# **2019 Milestones**

#### January

- DEK was authorized to distribute electricity in Sakhalinenergo's regions of operation. Redistribution of electricity retail functions among the Group's companies helped reduce selling expenses.

- The Central and Western energy hubs of Yakutia were connected to the Unified Energy System of Russia. Yakutskenergo transferred the supervision and control over the territory to the UES System Operator.





-• As part of its strategy to promote advanced utility payment technologies in the Russian Far East, RusHydro Group pioneered single billing and payment centers in the Primorsky Krai, specifically in Vladivostok and Artem.



were launched in 2019 by RusHydro in the Far East

#### February

- The engineering and blasting works conducted to clear a landslide at the Bureyskoye water reservoir helped bring the hydrological conditions back to normal, with Bureyskaya HPP now operating as usual.

- The divestment of RusHydro's 40% share in VolgaHydro, a hydropower equipment manufacturing joint venture in the Saratov Region, to Voith. The sale price was determined by an independent appraiser and fully offset the Company's investments in the project.



#### March

 RusHydro Group and UC RUSAL commissioned, within two start-up complexes, the first train of the Boguchansky Aluminum Smelter, part of the Boguchansk Energy and Metallurgical Association project (BEMO).



The first train of the Boguchansky Aluminium Smelter was commissioned Strategic review

Additional information

## May

-• Volzhskaya HPP piloted a phase angle regulator, first of its kind in Russia. This unique ground-breaking equipment manufactured by the Power Machines – Toshiba. High-Voltage Transformers JV is set to support power transmission from Volzhskaya HPP.



**The phase angle regulator at Volzhskaya HPP** was fully developed in Russia

## April

-• PJSC RusHydro paid coupons on and fully redeemed its series BO-P04 exchange-traded bonds for a total of RUB 15 bn<sup>1</sup>, which helped reduce its rouble-denominated weighted average cost of debt to 7.8% p. a. and improve its financial performance.

-• The Board of Directors approved an updated version of RusHydro's dividend policy aiming to enhance dividend distribution transparency and predictability. The new document suggests that 50% of its profit under the IFRS consolidated financial statements be distributed as dividends in the base-case scenario. It also sets out the minimum dividend payout determined as the average amount of dividends paid for the previous three years.

-• RusHydro held a public hearing on the 2018 annual report draft involving the representatives of the main groups of stakeholders.

-• As part of the Comprehensive Modernization Program, RusHydro started upgrading Kubanskaya PSPP in the Karachay-Cherkess Republic, Russia's longest-standing pumped storage power plant.



#### June

- As part of the Comprehensive Modernization Program, Novosibirskaya HPP saw all of its turbines replaced with new equipment boasting enhanced capacity and higher efficiency (94% vs 87%). The new turbines meet the latest environmental safety requirements. The upgrade is designed to increase the plant's installed capacity.

-• RusHydro started constructing two smaller HPPs (Krasnogorskaya HPP-1 and HPP-2) on the Kuban River in the Karachay-Cherkess Republic, each with an average annual output of 83.8 mn kWh. Both HPPs are expected to be launched in 2021-2022.



is the projected installed capacity of both smaller HPPs



<sup>&</sup>lt;sup>1</sup> In accordance with the Securities Issue Resolution (state registration number: 4B02-04-55038-E-001P dated April 1, 2016), the coupon amount totaled RUB 774.15 mn. The accumulated coupon was paid for the period from October 4, 2018 to April 4, 2019.

### August

-• RusHydro sponsored projects to restore populations of the snow leopard in the Krasnoyarsk Territory and cranes in the Republic of Khakassia, with the Sayano-Shushensky and Khakassia nature reserves as its key partners.

- RusHydro commissioned a 300 GCal/h hot water peaking boiler plant, a major heat supplier in Yakutsk. The new energy facility ensures a more stable heat supply in the capital of Yakutia, partially replacing the capacity of the decommissioned Yakutskaya GRES.

-• RusHydro fully paid the 2018 dividends, which amounted to RUB 15.9 bn (up 42% y-o-y), or 50% of its IFRS net profit for 2018.



of net profit under IFRS was assigned for dividend payments

#### September

-• RusHydro Group launched a chain of ten fast charging stations for electric vehicles, first of its kind in the Far East. The new facilities are installed in such cities of the Primorsky Krai (the leading region in terms of EV numbers) as Vladivostok, Ussuriysk and Artem.

-• RusHydro Group opened shared utility payment centers in the Primorsky Krai and Khabarovsk territories. The high-tech facilities meet all the latest requirements to provide a seamless customer experience.

-• Zagorskaya PSPP, Russia's largest pumped storage power plant, started distributing electricity through a new 500 kV gas-insulated switchgear. Installation of the 500 kV gas-insulated switchgear at Zagorskaya PSPP was carried out as part of RusHydro's Comprehensive Modernization Program.

-• RusHydro Group put into operation Nizhne-Bureyskaya HPP in the Amur Region, Russia's most powerful hydroelectric plant constructed in the post-Soviet period. With the fourth hydropower unit launched, Nizhne-Bureyskaya HPP reached its design capacity of 320 MW.



Installed capacity of the Nizhne-Bureyskaya HPP

July

-• The Government of Russia approved the TPP construction and upgrade projects in the Far East proposed by RusHydro, including the construction of Artyomovskaya CHPP-2, Khabarovskaya CHPP-4 and the second stage of Yakutskaya GRES-2 and the upgrade of Vladivostokskaya CHPP-2. Sufficient return on investment will be secured via a mechanism offered by the government program for the thermal power plant modernization in Russia.

-• As part of the Comprehensive Modernization Program, RusHydro Group started upgrading Chirkeyskaya HPP, the largest hydroelectric power plant in Dagestan and the North Caucasus. It plans to replace most of the HPP equipment and reconstruct the hydraulic structures, thus adding 100 MW to its capacity.





will be the capacity gain of Chirkeyskaya HPP resulting from modernization

## November

-• PJSC RusHydro successfully completed the offering of its RUB 15 bn five-year roubledenominated Eurobonds on the Irish Stock Exchange. The coupon rate was set at 6.8% per annum (an all-time low for corporate rouble-denominated Eurobonds at the time of placement) and the issue was oversubscribed by almost five times.

-• RusHydro and VTB signed an agreement on amending the forward contract. The forward rate was reduced by 0.5% per annum, with the contract's term extended by three years up to 2025.

-• RusHydro put into operation Sakhalinskaya GRES-2 in the Sakhalin Region. This state-ofthe-art 120 MW thermal power plant was built to replace the obsolete Sakhalinskaya GRES. It is expected to produce 840 mn kWh annually, covering a third of Sakhalin's demand for electricity.



is the capacity of Sakhalinskaya GRES-2

- RusHydro Group completed the 15th season of oBEREGAi, a nationwide charitable environmental program designed to engage the Company's employees and volunteers in cleaning up the banks of rivers, reservoirs and lakes. The total number of eco-marathon volunteers in 2019 exceeded 2,500 people from 20 regions who collected over 3,500 bags of garbage.

-• RusHydro opened the first shared utility payment center in Yakutia.

-• RusHydro commissioned the first charging station for electric vehicles in the Amur Region. Lessons learned from operation of the Company's charging equipment in the Far Eastern Federal District will be used in the joint project of RusHydro and the Amur Region aimed at promoting electrical vehicles and charging infrastructure.

#### October

-• PJSC RusHydro began levelling of the Zagorskaya PSPP-2 building. The works to level the station node building at Zagorskaya PSPP-2 are scheduled to be completed in 2022, with a decision on further construction steps to be taken after that.

- RusHydro made it to the Global 2000 list of the World's Best Employers culled by Forbes and Statista. The world's top 500 employers include seven Russian companies, but RusHydro is the only power generating company on the list.



RusHydro holds a position among top-500 world's best employers

## December

-• RusHydro Group completed the restructuring of assets in the Kamchatka Territory by merging JSC Geoterm and PJSC KamGEK with PJSC Kamchatskenergo, the region's largest energy company. The consolidation exercise is key to enhancing our efficiency in the Russian Far East and optimising RusHydro Group's corporate structure.

-• Nizhne-Bureyskaya HPP completed a unique hybrid renewable generation project, with 1,3 MW solar panels installed at a hydropower plant for the first time in the history of the Russian energy sector. The solar plant will help Nizhne-Bureyskaya HPP save on own power consumption, thus increasing net supply of electricity and enhancing the HPP efficiency.



#### **Events after the reporting date**

#### January

-• DEK was authorized to distribute heat and electricity in Kamchatskenergo's regions of operation. The redistribution of sales functions within RusHydro Group will help introduce uniform operating standards, resulting in a more efficient power supply to consumers.



## The project

of consolidation of RusHydro's retail assets is implemented in the most of the Far Eastern regions

## March

-• A deal was sealed to sell RusHydro Group's stake in International Energy Corporation (CJSC MEK, Armenia) managing Sevan-Hrazdan Cascade HPP. The buyer fully refinanced the credit liabilities of CJSC MEK raised against RusHydro's surety. After the closure of the deal, RusHydro Group's financial debt went down by RUB 4 bn and the Group's loan portfolio was no longer exposed to currency risks.



decreased RusHydro Group's financial debt as a result of the deal

#### February -

-• RusHydro inaugurated Zaramagskaya HPP-1 in the Republic of North Ossetia. The new facility is the largest power plant in the republic and the third most powerful hydroelectric plant in North Caucasus<sup>1</sup>. The 346 MW power plant will produce 842 mn kWh of electricity annually. With Zaramagskaya HPP-1 commissioned, the power system of North Ossetia took a quantum leap as the region's total installed capacity quadrupled and its self-sufficiency in power increased from 20% to 70%.



## April

-• The first turbine unit of the TPP in Sovetskaya Gavan was connected to the grid and synchronized with the United Energy System of Russia. As part of the comprehensive tests, the turbine unit pilot run was performed, and it successfully generated first kWh for the power system.



-• RusHydro and the Sakhalin Region signed an agreement on the power charging infrastructure development. The parties agreed that RusHydro will start the installation of charging stations for electric cars on the territory of the Sakhalin Region in 2020.

<sup>&</sup>lt;sup>1</sup> Zaramagskaya HPP-1 was commissioned in December 2019, with power output as at the end of the year totaling 1.7 mn kWh.