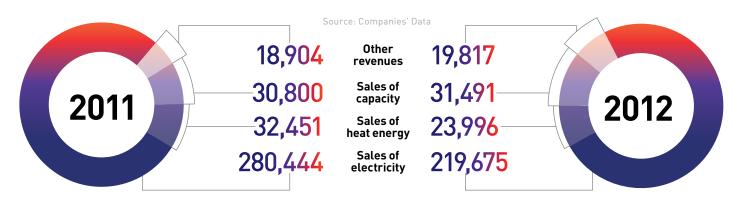


In 2012, the structure of revenues from operating activities did not significantly change.

Revenue from the sales of electricity was 74.5 percent of total revenues. Capacity sales decreased RUR 8,455 million compared with 2011. In 2012, the sales of heat energy and other revenues increased slightly compared with 2011.

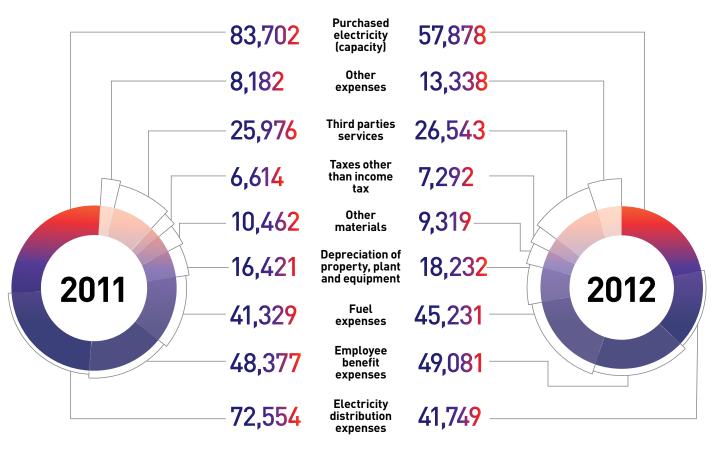
14.3%

#### REVENUE STRUCTURE, RUR MILLION



In 2012, expenses decreased RUR 44,954 million. This decrease was primarily due to decreased costs for purchasing electricity and capacity, as well as costs for electricity distribution. These expenses decreased RUR 25,824 million and RUR 30,805 million, respectively.

#### EXPENSES STRUCTURE, RUR MILLION



Source: Companies' Data

In 2012, taxes, the cost of fuel and depreciation increased 10.3 percent, 9.4 percent and 11.0 percent, respectively.

As a result, in 2012, the Group's net loss was RUR 25,539 million against a net profit of RUR 29,493 million in 2011. Net loss for the reporting period is mainly due to reflecting the following non-cash transactions (before income tax):

- recognition of impairment loss on the Group's property, plant and equipment in the amount of RUR 19,332 million;
- recognition of impairment loss on property, plant and equipment of the Krasnoyarskaya HPP and on investments in JSC Krasnoyarskaya HPP in the total amount of RUR 13,275 million;
- recognition of impairment loss on LLC Energy Finance's promissory notes in the amount of RUR 9,363 million;

Adjusted net income

- recognition of impairment loss on shares of JSC INTER RAO UES in the amount of RUR 8,041 million due to a significant and prolonged decline in their prices;
- recognition of impairment loss on accounts receivable in the amount of RUR 5,781 million due to an analysis of outstanding accounts receivable and the assessment of the probability of re-payment;
- recognition of loss in the amount of RUR 3,669 million on a decrease in the net assets of OJSC DRSK, classified as discontinuing operations, to fair value less costs to sell;
- recognition of impairment loss on goodwill in the amount of RUR 2,084 million, recognized at the date of the acquisition of a 100-percent interest in LLC ESC Bashkortostan (Energy Supply Company of Bashkortostan) in 2011 and its customer base in the amount of RUR 891 million.

Adjusted net income<sup>2</sup> in 2012 totaled RUR 31,783 million, which is RUR 14,071 million less than in 2011.

# in 2012 totaled RUR 31,783 mln

PROFIL MARGIN, RUR MILLIUN		
	2011	2012
Operating profit/(loss)	51,866	(2,482)
Profit before income tax/(loss)	43,712	(18,058)
Profit for the period/(loss)	29,493	(25,539)
Earnings per share, rubles/(loss)	0,1146	(0,0759)

<sup>2</sup> Adjusted for the effects of the impairment of property, plant and equipment, available-for-sale financial assets, investments in dependent companies, long-term promissory notes, goodwill and intangible assets as well as for the effects of the recognition of impairment loss on accounts receivable, loss on the disposal of property, plant and equipment and loss on the decrease in net assets of JSC FEDC at fair value less costs to sell.



## 2012 FINANCIAL PERFORMANCE COMPARED WITH 2011



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Financial results calculated net of cash received by the Company in 2011 within the target investment component included in the capacity prices of HPPs, as well as net of the financial results of several energy retail companies reported in the financial statements prior to the disposal date — March 28th, 2011 when these companies were transferred as a contribution to the share capital of JSC INTER RAO UES. The above-mentioned results are calculated on the basis of management accounts, not revised by the Company's auditor and provided for information purposes only.

Comparable total revenues grew 16.1 percent from RUR 263,401 million to RUR 305,761 million. This change is due to the following:

- The increase in revenue from the sales of electricity in connection with the acquisition of a 100-percent interest in LLC ESC Bashkortostan (Energy Supply Company of Bashkortostan) on September 12th, 2011; the financial results were included in the Group's statements from the acquisition date;
- The increase in electricity output and higher electricity prices on the day-ahead market in 2012.

The comparable operating expenses rose 18.6 percent from RUR 226,448 million to RUR 268,663 million. The growth of this indicator is explained by the following factors:

- increased electricity purchase costs and electricity distribution costs in the sales segment of the Group in connection with the acquisition of LLC ESKB as well as increased prices for purchasing energy in Q3 due to the growth in free electricity prices in H2 2012;
- increased costs of fuel used by thermal generation facilities of JSC RAO ES of the East to generate electricity and heat in connection with the increase in fuel oil consumption due to gas supply interruptions with the simultaneous increase in electricity generation and heat output;
- accrued impairment loss on accounts receivable due to an analysis of outstanding accounts receivable and assessing the probability of re-payment.

#### 2012 FINANCIAL PERFORMANCE, RUR MILLION

	2011	2012
Total revenue	263,401	305,761
Expenses	(226,448)	(268,663)
EBITDA	57,201	62,966
Adjusted profit	27,830	31,783

EBITDA (calculated as operating profit excl. depreciation and non-monetary items of operating expenses) in the reporting period decreased 18.2 percent and stood at RUR 62,966 million against RUR 76,972 million for the previous year. The decline in EBITDA is due to restructuring of the Group, as well as the cancellation of the target investment component (TIC) in the HPPs' 2012 tariffs.

#### EBITDA in the reporting period stood at



Comparable EBITDA rose by 10.1 percent due to the increase in electricity output, electricity prices on the "day-ahead" market in 2012 and the amount of subsidies for the Holding RAO ES of the East.

Comparable adjusted profit grew 14.2 percent due to the increase in the sales of electricity in unregulated market sectors.



#### CASH FLOWS, RUR MILLION

	2011	2012
Cash flows from operating activities	64,669	59,666
Cash flows used in investing activities	(80,965)	(120,740)
Cash flows from financing activities	35,168	53,576
Increase (decrease) in cash and cash equivalents	18,949	(7,557)

In 2012, cash flow from operating activities decreased RUR 5,003 million and amounted to RUR 59,666 million compared with RUR 64,669 million in 2011.

Cash flows used in investing activities increased RUR 39,775 million and amounted to RUR 120,740 million, mainly due to the growth in deposits and other financial investments.

Cash flows received from the Group's financial activities increased 52.3 percent from RUR 35,168 million to RUR 53,576 million. In 2012, revenue received from the issuance of additional shares was the main growth factor.

As a result, in 2012, decrease in cash and cash equivalents amounted to RUR 7,557 million, which was associated with an increase in the investment costs and a decline in cash flows from operating activities.

As of December 31st, 2012, the cash and cash equivalents amounted to RUR 39,857 million compared with RUR 47,414 million as of December 31st, 2011, which is sufficient for the Group's financial and economic activities.

# CHAPTER 7 Corporate Governance

- 7.1 Corporate Governance Principles
- 7.2 Management and Control Bodies
- 7.3 The Company's Internal and External Audit System
- 7.4 Remuneration due to Management and Control Bodies
- 7.5 Managing Subsidiary and Dependent Companies

B is a binary star in the Hydra constellation. Its total visual magnitude varies with a 0.04 period of 2,344 days, and its overall magnitude reaches 4.27





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According to the voting results of Thomson Reuters Extel Europe 2012, JSC RusHydro was named the Best IR Relations Company among Russian and CIS companies. The Expert RA Rating Agency confirmed JSC RusHydro's National Corporate Governance Rating at 7+ 7+

CORPORATE GOVERNANCE PRINCIPLES



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# National Corporate Governance Rating

JSC RusHydro pays significant attention to upgrading the corporate governance system, as the existence of an effective and wellestablished corporate governance system is critical to enhancing corporate capital value, boosting goodwill towards the Company and reducing investment risks for stakeholders.

The Company's corporate governance system is based on internationally-recognized principles set forth in the Company's Corporate Governance Code, meaning: accountability, transparency, good faith and fairness. From December 2011 to February 2013, based on monitoring results, the Consortium of the Russian Institute of Directors and the Expert RA Rating Agency confirmed JSC RusHydro's National Corporate Governance Rating at 7+, evaluating it as a company with well-developed corporate governance practices.

The Company's corporate governance risks are low, because the Company adheres to the requirements of corresponding Russian Law and acts in accordance with the majority of recommendations within the Russian Corporate Conduct Code, as well as international best corporate governance practices, including requirements set for companies listed on the London Stock Exchange.

#### 2012 Changes in the Company's corporate governance practices

The new version of the Company's Corporate Code of Conduct was approved in May 2012, taking into account provisions of the Federal Law of the Russian Federation "On Fighting Corruption".

The Code sets for th a definition of conflicts of interests for employees and members of the Board of Directors. The Code also stipulates an obligation for members of the Board of Directors to notify the Company on an annual basis of his/her affiliation. The changes and additions to the Dividend Policy were approved in June 2012, concerning the procedures for dividend payments. Detailed became the measures related to the payment of dividends and the collection of documents on tax benefits. A new version of the Insider Policy was approved in August 2012, which now complies with applicable changes in Russian Law. A Social Responsibility and Corporate Sustainability Report prepared in 2012 based on 2011 results complies with the B-level of applications for the Global Reporting Initiative. In 2012, the Company underwent

the procedure for the public certification of a non-financial report for the first time.

#### SHAREHOLDER AND INVESTOR RELATIONS

JSC RusHydro's shareholders include more than 360,000 Russian and foreign investors. The key principle of the Company's shareholder and investor relations lies in providing on-going access to information related to the main aspects of corporate activities. Information disclosure complies with all Russian legal requirements, Russian and foreign securities market regulators and regulations and the Company's internal regulations, as well as the rules of the relevant stock exchanges where corporate securities are traded.

In 2012, the Company renovated the structure and design of its corporate website. The new version of the website is optimized to meet the needs of today's Internet users. The website was renovated using software that ensures greater website performance, reliability and flexibility, thus, improving the Company's Internet presence.

# JSC RusHydro's shareholders include more than

360,000 investors

The website's home page contains information on the current activities of JSC RusHydro. The home page contains direct links to resolutions of the Board of Directors, as well as information on forthcoming and past general meeting of shareholders and financial statements. The page also contains news updates concerning the Company, as well as for its SDCs.

Corporate website	www.rushydro.ru, www.eng.rushydro.ru
Information disclosure page	http://www.e-disclosure.ru/portal/company.aspx?id=8580
Official print media	Rossiyskaya Gazeta
Hotline telephone number for the shareholders	8 (800) 555-9997
E-mail	rushydro <mark>@rrost.ru</mark>

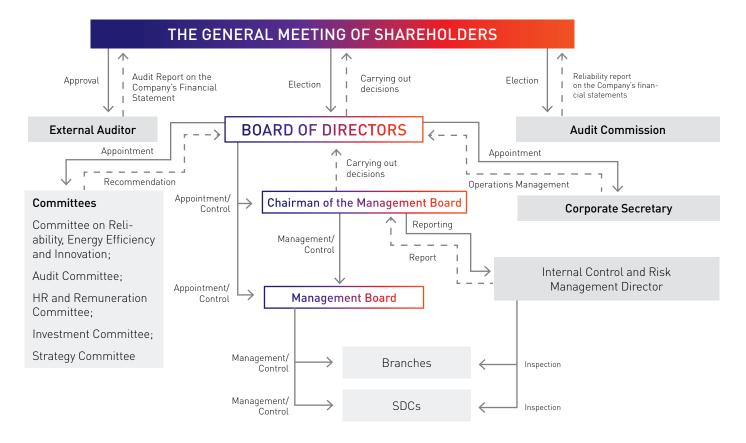
In 2012, the Company disclosed some 170 significant facts pertaining to corporate activities, the decisions of the governing bodies, data on the issue of securities, interested party transactions and information that impacts the price of the Company's securities.

The structural department, known as the IR Department, is responsible for investor relations. The shareholders can make enquiries as to exercising their rights using the hotline telephone number of JSC R.O.S.T. Registrar, the Company's registrar. They can also send enquiries by e-mail. The holders of depository receipts can address their enquiries to the Bank of New York Mellon, or the Company's Corporate Governance Department and IR Department. According to voting results of Thomson Reuters Extel Europe 2012, JSC RusHydro was named the Best IR. Company among Russian and CIS based companies

According to voting results of Thomson Reuters Extel Europe 2012, JSC RusHydro was named the Best IR Relations Company among Russian and CIS countries base capitalization companies. Evgeny Dod, the Chairman of the Company's Management Board, became one of the leaders in "The Best IR Practices Among Company Leaders" (second in the rating). Head of the Company's IR Department was named the Best IR Specialist in Russia and CIS countries. JSC RusHydro once more was first among electric power sector companies in the IR quality rating. This is the second time in a row that the Company won this prestigious award.



#### ORGANIZATIONAL STRUCTURE OF THE COMPANY'S MANAGEMENT AND CONTROL BODIES



#### **GENERAL MEETING OF SHAREHOLDERS**

The General Meeting of Shareholders is the Company's highest management body; the competency of the General Meeting of Shareholders is defined by the Russian Federal Law on Joint Stock Companies, as well as by RusHydro's Articles of Association. The procedure for preparing and convening the meeting and the shareholders' decision-making process is set forth in the Regulations on Convening and Holding the Company's General Meeting of Shareholders.

A decision to convene the General Meeting of Shareholders is made by the Company's Board of Directors at its own initiative or at the request of the Audit Commission, the Auditor or by shareholder(s) owning at least ten percent of the Company's voting shares as of the date of said request.

Shareholders shall be given notice of the General Meeting at least 30 days prior to the date of the General Meeting; and if the agenda of an Extraordinary General Meeting includes items on electing members of the Company's Board of Directors, such notice shall be given at least 70 days prior to said General Meeting.

The right to participate in voting on agenda issues at the General Meeting of Shareholders is one of the key rights of shareholders, which can be exercised either by voting in person at the Meeting, or by mailing ballots.

Concerning issues related to exercising the rights of depository receipt holders, pertaining to their participation in voting on agenda issues for the General Meeting of Shareholders, JSC RusHydro interacts with the Bank of New York Mellon, the depository bank of record, as well as with JSC ING BANK (EURASIA), the custodian.

In 2012, the Company held one annual and one extraordinary meeting of shareholders.

#### THE BOARD OF DIRECTORS

The Board of Directors is a collegial body responsible for general corporate management. The Board of Directors develops JSC RusHydro's strategy and controls its executive bodies to protect the rights and lawful interests of the Company's shareholders.

Members of the Board of Directors are elected by a cumulative vote at the General Meeting of Shareholders for the period till the next annual General Meeting of Shareholders. Members may be re-elected an unlimited number of times. The right to propose a candidate for the Board of Directors belongs to shareholders that own at least two percent of the Company's voting shares in total. The Board of Directors operates in accordance with Russian laws, the Articles of Association, the Corporate Governance Code and Regulations on Convening and Holding Meetings of the Company's Board of Directors.

JSC RusHydro's Articles of Association stipulate that the following issues fall under the exclusive competence of the Company's Board of Directors: defining priority business areas, approving long-term corporate development programs, including the approval of the Investment Program and the approval (update) of the Company's key performance indicators (KPIs) and the business plan.

Changes in the composition of the Company's Board of Directors result from requirements on the mandatory election of the Company's Board of Directors at the annual General Meeting of Shareholders.

Members of the Board of Directors in office till June 29th, 2012:

- Tatsiy Vladimir Vitalyevich (Chairman)
- Danilov-Danilyan Viktor Ivanovich (Deputy Chairman)
- Dod Evgeny Vyacheslavovich
- Beloborodov Sergey Sergeevich
- Zimin Viktor Mikhailovich
- Kovalchuk Boris Yurievich
- Kudryavy Viktor Vasilievich
- Kurtser Grigory Markovich
- Lebedev Viktor Yurievich
- Malyshev Andrey Borisovich
- Poluboyarinov Mikhail Igorevich
- Sharipov Rashid Ravelyevich
- Shishin Sergey Vladimirovich

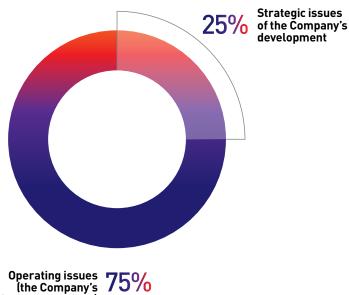
Members of the Board of Directors in office after June 29th, 2012:

- Tatsiy Vladimir Vitalyevich (Chairman)
- Danilov-Danilyan Viktor Ivanovich (Deputy Chairman)
- Dod Evgeny Vyacheslavovich
- Ayuev Boris Ilyich
- Zimin Viktor Mikhailovich
- Kovalchuk Boris Yurievich
- Kurtser Grigory Markovich
- Malyshev Andrey Borisovich
- Poluboyarinov Mikhail Igorevich
- Tugolukov Evgeny Aleksandrovich
- Sharipov Rashid Ravelyevich
- Shelkov Mikhail Evgenievich
- Shishin Sergey Vladimirovich

The Board of Directors holds regular meetings at least once per month in accordance with the approved Action Plan. In 2012, the Board held 28 meetings, with 2 being held in person. More than 100 issues were reviewed at the meetings. STRUCTURE OF ISSUES REVIEWED AT MEETINGS OF THE BOARD OF DIRECTORS IN 2012

#### In 2012, the Board held 28 meetings. More than 100 issues were reviewed at the meetings

The Board of Directors consists of six independent directors, which are defined as independent in accordance with the Code of Corporate Conduct.



#### **MEMBERS OF THE BOARD OF DIRECTORS**

#### TATSIY Vladimir Vitalyevich

Position	Chairman of the Board of Directors of JSC RusHydro,
	Vice President of JSC Gazprombank
Status as a member of the Board of Directors	Non-executive Director
Year of Birth	1960
Citizenship	Russian
Education	The Moscow Power Engineering Institute, cryo-physics engineering (1984). Post-graduate studies at the World Economy and International Relationships Institute (IMEMO) of the Russian Academy of Sciences, Ph.D. in Economics (2011)
Curriculum Vitae	Vice President of JSC Gazprombank, Head of Gazprombank (CJSC) Depository Center, First Vice President, Head of the Depository Center (2003). First Vice President of Gazprombank (JSC) (2009)
	Current positions include: member of the Board of Directors of CJSC Regional Investment Company, JSC IDGC Holding, CJSC CFR, Chairman of the Board of Directors of CJSC Clearing and Depository Company, CJSC Saint Petersburg International Commodity Exchange, JSC ATS, JSC Tumenenergo, Chairman of the Supervisory Board of the National Clearing Depository (a Non-Commercial Organization), member of the Board of Trustees of the Moscow Power Engineering Institute (Technical University)
Ownership of Company shares	Owns no Company shares

continuing operations)

#### DANILOV-DANILYAN Viktor Ivanovich

Position	Deputy Chairman of the Board of Directors of JSC RusHydro,
	Director and the Chairman of the Academic Board of the Institute for Aquatic Issues of the Russian Academy of Sciences (RAS)
Status as a member of the Board of Directors	Independent Director
Year of birth	1938
Citizenship	Russian
Education	Moscow State University (named after M.V. Lomonosov), the Mechanical- Mathematical Department (1960), Ph.D. in Economics, Professor, Associate Member of the Russian Academy of Sciences (RAS)
Curriculum Vitae	Director and the Chairman of the Academic Board of the Institute for Aquatic Issues of the Russian Academy of Sciences (2003); Head of the Chair of Environmental Sciences and the Management of Water Resources and member of the Academic Board of the Russian University of People's Friendship (2005); Editor-in-Chief of the Encyclopedia Publishing House (2007); Head of the Chair of Natural Resources Management and member of the Academic Council of Moscow State University (named after M.V. Lomonosov) (2009)
	Currently holds the position of the Chairman of the Board of Directors of the Sustainable Development Fund
Ownership of Company shares	Owns no Company shares

#### DOD Evgeny Vyacheslavovich

Position	Member of the Board of Directors, Chairman of the Management Board of JSC RusHydro
Status as a member of the Board of Directors	Executive Director
Year of birth	1973
Citizenship	Russian
Education	Moscow Aviation Institute (the State Technical University), Machine-tool Facilities Management and Economics (1995)
Curriculum Vitae	General Manager of CJSC INTER RAO UES (2000 — 2008); Chairman of the Management Board of JSC INTER RAO UES (2008 — 2010); Chairman of the Management Board of JSC RusHydro (2009)
	Current positions include: Chairman of the Board of Directors of JSC RAO ES of the East, member of the Board of Directors of JSC ATS, JSC SO UES, member of the Supervisory Board of JSC VBRR, the Russian Hydro-power Non-Commercial Partnership, member of the Management Board of the All-Russian Association of Employers "Russian Union of Industrialists and Entrepreneurs" and RSPP LLC, member of the Board of Managers of MCUER Autonomous Non-Commercial Association, member of the Russian National Committee of the World Energy Council
Ownership of Company shares	0.116083%

#### **AYUEV Boris Ilyich**

Position	Member of the Roard of Directors of ISC Duckludre member	
Position	Member of the Board of Directors of JSC RusHydro, member of the Management Board and the Board of Directors of JSC SO UES	
Status as a member of the Board of Directors	Non-executive Director	
Year of birth	1957	
Citizenship	Russian	
Education	The Urals Polytechnical Institute, electric power stations (1979)	
Curriculum Vitae	Member of the Management Board of JSC RAO UES of Russia (2004-2008), Chairman of the Management Board and member of the Board of Directors of JSC SO UES.	
	Current positions include: member of the Board of Directors of JSC FGC UES, JSC ATS, JSC CFR, and the Chairman of RNK SIGRE Non-Commercial Partnership	
Ownership of Company shares	0.009757%	
Information on the ownership of SDC shares	JSC RAO ES of the East, share owned in the organization's share capital: 0.019754%, share of the organization's ordinary shares owned: 0.019753%	

#### ZIMIN Viktor Mikhailovich

Position	Member of the Board of Directors of JSC RusHydro,
	Head and Chairman of the Government of the Republic of Khakassia
Status as a member of the Board of Directors	Non-executive Director
Year of birth	1962
Citizenship	Russian
Education	The Tomsk State Architectural and Construction University, motor car engineering (2007)
Curriculum Vitae	Deputy Head and Head of the Construction Department for newly constructed facilities of the Abakan Branch of the Krasnoyarsk Railways, a branch of JSC Russian Railways (2004-2007); member of Parliament (2007-2009) and member of the State Duma Committee on Agriculture; Head and the Chairman of the Government of the Republic of Khakassia (2009)
Ownership of Company shares	Owns no Company shares

#### KOVALCHUK Boris Yurievich

Position	Member of the Board of Directors of JSC RusHydro, Chairman of the Management Board and member of the Board of Directors of JSC INTER RAO UES
Status as a member of the Board of Directors	Non-executive Director
Year of birth	1977
Citizenship	Russian
Education	Saint Petersburg State University, law major (1999)
Curriculum Vitae	Assistant to Medvedev D.A., First Deputy Prime Minister of the Government of the Russian Federation (2006 — 2009), Director of the Department for Priority National Projects of the Government of the Russian Federation, Deputy General Manager for Organizational Development of Rosatom State Nuclear Energy Corporation (2009), Acting Chairman of the Management Board and member of the Board of Directors of JSC INTER RAO UES (2009) Chairman of the Management Board of JSC INTER RAO UES 2010
	Current positions include: Chairman of the Board of Directors of CJSC Kambarat- inskaya HPP, InterRAO-WarleyParsons LLC, JSC United Power Supply Company, JSC Mosenergosbyt, member of the Board of Directors of JSC FGC UES, JSC Irkutskenergo, JSC Petersburg Power Supply Company, JSC CFR, member of the Management Board of the Association of Employers "The Russian Union of Industrialists and Entrepreneurs", RSPP LLC, and member of the Supervisory Board of JSC VBRR
Ownership of Company shares	Owns no Company shares

#### KURTSER Grigory Markovich

Position	Member of the Board of Directors of JSC RusHydro, Advisor to the Vice President, Head of the Security Service of JSC Rosneft Oil Company on security (dealing with troubled assets)
Status as a member of the Board of Directors	Independent Director
Year of birth	1980
Citizenship	Russian
Education	The Financial Academy attached to the Government of the Russian Federation, a finance and credit major, securities market specialist (2003)
Curriculum Vitae	Head of the Treasury Resource Management Department, Deputy Head of the Treasury, Head of the Resource Management Department of the Financial Department of JSC VTB (2007-2009), President, Director, Chairman of the Management Board and member of the Supervisory Board of JSC All-Russian Bank of Regional Development (2010-2012), Advisor to the Vice President, the Head of the Security Service (on dealing with troubled assets) of JSC Rosneft Oil Company (2012)
	Current positions include: Chairman of the Board of Directors of JSC INTER RAO UES, member of the Board of Directors of CJSC RDK, JSC Trust National Bank, RUSENERGO FUND LIMITED, member of the Supervisory Board of JSC Far East Bank.
Ownership of Company shares	Owns no Company shares

#### MALYSHEV Andrey Borisovich

Member of the Board of Directors of JSC RusHydro, President and Deputy Chairman of the Board of Directors of JSC Group E4Independent Director1959RussianThe Moscow Power Engineering Institute, majoring in the automation of hydro-power processes (1982), Ph.D. in Sociology and TechnicsDeputy Head of the Federal Atomic Energy Agency (2006 – 2007), member of the Management Board, Deputy General Director of the Russian
1959 Russian The Moscow Power Engineering Institute, majoring in the automation of hydro-power processes (1982), Ph.D. in Sociology and Technics Deputy Head of the Federal Atomic Energy Agency (2006 – 2007), member of the Management Board, Deputy General Director of the Russian
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of hydro-power processes (1982), Ph.D. in Sociology and Technics Deputy Head of the Federal Atomic Energy Agency (2006 — 2007), member of the Management Board, Deputy General Director of the Russian
of the Management Board, Deputy General Director of the Russian
Nanotechnologies State Corporation (formerly known as Rosnanotech State Corporation) (2007-2011), President and Deputy Chairman of the Board of Directors of JSC Group E4 (2012)
Current positions include: Chairman of the Board of Directors of JSC Prepreg-SKM, SITRONICS-Nano Ltd, Lithium-Ion Technologies Ltd, NTFarma Ltd, CJSC Plakart, SeaBio Ltd, NPP NANOELECTRO Ltd, PAT-Technology Ltd, Deputy Chairman of the Board of Directors of CJSC TREKPOR TECHNOLOGY, RosnanoMedInvest Ltd, member of the Board of Directors of JSC FGC UES, CJSC HK Composite, CJSC Optical Fiber Systems, Hematologic Corporation Ltd, CJSC Novomet Perm and JSC Ruspolymet
Owns no Company shares

#### POLUBOYARINOV Mikhail Igorevich

Position	Member of the Board of Directors of JSC RusHydro, member of the Management Board, First Deputy Chairman of Vneshekonombank State Corporation
Status as a member of the Board of Directors	Independent Director
Year of birth	1966
Citizenship	Russian
Education	The Moscow Financial Institute (the Financial Academy attached to the Government of the Russian Federation), crediting and economics department (1988), post-graduate studies at the Academy of People's Economy (named after G.V. Plekhanov) (1998), Ph.D. in Economics
Curriculum Vitae	Deputy General Director of JSC Aeroflot — Russian Airlines (2003 — 2009), various positions in Vneshekonombank State Corporation (2009), including: Director of the Infrastructure Department (2009-2011), Deputy Chairman (2011) and member of the Management Board (2012), First Deputy Chairman of Vneshekonombank State Corporation (2012)
	Current positions include: member of the Board of Directors of JSC North Caucasus Health Resorts, CJSC Leader, and JSC Sovkomflot
Ownership of Company shares	Owns no Company shares

#### TUGOLUKOV Evgeny Aleksandrovich

Member of the Board of Directors of JSC RusHydro, Director of RusSing Holdings Pte. Ltd
Director of RusSing Holdings Pte. Ltd
Non-executive Director
1970
Russian
The Urals State Technical University, majoring in facility management and economics (2000)
President and Chairman of the Board of Directors of JSC EMAliace (2005- 2007), member of the Parliament of the Russian Federation, Chairman of the Parliamentary Committee on Natural Resources, the Use of Natural Resources, and the Environment (2007 — 2011), Director of RusSing Holdings Pte. Ltd (2012)
Owns no Company shares

#### SHARIPOV Rashid Ravelyevich

Position	Member of the Board of Directors of JSC RusHydro, Deputy General Director of KFK-Consult Ltd.
Status as a member of the Board of Directors	Independent Director
Year of birth	1968
Citizenship	Russian
Education	The Moscow State Institute of International Relations, majoring in international relations (1991). The West Californian Law School, Master of Law (1993)
Curriculum Vitae	Deputy General Director of KFK-Consult Ltd (2006)
	Current positions include: member of the Board of Directors of JSC FGC UES, NGK ITERA, JSC SO UES, member of the Supervisory Board of JSC VBRR, member of the Board of NPF OIL GUARANTOR.
Ownership of Company shares	Owns no Company shares

#### SHELKOV Mikhail Evgenievich

Position	Member of the Board of Directors of JSC RusHydro, Deputy General Director of United Investments Ltd.
Status as a member of the Board of Directors	Non-executive Director
Year of birth	1968
Citizenship	Russian
Education	The Moscow Physical Engineering Institute, majoring in plasma physics and chemistry (1991), The International Business and Administration University, majoring in economics, (1997)
Curriculum Vitae	General Director of PROMINVEST Ltd (2001 — 2010), Deputy General Director of JSC United Investments (2010)
	Current positions include: the Chairman of the Board of Directors of PROMINVEST Ltd, Deputy Chairman of the Board of Directors of VSMPO-AVISMA Corporation, member of the Board of Directors of JSC RT-Construction Technologies
Ownership of Company shares	Owns no Company shares

#### SHISHIN Sergey Vladimirovich

Position	Member of the Board of Directors of JSC RusHydro, Senior Vice President of JSC VTB Bank
Status as a member of the Board of Directors	Independent Director
Year of birth	1963
Citizenship	Russian
Education	The Highest Border Guards College of the KGB USSR (1984), the KGB USSR Institute (1990), the Russian Academy of Civil Service attached to the President of the Russian Federation, majoring in stage and municipal management (1999).
Curriculum Vitae	Military Service (1980 — 2007), Senior Vice President of JSC VTB Bank (2007) Deputy Chairman of the Board of Directors of JSC Rosneft Oil Company, member of the Supervisory Board of JSC VBRR
Ownership of Company shares	Owns no Company shares

\* Company shares owned by members of the Board of Directors are represented as of 31.12.2012 as a share in the Company's share capital and as a stake in ordinary shares owned by a member of the Company's Board of Directors. These portions are equal, as the Company has issued only ordinary shares.

#### COMMITTEES OF THE BOARD OF DIRECTORS

# The are 5 Committees of the Board of Directors:

- The Strategy Committee
- The Audit Committee
- The HR and Remuneration Committee
- The Investment Committee
- The Reliability, Energy Efficiency and Innovations Committee

The Committees of the Board of Directors are established to preliminarily review the most critical matters that fall under the competence of the Company's Board of Directors. The Committees must report to the Board of Directors. The Board of Directors is responsible for ensuring regular and efficient cooperation with its Committees. Reports on the Committees' operations are reviewed annually at meetings of the Company's Board of Directors.

The Committees include persons with expertise and knowledge in relevant areas, which enhances the performance and quality of the Board of Directors' activities. The number of members on each Committee is defined to ensure a thorough discussion of addressed issues and to reasonably consider different points-of-view. The Committees acts in accordance with the Regulations on Committees of the Company's Board of Directors.

In accordance with best corporate governance practices, the Audit Committee and the HR and Remuneration Committee shall include only independent directors who are members of the Company's Board of Directors.

The Company has implemented the practice of holding joint committee meetings to ensure a more detailed and efficient review of relevant issues.

#### THE STRATEGY COMMITTEE

The Strategy Committee is responsible for enhancing the Company's long-term performance and developing recommendations on current adjustments in growth strategy.

MEMBERS OF THE COMMITTEE SERVED UNTIL JUNE 29, 2012:

• Andrey Borisovich Malyshev — Chairman of the Committee;

In 2012, the Committee held eleven meetings, including

four meetings that were held jointly with other committees. The meetings resulted in the development of recommendations

for the Company's Board of Directors on the approval of the

2012-2016 Business Plan and on corporate priorities, as

well as on the introduction of changes in the approved list

of corporate KPIs for 2012. The Committee also periodically reviewed reports on the implementation of the Company's

- George Ilich Rizhinashvili;
- Sergey Sergeevich Beloborodov;
- Vsevolod Valeryanovich Gavrilov;
- Evgeny Evgenievich Gorev;
- Viktor Ivanovich Danilov-Danilyan;
- Valentin Efimovich Mezhevich;
- Mikhail Igorevich Poluboyarinov;
- Dmitry Igorevich Skryabin;
- Maria Gennadievna Tikhonova;
- Aleksander Sergeevich Yugov.

Innovative Development Program.

Members of the Committee were elected pursuant to a resolution of the Company's board of directors dated july 25<sup>th</sup>, 2012.

MEMBERS OF THE COMMITTEE

#### Malyshev Andrey Borisovich

Chairman of the Committee, member of the Board of Directors of JSC RusHydro (Independent Director), President and Deputy Chairman of the Board of Directors of JSC Group E4

Rizhinashvili George Ilyich Deputy Chairman of the Committee, Deputy Chairman of the Management Board of JSC RusHydro

Voevodin Mikhail Viktorovich General Director of JSC VSMPO-AVISMA Corporation

Volik Vladimir Olegovich Director for Development of Branan Ltd.

#### Gavrilov Vsevolod Valeryanovich Head of the Division for Energy Saving and the Use of Natural Resources Project Management of Sberbank of Russia

Gorev Evgeny Evgenievich Member of the Management Board of JSC RusHydro

#### Danilov-Danilyan Viktor Ivanovich

Member of the Board of Directors of JSC RusHydro (Independent Director), the Director and Chairman of the Academic Board of the Institute for Aquatic Issues of the Russian Academy of Sciences (RAS)

#### Mantrov Mikhail Alekseevich

Deputy Chairman of the Management Board of JSC RusHydro

#### **Mezhevich Valentin Yefimovich**

Member of the Federation Council of the Federal Assembly of the Russian Federation, First Deputy Chairman of the Economic Policy Committee of the Federation Council

Tikhonova Maria Gennadievna

Shulginov Nikolay Grigorievich First Deputy Chairman of the Management Board of JSC SO UES

#### TRITON

Neptune's largest moon and the only large moon in the solar system that moves in a direction opposite to the rotation of the planet. On the side facing Neptune, at least two formations resembling a frozen lake with a waterfront terrace with steps up to a kilometer in height have been detected. Nitrogen ice covers about 55% of the surface of Triton, 35% is water ice and 10% is dry ice. According to astrophysics calculations, a liquid ocean comprised of a mix of ammonia and water can exist on Triton, but scientists are skeptical about the possibility of life there (at least in the earthly sense of the word). The average temperature of the water cannot exceed minus 97 degrees Celsius.

#### THE HR AND REMUNERATION COMMITTEE

The HR and Remuneration Committee of the Company's Board of Directors is focused on attracting qualified management to manage corporate activities and to develop necessary incentives for their successful operation. The Committee is tasked with developing principles and criteria for determining the amount of remuneration and material incentives for members of the Board of Directors, the Chairman and members of the Management Board and to issue recommendations (conclusions) on the above-mentioned issues to the Board of Directors.

Members of the Committee served until June 29, 2012:

- Viktor Ivanovich Danilov-Danilyan Chairman of the Committee;
- Mikhail Igorevich Poluboyarinov;
- Rashid Ravelevich Sharipov.

# Members of the Committee were elected pursuant to a resolution of the Company's board of directors dated july 25<sup>th</sup>, 2012

#### MEMBERS OF THE COMMITTEE

#### Danilov-Danilyan Viktor Ivanovich

Chairman of the Committee Member of the Board of Directors of JSC RusHydro (Independent Director)

The Director and Chairman of the Academic Board of the Institute for Aquatic Issues of the Russian Academy of Sciences (RAS)

#### Kurtser Grigory Markovich

Deputy Chairman of the Committee Member of the Board of Directors of JSC RusHydro (Independent Director) Advisor to the Vice President, Head of the Security Service of JSC Rosneft Oil Company (on dealing with troubled assets)

#### Malyshev Andrey Borisovich

Member of the Board of Directors of JSC RusHydro (Independent Director)

President and Deputy Chairman of the Board of Directors of JSC Group E4

In 2012, the Committee held five meetings, reviewing issues pertaining to the approval of the Company's Social Policy, and the determination of the number of members of the Management Board and the election of a member of the Company's Management Board.

#### THE AUDIT COMMITTEE

The Audit Committee enables the Board of Directors to control the Company's financial and economic activities by developing recommendations on the selection of an independent audit organization and on the procedure for interacting with the Audit Commission and the external auditor.

Members of the Committee served until June 29, 2012:

- Viktor Ivanovich Danilov-Danilyan Chairman of the Committee;
- Mikhail Igorevich Poluboyarinov;
- Viktor Vasilievich Kudryavy.

Members of the Committee were elected pursuant to a resolution of the Company's Board of Directors dated July 25th, 2012.

#### MEMBERS OF THE COMMITTEE

#### Danilov-Danilyan Viktor Ivanovich

Chairman of the Committee Member of the Board of Directors of JSC RusHydro (Independent Director) Director and Chairman of the Academic Board of the Institute for Aquatic Issues of the Russian Academy of Sciences (RAS)

#### Kurtser Grigory Markovich

Deputy Chairman of the Committee Member of the Board of Directors of JSC RusHydro (Independent Director), Advisor to the Vice President Head of the Security Service of JSC Rosneft Oil Company (on dealing with troubled assets)

#### Malyshev Andrey Borisovich

Member of the Board of Directors of JSC RusHydro (Independent Director) The President and Deputy Chairman of the Board of Directors of JSC Group E4

In 2012, the Committee held eleven meetings. The main issues reviewed at the meetings included a preliminary review of the Company's statements (prepared in accordance with RAS and ISFR), the development of recommendations for the Board of Directors on the selection of an external auditor and issues related to controlling the use of insider information. The list of issues reviewed at the meetings is contained in the Appendix.

#### THE INVESTMENT COMMITTEE

The Investment Committee is tasked with preliminary reviews of investment projects and programs, and the enhancement and development of the Company's investment policy.

Members of the Committee served until June 29, 2012:

- Tatsiy Vladimir Vitalievich Chairman of the Committee;
- Mantrov Mikhail Alekseevich;
- Grigoriev Aleksander Valerievich;
- Danilov-Danilyan Viktor Ivanovich;
- Dubovsky Igor Leonidovich;
- Korolev Ivan Sergeevich;
- Nikonov Vasily Vladimirovich;
- Nozdrachev Denis Aleksandrovich;
- Poluboyarinov Mikhail Igorevich.

In 2012, the Committee held nine meetings, focusing on issues including: financing and implementing the Company's Investment Program. The Committee issued recommendations to the Board of Directors, concerning the placement of bonds and transactions performed by the Company.

Members of the Committee were elected pursuant to a resolution of the Company's board of directors dated july 25<sup>th</sup>, 2012

#### MEMBERS OF THE COMMITTEE

#### Tatsiy Vladimir Vitalyevich

Chairman of the Committee, Chairman of the Board of Directors of JSC RusHydro, Fist Vice President of Gazprombank (JSC)

#### Mantrov Mikhail Alekseevich

Deputy Chairman of the Committee The Deputy Chairman of the Management Board of JSC RusHydro

**Grigoriev Aleksandr Valerievich** General Director of Ingosstrakh Insurance Company

Danilov-Danilyan Viktor Ivanovich Member of the Board of Directors of JSC RusHydro (Independent Director)

Director and Chairman of the Academic Board of the Institute for Aquatic Issues of the Russian Academy of Sciences (RAS)

**Ilyenko Aleksandr Vladimirovich** Member of the Management Board the Managing Director for Development of UES of JSC SO UES

Korolev Ivan Sergeevich Deputy General Director of the Institute of World Economy and International Relations of the Russian Academy of Sciences (RAS)

Kurkin Gennady Aleksandrovich Deputy General Director for Economics and Finance of PROMINVEST Ltd.

Maslov Aleksey Viktorovich Deputy Chairman of the Management Board of JSC RusHydro

**Nozdrachov Denis Aleksandrovich** Chairman of the Management Board of JSC AKB Svyaz-Bank

**Rizhinashvili George Ilyich** Deputy Chairman of the Management Board of JSC RusHydro

Tikhonova Maria Gennadievna

# THE RELIABILITY, ENERGY EFFICIENCY AND INNOVATIONS COMMITTEE

The Committee is tasked with the preliminary review of issues pertaining to the technical, environmental and energy-saving and efficiency policies, and the development of standards in the sphere of technical regulation, the system of long-term planning of the development of the hydro-power industry and the power industry, based on the use of other renewable energy sources (RES).

Members of the Committee served until June 29, 2012:

- Kudryavy Viktor Vasilievich Chairman of the Committee;
- Volkov Eduard Petrovich;
- Alzhanov Rahmetulla Shamshievich;
- Bellendir Evgeny Nikolaevich;
- Bogush Boris Borisovich;
- Bolgov Mikhail Vasilievich;
- Zimin Viktor Mihailovich;
- Kutyin Nicholay Georgievich;
- Maslov Alexey Viktorovich;
- Rizhinashvili George Ilich;
- Tatsiy Vladimir Vitalievich;
- Shishin Sergey Vladimirovich.

Members of the Committee were elected pursuant to a resolution of the Board of Directors (dated July 25th, 2012). On August 10th, 2012, the Board of Directors made a decision to change the membership of the Committee by terminating the powers of Ayuev Boris Ilyich (upon his application) ahead of the expiration of his term, and electing Sergeeva Lydmila Anatolievna.

In 2012, the Committee held four meetings, including meetings that were held jointly with the Strategy Committee and the Investment Committee. The meetings were focused mainly on issues pertaining to the analysis of technical documents on the operation of existing hydro-power plants, the analysis of their technical safety, and the development of normative safety documents.

#### MEMBERS OF THE COMMITTEE

Kudryavy Viktor Vasilyevich Chairman of the Committee,

Advisor to Eurocement Group

Alzhanov Rakhmetulla Shamshievich Deputy Chairman of the Management Board of JSC RusHydro

**Bellendir Evgeny Nikolaevich** General Director of JSC VNIIG named after B.E. Vedeneev, Ph.D. in Engineering

**Bogush Boris Borisovich** Member of the Management Board of JSC RusHydro

**Bolgov Mikhail Vasilievich** Acting Deputy General Director of the Institute for Aquatic Issues of the Russian Academy of Sciences (RAS)

**Voskresensky Sergey Modestovich** Member of the Management Board of JSC RusHydro, General Director of JSC Lenhydroproject

Maslov Alexey Viktorovich Member of the Management Board of JSC RusHydro

**Rizhinashvili George Ilyich** Deputy Chairman of the Management Board of JSC RusHydro

Sergeeva Lydmila Anatolievna Deputy Director for the Innovative Development of JSC SO UES

**Tatsiy Vladimir Vitalyevich** Chairman of the Board of Directors of JSC RusHydro, First Vice President of Gazprombank (JSC)

Khaziakhmetov Rasim Magsumovich Director for Technical Policy and Development of JSC RusHydro

Shishin Sergey Vladimirovich Member of the Board of Directors of JSC RusHydro (Independent Director), Senior Vice President of JSC VTB Bank

#### THE MANAGEMENT BOARD

The Management Board is a collegiate executive body of the Company, acting in accordance with applicable Russian laws, the Articles of Association, the Corporate Governance Code and the Regulations on the Management Board and is governed by resolutions of the General Meeting of Shareholders and the Company's Board of Directors.

The Management Board is responsible for implementing corporate goals and the development strategy and manages the Company's day-to-day operations to ensure high asset yield and maximum operational profitability.

The Chairman of the Management Board is responsible for operations and is the Company's chief executive body.

In 2012, the Management Board addressed issues related to the Company's current operations. The Management Board also discussed all strategic issues that fall under the competence of the Company's Board of Directors.

Voskresensky Sergey Modestovich was elected as a member of the Management Board effective as of April 2, 2012 by a resolution of the Board of Directors dated 30th March, 2012.

The Management Board is responsible for implementing corporate goals and the development strategy and manages the Company's day-to-day operations to ensure high asset yield and maximum operational profitability

#### MEMBERS OF THE MANAGEMENT BOARD



#### DOD Evgeny Vyacheslavovich

#### Position

Chairman of the Management Board and member of the Board of Directors of JSC RusHydro

#### Date of entry into office

24.11.2009

#### Terms of reference

Managing corporate operations

Year of birth 1973

#### Citizenship

Russian

#### Education

The Moscow Aviation Institute (the State Technical University), machine-tool facilities management and economics (1995)

#### Curriculum Vitae

General Manager of CJSC INTER RAO UES (2000 — 2008); Chairman of the Management Board of JSC INTER RAO UES (2008 — 2010); Chairman of the Management Board of JSC RusHydro (2009)

Current positions include: Chairman of the Board of Directors of JSC RAO ES of the East, member of the Board of Directors of JSC ATS, JSC SO UES, member of the Supervisory Board of JSC VBRR, Russian Hydro-power Non-Commercial Partnership, member of the Management Board of the All-Russian Association of Employers the "Russian Union of Industrialists and Entrepreneurs" and RSPP LLC, member of the Board of Managers of MCUER Autonomous Non-Commercial Association, member of the Russian National Committee of the World Energy Council

**Ownership of Company shares** 0.116083%



#### ABRASHIN Sergey Nikolaevich

#### Position

Member of the Management Board of JSC RusHydro

Date of entry into office 21.04.2010

#### Terms of reference

Managing the operations of the Economic Security Department

Year of birth 1959

Citizenship

. Russian

#### **Educatio**n

Higher education, radio communications and law major

#### **Curriculum Vitae**

Head of the Security Department of YUKOS Oil Company (2006 — 2008), the Vice President of JSC AK Transnefteprodukt (2008-2010), the Advisor to the Chairman of the Management Board and a member of the Management Board of JSC RusHydro (2010)

#### Ownership of Company shares

Owns no Company shares



#### **ALZHANOV** Rakhmetulla Shamshievich

#### Position

Member of the Management Board of JSC RusHydro Deputy Chairman of the Management Board, Engineer-in-Chief

## Date of entry into office and the term of office 24.11.2009

The term of office in accordance with the labor contract: termless

#### Terms of reference

Managing production operations in the position of the Engineer-in-Chief

#### Year of birth

1950

Citizenship

#### Russian

#### Education

The Novocherkassk Polytechnical Institute, majoring in electric power plants (electrical engineer) (1972)

#### Curriculum Vitae

General Director of JSC Sangtudinskaya HPP-1 (2005 — 2009), Deputy Chairman of the Management Board, Engineer-in-Chief, member of the Management Board of JSC RusHydro (2009)

Current positions include:

Member of the Supervisory Board of the Power Industry Veterans Council non-commercial partnership, member of the Supervisory Board of the Hydro-power Industry of Russia non-commercial partnership.

**Ownership of Company shares** 0.003169%



#### **BESSMERTNY Konstantin Valerievich**

Position

Member of the Management Board of JSC RusHydro

Date of entry into office 21.04.2010

#### Terms of reference

Managing the operations of the accounting and tax department

#### Year of birth

1973

#### Citizenship

Russian

#### Education

The Moscow State Technical University (named after N.E. Bauman), majoring in automated data processing and control systems (systems engineer) (1996), the Academy of People's Economy attached to the Government of the Russian Federation, majoring in organizational finance control (Master of Business Administration) (2008)

#### **Curriculum Vitae**

Advisor and Director on Finance of CJSC INTER RAO UES (2000 — 2008), Adviser of JSC INTER RAO UES (2008 — 2010), Director of the Moscow Branch of the Nizhnevartovskaya SDPP (2009-2010), Director on Finance of JSC RusHydro (2010), member of the Management Board of JSC RusHydro (2010)

**Ownership of Company shares** 0.007871%



#### **BOGUSH Boris Borisovich**

#### Position

Member of the Management Board of JSC RusHydro

Date of entry into office

21.04.2010

#### Terms of reference

Supervising the activities of the chief engineers of the Company and SDCs' facilities

#### Year of birth

1952

#### Citizenship

Russian

#### Education

The Saratov Polytechnical Institute, majoring in mechanical engineering (1975), the Academy of People's Economy attached to the Government of the Russian Federation (2004).

#### Curriculum Vitae

Member of the Management Board, Managing Director and Head of the Production Business Unit of JSC RusHydro (2007-2010), member of the Management Board of JSC RusHydro (2010)

#### Ownership of Company shares

0.005149%



#### VOSKRESENSKY Sergey Modestovich

#### Position

Member of the Management Board of JSC RusHydro, General Director of JSC Lenhydroprojekt

#### Date of entry into office

02.04.2012

#### Terms of reference

Managing the operations of the design and reseach division

**Year of birth** 1956

#### **Citizenship** Russian

Russian

#### Education

The All-Union Extra-mural Polytechnical Institute, majoring in economics and the organization of construction (engineering economics) (1984), Ph.D. in Economics.

#### Curriculum Vitae

The General Director and member of the Board of Directors of JSC Lenhydroprojekt (2007), member of the Management Board of JSC RusHydro (2012)

#### Ownership of Company shares

Owns no Company shares



#### GORBENKO Yuri Vasilievich

#### Position

Member of the Management Board of JSC RusHydro

Date of entry into office 17.09.2009

#### Terms of reference

Managing the recovery and reconstruction of the Sayano-Shushenskaya HPP

#### Year of birth

#### 1958

#### Citizenship

Russian

#### Education

The Krasnoyarsk Construction Engineering Institute, majoring in industrial and civil construction (a construction engineer) (1992), the Academy of People's Economy attached to the Government of the Russian Federation, majoring in corporate development management (2004), Ph.D. in Economics

#### Curriculum Vitae

General Director of JSC Bureyskaya HPP (1998 – 2008), the Managing Director and Head of the Far East Division of JSC RusHydro and JSC UK HydroOGK (2007 – 2009), member of the Management Board of JSC RusHydro (2009)

Ownership of Company shares

0.006579%



#### **GOREV Evgeny Evgenievich**

#### Position

Member of the Management Board of JSC RusHydro

Date of entry into office 24.11.2009

#### Terms of reference

Managing the operations of the Corporate and Legal Department

#### Year of birth

1975

#### Citizenship

Russian

#### Education

The Law Department of the Moscow State University (named after M.V. Lomonosov) (1998)

#### **Curriculum Vitae**

The Deputy Director for Corporate Development, the Head of the Legal Department of the Corporate Center of CJSC INTER RAO UES (2006 — 2008), the Deputy Director of the Corporate Center, the Corporate Governance Director of the Moscow branch of JSC INTER RAO UES (2008), the Deputy Head of the Corporate Center, the Corporate Governance Director of JSC INTER RAO UES (2008-2009), member of the Management Board of JSC RusHydro (2009)

## Ownership of Company shares 0.007870%



#### MANTROV Mikhail Alekseevich

#### Position

Member of the Management Board of JSC RusHydro, the Deputy Chairman of the Management Board of JSC RusHydro

## Date of entry into office 24.11.2009

#### Terms of reference

Managing the operations of the Finance and Economics Department

#### Year of birth

1965

#### \_\_\_\_\_

Citizenship Russian

#### Education

The Moscow Power Engineering Institute (Technical University), majoring in electrical systems cybernetics (1988), the Academy of People's Economy attached to the Government of the Russian Federation, majoring in financial management (1996)

#### Curriculum Vitae

The Deputy General Director of CJSC INTER RAO UES (2000 — 2008), the Deputy Chairman of the Management Board, the Head of the Corporate Center of JSC INTER RAO UES (2008-2009), the Deputy Chairman, and member of the Management Board of JSC RusHydro (2009)

### Ownership of Company shares 0.029411%

0.029411



#### MASLOV Aleksey Viktorovich

#### Position

Member of the Management Board of JSC RusHydro, Deputy Chairman of the Management Board of JSC RusHydro

Date of entry into office 21.04.2010

#### Terms of reference

Managing the operations of the Capital Construction and IT Department

Year of birth

1975

**Citizenship** Russian

#### Education

The Moscow Higher Technical University named after N.E. Bauman, majoring in rocket and missile engineering (mechanical engineer) (1998), the Financial Academy attached to the Government of the Russian Federation, majoring in crediting and finance (economist) (2000)

#### Curriculum Vitae

Member of the Management Board of JSC FGC UES (2005 — 2010), the General Director of JSC UES Engineering and Construction Center (2008-2010), the Executive Director for Capital Construction and the Deputy Chairman of JSC RusHydro (2010)

Current positions include: the Chairman of the Board of EnergoStroyAlliance, the Association of Construction Organizations

**Ownership of Company shares** 0.002408%



#### **RIZHINASHVILI George Ilyich**

#### Position

Member of the Management Board of JSC RusHydro, Deputy Chairman of the Management Board of JSC RusHydro

### Date of entry into office 24 11 2009

#### Terms of reference

Managing the operations of the Strategy and Innovations Department

Year of birth

1981

Citizenship

Russian

#### Education

Master programs at the Moscow State University (named after M.V. Lomonosov), majoring in economics (2004), Ph.D. in Economics

#### Curriculum Vitae

Head of the Strategy and Investments Department, Director for Investments of CJSC INTER RAO UES (2007 – 2008), the Deputy Head of the Department, the Director for Strategy and Investments, Head of the Strategy and Investments Department, the member of the Management Board of JSC INTER RAO UES (2008-2009), member and Deputy Chairman of the Management Board of JSC RusHydro (2009).

Current positions include: membership in the Supervisory Board of KONC UES Non-Commercial Partnership

**Ownership of Company shares** 0.002914%



#### SAVIN Stanislav Valerievich

#### Position

Member of the Management Board of JSC RusHydro

Date of entry into office 21.04.2010

#### Terms of reference

Managing the operations of the Sales Department

Year of birth

1972

**Citizenship** Russian

#### Education

The Moscow State University of Railway Transport (MIIT), majoring in railway cars (mechanical engineer) (1997)

#### **Curriculum Vitae**

Head of the Division for Operations in the Middle Asian and Far Eastern Markets (the Department of Foreign Economic Activities) of CJSC INTER RAO UES (2007 — 2008), Deputy Head and f the Central Asian — Far Eastern Geographical Division and the Head of the Central Asian Geographical Division (2008-2010), member of the Management Board of JSC RusHydro (2010)

Current positions include: member of the List A Supervisory Board of the Chamber of Representatives of the Market Council Non-Commercial Partnership

### **Ownership of Company shares** 0.005209%

\* Company shares owned by members of the Management Board are represented as of 31.12.2012 as a share in the Company's share capital and as a stake of ordinary shares owned by a member of the Company's Management Board. These portions are equal, as the Company has issued only ordinary shares.



#### **TSOY Sergey Petrovich**

#### Position

Member of the Management Board of JSC RusHydro, Deputy Chairman of the Management Board of JSC RusHydro

#### Date of entry into office

01.12.2010

#### Terms of reference

Managing international relations, administrative support, government relations and public relations division

#### Year of birth

1957

#### Citizenship

Russian

#### Education

The Rostov State University (named after M.A. Suslov), the Department of Journalism (1982), the Moscow State University (named after M.V. Lomonosov) majoring in political psychology (2004), Ph.D. in Political Science

#### **Curriculum Vitae**

Head of the PR Department of the Moscow Mayor and the Moscow Government, Press Secretary of Moscow Mayor (2003-2010), Deputy Chairman of the Management Board, member of the Management Board of JSC RusHydro (2010).

#### Ownership of Company shares

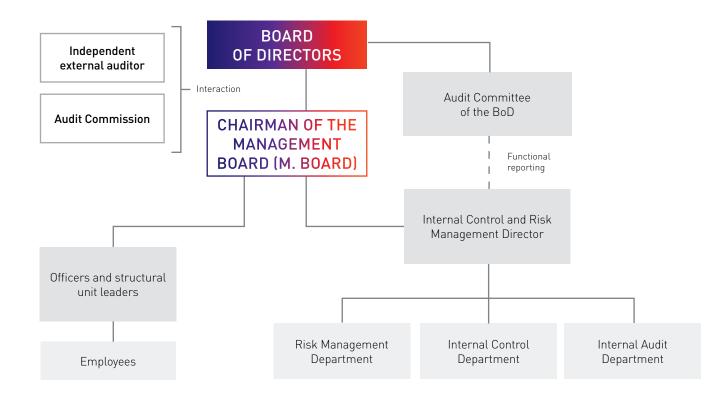
0.003148%

## INFORMATION ON TRANSACTIONS INVOLVING THE COMPANY'S SHARES PERFORMED BY MEMBERS OF THE MANAGEMENT BODIES

Full name of the member of the Company's Management Body	Transaction Date	Transaction Description	Number of Shares involved in the Transaction	Share of Charter Capital before the Transaction	Share of Charter Capital after the Transaction
<b>Alzhanov R.Sh.</b> Deputy Chairman of the Management Board, Chief Engineer	05.12.2012	Purchase of shares	9,930,000	0.000043%	0.003169%
<b>Bessmertny K.V.</b> Member of the Management Board	09.10.2012	Purchase of shares	10,000,000	0.004722%	0.007871%
<b>Bogush B.B.</b> Member of the Management Board	30.10.2012	Purchase of shares	6,375,000	0.003151%	0.005149%
<b>Gorbenko Yu.V.</b> Member of the Management Board	24.10.2012	Purchase of shares	6,090,000	0.004662%	0.006579%
Gorev E.E.	24.05.2012	Purchase of shares	6,350,000	0.0043%	0.0065%
Member of the Management Board	23.10.2012	Purchase of shares	6,000,000	0.005981%	0.007870%
<b>Mantrov M.A.</b> Deputy Chairman of the Management Board	08.10.2012	Purchase of shares	8,630,000	0.026694%	0.029411%
Maslov A.V.	22.11.2012	Purchase of shares	4,950,000	0%	0.001558%
Deputy Chairman of the Management Board	29.11.2012	Purchase of shares	2,700,000	0.001558%	0.002408%
<b>Rizhinashvili D.I.</b> Deputy Chairman of the Management Board	25.10.2012	Purchase of shares	9,255,000	0%	0.002914%
<b>Tsoy S.P.</b> Deputy Chairman of the Management Board	03.12.2012	Purchase of shares	10,000,000	0%	0.003148%



An efficient system for controlling financial and business operations guarantees the integrity of the Company's assets. The system for controlling JSC RusHydro's financial and business operations includes the following key elements:



The main principles, goals, objectives, methods and processes of the internal audit system are defined in the following approved internal corporate documents:

- The Corporate Governance Code;
- Regulations on the Internal Audit and Risk Management Policy;
- Regulations on the Board of Director's Audit Committee;
- Regulations on the Audit Commission.

#### THE AUDIT COMMISSION

The key responsibilities of the Audit Commission include: controlling financial and business operations, carrying out supervision over the compliance of the Company's business and financial transactions with both Russian laws and JSC RusHydro's Articles of Association and conducting an independent evaluation of the Company's financial condition.

The Audit Commission acts in accordance with Russian laws, the Articles of Association and the Regulation on the Audit Commission and is elected by the General Meeting of Shareholders for a one-year term. The Commission consists of 5 members.

Members of the Committee served until June 29, 2012:

- Maria Gennadievna Tikhonova Chairman of the Commission;
- Aleksander Sergeevich Yugov;
- Kolyada Andrey Sergeevich;
- Dmitry Mihailovich Gorevoy;
- Elena Yurievna Litvina.

In 2012, the Audit Commission carried out one audit of the Compay's financial and business operations based on 2011 corporate performance results. The audit revealed no corporate violations of Russian laws. The audit confirmed the validity of data contained in the 2011 Annual Report and the corresponding financial statements. MEMBERS OF THE AUDIT COMMISSION ELECTED BY A RESOLUTION OF THE GENERAL MEETING OF SHAREHOLDERS ON JUNE 29TH, 2012

FULL NAME	YEAR OF BIRTH	POSITION
Vyaseleva Adilya Iskanderovna	1980	Deputy General Director of NP SMAOs, a self-regulated organization
Drokova Anna Valerievna	1985	The Deputy Head of the Department of the Federal Agency for State Property Management
Khadziev Alan Fedorovich	1981	The Head of a Department of the Russian Ministry of Energy
Gorevoy Dmitry Mikhailovich	1982	Leading consultant, the Head of the Department for the Development of Electric Power of the Department for the State Regulation of Tariffs, Infrastructure Reforms and Energy Efficiency for the Russian Ministry of Economic Development
Litvina Elena Yurievna	1987	The Head of a Department of the Russian Federal Agency for State Property Management

#### THE INTERNAL CONTROL AND RISK MANAGEMENT UNIT

The Internal Control and Risk Management Unit is responsible for the Company's internal audit. The Unit includes the following departments:

- The Internal Audit Department;
- The Internal Control Department;
- The Risk Management Division.

## The total number of control efforts implemented by Internal Audit Department exceeded 30

The Director for Internal Audit and Risk Management is the Head of the Internal Audit and Risk Management Unit. The Director for Internal Audit and Risk Management reports directly to the Chairman of the Management Board and is accountable to the Audit Committee.

Timelines for the Internal Audit and Risk Management Unit are approved on an annual basis by the Audit Committee. In 2012, the Internal Audit Department fulfilled all control efforts set out in 2012 timelines. The total number of implemented control efforts exceeded 30, including the audit of fifteen subsidiaries, eight branches, six new construction sites, and inspections pertaining to the implementation of critical risk management. Each audit resulted in the issuance of a corresponding order to form the basis for actions to eliminate revealed criticisms. The reports prepared by the Internal Control and Risk Management Director were submitted to the Audit Committee for review.

#### THE EXTERNAL INDEPENDENT AUDITOR

JSC RusHydro carries out an annual audit of its financial (accounting) statements. Based on a recommendation of the Company's Board of Directors, the Annual General Meeting of Shareholders approves an independent auditor to carry out audits of RAS and IFRS financial statements.

To select candidates to perform an independent audit of the Company's statements, the Company holds an open tender. The tender documents for an open tender to conclude a service agreement on the audit of accounting statements for JSC RusHydro was approved in December 2011. Based on approved tender documents, the Tender Commission conducted procedures to select an auditor for 2012-2014. The tender was won by Closed Joint Stock Company PriceWaterhouseCoopers Audit (JSC PwC Audit). JSC PwC Audit was recommended for approval at the annual General Meeting of the Shareholders, followed by approval by a shareholders' decision (June 29th, 2012) as the Company's independent external auditor. JSC PwC Audit was also approved to audit the Company's IFRS statements.

#### EFFORTS TO MITIGATE CORRUPTION RISK AND MINIMIZE DAMAGE FROM CORRUPT ACTIONS

The Company seeks to prevent and uncover corrupt practices. If any violations are identified, the Company carries out internal investigations, develops and implements measures to eliminate and prevent problems and applies disciplinary measures toward employees who are guilty under the applicable law(s). The Company has opened a confidential hotline via which individuals can contact the Internal Audit and Risk Management Unit, if any corrupt practices are identified.

In accordance with the Corporate Conduct Code, to prevent conflicts of interest, members of the Company's Board of Directors are obliged to notify the Company of their affiliation each year.

#### EFFORTS TO PREVENT THE USE OF INSIDER INFORMATION

The Company has an approved Regulation on Insider Information, which is aimed at complying with Russian laws concerning preventing the use of insider information and market abuse. The Regulation takes into account international corporate governance practices, including requirements of Disclosure and Transparency Rules (as authored by the British Financial Services Authority).

The Regulation defines the categories of persons that are qualified by the Company as insiders, as well as limitations on the use of insider information by insiders for the purpose of dealing with corporate financial instruments, and on the transfer of corporate information to third parties.

The list of insider information in Russian and English languages is published on the Company's website at <u>www.</u> <u>rushydro.ru</u> and <u>www.eng.rushydro.ru</u>. Insider information in the Russian language is published in the newsfeed of Interfax, the authorized information agency at <u>www.e-disclosure.ru</u> and in English language on the RNS newsfeed at <u>http://www.londonstockexchange.com/exchange/prices-andnews/news/market-news/market-news-home.html.</u>

The Company's Inspector is responsible for supervising compliance with insider information laws. The Inspector reports to the Audit Committee on a quarterly basis. The Audit Committee includes information on fulfilling these requirements in its reports, subject to approval by the Company's Board of Directors.

### REMUNERATION DUE TO MANAGEMENT AND CONTROL BODIES



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#### THE BOARD OF DIRECTORS

Remuneration is defined in accordance with the Regulation on Remuneration to members of the Board of Directors of JSC RusHydro, based on fixed remuneration in the amount of RUR 900 thousand, taking into account the number of Board meetings for the past corporate year and the number of said meetings attended by an individual member of the Board of Directors.

Additional remuneration premiums are payable as follows:

- 30% to the Chairman of the Board of Directors;
- 20% to the Chairpersons of the Committees of the Board of Directors;
- 10% to members of the Committees of the Board of Directors.

Total remuneration due to a member of the Company's Board of Directors shall not exceed RUR 1 million, taking into account all additional premiums.

The Company makes no payments to members of the Board of Directors to compensate for the cost of transportation, lodgings, etc., that are related to performing duties.

The Regulation of Remuneration to members of the Board of Directors does not apply to members of the Board of Directors who simultaneously hold the position of Chairman, or are a member of the Management Board (for a complete term or a part of it), and to members of the Board of Directors who are not eligible to receive any payments from commercial organizations in accordance with Russian federal laws.

A resolution to pay/not to pay remuneration to the members of the Board of Directors made by the General Meeting of Shareholders according to the performance of the Board of Directors' members for the period from the date of his/her election to the date of termination of his/her powers. In 2012 total remuneration paid to the members of the Board of Directors which served in the period from 30 June 2011 to 28 June 2012 amounted to RUR 6,862,864.71.

#### THE MANAGEMENT BOARD

Remuneration to the Chairman and members of the Management Board is defined by the conditions of labor contracts and the Regulation on the Procedure of Paying Remuneration and Compensation to Member of the Company's Management Board. To emphasize the dependence of remunerations on the performance results of the Chairman and members, the relationship between the fixed and variable portions of remuneration is set at 30/70. The Regulation stipulates the payment of quarterly and annual bonuses for achieving key performance indicators (KPIs) set for the Chairman and members of the Management Board by the Company's Board of Directors (a 50% bonus). Achievements of individual KPIs are awarded with a 50% bonus also. Key performance indicators imply assessing performance in terms of financial, as well as production business indicators.

Total remuneration paid to the Chairman and members of the Management Board in 2012 amounted to RUR 925,214,507.86.

#### THE EXTERNAL AUDITOR

The Company, as approved by the Board of Directors, paid RUR 15,000,000 including VAT, to JSC PWC Audit for services related to the audit of the Company's 2012 accounting statements (according to RAS). The same services related to the audit of the Company's 2012 consolidated financial statements (according to IFRS) cost RUR 115,935,000 including VAT.

#### THE AUDIT COMMISSION

Members of the Audit Commission receive a lump sum remuneration, in accordance with the Regulation on the Payment of Remuneration and Compensation to Members of the Audit Commission of JSC RusHydro.

The amount of remuneration is equal to the sum of twentyfive monthly tariff rates for a first-class worker, as set by the industry-wide Tariff Agreement adopted for the Russian electric power industry for the period of the audit, taking into account indexing set by the Tariff Agreement. Remuneration due to the Chairman of the Commission is increased 50%.

No remuneration and/or compensation is charged or paid to members of the Audit Commission who are subject to limitations or bans pertaining to the receipt of any payments from commercial organizations.

In 2012, no remuneration was charged and/or paid to members of the Company's Audit Commission, as the Commission is composed of persons who are subject to limitations or bans pertaining to the receipt of any payments from commercial organizations, as imposed by Russian federal law.

#### LIABILITY INSURANCE

The Company has implemented the practice of insuring the liabilities and financial risks of members of management bodies (internationally known as Directors & Officers Insurance or D&O) to protect the Company, its subsidiaries and members of the management bodies from possible suits from third parties, which may result from the professional activities of the Company's directors and officers. An insurance agreement to implement the above-mentioned is concluded with Ingosstrakh Company for the period till 31.12.2012.

The amount of insurance in total for all insurance coverage and additional policies, excluding expanded coverage for independent directors, is US\$ 30 million. The additional insurance for an independent director stands at US\$ 1 million. The aggregate additional insurance amount for independent directors is US\$ 2 million.



JSC RusHydro has a participatory interest in the authorized capital of companies engaged in the design, construction, repair, servicing, technical renovation and reconstruction of power facilities, as well as in the production and supply of electric power.

The Company's interactions with Subsidiary and Dependent Companies (SDCs) is intended to implement corporate strategy, to ensure stable economic development and to provide for the Company's investment attractiveness, as well as to protect the rights and interests of the Company and SDCs shareholders.

The Company's SDCs are managed via Company representatives that are present at the General Meetings of shareholders and are on the SDCs Board of Directors and control bodies. Management is achieved in accordance with the Articles of Association and the Procedure for JSC RusHydro's interested organizations.

Making decisions that pertain to SDCs management falls under the competency of the Company's Management Board, except for decisions on strategic aspects of SDCs activities, the re-organization of SDCs, its liquidation, changes in authorized capital, the approval of major transactions and the participation of SDCs in other organizations; these decisions fall under the competency of the Board of Directors.

JSC RusHydro pays significant attention to upgrading SDCs corporate governance by carrying out measures intended to increase SDCs transparency and supervising SDCs compliance with requirements of information disclosure laws.

#### **CHANGES IN THE HOLDING STRUCTURE IN 2012**

No essential changes occurred in the structure of the RusHydro Holding in 2012.

In October of the reporting year, the Company acquired a 50% participation stake in CJSC Verkhne-Narynskiye HPP (which is located on the territory of the Kyrgyz Republic). The Verkne-Narynsky HPP Cascade will integrate the HPPs on the basis of the terms of the inter-governmental agreement, which was concluded with the Kyrgyz Republic. The electric power generated by the Cascade can be supplied to mining and processing facilities in the region, as well as to people living in the Narynsk Region of the Kyrgyz Republic. Electric power can also be exported to bordering countries.

# CHAPTER 8 The Company on The Securities Market

8.1 Authorized Share Capital

8.2 The Company Securities on the Russian Market

8.3 The Company Securities on the International Securities Markets

8.4 Dividend Policy

8.5 Bonds



R Hydra is a variable star located next to the star  $\gamma$  (3 m), changing it's magnitude in 389.6 days from 3.5 to 10.9 when it becomes invisible to the naked eye



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The Company can pay annual dividends of up to 5% of net income, as well as decide to pay interim dividends. The dividend payment period is not more than 60 calendar days after a decision has been adopted by the General Meeting of Shareholders





As of December 31st, 2012, the Company's authorized share capital amounted to RUR 317,637,520,094, divided into 317,637,520,094 ordinary shares with a par value of 1 ruble. Under the Company's Articles of Association, the number of declared ordinary shares is 122,665,182,285. The Company does not issue preferred shares.

Since 2006, the Company has increased authorized share capital annually through the additional issues of ordinary shares. The funds obtained from the Company's share placements are mainly directed to finance the large-scale investment program. In 2008, the authorized share capital increase was carried out to convert merging companies' shares into the Company shares.

All issues of the Company's ordinary shares were merged into a single issue under State registration number1-01-55038-E.

#### 2012 ADDITIONAL SHARE ISSUES

	1-01-55038-E-040D*	1-01-55038- <mark>E-041D</mark>
The date of the decision to increase authorized share capital	30.06.2011	16.11.2012
State registration date of the issue	16.08.2011	03.12.2012
Total volume of the additional issue at nominal value	RUR 89 bln	RUR 110 bln
Category (type) of shares	Ordinary registered shares	Ordinary registered shares
Placement method	Public offering	Public offering
The form of payment for shares	Monetary and non- monetary assets	Monetary and non- monetary assets
The offering price per share	1 ruble 65 kopeks	1 ruble
Start date of the placement	05.09.2011	19.12.2012
End date of the placement	13.08.2012	**
The volume of outstanding shares at par value, rubles	27,334,817,715	**
Outstanding shares/total share issue	30.71%	**

\* code 040D canceled 20.12.2012

\*\* as of 31.12.2012 placement has not been completed

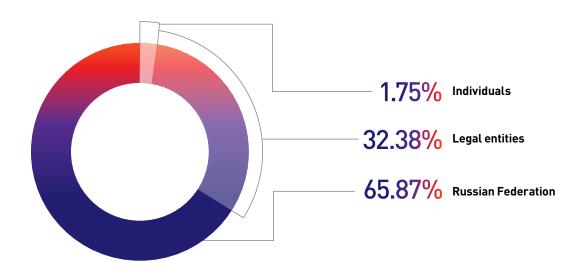
In October 2012, amendments to the Company's Articles of Association related to the increase in authorized share capital by placing additional shares under State registration number 1-01-55038-E-040D were registered. The resolution on issuing shares was made at the Annual General Meeting of Shareholders (June 2011). The aim of the issue was to raise funds to finance the construction of the Gotsatlinskaya HPP in the Republic of Dagestan and consolidate hydro-power assets. The Company entitled its shareholders to exercise their pre-emptive right to purchase shares of the additional issue. During the issue, the Company received shares of several companies (including: shares of JSC RAO ES of the East and the dam of the Angarsk Cascade). In November 2012, the General Meeting of Shareholders made a resolution about increasing the Company's authorized share capital to RUR 110 billion. The aim of the issue is to attract funds and consolidate hydro-power assets. The additional share issue was assigned the State registration number 1-01-55038-E-041D. The Company granted its shareholders the pre-emptive right to purchase shares of the additional issue. The shares may be paid for in cash or by ordinary shares of the following joint stock companies: JSC Ust-Srednekanskaya HPP, JSC RAO ES of the East, JSC Sakhalin Energy Company, JSC Irkutsk Energy Grid Company and JSC Irkutskenergo. As of 31.12.2012, the placement of the additional shares has not been completed.

#### LIST OF REGISTERED PERSONS WITH MORE THAN 2% OF SHARES ON PERSONAL ACCOUNTS, AS OF 31.12.2012

Registered entity	Type of registered entity	Number of shares	% of authorized share capital *
The Russian Federation represented by the Federal Agency for State Property Management	holder	242.2 bln	76.24%
Non-bank credit organization CJSC National Settlement Depository	nominee holder	53.6 bln	16.88%
ING BANK (EURASIA) ZAO (Closed Joint Stock Company)	nominee holder	41.3 bln	13.00%
Limited Liability Company Depository and Corporate Technologies	nominee holder	15.7 bln	4.93%

\* based on authorized share capital registered as of 31.12.2012

#### SHARE CAPITAL DISTRIBUTION, AS OF 31.12.2012



Source: JSC Registrator R.O.S.T. The percentage is calculated based on the number of outstanding shares of the additional issue under the State registration number 1-01-55038-E-041D THE COMPANY SECURITIES ON THE RUSSIAN MARKET



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### Trading Results with the Company's Shares

The Company's shares are traded on the main trading floor of the Russian securities market — CJSC MICEX Stock Exchange, which incorporated in the MICEX-RTS group. Trading in corporate shares is carried out in two sectors of the Stock Exchange: the Main Market and the Standard Market. Company shares are considered "blue chip" on the

### Main market: RUR 140 billion

• Standard: RUR 202 million

Russian stock market and are included in the list of the ten most liquid securities traded on the domestic Stock Exchange. They are included in the calculation base of the Russian MICEX and RTS indices, the capitalization MICEX Mid Cap index, the MICEX PWR index and the RTSeu indexes, as well as the foreign MSCI Russia index.

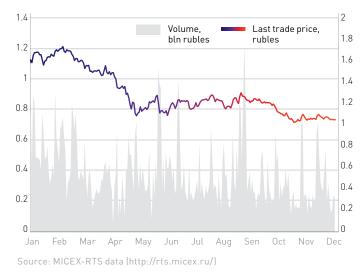
Standard

#### TRADING RESULTS WITH THE COMPANY'S SHARES

	2011	2012	2011	2012
Ticker	НУ	′DR	HY	DRS
Trading currency	R	JR	R	UR
The highest transaction price	1.705	1.2092	1.703	1.25
The lowest transaction price	0.9559	0.7154	0.958	0.716
Year end transaction price	0.9658	0.7335	0.968	0.73
Trading volume	190 bln	140 bln	4 bln	202 mln

Main Market

#### 2012 SHARE PERFORMANCE AND TRADED VOLUME, MICEX MAIN MARKET



In early 2012, positive dynamics in the Russian stock market, including shares of companies in the power generating sector, were associated with recovery from lower prices at the end of December 2011. In general, in 2012, the main indicator of the Russian MICEX Stock Exchange index rose 5%, whereas the power index fell 17%.

THE COMPANY'S 2012 SHARES PERFORMANCE (HYDR) VERSUS MICEX INDEX (MICEX) AND MICEX POWER INDEX (MICEXPWR)



Source: MICEX-RTS data (http://rts.micex.ru/)

In 2012, the Company's shares mainly followed the general trend. In 2012, quotations of JSC RusHydro shares in general followed the basic trend, however, for 2012, the decline in share price insignificantly deviated from the downturn for the electric power industry as a whole.

THE COMPANY'S SECURITIES ON THE INTERNATIONAL SECURITIES MARKETS



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The Company launched a depository receipts (DR) program for its ordinary shares. As of December 31, 2012, 327,307,237 depository receipts for 32,730,723,700 ordinary shares have been issued, which accounts for 10.3% of the total number of the Company's ordinary shares.

## Results of Depository Receipt Trading, LSE

#### STAGES OF DEVELOPMENT OF THE DR PROGRAM

JUNE 2008	JULY 2009	AUGUST 2009	AUGUST 2010
Launch of the GDR Program, according to Rule 144A	Launch of GDR trading on the London Stock Exchange (LSE) in the International Order Book (IOB) section	Launch of the ADR Level 1 Program and the conversion of the GDR Program into the ADR Program, according to Provision S	Launch of depository receipts on the OTCQX (USA) on the International Premier segment of the unlisted market

#### DESCRIPTION OF THE DEPOSITORY RECEIPT PROGRAM

Program type	Program launch date	Depository bank	Ratio	Ticker symbol	CUSIP number	Maximum volume of the program, in shares	Trading floor(s)
GDR according to Rule 144A	June 17th, 2008	The Bank	1 GDR = 100 ordinary shares		466294204		London Stock Exchange (Main Market — IOB)
ADR Level 1	August 7th, 2009	of New York Mellon	1 ADR = 100 ordinary shares	HYDR	466294105	832,131,000	OTCQX International Premier Portal

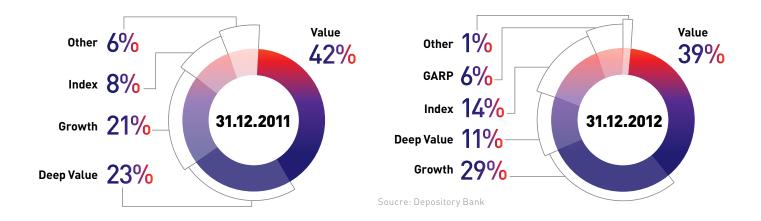
#### RESULTS OF DEPOSITORY RECEIPT TRADING, LSE

	2011	2012
Ticker	HY	DR
Trading currency	US	SD
The highest price for the transaction	5.69	4.18
The lowest price for the transaction	3.00	2.21
Year-end transaction price	3.05	2.31
Trading volume	513 mln	688 mln

#### 2012 ADR PERFORMANCE AND TRADING VOLUME, LSE (IOB)

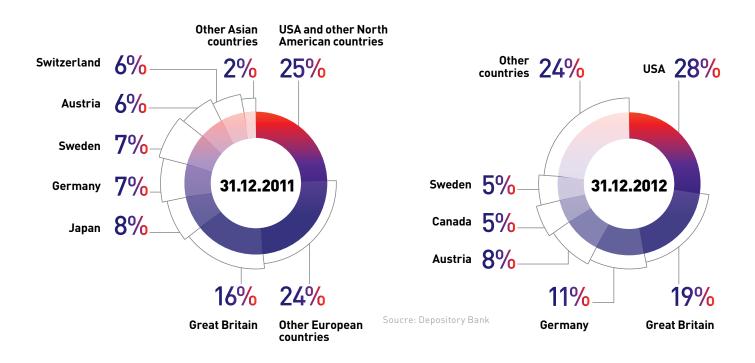


#### 2011-2012 DISTRIBUTION OF DR HOLDERS BY INVESTMENT STRATEGY



An analysis of the structure of the Company's DR holders indicates that a significant proportion of investors use the "Value" and "Growth" approaches in their investment strategies. In addition, it should be noted that "GARP" investors (value and growth investments) have emerged.

#### 2011-2012 GEOGRAPHIC DISTRIBUTION OF DR HOLDERS



An analysis of the structure of DR holders by geography shows that the major holders in 2012, as in 2011, were U.S. and the UK investors.



The main purpose of the Company's dividend policy is to provide for the strategic development of JSC RusHydro and wealth increases for shareholders by establishing an optimal balance between the payments of dividends to shareholders and profit capitalization.

To ensure the transparency of principles for calculating dividends and the order and terms for their payments, the Company has a Dividend Policy. The Company can pay annual dividends of at least 5% of net income, as well as to decide to pay interim dividends. The dividend payment period is not more than 60 calendar days after the decision is adopted by the General Meeting of Shareholders. In 2012, the Regulations on Dividend Policy was amended and supplemented to bring its certain articles in compliance with the legislation.

The Company informs shareholders about the beginning of the dividend payment by posting a message on its corporate website. Shareholders may specify their preferred method for receiving dividends by post or by bank transfer or at the cash desk of the Registrar, JSC Registrar R.O.S.T.

#### **DIVIDEND HISTORY**

Reporting period subject to the dividend payment	Total amount of declared (accrued) dividends, RUR thousand	Declared dividends per share, RUR
9M 2005	27,889	0.000268289
2005	565,695	0.005441922
Q1 2006	223,600	0.002151
H1 2006	110,588	0.00106384
9M 2006	809,000	0.005739439
Q1 2007	1,119,000	0.00793872
2010	2,496,867	0.00860091
2011	2,500,000	0.00789317

## REPORT ON THE PAYMENT OF DECLARED (ACCRUED) DIVIDENDS ON THE COMPANY'S SHARES IN 2011

Payments were made in full to all persons registered in the register of shareholders, with the exception of RUR 24,289 thousand that were outside the control of the Company: shareholders failed to promptly inform the Registrar of the shareholders of changes in their background or specified incorrect details regarding dividend payments. The Company performed its obligations to pay dividends to the federal budget in full in the amount of RUR 1,509,548 thousands. There is no debt payable to the federal budget.



The Company uses public funding. There are two bond issues with a nominal value of RUR 15 billion in circulation. In December 2012, the State registration of four series of bonds with a total volume of RUR 40 billion was performed. The possibility of placing up to RUR 40 billion in four separate bond issues (of up to RUR 10 billion each) will provide the Company with additional flexibility in deciding on the timing of bond issue circulation, which is determined at the time of placement (depending on investor demand for securities). Proceeds from the placement will be used for the Company's current and investment activities.

#### BOND ISSUES MAIN PARAMETERS

	Series 01	Series 02
State registration number	4-01-55038-E	4-02-55038-E
Registration date	23.09.2010	23.09.2010
Type of bond	Documentary interest non-convertible bearer bonds with mandatory centralized custody	Documentary interest non-convertible bearer bonds with mandatory centralized custody
Nominal	RUR 1, 000	RUR 1, 000 🧖
Nominal amount of issue	RUR 10 bln	RUR 10 bln
Nominal amount in circulation	RUR 10 bln	RUR 5 bln
Offering price	100%	100%
Method of placement	Public offering, bookbuilding	Public offering, bookbuilding
Placement date	25.04.2011	Start date 25.04.2011 Expiration date- 03.05.2011
Coupon	1-10 coupons — 8%, 11-20 — determined by the Issuer	1-10 coupons — 8%, 11-20 — determined by the Issuer
Coupon frequency	On a bi-annual basis	On a bi-annual basis
Yield at Pricing	8.16%	8,16%
Put-option	22.04.2016, price – 100%	22.04.2016, price — 100%
Maturity date	12.04.2021	12.04.2021

#### EURO BOND MAIN PARAMETERS

**Issue parameters** 

lssuer	RusHydro Finance Ltd. (Ireland)
Ultimate borrower	JSC RusHydro
Type of securities	Eurobonds (LPN Notes, Eurobond convention)
Volume	RUR 20 billion
Period	5 years
Coupon rate	7.875% per annum
Issue rating	S&P: BB+ / Moody's: Ba1 / Fitch: BB+
Listing	The London Stock Exchange (LSE)
Regulating law	English law



#### WATER FROM THE OUTSIDE

Around the TW star in the Hydra constellation, there is a gaseous dust proto-planetary disk that contains enough water to fill all of Earth's oceans a thousand times over. In ice form, the water is concentrated in the external cold regions of the disk, where comets are formed.

This discovery supports the theory that water was brought to Earth by comets. During the formation of our planet, cometary bombardment, scientists believe, added to the solution of planetary liquids some elements that were necessary for the emergence and preservation of life.



# CHAPTER 9 Social Responsibility

- 9.1 Personnel
- 9.2 Developing Human Resource Potential
- 9.3 Social Policy
- 9.4 Charity
- 9.5 Safety and Environmental Protection
- 9.6 Social Responsibility and Corporate Sustainability Report



Pi is a star in Hydra constellation with 3.3 stellar magnitude seen with the naked eye. Star is located in 101 light-years (31 parsecs) from Earth. Magnitude change period is 389.6 days



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In 2012, the Company allocated a total of RUR 1,279 mln to social policy improvement and spent RUR 1,353.8 mln on charity and sponsorship activities





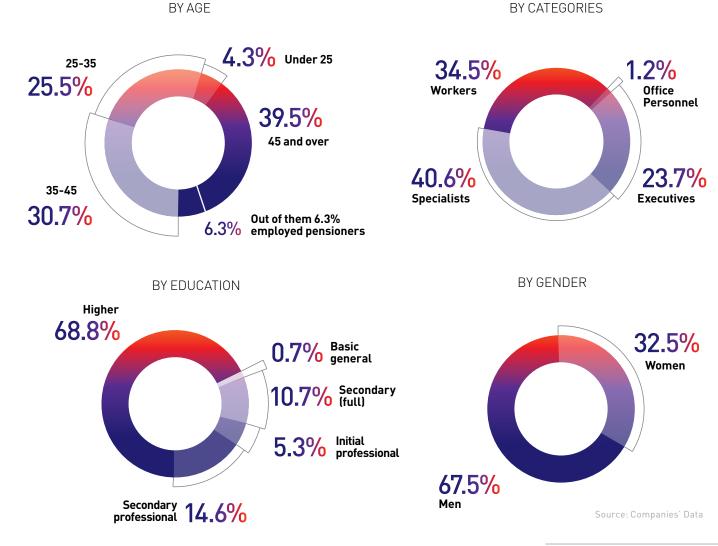
The cornerstone of the Company's HR policy is the understanding that the corporation's key asset is its employees. RusHydro cares about ensuring that its personnel believe that their professional achievements contribute to the Company's growth and overall success.

As of December 31st, 2012, the Company employed 6,101 people. This number has changed slightly in comparison with 2011 (1.4%). The average duration of employment at the Company was 10.9 years. In 2012, the average monthly earnings of corporate employees grew 6.5% and stood at RUR 85,256.

## As of December 31st, 2012, the Company employed 6,101 people

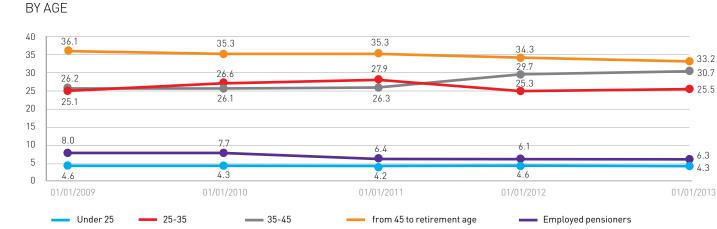
The average duration of employment at the Company was

## 10.9 years



PERSONNEL STRUCTURE

#### PERSONNEL STRUCTURE CHANGE



**BY CATEGORIES** 





#### BY EDUCATION

Source: Companies' Data

Over the past five years, the Company has enjoyed a rather stable personnel structure, with a trend to employ younger and more highly qualified professionals.



One of the Company's strategic priorities is growing and developing its human resource potential to successfully meet current and future targets, aims and objectives.

### In 2012, the Company allocated a total of **RUR 122.3 mln** to develop its human resource potential

The Company has the Fast-Track Human Resource Development Concept — From New School to Workplace and its Implementation Program. The Program's key task is to promote engineering education, enhance the prestige of technical occupations, and build an environment that helps address RusHydro's need for well-trained professionals for them to later operate the Company's existing and planned capacity, ensuring reliable and undisrupted performance.

As part of the Program, the Company has target projects underway to develop key competencies for future hydro-power professionals starting from elementary school, activities aimed at offering guidance for middle and high school students, energy power training for students based on RusHydro's requirements, and efforts to create a corporate environment that promotes the effective performance for the Company's young employees.

The Company has organized and carried out educational seminars for school teachers in the regions in which the Company is present, helping them to make better use ofteachingmaterials, the "Energy of Education" project, for lessons in secondary schools that are dedicated to hydro-power.

The Company continued its cooperation with the Sayano-Shushenskaya branch of the Siberian Federal University. RusHydro offers students exciting subjects to explore their graduation papers, along with student internships and further employment opportunities. The Company's representatives are annually involved in the branch's State exam and attestation committees. The Company has an ongoing employee training system, helping to grow the competencies of its personnel in line with their job requirements and to rotate and transfer employees as part of developing a succession pool of candidates. Wide opportunities for professional personnel growth are offered by a new IT-based chain of Training and Industrial Centers, including those featuring equipment simulators. Another option is close cooperation with profile institutions in the system of higher and vocational education.

The Company signed a strategic partnership agreement with the Moscow State University of Civil Engineering, the Saint Petersburg State Polytechnical University, and the National Research University MPEI, as well as an agreement to establish a profile department for the Company — "Hydro-power and renewable energy sources (RES)".

In order to develop training programs for secondary vocational education demanded by the Company, agreements with the Divnogorskiy Hydro-power College (the Siberian Federal District), the Perm Industrial and Commercial College (the Volga Federal District), the Saratov College Bridges and Hydro-power Structures (the Volga Federal District) and the Nevinnomyssk Energy College (the North-Caucasian Federal District) were signed.

The Company cares about creating and growing hydropower engineering dynasties and enhancing the prestige of engineering as an occupation. To achieve this, the Company has approved a payment and compensation procedure for the children of employees of RusHydro's branches that are being trained on profile specialties and directions for the Company. In 2012, 50 children of branch employees were supported by this program.

In 2012, the Company allocated a total of RUR 122.3 million to develop its human resource potential.



Caring about the well-being and social protection of its employees and their families is one of RusHydro's priorities. At each of its branches, the Company has a collective agreement in place. RusHydro offers its staff a strong social package, ensuring that the Company remains an attractive competitive employer on the labor market.

## In 2012, the Company allocated a total of RUR 1,279 mln for social policy improvement









#### NON-STATE PENSION COVERAGE

In 2012, the Company continued to implement NPO Programs. This is designed to create a long-term system of non-State pension coverage under a single approach, with common goals and principles. The program is focused on providing both a decent standard of living for RusHydro's employees at retirement, and for effectively resolving personnel issues related to attracting, retaining and motivating personnel.

The program is also designed to generate additional retirement savings for different target groups, especially employees with significant industry experience, who have industry and State awards, and for employees with particular specialization where there is a labor shortage.

#### VOLUNTARY HEALTH INSURANCE AND VOLUNTARY ACCIDENT AND ILLNESS INSURANCE

The Company annually revises and signs agreements for voluntary health insurance and voluntary accident and illness insurance to expand and upgrade the list of medical services available to employees. The program covers 100% of the Company's workforce. Under voluntary health insurance coverage, employees take advantage of out-patient medical treatment (including home visits by doctors), urgent and non-urgent hospital services, emergency medical services, healthcare services abroad, regular medical examinations and employee vaccinations, the start of treatment and preventive examinations in Russia's best medical care facilities, and if necessary, in foreign clinics. The Company also aims to provide the best value offers for voluntary health insurance for the families of employees. The Company supports employees' acquisition of medical insurance for family members at competitive prices; the Company also provides information support concerning the registration policy for compulsory health insurance of a new sample.



#### INTERNAL COMMUNICATIONS

RusHydro pays attention to creating and strengthening corporate culture both for its branches and its subsidiaries.

To create a unified information space, the Company issues the internal corporate newspaper Vestnik RusHydro, where events happening in the world and the Russian energy sector, as well as in the Company and employees' lives are discussed.

To promote mass sporting activities, to create healthy lifestyles, and to strengthen friendly relationships between the Company's employees, the football tournament for the Cup of RusHydro's CEO for teams that represent the hydro-power plants (HPPs), subsidiaries and affiliates and the Executive Office of the Company were held.



#### EMPLOYEE HOUSING IMPROVEMENT PROGRAM

The Company is implementing the Employee Housing Improvement Program, and in 2012, the next step was realized. In 2012, 282 employees utilized the housing program. The priority right to participate in the program is provided to young employees under the age of 30 who do not own a separate residential property, professionals who were offered branch positions and relocated from a different location, and to key and highly skilled professionals.

In 2012, the Company allocated a total of RUR 1,279 million to social policy improvement.





RusHydro is fully involved in the economic and social aspects of life in the regions in which it is present. To ensure this, the Company has adopted a charitable program to educate a new generation of professional power engineers and to establish a favorable social environment in all regions in which the Company has HPPs.





## In 2012, RusHydro spent RUR 1,353.8 mln on charity and sponsorship activities

Priority directions for the Company's charity and sponsorship activities are:

- assist poor and needy persons, the disabled and pensioners, primarily via charitable funds and organizations;
- help retired power engineers and workers and honored industry workers;
- aid children's organizations and institutions;
- assist medical institutions and healthcare organizations;

• promote the restoration of Russia's historical and architectural monuments and the development of culture, education, science and sport.

The Company has implemented a comprehensive long-term charity program, the "Sail of Hope", to support orphanages and child care educational institutions, charitable environmental actions, and educational and grant programs, as well as to support children's sports.

#### MOTHERHOOD AND CHILDHOOD

In 2012, along with financial assistance for orphanages, and comprehensive and music schools, creative teams implemented projects for the social rehabilitation of children: developing programs for children, competitions that identify young talents, and support for the most gifted children and help in finding their professions. For the fourth time, the student competition "Energy for Development", whose main task is to create conditions to identify and develop talented young people was held, and assistance was held in obtaining professional education.

In 2012, the "Born by Energy" project started. The project's main purpose is to provide maternity hospitals and maternity departments with expensive diagnostic and rehabilitation equipment in cities in which the Company's facilities are located.



#### SPORTS

Among projects to support youth sports during the reporting year, priority was given to projects related to providing sports and fitness centers with the necessary inventory and equipment, to carrying out the repair and improvement of sports facilities, to organize competitions across different levels at RusHydro's branches.

RusHydro's cooperation history with the Russian Whitewater Federation extends back more than 5 years. During these years, the Company has not only helped organize all-Russian competition at a high level, but also supports this sport in some Russian regions.

In 2012, the Company took part in a project to finance Football Club "Alania" activity, namely financing the Club's current activities, developing the Children's and Youth Football School of the North Caucasus and the South of Russia, reconstructing football facilities and engaging in stadium construction. Thus, the Company took part in implementing the State program for mass sports development on the territory of the Republic of North Ossetia.

#### ECOLOGY

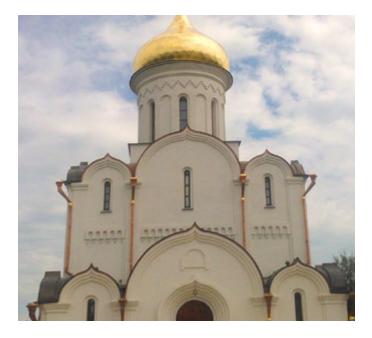
During the reporting year, the Company paid special attention to environmental education for children and teenagers: during summer vacations, ecological changes, environmental festivals and competitions were held. Furthermore, on the territory of all RusHydro branches, traditional actions to clean up banks and rivers, "oBEREGAy", was carried out.



#### **CULTURAL HERITAGE**

The Company attaches great importance to preserving cultural and historical heritage. In the past few years, one of the priority projects has been collaboration with the Russian Geographical Society. In 2012, financing of the grant fund on carrying out thematic research expeditions, the edition of the cartographic encyclopedia of Russia was made.

In 2012, RusHydro spent RUR 1,353.8 million on charity and sponsorship activities.





RusHydro is one of Russia's largest electricity producers, providing consumers with highly effective, environmentally friendly energy from renewable sources.

The Company fulfills the requirements of Russian legislation in the field of environmental protection; participates in the performance of Russia's obligations that arise from international conventions in the field of environmental protection, as ratified by the Russian Federation; aims to continually reduce its (negative) influence on the environment and to prevent environmental pollution.

The introduction of new techniques and technologies is subject to environmental policy requirements, in terms of reducing the negative impact of the Company's technical system on the environment across all stages of the life cycle, including its impact on the aquatic environment. The Program of the Comprehensive Modernization of Generating Facilities of the RusHydro Group helps reduce the number of technical incidents at the HPPs and ensures uninterrupted functioning of power plants.

The Company develops and implements standards in the environmental safety sphere. Also, in the environmental safety sphere, the following projects have been implemented by the Company:

- developing effective methods to protect the flow part of the HPP from forming river-borne zebra mussels;
- increasing HPP eco-efficiency with hydro-power units that allow fish passage through a hydro-power tract;
- parameter ground of under construction and operated reservoirs of HPP on greenhouse gas emissions;
- optimizing usage of environmentally friendly lubricants in hydro-power turbines.



To provide more details about RusHydro's sustainable development, the Company has been publishing its Social Responsibility and Corporate Sustainability Reports, which cover the most notable corporate achievements in economic, environmental and social spheres.



# CONTACTS



Open the chapter online

Full name:	Открытое акционерное общество "Федеральная гидрогенери- рующая компания — РусГидро"
Abbreviated name:	JSC RusHydro
Full name in English:	Open Joint-Stock Company Federal Hydro-Generating Company RusHydro
Location:	51 Respubliki Street, Krasnoyarsk, the Krasnoyarsk Region, Russia, 660075
Mailing address:	7 Malaya Dmitrovka Street, Moscow, Russia, 127006 51 Arkhitektora Vlasova Street, Moscow, Russia, 117393
Telephone:	+7 (495) 225-3232
Fax:	+7 (495) 225-3737
E-mail:	office@rushydro.ru
Internet address in Russian:	www.rushydro.ru
Internet address in English:	www.eng.rushydro.ru

Bank Details	
Current account:	40702810800205771190
Bank:	JSC JSCB EUROFINANCE MOSNARBANK, Moscow
BIC:	044525204
Correspondence account:	3010181090000000204

Shareholder relations	
Hotline Telephone	8 (800) 555-9997 (free for residents of all Russian regions)
Electronic mail:	<u>rushydro@rrost.ru</u>
Corporate Governance Department:	Maxim Valentinovich Zavalko
Telephone:	<u>8 (800) 333-8000, ext. 1025</u>
E-mail:	corpupr@rushydro.ru

Investor relations	
IR Department:	Alexander Yevgenyevich Goldin
Telephone:	8 (800) 333 8000, +7 (495) 225-3232, ext.1319
IR Department:	Timur Gumyarovich Ahmedjanov
Telephone:	8 (800) 333-8000, +7 (495) 225-3232, ext.1607
E-mail:	ir@rushydro.ru

Registrar	
Full name:	Open Joint Stock Company Registrar R.O.S.T.
Abbreviated name:	JSC Registrar R.O.S.T.
Location:	13 Stromynka Street, Building 18, Moscow, Russia
Mailing address:	P.O. Box 9, 18 Stromynka Street, Moscow, Russia, 107996
Telephone:	+7 (495) 771-7335
Fax:	+7 (495) 771-7334
E-mail:	<u>rost@rrost.ru</u>
Internet address:	www.rrost.ru
License No.:	10-000-1-00264 as of December 3rd, 2002

Media relations	
Press Secretary	Yelena Gennadyevna Vishnyakova
Telephone:	8 (800) 333-8000, ext. 1099
E-mail:	pr@rushydro.ru

Depository Bank	
Full name:	The Bank of New York Mellon
	Roman Kumitts
Telephone:	+1(212) 815 5984
E-mail:	<u>roman.kumits@bnymellon.com</u>
	Maria Mozhina
Telephone:	+1(212) 815 28 46
E-mail:	maria.mozhina@bnymellon.com

Auditor	
Full name:	Closed Joint Stock Company
	PricewaterhouseCoopers Audit
Abbreviated name:	CJSC PwC Audit
Location:	10 Butyrsky Val Street, Moscow, Russia, 125047
Telephone:	+7 [495] 967-6000
Fax:	+7 [495] 967-6001
E-mail:	pwc.russia@ru.pwc.com_
Internet address:	www.pwc.ru

#### BRANCHES

Branch Name	Location and Contact Information
The Bureyskaya HPP Branch	Talakan, the Bureysky District, the Amur Region, Russia
	Telephone +(7) 41634 5 23 59
	bureyahpp@gidroogk.ru
	http://www.burg <mark>es.rushydro.ru/</mark>
The Volzhskaya HPP Branch	1a Lenina Prospect, Volzhsky, the Volgograd Region, Russia
	Telephone +(7) 8443 34 13 13
	office@vges.ru
	http://www.volges.rushydro.ru/
The Votkinskaya HPP Branch	Chaykovsky, the Perm Region, Russia
	Telephone +(7) 34241 7 03 59
	borisovalp@votges.voheg.ru
	http://www.votges.rushydro.ru/
The Dagestan Branch	5 M. Khalilova Street, Kaspyisk, the Republic of Dagestan, Russia
-	Telephone: +(7) 8722 55 06 05
	drgk@drgk.ru
	http://www.dagestan.rushydro.ru/
The Zhigulevskaya HPP Branch	Zhigulevsk, the Samara Region, Russia
<i>. .</i>	Telephone: +(7) 84862 7 93 59
	kutianina@volges.vohec.ru
	http://www.zhiges.rushydro.ru/
The Zagorskaya PSPP Branch	100 Bogorodskoye, the Sergiev-Posad District, the Moscow Region, Russia
	Telephone: +(7) 495 957 26 52
	+(7) 49654 5 35 18
	zagaes@zagaes.ru
	http://www.zagaes.rushydro.ru/
The Zeyskaya HPP Branch	Zeya, the Amur Region, Russia
	Telephone: +(7) 41658 2 45 31
	kirianenko@zges.amur.ru
	http://www.zges.rushydro.ru/
The Kabardino-Balkarian Branch	1a Mechiyeva Street, Kashkhatau, the Chereksky District, the Kabardino-Balkar Republic, Russia
	Telephone: +(7) 8662 77 94 05
	takuevaMM@gidroogk.ru
	http://www.kbf.rushydro.ru/
The Kamskaya HPP Branch	The Kamskaya HPP, Perm, Russia
,	Telephone: +(7) 342 273 46 84
	officekamges@kamges.gidroogk.ru
	http://www.kamges.rushydro.ru/
The Karachaevo-Cherkessian Branch	Pravo-Kubansky, the Karachai-Cherkess Republic, Russia
	Telephone: +(7) 8782 26 70 40
	priemges@zelges.ru
	http://www.kchf.rushydro.ru/

Branch Name	Location and Contact Information
The Cascade of the Verkhnevolzhskiye HPPs Branch	Rybinsk, the Yaroslavl Region, Russia
	Telephone: +(7) 4855 29 74 59
	office@kvvges.vohec.ru
	http://www.kvvges.rushydro.ru/
The Cascade of the Kubanskiye HPPs	360a, Vodoprovodnaya Street, Nevinnomyssk, the Stavropol Region, Russia
Branch	Telephone: +(7) 86554 6 80 01
	kanz@segk.ru
	http://www.kkges.rushydro.ru/
The Corporate Hydro-Power University	8a Vernadsky Prospect, Moscow, Russia
Branch	Telephone: +(7) 495 540 30 12, ext. 4008
	LebedevaAV@gidroogk.ru
	http://www.korung.rushydro.ru/
The Nizhegorodskaya HPP Branch	14 Privokzalnaya Street, Zavolzhye, the Gorodetsky District, the Nizhny Novgorod Region, Russia
	Telephone: +(7) 83161 7 96 79
	morevasf@nigges.vohec.ru_
	http://www.nizhges.rushydro.ru/
The Novosibirskaya HPP Branch	4 Novomorskaya Street, Novosibirsk, Russia
	Telephone: +(7) 383 345 95 55
	svarcvd@gidroogk.ru, kutkinasg@gidroogk.ru
	http://www.nges.rushydro.ru/
The Saratovskaya HPP Branch	The Saratovskaya HPP, Balakovo, the Saratov Region, Russia
	Telephone: +(7) 8453 44 20 65
	goryunovaen@gidroogk.ru
	http://www.sarges.rushydro.ru/
The Sayano-Shushenskaya HPP named	Cheremushki, Sayanogorsk, the Republic of Khakassia, Russia
after P.S. Neporozhniy Branch	Telephone: +(7) 39042 3 26 27
	offissges@gidroogk.ru
	http://www.sshge <mark>s.rushydro.ru/</mark>
The Northern Ossetian Branch	63 Vaso Abayev Street, Vladikavkaz, the Republic of North Ossetia — Alania, Russia
	Telephone: +(7) 8672 53 66 34
	<u>soggk@osetia.ru</u>
	http://www.osetia.rushydro.ru/
The Cheboksarskaya HPP Branch	34 Naberezhnaya Street, Novocheboksarsk, the Chuvash Republic, Russia
	Telephone: +(7) 8352 73 75 06
	office@chenges.vohec.ru
	http://www.cheges.rushydro.ru/

# GLOSSARY

Company	JSC RusHydro, including its branches and executive office.
Holding company	JSC RusHydro, including its subsidiaries and dependent companies (SDCs).
RAO ES of the East	JSC RAO Energy System of the East.
SDCs	Subsidiaries and dependent companies — entities, in which another (main) economic entity due to its majority or greater participation in the charter capital or in accordance with a concluded agreement or in another way, has the opportunity to determine decisions adopted by said entities.
JSC RAO UES of Russia	The Russian energy company (until July 1st, 2008). Full name — Open Joint Stock Company Unified Energy System of Russia. The Company previously united almost all of Russia's energy sector under its umbrella. JSC RAO UES of Russia ceased to exist as of June 30th, 2008 due to comprehensive energy sector reform.
WGCs	Generating companies of the wholesale electricity market (WEM) $-$ companies formed on the basis of power plants.
TGCs	Territorial generating companies — companies formed during the inter-regional integration of generating assets of JSC-energy (regional generating companies), except generating assets that are included in OGK(s).
IES	Integrated Energy System (IES) — aggregated production and other electricity property assets, connected via a unified production process (including production in the form of the combined generation of electrical and thermal energy) and the supply of electrical energy under conditions of a centralized operating and dispatch management.
НРР	Hydro-electric power plant — the power plant as a unified production and technological complex, combining hydro-technical constructions and equipment that transforms mechanical energy from water into electric energy. In the text of the annual report, except when otherwise noted, tidal power stations and PS HPPs are included as HPPs.
PS HPP	Pump storage hydro-electric power plant — pump-storage power plant, which works by transforming electricity from other power plants into the potential energy of water; during reverse transformation, accumulated energy is contributed to the energy system primarily to cover deficits that may occur during peak load periods.
НТС	Hydro-technical constructions — dams, hydro-electric power plant constructions, spillways, drain and water-discharge constructions, tunnels, channels, pumping stations, navigation locks, boat lifts; buildings used to protect from floods and the destruction of water reservoir shores; dam constructions, protecting the liquid waste reservoirs of production and agricultural organizations; devices that protect against washing-away and other constructions designed to use water resources and to prevent any negative impact from water and liquid waste.

RES	Renewable energy sources — examples include: hydro, solar, wind, geo-thermal, hydraulic energy, energy from water currents, waves, tides, the temperature gradient of sea water, temperature differences between air masses and the ocean, heat from the Earth , animal bio-masses and vegetable and household waste.
WPS	Wind electric plants include two and more wind energy installations designed for conversion of wind energy into electric energy and its transmission to consumers.
FTS	Federal Tariff Service.
WEM, WECM	Wholesale electricity market (capacity) — sphere for turnover of electrical energy (capacity) within the framework of Russia's integrated energy system within the country's unified economic space with the participation of large electricity producers and consumers that have the status of wholesale market objects, confirmed in full accordance with the Russian Federal Law "On the electric power industry" (by the Russian Government). The criteria for including large electricity producers and consumers in the category of large producers and large consumers are also established by the Russian government.
Installed capacity	Total nominal active capacity of generators at electric power plants which are part of the Group's structure.
NM WEM	The new model of the wholesale electricity and capacity market foresees the transformation of the regulated sector of the wholesale market into a system of regulated contracts (RCs), concluded by wholesale market participants. Electricity and capacity will be sold under RCs. The volume of electricity not sold under RC s will be sold/purchased at free prices on the "day-ahead market" (at prices established as a result of the competitive choice of price applications and with free agreements, where prices are regulated by participants in the agreement(s)). At the same time, if the volume from the price application of purchases did not undergo competitive choice on the day-ahead market, the purchaser will have to buy the respective volumes for consumption on the balancing market.
RC	Regulated contracts are concluded by participants in the wholesale market for a term of 1 to 3 years. The prices in each of these agreements are tariffs for energy suppliers and capacity set by the Russian FTS. The primary condition of the RC is "take or pay". The supplier has to provide the agreed upon amount of electricity (capacity) and (only for electricity) buy in the market at competitive prices on either the day- ahead market or via a free bilateral agreement. The purchaser has to pay for the agreed upon amount independent of its own planned consumption.
MW	Megawatt — a unit of measurement for electrical capacity.
kWh	Kilowatt-Hour — a unit of measurement for produced electricity.

