STRATEGIC REVIEW

SPP Batagay. Commissioned in 2015

Business model *[EC]*

Our business model is designed to illustrate RusHydro Group's key business lines and the ways we leverage the whole range of resources to achieve significant results which define the Company's short-, mid- and long-term value, and pursue our strategic goals.

The Group uses natural capital and possesses manufactured, financial, human, social and intellectual[1] capitals which are of great importance for its stakeholders. Our capital comes from internal (generating facilities, grid and sales assets, net income, personnel, in-house R&D and design organizations) and external (water resources, borrowings, contractor staff) sources. The results of capital transformation into value, namely electricity and heat generation, dividend payouts to shareholders, tax payments and job creation, are significant for both the Group and its stakeholders.

[1] As defined by the International Integrated Reporting Framework, capitals mean resources and relationships that are the sources and results of value creation.

RESOURCES

MANUFACTURED CAPITAL

39.7
GW installed electrical capacity

19,021
Gcal/h installed heat capacity

21.9
thousand substations

105.0
thousand km of transmission power lines

FINANCIAL CAPITAL

7.0
RUB bn raised as part of additional share issue

201.9
RUB bn of debt capital raised as of January 31, 2019

1.5
net debt / EBITDA

88.7
RUB bn CAPEX

INTELLECTUAL CAPITAL

6
R&D organizations

21
partner universities

HUMAN CAPITAL

69.5
'000 people headcount

In-house Corporate Hydropower University

SOCIAL CAPITAL

Leading national company by low-carbon generation

Key role in tariff adjustment in the Far East

Russia's only electricity generating company in the Forbes rating of top employers

NATURAL CAPITAL

758.6
mn m³ water used

16.3
mn tonnes coal used

5.6
bn m³ gas used

DESIGN AND CONSTRUCTION

UPGRADE AND REPAIRS

GENERATION

HPP — **24,874** MW

WECM

REM

GENERATION

HPP — **3,660 / 14,972** MW Gcal/h

TPP/ DPP/ boilers — **7,178 / 2,068** MW Gcal/h

WECM, REM

SALES

PJSC DEK

JSC DGK

GENERATION

HPP — **1,938** MW

TPP/ DPP/ boilers — **1,742 / 1,439** MW Gcal/h

SPP

WPP

GeoPP

291 MW

ELECTRICITY DISTRIBUTION AND HEAT TRANSMISSION

20,077 km of electric power grids / **3,209** km of heating grids

8,910 MVA substation capacity

I AND II PRICE ZONES

SALES

4 retail companies

NON-PRICE ZONE OF THE EAST

ELECTRICITY DISTRIBUTION AND HEAT TRANSMISSION

84,616 km of electric power grids / **2,566** km of heating grids

21,481 MVA substation capacity

JSC-ENERGO

SALES

ISOLATION ZONES OF THE FAR EASTERN FEDERAL DISTRICT

REM

BUYERS/ CONSUMERS

Large industrial consumers

Grid companies

Retail companies

Retail electricity consumers

RESULTS

MANUFACTURED CAPITAL

142.8
bn kWh
electricity generated

30.0
mn Gcal
heat generated

785
MW capacity for new consumers connected

FINANCIAL CAPITAL

97.5
RUB bn
EBITDA

15.9
RUB bn
dividend payouts

82.1
RUB bn
tax payments to budgets of all levels

INTELLECTUAL CAPITAL

3.4
RUB bn
FEED and R&D financing

25
patents
obtained

18
digitalization projects

HUMAN CAPITAL

34.9
average hours
of training per year per employee

78,575
RUB average salary of employees or c. 7 times higher than the statutory minimum monthly wage

34,239
trade union members

0.36
injury frequency rate

SOCIAL CAPITAL

32.1
RUB bn
allocated to adjust tariffs in the Russian Far East

15
effective cooperation agreements with regional and municipal governments

15
socially significant facilities handed over to Russian regions and cities

>300
community projects financed

NATURAL CAPITAL

23.8
mn tonnes
waste generated

600.2
mn m³
water discharged

5.4
bn kWh
electricity consumed

783.1
tonnes of CO_2 /mn kWh
intensity of emissions from electricity generation

RusHydro Group's business model highlights the continuous flow of capitals. Resource transformation within the same capital entails vertical transformation, e.g. natural into manufactured or financial into social capital.

Our comprehensive approach to value creation relies on an effective strategic and corporate governance system, which is based on a range of KPIs, fundamental valuation and factors in a changing market environment and the need to mitigate the materialized risks.

To assess the existing opportunities and management quality, we also need to compare the current and historical data on resources and results. For historical performance of the capitals and detailed comments, see the respective sections of the report.

Development strategy

Mission and values

RusHydro Group's mission is to ensure efficient use of water resources and reliability of the Unified Energy System of Russia, as well as to support the social and economic development of the Far Eastern regions by providing its existing and prospective consumers with access to energy infrastructure.

RusHydro Group's corporate values

Clean energy – ensuring environmental safety and protection of natural resources.

Engineering culture – operating assets in a safe and reliable manner.

Leading company – striving for the Company's success and leadership by combining its employees' efforts, resources and business components to achieve excellence in every aspect of the Company's operations.

Reliable business – implementing social policy which supports the Company's employees and residents across its footprint.

Prosperous society – promoting reliability and infrastructure development, efficient use of water resources, utilisation of hydropower potential and expanded use of renewable energy sources which contribute to the development of territories, economic growth and society's welfare and prosperity.

United team – providing opportunities for the development and fair remuneration of the employees to build a competitive edge across RusHydro's operations (team spirit, self-expression and unlocking employees' potential).

Developmental environment – implementing new technologies and offering infinite opportunities to foster further development.

Young energy – promoting energy-related careers among schoolchildren.

Strategy and its implementation *[102-26]*

RusHydro Group's Development Strategy until 2020 with an outlook for 2025 approved by the Company's Board of Directors[1] relies on the following documents:

- Concept of long-term social and economic development of the Russian Federation until 2020;
- National Security Strategy of the Russian Federation;
- Long-term forecast of economic development of the Russian Federation until 2030;
- Draft energy strategy of the Russian Federation until 2035;
- Scheme and program for the development of Russia's Unified Energy System;
- General layout of power generation facilities;
- Regional social and economic strategies, energy strategies;
- Industry strategies.

The strategy sets out development goals for the entire RusHydro Group along with specific objectives for their achievement.

[1] Minutes No. 238 of June 8, 2016.

RusHydro Group's strategic goals

Ensuring reliable and safe operations of the Company's facilities	Promoting stable development of electricity generation	Developing the Far Eastern energy sector	Increasing the Company's value
The Company ensures the reliable and safe operation of equipment, hydraulic structures and thermal power plant infrastructure with regard to society and environment, taking into account the economic feasibility of funds allocated for mitigating possible risks and reducing potential damage	The Company expands its electricity generation volumes by improving the efficiency of the production programs and investment projects, taking into account their economic performance	The Company ensures steady development of the Far Eastern energy sector and participates in the implementation of national goals to streamline the social and economic development of the region	The Company strives to increase its fundamental value, investment appeal and value growth while ensuring reliable and safe operation of its facilities

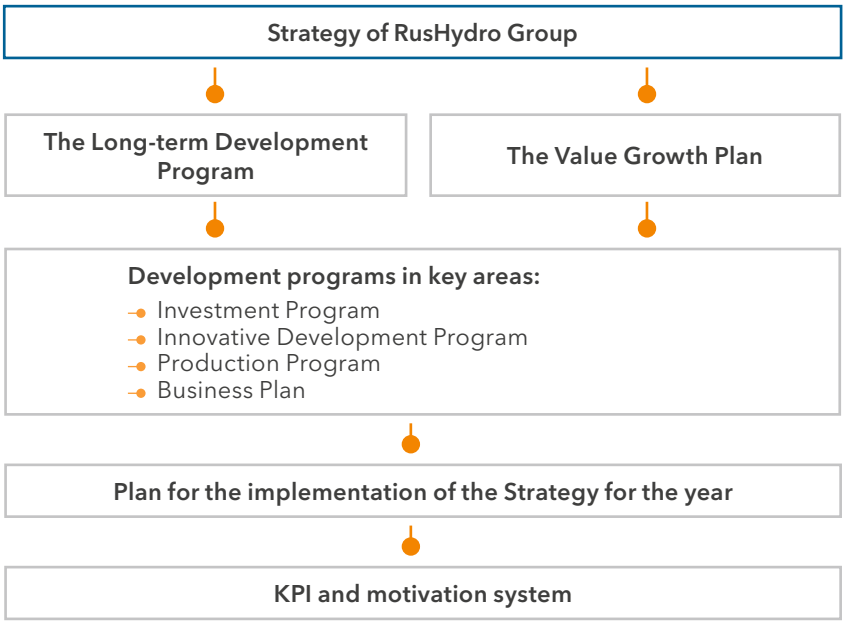
Key tasks

Development and improvement of perfomance of production and technological complex	Investment policy and changing approaches to the investment program development	Operating efficiency and transparency
	Improvment of the Far East assets managment and the Far East energy development	
Human resources development		

The Company has a strategic management system in place, which links strategic management processes with the incentive system. The system factors in the recommendations of the Federal Agency for State Property Management[1] on the development of key strategic documents.

The key enablers of the strategy are RusHydro Group's Long-Term Development Program, the Value Growth Plan and the Strategy Implementation Plan outlining the Company's development priorities as well as objectives and indicators aimed at achieving its strategic goals.

The system of strategic management of RusHydro



Long-Term Development Program

RusHydro Group's Long-Term Development Program for 2018–2022 was prepared in accordance with the instructions of the President of the Russian Federation[2] and the Russian Government[3] and approved by the Company's Board of Directors[4].

In compliance with the import substitution directives of the Russian Government, the Company's Board of Directors amended its Long-Term Development Program in 2019 to include an action plan providing for the Group's increased reliance on domestically developed software.

RusHydro Group's Long-Term Development Program relies on the Group's Development Strategy until 2020 with an outlook for 2025, the Consolidated Business Plan and the key development programs.

The progress on RusHydro Group's Long-Term Development Program is monitored in accordance with the Long-Term Development Program audit standard approved by the Company's Board of Directors[5] and the Terms of Reference for auditing the implementation of the Long-Term Development Program[6] developed in line with the recommendations of the Russian Government[7].

In the reporting year, RusHydro Group's Long-Term Development Program was implemented within the framework of production, investment and innovative programs. For more details, see the following sections: Key performance indicators, Investment activities, Economics and finance, Production and sales, Innovative development as well as Appendices 9 and 10.

[1] Recommendations of the Federal Agency for State Property Management No. OD-11/18576 of April 29, 2014.

[2] Instruction No. Pr-3086 of December 27, 2013.

[3] Minutes No. 3 of January 30, 2014, Directive of the Russian Government No. 4955p-P13 of July 17, 2014.

[4] Minutes No. 271 of June 1, 2018 as amended by resolutions of the Board of Directors (Minutes No. 279 of October 26, 2018, No. 294 of August 29, 2019, and No. 297 of October 21, 2019).

[5] Minutes No. 281 of December 27, 2018.

[6] Minutes No. 279 of October 26, 2018.

[7] Instruction of the Russian Government No. ISH-P13-2583 of April 15, 2014.

Value Growth Plan *[103-2]*

RusHydro Group's Value Growth Plan through to 2021 was approved by the Company's Board of Directors[1] to maximize the Company's value and its investment case for shareholders and investors.

One of RusHydro Group's strategic goals is to enhance the Company's value, which is set forth in its Development Strategy until 2020 with an outlook for 2025. The Value Growth Plan aims to increase RusHydro's fundamental and market value as the fundamental value drives market capitalization, which is particularly important in view of the fact that shares of RusHydro and other Russian power companies are currently traded with a significant discount to global majors.

To secure effective implementation of the Value Growth Plan, it is planned to introduce a cost approach in the Company's management activities for the management processes, systems and solutions to maximize value while also ensuring safe operations at generating facilities.

The efforts to improve the efficiency of operating and investing activities based on the findings of the external independent cost audit of RusHydro Group[2] in 2017–2019 brought about economic savings of RUB 24.7 bn as regards operating expenses and RUB 26.0 bn as regards investment expenses.

One of the key elements in the Value Growth Plan is cooperation with federal government authorities focusing on fostering a healthy investment climate in the energy sector of the Far Eastern Federal District and improving the tools to guarantee returns on investments in construction and upgrade projects. In 2019, following a meeting of the Government Commission on the Development of the Electric Power Industry, on July 15, 2019, the Russian Government adopted decree No. 1544-r to approve four modernization projects for the Far Eastern Federal District (1,262 MW): construction of Artyomovskaya CHPP-2 and associated off-site facilities (420 MW, 483 Gcal/h), Khabarovskaya CHPP-4 and associated off-site facilities (328 MW, 1,374 Gcal/h) and the second stage of Yakutskaya GRES-2 (154 MW, 194 Gcal/h), equipment modernization (turbo generators No. 1–3 and boiler units No. 1–8) at Vladivostokskaya CHPP-2 (360 MW, 570 Gcal/h) (for details, see the Construction and Modernization of Production Facilities section).

In order to enhance the transparency and predictability of dividend payouts, RusHydro approved an updated version of the Regulations on the Dividend Policy[3], which sets the minimum dividend payout (lower threshold) at the level of the average dividend paid for the previous three years. The Dividend Policy seeks to ensure predictability of dividend payouts given the non-monetary impairment of energy facilities commissioned in the Far Eastern Federal District and its impact on the Group's IFRS financial results.

Additionally, as part of its Value Growth Plan, the Group focuses on key operating domains with a view to increasing the transparency and predictability of the Company for market participants and bridging the gap between the fundamental and market values, including by improving the quality of corporate governance, ensuring a predictably high dividend flow, enhancing the liquidity of shares and depositary receipts, increasing our weight in the key indices, etc.

Strategic risks

The Company maintains a strategic risk register which identifies risk owners and is reviewed on an annual basis. The register is used to disclose risk-related information to shareholders, rating agencies, auditor and other stakeholders, and to further promote and control risk optimization initiatives.

The list of strategic risks and information on the risk management system are available in the Risk Management section.

Strategy Implementation Plan for 2019 *[EC]*

The Strategy Implementation Plan sets the following key goals and initiatives for 2019[4].

[1] Minutes No. 259 of October 30, 2017.

[2] The cost optimization plan based on the external independent cost audit of PJSC RusHydro and its subsidiaries (carried out by LLC Ernst & Young Assurance & Consulting Services) was approved by resolution of the Company's Board of Directors (Minutes No. 244 of November 23, 2016).

[3] Minutes of the Board of Directors No. 287 of April 22, 2019.

[4] As compared to 2018, the strategic goals for 2019 were expanded to include:
- substitution of imported products with those of Russian origin having similar specifications and usability.

Goal	Progress
Ensuring reliability of existing assets and their upgrade, enhancing management efficiency with respect to the production complex	As part of the Comprehensive Modernization, Rehabilitation and Repair Program, additions to installed capacity in 2019 amounted to: - 10 MW at Novosibirskaya HPP; - 30 MW at Votkinskaya HPP; - 12 MW at Saratovskaya HPP; - 10.5 MW at Zhigulevskaya HPP.
Enhancing the investment case and transparency	The Company's Board of Directors[1] approved a new edition of the Regulations on the Dividend Policy, which sets out 50% of RusHydro Group's IFRS net profit for the respective reporting period as the base rate for calculating dividends. Additionally, the minimum dividend payout (lower threshold) is set at the level of the average dividend paid for the previous three years.
Substitution of foreign-made products, works and services with those of Russian origin having similar specifications and usability	The Company is implementing its import substitution roadmap and corporate plan, which includes drafting proposals to stimulate domestic manufacturers. The Company's Board of Directors[2] approved the Action Plan for 2019–2021 providing for the Group's increased reliance on domestically developed software. In cooperation with the Industrial Development Fund of the Russian Ministry of Industry and Trade, the Company is implementing the defense industry diversification roadmap for the betterment of the domestic energy sector within the state industrial information system.
Improving the efficiency of the Far Eastern asset management system and developing the Far Eastern energy sector	The Company's Board of Directors[3] approved the Priority Development Program for the electric power industry in the Far Eastern Federal District with a view to promoting regional growth. The Program aims to ensure stable power supply for the consumers, including through centralized energy systems and modernization of thermal power plants in line with social and economic needs. The Russian Government's Decree No. 1544-r dated July 15, 2019 amended the list of thermal power plants to be modernized (rehabilitated) or constructed in the WECM non-price zones to include RusHydro's projects, specifically the second stage of Yakutskaya GRES-2, Artyomovskaya CHPP-2, Khabarovskaya CHPP-4, Vladivostokskaya CHPP-2.
Drafting the Company's strategic documents	The Group's Long-Term Development Program for 2018–2022 was updated. The Company's Board of Directors approved amendments to the Intelligent Systems and Digital Technology Roll-out section of the Group's Long-Term Development Program which were developed in compliance with Russian Government's Directive No. 10068p-P13 of December 6, 2018 and in accordance with the Board of Directors resolution on the Company's increased reliance on domestically developed software. As resolved by the Government Commission on the Modernization of the Economy and Innovative Development of Russia led by the Chairman of the Russian Government,[4] RusHydro Group updated its Innovative Development Program for 2020–2024 based on benchmarking vs global peers. RusHydro Group's technological capabilities and innovations are generally on a par with the leading peers and international best practices.
Improving the corporate governance system	The Company's corporate government practices were assessed. The results of the Board of Directors' performance assessment (self-assessment) and the assessment performed by the internal audit function were reviewed by the Board of Directors at a meeting held in person[5]. Based on the external assessment results, independent directors praised the Company's progress in corporate governance. The Company took notice of recommendations on improving its corporate governance following the assessment performed by the internal audit function and proposals for enhancing the Board of Directors' performance following the Board of Directors' performance self-assessment, all in line with methodology guidelines of LLC PricewaterhouseCoopers Advisory.

[1] Minutes No. 287 of April 22, 2019.

[2] Minutes No. 285 of March 26, 2019.

[3] Minutes No. 292 of June 22, 2019.

[4] Meeting minutes No. 2 of October 22, 2018.

[5] Minutes No. 287 of April 22, 2019.

Key performance indicators[1]

The system of key performance indicators ("KPI") for RusHydro's management team is based on national statutory requirements[2] and is designed to improve the Company's performance and achieve the goals set by its shareholders. Since 2017, the management KPI system includes annual KPI of the Management Board and KPI under RusHydro's Long-Term Incentive Plan ("LTIP").

In 2016, based on recommendations of an independent advisor[3], the Company developed a list of annual KPI for RusHydro's Management Board along with relevant calculation and evaluation methodologies, while also coming up with KPI for the Long-Term Incentive Plan, both of which are aimed at motivating the Company's management to achieve strategic goals and thus aligning the interests of the Company's management and shareholders. In 2019, the independent advisor updated the list of the LTIP KPI by introducing "Earnings per share (EPS), RUB/share" as a KPI with a 15% weight. The Management Board's KPI and the Company's LTIP KPI are calculated and evaluated using the calculation and evaluation methodology (approved by the Board of Directors) for the Management Board's KPI[4] and the calculation and evaluation methodology for the KPI of RusHydro's Long-Term Incentive Plan[5].

KPI of the Long-Term Incentive Plan

There are four KPI covering the first, second and third cycles of RusHydro's LTIP: three financial indicators (including total shareholder return (TSR) as a mandatory indicator required by the Federal Agency for State Property Management) and an integrated innovative KPI[5]. The achievement of target KPI for the Long-Term Incentive Plan is assessed upon expiry of the respective period.

[1] In the Key Performance Indicators section, a special methodology is used to calculate KPIs, hence, the values of indicators with the same name may differ in other sections of the report. The methodology for calculating the KPI of the Long-Term Development Program is disclosed in Appendix No. 9.

[2] Clause 4 of the List of the Russian President's Instructions No. Pr-1474 of July 5, 2013, Instruction of the Russian Government No. ISH-P13-2043 of March 27, 2014, and Directives of the Russian Government No. 2579p-P13 of April 25, 2014 and No. 7558p-P13 of November 12, 2014 in accordance with the Methodological Guidelines of the Federal Agency for State Property Management.

[3] Recommendations of the independent advisor (Ernst & Young (CIS) B.V.) on the methodology for the Management Board's remuneration system were approved by the Board of Directors (Minutes No. 241 of September 23, 2016)..

[4] Minutes No. 245 of December 26, 2016 as amended by resolutions of the Board of Directors (Minutes No. 251 of April 18, 2017, No. 269 of April 25, 2018, and No. 296 of September 25, 2019).

[5] Minutes No. 264 of December 28, 2017 as amended by resolutions of the Board of Directors (Minutes No. 283 of February 21, 2019).

[6] Approved by resolution of the Interagency Working Group for Implementing the Innovative Development Priorities of the Presidium of the Russian President's Council for Modernization of the Economy and Innovative Development of Russia (Minutes No. AD-P36-247pr of December 17, 2015). The integrated innovative KPI is listed among KPI in compliance with Directives of the Russian Government No. 1427p-P13 of March 3, 2016 and Resolution of the Board of Directors (Minutes No. 242 of October 10, 2016).

Target KPI for the first LTIP cycle in 2017–2019[1]

KPI	Target	Actual	Target KPI achievement	Weight, %	KPI achievement in 2019, %
Total shareholder return (TSR), %	100	0	Not achieved	15	0
Integrated innovative KPI, %	85	95	Achieved	25	100
Free cash flow (FCF), RUB mn	-138,601	-69,093	Achieved	45	100
Earnings per share (EPS), RUB/share	0.85	0.95	Achieved	15	100

Target KPI of the Long-Term Incentive Plan

KPI	Target	
	second LTIP cycle in 2018-2020[2]	third LTIP cycle in 2019-2021[3]
Total shareholder return (TSR), %	100	100
Integrated innovative KPI, %	85	85
Free cash flow (FCF), RUB mn	-117,064	-57,454
Earnings per share (EPS), RUB/share	0.84	0.80

KPI of the Long-Term Development Program

RusHydro's Long-Term Development Program consists of KPI established for 2018–2022.

The target KPI were calculated in accordance with RusHydro Group's draft Consolidated Business Plan for 2018–2022 (including the Consolidated Investment Program) and subject to the initiatives stipulated in the Group's programs.

The list of KPI for RusHydro's Long- Term Development Program for 2018–2022 includes the list of annual KPI of the Management Board and the list of LTIP KPI.

[1] Approved by resolutions of the Board of Directors dated December 23, 2016 (Minutes No. 245 of December 26, 2016) and June 21, 2017 (Minutes No. 254 of June 22, 2017) as amended on December 25, 2018 (Minutes No. 282 of December 12, 2018) and on February 19, 2019 (Minutes No. 283 of February 21, 2019).

[2] Pursuant to resolutions of the Board of Directors No. 301 of December 26, 2019 amending target performance indicators for the second cycle of RusHydro's Long-Term Incentive Plan for 2018–2020.

[3] Pursuant to resolutions of the Board of Directors No. 301 of December 26, 2019 amending target performance indicators for the third cycle of RusHydro's Long-Term Incentive Plan for 2019–2021.

Target and actual KPI of the Long-Term Development Program[1]

KPI	2019			2020	2021	2022
	Target	Actual	Achievement	Target		
Total shareholder return (TSR), %	100	0	Not achieved	100	100	100
ROE, %	18.24	23.03	Achieved	16.12	16.70	16.03
EBITDA[2], RUB mn	166,880	171,907	Achieved	193,795	209,894	207,698
Prevention of accidents exceeding the limit number of accidents:	0	0	Achieved	0	0	0
– number of production-related accidents	≤ 5-year average[3]	≤ 5-year average[4]	Achieved	≤ 5-year average	≤ 5-year average	≤ 5-year average
– number of major accidents	0	0	Achieved	0	0	0
Adherence to the capacity commissioning schedule, funding and spending plan, %	85	88	Achieved	85	85	85
Share of procurement from small and medium businesses, %	18	71	Achieved	18	18	18
including procurement from small and medium businesses only, %	15	49		15	15	15
Labor productivity, RUB '000/man-hour	5.62[5]	6.42	Achieved	5.31	5.60	5.75
Integrated innovative KPI, %	85	96	Achieved	85	85	85
Decrease in operating expenses (costs), %	2	2.02	Achieved	2	2	2
Free cash flow (FCF), RUB mn	–51,302[6]	-36,384	Achieved	25,498	54,277	56,424
Earnings per share (EPS)	0.25	0.31	Achieved	0.27	0.30	0.31

[1] Target performance indicators for the Long-Term Development Program for 2018–2022 were approved as part of RusHydro's LTDP for 2018–2022 (Minutes No. 271 of a meeting held by the Board of Directors dated June 1, 2018, as amended by resolutions of the Board of Directors (Minutes No. 297 of October 21, 2019)). The actual performance indicators for 2019 are calculated using RusHydro's calculation and evaluation methodology for the KPI of RusHydro's Long-Term Development Program approved by the Board of Directors as part of LTDP for 2018–2022.

[2] According to the applicable calculation and evaluation methodology for the KPI of RusHydro's Management Board, the EBITDA approved by resolution of the Board of Directors shall be calculated on the basis of RusHydro Group's audited consolidated financial statements under the IFRS using the following formula: EBITDA = EBT + depreciation and amortization + non-cash expenses – non-cash revenue + interest payable + fuel cost.

The EBITDA calculated using this formula is different from that used in RusHydro Group's IFRS financial statements due to different approaches to calculating the indicator. According to Note 6 to the IFRS consolidated financial statements of RusHydro Group, EBITDA is calculated as operating profit/loss net of depreciation and amortization, gain on financial assets at fair value through profit or loss, impairment of fixed assets, impairment of financial assets, gain/loss on disposal of fixed assets and other non-cash operating income and expenses.

[3] 17.6.

[4] 10.

[5] As per adjusted 2019 KPI for the Management Board approved by resolution of the Board of Directors dated September 20, 2019 (Minutes No. 295 of September 23, 2019). The pre-adjustment value is 5.72.

[6] As per adjusted consolidated Business Plan of RusHydro Group for 2019 and target KPI of the Long-Term Incentive Plan approved by resolution of the Board of Directors dated September 20, 2019 (Minutes No. 295 of September 23, 2019). The pre-adjustment value is RUB -55,710 mn.

Annual KPI of RusHydro's Management Board in 2019

The annual KPI of RusHydro's Management Board for 2019 consist of five financial and two industry-specific indicators. Financial indicators of the annual KPI for RusHydro's Management Board include a mandatory indicator required by the Federal Agency for State Property Management – return on equity (ROE). The Company's financial indicators are calculated based on the Group's financial statements prepared under the IFRS.

The target annual KPI of RusHydro's Management Board for 2019 were approved by a resolution of the Board of Directors[1].

Target and actual KPI of RusHydro's Management Board members

KPI	Period	Target	Actual	Target KPI achievement	Weight, %	KPI achievement in 2019, %
EBITDA[2], RUB mn	2018	170,932	181,526	Achieved	15	100
	2019	166,880	171,907	Achieved		
ROE, %	2018	15.86	23.88	Achieved	15	100
	2019	18.24	23.03	Achieved		
Share of procurement from small and medium businesses, %	2018	≥18	76	Achieved	10	100
	2019	≥18	71	Achieved		
including procurement from small and medium businesses only, %	2018	≥15	46	Achieved		
	2019	≥15	49	Achieved		
Prevention of accidents exceeding the limit number of accidents:	2018	0	0	Achieved	20	100
	2019	0	0	Achieved		
– number of production-related accidents	2018	≤ 5-year average[3]	9	Achieved		
	2019	≤ 5-year average[4]	10	Achieved		
– number of major accidents	2018	0	0	Achieved		
	2019	0	0	Achieved		
Adherence to the capacity commissioning schedule, funding and spending plan, %	2018	85	92.8	Achieved	20	100
	2019	85	88	Achieved		
Labor productivity, RUB '000/man-hour	2018	5.30	6.12	Achieved	10	100
	2019	5.62	6.42	Achieved		
Decrease in operating expenses (costs), %	2018	2	2.69	Achieved (subject to factors beyond control of the management team[5])	10	100
		2	2.02	Achieved		

[1] Minutes No. 282 of December 27, 2018 as amended by resolutions of the Board of Directors (Minutes No. 295 of September 23, 2019).

[2] According to the applicable calculation and evaluation methodology for the KPI of RusHydro's Management Board, the EBITDA approved by resolution of the Board of Directors shall be calculated on the basis of RusHydro Group's audited consolidated financial statements under the IFRS using the following formula: EBITDA = EBT + depreciation and amortization + non-cash expenses – non-cash revenue + interest payable + fuel cost.

The EBITDA calculated using this formula is different from that used in RusHydro Group's IFRS financial statements due to different approaches to calculating the indicator. According to Note 6 to the IFRS consolidated financial statements of RusHydro Group, EBITDA is calculated as operating profit/loss net of depreciation and amortization, gain on financial assets at fair value through profit or loss, impairment of fixed assets, impairment of financial assets, gain/loss on disposal of fixed assets and other non-cash operating income and expenses.

[3] 22.8.

[4] 17.6.

[5] Resolution of the Board of Directors (Minutes No. 286 of April 5, 2019).

Investment activities

Investment policy

RusHydro's investments are governed by the Regulations on Managing Investing Activities Performed in the Form of Capital Investments.

RusHydro's investment policy principles

Compliance of investment decisions and projects with statutory requirements, building codes and regulations, and environmental standards

Step-by-step approach to implementation of investment projects

Compliance of investment decisions and projects with risk-return profiles approved by the Board of Directors

Analysis of costs and benefits associated with alternative investment decisions (performed at the end of each stage in case of a change in key project metrics)

Access to financing for all investment projects

Investment programs are approved by the Company's Board of Directors and respective boards of directors in RusHydro Group's subsidiaries, with the programs of electricity supplying subsidiaries additionally reviewed by the authorized government agencies. The draft investment programs of subsidiaries are based on the Group's consolidated investment program, which is approved by the Management Board and presented to the Board of Directors of PJSC RusHydro. As far as electricity suppliers are concerned, the drafts are submitted to the authorized government agencies after being reviewed by the boards of directors in respective subsidiaries.

People in Russia and abroad appreciate the professionalism and expertise exhibited by RusHydro's workers. You use modern high-tech equipment to upgrade existing hydroelectric power plants and design and construct new ones. Thanks to your work, RusHydro is a leading renewable energy producer. It is important that the company does so much to promote social development, as well as to support culture, education, and spectator sports by operating charity projects nationwide and regionally.

Vyacheslav Volodin,

Chairman of the State Duma of the Russian Federation

Investment objectives

Ensure stable power supply with no disruptions for the consumers

Satisfy the growing energy consumption

Upgrade generating facilities

Reduce grid losses

Reduce power equipment failures and wear and tear

Role of federal and regional governments in the investment program development

In line with Investment Approval Rules for Electricity Suppliers approved by Resolution of the Russian Government No. 977 *On Investment Programs of Electricity Suppliers* dated December 1, 2009, investment programs of RusHydro's electricity supplying subsidiaries are reviewed and approved by the authorized government agencies (the Russian Ministry of Energy or regional authorities) with inputs from government agencies in the regions where such investment projects are implemented and federal government agencies, including the Ministry of Finance, Ministry of Construction, Housing and Utilities, Ministry of Industry and Trade, Ministry of Economic Development, Federal Antimonopoly Service, Market Council Non-Profit Partnership and System Operator of the Unified Energy System.

Pursuant to Resolution of the Russian Government No. 1502 *On Procedure for the Ministry of the Russian Federation for the Development of the Russian Far East and Arctic to Approve the Investment Programs and Development Plans of State Corporations, State Companies and Other State-Owned Organizations As Regards Their Implementation in the Far Eastern Federal District of Russia* dated December 27, 2016, draft investment programs of RusHydro's subsidiaries that are not electricity suppliers but engage in investment activities in the Far Eastern Federal District of Russia are subject to approval by the Ministry for the Development of the Russian Far East and Arctic.

Our cooperation with the country's federal and regional governments extends beyond developing and reviewing our investment program, with working on proposals and updates to energy policy papers (the "Policy Papers") also on our agenda. These documents include:

- schemes and programs for the future development of the power industry in Russian regions;
- schemes and programs for the development of Russia's Unified Energy System;
- general layout of power generation facilities in Russia;
- territorial planning layout for the Russian power industry.

RusHydro Group works to ensure that the Policy Papers contain only the most recent information on its generating facilities and comply with the Group's plans.

The Group's cooperation with regional governments focuses on drafting proposals and updating information on heat supply project blueprints for Russian cities and towns. For example, PJSC RusHydro's subsidiaries participated in public hearings on heat supply project blueprints for Khabarovsk, the Vladivostok and Artyom municipal districts, and other Far Eastern municipalities.

Investment program for 2019–2029

RusHydro's updated investment program for 2019 and investment program for 2020–2029 were approved by Order of the Russian Ministry of Energy No. 20@ *On Approval of RusHydro's Investment Program for 2020–2029 and Amendments to RusHydro's Investment Program Approved by Order of the Russian Ministry of Energy No. 6@ of October 22, 2018* dated December 9, 2019.

RusHydro's updated consolidated investment program for 2019 was approved as part of the Group's Consolidated Business Plan for 2019 by resolution of the Board of Directors[1]. RusHydro's consolidated investment program for 2020–2024 was approved as part of the Group's Consolidated Business Plan for 2020–2024 by resolution of the Board of Directors[2].

[1] Minutes No. 295 of September 23, 2019.

[2] Minutes No. 301 of December 26, 2019.

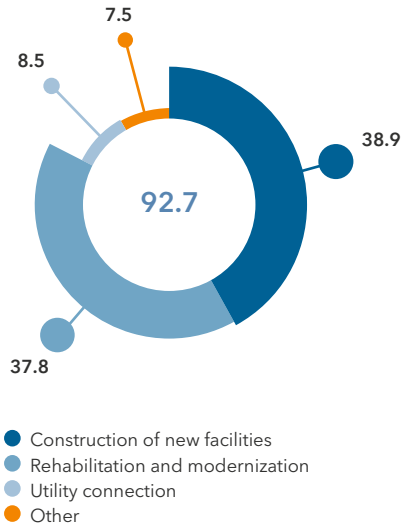
Implementation of RusHydro Group's consolidated investment program[1]

Spending on the consolidated investment program in 2019 amounted to RUB 92.7 bn, including RUB 65.5 bn for the investment projects of RusHydro Subgroup and RUB 27.2 bn for the projects of RAO ES East Subgroup.

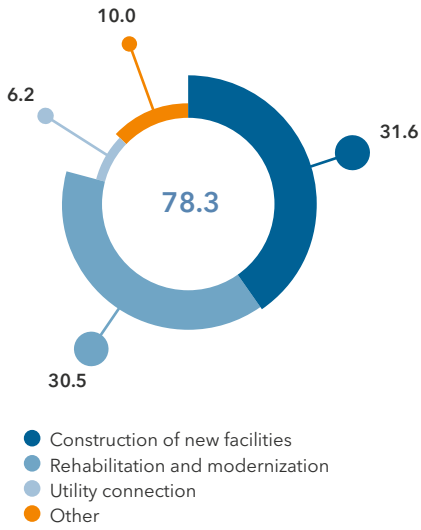
New capacities commissioned in 2019:
- 854.6 MW in electricity generation;
- 326.4 Gcal/h in heat generation;
- 399.8 MVA of transformer capacities;
- 1,549.2 km of power transmission lines.

Key investment areas under RusHydro Group's consolidated investment program in 2019[2]

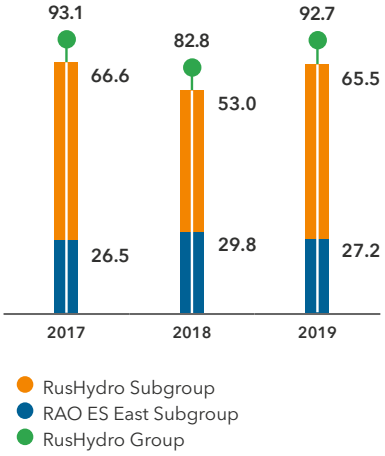
Spending, RUB bn (incl. VAT)



CAPEX, RUB bn (excl. VAT)

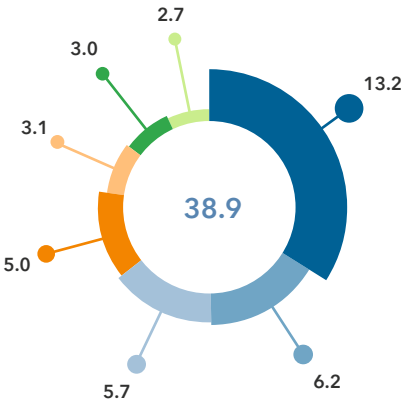


Actual spending in 2017–2019, RUB bn (incl. VAT)

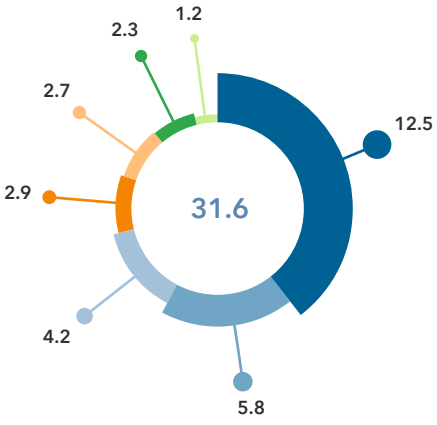


Investments in construction of new facilities in 2019

Spending, RUB bn (incl. VAT)



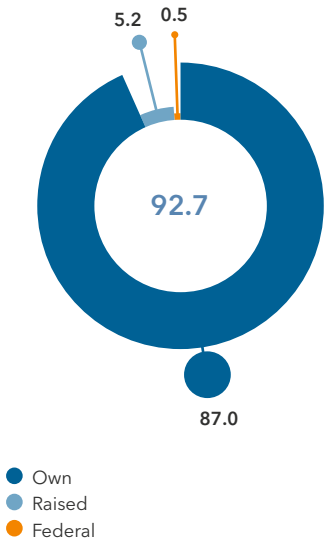
CAPEX, RUB bn (excl. VAT)



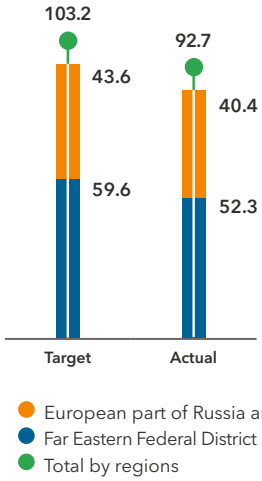
[1] Includes RusHydro's subsidiaries covered by the Consolidated Business Plan for the respective period, including SHPPs of Stavropol Territory and Karachay-Cherkess Republic, Verkhnebalkarskaya SHPP, RusHydro's R&D institutes, Pauzhetskaya GeoPP, NDES, Rodnik Zdorovya, HUA and Hydroinvest.

[2] Under the adopted management accounting standards:
- investment program spending means the total amount spent by the members of RusHydro Group to implement investment projects, including disbursements to suppliers and contractors and project administrators' expenses; and
- CAPEX means the capital investments recognized on the basis of amounts specified in delivery and acceptance certificates signed with suppliers and contractors and accounted for as the respective project administrators' expenses.

Spending by source of funds in 2019, RUB bn (incl. VAT)



Spending by region in 2019, RUB bn



The significant difference between the actual spending under the consolidated investment program and the 2019 target (– RUB 10.5 bn) was mainly attributable to:

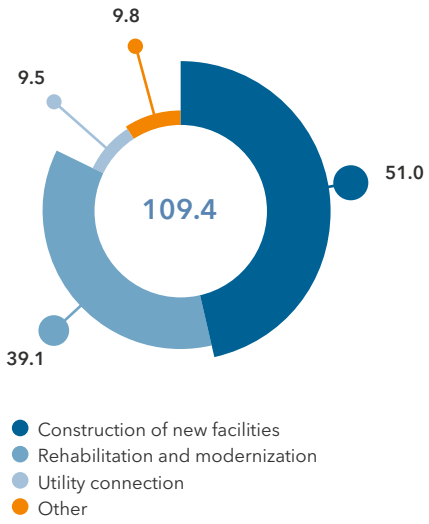
- updates on the work schedules for rehabilitation and modernization, with the reasons including more time required for contractors to complete their assignments and reductions in project costs following approval of design documentation (– RUB 4.3 bn);
- updates on the work schedules for utility connection contracts based on customer requests (– RUB 3.2 bn);
- revision of actual spending with savings achieved upon the completion of such investment projects as Construction of GTP-CHPP at the Central Steam and Water Boiler Site in Vladivostok, Construction of Hot-Water Peaking Boiler Plant at Yakutskaya GRES, and Construction of Power Distribution System at the CHPP in Sovetskaya Gavan (– RUB 1.0 bn);
- review of the contractor guarantee payment timing based on the actual acceptance certificate dates at Sakhalinskaya GRES-2 commissioned in Q4 2019, with RUB 0.9 bn worth of financing postponed until 2020.

Capacity commissioning in 2019

Type	Russian Far East		European part of Russia and Siberia	
	Target	Actual	Target	Actual
Electricity generation, MW	442.2	446.1	394.6	408.5
Heat, Gcal/h	324.0	326.4	–	–
Power lines, km	1,615.3	1,547.2	3.4	2.0
Transformer capacities, MVA	525.3	399.4	1.7	0.4

Investment plans for 2020

Planned spending,
RUB bn (incl. VAT)



Targets for capacity commissioning

Type	Target
Electricity generation, MW	169.3
Heat, Gcal/h	202.5
Transformer capacities, MVA	614.6
Power lines, km	1,556.3

Construction and modernization of production facilities

Construction of generating facilities *[EC]*

RusHydro builds and commissions power plants and develops energy infrastructure in the Far Eastern Federal District, helping to further national goals related to supplying electricity to citizens and industrial facilities. RusHydro Group's investment projects are focused on replacing the retiring energy capacities with new ones fitted with efficient cutting-edge equipment, makeing the energy system more reliable, eliminating energy shortages, and creating a capacity margin and conditions to spur local economic development. RusHydro's investment projects in the Russian Far East are included in the Comprehensive Trunk Infrastructure Upgrade and Extension Plan until 2024 as approved by Decree of the Russian Government No. 2101-r of September 30, 2018.

We are sincerely grateful to RusHydro for our partnership, which stretches back decades. After all, the friendship between power engineers and machinists was struck up many years ago. We appreciate the trust you have in us as equipment manufacturers and strive to keep changing to improve its efficiency and quality. Each time we collaborate, we gain new invaluable experience because all stations and all machines are unique, with their own story and character.

For Power Machines, RusHydro is not just an important customer. It is, above all, the people with whom we work hand in hand to solve joint challenges. These are masters of their trade who take part in developing projects, coordinating design documentation and accepting equipment, and sharing the excitement and joy of commissioning powerful, reliable machines.

Timur Lipatov,

Chief Executive Officer at Power Machines OJSC

Key investment projects and their impact on local economies across the Group's footprint *[103-2] [203-2]*

Project	Investments, RUB mn		Indirect economic impact
	2019	Total	
Nizhne-Bureyskaya HPP Installed capacity: 320 MW Average annual output: 1,670 mn kWh Year of commissioning: 2019	3,055.2	53,409.4	**Social and economic effects:** • reducing current heat generation expenses for the Unified Energy System of the East; and • creating an opportunity for nearby settlements to use electric boiler facilities instead of expensive coal or fuel oil and lower heat tariffs for customers. • higher tax revenues at every government level. **Supply stability effects:** • managing load irregularities of Bureyskaya HPP, and contributing to power generation and supply within the Unified Energy System of the East, and ensuring flood control.
Sakhalinskaya GRES-2 Installed capacity: 120 MW Average annual output: 840 mn kWh Year of commissioning: 2019	6,183.9	35,611.3	**Social and economic effects:** • bringing about a positive social and economic effect on Sakhalin's west coast by creating new jobs and driving housing and social infrastructure development, and providing a capacity margin for connecting new customers. **Supply stability effects:** • making the isolated Sakhalin energy system more reliable; and • replacing retiring capacities at the existing Sakhalinskaya GRES.
Zaramagskaya HPP-1 Installed capacity: 346 MW Average annual output: 842 mn kWh Year of commissioning: 2019	5,025.9	47,968.7	**Social and economic effects:** • higher tax revenues at every government level. **Supply stability effects:** • addressing the electricity shortage in the Republic of North Ossetia – Alania; and • reducing exchange-related grid losses; and • addressing supply disruptions that might be experienced by remote communities.
CHPP in Sovetskaya Gavan Installed capacity: 126 MW, 200 Gcal/h Average annual output: 630 mn kWh Year of commissioning: 2020	7,066.9	33,820.8	**Social and economic effects:** • satisfying the rising local demand for electricity as a result of the sea port expansion, the construction of the the Russian Far East's largest coal terminal and the town's development as a transport hub; • providing for centralized heat supply to Sovetskaya Gavan; and • higher tax revenues at every government level. **Supply stability effects:** • replacing retiring capacities and inefficient equipment at Mayskaya GRES; and • making the Sovetskaya Gavan energy hub more reliable.
Second stage of gasification at Anadyrskaya CHPP Year of commissioning: 2020	130.9	394.2	**Social and economic effects:** • allowing a slowdown in tariff increases; and • making power generation in Anadyr more sustainable. **Supply stability effects:** • ensuring stable power and heat supply for the Anadyr energy hub; and • improving the power generation efficiency at Anadyrskaya CHPP by using a cheaper fuel.
Ust-Srednekanskaya HPP Installed capacity: 570 MW (142.5 MW third stage commissioned in 2018) Average annual output: 2,555 mn kWh Year of commissioning: 2022	5,721.2	76,927.3	**Social and economic effects:** • generating power for Matrosov Mine (the Natalka gold deposit) to support the mining industry in driving the region's economic growth; and • higher tax revenues at every government level. **Supply stability effects:** • making the isolated Magadan energy system more reliable.

Project	Investments, RUB mn		Indirect economic impact
	2019	Total	
Construction of two single-circuit 110 kV Pevek-Bilibino power lines (construction stage No. 1) Length: 490.59 km Year of commissioning: 2023	114.5	24,733.3	**Social and economic effects:** – supporting the development of the mining and metals cluster within the Chaun and Bilibino energy hub. **Supply stability effects:** – allowing the Chaun and Bilibino energy hub to carry out power exchange for the construction of a floating nuclear power plant; and – making the local energy system more reliable.
Upgrade of turbo generators No. 1, 2 and 3 and boiler units No. 1–8 at Vladivostokskaya CHPP-2 Installed capacity: 360 MW, 570 Gcal/h Year of commissioning: 2025	58.2	26,452.8	**Social and economic effects:** – improving the quality and reliability of energy supplies to consumers in the Far East. **Supply stability effects:** – replacing retiring power and thermal capacities of obsolete and worn-out equipment; and – improving the quality and reliability of energy supplies to consumers in the Far East.
Construction of Khabarovskaya CHPP-4 Installed capacity: 328 MW, 1,374 Gcal/h Year of commissioning: 2025	114.6	52,396.8	**Social and economic effects:** – helping to cover projected shortage of power in the region. **Supply stability effects:** – replacing retiring thermal and power capacities of Khabarovskaya CHPP-1; and – improving the reliability and efficiency of power supplies in the region and heat supplies in the southern part of Khabarovsk.
Construction of Yakutskaya GRES-2 (second stage) Installed capacity: 154 MW, 194 Gcal/h Year of commissioning: 2025	35.4	30,275.5	**Social and economic effects:** – developing centralized energy systems in line with social and economic needs of the Republic of Sakha (Yakutia). **Supply stability effects:** – replacing retiring capacities at the existing Yakutskaya GRES; – improving the reliability and efficiency of power supplies in the region, and improving the reliability of heat supplies in Yakutsk.
Construction of Artyomovskaya CHPP-2 Installed capacity: 420 MW, 483 Gcal/h Year of commissioning: 2026	122.5	130,132.8	**Social and economic effects:** – ensuring the social and economic development of the Primorsky Krai. **Supply stability effects:** – replacing retiring capacities at the existing Artyomovskaya CHPP; and – improving the quality and reliability of energy supplies to consumers in the Far East.

Two people were physically displaced due to the construction of Krasnogorskaya SHPP-2. RusHydro Group's construction projects did not involve economic migration.

As part of constructing Ust-Dzhegutinskaya SHPP, Krasnogorskaya SHPP-1 and Krasnogorskaya SHPP-2, the Group signed agreements to purchase five land plots with a total area of 20,473 m^2. The land plots are classified as urban lands for subsistence farming. No other compensations were paid with regard to RusHydro Group's construction projects.

In 2017, two people received RUB 4,170 thousand in compensations under the project to build Ust-Dzhegutinskaya SHPP. In 2018, two people received RUB 6,383 thousand in compensations under the project to build Krasnogorskaya SHPP-1. In 2019, two people received RUB 4,592 thousand in compensations under the project to build Krasnogorskaya SHPP-2. *[EU22]*

Construction projects in the Far East *[OS]*

A CHPP in Sovetskaya Gavan is one of RusHydro Group's four projects to erect new generating facilities in the Far East in line with a Decree by the President of Russia.

Under the Russian President's Decree No. 1564 dated November 22, 2012, RusHydro received RUB 50 bn as contribution to its authorized capital from the state budget to finance the construction of the following power generation facilities in the Far East:
- a CHPP in Sovetskaya Gavan;
- Sakhalinskaya GRES-2, launched;
- Yakutskaya GRES-2 (first stage), launched; and
- Blagoveshchenskaya CHPP (second stage), launched.

Three facilities have already been commissioned: Blagoveshchenskaya CHPP (second stage) in December 2016, Yakutskaya GRES-2 (first stage) in November 2017, and Sakhalinskaya GRES-2 in November 2019.

The CHPP construction site in Sovetskaya Gavan currently has over 1,500 employees and over 50 units of equipment. The bulk of construction and installation work has been completed, with the key equipment already installed. Efforts are now underway to install auxiliary equipment, tank farm, fuel supply systems, complete interior finishing, put in place engineering systems, and construct on-site access roads. Pre-commissioning has entered its active stage, including energization of 110 kV outdoor switchgear equipment and balance-of-plant switchgear, and boiler plant No. 1 has gone through test runs to fine-tune modes of combustion using diesel fuel.

The new CHPP will require a lot of municipal consumers in Sovetskaya Gavan to be transitioned to centralized heat supplies, making it advisable to have the plant commissioned in 2020 after the peak load period of 2019–2020 autumn and winter season is over.

Commissioning is projected for Q3 2020[1].

Measures being taken to accelerate the construction process:
- contracting and delivery processes are in place to ensure that there are no shortages leading to potential idle time;
- additional personnel have been recruited to work on the construction site;
- all staff work in two shifts;
- a detailed project design group operates on the site.

[1] Commissioning is projected for Q3 2020: Minutes No. 4 of December 23, 2019 of a meeting by the Government Commission on the Development of the Electric Power Industry led by Deputy Chairman of the Government of the Russian Federation, Chairman of the Government Commission on the Development of the Electric Power Industry Dmitry Kozak approved the postponement of the facility commissioning to 2020 due to objective reasons. The commissioning of the facility in 2020 was approved by RusHydro's Board of Directors as part of signing off on the consolidated business plan (including the consolidated investment program) of RusHydro Group for 2020–2024 (Minutes No. 301 of a meeting held by the Board of Directors dated December 26, 2019).

Construction quality assurance

Construction and installation quality assurance at RusHydro's facilities aims to:
- ensure compliance of works, materials, products and structures with the design documentation, construction and other applicable regulations, and construction and installation agreements under capital construction projects; and
- prevent violation of laws and regulations governing construction procedures.

Key quality assurance activities include:
- monitoring the scope and timeliness of incoming inspections performed by contractors and controlling the accuracy of their inspection reports;
- monitoring contractor compliance with the warehousing and storage requirements for materials and equipment and controlling the accuracy of relevant documents;
- monitoring the scope and timeliness of contractor controls focusing on the sequence of capital construction procedures and controlling the accuracy of respective reports;
- inspecting hidden works jointly with the field supervisors and contractors and conducting interim acceptance of critical structures that may affect safety of capital construction facilities;
- controlling, jointly with contractors, compliance of completed construction facilities with design and construction documents and technical specifications.

Regulation and supervision

Our quality assurance procedures for construction and installation, materials, structures and assemblies are compliant with Russian laws, industry standards and regulations, internal engineering standards, and regulatory requirements for design documentation.

In addition to primary and secondary federal legislation, all construction works are subject to both industry and RusHydro own internal quality assurance standards. Our key design quality management principles and the employees in charge are specified in the Regulations on Managing and Monitoring Investment Projects during the Development of Documentation for Construction of RusHydro Group's New Facilities as approved by RusHydro's Order No. 1021 of December 28, 2018.

The Supervisory Board of the Uniform System of Conformity Assessment for Health, Safety and Environment, and Safety in the Energy and Construction Industries is developing the Uniform System of Conformity Assessment in Construction (Modernization and Renovation of Immovable Property) and requirements in respect of the corresponding control activities. Compliance monitoring is performed by the Federal Environmental, Industrial and Nuclear Energy Supervision Service.

Before a power plant is commissioned, it receives an automated diagnostic control system that will read and process measurements to help analyze the status of facilities across the hydrotechnical complex. After completion of a hydraulic structure, its measuring equipment, along with all data collected, is handed over by the construction company to the project administrator.

Quality assurance systems for new energy facilities are developed individually under agreements with the respective general contractors.

For the CHPP in Sovetskaya Gavan,
- the project administrator and developer (JSC CHPP in Sovetskaya Gavan) has adopted construction and installation quality assurance guidelines for building control; and
- contractors (JSC Ust-SrednekanGESstroy, JSC Hydroremont – VCC, ARSENAL PLUS, and Corporation of JSC ESKM) have developed a quality assurance system to facilitate planning and management in the corresponding domain.

For Zagorskaya PSPP-2 and Ust-Srednekanskaya HPP, the respective project administrators have developed acceptance regulations and quality assurance systems.

For the smaller HPPs in the Stavropol Territory and Karachay-Cherkess Republic, the respective project administrators have adopted construction and installation quality assurance guidelines.

Both JSC Chirkeigesstroy and JSC Ust-SrednekanGESstroy have developed and implemented quality management systems for all hydropower facilities they have been assigned to as the general contractor. The systems are now certified under ISO 9001:2008 and ISO 14001:2004 (GOST R ISO 14001-2007).

Program to develop the energy system in the Far Eastern Federal District with a view to accelerating local economic growth *[EU23]*

In 2019, RusHydro produced a program to develop the power system in the Far Eastern Federal District with a view to promoting economic growth (the Program)[1].

The Program's key objective is to offer optimal solutions for the development of the power system in the Far Eastern Federal District as a way to achieve projected demand for electricity and capacity in the context of large-scale investment projects (including projects in priority development areas, the Far Eastern Hectare program, and plans to develop energy clusters) that are inherently linked to the construction of generating facilities.

The 10-year Program is designed as one of the key elements in the mid- and long-term planning strategy for the energy sector of the Russian Far East.

It also provides a list of first priority facilities required to replace the retiring capacities and meet the demand of the Far Eastern energy systems going forward[2]:

- construction of Artyomovskaya CHPP-2 to replace Artyomovskaya CHPP-1 slated for decommissioning (project details: 420 MW, 483 Gcal/h, to be commissioned in 2026);
- construction of Khabarovskaya CHPP-4 to replace Khabarovskaya CHPP-1 slated for decommissioning (project details: 328 MW, 1,374 Gcal/h, to be commissioned in 2025);
- construction of the second stage of Yakutskaya GRES-2 to replace Yakutskaya GRES slated for decommissioning (project details: 154 MW, 194 Gcal/h, to be commissioned in 2025);
- upgrade of turbo generators No. 1, 2 and 3 at Vladivostokskaya CHPP-2, rehabilitation of boiler units No. 1–8 (upgrade/rehabilitation details: increases up to 360 MW and 570 Gcal/h, to be commissioned in 2025).

The above projects were approved by Decree of the Russian Government No. 1544-r of July 15, 2019 and included in the Comprehensive Trunk Infrastructure Upgrade and Extension Plan until 2024 as approved by Decree of the Russian Government No. 2101-r of September 30, 2018. The work on relevant design and cost estimates is currently underway.

Today, RusHydro Group is rightly considered one of the largest electric power companies in the world. Throughout the country, including in the Far East, it implements large-scale projects that define how a region develops for decades to come. RusHydro Group offers a considerable contribution to Russia's energy security. All of the company's success is the result of the daily painstaking work of a team of professionals wholeheartedly dedicated to their cause. This is who works at RusHydro.

Alexander Kozlov,

Ministry for the Development of the Russian Far East and Arctic

In 2019, PJSC RusHydro intensely participated in the implementation of a project by the Association "Hydropower of Russia", targeting the development of an assessment system of operated hydropower facilities' compliance with the sustainable development criteria, taking into account the requirements of current Russian legislation regarding the analysis of existing methods. The project implementation will be resumed in 2020, with the assistance of the International Hydropower Association. *[OS]*

[1] Based on instructions from Yury Trutnev, Deputy Prime Minister of the Russian Federation and Presidential Plenipotentiary Envoy to the Far Eastern Federal District (Minutes No. YuT-P9-2454 of April 25, 2018). The Program was reviewed at a meeting of the Board of Directors (Minutes No. 292 of June 24, 2019).

[2] The commissioning details and schedules may be adjusted after the final versions of design and cost estimates are approved.

Sustainable development

As the largest Russian energy holding fully aware of its responsibility to the government and society, RusHydro Group is focused on the development of socially responsible business, while pursuing a consistent policy of introducing sustainable development principles into its operational and management processes, keeping in line with Russian and international best practices. Sustainable development is an important value outlined in the Company's strategic goals.

The Company adheres to the corporate social responsibility concept as defined by ISO 26000. According to the standard, a company is responsible for the impact of its decisions and operations on society and the environment and must act in a transparent and ethical way that:

- promotes sustainable development, including public health and well-being;
- takes into account the expectations of stakeholders;
- complies with applicable laws and international standards of conduct;
- is integrated into the operation of the entire company and is applied with regard to its stakeholders.

One of RusHydro Group's strategic goals is to ensure the reliable and safe operation of its facilities, taking into account the economic feasibility of funds allocated for mitigating possible risks and reducing potential damage.

The Company is committed to increasing the share of renewables in the country's energy mix by means of commissioning new facilities and increasing the generation of clean energy, while also improving energy efficiency.

RusHydro Group's another priority is the development of the regions where it operates. RusHydro facilitates the growth of welfare, creating new jobs, paying taxes, and delivering positive multiplier effects by developing energy infrastructure (connection of new consumers to power grids, water supply, etc.). The Group companies support education, culture, sports, and environmental protection and provide assistance to socially vulnerable population groups across their footprint.

RusHydro Group has made an invaluable contribution to developing hydropower in Russia and to guaranteeing the country's energy security. RusHydro is the undisputed leader among energy companies in Russia and is also one of the world's largest organizations operating in the hydropower space.

The company places particular emphasis on developing the power industry in the Far East, a region with huge hydropower potential. If this potential is not harnessed, further economic and infrastructural development in this region of such significance to the Russian Federation would not be possible. RusHydro Group invests considerable funds in creating social infrastructure and implementing resource-saving and environmental technologies.

Naturally, RusHydro is a source of support and development for the industry's science and education. It presents an exemplary corporate culture, but, above all, it embodies the hard work of a cohesive team of true professionals.

Oleg Lushnikov,

Executive Director,
Hydropower of Russia Association

Sustainable development governance *[102-31]*

The responsibility for providing control, methodology support and regulation of RusHydro Group's steady low-carbon development, as well as preserving cultural heritage sites and biological diversity is assigned to member of the Management Board, First Deputy General Director – Chief Engineer[1] *[102-19]*.

Sustainable development activities are carried out by specialized units within the area of their functional responsibility *[102-20]*:

- social responsibility – personnel management unit (Deputy General Director for Personnel Management and Organizational Development);
- cooperation with government authorities in the regions of the Company's footprint and creation of a favorable social environment for the Company's efficient development – corporate communications unit (Director of Corporate Communications), Far East Division (Deputy General Director – Director of the Far East Division);
- economic responsibility – unit of economic planning and investments (Member of the Management Board, First Deputy General Director), unit of production activity (Member of the Management Board, First Deputy General Director – Chief Engineer), unit of capital construction (Deputy General Director for Capital Construction), and unit of financial and corporate law management (Member of the Management Board, First Deputy General Director);
- power generation, improvement of energy efficiency and environmental responsibility – unit of production activity (Member of the Management Board, First Deputy General Director – Chief Engineer);
- charity – corporate communications unit (Director of Corporate Communications).

Operation of RusHydro's different subdivisions and subsidiaries is coordinated at regular meetings of the working group on sustainable development to monitor the efficiency of implementation of key tasks in sustainable development for the period through to 2020 approved by RusHydro's Order No. 614 of September 11, 2017.

Key sustainable development issues are reviewed at the meetings of the Board of Directors and the Company's Management Board. The Committee on Reliability, Energy Efficiency and Innovation under RusHydro's Board of Directors plays an important role in RusHydro's sustainable development management and preliminarily reviews matters of long-term development of hydropower and energy based on other renewables ("RES"), as well as development of functional policies (technical, environmental, etc.), corporate standards in technical regulation, etc.

The Company has adopted a number of internal regulations outlining and governing the approach to sustainable development and corporate social responsibility ("CSR").

Internal regulations

CSR area	Internal regulations
Sustainable production	- RusHydro Group's Development Strategy until 2020 with an outlook until 2025; - RusHydro Group's Long-term Development Program for 2018–2022; - RusHydro Group's Technical Policy; - RusHydro's Regulations on the Working Group on Technical Standards; - Regulations on Managing Investing Activities Performed in the Form of Capital Investments; - RusHydro's Regulations on the Standardization System; - RusHydro's Regulations on Internal Controls.
Procurement	- The Uniform Regulations on RusHydro Group's Procurements and other internal regulations developed to provide further details, including the Methodology for Reviewing the Reliability (Business Reputation) and Financial Standing of the Bidders.

[1] Order No. 420 On Distribution of Tasks, Powers and Responsibilities among RusHydro's Managers dated June 15, 2018 (as amended by Order No. 688 dated August 22, 2019).

CSR area	Internal regulations
Corporate ethics and anti-corruption	• RusHydro's Code of Corporate Ethics; • RusHydro's Anti-Corruption Policy; • RusHydro's Regulations on the Prevention and Management of Conflicts of Interest; • Regulations on the Procedure to Report Presents Received by RusHydro's Employees during Official Events, Business Trips, etc.; • RusHydro's Regulations on the Committees for Compliance with the Corporate Ethics Standards and Management of Conflicts of Interest; • Rules of RusHydro's Line of Trust Operation; • RusHydro's Comprehensive Program of Anti-Corruption Activities for 2016–2019.
Environmental impact	• RusHydro Group's Environmental Policy; • Implementation Program for the Environmental Policy; • RusHydro's Program of Energy Saving and Increased Energy Efficiency through to 2020; • RAO ES East Subgroup's Energy Saving and Energy Efficiency Improvement Policy.
Health and safety	• RusHydro's Health and Safety Policy; • Policies on occupational health and safety of RusHydro's subsidiaries.
Charity	• The Company's Charity and Sponsorship Policy; • Charity and Sponsorship Policy of the Company's Subsidiaries.
Innovative development	• Innovative Development Program of RusHydro Group for 2016–2020 with an outlook until 2025; • RAO ES East's Innovative Development Program for 2016–2020 with an outlook until 2025; • Regulations on Design and Implementation of RusHydro's Innovative Development Program; • Regulations on R&D Management Process in RusHydro's Operations; • Regulations on the Intellectual Property Management Process in RusHydro Group; • Regulation on Planning and Monitoring the Progress of Activities as Part of the Innovative Development Programs of RusHydro Group and RAO ES East; • Regulation on Preparation, Adjustment and Monitoring of Implementation of Procurement Plans for Innovative and/or High-Tech Products; • Methodology for Assessment of Technical and Economic efficiency of Innovative Projects and the Temporary Procedure for Assessment of Technical and Economic Efficiency of Innovative Projects Implemented as R&D.
Personnel management	• RusHydro's Social Policy; • Regulations on RusHydro's Employee Training; • Regulations on Personnel Certification at RusHydro's Branches; • Regulations on the Database Formation of Candidates to Be Recruited at RusHydro's Branches; • Regulations on RusHydro's Talent Pool; • Concept of advanced human resource development From School to Workplace; • Regulations on RusHydro Group's Young Employees Community; • Employee Handbook for RusHydro's Executive Office; • Model Employee Handbook for RusHydro's branches; • RusHydro's Regulations on the Formalization System; • RusHydro's Regulations on the Management of Subsidiaries' Organizational Structures; • RusHydro's Guidelines on the Calculation of Meal Reimbursements for Branch Employees Working Multiple Shifts a Day; • Regulations on Improving Employee Housing Conditions at Branches of RusHydro; • Regulations on the Corporate Incentives (Benefits) for Employees of RusHydro's Executive Office; • Regulations on Private Pension Plan for Employees of RusHydro's Branches.

Commitment to UN Sustainable Development Goals

In 2015, the United Nations Member States adopted the 2030 Agenda for Sustainable Development (the "Agenda"), which set out 17 Sustainable Development Goals (SDGs) and 169 targets on the way to achieving them. The progress towards these goals and targets is monitored and expressed in quantifiable terms based on a set of global metrics. Member states follow the Agenda's principles to draw up national targets and metrics that are based on global benchmarks but take into account local conditions.

At the same time, the SDGs cannot be achieved through the efforts of governments and public organizations alone, so the UN encourages businesses, especially large and transnational companies, to adopt sustainable practices and include sustainability information in their reporting cycle.

RusHydro Group is fully in support of the Agenda, consistently integrating the most relevant SDGs into its operations. In 2019, the Company revised the list of relevant SDGs and worked out a number of quantitative indicators that will be disclosed going forward, helping to track RusHydro Group's contribution to the achievement of SDGs.

RusHydro's quantitative metrics are based on UNCTAD's Guidance on core indicators for entity reporting on contribution towards implementation of the Sustainable Development Goals[1], as well as certain GRI Standards disclosures that are annually disclosed by the Company[2]. RusHydro did not aim to disclose the maximum possible number of indicators; instead, the Company determined the ones that bear the most relevance to its operations and ensure zero overlap when it comes to SDG achievement.

The development status for national SDG achievement metrics is available on the Federal State Statistics Service website at: https://eng.gks.ru/

The Company shares ten principles on human rights, labor, anti-corruption, and the environment, and strives to ensure that the needs of the current generation will not compromise the opportunities of those who will come next. In 2017, RusHydro joined the UN Global Compact, the largest business initiative in sustainable development[3].

In June 2018, RusHydro joined the Association "National Network of the Global Compact", and Boris Bogush, Member of the Management Board, First Deputy General Director – Chief Engineer, was elected member of the Governing Board.

RusHydro Group's contribution towards the achievement of SDGs in 2019 *[EC] [OS]*

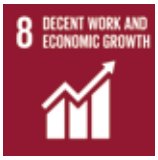
SDGs, targets	Relevant SDGs indicators	
	Disclosure	**Details**
 1.2	**GRI 202-1** Ratios of standard entry level wage by gender compared to local minimum wage	Depending on the region of operation, the entry level wage either **exceeds the minimum wage 14-fold** or at least equals it

[1] https://unctad.org/en/PublicationsLibrary/diae2019d1_en.pdf

[2] To compare certain GRI items and SDGs, the Company used, among others, SDG Compass (https://sdgcompass.org/)

[3] Resolution of the Board of Directors (Minutes No. 259 dated October 30, 2017).

SDGs, targets	Relevant SDGs indicators	
	Disclosure	**Details**
 3.8	**C.3.1.** Expenditures on employee health and safety	**RUB 2,464.7 mn**
	GRI 403-9 Occupational Health and Safety	26 accidents to RusHydro's staff that resulted in 28 injuries, including one fatality. The accidents caused injuries to two managers (men), four specialists (women), and 20 workers (men).
	GRI 403-10 Work-related ill health	Three cases of work-related ill health
	GRI 203-2 Infrastructure investments and services supported (partially)	Healthcare investments of **RUB 17.3 mn**
 4.3	**C.2.2.** Expenditure on training per year per employee	**RUB 3.7 thousand**
	GRI 404-1 Average hours of training per year per employee	Management: **102 hours** White-collar employees: **56 hours** Blue-collar employees: **50 hours**
 6.3, 6.4	**B.1.1.** Water recycling and reuse	**4.5 bn m³** recycled water supply **21.2 mn m³** reused water supply
	B.1.2. Water use efficiency	The ratio between water withdrawal and net added value is **3.9 thousand m³/ RUB mn**
	B.1.3. Water stress	No water is withdrawn in water-scarce areas
	GRI 303-4 Water discharge (by treatment type)	Waste water discharge into water bodies – **594.9 mn m³**, including: - 348.6 mn m³ standard clean - 203.4 mn m³ untreated - 33.7 mn m³ insufficiently treated - 9.2 mn m³ treated to standard quality at treatment facilities
 7.1, 7.2, 7.b	**A.3.1.** Green investment	**0.5%** of consolidated revenue
	GRI EU1 Installed capacity	**39,683 MW** For a breakdown by primary energy source and by regulatory regime, see Key production assets
	GRI EU2 Net energy output	**142.8 bn kWh** of electricity **30.0 mn Gcal** of heat For a breakdown by energy source and by regulatory regime, see Electricity and heat generation
	GRI EU23 Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services	The Group's businesses were involved in implementing the Target Model for Utility Connection to Electrical Grids approved by the Russian Government's Decree No. 147-r On target models for simplifying business procedures and enhancing investment appeal of the Russian regions dated January 31, 2017
	GRI EU28 Power outage frequency (SAIFI)	**0.74** For a breakdown by subsidiary, see Accident rate at RusHydro Group's facilities
	GRI EU29 Average power outage duration (SAIDI)	**1.03 h** For a breakdown by subsidiary, see Accident rate at RusHydro Group's facilities

SDGs, targets	Relevant SDGs indicators	
	Disclosure	**Details**
 8.2, 8.8	**A.1.1.** Revenue	**RUB 406.6 bn**
	C.4.1. Percentage of employees covered by collective agreements	**96%**
	GRI 401-1 New employee hires and employee turnoverв	**13,173 employees;** for turnover by age and gender, see Recruitment
	GRI 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	- voluntary health insurance; - insurance against accidents and diseases; - disability / temporary disability compensation; - maternity/paternity leave; - one-off financial aid; - other payments and benefits in accordance with collective bargaining agreements and in-house rules and regulations.
 9.3, 9.4, 9.5, 9.b	**A.1.2.** Added value	**RUB 190.4 bn**[1]
	A.3.3. Total expenditures on research and development	**RUB 2.8 bn**
	A.4.1. Percentage of local procurement	**99.9%**
	GRI 203-2 Infrastructure investments and services supported (partially)	RusHydro Group handed over **15 socially significant facilities** to Russian regions; for the results of construction activities under key investment projects, see Construction and modernization of production facilities
 11.a	**C.2.3.** Employee wages and benefits with breakdown by employment type and gender	The average salary stood at **RUB 78,575** The benefits package that includes private pension plans, VHI, insurance against accidents and diseases, and support in housing conditions improvement amounted to **RUB 31,667** thousand There is no statistics on wages and benefits by labor contract type, employment type, or gender
 12.5, 12.6	**B.2.1.** Reduction of waste generation	The aggregate waste generated by RusHydro Group's power facilities totaled **23.8 mn tonnes**, **down 19.6%** y-o-y.
	B.2.2. Waste reused, re-manufactured and recycled	Accumulated waste is collected by specialized contractors duly licensed to collect, transport and treat such waste.
	GRI 302-4 Reduction of energy consumption	**877 thousand m³** in gas savings **123 tonnes** of natural fuel in diesel fuel savings **46,535 tonnes** of equivalent fuel in savings of various fuel types **19,991 Gcal** in heat savings **74,610 thousand kWh** in electricity savings
	GRI EU12 Transmission and distribution losses as a percentage of total energy	**9.8%**

SDGs, targets	Relevant SDGs indicators	
	Disclosure	**Details**
 13.2	**B.3.1.** Scope 1 GHG emissions	**35.3 mn tonnes**
	GRI 305-7 Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	**231.7 thousand tonnes**
 15.1, 15.5	**GRI 304-3** Habitats protected or restored	Rehabilitated area – **4.0 ha**
	GRI 306-5 Water bodies affected by water discharges and/or runoff	**44 bodies** For a breakdown by water body size, see Biodiversity conservation
 16.5	**D.2.2.** Average hours of training on anti-corruption issues per year per employee	**653 employees** underwent training No records are kept on the length (in hours) of anti-corruption training; for a breakdown by region and employee share, see Anti-corruption efforts
	GRI 205-3 Confirmed incidents of corruption and actions taken	No corruption cases were confirmed at RusHydro Group during the reporting period
 17.1, 17.17	**A.2.1.** Taxes and other payments to the Government	**RUB 82.1 bn** For a breakdown by budget level and for the structure, see Tax payments
	A.3.2. Community investment	**0.4%** of consolidated revenue
	GRI 203-1 Significant indirect economic impacts	**RUB 1.48 bn**

Rushydro group's contribution to low-carbon economy in Russia [103-2] [OS]

A comprehensive approach to addressing RusHydro Group's sustainable development objectives ensures the most efficient transition to low-carbon development with minimal environmental impact.

The focus on a low-carbon economy above all relies on the development of renewable sources of energy. Using RES is a top priority for RusHydro Group, which keeps ramping up installed capacities by building new facilities and commissioning new generation units.

RusHydro, which is the operator of most of the country's HPPs, was among the first in Russia to start developing projects relying on geothermal, solar and wind power generation. One of RusHydro Group's objectives for 2016–2020 with an outlook until 2025 is to improve energy efficiency by using renewable energy sources. Most of the projects are implemented in isolated energy hubs of the Far Eastern Federal District outside of the Unified Energy System.

RusHydro Group's clean energy structure includes smaller HPPs with a capacity of up to 25 MW, geothermal, wind, and solar power plants.

Large HPPs, which make up 74% of RusHydro Group's total installed capacity, are also classified as sources of power generation with low per unit emissions of greenhouse gases.

Plans to finance construction of generation facilities for a low-carbon economy

Project	Start year	End year	Estimated total cost of investment project, RUB mn	Planned investments in 2020-2025 in forecast prices, RUB mn
Ust-Srednekanskaya HPP	1991	2023	76,927.3	23,369.4
Solar generation unit at Nizhne-Bureyskaya HPP	2019	2020	155.7	155.5
Ust-Dzhegutinskaya SHPP	2012	2020	1,684.2	433.8
Barsuchkovskaya SHPP	2012	2020	1,551.3	495.0
Krasnogorskaya SHPP-1	2017	2021	7,310.9	6,758.0
Krasnogorskaya SHPP-2	2017	2022	7,454.3	6,887.6
Verkhnebalkarskaya SHPP	2011	2020	3,706.1	483.9
Photovoltaic power system (Vladivostok, Primorsky Krai, Russky Island)	2020	2020	5.0	5.0
Development and testing of a hybrid container-type energy storage system as part of a distributed network with renewable energy sources (Vladivostok, Primorsky Krai, Russky Island)	2020	2020	18.0	18.0
Construction of a 0.3 MW wind turbine in Ust-Kamchatsk	2019	2021	185.3	150.8
Construction of a 900 kW wind power plant in Tiksi, Bulunsky District	2017	2020	290.0	12.7
Construction of a 3,000 kW diesel power plant with an energy storage unit for the wind diesel power station in Tiksi, Bulunsky District	2018	2021	1,458.7	704.4

1 Use of solar and wind power in isolated energy hubs

Since 2012, RusHydro Group has commissioned 19 solar power plants with a total capacity of 1.6 MW and four wind power plants with a total capacity of 3.6 MW in the Far Eastern Federal District.

Given the local specifics, none of the projects is standard by design, the 1 MW northernmost SPP in Batagay is not an exception. Our R&D specialists have designed prototype wind diesel and solar diesel power stations and tested a range of equipment, including energy storage units, all to be used in isolated energy hubs of the Far Eastern Federal District.

In 2019, RusHydro Group continued working on its project to erect a wind-diesel power plant in Tiksi, Republic of Sakha (Yakutia), including a new 3 MW diesel power plant, a wind turbine, and an energy storage system. The wind diesel power plant has a total capacity of 3.9 MW. In 2019, the project's second stage was underway to construct a modular diesel power plant with energy storage. Design, delivery of power generation equipment, and construction of the foundation for the power plant were all successfully completed.

Construction and upgrade of energy efficient hydropower facilities delivers savings in potential greenhouse gas emissions. In 2019, RusHydro Group's hydroelectric power plants generated a total of 110.1 bn kWh, helping to avoid consumption of up to 38 mn tonnes of equivalent fuel, or GHG emissions of more than 40 mn tonnes (around 2.3% of the total volume of emissions in Russia).

As part of a memorandum of understanding signed in 2017 with Japanese companies on the wind power project in Ust-Kamchatsk, Kamchatka Territory, the design phase was competed for the erection of the fourth cold climate resistant wind turbine from Komai with a single capacity of 300 kW. The automated process control system was also upgraded.

The construction of a 1.27 MW solar power plant at the site of Nizhne-Bureyskaya HPP is in the completion phase. The commissioning is scheduled for 2020. The project will help pilot test the technology for using RES at hydraulic structures as a way to reduce own consumption costs for HPPs.

In line with action plan No. 7456p-P9 dated August 15, 2019 to modernize diesel (coal and fuel oil) power generation in remote and isolated areas approved by Dmitry Kozak, Deputy Chairman of the Russian Government, work was initiated to organize contests for selecting RES-based upgrade projects in RusHydro Group using energy service agreements. The RES facilities covered by seven pilot modernization projects in the Republic of Sakha (Yakutia) have a planned capacity of 3.15 MW (to be updated after the competitive process is over).

For more information on plans to finance the construction of power generation for a low-carbon economy, see Appendix No. 22

2 Smaller HPPs

Smaller HPP projects are implemented and supported by many countries. Their benefits include a lower capital intensity, as compared to large HPPs, and availability of multiple suitable dam sites and watercourses.

RusHydro Group takes steps to develop minor HPPs, with capacity below 50 MW, in order to use their significant environmental potential, as lon as such projects can make maximum contribution to the protection of the environment. *[OS]*

In Russia, smaller HPPs have a potential of around 7,000 MW.

In 2019, the Government of the Russian Federation decided to extend the framework for RES support beyond 2024, with the single capacity of SHPPs growing to 50 MW and investments of RUB 30 bn allocated to smaller HPP projects. In 2020, the Government is expected to draft a list of regulations to support RES beyond 2024.

In 2019, RusHydro's Management Board approved the smaller HPP development program for 2020–2025, which aims to increase the company's value by making SHPP projects more competitive in the long run. The program's key focuses are project preparation and R&D, reduction in construction CAPEX, operational efficiency improvements, development and implementation of project support mechanisms.

Planned schedule for project commissioning as part of the existing RES support framework until 2024, MW

Project	2020	2021	2022	Total
Barsuchkovskaya SHPP	5.3	–	–	**5.3**
Verkhnebalkarskaya SHPP	10	–	–	**10**
Krasnogorskaya SHPP-1 and SHPP-1	–	24.9	24.9	**49.8**
Ust-Dzhegutinskaya SHPP	5.6	–	–	**5.6**
Total	**20.9**	**24.9**	**24.9**	**70.7**

3 RusHydro Group's EV charging infrastructure

Pursuant to decisions adopted by the Management Board in September 2019, RusHydro launched the first network of electric vehicle (EV) fast charging stations in the Far East. The EV charging network project is in line with the instructions issued by the President of the Russian Federation in his May 2018 Decree, and with the Russian Government's instructions on the development of the energy infrastructure in the Far East.

Ten charging stations were installed in Vladivostok, Ussuriysk and Artem of the Primorsky Krai (the leading region by number of electric vehicles), as well as in Blagoveshchensk of the Amur Region. For the convenience of EV owners, charging stations are located in the parking lots of supermarkets and shopping and entertainment centers, near the offices of RusHydro Group's single settlement centers, and at filling stations.

RusHydro's EV charging stations are hardware and software units powered by the latest technology such as remote process control, mobile application, and payment system. RusHydro is the first provider in Russia offering a comprehensive fast charging service for mass market EVs, which enables a partial battery top-up in just a few minutes and a full charge cycle of under 30 minutes.

The stations support a range of charging connectors, including: Japanese standard (DC) of 50 kW, European standard (DC) of 50 kW, and connector Type 1 / Type 2

Since the launch, RusHydro's EV charging stations have provided about 10,000 charging sessions. The aggregate amount of charge has allowed electric vehicles to travel over 300,000 km in total, saving more than 3,000 liters of hydrocarbon fuel,[1] which translates into some 70,000 kg savings in CO_2 emissions into the air.

On an annual basis, electric cars charged at RusHydro's operating charging stations will be able to travel more than 500,000 km annually, saving more than 5,000 liters of hydrocarbon fuel.

[1] Compared to gasoline-powered cars of the same class.

(AC), 22 kW. A single station can charge two EVs simultaneously.

Strong demand and extensive positive feedback from our clients, who would like to see the charging network expand going forward, confirmed the popularity of the new service.

To this end, in December 2019 RusHydro's Management Board resolved to further develop this high-tech line of business and approved the roadmap on expanding RusHydro's EV charging network in the Primorsky Krai, Amur and Sakhalin regions, Khabarovsk Territory, and other regions of Russia. In line with the roadmap, we are looking into potential locations of charging stations to enable EV travel between the key cities of the Far East and to provide people with access to the seashore during the summer vacation period.

4 Cooperation to combat climate change

Ratification of the Paris Agreement on climate change

One of the 2019 milestones was Russia's ratification of the Paris Agreement on climate.

The Paris Agreement was adopted in 2015 by 195 participants of the Paris forum. At that time, the parties agreed that they needed to mitigate global warming and hold the increase in the global average temperature by 2100 to well below 2°C above pre-industrial levels (19th century). The document also aims to limit the average temperature increase to 1.5°C. In 2015, scientists said that a larger temperature increase could lead to irreversible changes in the earth's ecosystem.

The Paris Agreement does not require the signatories to abandon the burning of fossil fuels (oil, gas and coal) for industrial purposes. However, it does require the countries to work on emission reduction and treatment, upgrade existing facilities with improved treatment systems, and adapt industrial production to climate change developments.

Back in late 2015, RusHydro supported an initiative to unite the efforts in Russia to reduce the impact on the environment and prevent climate change, signing the Statement of the Russian Business on the Negotiation Process and Adoption of a New Climate Agreement at the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC).

Since 2015, RusHydro has been a member of the Climate Partnership of Russia, which seeks to unite the efforts of businesses in the interests of transition to environmentally friendly technologies.

The Company annually reports on its greenhouse gas emissions under the Carbon Disclosure Project (CDP). The key objective of the CDP is to promote solutions that contribute to improvements in climate change by raising awareness of businesses, policy makers, and investors.

In 2019, RusHydro also continued its work, together with EuroSibEnergo, within the working group on developing a methodological approach to understanding global climate change processes in terms of greenhouse gas emissions from the surface of HPP freshwater reservoirs and evaluating their absorbing capacity.

Stakeholder relations

RusHydro Group strives to balance the interests of all the stakeholders. The Company keeps in touch with its stakeholders and systematizes and analyzes their requests, making sure that any relevant information is disclosed in full and on time. This approach allows for a timely response to probable risks associated with stakeholder relations.

In building a framework for successful relations with stakeholders, RusHydro Group follows four fundamental principles of the AA1000 *[102-43]* Series of Standards:

- **inclusivity** – relates to identifying stakeholders and their needs and arranging interaction with them on material sustainability topics;
- **Materiality** – relates to identifying and prioritizing the most relevant sustainability topics, taking into account the effect each topic has on the stakeholders;
- **Responsiveness** – relates to providing timely reaction from the Company to events related to material sustainability topics, expressed in specific actions or communication with the stakeholders;
- **impact** – relates to assessing the Company's positive and/or negative effect on sustainable development aspects and stakeholders' interests.

Given that each stakeholder group has and will continue to have a major impact on the Company's business, taking their interests into consideration when operating and planning across various timeframes is crucial for RusHydro Group's sustainable development.

In 2019, stakeholder relations were in line with Order No. 949 dated December 10, 2018 by the Chairman of the Management Board – General Director of RusHydro, which details the schedule, ways of interaction, and actions planned for stakeholders in 2019. *[102-43]*

In 2019, during the 2018 reporting campaign, a stakeholder map was compiled for the purposes of this annual report based on a survey of external and internal stakeholders. *[102-42]*

More details on actions adopted for relations with stakeholder groups are available in the following documents approved by the Company's executive documentation:

- list of key public events;
- Charity and Sponsorship Program;
- schedule of internal regulations development;
- IR Calendar.

Based on the 2019 performance, RusHydro issued a report on implementation of actions under the approved schedule.

Public hearings and stakeholders' opinions

When drafting its annual reports, RusHydro Group strives to ensure that the information it provides meets expectations of the stakeholders. In line with this principle, the Company holds annual public hearings to discuss the forthcoming report.

In April 2020, the draft 2019 Annual Report of RusHydro Group was presented at the public hearings attended by representatives of the Company, its partners in the energy sector, subsidiaries, environmental and public entities, trade unions, universities, local authorities, media, as well as consultants and auditors.

At the hearings, the stakeholders made proposals regarding information to be disclosed in the report.

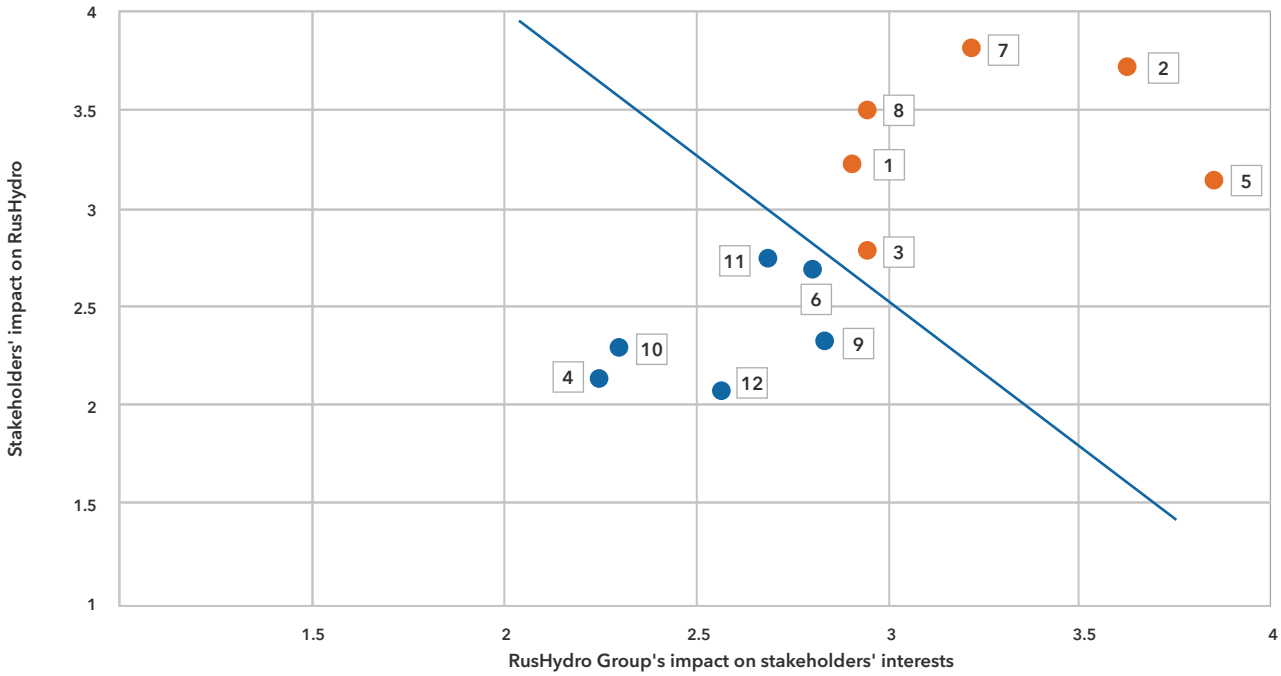
In addition, this report publishes the information (marked by special symbols) proposed for disclosure in previous reporting campaigns (including tendering results and public reporting ratings) or identified by surveying stakeholders as part of determining material topics of the 2019 Annual Report.

EC – taking into account recommendations of the expert community;

OS – taking into account recommendations of stakeholders other than the expert community.

Information on consideration of stakeholders' recommendations submitted at public hearings is available in Appendices No. 18 and No. 19; for Opinion on Public Assurance, see the Additional Information section.

Stakeholder map *[102-40]*



1 Shareholders and investors
2 Customers and consumers
3 Business partners, suppliers and contractors
4 Environmental organizations
5 Employees and trade unions
6 Professional associations and expert community
7 Government authorities
8 Regulators and infrastructure organizations
9 Educational institutions
10 Local communities
11 Media
12 Public social and charitable organizations

● Key stakeholders

RusHydro Group's stakeholder relations in 2019 *[102-21] [102-31] [102-33] [102-43] [102-44] [EC]*

Key mechanisms	Responses to requests and results of stakeholder relations in 2019
1. Shareholders and investors	
Key interests: dividend payouts, economic efficiency, business resilience, business process transparency	
● preparing and holding Annual General Meetings of Shareholders; ● preparing IR presentations and arranging IR activities; ● public reporting; ● maintaining business contacts with analysts of investment banks and other financial institutions; ● preparing press releases and information materials about the Company; ● arranging meetings between investors and the Company's management; ● preparing and conducting roadshows; ● disclosing information on the Company and its subsidiaries' websites in accordance with the disclosure rules as per resolutions of the Government of the Russian Federation; ● updating the relevant section on the Company's website at http://www.rushydro.ru/investors/.	The interaction focused on discussing RusHydro Group's strategic priorities and plans, including those related to the updated dividend policy, inclusion of the four Far Eastern projects in the TPP modernization program with a guaranteed rate of return, implementation of value growth initiatives, management efforts aimed at improving operational efficiency, and plans for asset modernization. For more information, see the Shareholder and investor relations

Key mechanisms	Responses to requests and results of stakeholder relations in 2019
2. Customers and consumers	
Key interests: reliable power supply, improved quality of products and services, high standards of service	
• Line of Trust; • mobile service centers; • online reception desk; • contact center; • personal accounts for consumers of guaranteed suppliers; • single information and settlement centers; • feedback on RusHydro Group's EV charging stations.	Agreements were implemented related to regional energy development, ensuring sustainable power and heat supply to consumers, as well as social and economic activities. For more information, see the Consumer interaction section In 2019, the majority of requests received through the Trust Line were about sales (36%) and procurement (34%). For more information on the Line of Trust, see the Providing for transparency and availability of information In line with its strategy to improve customer experience, RusHydro Group has been launching single settlement and information centers. The centers provide clients with a single payment document, which reflects charges for electricity, heating, cold water supply, sewage, removal of solid household waste and other utility services. As at the end of 2019, 45 centers were operational, including nine centers that opened during the reporting period. This project, along with the introduction of single payment documents, translates into a 20–30% increase in utility payment collection practice. Within the regions of their operation, companies of ESC RusHydro Subgroup provide services to about 60% of clients through internal and external interactive channels. Customers of ESC RusHydro Subgroup are actively exploring alternative ways of getting in touch with sales units, including through the Contact Center, which operates remotely. Consumers have the opportunity to ask a question directly to the operator or use the voice service powered by speech recognition and synthesis technology. Most of the inquiries focus on reporting utility meter readings (70%), while the second most popular area of interest is amounts due, incurred and recalculated under the client's personal account (15%) and requests for information are the third most popular reason for contact (5%). Clients that use RusHydro's EV charging network can benefit from a dedicated website (charge.rushydro.ru) with a detailed description of the project, charging instructions for electric cars, prices, answers to frequently asked questions and other useful information. Technical assistance is provided through the telephone support line accessible at 8-800-222-18-32 and a WhatsApp group where RusHydro experts are available online to provide assistance.
3. Business partners, suppliers and contractors	
Key interests: fair competition and responsible market behavior, transparent operations, including procurement	
• forums, exhibitions, conferences, dialogues; • open and competitive procurement procedures; • joint projects.	In 2019, RusHydro was a partner of the 16th Krasnoyarsk Economic Forum, "Arctic: Territory of Dialogue" 5th International Arctic Forum, Eastern Economic Forum, and was actively engaged in the Russian Energy Week International Forum (REW 2019), Second Russian-Chinese Energy Business Forum, and the St. Petersburg International Economic Forum. RusHydro Group signed several agreements with its partners, including: • PowerChina – on cooperation for the construction of pumped storage power plants in Russia and collaboration in third countries on design and engineering projects; • Osnova Holding – on implementation of projects for processing and disposal of ash and slag waste currently generated at coal-fired power plants in the Far Eastern Federal District; • Rosatom State Atomic Energy Corporation – on cooperation for the development and application of composite materials; • Far East Development Fund and Hevel Energoservice – on cooperation for the development of renewables and creation of autonomous hybrid power plants in the Far Eastern Federal District areas with decentralized power supply. For more information on the implementation of bidding procedures, see the Procurement

Key mechanisms	Responses to requests and results of stakeholder relations in 2019
4. Environmental organizations	
Key interests: environmental protection	
– environmental impact assessments; – environmental projects in the regions of operation; – interaction with specially protected natural areas; – charitable assistance to biodiversity conservation programs	In 2019, RusHydro Group supported 19 specially protected areas across the regions of its operation. The Company's donations help the areas implement a wide range of environmental measures aimed primarily at biodiversity conservation and environmental awareness raising for the younger generation, as well as actions that ensure regulation and sustainable use of biological resources important for biodiversity conservation; and assistance in protecting ecosystems and natural habitats of species maintaining viable populations in natural conditions. As part of the Ecological Paths project, seven tourist trails were laid out in 2019 in the Republic of North Ossetia – Alania, Perm and Stavropol territories, Amur, Volgograd, Saratov and Samara regions, with a total of 30 nature trails operating in 15 regions of RusHydro's operation as of date (as well as in Karachay-Cherkessia, Chuvashia, Kabardino-Balkaria, Yaroslavl, Novosibirsk, Moscow and Nizhny Novgorod Regions). PJSC RusHydro takes part in activities of the Ministry of Natural Resources working group, which addresses entrepreneurship and biodiversity preservation issues. Thus, Company representatives inform the participants of meetings on the efforts made to preserve the biodiversity. One of the working group's objectives is to establish methodological approaches to preserving the biodiversity. The said initiative will be implemented together with leading academic institutions. *[OS]* For more information, see the Environmental protection
5. Employees and trade unions	
Key interests: professional and career development, safe working conditions, remuneration	
– further professional training; – social support of employees; – communication through internal channels; – interaction with trade unions	In 2019, RusHydro Group conducted more than 56,300 training courses while also holding regular professional skills competitions and providing career guidance. RusHydro Group provides voluntary health insurance and non-government pension insurance plans. Employees receive support as part of existing collective bargaining agreements and internal documents. For more information, see the Ensuring good working conditions Employees have access to a dedicated intranet platform (portal.rushydro.ru), which publishes Group-wide news, covers developments at RusHydro's branches and subsidiaries, announces essential corporate events and actions, and posts vacancies and information on new appointments. In 2019, 12 issues of a corporate newsletter were published with a circulation of 11,000 copies, distributed across branches and subsidiaries of RusHydro Group. Most of RusHydro Group's companies have trade unions in place, with a total of 34,239 members in 2019 (49% of the total headcount). Interaction with trade unions in branches and subsidiaries runs as follows: – establishment of commissions for drafting collective bargaining agreements and monitoring their implementation, social policy commissions with the participation of the employer and trade union representatives; – taking into account the union's opinion when adopting internal regulations on social and labor relations; – holding joint meetings of heads of local trade unions with RusHydro's management on relevant aspects of social and labor relations. – holding joint cultural, sports and festive events; – timely informing trade unions about decisions made on reorganization, layoffs and other cases stipulated by labor legislation and collective bargaining agreements

Key mechanisms	Responses to requests and results of stakeholder relations in 2019
6. Professional industry associations and expert community	
Key interests: energy science development, development of innovative technologies, partnership prospects, transparent operations	
● forums, conferences, exhibitions; ● joint programs; ● public reporting; ● implementation/association programs.	RusHydro Group participates in committees and working groups of a number of non-profit partnerships and international organizations, including: ● Russian Union of Industrialists and Entrepreneurs (RSPP), where Nikolay Shulginov, Chairman of the Management Board – General Director of RusHydro, holds a Board member position; ● Hydropower of Russia Association; ● Council of Energy Industry Veterans Non-Profit Partnership; ● Market Council Non-Profit Partnership; ● International Hydropower Association; ● Global Sustainable Energy Partnership (GSEP). For more information on forms of participation in non-profit organizations, see Appendix No. 3
7. Federal and local executive authorities	
Key interests: ensuring reliable and uninterrupted power supply and heat supply, tax revenues, development of regions of operation, improvement of the regulatory framework for energy, control over investment program implementation and financial and business operations	
● agreements on social and economic cooperation with government authorities; ● involvement in developing investment programs; ● arranging and holding public hearings on facilities construction projects; ● engagement in joint committees, commissions, and expert groups on energy sector development; ● development of proposals on improvement of laws and regulations that cover activities of RusHydro Group's companies; ● interaction with external regulators during their audits of RusHydro Group.	In 2019, the Company had effective agreements with the Russia's Ministry of Civil Defence, Emergencies and Disaster Relief, and the Federal Fishery Agency. RusHydro worked with committees of the Federal Assembly of the Russian Federation on matters related to the Company's interests. Representatives of the Company participated in all significant events (parliamentary hearings, roundtables, emergency response sessions, meetings) organized by the executive and legislative authorities. In 2019, RusHydro had effective agreements and memoranda signed with the authorities of the following regions and municipal entities: Republic of Dagestan, Karachay-Cherkess Republic, Republic of Sakha (Yakutia), Republic of Tatarstan, Republic of Khakassia, Kamchatka Territory, Primorsky Krai, Amur Region, Volgograd Region, Magadan Region, Moscow Region, Chukotka Autonomous Area, Artem Urban District, Vladivostok Urban District, and Yakutsk Urban District. RusHydro developed the program to develop the energy system in the Far Eastern Federal District with a view to accelerating local economic growth. For more information, see the Program to develop the energy system in the Far Eastern Federal District with a view to accelerating local economic growth Together with the Government of the Sakhalin Region, the Company established the Program of Stable Power Grid Operation in the Sakhalin Region, approved by the Ministry of Energy. For more information, see the Accident rate at RusHydro Group's facilities Also in 2019, the management of RusHydro participated in commissions and working groups under the Government of the Russian Federation established for the development of the energy sector and social and economic development of Russian regions. Upon review by the Government Commission on the Development of the Electric Power Industry on May 29, 2019, the list of thermal power plants to be modernized (rehabilitated) or constructed in the WECM non-price zones was approved by Order of the Russian Government No. 1544-r dated July 15, 2019. A number of key issues related to the development of the energy sector in the Republic of Dagestan were discussed by the working group on the development of hydropower generating facilities, ensuring safety and effective operation of hydraulic facilities, which includes representatives of the Government of the Republic of Dagestan and RusHydro. *[OS]*

Key mechanisms	Responses to requests and results of stakeholder relations in 2019
8. Regulators and infrastructure organizations	
Key interests: compliance with Russian and international laws	
– reporting; – development of proposals to improve legislation.	The Company regularly discloses information in accordance with the requirements of the Bank of Russia and other regulators. RusHydro Group is actively involved in policy-making in the industry. The main achievement of RusHydro Group's engagement in legislative improvement efforts in 2019 was the adoption of several regulations which set forth: – legal grounds for introducing long-term tariff regulation in the Far Eastern Federal District[1]; – possibility of implementing a mechanism for upgrading thermal power plants[2]; – size of fees charged for the use of water bodies[3]; – requirements to reliability and safety in the electric power industry (orders of the Ministry of Energy of Russia). *[OS]* In 2019, PJSC RusHydro continued developing the national standardization system by ensuring operation of the specialized subcommittee – Hydropower Plants (hereinafter, SC-4) of the Technical Committee 016 "Power Sector". The National Standardization Program, approved by Rosstandart based on the propositions of SC-4 (NSP 2015–2019), includes nine national standards initiated by SC-4. In late 2019, by Order of Rosstandart No. 1339-st dated December 4, 2019, the national standard (GOST R) "Instrumentation systems and equipment. Manufacturing conditions. Norms and requirements" (executed by the Branch JSC Institute Hydroproject – NIIES). In 2016–2019, the total number of GOST R national standards initiated by SC-4 and approved by Rosstandart amounted to 4. *[OS]*
9. Educational institutions	
Key interests: targeted training programs, energy science development, development of innovative technologies, including those which reduce the environmental impact	
– cooperation in R&D; – training, retraining, and skills improvement for employees; – orders for R&D projects.	Implementation of From School to Workplace, a program of advanced human resource development: – launch of the tenth energy class in total and the first energy class in the North Caucasus in 2019 with the support of RusHydro and the Ministry of Education of the Karachay-Cherkess Republic; – participation in the organization of various events, including Energy for Education Industry contest, ProeKTOriYa, a national career guidance forum, and project sessions in the Russian Children's Education Centers (Sirius, Ocean, Smena, Orlyonok); – Energy for Development contest for university undergraduates; – spring energy school for students; – cooperation with partner universities in organizing internships at RusHydro Group enterprises; – providing charitable assistance to partner universities. Two engineering centers dedicated to thermal power generation and wind power competencies have been established at the Far Eastern Federal University. For more information, see the Ensuring good working conditions

[1] The Russian Government's Resolution No. 64 dated January 30, 201 On Amendments to Certain Acts of the Government of the Russian Federation Concerning Regulation of Prices (Tariffs) for Electricity (Capacity) Supplied to Technologically Isolated Local Electric Power Systems and in Areas not Technologically Linked with the Unified Energy System of Russia and Technologically Isolated Local Electric Power Systems, and Declaration of Some Acts of the Government of the Russian Federation as Invalid, as well as the Russian Government's Resolution No. 837 dated June 29, 2019 On Amendments to Pricing Basis in the Field of Regulated Prices (Tariffs) for Electric Power.

[2] The Russian Government's Resolution No. 43 On Selecting Projects to Upgrade Generating Facilities of Thermal Power Plants dated January 25, 2019.

[3] The Russian Government's Resolution No. 1211 dated September 18, 2019 On Amending Clause 1 of Russian Government's Resolution No. 1509 dated December 26, 2014.

Key mechanisms	Responses to requests and results of stakeholder relations in 2019
10. Local communities and regions of presence	
Key interests: local development	
– job creation; – conducting public hearings on energy construction projects; – implementation of charity projects aimed at social and economic development of the regions where RusHydro Group operates; – participation in educational and environmental projects of high social importance.	RusHydro Group builds and commissions energy facilities that help create new jobs. In 2019, 1,569 new jobs were provided, mainly in the Far Eastern Federal District. In 2019, under the Charity and Sponsorship Program more than 300 charitable projects were implemented in the regions of RusHydro Group operation, providing support in the following key areas: education, environment, health care, sports, culture, support of social institutions, charitable foundations, non-profit organizations, low-income and vulnerable citizens. The Company also supported a number of state-run projects of public importance. In addition, RusHydro subsidiaries implemented more than 320 charity projects in 2019. For more information, see the Social initiatives and contribution to the growth of local communities
11. Media	
Key interests: receiving full reliable information on the Company's operations, quick informed responses to media inquiries	
– preparing and providing the media with press releases, statements, and comments of the Company; – publishing information on the corporate website and social media; – preparing and providing background, analytical information and presentations to the media; – organizing and holding briefings, press conferences, interviews, media scrums, press tours and other media events; – providing information in a timely manner in response to media inquiries	As a result of interaction with the mass media, publications mentioning RusHydro Group totaled over 76,000 in 2019, with PJSC RusHydro mentioned 36,600 times. More than 15,000 items were published in federal outlets, while 258 pieces were broadcast on TV and radio. RusHydro has official accounts in three social networks: VKontakte, Facebook and Instagram with over 26,000 followers in total. The Company's corporate website (www.rushydro.ru), which is open to all Internet users and contains information on all lines of business of RusHydro Group, attracted 533,000 unique visitors in 2019.
12. Public social and charitable organizations	
Key interests: support for social activities and securing financial assistance, volunteers' assistance	
– social and charitable programs; – corporate volunteering; – public reporting on corporate social responsibility; – systematic communication with charitable foundations and non-governmental organizations.	Regular meetings were held with charitable foundations and non-governmental organizations. At the request of charitable foundations and organizations, the Company conducted a screening, upon which it decided on feasibility of the charitable assistance to be provided within the budget of the RusHydro's Charity and Sponsorship Program and in accordance with the Regulations on the Organization of Management of Charitable and Sponsorship Activities of RusHydro Group and the Charity and Sponsorship Policy. The Company rendered targeted aid to those in need through charitable organizations upon receiving formal requests and supporting documents. For more information, see the Charity and social projects In cooperation with charitable foundations, volunteering campaigns were arranged to help the disadvantaged. For more information, see the Corporate culture and volunteering