# RusHydro Group announces 2Q and 1H 2016 operating results

PJSC RusHydro (ticker symbol: MICEX-RTS, LSE: HYDR; OTCQX: RSHYY) announces operating results for the 2<sup>nd</sup> quarter and 1<sup>st</sup> half of 2016 of the parent company and the subsidiaries of RusHydro Group reflected in consolidated financial statements.

# Key highlights:

- Total electricity generation by power plants of RusHydro Group in 2Q 2016 amounted to 32,334 GWh (+5.9%), in 1H 2016 – 63,110 GWh (+10.4%);
  - In 2Q 2016, total production by HPPs/PSPPs amounted to 25,671 GWh (+8.9%), in 1H 2016 – 46,835 GWh (+16.3%);
- In 1H 2016, total water inflow to reservoirs of the Volga-Kama cascade was slightly higher than long-run average, to reservoirs of Siberia, HPPs of the South and the Far East of Russia – close to long-run average;
- The electricity generation by the plants of RAO ES of East in 2Q 2016 6,961 GWh (-4.4%), in 1H 2016 17,195 GWh (-3.5%);
- The electricity generation by the Boguchanskaya hydropower plant in 2Q 2016 amounted to 3,365 GWh (-6.8%), in 1H 2016 6,491 GWh (+8.8%)<sup>1</sup>;
- Water inflow to reservoirs of major hydropower plants of RusHydro Group in 3Q 2016 is expected to be close to long-run average.

In the 2<sup>nd</sup> quarter of 2016, total electricity generation by power plants of RusHydro amounted to 32,334 GWh, a 5.9% increase as compared to the same period of 2015, total power generation in the 1<sup>st</sup> half of 2016 amounted to 63,110 GWh (+10.4%). In the 2<sup>nd</sup> quarter of 2016, hydropower (HPPs) and pumped storage power plants (PSPPs) of RusHydro Group increased electricity generation by 8.9% to 25,671 GWh, in the 1<sup>st</sup> half of 2016 – by 16.3% to 46,835 GWh, output by thermal (TPPs) and geothermal plants located in the Far East of Russia in the 2<sup>nd</sup> quarter of 2016 decreased by 4.4% to 6,662 GWh, in the 1<sup>st</sup> half of 2016 output decreased by 3.6% to 16,275 GWh.

# Electricity generation by the plants of RusHydro Group, GWh

2Q'16	2Q'15	chg, %	1H'16	1H'15	chg, %
12,686	11,309	12.2%	22,485	18,315	22.8%
2,587	2,291	12.9%	4,186	3,329	25.8%
6,676	6,369	4.8%	12,319	11,525	6.9%
21,949	19,969	9.9%	38,990	33,169	17.5%
3,279	3,083	6.4%	6,709	5,926	13.2%
6,961	7,283	-4.4%	17,195	17,820	-3.5%
144	205	-29.6%	216	260	-16.8%
32,334	30,540	5.9%	63,110	57,174	10.4%
25,671	23,571	8.9%	46,835	40,284	16.3%
6,662	6,969	-4.4%	16,275	16,890	-3.6%
3,365	3,610	-6.8%	6,491	5,964	8.8%
	12,686 2,587 6,676 21,949 3,279 6,961 144 <b>32,334</b> 25,671 6,662	12,686 11,309 2,587 2,291 6,676 6,369 21,949 19,969 3,279 3,083 6,961 7,283 144 205 32,334 30,540 25,671 23,571 6,662 6,969	12,686 11,309 12.2%   2,587 2,291 12.9%   6,676 6,369 4.8%   21,949 19,969 9.9%   3,279 3,083 6.4%   6,961 7,283 -4.4%   144 205 -29.6%   32,334 30,540 5.9%   25,671 23,571 8.9%   6,662 6,969 -4.4%	12,686 11,309 12.2% 22,485   2,587 2,291 12.9% 4,186   6,676 6,369 4.8% 12,319   21,949 19,969 9.9% 38,990   3,279 3,083 6.4% 6,709   6,961 7,283 -4.4% 17,195   144 205 -29.6% 216   32,334 30,540 5.9% 63,110   25,671 23,571 8.9% 46,835   6,662 6,969 -4.4% 16,275	12,686 11,309 12.2% 22,485 18,315   2,587 2,291 12.9% 4,186 3,329   6,676 6,369 4.8% 12,319 11,525   21,949 19,969 9.9% 38,990 33,169   3,279 3,083 6.4% 6,709 5,926   6,961 7,283 -4.4% 17,195 17,820   144 205 -29.6% 216 260   32,334 30,540 5.9% 63,110 57,174   25,671 23,571 8.9% 46,835 40,284   6,662 6,969 -4.4% 16,275 16,890

The underlying factors of the production change in January-June 2016 were:

- total water inflow to reservoirs of the Volga-Kama cascade in the 2<sup>nd</sup> quarter of 2016 was close to normal, in the 1<sup>st</sup> half of 2016 slightly higher than long-run average;
- water inflow to major reservoirs of Siberia in the 1<sup>st</sup> half of 2016 was close to normal;

- increased electricity generation by hydropower plants of the South of Russia associated with water level close to long-run average;
- decrease in electricity generation by TPPs of RAO ES of East Holding due to higher electricity generation by hydropower plants of the Far East.

#### Center of Russia

In the 2<sup>nd</sup> quarter of 2016, water inflow to reservoirs located at the Upper Volga was 20-35% lower than long-run average, to Volgogradskoe reservoir – only 25% of norm, to Gorkovskoe, Cheboksarskoe, Kuybyshevskoe and Nizhnekamskoe reservoirs – close to normal, to Kamskoe and Votkinskoe reservoirs – 25-65% higher than long-run average.

Total water inflow to reservoirs of the Volgo-Kama cascade in the 1<sup>st</sup> half of 2016 amounted to 194.1 km<sup>3</sup> as compared to the average of 183.3 km<sup>3</sup>.

Total electricity generation by RusHydro's hydropower plants of the Volgo-Kama cascade together with Zagorskaya pumped storage plant in the 2<sup>nd</sup> quarter of 2016 amounted to 12,686 GWh, a 12.2% increase as compared to the same period of 2015. In the 1<sup>st</sup> half of 2016, generation reached 22,485 GWh, which is 22.8% higher than in the same period of the previous year.

## South of Russia and North Caucasus

Water conditions on the rivers of the South of Russia and North Caucasus in the 1<sup>st</sup> half of 2016 were close to long-run average. In the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2016 water inflow to the Chirkeyskoe reservoir was 15% higher than long-run average. Hydropower plants of the Dagestan branch of RusHydro successfully went through the peak flood period, which took place in the first decade of June. According to preliminary forecast, the flood period in the basin of the Sulak river will last till the end of July.

Due to high water inflows the Irganayskaya HPP has been drown down from the end of June in order to create reserve capacity of reservoir.

The electricity generation by the hydropower plants of the South of Russia and North Caucasus in the  $2^{nd}$  quarter of 2016 increased by 12.9% to 2,587 GWh, in the  $1^{st}$  half of 2016 – by 25.8% to 4,186 GWh.

### Siberia

In the 1<sup>st</sup> half of 2016, water inflow to the Ob and Yenisei rivers was close to normal. In 2016, the spring flood period in the basin of the Sayano-Shushenskaya HPP started later than usual, water inflow in the 2<sup>nd</sup> quarter of 2016 amounted to 2,620 m³/s as compared to long-run average of 2,570 m³/s. The flood period in the basin of Novosibirskoe reservoir started earlier than usual; currently the flood is slowing down.

The Boguchanskaya hydropower plant in the 1<sup>st</sup> half of 2016 generated 6,491 GWh, 8.8% increase as compared to the same period of the previous year. Due to low water inflow forecast and water storage in reservoirs of the Angara cascade the navigation below the dam of the Boguchanskaya HPP might be limited.

Total electricity generation by RusHydro's Siberian hydropower plants in the 2<sup>nd</sup> quarter of 2016 increased by 4.8% to 6,676 GWh, in the 1<sup>st</sup> half of 2016 –by 6.9% to 12,319 GWh.

## Far East

In the  $2^{nd}$  quarter of 2016, water inflow to Kolymskoe reservoir was 25% lower than long-run average, to reservoir of the Zeyskaya HPP – 60% higher than normal. In order to provide for

safe and uninterrupted operation of hydropower facilities during the flood period, the spare capacity was created in reservoirs to accumulate spring and summer inflows.

In 2016, unlike two previous years, the reservoir of the Zeyskaya HPP is expected to be filled over its normal water level of 315 m and limitations of output will be removed allowing the plant to reach its annual output of 4.3 TWh.

Total electricity generated by hydro and geothermal power plants of the Far East in the 2<sup>nd</sup> quarter of 2016, increased by 6.4% to 3,279 GWh. In the 1<sup>st</sup> half of 2016, the generation increased by 13.2% to 6,709 GWh.

In the 2<sup>nd</sup> quarter of 2016, generating assets of RAO ES of the East Holding, a subsidiary of RusHydro, produced 6,961 GWh of electricity, a 4.4% decrease as compared to the 2<sup>nd</sup> quarter of 2015, in the 1<sup>st</sup> half of 2016 generation decreased by 3.5% and amounted to 17,195 GWh. Of this total, 76% was generated by JSC Far East Generating Company (DGK), which decreased production by 4.1% in the 1<sup>st</sup> half of 2016 to 13,029 GWh, mainly due to 15% increase in electricity output by the Zeyskaya and Bureyskaya hydropower plants. In the 1<sup>st</sup> half of 2016, electricity generation by companies operating in isolated energy systems of the Far East remained flat year-on-year.

In the 1<sup>st</sup> half of 2016, heat output by thermal plants of RAO ES of the East increased by 4.2% to 18,259 ths. GCal as compared to the same period of 2015.

	2Q'16	2Q'15	chg, %	1H'16	1H'15	chg, %
JSC DGK	3,242	3,226	0.5%	12,707	12,182	4.3%
PJSC Yakutskenergo	344	347	-1%	1,397	1,316	6.1%
SC Sakhaenergo	15	20	-22%	54	62	-11.7%
SC Teploenergoservice	192	186	3%	766	789	-3%
PJSC Kamchatskenergo	468	425	10%	1,331	1,175	13.3%
SC KSEN	15	16	-8.8%	49	47	3,8%
PJSC Magadanenergo	232	273	-14.9%	730	729	0.1%
SC Chukotenergo	103	111	-7.6%	277	290	-4.2%
JSC Sakhalinenergo	325	340	-4.2%	948	937	1.2%
Total	4.936	4.944	-0.2%	18.259	17.527	4.2%

Heat output by thermal plants of RAO ES of the East, ths. GCal

## Armenia

In the 2<sup>nd</sup> quarter of 2016, electricity generation by the Sevan-Hrazdan cascade of hydropower plants in Armenia decreased by 29.6% to 144 GWh, in the 1<sup>st</sup> half of 2016, electricity generation decreased by 16.8% to 216 GWh. Power generation by the plants of the cascade is dependent on water inflows of the Hrazdan river and water releases from Sevan lake.

# Electricity retail

In the 2<sup>nd</sup> quarter of 2016, total electricity output by RusHydro's four retail companies, operating in Bashkiria, Chuvashia, Ryazan and Krasnoyarsk regions, amounted to 7,593 GWh, a 4% decrease as compared to the same period of 2015; in the 1<sup>st</sup> half of 2016 output amounted to 17,798 GWh (-4%).

In the reporting period ESC RusHydro, a holding company for all electricity retail operations, increased electricity output by 186 GWh (+21.4%) as compared to the same period of 2015 due to addition of major consumers.

The decrease in electricity output by JSC Krasnoyarskenergosbyt by 145 GWh or 2%, Bashkiria power retail company by 650 GWh (-9%), JSC Chuvash retail company by 26 GW (-1.5%) and PJSC Ryazan retail company by 41 GWh (-3%) is attributable to recession in manufacturing industry as well as transfer of a number of major consumers to independent wholesale electricity purchases.

# Electricity output by RusHydro Group's retail companies, GWh

	2Q'16	2Q'15	chg, %	1H'16	1H'15	chg, %
Krasnoyarskenergosbyt	2,879	2,998	-4%	7,084	7,229	-2%
Bashkiria retail company	2,878	3,100	-7%	6,690	7,340	-9%
Chuvash retail company	704	722	-2.5%	1,626	1,652	-1.5%
Ryazan retail company	600	643	-6.7%	1,345	1,386	-3%
ESC RusHydro	532	433	-23%	1,053	867	21.4%
Total	7,593	7,896	-4%	17,798	18,474	-4%

#### Water inflows forecast

According to the forecast of the Hydrometeorologic Center of Russia, the following dynamics of water inflows to the major reservoirs is expected in the 3<sup>rd</sup> quarter of 2016:

- total expected water inflow to reservoirs of the Volgo-Kama may amount to 33-41 km<sup>3</sup> as compared to the average of 37.0 km<sup>3</sup>;
- water inflow to the reservoirs of hydropower plants located in the North Caucasus is expected to be close to long-run average;
- water inflow to major reservoirs of hydropower plants of Siberia expected to be close to normal;
- water inflow to the HPP's of the Far East is expected to be close to long-run average, to reservoir of the Zeyskaya HPP – 25-45% higher than normal.

## About RusHydro

RusHydro Group is one of Russia's largest generating companies. RusHydro is the leading producer of renewable energy in Russia with over 70 generating facilities in Russia and abroad. The company also manages a number of R&D, engineering and electricity retail companies. Group's thermal assets are operated by subsidiary – RAO Energy System of East in the Far East of Russia. Total electricity generation capacity of the Group is 38.6 GW, heat capacity – 16.2 thousand GCal/h.

Russian Federation owns 66.8% in RusHydro, the rest is held by other institutional and individual shareholders (over 360,000). The company's stock is traded on Moscow Exchange (MOEX), and included in MSCI EM и MSCI Russia indexes. Company's GDRs in the IOB section of LSE, ADRs – in OTCQX.

#### For more information:

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<sup>&</sup>lt;sup>1</sup> The Boguchanskaya hydropower plant is part of the Boguchanskiy Energy and Metals Complex (BEMO), a 50/50 joint venture (JV) between RusHydro and UC RUSAL, and is not part of RusHydro Group. According to RusHydro's shareholding in the JV (50%), the results of the plant are reported in the official financial statements in "Share of results of associates and jointly controlled entities". Operations of the HPP have been put into the press-release for general reference.

<sup>&</sup>lt;sup>2</sup> Includes generation by HPPs of JSC RusHydro, Kolymskaya HPP and Viluiskie HPPs, part of RAO ES of East group.

## **DISCLAIMER**

The information in this press release may contain projections or other forward-looking statements regarding future events or the future financial performance of RusHydro. One can identify forward-looking statements by terms such as "expect," "believe," "anticipate," "plan", "aim", "target", "forecast", "project", "should", "estimate," "intend," "will," "could," "may" or "might," the negative of such terms or other similar expressions. We wish to caution you that these statements are only predictions and that actual events or results may differ materially from these statements.

We do not intend to update these statements to reflect events and circumstances occurring after the date hereof or to reflect the occurrence of unanticipated events. Many factors could cause the actual results to differ materially from those contained in our projections or forward-looking statements, including, among others, general economic and political conditions, our competitive environment, risks associated with operating in Russia and rapid technological and market changes in our industries, as well as many other risks specifically related to RusHydro and its operations.