# RusHydro Group announces its 4Q and FY2020 operating results

**January 28, 2021. Moscow, Russia.** PJSC RusHydro (ticker symbol: MICEX-RTS, LSE: HYDR; OTCQX: RSHYY) announces operating results for the 4<sup>th</sup> quarter and full year ended December 31 2020, of the parent company and subsidiaries of RusHydro Group reflected in consolidated financial statements – **all-time high results in the company's history.** 

# 2020 key highlights:

- 151,450 GWh (+6.0%) total electricity generation of RusHydro Group including Boguchanskaya hydropower plant, JSC MEK and Primorskaya GRES in 2020. Total electricity generation by RusHydro Group including Boguchanskaya hydropower plant excluding JSC MEK and Primorskaya GRES amounted to 148,625 GWh (+8.4%)<sup>1</sup>;
- RusHydro Group's share in the electricity production in Russia in 2020 increased to 14.0% as compared to 12.5% in 2019 as electricity production and consumption in Russia declined by 3.0% and 2.3% respectively;
- 5 hydropower plants have set new all-time high annual record outputs: Sayano-Shushenskaya HPP (28,081 GWh), Boguchanskaya HPP (17,638 GWh), Rybinskaya HPP (1,800 GWh), Nizhegorodskaya HPP (2,355 GWh) and Ust-Srednekanskaya HPP (747 GWh);
- 103,881 GWh electricity output from hydro and pumped storage plants excl. Boguchanskaya HPP (+10.4%)<sup>2</sup>;
- 26,680 GWh electricity output from thermal power plants (+0.7%);
- 46,024 GWh total electricity output from power plants in the Far Eastern Federal District (+2.5%);
- 29,358 thousand Gcal/h heat output from thermal power plants in the Far Eastern Federal District (-0.5%);
- 40,182 GWh sales by Group's electricity retail companies (-1.3%).

# Installed electric capacity of RusHydro Group

The main drivers for change in installed electric capacity were Zaramagskaya HPP-1 (346 MW) CHPP in Sovetskaya Gavan (126 MW) in the Far East, divestment of Primorskaya GRES (1,467 MW) and HPPs in Armenia (561 MW).

MW	Dec 31, 2020	Dec 31, 2019
Center of Russia HPPs /PSPPs	11,807.4	11,782.4
S. of Russia and N. Caucasus	3,311.7	2,946.0
Siberia	7,211.0	7,211.0
Total for price zones of Russia	22,330.1	21,939.4
HPPs of the Far East	5 597.6	5 597.6
RAO ES East	7 011.0	8 505.9
Geothermal PPs, RES	82.5	82.5
Total for non-price and isolated zones of Russia	12 691.1	14 186.0
HPPs in Armenia	-	561.4
TOTAL	35 021.2	37 030.6
incl. by HPPs, PSPPs2	27 927.7	28 443.9
incl. by TPPs and other	7 011.0	8 505.9
incl. by geothermal, RES	82.5	82.5
Boguchanskaya HPP	2 997.0	2 997.0
TOTAL (incl. Boguchanskaya HPP)	38 018.2	39 683.3

# Installed heat capacity of RusHydro Group

The main change in installed heat capacity came on the back of divestment of Primorskaya GRES (237 Gcal/h), commissioning of CHPP in Sovetskaya Gavan (200 Gcal/h) and decommissioning of boiler-3 at Primorskiye heat networks (105 Gcal/h).

GCal/h	Dec 31, 2020	Dec 31, 2019
JSC DGK, incl.	12,626.2	12,813.4
Primorye power system	2,416.0	2,755.0
Khabarovsk power system	7,646.5	7,429.7

Amur power system	1,178.7	1,243.7
South-Yakutia power district	1,385.0	1,385.0
JSC RAO ES East (CHP Vostochnaya)	432.6	432.6
JSC DGK and JSC RAO ES East	13,058.8	13,246.1
Yakutsk power system, incl.	2,548.8	2,545.8
PJSC Yakutskenergo	1,726.2	1,726.2
JSC Sakhaenergo	87.9	84.9
JSC Teploenergoservice	734.7	734.7
Kamchatka power system, incl.	1,273.4	1,273.4
PJSC Kamchatskenergo	1,226.3	1,226.3
JSC KSEN	47.1	47.1
Magadan power system (PJSC Magadanenergo)	775.3	773.3
Chukotka AO power system (JSC Chukotenergo)	399.3	399.3
Sakhalin power system (PJSC Sakhalinenergo)	783.5	783.5
Total isolated and other power systems	5,780.3	5,775.3
TOTAL	18,839.1	19,021.4

# Electricity generation by the plants of RusHydro Group, GWh

	4Q'20	4Q'19	chg, %	2020	2019	chg, %
Center of Russia	9,924	13,002	-23.7%	48,245	42,534	13.4%
South of Russia and North Caucasus	1,019	1,030	-0.9%	6,331	6,528	-3.0%
Siberia	7,483	6,653	12.5%	30,347	27,131	11.9%
Total for the price zones	18,426	20,685	-10.9%	84,923	76,193	11.5%
Far East	4,760	4,491	6.0%	16,693	15,252	9.4%
RAO ES East	8,031	8,425	-4.7%	29,371	29,571	-0.7%
TOTAL	31,217	33,602	-7.1%	130,987	121,015	8.2%
incl. by HPPs, PSPPs	23,862	25,913	-7.9%	103,881	94,091	10.4%
incl. by TPPs and other	7,247	7,568	-4.2%	26,680	26,492	0.7%
Incl. by alt. renewables (geothermal, solar, wind)	109	121	-9.8%	426	433	-1.6%
Boguchanskaya HPP	4,542	4,318	5.2%	17,638	16,104	9.5%

Above normal level water inflows to the majority of reservoirs of the hydropower plants in the first half of 2020 returning to normalized levels in the second half of the year provided **record-high electricity production in the company's history.** 

The underlying factors of the production change in 2020 were:

- water inflows to the reservoirs of the Volga-Kama cascade, Siberia and the Far East above the normal level;
- increase of electricity consumption in the Far East<sup>3</sup> by 1.1%;
- commissioning of new capacities and modernization of existing facilities.

### **Center of Russia**

In the fourth quarter of 2020, water inflows to Ivankovskoye, Rybinskoye and Nizhnekamskoye reservoirs were 1.2-1,4x the normal level, to Shekskinskoye – 1.9x the normal level. At the same time inflows to Uglichskoye, Gorkovskoye and Cheboksarskoye reservoirs was 20-40% below the normal level, while inflows to Kamskoye and Kuybishevskoye reservoirs – at the normal level. Total water inflows to Volga-Kama reservoirs amounted to 37.4 km<sup>3</sup> as compared to the normal level of 38.4 km<sup>3</sup>.

In January 2021, water inflows to the majority of reservoirs on the Volga and the Kama Rivers are expected at the normal level, while inflows to Ivankovskoye reservoirs - twice the normal level. As of 20.01.2021, water storage at the reservoirs of the cascade was at the normal level.

Total electricity production by the hydropower plants of the Volga-Kama cascade and Zagorsksaya pumped storage in 2020 increased by 13.4% to 48,245 GWh as compared to 2019.

#### South of Russia and North Caucasus

During 2020, total water inflow to Chirkeyskaya HPP on the Sulak River was below the normal level. In January 2021, total water inflow is expected slightly below the normal level.

In 2020, total electricity production by the hydropower plants in the South of Russia and North Caucasus decreased by 3.0% to 6,330 GWh as compared to last year.

#### Siberia

In 4Q 2020 water inflows to the reservoirs of Siberia were 10-25% above the normal level. Favorable hydrological conditions will carry over to January 2021 as water inflows Sayano-Shushenskoye and Novosibirskoye reservoirs are expected to be 10-30% above the normal level. Water storage at the reservoirs is at the normal level.

In 2020, total electricity production by PJSC Rushydro's hydropower plants in Siberia increased by 11.9% to 30,347 GWh as compared to 2019. Electricity production of Boguchanskaya HPP in 2020 reached 17,638 GWh, an increase of 9.5% as compared to last year.

#### Far East

In the fourth quarter of 2020, water inflows to Kolymskoe and Zeyskoye reservoirs were 10-65% below the normal level.

Stronger performance is expected in January 2021 as well. Water inflows to Kolymskoye reservoir are expected to be 40-60% above the norm, while inflows to Zeyskoye reservoir will be twice the normal level. Water storage at the reservoirs in the Far East as of 20.01.2021 are slightly above the normal level.

Total electricity generated by hydropower plants in the Far East (not included in the RAO ES East subgroup) in 2020 increased by 9.4% to 16,693 GWh against the same period last year.

Total electricity generated by RAO ES East subgroup in the fourth quarter of 2020 decreased by 4.7% to 8,031 GWh, as compared to the fourth quarter of 2019. The main drivers behind the production growth were decrease of electricity consumption in the region by 1.1% compounded by HPP production growth. JSC Far Eastern Generating Company's (DGK) share of electricity generated was 68% or 5,441 GWh, a decrease of 3.7% against the same period last year.

In 2020, total electricity generation by RAO ES East subgroup decreased by 0.7% to 29,371 GWh against 2019.

Heat output by thermal plants of RAO ES East Subgroup in the fourth quarter of 2020 came in at 10,243 GCal, in 2020 – 29,358 GCal, a decline of 4.3% and 0.5% respectively as compared to 2019.

# Heat output by thermal plants of RAO ES of the East Subgroup, '000 GCal

	4Q'20	4Q'19	chg, %	2020	2019	chg, %
JSC DGK incl.	7,146	7,311	-2.3%	19,964	19,812	0.8%
Primorye power system	1,339	1,309	2.3%	4,049	3,802	-19.6%
Khabarovsk power system	4,109	4,327	-5.0%	11,468	11,709	-2.1%
Amur power system	922	930	-0.8%	2,474	2,354	5.1%
South Yakutsk power district	708	744	-4.9%	1,907	1,947	-2.0%
JSC RAO ES East (CHPP Vostochnaya)	274	244	12.4%	846	809	4.6%
PJSC Yakutskenergo	966	1 005	-3.9%	2,550	2,560	-0.4%
UES of East	8,385	8,560	-2.0%	14,974	14,620	2.4%
Yakutsk power system incl.	273	479	-42.8%	1,006	1,234	-18.4%
JSC Sakhaenergo	23	24	-7.0%	66	73	-9.7%
JSC Teploenergoservice	251	454	-44.8%	940	1,161	-19.0%
Kamchatka power system incl.	588	638	-7.8%	1,919	2,000	-4.0%
PJSC Kamchatskenergo	588	610	-3.6%	1,877	1,920	-2.2%
JSC KSEN	-	28	-	42	80	-46.9%

Magadan power system	407	406	0.3%	1,238	1,220	1.4%
Chukotka AO power system	105	127	-17.2%	397	414	-4.2%
Sakhalin power system	485	491	-1.3%	1,438	1,454	-1.1%
Isolated power systems	1,858	2,140	-13.2%	5,999	6,322	-5.1%
TOTAL	10,243	10,701	-4.3%	29,358	29,503	-0.5%

# **Electricity retail**

Total electricity output by RusHydro Group's energy retail companies in 4Q 2020 decreased by 0.1% to 14,008 GWh as compared to 4Q 2019; in 2020 – decreased by 0.6% to 48,897 GWh. The majority of decrease came on the back of climate factor and implementation of nationwide government measures to contain the COVID-19 virus spread.

In the fourth quarter of 2020, total electricity output by ESC RusHydro subgroup's retail companies, operating in Chuvashia, Ryazan, Krasnoyarsk regions and in the Far East decreased by 1.0% and amounted to 11,531 GWh, in 2020 output decreased by 1.3% and amounted to 40,182 GWh.

Total electricity output by RusHydro's companies located in the isolated energy systems in the Far East Federal District amounted to 2,477 GWh in 4Q 2020, an increase of 5.9% as compared to the same period last year, in 2020 – increased by 2.7% to 8,715 GWh.

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

	4Q'20	4Q'19	chg, %	2020	2019	chg, %
PJSC Krasnoyarskenergosbyt	3,310	3,360	-1.5%	11,315	11,880	-4.8%
JSC Chuvash retail company	926	923	0.3%	3,210	3,323	-3.4%
PJSC Ryazan retail company	671	671	-0.01%	2,426	2,499	-2.9%
JSC ESC RusHydro	576	482	19.5%	2,070	1,788	15.8%
PJSC DEK	6,048	6,214	-2.7%	21,161	21,240	-0.4%
Total ESC RusHydro subgroup	11,531	11,650	-1.0%	40,182	40,730	-1.3%
Isolated energy systems (for reference)	2,477	2,338	5.9%	8,715	8,482	2.7%
Total by Group	14,008	13,988	0.1%	48,897	49,212	-0.6%

# Water inflows forecast

According to the forecast of the Hydrometeorology Center of Russia, the following dynamics of water inflows to the major reservoirs is expected in the 1<sup>st</sup> quarter of 2021:

- Total water inflows to reservoirs on Volga-Kama cascade are expected above the normal level;
- Inflows to the reservoirs on the rivers Siberia and the Southern Caucasus are at the normal level;
- In the Far East inflows to Zeyskoye and Kolymskoye reservoirs are expected to be above the long-run average.

<sup>&</sup>lt;sup>1</sup> Hereinafter data is reported excluding Armenia and Primorskaya GRES. On 11.03.2020 RusHydro has finalized divestment of its assets in Armenia to PJSC Hrazdan Power Company (HrazTES, Tashir Group). Primorksaya GRES was sold to SUEK Group in June 2020.

<sup>&</sup>lt;sup>2</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.

 $<sup>\</sup>frac{3}{2}$  Data for the Far East excludes Zabaikalskiy krai and Buryatia as RusHydro does not have any operations in those regions.