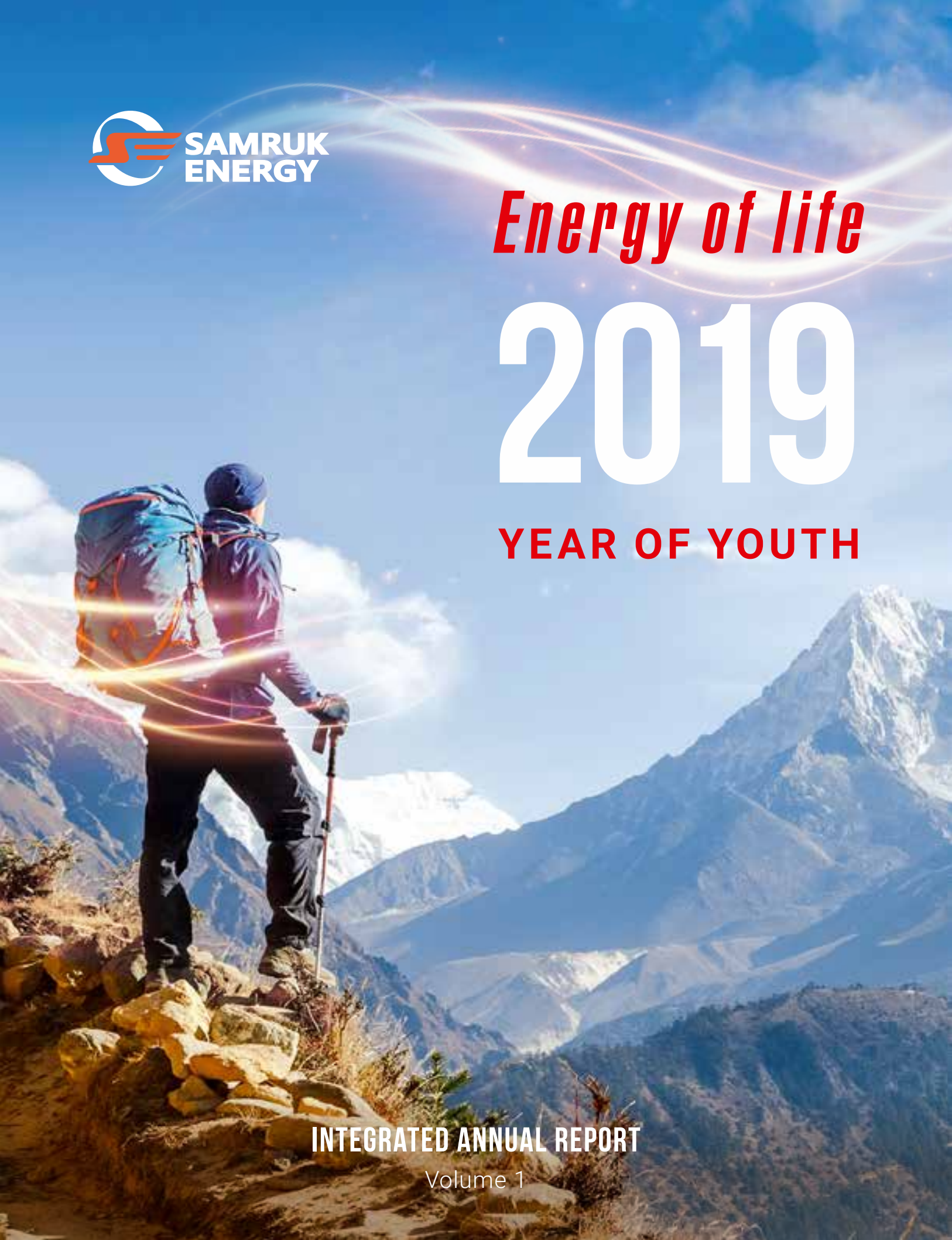
SAMRUK ENERGY

Energy of life

2019

YEAR OF YOUTH



INTEGRATED ANNUAL REPORT

Volume 1

About the Report

"Samruk-Energy" JSC declares its commitment to the principles of sustainable development in its operations.

The Company sees this Report as one of the ways of communicating with stakeholders.

Views of stakeholders were considered during preparation of this Report, as well as all major aspects were covered in accordance with the GRI Standards: Basic version. The Company was guided by the reporting principles of the "Global Reporting Initiative" and the GRI Electricity Industry (Electic utility, EU) protocol, the requirements for reporting of the UN Global Compact, Corporate Governance Code and the International Financial Reporting Standards at the preparation of the Report. The Company adheres to the following approaches in determining the content and quality of the Report.

Data in the Report associated with the future are based on forecast information, anticipated performance results are not guaranteed, they must not and cannot be considered as the most likely or typical scenario. Actual results may differ significantly from planned and target indicators, expected results, estimates and intentions contained in forward-looking statements. Forecast statements are only valid on the date of the release of the Report (learn more about the Report on page 164).

CONTENT

MESSAGE OF THE CHAIRMAN OF "SAMRUK-ENERGY" JSC BOARD OF DIRECTORS

Dear reader!

"Samruk-Energy" JSC provides a dominant share of electricity production in Kazakhstani market, always pursuing strategic goals to ensure reliable competitive supply of energy resources in the markets where it operates, maximize shareholder value and sustainable development.

Today, more than 70% of the Company's generating facilities are coal-fired condensing power units. For this reason, despite the Company's involvement in renewable energy projects, coal generation remains "Samruk-Energy" JSC key competence in years ahead. In this regard, as part of activities aimed at the development of generation, the main emphasis is to increase operating performance of existing facilities, including: reduction of production costs, efficient operation and repair of equipment, innovative development, business digitization, successful implementation of investment programs and enhancing of financial stability.

In the context of accomplishing tasks in these directions, the unit consumption of fuel and water costs for process needs were reduced at "Ekibastuz State District Power Plant – 1 named after B. Nurzhanov" LLP, resulting in savings of about 1 bln. tenge.

In 2019, the Company signed an energy service agreement with a domestic investor, a maximum energy saving and energy efficiency is expected to be achieved while providing lighting of mine workings and production sites of "Bogatyr Komir" LLP using artificial light sources. The expected economic effect is circa 207,8 mln. tenge annually.

The 2019 will also go down in the history of Kazakhstan's power sector. The Company's shareholder, "Samruk-Kazyna" JSC, closed a deal on acquisition of a 50% equity stake in "Ekibastuz State District Power Plant-2" JSC from "Inter RAO" PJSC. As a result, an important energy asset has completely passed into the control of the Republic of Kazakhstan. For Kazakhstani side, the installation of the third 636 MW power unit as part of expansion and reconstruction is a priority. The implementation of this project will contribute to meeting the growing needs of Kazakhstan in electricity and electric capacity, while increasing its export potential.

As part of actions taken by the Company, at the end of 2019, the target values of the financial stability ratios Debt / EBITDA, EBITDA / Interest expense, Debt / equity, set out in the Debt Management and Financial Stability Policy were achieved and, accordingly, the green risk zone was secured.

The Company repaid "Moynak HPP" JSC foreign currency loan in the amount of 136,3 mln. USD ahead of schedule; the loan was previously received from the State Development Bank of China for the construction of a hydropower plant. The implementation of the transaction allowed "Samruk-Energy" JSC to substantially reduce the share of foreign currency loans in its loan portfolio from 17% to 3%, reduce the negative effect of currency fluctuations on the holding company's financial performance and release the Shareholder's corporate guarantee in the amount of 50 mln. USD, thereby reducing the amount of contingent liabilities.

The Company works towards the effective implementation of the investment program and maintain the required rate of return on equity.

The Company has projects, which are planned to be implemented in the medium-term such as: "Expansion and reconstruction of Ekibastuz SDPP-1 facilities (Restoration of Unit 1), "Expansion and reconstruction of Ekibastuz SDPP-2 including installation of power unit No.3", "Implementation of the project of transition to cyclical-and-continuous method for the extraction, transportation, blending and loading of coal at the "Bogatyr" open-pit mine (CCM)", "Retrofit of Shardarinsk Hydropower Plant" project is nearing completion. In the renewable energy sector: "Construction of a 50 MW Yereymentau wind farm", "Construction of a 60 MW wind farm in Shelek rural area of Almaty region". I would like to highlight the key role of "Samruk-Energy" JSC, as the largest electricity supplier in Kazakhstani market, in the implementation of plans to build a low-carbon economy.

The Company will continue to make every effort to improve the corporate governance system in order to develop further, improve and increase transparency of its operations. It will keep streamlining its business processes, management system and improving all elements of production process on the path of confident and stable development of power holding company.

Karymsakov
Beibit Yerkinbayevich

MESSAGE OF THE CHAIRMAN OF THE MANAGEMENT BOARD OF “SAMRUK-ENERGY” JSC

Dear reader!

The 2019 was a productive year for the Company and was full of events that will remain in the history of Kazakhstan’s power industry development.

The operating profit across “Samruk-Energy” JSC group of companies in 2019 amounted to 243.7 bln. tenge.

The volume of electricity production by “Samruk-Energy” JSC group of companies amounted to 30,200.3 mln. kWh. 44,848 thousand were mined at coal mines, the volume of export to the Russian Federation has increased.

In 2019, Kazakhstan established the capacity market as an effective mechanism for providing the industry with a sufficient level of investment, which will favorably influence the market in the long term. The profit obtained by electricity producers is divided into two components – income from the sale of electricity (used to cover current expenses) and income from the provision of services to maintain the availability of electric capacity (used to repay principal and investments).

The fundamental retrofit of Shardarinsk hydropower plant in Turkestan region suffering from power shortages is nearing completion. The reconstruction will allow increasing the capacity of the hydropower plant to 126 MW , and new hydraulic turbines will allow boosting electricity production from 480 to 537 mln. kWh.per year.

In the Almaty energy complex, “Alatau Zharyk Company” JSC completed the project of transferring loads from the Gorny Gigant substation to upgraded Ermensay substation. As a result, the threat of emergencies and power outages in the southern capital was finally eliminated.

RE assets portfolio of the Company includes a 0,4 MW solar power plant, which was built in 2019 in the Almaty region. The project was implemented on the basis of infrastructure of existing 2 MW SPP in Kapshagai.

Implementation of the project of construction of a 60 MW wind power plant (WPP) including a possible increase in capacity up to 300 MW has commenced in the same region. It is expected that greenhouse gases will reduce to 206 thous. tons of CO_2/ per year as a result of the launch of the renewable energy facility in Shelek corridor, and 89 thous. tons of specific fuel per year. Thus, the new RE facility will contribute to an increase in the production of “clean” electricity and the development of renewable energy sources in Kazakhstan.

The international rating agency Fitch Ratings affirmed “Samruk-Energy” JSC a long-term credit rating in foreign and national currency at the level of “BB”, the forecast is “Stable”; The assessment is based on the strategic importance of “Samruk-Energy” JSC for the state, which is expressed in financial support, as well as the Company’s strong market position. A loan agreement was signed between “Ereymentau Wind Power” LLP and EDB in the amount of 23.2 bln. tenge, which provides funding for the project “Construction of 50 MW wind farm in Ereymentau”.

To increase the volume of electricity sales and use of export potential, “Samruk-Energy” JSC entered the Central Asian electricity market. “Ekibastuz State District Power Plant-1” LLP and “National Power Grids of Uzbekistan” JSC signed an electricity purchase and sale agreement, which covers the supply of 1,01 bln. kWh electricity from June to December 2019.

The Company completed 3 projects as part of the implementation of Business Transformation Program in 2019: “Introduction of the new information technology management model”, “Category procurement management”, “Development of sales processes and introduction of trading processes”, which has no analogues in Kazakhstan.

The Company has reconsidered approaches to implementing Transformation Program. The focus is shifted towards addressing production objectives and ramping up production facilities. The Company created an updated portfolio of projects. It aims to achieve strategic goals, increase the value of the company and reduce operating costs.

In its activities, the Company follows the principles of social responsibility of business and implements the global sustainable development goals within its competence. We pay a considerable attention to the implementation of social policies, improving the working conditions of employees, promoting the well-being of employees and residents of the regions where we operate, ensuring workplace safety, preservation of the environment, and increasing the share of local content in procurement.

The Company allocated more than 7.1 bln. tenge in 2019 for occupational health and safety and environmental protection initiatives.

In 2019, “Samruk-Energy” JSC signed a Statement of Support for the “Women’s Empowerment Principles”, developed as part of the partnership between UN Women and the United Nations Global Compact. This is one of the results of the the Company and the European Bank for Development and Reconstruction joint project on the development of human rights policies, the promotion of gender equality and women empowerment.

In order to develop and support the young generation, activities aimed at supporting young employees were conducted throughout 2019 within the framework of the Year of Youth announced by N.Nazarbayev, the First President of the Republic of Kazakhstan – Yelbasy.

The Youth Council of “Samruk-Energy” JSC group of companies was established, youth forums, internships were held as part of digitization program, and a talent pool comprising highly qualified ambitious young employees from different regions is formed.

The young generation will become the driving force behind the Company’s development, an active resource in accomplishing strategic goals.

Zhulamanov
Bakitzhan Tolevzhanovich

ABOUT THE COMPANY

“SAMRUK-ENERGY” JSC ASSETS MAP

“Samruk-Energy” JSC was established on May 10, 2007 in line with the decision of the general meeting of shareholders in order to implement a long-term state policy on retrofit of existing and commissioning of new generating facilities (for more details, please visit the Company’s website www.samruk-energy.kz).

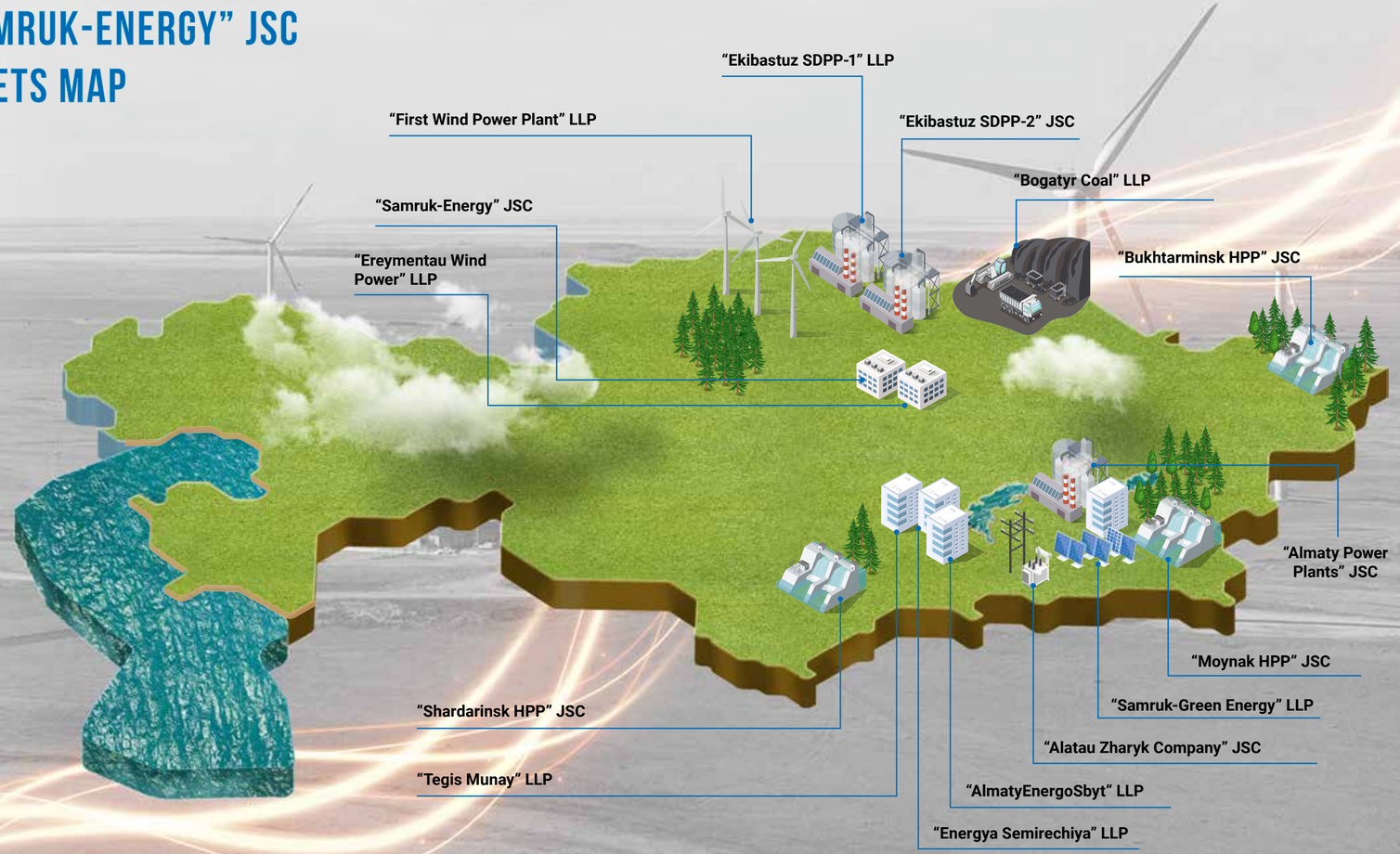
“Samruk-Energy” joint-stock company is a holding company that manages energy assets in the Republic of Kazakhstan. The core business of “Samruk-Energy” JSC group of companies are the production of electricity, heat and hot water based on coal, hydrocarbons and water resources and sale to the public and industrial enterprises, transportation of electricity and distribution of electricity in grid, construction of hydropower plants and thermal power plants, construction and operation of renewable energy facilities, coal mining, as well as rental of property complexes of hydropower plants.

Today, the Company’s assets include the largest generating companies, including plants of national importance, such as Ekibastuz SDPP-1 and SDPP-2, the main hydropower plants of the Republic, which are included in the Irtysh cascade of hydropower plants, as well as hydropower plants in the southern regions of the country (Shardarinsk and Moynak HPP). “Samruk-Energy” JSC assets include “Bogatyr Komir” LLP, the largest coal mining enterprise in Kazakhstan. “Samruk-Energy” JSC group of companies includes a power plant producing electricity and heat in Almaty region, as well as regional distribution networks and a distribution company (Samruk-Energy JSC assets are presented on page 12)

Pursuant to the Decree of the Republic of Kazakhstan Government No. 1141 “On some matters of privatization for 2016–2020” dated December 30, 2015, acivities on sale of “Samruk-Energy” JSC to a competitive environment are underway.

In 2019, Almaty Energy Complex companies (“AZhC” JSC, “APP” JSC and “AES” LLP) were excluded from the list of assets subject to privatization, they will be retained within the Company’s structure as part of the privatization of the Company as a whole. Along with that, the State Committee for the Modernization of the Economy of the Republic of Kazakhstan decided to remove “Tegis Munay” LLP from the list of assets subject to privatization, also in order to keep the asset within the perimeter of the Company as part of the privatization of the Company as a whole.

It is planned to continue implementing activities regarding the privatization of “Samruk-Energy” JSC in 2020.



BUSINESS MODEL

COAL MINING AND SALE

"Bogatyr-Komir" LLP, which is part of the Holding company supplies power-generating coal to generating facilities of the domestic market of the Republic of Kazakhstan and for export to the Russian Federation, as well as household coal to the domestic market of the Republic of Kazakhstan.

COAL PRODUCTION VOLUME (mln. tons) 44.8

of the volume of coal mined in Ekibastuz coal basin 64%

of the total volume of coal mined in Kazakhstan 40.4%

EXPORT

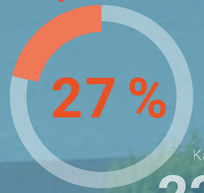
The volume of coal exports to the Russian Federation amounted (thous. tons) 10,893

The volume of electricity export to Uzbekistan (mln. kWh) 966.5

INSTALLED CAPACITY

"Samruk-Energy" JSC

6,146 *MW*



Kazakhstan

22,937 *MW*

GENERATION

The group of companies of "Samruk-Energy" JSC comprises large generating assets "Ekibastuz State District Power Plant-1" LLP, "Ekibastuz State District Power Plant-2" JSC, "Almaty Power Plants" JSC, "Moynak HPP" JSC and "Shardarinsk HPP" JSC.

ELECTRICITY PRODUCTION VOLUME

by energy producing organizations of "Samruk-Energy" JSC (bln. kWh) 30,2

SHARE OF ELECTRICITY PRODUCTION

by power plants of "Samruk-Energy" JSC in total electricity production of Kazakhstan's UES 28,5%

RENEWABLE ENERGY SOURCES

The structure of "Samruk-Energy" JSC includes RE generating facilities:

- 45 MW First wind power plant
- 2,4 MW Solar power plant

Electricity production volume (mln. kWh) 342,5

Share of electricity production of the total RE electricity volume in the RK 14,3%

CAPACITY

TPP (MW) 5,328

HPP (MW) 770,7

RES (SPP and WPP) (MW) 47.5

MISSION

To create shareholder value, meet the growing demand through reliable supplies of energy resources, high-tech development, while relying on the principles of sustainable development

VISION

An efficient high-tech operating energy company — the leader of Kazakhstan power industry

TRANSMISSION, DISTRIBUTION

"Samruk-Energy" JSC group of companies includes regional distribution company "Alatau Zharyk Company" JSC

Capacity of substations (MVA) 9,808.2

The length of 220-0,4 kV overhead and cable transmissions lines 30,271

Number of substations 7,104

Electricity transmission volume in 2019 (mln. kWh) 6,961

SALE

WHOLESALE

Generating companies of national importance, as well as major consumers, including: "KEGOC" JSC, "AstanaEnergoSbyt" LLP, "Kazphosphate" LLP, "AlmatyEnergoSbyt" LLP, "Temirzholenergo" LLP, "ZhambylZharykSauda-2030" LLP, "AB Energo" LLP, "Energopotok" LLP, "Alatau Zharyk Company" JSC, "Bogatyr Komir" LLP, "Zhetysu Energotrade" LLP and others represent the wholesale electricity sales market.

RETAIL

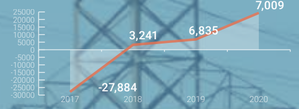
"Samruk-Energy" JSC group includes energy sales company "AlmatyEnergoSbyt" LLP, which provides electricity to more than three million residents of Almaty region.

The total electricity sales volume (mln. kWh) 6,218

The volume of heat energy supply by heat and power producing company "Almaty Power Plants" JSC (mln. Gcal) 5.2

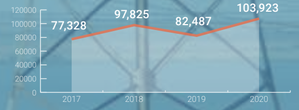
KEY FINANCIAL AND ECONOMIC FIGURES

Net income/loss due to shareholders (mln. tenge)



Net income, net of exchange rate difference, impairment and loss from sale of assets, (mln. tenge)

EBITDA (mln. tenge)

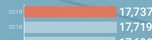


EBITDA Margin (%)

* 2020 includes forecast data

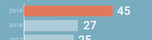
SOCIAL PERFORMANCE

Average headcount, total (person)



Annual staff turnover (%)

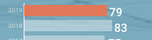
Training costs per 1 employee/year Thous.



% of training costs of payroll (%)

The number (rate) of accidents at work per thousand people (Number /1,000)

The share of local content in the procurement of goods, (%)



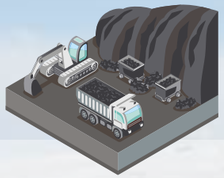
The share of local content in the procurement of goods, (%)

Social stability rating, (%)

Dynamics of Average Wage (tenge)

Investments in Environmental Protection (thous. tenge)

STRUCTURE OF ASSETS



COAL COMPANIES

SUBSIDIARIES

"Forum Muider B.V." 50%

SECOND-TIER SUBSIDIARIES

"BOGATYR KOMIR" LLP 100%

"RESURSENERGOUGOL" LLC 100%

"ENERGOTREIDUGOL" LLP 100%

METTLERA CORPORATION LTD 100%

GENERATING COMPANIES

SUBSIDIARIES

"APP" JSC 100%

"Ekibastuz SDPP -1" LLP 100%

"Ekibastuz SDPP -2" LLP 50%

"Balkhash TTP" JSC 100%

"Tegis Munay" LLP 100%

SECOND-TIER SUBSIDIARIES

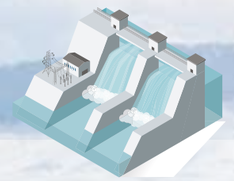
"MANGYSHLAK-MUNAY" LLP 100%

DISTRIBUTION COMPANIES

SUBSIDIARIES

"AlmatyEnergoSbyt" LLP 100%

"Alatau Zharyk Company" JSC 90,29%



HYDROPOWER COMPANIES

SUBSIDIARIES

"Shardarinsk HPP" JSC 100%

"Moynak HPP" JSC 100%

"Shulbinsk HPP" JSC 92,14%

"Ust-Kamenogorsk" JSC 89,99%

"Bukhtarminsk HPP" JSC 90%

RES AND SERVICE COMPANIES

SUBSIDIARIES

"First wind power plant" 100%

"Energy Solutions Center" LLP 100%

"Ereymentay Wind Power" LLP 100%

"Samruk-Green Energy" LLP 100%

"Energya Semirechiya" LLP 25%

"Kazhydrotechenergo" LLP 100%

SECOND-TIER SUBSIDIARIES

"TEPLOENERGOMASH" LLP 95%

KEY EVENTS IN 2019

January

“Bogatyr Komir” LLP concluded first energy service agreement in “Samruk-Energy” JSC group of companies

Annual savings of 7,7 mln. kWh. or circa 207,8 mln. tenge at “Bogatyr Komir” LLP coal mines is the expected economic effect of the energy service agreement signed between “Bogatyr Komir” LLP and Kazakhstani company “PROLUX LED” LLP.

It is planned to replace more than 1,5 thousand of available industrial lamps with LED ones.

01

February

“AZhC” JSC completed the project of transferring loads from 220/110/10 kV “Gorny Gigant” substation to the upgraded 220/110/10 kv “Ermensay” substation

The implementation of the project allowed not only preventing possible accidents and increasing the reliability of power supply in the southern capital, but also removing restrictions on connecting new consumers, including residents of “Samal”, “Kazakhfilm”, “Baganashil”, “Taugul” and other micro districts, and increasing the volume of electricity transmission.

About 40 km of cable lines were set up and put under voltage from “Ermensay” substation; two overhead lines more than 11 km long were rehabilitated; high-voltage equipment for receiving, distribution and transmission of electricity were upgraded and expanded; energy metering systems, automatic emergency response and relay protection devices were installed additionally.

02

March

“Category procurement management” Transformation Program project was completed

The project was transferred to the operational management of the Company. The procurement category management process involves streamlining of procurement activities.

10 procurement category strategies have been developed within this project. Actual economic effect amounted to 2.5 bln. tenge.

03

April

“Shardarinsk HPP” JSC launched a second hydraulic unit as part of a fundamental retrofit of the plant

Technological equipment was successfully tested and the main construction and installation works were carried out at the hydropower plant.

Equipment of the plant has been in operation for more than 50 years and is almost 100% worn out by the start of the modernization project. The reconstruction will increase the capacity of hydropower plant by 26 percent – from the current 100 to 126 MW and service life of hydropower plant by 35–40 years. Additionally, 57 mln. kWh./ year will be produced annually, which is currently important for providing power hungry Turkestan region with electricity.

“Samruk-Energy” JSC Rating

Fitch Ratings international rating agency affirmed the ratings of “Samruk-Energy” JSC at “BB”; the outlook is “Stable”.

04

May

The first mining excavator “EKG-20” in Kazakhstan

The first mining excavator EKG-20 in Kazakhstan was solemnly launched into operation at the Bogatyr open pit mine. The Bogatyr Komir Company purchased the most powerful mountain machine in its category at Uralmashzavod as part of the program for renewal of mining equipment fleet. With setting the excavator of this class in operation, the production capacity of the enterprise will increase significantly.

05

June

Refinancing external obligations

Foreign currency liabilities of “Moynak HPP” JSC from China Development Bank in the amount of 136 mln. USD were successfully refinanced. As part of this transaction, the guarantee of “Samruk-Kazyna” JSC in the amount of $ 50 million was released, the level of foreign currency liabilities in the loan portfolio was reduced from 17% to 3%.

Electricity purchase and sale agreement was signed with “National Electric Networks of Uzbekistan” JSC

To increase the volume of electricity sales and use of export potential, the work on “Samruk-Energy” JSC entry in the Central Asian electricity market was carried out. As a result, “Ekibastuz State District Power Plant-1” LLP and “National Electric Networks of Uzbekistan” JSC signed an electricity purchase and sale agreement, which involves the export of 1, 01 bln.kWh electricity from June to December 2019.

06

July

“Samruk-Energy” JSC completed the Transformation project on the development of sales processes and the introduction of trading processes

The implemented target model of the sales unit provides for centralization of sales function at the Head Office level based on the “single- window” principle for all customers. Thus, the Trade House of “Samruk-Energy” JSC sells the electricity generated by the group of companies, at the central auction of the “KEPMO” JSC platform as well.

Financial benefits achieved for the period 2018–2019 is more than 5 bln. tenge.

07

Transformation Program project for the introduction of the new IT management model was completed

The project is designed to improve the quality and efficiency of IT services, create a centralized, transparent and efficient IT management model, as well as introduce an integrated approach to creating IT strategies and build a unified architecture of the IT infrastructure of the Company and 10 subsidiaries included in the Project scope.

“IT services management” information system was developed, IT Shared Services Center was established on the basis of “Energy Solutions Center” LLP.

September

New solar power plant was built in Almaty region

The construction of a 0,4 MW solar power plant in Almaty region was completed. The plant is connected to “Alatau Zharyk Company” JSC power grids. “Samruk-Green Energy” LLP, a company within “Samruk-Energy” JSC, implemented the project.

The project was implemented based on the infrastructure of the existing 2 MW solar power plant in Kapshagai city. The photovoltaic modules of Kazakhstani company “Astana Solar” LLP were used during the construction of the new plant in order to support the domestic commodity producer.

09

November

Centralized bidding

A centralized trading of electric capacity for 2020 was held on the platform of “Kazakhstan Electricity and Power Market Operator” JSC. Following the bidding, “Samruk-Energy” JSC sold 2909,63 MW of capacity (also MHPP – 298 MW , SharHPP – 61 MW, APP – 402 MW , a total of 3,670 MW).

11

December

3rd unit launch operations have commenced at Shardarinsk HPP

A large-scale project associated with complete retrofit of hydropower plant on the Syrdarya river is nearing its completion. Fundamental reconstruction will allow increasing the capacity of hydropower plant from current 100 to 126 MW . Replacing the old hydro turbines of the Kharkiv plant with new ones, which were produced by the Austrian-German company Andritz Hydro Gmbh, will increase the plant’s output from 480 to 537 mln. kWh.per annum. Owing to the commissioning of the first two hydraulic units with a capacity of 31,5 MW each in the first half of 2019, Shardarinsk HPP hit the annual generation plan ahead of schedule.

12

Ekibastuz SDPP-2 was passed into the control of Kazakhstan

The deal on the acquisition of a 50% stake in “Ekibastuz GRES-2 Plant” JSC from “Inter RAO”, a Russian company, was successfully completed. Shares were credited in favor of “Samruk-Kazyna” JSC on 13.12.2019. The asset completely passed into the control of the Republic of Kazakhstan.

“AZhC” JSC implemented the project of reconstruction of six regional control centers for the first time in Kazakhstan

The project significantly increases the efficiency of grid management, now it is possible to quickly respond to progressing of emergency situations in power distribution zones (PDZ). The video wall is controlled from an operator’s workstation in the SCADA system and allows monitoring all the technological processes of a district’s energy facilities in real time mode. All data about condition of the switching equipment of PDZ in real time are transmitted to the Central Control Center of the city’s distribution networks.

“SAMRUK-ENERGY” JSC PRINCIPLES

PROFESSIONALISM

High professionalism of the Company’s employees is a guarantee of its successful performance. Therefore, the Company strives to create all necessary conditions for comfortable work and unlock the potential of each employee, providing equal opportunities for personal and professional development. Each employee seeks to improve competence using the opportunities provided by the Company, as well as independently.

COMPLIANCE

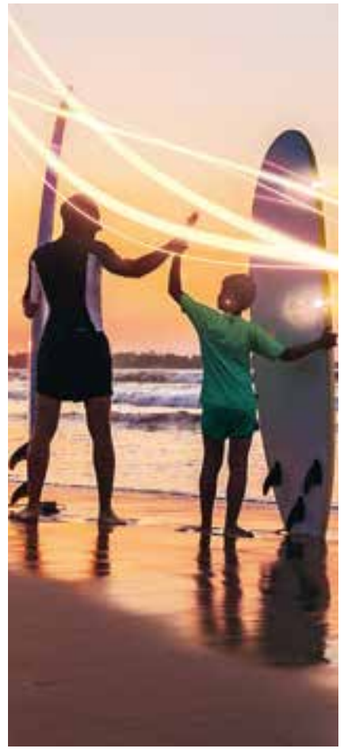
Observance of rules allows us to remain a team of professionals united by common goals, a culture of behavior and traditions, and helps to maintain a good level of mutual understanding both within the Company and with business partners and customers

SECURITY

We provide the world with energy and strive to do it safely.

RISK-BASED APPROACH

We recognize the importance of risk management as a key component of the corporate governance system and take all required actions aimed at the timely identification and mitigation of risks that may adversely affect the value and reputation of the Company.



SOCIAL RESPONSIBILITY

In our operations, we strive to protect the environment and respect the communities with which we interact. Our goals in the area of occupational health and safety and environmental protection, and general safety are the absence of accidents, harm to health and damage to the environment.

TRANSPARENCY

We are open to meetings, discussions and dialogue; we strive to build long-term cooperation with stakeholders, based on mutual interests, respect for rights and balance between the interests of the Company and stakeholders.

DEVELOPMENT STRATEGY FOR 2018–2028

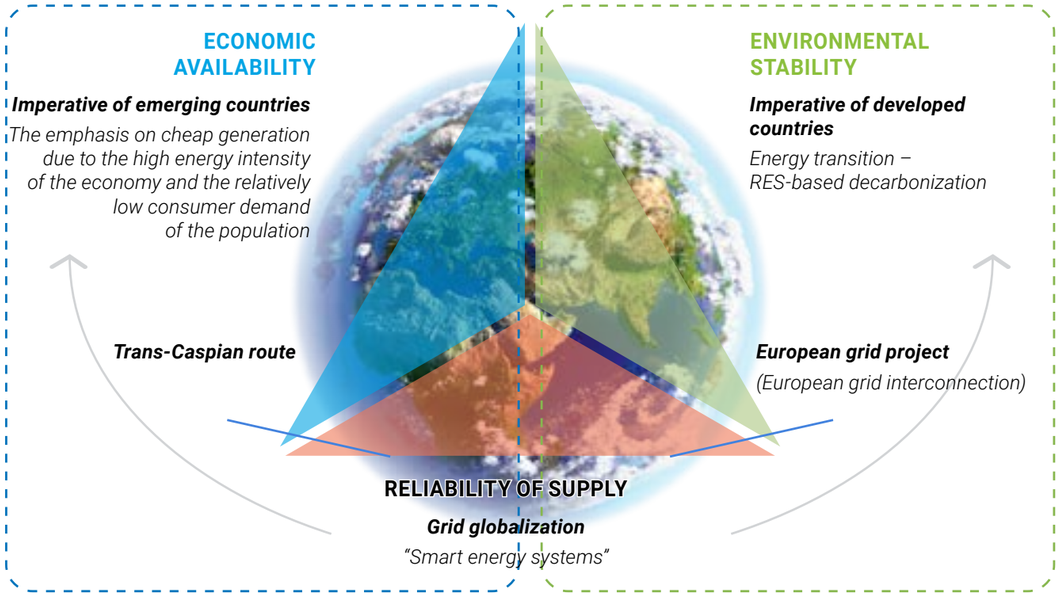
The Board of Directors approved "Samruk-Energy" JSC Development Strategy for 2018–2020 on August 28, 2018 (BOD Minutes No. 08/18).

The strategy of "Samruk-Energy" JSC is based on the current positions of "Samruk-Energy" JSC considering key trends in the external environment and power industry that influence operating conditions of the company. Strategic objectives and tasks of the Company were set on the basis of PESTEL analysis, the study of macroeconomic and industry trends, as well as analysis of the internal environment.

Macroeconomic trends

As of today, the global energy sector faces a major challenge in finding the right balance between the components of energy trilemma: economic availability of electricity, security of supply and environmental sustainability. At the same time, the priority of balancing the components of the trilemma, as a rule, is largely determined by a country's level of development and changes from the economic availability of electricity in the case of emerging countries to environmental sustainability in the case of developed ones.

Global energy trilemma, changing of imperative as the result of country's development



Key challenges

Today the Company faces a number of key external and internal challenges, which are a consequence of the current situation of the Company, the characteristics of the external environment and trends in its development.

Key external challenges

1. Establishment of the capacity market

Expectations on reducing the deterioration level of generating equipment for uninterrupted operation of existing power plants of "Samruk-Energy" JSC as part of electric capacity market. It is planned to ensure the construction of new and retrofit, reconstruction of existing facilities.

2. Establishment of the EEU common electricity market

As a result of the formation of the common electricity market of the EEU, the Republic of Kazakhstan will not only have simplified access to the markets of the member countries of the Union, but will also increase the openness of the domestic market for external electricity suppliers.

3. Availability of free capacities

A significant part of generation in the Republic of Kazakhstan is combined that is, supplying electricity to affiliated companies. The power units in the structure of combined generation as a whole are described by a higher level of load in comparison with power plants operating in the free market and have a guaranteed sales market. The development of combined generation limits the Company's market opportunities for expanding sales (active competitors, insufficient competencies, high rates for inter-regional electricity transmission).

4. Decrease in coal sales volumes

The decrease in loading of own stations operating on Ekibastuz coal negatively affects coal sales volumes. The growth potential of Ekibastuz coal consumption by third-party consumers in Kazakhstan is little. The volumes of supplies to the Russian Federation are variable in nature and this is because of an increase in electricity consumption in the RF. At the same time, Russia continues pursuing its policy regarding the partial conversion of Russian coal-fired power plants to domestic producers' coal or natural gas.

5. Toughening of environmental legislation requirements

Currently, there is a steady trend in the world to reduce the level of environmental pollution. The commitments made by the Republic of Kazakhstan, as an active participant in international relations in environment field, and Samruk-Energy, as an environmentally and socially responsible company, determine the need for a proactive response to trends in the field of environmental protection.

6. Changes in the regulatory environment for the development of RES

The mechanism of auction tenders for the construction of renewable energy facilities was introduced. Auction are held on the principle of reducing the price of electricity, starting from the established ceiling auction prices, for participation in which it is necessary to provide a collateral.

7. Business digitization

Currently, there is a trend in the world for digitization of production and operational processes, which contributes to optimization of time costs, increase of operational efficiency and development of analytical data obtained in automated mode.

Key internal challenges

1. The need to ensure the sale of the Company's assets as part of a comprehensive privatization plan for 2016–2020 at a fair market price.

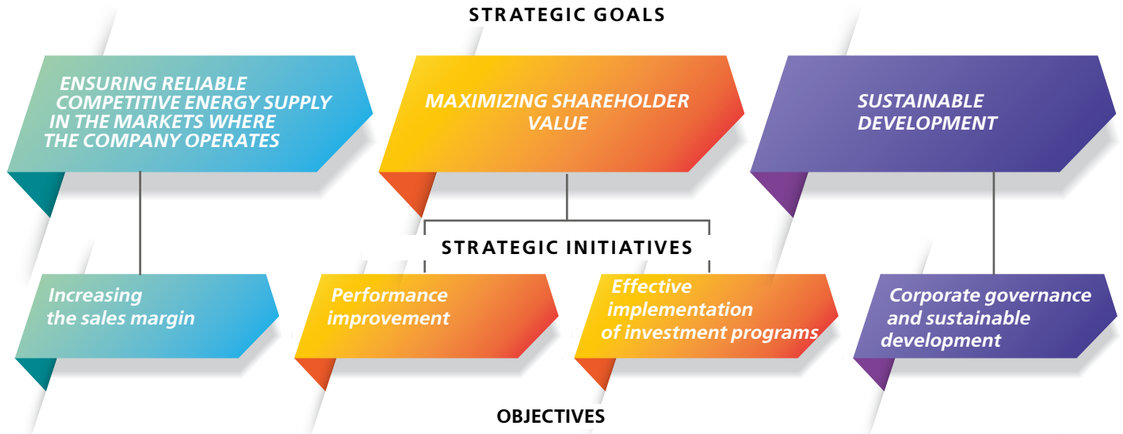
2. The need for significant improvement of the Company's operations.

VISION

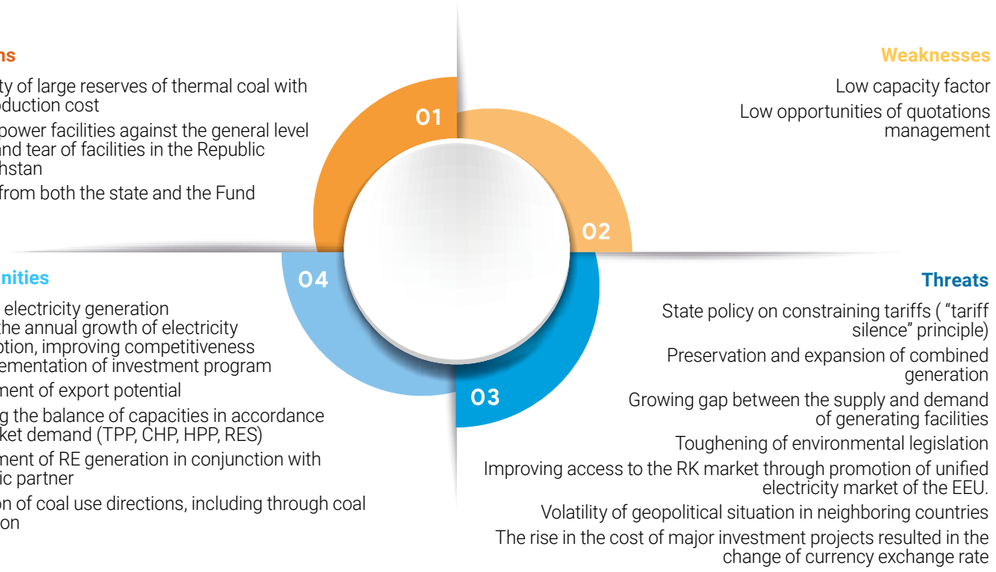
An efficient high-tech operating energy company – the leader of Kazakhstan power industry

MISSION

To create shareholder value, meet the growing demand through reliable supplies of energy resources, high-tech development, while relying on the principles of sustainable development



SWOT analysis of "Samruk-Energy's" JSC standing



The results of the implementation of key strategic objectives

An increase in sales of electricity and coal in the domestic and foreign markets

The company supplied 28,6 bln. kWh electricity, including 966,5 mln. kWh for export to Uzbekistan.

Performance improvement

As regards this objective, a number of activities on optimizing production costs have been taken, including:

- Unit fuel consumption (coal, fuel oil) and water costs for process needs were reduced at "SDPP – 1" LLP, as a result of which the savings amounted to about 1 bln. tenge.
- The effect from optimization of costs for fuel and energy resources (diesel fuel, gasoline) amounted to 71 mln. tenge.
- The benefits from reducing expenditures for repairs, which were conducted considering the technical condition of the equipment amounted to about 1 bln. tenge.

Innovative development and digitization

- As part of the project "Technologies for furnace devices of boiler units for firing high-ash coal of the Ekibastuz deposit (R&D)", a research laboratory was established at the premises of Nazarbayev University.
- With respect to the project "Fuel oil free boiler startup system", an engineering analysis was conducted among equipment suppliers in China, and laboratory tests of Ekibastuz coal were also conducted in China.
- An initial study was conducted in order to determine the readiness of the current infrastructure for digitization projects; the Digitization program's concept based on the study results was prepared. The project "Implementation of an automated power control system" was also launched.

Improvement of financial stability

As part of the measures taken by the Company, according to the 2019 results, the target values of the financial stability ratios Debt / EBITDA, EBITDA / Interest expenses, Debt / equity set out in the Debt Management and Financial Stability Policy were achieved and, accordingly, the green risk zone was accomplished.

Effective implementation of investment program

The Company strives to implement the investment program effectively and comply with the required level of return on equity. The most important ongoing projects with medium-term implementation horizons are "Expansion and reconstruction of Ekibastuz SDPP-1 facilities (Restoration of Unit No. 1)", "Expansion and reconstruction of Ekibastuz SDPP-2 with installation of Power Unit No. 3", "Implementation of the project on the transition to cyclic and continuous method of coal mining, transportation, blending and loading at the Bogatyr open-pit mine (CCM)", "Construction of a 50 MW Yereymentau wind farm", "Construction of a 60 MW wind farm in Shelek village of Almaty region". The project "Modernization of the Shardarinsk Hydropower Plant" is at the completion stage.

Achievement of strategic KPI

No.	Description	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
1	Net income, bln. tenge	–27.9	3.2	6.8	7.0	37.9
2	Debt/EBITDA (ratio)	4.64	3.18	3.31	3.04	1.98
3	ROACE, %	–1.20	2.99	3.43	3.63	7.55
4	Net asset value (NAV), bln. KZT	382.9	385.3	392.1	399.1	437.1
5	Corporate governance rating	B	BB	–	BBB	–
6	Electricity market in the RK, %	28	29.7	28.5	26.8	28.4
7	LTIFR	0.17	0.28	0.33	0.23	0.22

In general, the Company's strategic indicators have a trend to improve in the period from 2018–2021. The main growth factors are an increase in sales of electricity and capacity in the domestic market, the receipt of individual tariffs for capacity, the reduction of unit fuel and water costs for process needs, reduction of costs for fuel and energy resources, and the reduction in debt burden.

At the same time, negative factors influencing strategic indicators are foreign exchange loss, rising prices for production services and works.

The excess of current indicator of Net income for 2019 compared to the same period last year amounted to 3.6 bln. KZT or 213%. The positive deviation is because of the decrease in expenses from non-core operations due to the reduction of losses from impairment of assets, foreign exchange losses and an increase in the share of profit accounted for using the equity method.

According to the 2019 results, "Samruk-Energy" JSC reached the target values of financial stability ratios (set by the Debt Management and Financial Stability Policy) and accordingly reached the green risk zone. Thus, the strategic indicator Debt / EBITDA was 3.31, with a covenant of 3.5.

The actual ROACE indicator for 2019 as a percentage is higher than the indicator for 2018 by 15%. The indicator improved owing to the decrease in the Company's debt for the period 2018–2019 by 30,9 bln. KZT.

Net asset value, NAV for 2019 increased compared to 2018 because of an increase in the Company's net income for 2019 in the amount of 6.8 bln. tenge.

Based on the results of corporate governance diagnostics, "Samruk-Energy" JSC was assigned a Corporate Governance Rating of BB in 2018, corresponding to the maturity level of "medium", which means that the corporate governance system of the Company meets in most essential respects most of the established criteria.

According to the Shareholder's Expectations for "Samruk-Energy" JSC, the target indicator of corporate governance rating for 2019 has not been set, for 2020 it is set at BBB.

The decrease in the Market share against the 2018 actual is because of the existing demand in the market, as well as due to the lack of economic feasibility of export to the RF.

As regards LTIFR, the indicator is deteriorated due to the introduction of a transparent system for registration of all accidents (introduction of a moratorium on taking disciplinary actions for identified accidents).

Transformation Program

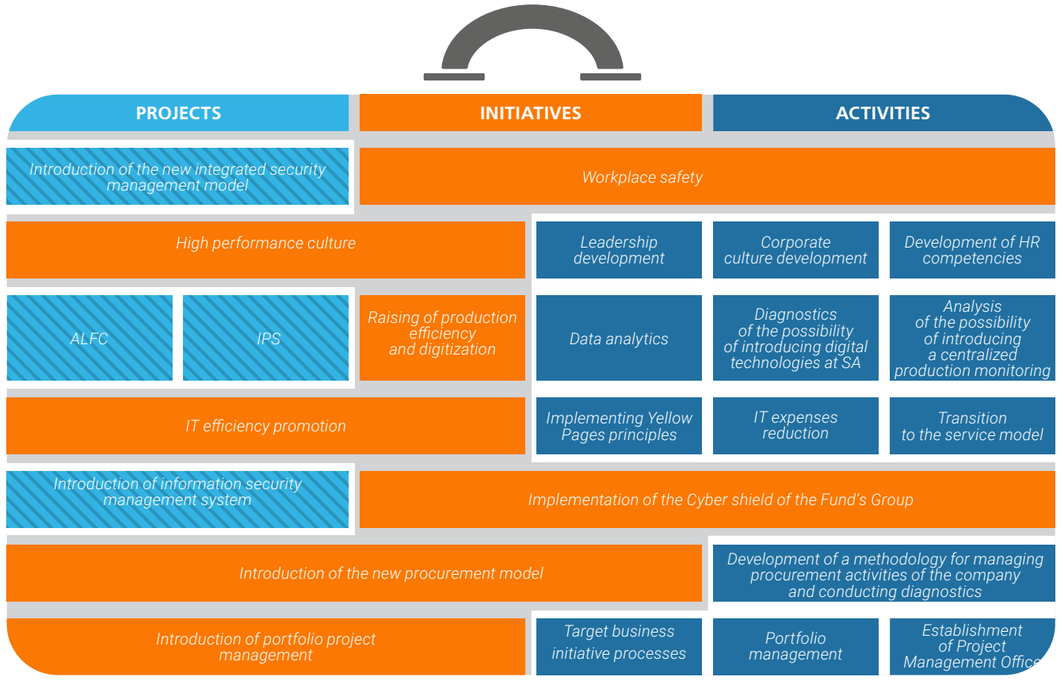
"Samruk-Energy" JSC has been implementing Transformation Program since 2015 in order to achieve strategic development goals.

The transformation program allows identifying and creating the right directions for the development of the Company, reaching a new level and increasing the value of its assets, which is one of the significant strategic goals.

From 2015 through 2019 the Company completed the projects: "Introduction of target processes", "Development of sales processes and introduction of trading", "Introduction of the new corporate finance model", "Introduction of the new IT model", "Introduction of the new strategic planning and performance management model", "Transition to the target organizational structure", "Category procurement management", "Introduction of the new risk management model", "Release of Inventory".

In 2019, the company three times exceeded the target on financial benefits under the Transformation Program, as a result received 10.3 bln. tenge of net benefits.

"Samruk-Energy" JSC updated its Projects Portfolio in 2019. The Company decided to focus on production tasks to increase production facilities, including by using digital resources. The updated Project Portfolio consists of 7 initiatives, includes 4 projects and 13 activities with a budget of 6.38 bln. tenge and net benefits of 27.52 bln. tenge are expected to be made until 2025. Each of the initiatives was developed taking into account the strategic goals and objectives of the Company for 2018–2028.



To achieve targets of the strategic performance indicators, "Samruk-Energy" JSC will continue its work on all of the above-mentioned strategic initiatives and objectives according to a plan.

ELECTRICITY AND COAL MARKET OVERVIEW

Power industry is regulated by government agencies.

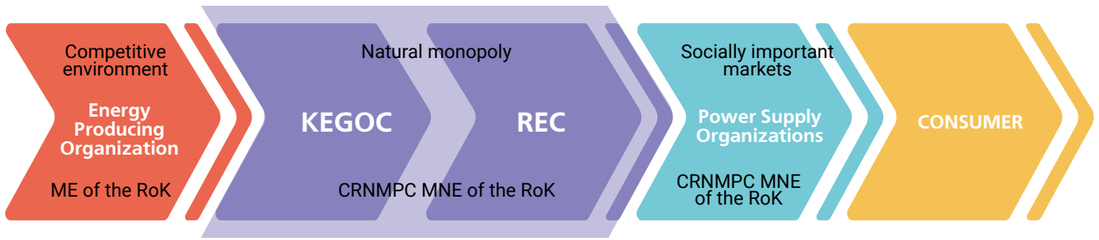
The authorized body represented by the Ministry of Energy of the Republic of Kazakhstan manages power industry on the basis of the Republic of Kazakhstan Law No. 588 dated July 9, 2004 “On Power Industry”.

The authorized body represented by the Ministry of Energy of the Republic of Kazakhstan manages renewable energy sources area on the basis of the Law of the Republic of Kazakhstan No. 165 dated July 4, 2009 “On Supporting the Use of Renewable Energy Sources”.

The state body represented by the Committee for Regulation of Natural Monopolies, Protection of Competition and Consumer Rights of the Ministry of National Economy of the Republic of Kazakhstan (hereinafter as the Committee) implements the state policy in the areas of natural monopolies, including on regulated services for electricity transmission, heat production, transmission, distribution and supply in line with the Republic of Kazakhstan Law dated December 27, 2018 No. 204-VI “On Natural Monopolies”.

The Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan is the state agency that manages coal industry in accordance with the Republic of Kazakhstan Code No. 125-VI dated December 27, 2017 “On subsurface and subsurface use”.

Kazakhstan electricity market model

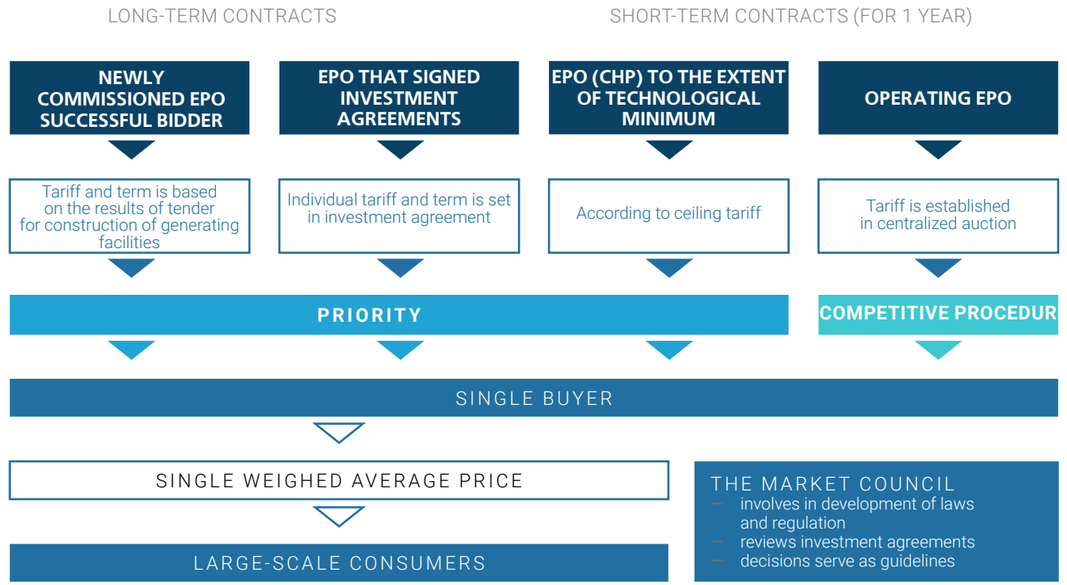


ELECTRICITY MARKET

Retail (up to 1 MW)
- Power transmission and energy supply organizations that supply electricity to retail customers

Wholesale (above 1 MW)
- Decentralized market: participants purchase and sell electricity on mutually agreed terms
- Centralized market operated by «Kazakhstan electricity and capacity market operator» JSC (KOREM)
- Balancing market for eliminating imbalances on a daily basis (functioning in a simulation mode)
- Market of system services including power transmission and capacity reservation

Capacity market model



Electricity balance of Kazakhstan

The installed capacity of Kazakhstan’s power plants in 2019 amounted to 22,936.6 MW, which is 1,034 MW more in comparison with the last year.

The available capacity of the RK power plants made 19,329.7 MW, which is 434.8 MW more than last year, incl. an increase in the Northern zone – 193.2 MW, the Western zone – 149.6 MW, the southern zone – 92 MW.

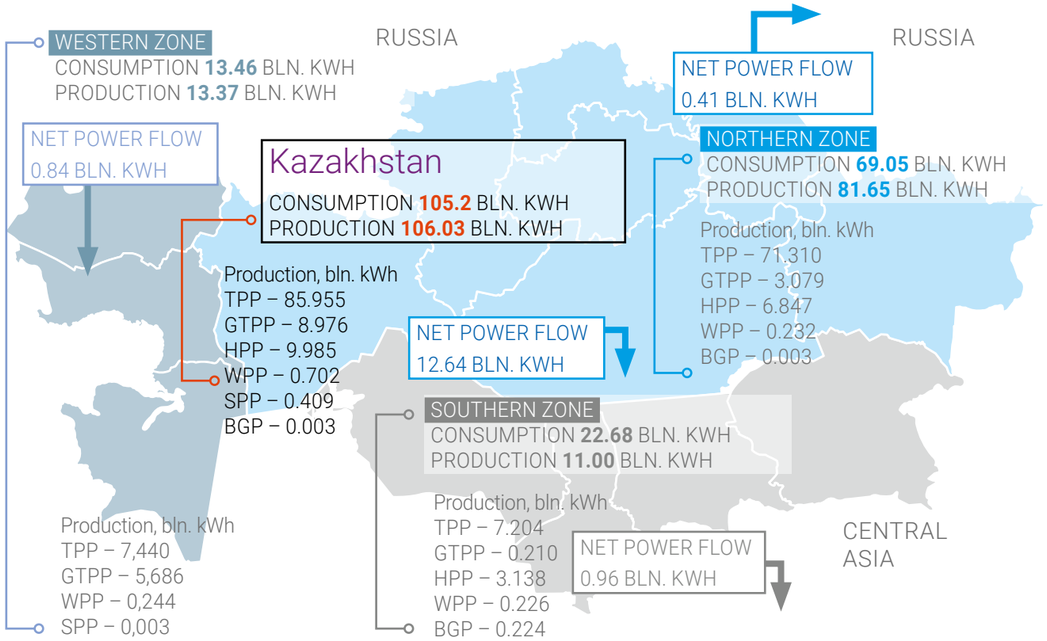
Electricity was mainly produced at thermal power plants – 81%, the share of hydropower plants accounted for 9%, and the share of renewable energy sources was about 1.8%.

The northern zone produced 77% of electricity of the country’s overall production. Main coal deposits and water and energy resources are located in the northern zone. Excess electricity is transferred to the southern zone experiencing power shortages and is exported to the Russian Federation.

The southern zone is characterized by a shortage of electricity covered owing to supplies from the northern zone.

The western zone – A significant share of electricity consumption is made by oil and gas companies with their own generating sources. There are no electrical connections of the West with the North and South of Kazakhstan through the territory of the country.

Electricity balance of Kazakhstan

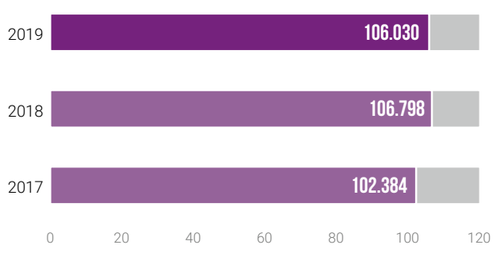


According to the data from System Operator, Kazakhstan's power plants produced 106,030 mln. kWh of electricity in 2019, which is 0.7% less than the 2018 figure. There was a reduction in production in the Northern zone of Kazakhstan's UES.

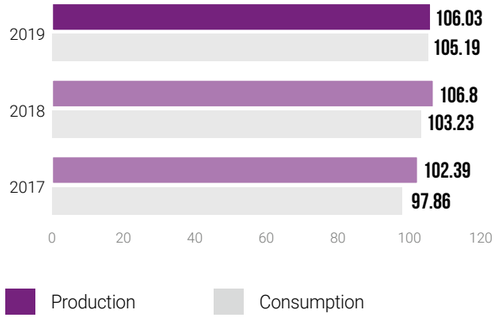
Electricity generation at Kazakhstan HPP decreased by 358.1 mln. kWh (3.5%) in comparison with the same period in 2018. The operation mode of power plants was determined by the water balance and hydrological situation.

Electricity generation at TPP and GTPP of Kazakhstan decreased by 840 mln. kWh (1%) and 144 mln. kWh (1.6%), respectively.

Power production in the RK, bln. kWh



Power production/consumption balance in the RK, bln. kWh



Over the past three years, there has been an increase in Kazakhstan's electricity consumption. Consumption in the northern zone of the republic increased by 2%, in the southern zone by 3%, and in the western zone by 0.2%.

During the reporting period Almaty shows the maximum increase in electricity consumption – by 374.2 mln. kWh (3%) in comparison with the same period of 2018 million kWh (3%), Zhambyl region – by 151.9 mln. kWh (4%), Pavlodar region – by 94 mln. kWh (0,5%), Karaganda region – by 671.8 mln. kWh (4%), East Kazakhstan region – by 259.2 mln. kWh (3%).

An increase in electricity production is connected with the growth of TPP and GTPP output as well as the commissioning of new RE facilities.

Electricity indicators across the Republic of Kazakhstan, *Mln. kWh*

No.	Indicators across the RK	2017	2018	Δ 2018/ 2017	2019	Δ 2019/ 2018
1.	Electricity consumption	97,856.7	103,228.3	5%	105,193.1	2%
2.	Electricity production, incl.:	102,383.6	106,797.1	4.3%	106,029.8	0.9%
	TPP	82,424.8	86,795.1	5%	85,955	0.9%
	GTPP	8,372.6	9,119.3	9%	8,975.6	0.9%
	HPP	11,157.9	10,343.0	0.9%	9,984.9	0.9%
	WPP	338.5	400.5	18%	701.9	75%
	SPP	89.8	137.9	54%	409.4	197%
	Biogas plant	0	1.3	–	3	131%
3.	Net power flow «+» shortage, «-» excess incl.:	−4,527	−3,568.8	0.8%	−836.7	0.2%
	- Russia	−4,528.2	−3,566	0.8%	125.7	−0.04%
	- Central Asia	1.2	−2.8	−133%	−962.4	−34,371%

According to the data from the Republic of Kazakhstan Ministry of Energy, the volume of electricity production by facilities using renewable energy sources in Kazakhstan amounted to 2.4 bln. kWh in 2019 or an increase of 44,4% as compared with 2018 figures.

At the year-end 2019, 90 RE facilities operate in Kazakhstan.

Compared to 2018, electricity production by large hydropower plants decreases in 2019, while electricity production by small hydropower plants, wind and solar power plants and biogas plants has increased.

JAS ENERGY

"The profession of an electrical engineer has a great social value. Today, there are almost no branches of human activity where electricity is not used, so electricity is an essential part of our life".

DAULET KARAMOLDAYEV
Electrician at "Almaty Power Plants" JSC

Export and import of the Republic of Kazakhstan electricity

Russia and UES of Central Asia have been export and import directions for the Republic of Kazakhstan electricity in 2019 (exports to the RF – 1,273.6 mln. kWh, imports from the RF – 1,407.1 mln. kWh).

"KEGOC" JSC – 1,215.6 bln. kWh in order to balance electricity production and consumption. During the reporting period 1,138.6 mln. kWh electricity was imported from the RF in order to balance power production and consumption.

An increase in electricity imports of the Republic of Kazakhstan in comparison with 2018 was due to an increase in the volumes of balancing electricity from the Russian Federation.

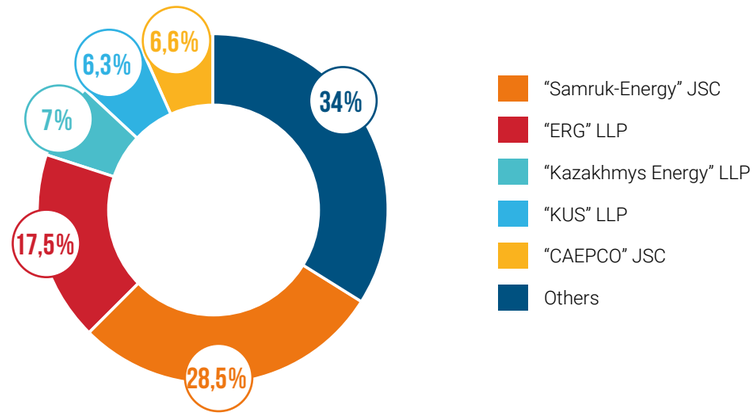
Export and import of the Republic of Kazakhstan electricity, *mln. kWh*

				Δ 2019/2018	
Description	**2017**	**2018**	**2019**	**mln.kWh**	**%**
Kazakhstan's export	**5,795.8**	**4,882.4**	**2,240.8**	**–2,641.6**	**–54.1%**
to Russia	**5,788.1**	**4,876.3**	**1,273.6**	**–3.602.7**	**–73.9%**
"ESDPP-1" LLP	4,705.5	3,758.0	0.0	–3,758.0	–100.0%
"SevKazEnergo" JSC	62.2	68.7	58.0	–10.7	–15.6%
"KEL" LLP	0.0	0.0	0.05	0.05	
"KEGOC" JSC (balancing market)	1,020.4	1,049.6	1,215.6	166.0	15.8%
to UES of Central Asia	**7.7**	**6.1**	**967.1**	**961.0**	**15,733.7%**
"ESDPP-1" LLP	0.0	0.0	963.4	963.4	
"KEGOC" JSC for "NPS of Kyrgyzstan" OJSC	7.7	6.1	3.7	–2.4	–38.8%
Kazakhstan's import	**1,268.9**	**1,313.6**	**1,695.7**	**382.1**	**29.1%**
from Russia	**1,259.9**	**1,310.2**	**1,407.1**	**96.8**	**7.4%**
"INTER RAO" PJSC	283.3	291.7	268.4	–23.2	–8.0%
"INTER RAO" PJSC (purchase agreement) (balancing market)	976.6	1,018.6	1,138.6	120.1	11.8%
From UES of Central Asia	**8.9**	**3.3**	**288.6**	**285.3**	**8,545.2%**
power flow «+» shortage, «-» excess	**–4,527.0**	**–3,568.8**	**–545.1**	**2,794.2**	**–78.3%**

Competitive environment in electricity market

The volume of electricity production by the largest energy-producing organizations, competitive organizations of "Samruk-Energy" JSC in 2019 amounted to 52.5 bln. kWh, which is 312 mln. kWh more compared to 2018 (52.2 bln. kWh).

The share of electricity generation by the largest competitors of "Samruk-Energy" JSC in the wholesale market in 2019



Electricity production by Kazakhstan's major producers, *mln. kWh*

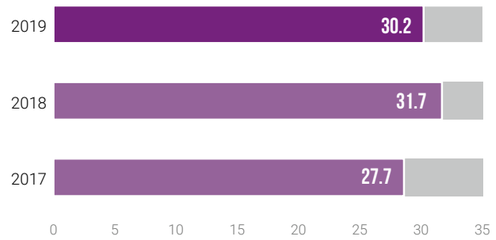
No.	Description	2017	2018	2019	Deviation	Share in the RK, %
1	"Samruk-Energy" JSC	27,760.3	31,703	30,200.3	–1,502.8	28.5%
2	ERG	19,264.6	19,573.9	18,545.0	–1,028.9	17.5%
3	"CAEPCO" JSC	7,299.9	7,025.7	7,032.8	7.1	6.6%
4	"Kazzinc" LLP	7,437.1	3,271.6	3,093.2	–178.4	2.9%
5	"Kazakhmys Energy" LLP	6,756.3	6,437.0	7,443.6	1,006.6	7.0%
6	"KUS" LLP	6,102.5	6,376.8	6,645.4	268.6	6.3%
7	"Zhambyl SDPP" JSC	2,552.3	1,792.4	1,878.8	86.4	1.8%

Electricity production across "Samruk-Energy" JSC group decreased by 4.7% in 2019 compared to 2018.

At the same time, the share of electricity production by the Company amounted to 28,5% in the total production of Kazakhstan, this indicator of main competitors is – "Kazakhmys Energy" LLP – 7%, KUS – 6,3%, ERG- 17,5%.

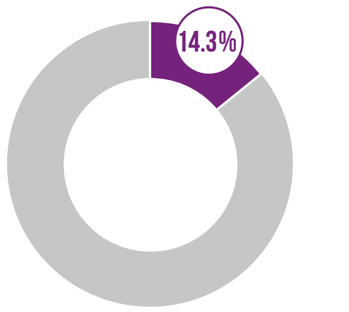
“Samruk-Energy” JSC in electricity production sector

Dynamics of electricity production by energy producing organizations of “Samruk-Energy” JSC, *bln.kWh*

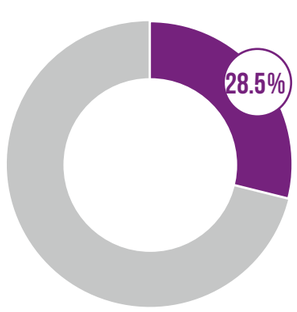


The volume of electricity production by energy-producing organizations of “Samruk-Energy” JSC in 2019 amounted to 30.2 bln. kWh. The share of electricity generation by power plants of “Samruk-Energy” JSC amounted to 28,5% of the total electricity production in the Unified Energy System of Kazakhstan.

The share of electricity production by “Samruk-Energy” JSC RE facilities in the RK



«Samruk-Energy» JSC share in total electricity production across the RK in 2019



Production KPI (broken down by producers)

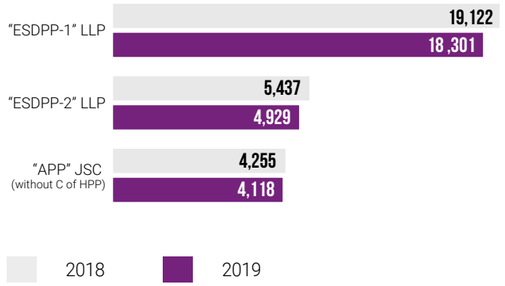
SA name	2017 (actual)	2018 (actual)	2019 (actual)	Deviation of 2019 against 2018	2020 (forecast)	2021 (forecast)
Electricity production volumes, mln. kWh[1]						
“Almaty Power Plants” JSC	5,712.4	5,599.1	5,397.4	96%	5,340.8	5,342.0
“Ekibastuz SDPP-1” LLP	14,797.0	19,121.6	18,301.5	96%	18,825.8	19,297.0
“Ekibastuz SDPP-2 Plant” JSC	5,495.5	5,436.5	4,928.5	91%	4,626.4	5,503.7
“Shardarinsk HPP” JSC	359.4	348.7	464.8	133%	550.7	596.0
“Moynak HPP” JSC	1,226.5	1,036	951.5	92%	906.0	906.0
“Samruk-Green Energy” LLP	3.2	3.2	3.3	103%	3.8	22.2
“FWPP” LLP	166.4	157.9	153.3	97%	160.5	172.2
EWP						107.5
“Energia Semirechya” LLP					63.9	255.5
Total	**27,760.3**	**31,703.1**	**30,200.3**	**95%**	**30,477.9**	**32,202.0**
Electricity sales volume, mln. kWh						
“Almaty Power Plants” JSC	5,036.0	4,891.7	4,725.4	97%	4,702.4	4,695.7
“Ekibastuz SDPP-1” LLP	14,103.5	18,340.0	17,642.5	96%	17,969.1	18,332.2
including export	4,705.5	3,757.9	966.6	26%	1,500.0	1,500.0
“Ekibastuz SDPP-1” LLP	5,207.9	5,160.8	4,689.5	91%	4,403.4	5,248.2
“Ekibastuz SDPP-2 Plant” JSC	354.8	344.6	466.2	135%	550.2	586.2
“Shardarinsk HPP” JSC	1,213.0	1,034.4	952.3	92%	893.2	893.2
“Moynak HPP” JSC	3.1	3.1	3.2	104%	3.6	21.3
“Samruk-Green Energy” LLP	166.0	157.5	152.9	97%	158.27	169.7
“FWPP” LLP						106.4
EWP					56.4	225.7
Total	**26,862.2**	**29,932.2**	**28,632.1**	**96%**	**28,736.6**	**30,278.7**
Capacity sales volume, MW						
“Almaty Power Plants” JSC	–	–	817.4	–	818.0	818.0
“Ekibastuz SDPP-1” LLP	–	–	501.9	–	1,562.0	1,827.0
“Ekibastuz SDPP-2 Plant” JSC	–	–	846.8	–	779.0	625.0
“Shardarinsk HPP” JSC	–	–	41.6	–	61.0	61.0
“Moynak HPP” JSC	–	–	280.9	–	298.0	298.0
Total	**–**	**–**	**2,488.6**	**–**	**3,518.0**	**3,629.0**
Electricity transmission volumes, mln. kWh[2]						
“Alatau Zharyk Company” JSC	6,527.9	6,795.9	6,961.3	102%	7,008.0	7,113.0
Total	**6,527.9**	**6,795.9**	**6,961.3**	**102%**	**7,008.0**	**7,113.0**
Electricity sales volumes, mln. kWh[3]						
“AlmatyEnergoSbyt” LLP	5,767.5	5,904.3	6,218.2	105%	5,912.0	5,918.0
Total	**5,767.5**	**5,904.3**	**6,218.2**	**105%**	**5,912.0**	**5,918.0**
Heat production volumes, thous. Gcal[1]						
“Almaty Power Plants” JSC	5,223.3	5,616.8	5,024.5	89%	5,025.2	5,207.4
“Ekibastuz SDPP-2 Plant” JSC	66.5	78.6	82.8	105%	76.0	76.0
“Ekibastuz SDPP-1” LLP	8.2	59.9	132.3	221%	286.4	286.4
Total	**5,298.0**	**5,755.3**	**5,239.6**	**91%**	**5,387.6**	**5,569.8**
Coal sales volumes, mln. tons	**40.9**	**45.2**	**44.7**	**99%**	**41.7**	**46.4**

Note: [1] for comparability purposes, the volumes of electricity and heat production in 2017 do not include “Aktobe CHP” JSC sold in 2017.
[2] for comparability purposes, the volumes of electricity transmission in 2017 do not include “EK REC” JSC and “MDPGC” JSC sold in 2017.
[3] for comparability purposes, the volumes of electricity sales in 2017 do not include “SHET” LLP sold in 2017.

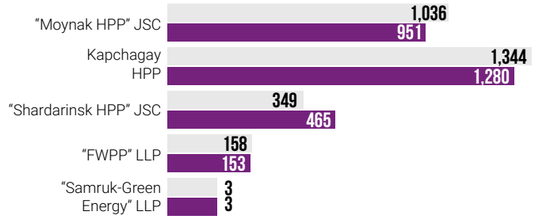
Electricity production in 2019 amounted to 30,200.3 mln. kWh (a decrease in comparison with 2018 by 1,502.8 mln. kWh or 5%). The main decrease in volumes occurred because of the reduction of "Ekaibastuz SDPP-1" LLP output by 820 mln. kWh.

The decrease in HPP generation volumes by 33 mln. kWh resulted in the reduction of water inflow at "Moynak HPP" JSC, Kapchagayskaya HPP; at this, the growth at "Shardarinsk HPP" JSC is connected with the commissioning of hydraulic units No. 1,2. FWPP electricity sales fell by 4.6 mln. kWh because of the decrease in the average wind speed.

Electricity production volumes (mln.kWh) at TPP, CHP



Electricity production volumes (mln. kWh) at HPP, WPP, SPP



Forecast for future period:

Electricity production volumes in the forecast for 2020 are expected to increase gradually in relation to the 2019 actual. An increase in electricity production in 2021 by 1,724.1 mln. kWh is forecasted mainly due to the growth in electricity generation by "Ekibastuz SDPP-1" LLP and "Ekibastuz SDPP-2" JSC.

The share of electricity production by energy producing organizations of "Samruk-Energy" JSC that use RES amounted to 1.1% of the volume of electricity of "Samruk-Energy" JSC and 14.3% of the total RE in the Republic of Kazakhstan (the volume of "Samruk-Energy" JSC RE output amounted to 342.5 mln. kWh).

mln.kWh

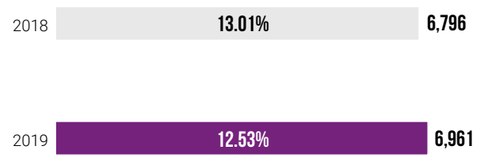
Description	2017	2018	2019	Share in the RK, %	Δ 2019/2018 mln. kWh	Δ 2019/2018 %
Electricity production by "Samruk-Energy" JSC RE facilities	**367.7**	**355.4**	**347.5**	**14.5%**	**- 7.9**	**–2.2%**
Cascade of small HPP of "APP" JSC	198.2	194.4	190.9	8.0%	–3.5	–1.8%
"Samruk-Green Energy" LLP	3.1	3.1	3.3	0.1%	0.2	6.5%
"First Wind Power Plant" LLP	166.4	157.9	153.3	6.4%	- 4.6	–2.9%

The decrease in the share of electricity generation of "Samruk-Energy" JSC RE is associated with the commissioning of new renewable energy facilities in Kazakhstan.

Heat production volumes in 2019 amounted to 5,239.6 thous. Gcal, there is the decrease compared to the 2018 level by 515.8 thous. Gcal or 9%, mainly because of the decline in "Almaty Power Plants" JSC heat output by 592 thous. Gcal or 11%.

Dynamics of changes in heat production volumes, *thous.Gcal*

Electricity transmission volumes (mln. kWh) and grid losses (in%)



Grid losses at the end of 2019 decrease compared to the same period in 2018. In general, the level of losses of "Alatau Zharyk Company" JSC is lower than the standard, which was established by CRNM and PC.

Electricity transmission and distribution volumes are expected to increase by 1% in 2020 in comparison with the 2019 actual.

Forecast for the future period:

Heat production volumes in the plan for 2020 are forecasted to increase by 2.8% compared to the 2019 actual, mainly because of the growth in heat output of "Ekibastuz SDPP-1" LLP.

Electricity transmission volumes amounted to 6,961 mln. kWh, there is an increase compared to the 2018 level by 165 mln. kWh increase. "Alatau Zharyk Company" JSC electricity transmission volumes increases owing to the growth in consumption of the Almaty region due to higher temperatures in the summer in 2019.

Grid losses at the end of 2019 decrease compared to the same period in 2018. In general, the level of losses of "Alatau Zharyk Company" JSC is lower than the standard, which was established by CRNM and PC.

The total volume of electricity sales for the reporting period amounted to 6,218 mln. kWh, which is 314 mln.kWh higher than 2018 or 5% compared to 2018 because of the growth of consumers number at "AlmatyEnergoSbyt" LLP.

Name	2018 actual	2019 actual	Deviat.	%
"AlmatyEnergoSbyt" LLP				
Number of consumers, incl.:	**817,025**	**844,234**	**27,209**	**103%**
Population	785,393	811,295	25,902	103%
Corporate entities	31,632	32,939	1,307	104%
Sales volume, mln. kWh	**5,904**	**6,218**	**314**	**105%**

Forecast for the future period:

The volume of electricity sales in the forecast for 2020 reduces by 5% from the level of the 2019 actual. In the forecast for 2021, the volume of electricity sales is increased by 0.1% compared with the forecast for 2020.

“Samruk-Energy” JSC participation in the capacity market

“Samruk-Energy” JSC power plants took part in the simulated trades of electric capacity held on the trading platform of “Kazakhstan Electricity and Power Market Operator” JSC (KEPMO) during 2019.

According to the results of centralized auction of capacity, which took place on November 28, 2019, the power plants of the Company sold 2,148.7 MW at a price of 590 thous. tenge / MW* month.

According to the RK Law “On making changes and additions to certain legislative instruments of the RK regarding special economic and industrial zones, attracting investments, export development and promotion, as well as social security”, “Moynak HPP” JSC and “APP” JSC received individual tariffs for capacity.

The capacity volume was 61 MW for “Shardarinsk HPP” JSC and 298 MW for “Moynak HPP” JSC. Individual tariffs for capacity will ensure the return of borrowed funds used for the already constructed power plant (“MHPP” JSC), as well as refinancing of earlier received target loan for investment programs (“APP” JSC).

The project of the Transformation Program “Development of sales processes and introduction of trading processes” was completed in 2019. The introduction of the new model as part of the project resulted in the establishment of a sales department and a commercial dispatching department on the basis of the Trade House. This enabled to centralize trading activities of four subsidiaries of “Samruk-Energy” JSC. According to the new operating model, regimes and daily schedules, export deliveries, interaction with KEGOC, KEPMO and other structures are managed at the Holding company level.

Centralization of management will allow for optimal loading of power generating companies.

“Samruk-Energy” JSC successfully makes every effort to increase sales of electricity from power plants that belong to the group of companies. “Samruk-Energy” JSC trade house directly communicates with power market entities of Kazakhstan and neighboring countries, as well as conducts commercial dispatch by generating daily schedules of “Samruk-Energy” JSC group of companies, effectively distributing the declared volumes based on the feasibility of loads of subsidiary and affiliated power plants.

According to the 2019 results, 28.6 bln. kWh electricity was sold to consumers of “Samruk-Energy” JSC. At this, the volume of electricity sales to the domestic market increased by 1.5 bln. kWh or 105.7% compared to last year.

“Samruk-Energy” JSC successfully completed activities on entry into power market of Central Asia in order to boost electricity sales and use export potential. According to the results of the year, 966.5 mln. kWh was exported to Uzbekistan.

Coal market

According to the BP Statistical Review of World Energy, as of 2017, Kazakhstan ranks eighth in the world in terms of proven coal reserves – 25.6 bln. tons or 2.5% of the world total.

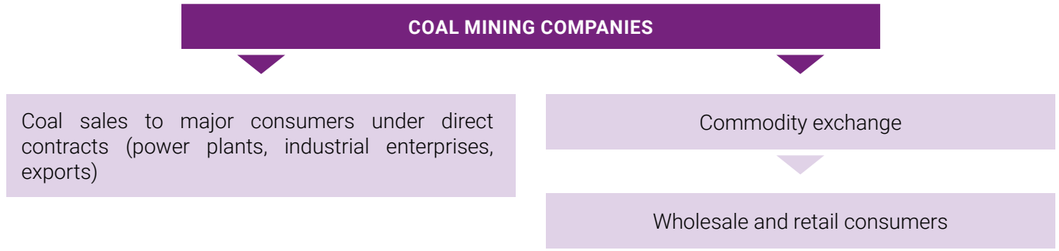
According to the Statistics Committee of the RK MNE, the country’s coal production amounted to 111 mln. tons of coal in 2019 (excluding coal concentrate) or 98% against the same indicator in 2018 (113.7 mln. tons of coal).

Power generating coal market in Kazakhstan is relatively fragmented – the major players are “Bogatyr Komir” LLP (“Samruk-Energy” JSC and “RUSAL” UC), “EEC” JSC (ERG), “Shubarkol Komir” JSC (ERG), “Kazakhmys Corporation” LLP, “Karazhyra” JSC, “Angrensor Energy” LLP.

thous. tons

No.	Region	2017	2018	2019	Δ, %
1	Pavlodar	62,467.9	70,325.2	68,364.9	97
2	Karaganda	35,909	34,987.3	34,217.1	98
3	East-Kazakhstan	6,867	8,290	8,157.7	98
4	Other	721	100.9	343.5	340
Total across RK		**105,964.9**	**113,703.4**	**111,083.2**	**98**

General scheme of coal sales



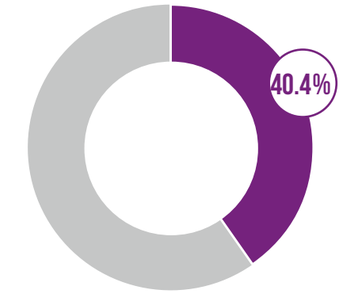
Power systems of Nur-Sultan, Almaty, Karaganda, Petropavlovsk, Pavlodar, Stepnogorsk cities and Ekibastuz SDPP-1, SDPP-2 are among the major consumers of “Bogatyr Komir” LLP in Kazakhstan.

To receive coal, the power plants of the Republic of Kazakhstan arrange the transportation of coal from Ekibastuz station (Bogatyr Komir, LLP) to the destination station.

Following the results of transactions on the stock exchange, municipal coal is shipped in two ways: by railway and motor transport. Boiler houses in rural areas are the consumers; Ekibastuz coal is a fuel specified on their nameplates.

According to the 2019 results, the Company’s share amounted to 40.4% of the total coal mined in Kazakhstan and 64% of the volume of coal mined in the Ekibastuz coal basin.

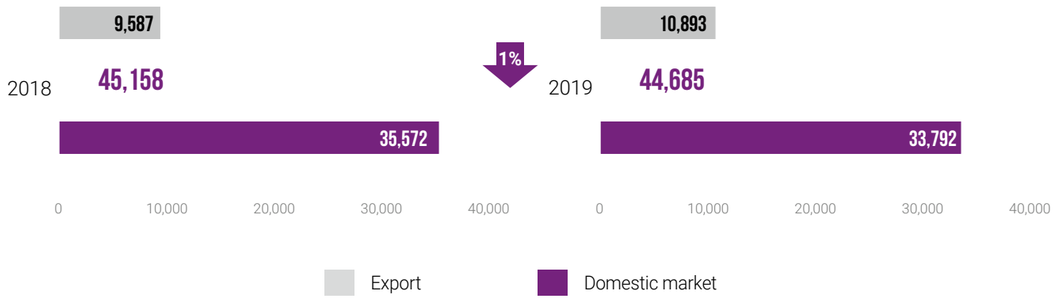
Coal mining



According to the 2019 results, “Bogatyr Komir” LLP produced 44,848 thous. tons of coal, which is 0.04% less than in 2018 (44,865 thous. tons). Coal sales in 2019 are 1% lower than coal sales volume of 2018.

In total, 44,685 thous. tons were sold, including:
- 33,792 thous.tons to the domestic market of the RK, which is 5% less than in the corresponding period of 2018 (35,572 thous. tons);
- for export (RF) – 10,893 mln. tons, which is 13.6% more than for the corresponding period of 2018 (9,587 thous. tons).

Bogatyr Komir Coal sales, (thous. tons)



Coal export sales grew by 1,306 thous. tons, or by 14% because of an increase in demand from Reftinsk GRES.

Coal sales broken down by consumers

No.	Region	Volume of sales, thous.tons			Δ, % 2019/2018
		2017	2018	2019	
1	"APP" JSC	3,256	3,299	3,338	101.2%
2	"Karaganda Energocenter" LLP	3,301	3,521	3,417	97.0%
3	"Astana –Energia" JSC	3,525	3,640	3,779	103.8%
4	"Pavlodarenergo" JSC PCHP-2,3	1,895	3,289	3,004	91.3%
5	"Stepnogorsk CHP" LLP	869	984	986	100.2%
6	"ESDPP-1" LLP	8,850	11,559	10,937	94.6%
7	"ESDPP-2 Plant" JSC	3,456	3,285	3,203	97.5%
8	"Bassel Group LLS» LLP	544	605	622	103.0%
9	"SevKazEnergo" JSC	2,806	2,672	2,949	110.4%
10	"Ekibastuzteploenergo" LLP	0	513	499	97.3%
11	MUS based on the REM "Kokshetau Zhylu"	295	323	281	87.1%
12	Household	1,399	1,519	775	51.0%
Total for the domestic market of the RK		**30,701**	**35,572**	**33,792**	**95%**
13	Reftinsk GRES	9,936	9,564	10,893	113.9%
Total for export to the RF		**10,157**	**9,587**	**10,893**	**113.6%**

The decrease in coal sales in the domestic market amounted to 1,779 thous. tons (5%), which resulted from the decrease in the demand of "Ekibastuz SDPP-1" LLP, "Pavlodarenergo" JSC and "Topar SDPP" LLP.

Forecast for the future period:

In the forecast for 2020, the volume of coal sales will decrease by 2.9 mln. tons, or 6.7% compared to the 2019 actual in connection with active implementation of the project for the construction of facilities for cyclical-and-continuous

method of coal mining at the "Bogatyr" open-pit mine. The project's goal is the transition from railway technology for coal shipment to the auto-conveyor, which will allow:

- increasing the capacity of the Bogatyr coal mine from 32 mln. to 40 mln. tons per year, which in turn will increase "Bogatyr Komir" LLP total capacity to 50 mln. tons per year (the "Bogatyr" mine 40 mln. + "Severny" 10 mln. tons);
- improving workforce productivity by 25%;
- reducing the production cost of coal mining by 12%;
- reducing the average wagon turnover time from 14,3 to 5,4 hours.

In the forecast for 2021, coal sales increases by 11% or 4.7 mln. tons by 2020.

ABOUT “SAMRUK-ENERGY” JSC GROUP OF COMPANIES

Team energy

The management system of "Samruk-Energy" JSC and its subsidiaries and affiliates is based on the following management principles:
1) a clear delineation of competencies and powers of the bodies of subsidiaries and affiliates (of a shareholder (of a participant), the Board of Directors / Supervisory Board, executive body), employees and officials;

2) a clear delineation of responsibility of the bodies of subsidiaries and affiliates (of a shareholder (of a participant)), the Board of Directors/Supervisory Board, executive body), employees and officials.

The main activities of the subsidiaries and affiliates of "Samruk-Energy" JSC are reflected in the organizational structure of the companies. The interaction of the main divisions and management principles are regulated in the internal regulatory documents of companies.

GENERATING COMPANIES

THERMAL POWER PLANTS

"Almaty Power Plants" JSC ("Samruk-Energy" JSC – 100%)

"Almaty Power Plants" JSC ("APP" JSC) is power-producing organization engaged in production of heat and electricity in Almaty city and Almaty region. "APP" JSC provides the population, industrial and agricultural enterprises with electricity and heat and is a heat producing natural monopoly entity.

To date, the heat and electricity generated covers about 70% of the needs of Almaty city and Almaty region.

The structure of "APP" JSC includes the following production units – CHP-1, CHP-2, CHP-3; Kapshagai HPP; Cascade of Almaty HPP; Western Thermal Complex (WTC); Center for receiving and discharge of fuel (CRDF), Industrial repair enterprise «Energoremont».
Chairman of the Management Board: Mukhamed-Rakhimov N.T.

A supply chain of the entity

Production of electricity and heat for their transmission to consumers.

The direct production of heat and electricity starts with the supply of energy resources (fuel, water) to the energy equipment of energy sources. In power equipment, energy of energy resources (fuel, water) is converted into a final product – electricity and heat. Part of the generated electricity and heat is consumed by energy sources for their own needs, the rest of the generated energy is sold on the basis of contracts for the sale of electricity and heat. Almaty region is the market for electricity and heat sale.

You may learn more about the company on the website: ***www.ales.kz***

Financial performance

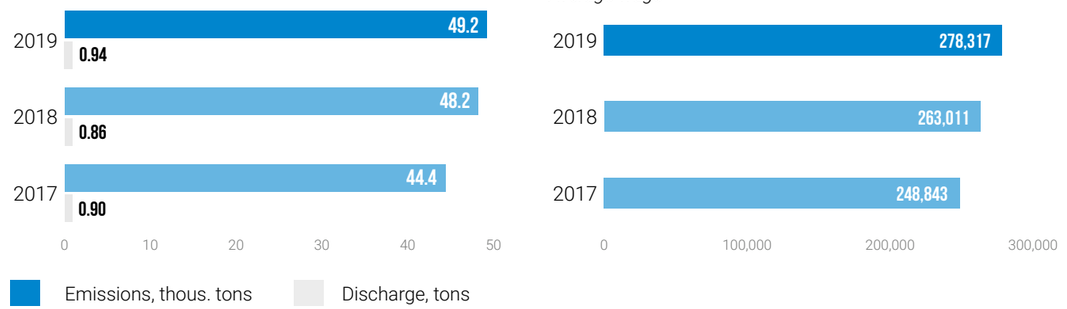
Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	1,522	(1,620)	4,073
EBITDA	mln. tenge	12,290	11,147	14,326
EBITDA Margin	%	20	17	22

Results of operating activities

Indicator	Measurement unit	2016	2017	2018
Installed electric capacity	MW	1,239	1,235.7*	1,236
Electricity production volume	mln. kWh	5,712	5,599	5,397
Electricity sales volume	mln. kWh	5,036	4,892	4,726
Heat production volume	thous. Gcal	5,223	5,617	5,024
Heat sales volume	thous. Gcal	5,164	5,527	4,980
Main consumers	"AlmatyEnergoSbyt" LLP, "Alatau Zharyk Company" JSC, "KazFerroStal" LLP, "Almaty International Airport" JSC, "KTZh -Almaty Electricity Supply Distance" NC JSC, "Kaz Electro" LLP, "Almaty Heating Networks" LLP, "INTA 2006","Kuat" LLP, "Asyl Tas" SC LLP, "Greenhouse Complex of "GRES" "LLP","Sholpanbekova K.I.", "Heating networks" LLP, "Volna" LLP			

** The decrease of installed capacity in 2018 was driven by the sale of Talgar hydropower plant

Environmental performance



Social indicators

Average wage

The amount of utilized investments in 2019 is 7,078,612 thous. tenge.

"Work for the sake of people. Power industry is rapidly developing and is always in demand. – I love my job. It is full of life, and is always in full swing"

AIDANA KULZHABAY
Engineer-technologist at CHP-2

“Ekibastuz SDPP-1 named after Bulat Nurzhanov”
(Samruk-Energy” JSC – 100%)

“Ekibastuz SDPP-I” LLP is a thermal power plant with an installed capacity of 4000 MW, located on the northern shore of Lake Zhengeldy, 16 km north of Ekibastuz Pavlodar region. The enterprise is the largest thermal power plant in the Republic of Kazakhstan, operating on solid fuel, and the main energy-producing enterprise in the region. Being the largest power plant in Kazakhstan, “Ekibastuz SDPP-I” LLP is also one of the largest coal-fired power plants in the world with a current available capacity of 3500 MW.

The complex consists of eight 500 MW power units.

According to the 2019 results, the works under phase 2 “Implementation” of the IPS project – a system of production and financial planning and modeling that allows calculating and producing multiple scenarios of a company's development in a prompt manner and propose the most preferable scenario out of them.

The actual financial benefits of the project for “Ekibastuz SDPP-I” LLP amounted to 910,665 mln. tenge for 2018 and 1,203.176 mln. tenge for 2019.

General Director: Dzhienbaev E.E.

A supply chain of an entity

The entity provides electricity to the northern, eastern and southern regions of Kazakhstan, part of the electricity (5%) was exported to Uzbekistan.

Production of electricity and heat for their transmission to consumers. Electricity is supplied from the busbars of the plant, with the exception of exports (on the border of the RK-RF).

You may learn more about the company on the website: ***www.gres1.kz***

Financial performance

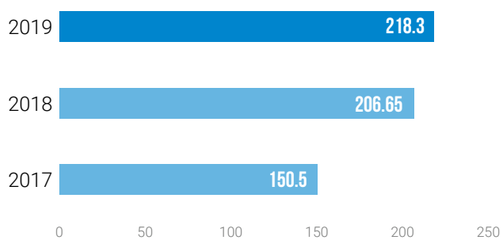
Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	3,859	18,072	6,406
EBITDA	mln. tenge	36,826	58,979	47,870
EBITDA Margin	%	41	47%	44

Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Installed electric capacity,	MW	4,000	3,500	3,500
Electricity production volume	mln. kWh	14,797	19,121	18,301
Electricity sales volume	mln. kWh	14,103	18,340	17,642
Heat production volume	Gcal	8.2	59.9	132,3
Number of consumers (business and other)		72	72	72
Major consumers	“Bogatyr Komir” LLP, “Energopotok” LLP, “Ontustik Zharyk” LLP, “Almatyenergosbyt” LLP, “Temirzholenergo” LLP, “Kazfosfat” LLP, “Zhetysu Energotrade” LLP, “Tau-Ken Temir” LLP, “Kazminerals Bozshchakol” LLP, «KEGOC» JSC.			

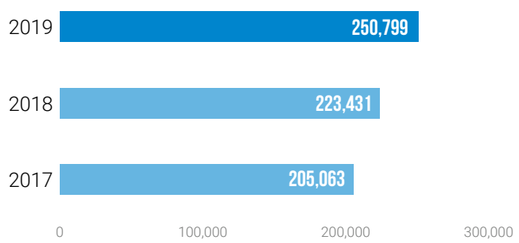
ENVIRONMENTAL PERFORMANCE

Discharge, thous. tons



SOCIAL INDICATORS

Average wage



The amount of utilized investments in 2019 – 12,664,568 thous. tenge.

“Ekibastuz SDPP-2 Plant” JSC
(“Samruk-Energy” JSC – 50%, “Samruk-Kazyna” JSC – 50%)

“Ekibastuz SDPP-2 Plant” JSC is the second, after the Ekibastuz SDPP-1, thermal power plant in Ekibastuz city of Pavlodar region of Kazakhstan with an installed capacity of 1000 MW.

On December 27, 2018, an agreement for the sale and purchase of 50% of shares in authorized capital of “ESDPP-2 Plant” JSC was signed between “Samruk-Kazyna” JSC (the Fund) and “Inter RAO” PJSC (IRAO) (hereinafter referred to as the Transaction).

All activities related to closing of the Deal were completed on December 13, 2019, and in accordance with the Register of Holders of Securities, as of December 14, 2019, “Samruk-Kazyna” JSC ownership right for 50% of shares was registered.

Thus, currently the shareholders of “ESDPP-2 Plant” JSC are “Samruk-Energy” JSC – 50% and “Samruk-Kazyna” JSC – 50%.

Chairman of the Management Board: Astashov V.A.

A supply chain of the entity

Electricity produced by “Ekibastuz SDPP-2 Plant” JSC is supplied to the consumer from the station's busbar. The Buyer independently, at his own expense, without the participation of the Seller, ensures the reception and transmission of electricity from the supply point to consumption points, through networks of an inter-regional and, where necessary regional level.

You may learn more about the company on the website: ***www.gres2.kz***

Financial performance

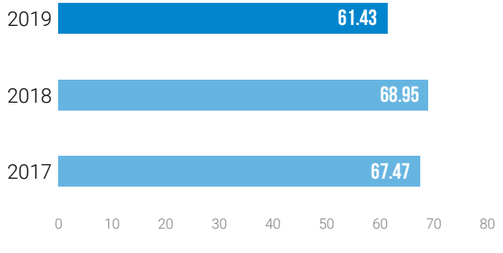
Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	(19,092)	(6,823)	(3,063)
EBITDA	mln. tenge	12,594	16,250	17,170
EBITDA margin	%	37	42	42

Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Installed electric capacity	MW	1,000	1,000	1,000
Electricity production volume	mln. kWh	5,495	5,436.5	4,928.5
Electricity sales volume	mln. kWh	5,208	5,161	4,689.5
Volume of heat sales	thous. Gcal	66.515	78.622	82.8
Major consumers	“Transenergo” JSC, “APCC” JSC, “TNC Kazchrome” JSC, “LOTOS-Aktobe” LLP, “Goar” LLP, “ZHBI-25 Plant” LLP, “AS Gas-Logistic” LLP, “Stroydetal” LLP, «Aktobe Stroy Kombinat» LLP, «Production Association “KSM» LLP, «Aktobeenergosnab» LLP, «Energosistema» LLP, «Akbulak» JSC, «Transenergo» JSC			

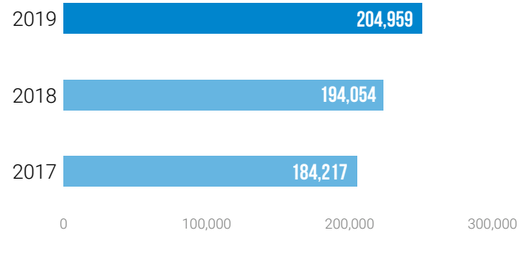
ENVIRONMENTAL PERFORMANCE

Discharge, thous.tons



SOCIAL INDICATORS

Average wage



The amount of utilized investments in 2019 – 804,491 thous. tenge.

HYDROPOWER PLANTS AND RENEWABLE ENERGY SOURCES

“Shardarinsk HPP” JSC (“Samruk-Energy”JSC – 100 %)

Shardarinsk hydropower plant, located in the middle reaches of Syr Darya river, is a closing hydropower plant of the Naryn-Syrdarya cascade.

The purpose of hydroelectric complex is overarching – irrigation, flood control, fish farming, drinking water supply, optimization of energy supply in South Kazakhstan. At a hydroelectric power plant, the mechanical energy of moving masses of water is converted into electricity using hydraulic turbines and hydrogenerators, which are placed together with numerous auxiliary equipment in the building of the hydropower plant.

Chairman of the Management Board: Berlibaev A.A.

A supply chain of the entity

“Shardarinsk HPP» JSC generates electricity and is an energy-producing organization. For transportation over long distances and to reduce losses (to save materials) the generator voltage of 10 kV increases to 110 kV through a step-up transformer. Electricity is transmitted to the grids of “Ontustik Zharyk Transit” LLP, energy transmission organization, through 110 kV the switchgear. Electricity is then transferred to energy supplying organizations, which in turn supplies electricity to consumers.

You may learn more about the company on the website: ***www.sharges.kz***

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	1,706	1,526	(692)
EBITDA	mln. tenge	2,330	2,174	909
EBITDA Margin	%	68	66	40

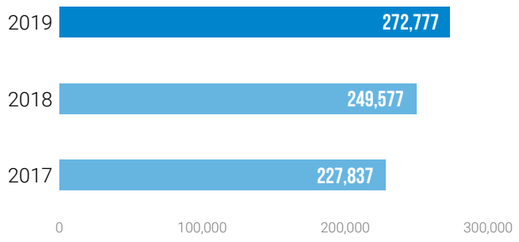
Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Installed electric capacity	MW	100	100/50 *MW from 01.03.2018	50/63* MW from 27.05.2019
Electricity production volumes	mln. kWh	359,4	348,7	464,8
Electricity sales volumes	mln. kWh	354,752	344,6	466
Major consumers	“Energopotok” LLP, “Ontustik – Zharyk” LLP, “Ontustik Zharyk Transit” LLP, “Kazsbytgroup” LLP, “Energosnab XXI” LLP, “Yugenergoimpuls” LLP, “Garant Energo” LLP			

* changing of the installed capacity is connected with the retrofit of hydraulic units

Social indicators

Average wage



The amount of utilized investments in 2019 – 5,097,096 thous. tenge.

“Moynak HPP” JSC (“Samruk-Energy” JSC – 100 %)

A 300 MW Moynak HPP was built as part of the State program for accelerated industrial and innovative development and in accordance with the Program for the Development of the RK Power Industry until 2030. It is located on the Sharyn River in the Raimbek district of Almaty region. This is one of the breakthrough projects that today successfully addresses the issues related to narrow the deficit of electricity in the southern zone of Kazakhstan's UES (Almaty, Zhambyl, Kyzylorda and Turkestan regions), covering peak loads and regulating capacity in the power system. Designed average annual electricity production of an enterprise is 1.027 bln. kWh. State-of-the-art technological equipment used at the plant provides maximum automation and stability of the electricity production process. The plant is equipped with the latest hydraulic units with high technical parameters and efficiency.

Chairman of the Management Board: Asylov A.N.

A supply chain of the entity

“Moynak HPP” JSC generates electricity and is an energy-producing organization. Electricity is supplied from energy sources through 110 kV grids to consumers in the volumes agreed in concluded agreements.

You may learn more about the company on the website: ***www.moynak.kz***

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	3,076	(5,296)	186
EBITDA	mln. tenge	9,118	8,060	7,386
EBITDA Margin	%	84	79	75

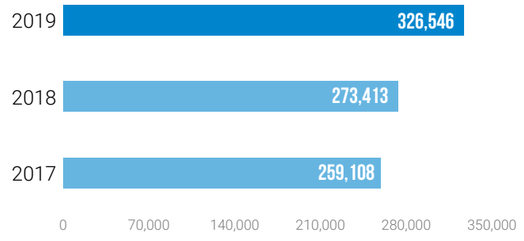
Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Installed electric capacity	MW	300	300	300
Electricity production volume	mln. kWh	1,226	1,036	951*
Electricity sales volume	mln. kWh	1,213	1,034	952*
Major consumers	“Zhetisuenergotrade” LLP, “AlmatyEnergoSbyt” LLP			

* * The reduction of electricity production in 2019 resulted from the decrease in the volume of water inflow to the Bestyubinsk reservoir and its drawdown to critically low values, the need to accumulate the volume of water resources to ensure the safe operation of hydraulic facilities.

Social indicators

Average wage



The amount of utilized amounts in 2019 – 187,626 thous. tenge.

“Ust-Kamenogorsk HPP” JSC
(“Samruk-Energy” JSC – 89,99%)

In October 2017, the concession agreement with AES Suntry Power Limited was terminated and the assets were transferred to the republican ownership of the Republic of Kazakhstan.

Core business: organizational and management activities.

Location: The Republic of Kazakhstan, East-Kazakhstan region, 070001, Ust-Kamenogorsk c., Ablaketka village.

“Bukhtarminsk HPP” JSC
(“Samruk-Energy” JSC – 90%)

Bukhtarminsk HPP is a very cost-efficient hydropower plant both in terms of the specific volume of work and in terms of cost parameters of electricity production.

The installed capacity of hydropower plants is 675 MW, the average annual production is 2.77 bln. kWh. HPP covers peak loads in the power system of Kazakhstan. In 2002, Bukhtarminskaya dam was recognized as the best in the world, as the quality of concrete exceeds all expected parameters.

Core business: Rental and management of own property, rent of other machinery, equipment and supplies.

Location: the Republic of Kazakhstan, 070825, East-Kazakhstan region, Zyrianovsky district,Serebryansk city, 5, Graftio street.

The property complex of the Bukhtarminsk HPP is on lease (concession).

“Shulbinsk HPP” JSC
(“Samruk-Energy” JSC – 92.14%)

In October 2017, the concession agreement with AES Suntry Power Limited was terminated and the assets were transferred to the republican ownership of the Republic of Kazakhstan.

Core business: organizational and management activities.

Location: registered address: the Republic of Kazakhstan, Ust-Kamenogorsk c., Ablaketka village. Location of the executive body: 071426, Semipalatinsk c., Shulbinsk village.

“First Wind Power Plant” LLP
(“Samruk-Energy” JSC – 100%)

“First Wind Power Plant” LLP is the first project in Kazakhstan in the field of development of alternative energy sources, which went through all stages of preparation in accordance with the current legislation of the Republic of Kazakhstan on support for renewable energy sources and was put into operation on August 14, 2015.

The wind farm of the company is located in Akmola region, nearby Ereymentau city, consists of 22 wind turbines with a unit capacity of 2.05 MW working safely for the environment. Since commissioning, the power plant has generated over 760 mln. kWh of electricity. 100% of all generated electricity goes to the National Power Grid of Kazakhstan – “KEGOC” JSC.

During this time, the rotating blades of 85-meter structures generated electricity for more than 22 bln. tenge.

Location: 010000, the Republic of Kazakhstan, Nur-Sultan c., Yessil district, 20/2 Mangilik El.
General Director: Izbaskhanov M.K.

A supply chain of the entity

Production of electricity using renewable energy sources and its sale to the «Settlement and financial center for the support of renewable energy sources» LLP.

You may learn more about the company on the website: ***www.pves.kz***

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	(23)	436	1,017
EBITDA	mln. tenge	3,421	3,201	3,532
EBITDA Margin	mln. tenge	78%	72%	77%

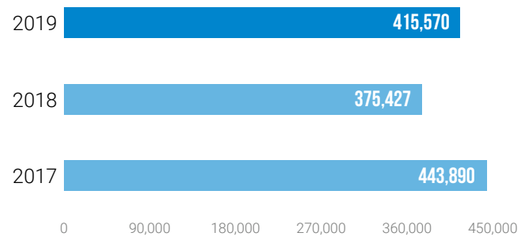
Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Installed electric capacity	MW	45	45	45
Electricity production volume	mln. kW*h	166	158	153
Electricity sales volume	mln. kW*h	166	157	152*

*The decline occurred because the average wind speed dropped

Social indicators

Average wage

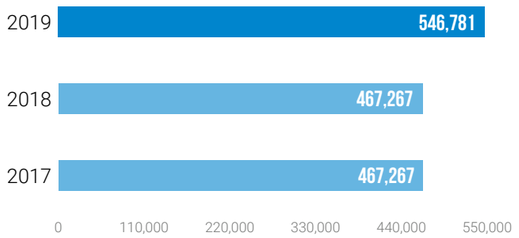


The amount of utilized investments – 34,727 thous. tenge.

“Ereymentau Wind Power” LLP
(“Samruk-Energy” JSC – 100%)

The main activity of “Ereymentau Wind Power” LLP is the implementation of “Construction of 50 MW wind power plant near Ereymentau c.” project and further production of electricity.

Social indicators
Average wage



The project will consist of a maximum of 20 wind turbines, bases for cranes adjacent to each turbine, internal roads, an internal power grid, an electrical substation including control room and connection to power grid.

The construction of a wind power plant is planned in the south-east of Ereymentau on 1,242 ha site. The site includes hilltops, sloping slopes, small streams, mostly flowing to the north. The upper part and the tops of the hills are typical steppe pastures, and the lower part and valleys contain forest areas and hydrophilic vegetation. The flatter adjacent territory is an open steppe with dispersed water bodies.
General Director: Uralov E.E.

You may learn more about the company on the website: ***www.ewp.kz***

The amount of utilized investments in 2019 – 213,122 thous. tenge.

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income	thous. tenge	(207)	(167)	(179)
EBITDA	thous. tenge	(141)	(161)	(176)
EBITDA Margin	%	–	–	–

“Samruk-Green Energy” LLP
(“Samruk-Energy” JSC – 100%)

“Samruk-Green Energy” LLP – delivers services for production of electricity using renewable energy sources. The company provides decentralized electricity supply to remote areas.

A 2 MW SPP has been a site for testing innovative renewable energy technologies since 2015, including the first industrial-scale energy storage technology EnergyPod in the CIS and Central Asia.

In 2019, the Partnership completed the construction of a 0,4 MW solar power plant. The project was implemented on the basis of existing 2 MW SPP’s infrastructure in Kapshagai city. During the construction of the new station, photovoltaic modules based on Kazakhstan silicon manufactured by “Astana Solar” LLP were used to support the domestic commodity producer.

In 2020, the Partnership will start working on the implementation of plans for the construction of a 50 MW solar power plant in the area of Kapshagai city.
General Director: Bukenov T.Sh.

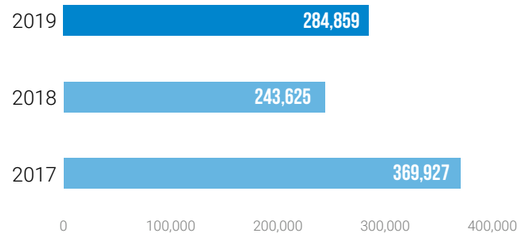
A supply chain of the entity

Electricity is sold through “AZhC” JSC networks to the “Settlement and Financial Center for Renewable Energy Support” LLP at fixed rates in accordance with the Law of the Republic of Kazakhstan dated July 4, 2009 No. 165-IV “On Supporting the Use of Renewable Energy Sources”. As required by the Rules for the centralized purchase and sale of electricity, which is produced by RE facilities, by the settlement and financial center, the recalculation and redistribution by the settlement and financial center of the corresponding share of electricity to a qualified conditional consumer according to the results of the calendar year dated March 2, 2015 No. 164, the settlement and financial center pays the Partnership for the entire amount of electricity produced and supplied to the power grid of energy transmission organization by the Partnership Entities within 15 (fifteen) years from the date of the start of a comprehensive test of electrical installations. However, the fixed tariff is subject to annual indexation in accordance with the Rules for setting of fixed tariffs and ceiling auction prices No. 271 dated March 27, 2014.

Location: Kapshagai s., 35/2 Industrial street.

You may learn more about the company on the website: ***www.samruk-green.kz***

Social indicators
Average wage



The amount of utilized investments in 2019 – 164,218 thous. tenge.

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income/loss	thous. tenge	(21)	(4)	(42)
EBITDA	thous. tenge	15	20	36
EBITDA Margin	%	10	14	23

Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Installed electric capacity	MW	2	2	2,4
Electricity production volume	mln. kWh	3, 215	3, 232	3,327
Electricity sales volume	mln. kWh	3, 101	3, 117	3,246

JAS ENERGY

“I love the world around me, my land, my nation and I want to make my contribution to the country’s power industry not with an empty word, but with a real deed and a true figure. I believe that everything bad is behind and the best is about to happen”.

ZHAKIN NURLAN SABITOVICH
Project manager at “Samruk-Green Energy” LLP

"Energia Semirechya" LLP
("Samruk-Energy" JSC – 25%, Zenith Global FZE – 75%)

"Energia Semirechya" LLP is an enterprise established to provide services for production and sale of electricity, design and construction of facilities using renewable energy sources. The enterprise was established in 2009 for the implementation of "Construction of 60 MW wind power plant in Shelek corridor with possible increase in capacity to 300 MW" project.

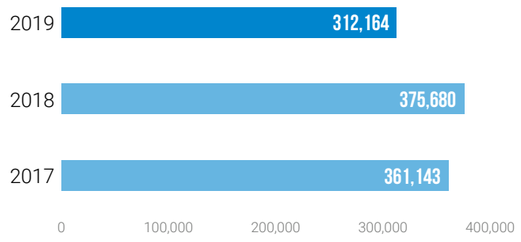
Wind monitoring in the Dzhungar gate within the project "Dzhungar Gate 72 MW", as well as the development of Shelek energy center is scheduled to be completed in the nearest time (implementation of the Agreement between the Company and HYDROCHINA CORPORATION).
General Director: Aidarov A.A.

A supply chain of the entity

Production of electricity using renewable energy sources and its sale to "Settlement and Financial center for the support of renewable energy sources" LLP.

Location: the Republic of Kazakhstan, Almaty region, Enbekshikazakh district, Baiseit village, 92, Abay street.

Social indicators
Average wage



The amount of utilized investments in 2019 – 3,931,858 thous. tenge.

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income	thous. tenge	(43)	(26)	22
EBITDA	thous. tenge	(81)	(83)	(123)
EBITDA Margin	%			

"Kazhydrotechenergo" LLP ("Samruk-Energy" JSC – 100%)

"Kazhydrotechenergo" LLP implements projects on construction of four small hydropower plants (BAK-1, BAK-2, HPP-19, HPP-29) in Almaty region with total capacity of 60,8 MW.

The Partnership's activity is directed at engineering, building facilities using RES, independent technical devices and related to them facilities for production of electricity and (or)heat using RES.

Core business: production and sale of electricity using renewable energy sources.

Location: Almaty c., the Republic of Kazakhstan, 188, Kunaev street, "SAT" BC, suite 62A.

General Director: Bukhanov M.E.

"Teploenergomash" LLP ("Kazhydrotechenergo" LLP – 95%)

The main goal of "Teploenergomash" LLP is construction of two power plants on Big Almaty Channel with a total capacity of 12 MW. It is also planned to build hydropower plants 1,2 at BAC and hydropower plants 19 on Shelek River in Enbekshikazakh district with a total capacity of 26 MW (Almaty region).

Core business: generation and sale of electricity using renewable energy sources.

Location: the RK, Almaty c.13, Al-Farabi ave., BC "Nurly Tau", c.1V, suite 505.
Director General: Adilov Y.Kh.

DISTRIBUTION AND SALES COMPANIES

"Alatau Zharyk Company" JSC ("Samruk-Energy" JSC – 90.29%)

"Alatau Zharyk Company" JSC is a large regional electricity grid company that provides electricity to 2,5 million people in Almaty city and Almaty region, operates more than 30 thous.nd km of power grids, 209 35 kV and above substations, and 7011 transformer substations. Grids are serviced by seven local power distribution zones (PDZ) in Almaty and ten PDZ in Almaty region, the service area is 102,382 sq. km. The primary task of "AZhK" JSC is a reliable and high-quality supply of electricity to the people.

In order to increase the reliability of energy supply in the Almaty region, 38 substations have been built and retrofitted since 2007–2018, an increase in transformer capacity amounted to 3500 MVA.
Chairman of the Management Board: Umbetov M.A.

A supply chain of the entity
Regional electric grid companies performs the role of electricity transmission through power grids within its balance sheet attribution.

Power grid company "AZhC" JSC represents the main part of electric grids of the Almaty power center with grids of 220/110/35 / 6-10 / 0.4 kV voltage classes. It is located in the Almaty region and extends from the shores of Lake Balkhash in the north to the borders with Kyrgyzstan in the south and from the borders of the Zhambyl region in the west to the borders with China in the east. Transmission of electricity from energy-producing organizations to the end user.

You may learn more about the company on the website: ***www.azhk.kz***

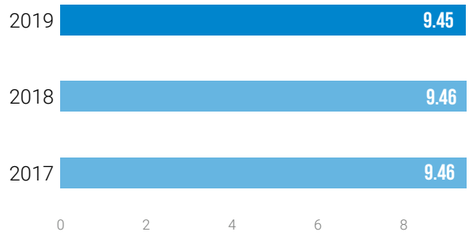
Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	5,436	5,860	2,719
EBITDA	mln. tenge	15,023	15,980	12,408
EBITDA Margin	%	39	40	33

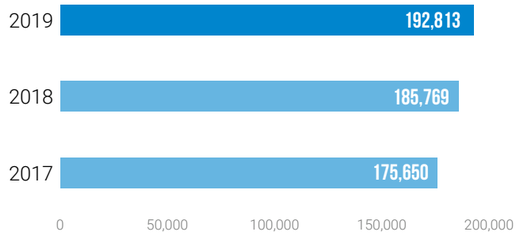
Results of operating activities

Description	Measurement unit	2017	2018	2019
PTL-220 kV	km	469.64	457.79	457.79
PTL-110 kV	km	2,878.02	2,898.21	2,881.76
PTL-35 kV	km	2,593.75	2,602.87	2,603.01
PTL-10 kV	km	10,910.57	10,854.8	10,903.46
PTL-6 kV	km	1,744.31	1,744.9	1,765.65
PTL-0,4 kV	km	10,934.98	10,972.05	11,659.81
SS-220 kV	pcs.	9	9	8
SS-110 kV	pcs.	94	95	95
SS-35 kV	pcs.	104	105	106
Electricity transmission	mln.kWh	6,528	6,796	6,961
Number of consumers (commercial and others)	pcs.	17	21	21

ENVIRONMENTAL PERFORMANCE
Discharge, thous. tons



SOCIAL INDICATORS
Average wage



The amount of utilized investments in 2019 – 11,426,091 thous. tenge

“AlmatyEnergoSbyt” LLP (“Samruk-Energy” JSC – 100%)

“AlmatyEnergoSbyt” LLP is an enterprise representing the interests of its consumers to all entities of the wholesale and retail electricity markets, in order to ensure uninterrupted power supply.

“AlmatyEnergoSbyt” LLP is a guarantee electricity supplier in Almaty city and Almaty region (Balkhash, Enbekshikazakh, Zhambyl, Ili, Karasai, Raiymbek, Talgar, Uygur districts and Kapshagai city).

As of December 31, 2019, there are more than 32 thousand corporate entities and circa 810 thousand household consumers among “AlmatyEnergoSbyt” LLP customers.

The main principle of the company is focus on customer. The structure of the partnership includes 17 district branches (district branch of power supply) and a Contact Center.

Customer satisfaction is growing annually and is close to 100%.

General Director: Dzharlykasymov E.T.

A supply chain of the entity

Purchase of electricity from energy transmission organizations and sale to the end consumer on the basis of public energy supply agreements. Electricity tariffs are set in accordance with the requirements of the Committee for Regulation of Natural Monopolies under the Ministry of National Economy of the Republic of Kazakhstan.

You may learn more about the company on the website: ***www.esalmaty.kz***

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	1,374	42	(1,185)
EBITDA	mln. tenge	2,002	361	(1,499)
EBITDA Margin	%	2.12	0.37	(1.5)

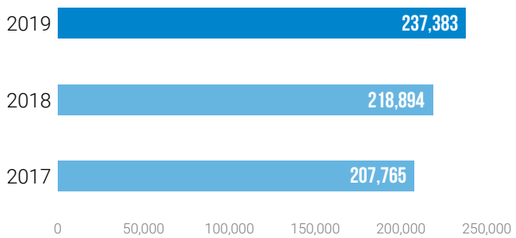
Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Volume of electricity sale	mln.kWh	5,767.5	5,904.3	6,218
Average electricity sale rate	tenge/kWh	16.38	16.42	16.11

Consumers groups	2017	2018	2019
Population	770,245	785,393	811,295
Commercial users, including:	30,203	31,632	32,939
- Industrial consumers and similar to them consumers	1,866	1,932	1,934
- Budget organizations	1,238	1,234	1,228
- Other consumers	27,099	28,466	29,777
TOTAL:	800,448	817,025	844,234

SOCIAL INDICATORS

Average wage



The amount of utilized investments in 2019 is 75,043 thous.nd tenge.

MINING AND SERVICE COMPANIES

"Bogatyr Komir" LLP (Forum Muider B.V. – 100%)

"Bogatyr Komir" LLP is one of the largest enterprises in the world in terms of open-pit coal mining. "Bogatyr Komir" LLP accounts for 59 percent of all coal mined in the Ekibastuz coal basin and 40.4 percent of the total coal production in the RK. At this, the production capacity of the enterprise allows mining up to 40,4 mln.

"Bogatyr Komir" LLP approved coal reserves amount to circa 2.9 bln. tons. Coal reserves at "Bogatyr Komir" LLP were approved up to minus 200m horizon (depth from the surface is 400 m). With the current capacity of the enterprise coal reserves will be enough for no less than 70 years of operations.

"Bogatyr" coal mine, commissioned in 1970, exploits coal reserves in the fields (sections) 5, 6, 9, 10. The depth of the coalmine reached 280 m from the surface (mark: the horizon is minus 80 m according to the Baltic measurement system from the Baltic Sea level).

"Severny" coalmine, commissioned in 1954, coal is mined in the fields (sections) 1, 2, 3, 4. The depth of the mine reached 230m from the surface (mark: the horizon is minus 30m according to Baltic measurement system from Baltic sea level).

The main industrial layers of Ekibastuz field are layers 1, 2, 3, 4 with an average thickness of 160 m and a depth of up to 670 m. The total coal reserves of the field are more than 9 bln. tons.

Confirmed coal reserves of "Bogatyr" and "Severny" coal mines of "Bogatyr Komir" LLP

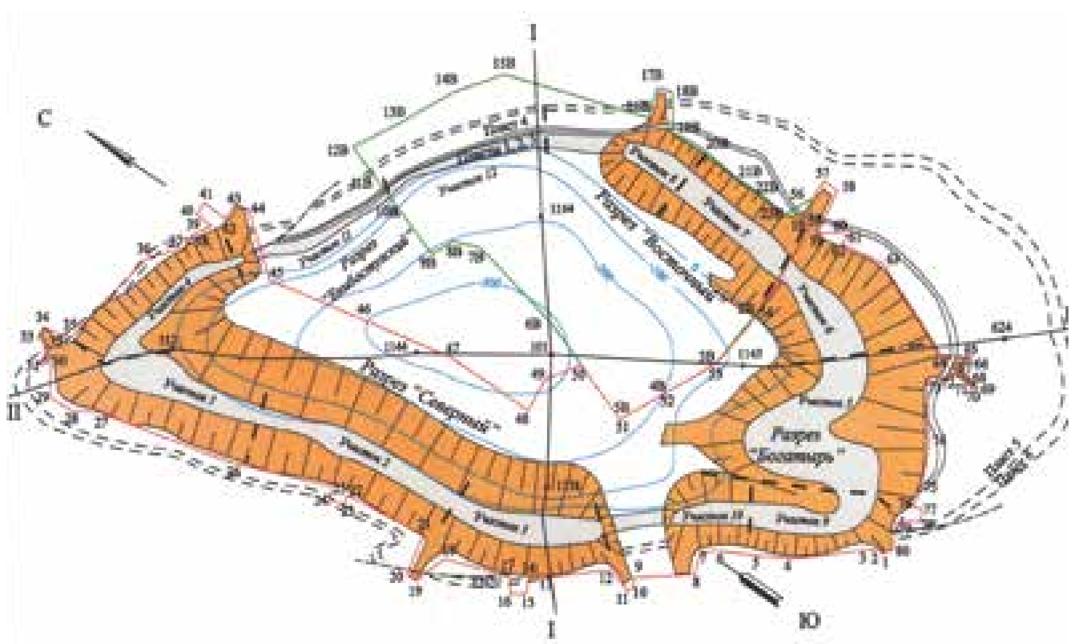
General Director: Korsakov N.N.

mln. tons

Seam	Confirmed reserves
Total for "Bogatyr Komir" LLP	
1	397.9
2	630.8
3	1,401,7
4	484.6
Total:	**2,915.0**

Seam	Confirmed reserves
Incl. of "Bogatyr" mine (sections 5, 6, 9, 10)	
1	198.1
2	332.8
3	739.4
4	278.7
Итого:	**1,549.0**

Seam	Confirmed reserves
Of "Severny" mine (sections 1, 2, 3, 4)	
1	199.8
2	298.1
3	662.2
4	205.9
Total:	**1,366.0**



A supply chain of the entity

"Bogatyr Komir" LLP extracts KSN grade (coking caking slightly metamorphosed) coal with an average calorific value of ~ 4,000 kcal / kg, ash content ~ 43%, moisture ~ 5%.

The entity supplies thermal coal to generating facilities of the RK domestic market and for export to the RF, as well as the supply of household coal to the RK domestic market. Coal is sold to thermal power plants of the Republic of Kazakhstan under direct contracts for the supply of coal, to the power plants of the Russian Federation through a trader.

Household coal is sold through commodity exchanges in accordance with the Order of the Minister of National Economy of the Republic of Kazakhstan dated February 26, 2015 No. 142 "On approval of the list of commodities exchange and the minimum size of represented batches sold through commodity exchanges".

You may learn more about the company on the website: ***www.bogatyr.kz***

Financial performance

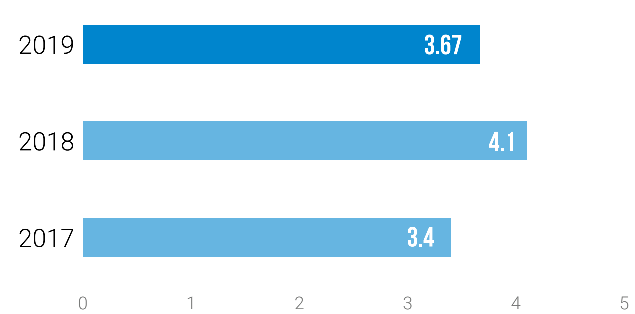
Indicator	Measurement unit	2017	2018	2019
Net income/loss	mln. tenge	21,960	28,334	26,917
EBITDA	mln. tenge	34,506	41,441	40,415
EBITDA Margin	%	43.3	45.5	43

Results of operating activities

Indicator	Measurement unit	2017	2018	2019
Coal production volume	mln. tons	40,4	44,9	44,8
The volume of coal sales in the RK	mln. tons	30,7	35,6	33,8
to own PP	mln. tons	15,6	18,1	17,5
third party PP	mln. tons	15,1	15,9	16,3
Coal export volume	mln. tons	10,2	9,6	10,9
Major consumers	"Ekibastuz SDPP-1" LLP, "Ekibastuz SDPP-2 Plant" JSC, "Almaty Power Plants" JSC CHP-2, CHP-3; "Astana Energia" JSC CHP-1, CHP-2, "KaragandaEnerogcenter" LLP CHP-1, CHP-3, "SevKazEnergo" JSC CHP-2, Petropavlovsk CHP-2, "Pavlodarenergo CHP-2, 3, Reftinsk SDPP.			

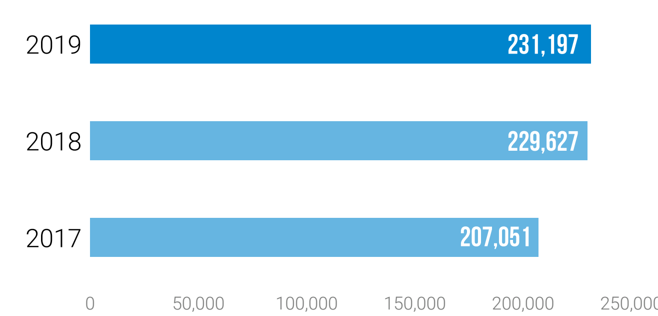
ENVIRONMENTAL PERFORMANCE

Emissions, thous.tons



SOCIAL INDICATORS

Average wage



The amount of utilized investments of Forum Muider B.V. (50%) in 2019 – 8,927,791 thous. tenge

“Tegis Munay” LLP
(“Samruk-Energy” JSC – 100 %)

The purpose of “Tegis Munay” LLP business is to build ground infrastructure and equip the “Pridorozhnoe” deposit in the South Kazakhstan region of the Republic of Kazakhstan, to build a gas pipeline from “Pridorozhnoe” deposit to the Beineu – Bozoi – Shymkent gas pipeline, to produce, process and sell gas.

Creating safe working environment, ensuring environmental protection and environmental safety, the Company cooperates with research and development institutes for the implementation of energy-efficient technologies at the designed facilities of the field and energy-producing parts of the project.

“Tegis Munay” LLP is an investment project of “Samruk-Energy” JSC, the profit is expected to be received from 2020–2021.
Director General: Uvakov K.A.

The amount of utilized investments in 2019 – 91,009 thous. tenge.

“Mangyshlak Munay” LLP
(“Tegis Munay” LLP – 100 %)

“Mangyshlak Munay” LLP is the holder of the suboil use right for gas exploration operations at the Pridorozhnoe field in South-Kazakhstan region. The project involves the development of gas field to ensure the scheduled construction of 175,6 MW CCGT.

Its main task is the commercial exploitation of the field in order to make up the gas deficit in the region, create new jobs, develop infrastructure, and increase social assistance and tax deductions to the budget.

The field was discovered in 1978. As a result of drilling and testing, 13 exploration wells discovered and confirmed by the State Commission for Reserves, the presence of natural gas at depths of 1100 meters and 2400 meters in the amount of 16.5 bln. cubic meters.
Director General: Karakushikov Y.A.

“Mangyshlak-Munay” LLP is an investment project of “Samruk-Energy” JSC, the profit is planned from 2020–2021.

You may learn more about the company on the website: ***www.mangyshlak-munay.kz***

JAS ENERGY

“It was my grandfather who advised me to choose this particular job connected with open-pit mine. For me, he is indisputable thought leader, whose opinion I particularly valued. Even when I was a teenager, my grandfather who was an excavator operator, often took me to the mine. I like working at machine room and feel the full power of the mining machine”.

KOMAROV SERGEY VLADIMIROVICH
Electrical fitter at “Bogatyr Komir” LLP

“Energy Solutions Center” LLP
(“Samruk-Energy” JSC – 100 %)

“Energy Solutions Center” LLP is a service company for providing administrative support to “Samruk-Energy” JSC group of companies.

The list of services includes:
- IT infrastructure maintenance services;
- Services for the maintenance of Internet resources;
- Provision of transportation services;
- Real estate management services (rent, purchase, construction);

Core business: special office services (staff outsourcing), IT services, transportation services.

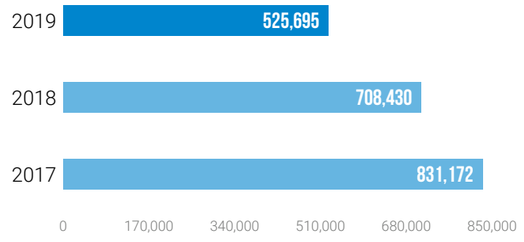
Location: the Republic of Kazakhstan, 010000, Nur-Sultan city, Esil district, 15 A, Kabanbay batyr ave., block B.
General Director: Abdullin A.M.

You may learn more about the company on the website: ***www.e-s-center.kz.***

Financial performance

Indicator	Measurement unit	2017	2018	2019
Net income/loss	thous. tenge	51	89	3
EBITDA	thous. tenge	72	122	68
EBITDA Margin	%	11	13	6

Social indicators
Average wage



The amount of utilized investments in 2019 – 42,110 thous. tenge.

FINANCIAL AND ECONOMIC OVERVIEW OF THE COMPANY'S ACTIVITIES

Key events during the reporting period

Date	Event
18 February	"Samruk-Energy" JSC made an early redemption of bonds of the second issue within the first bond program in the amount of 28 bln. KZT in Kazakhstan stock exchange.
03 April	The Head of State signed the RK Law "On making changes and additions to certain legislative acts of the RK on issues related to special economic and industrial zones, attracting investments, development and promotion of export, and social security", as part of which the RK Law "On power industry" was amended; the amendment allows "Moynak HPP" JSC and "Almaty Power Plants" JSC (boiler No. 8 of CHP-2) to receive individual tariffs for capacity.
10 April	"Samruk-Energy" JSC partially redeemed bonds of the first issue within the first bond program in the amount of 16.8 bln. KZT in Kazakhstan stock exchange.
18 April	"Shardarinsk HPP" JSC raised additional borrowed funds of KZT 11.52 bln. for the Project "Retrofit of Shardarinsk HPP" by signing an additional agreement between "Samruk-Energy JSC, "Shardarinsk HPP" JSC and the EBRD.
23 September	The ceiling tariffs for electricity for 2019–2025 for 44 groups of energy-producing organizations that sell electricity were approved by the order of the RK acting Minister of Energy No. 313; tariffs include interest expenses of implemented investment projects.
7 October	As part of successful implementation of Cash pooling mechanism, "Samruk-Energy" JSC, together with its subsidiaries, repaid the principal of "FWPP" LLP in the amount of KZT 7.6 bln., "APP" JSC in the amount of KZT 3.7 bln. and "AZhC" JSC in the amount of 5.3 bln. tenge. This work contributed to decreasing the debt level of "Samruk-Energy" JSC group by KZT 16,6 bln. tenge.
7 October	"FWPP" LLP ("Samruk-Energy" JSC subsidiary) loan from EDB in the amount of 7,6 bln. tenge was fully repaid ahead of schedule. The deal allowed releasing "Samruk-Energy" JSC guarantee for the same amount in favor of lender.
16 October	"Moynak HPP" JSC signed an Investment Agreement with the RK Ministry of Energy (for a volume of capacity – 298 MW, while an average tariff was 2,467.1 thous. KZT/ MW*month). The individual tariff was approved for the period from 2020 to 2026.
18 October	Amendments the "Rules for the approval of ceiling tariff for electricity, ceiling tariff for balancing electricity and celing tariff for the service for maintaining the availability of electric capacity "were made by the order of the RK Minister of Energy No. 341. According to the amendments, if there is a need for adjustment of the ceiling tariff for electricity during the year, energy producing organizations should submit the information about escalation of costs for electricity production and attach supporting documents to the authorized body no more than once a year.
23 October	"AIES" JSC concluded an Investment Agreement with the RK Ministry of Energy (for a volume of capacity – 69,5 MW, while an average tariff was 3,418.9 thous. KZT/MW*month). The individual tariff was approved for the period from 2020 to 2024.
31 October	A Laon Agreement worth 23,2 bn.KZT was signed between "Ereymentau Wind Power" LLP ("Samruk-Energy" JSC subsidiary) and EDB in order to finance "Construction of 50 MW WPP in Ereymentau c." project.
28 November	"Moynak Hydropower plant" JSC has converted 11.7 mln. USD of foreign currency liabilities to the Development Bank of Kazakhstan. The transaction allowed continuing the reduction of foreign currency debt rate from 3% to 1.5% in the loan portfolio of "Samruk-Energy" JSC.
December	According to the results of 2019, "Samruk-Energy" JSC achieved the target values of financial stability ratios and, accordingly, the "green" risk zone was accomplished.

Macroeconomic factors

In general, the economy of the Republic of Kazakhstan continues to demonstrate some of features that are commonly found in emerging markets. It is particularly sensitive to fluctuations in the prices of oil and gas and other mineral raw materials, which make up the bulk of the country's exports. These features also include, but are not limited to the existence of a national currency that does not have free conversion outside the country, and a low level of liquidity in the securities market. The continuing political tensions in the region, the exchange rate volatility have had and may continue to have a negative impact on the economy of the Republic of Kazakhstan, including a decrease in liquidity and difficulties in raising international financing.

On August 20, 2015, the National Bank and the Government of the Republic of Kazakhstan made the decision on stopping supporting the Kazakh tenge exchange rate and implementing a new monetary policy based on the inflation-targeting regime, canceling the currency corridor and moving to a free-floating exchange rate. At this, the National Bank's exchange rate policy allows interventions in order to prevent sharp fluctuations in tenge's exchange rate to ensure financial stability.

As of the date of this report, the official exchange rate of the National Bank of the Republic of Kazakhstan was 377,19 tenge per 1 US dollar compared to 381,18 tenge per 1 US dollar as of December 31, 2019 (31 December 2018: 384,20 tenge per 1 dollar USA). Thus, uncertainty regarding the tenge exchange rate and future actions of the National Bank and the Government remains, as well as the impact of these factors on the economy of the Republic of Kazakhstan.

In September 2019, the international rating agency Standard & Poor's affirmed Kazakhstan's long-term credit ratings for liabilities in foreign and national currencies at the level of "BBB-" and Kazakhstan's short-term ratings for obligations in foreign and national currencies at the level of "A-3", and National scale rating – "kzAAA". The outlook on the long-term ratings is stable. A stable forecast is confirmed by the presence of positive balance sheet indicators generated by additional revenues to the National Fund of the Republic of Kazakhstan, as well as low public debt, the total amount of which will not exceed the state's external liquid assets in two years.

Large-scale budget injections along with a considerable growth of investments, brought through the economy to a new level of growth of 4.5% in 2019, which turned out to be higher than the average dynamics of 4.2% over the past decade. A set of targeted incentive and administrative measures supported domestic demand, having mitigated the negative impact of adverse global conditions in oil market, while inflation remained at a moderate level of 5.4%, which is significantly lower than the long-term trend (source Halyk Finance).

Dynamics of currency exchange rates:

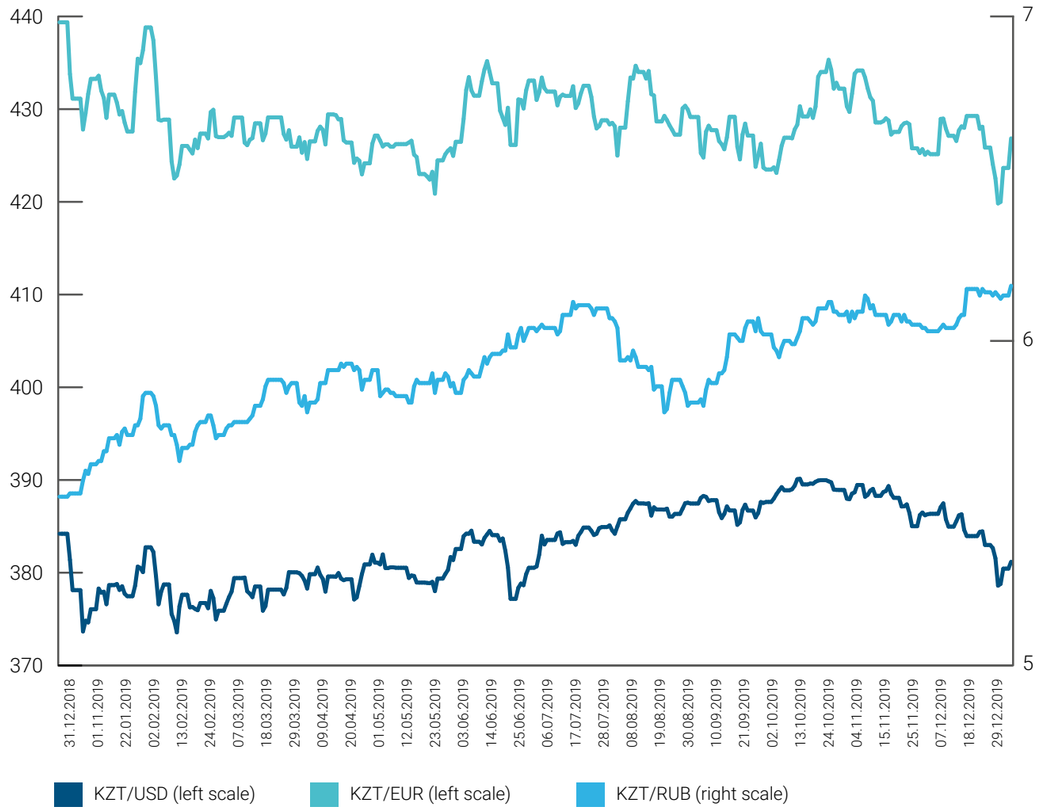
	31.12.2018	31.12.2019	%
KZT/USD	384,2	381,18	99%
KZT/EUR	439,37	426,85	97%
KZT/RUB	5,52	6,17	112%

Growth of output and the stability of oil prices, low unemployment and wage rise contributed to moderate economic growth in 2019. Such an economic environment has a significant impact on the operations and financial standing of the Company. Management makes every effort to ensure stability for the Company's business. However, the future consequences of current economic situation are difficult to predict, and current expectations and estimates may differ from actual results.

Moreover, the energy sector in the Republic of Kazakhstan remains exposed to political, legislative, tax and regulatory changes in the Republic of Kazakhstan. The prospects of the economic stability of the Republic of Kazakhstan are substantially dependent on the effectiveness of economic measures undertaken by the Government, as well as on the development of legal, control and political systems, i.e. circumstances that are outside of "Samruk-Energy" JSC group of companies' control. Company's management assessed the potential impairment of "Samruk-Energy" JSC group of companies' long-term assets taking into account the current economic situation and its prospects. The future economic and regulatory environment may differ from management's current expectations.

The Management is unable to foresee either the degree or the duration of changes in Kazakhstani economy or assess their possible impact on the financial standing of the Company in the future. The Management is confident that it is making every effort to maintain the stability and growth of the Company's operations in the current circumstances.

Exchange rate dynamics



The "Samruk-Energy" JSC group of companies is of strategic importance for the Republic of Kazakhstan, as it unites the enterprises of power sector, which provide the population and industrial enterprises with power. The Government of the Republic of Kazakhstan has adopted a long-term program for the development of the energy sector of the economy, which involves the construction of new and reconstruction of existing power plants. It is expected that the Group will receive support from the Government of the Republic of Kazakhstan, as the electricity sector is a strategically important part of the country's economy.

To estimate expected credit losses, the Company uses confirmed forecast information, including forecasts of macroeconomic indicators. However, as in any economic forecasts, assumptions and the likelihood of their implementation are inevitably associated with a high level of uncertainty, and, therefore, actual results may differ significantly from those predicted.

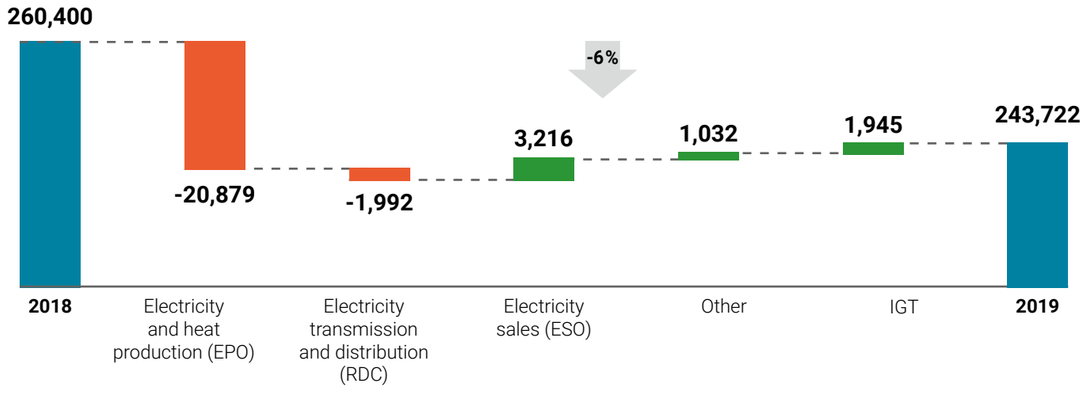
Finnancial and economic indicators

No.	Indicator, mln.tenge	2017 (actual)	2018 (actual)	2019 (actual)	2020 (forecast)	2021 (forecast)
1	**Income from sales of goods and services delivered**	**219,892**	**260,400**	**243,722**	**289,052**	**319,535**
1.1.	Electricity production	151,861	185,355	169,369	205,242	225,235
1.2.	Sale of electricity by energy supplying organizations	94,458	96,955	100,171	108,141	119,942
1.3.	Heat production	17,370	21,674	16,781	17,375	18,366
1.4.	Transmission and distribution of electricity	38,058	40,020	38,028	41,698	49,222
1.5.	Sale of chemically purified water	1,672	1,824	1,515	1,668	1,883
1.6.	Lease	3,289	3,542	3,925	4,402	4,147
1.7.	other	1,701	1,597	2,555	3,658	4,012
2	**Cost of goods sold and services delivered**	**(159,611)**	**(188,356)**	**(195,891)**	**(221,717)**	**(237,155)**
2.1.	Cost of electricity production	(107,795)	(129,110)	(130,934)	(147,890)	(160,462)
2.2.	Cost of electricity sales by energy supplying organizations	(91,817)	(95,938)	(101,280)	(107,868)	(118,848)
2.3.	Cost of heat production	(17,122)	(20,023)	(16,338)	(19,196)	(18,722)
2.4.	Cost of electricity transmission	(28,337)	(30,068)	(32,543)	(35,674)	(38,031)
2.5.	Cost of sale of chemically purified water	(1,644)	(1,736)	(1,356)	(1,718)	(1,878)
2.6.	Cost of other types of core business	(443)	(640)	(832)	(1,095)	(1,099)
	Amortization of fixed and intangible assets	*(43,824)*	*(52,364)*	*(54,223)*	*(58,537)*	*(62,349)*
3	**Gross profit**	**60,281**	**72,044**	**47,832**	**67,335**	**82,380**
4	Financing income (1)	2,805	2,333	2,377	1,872	4,315
5	Other income	3,224	5,347	5,376	1,946	1,673
6	Expenses for sale of products and services	(15,145)	(14,340)	(7,999)	(11,748)	(12,364)
7	General administrative expenses	(12,709)	(13,018)	(12,710)	(13,503)	(14,151)
8	**Operating profit**	**32,427**	**44,686**	**27,123**	**42,084**	**55,864**
9	**Earnings before amortization, interest and CIT (EBITDA)**	**77,328**	**97,825**	**82,487**	**103,923**	**139,769**
10	Finance costs (2) (3)	(29,182)	(33,129)	(32,319)	(33,402)	(34,989)
11	Other expenses from non-core operations (4)	(5,959)	(16,549)	(1,920)	(1,905)	(865)

No.	Indicator, mln.tenge	2017 (actual)	2018 (actual)	2019 (actual)	2020 (forecast)	2021 (forecast)
12	Share of profit / loss of organizations accounted for using the equity method and investments impairment	(26,636)	9,752	11,191	2,347	20,589
13	Profit (loss) from discontinued operations	1,670	(1,584)	0	0	0
	Profit (loss) from disposal of subsidiaries		287	0	0	0
14	**Profit (loss) before tax**	**(21,650)**	**11,143**	**11,829**	**12,943**	**46,586**
15	Corporate income tax expenses	(5,553)	(7,718)	(4,717)	(5,584)	(8,265)
16	**Total profit before minority interest**	**(27,203)**	**3,425**	**7,111**	**7,359**	**38,322**
17	Minority interest	681	184	276	351	332
18	**Total profit attributable to the Group's Shareholders**	**(27,884)**	**3,241**	**6,835**	**7,009**	**37,990**

(1) in FS forex gains for 2018 were reported in «other income» section
(2) in FS balance from the exchange rate difference of 2017 was reported in «financial expenses» section
(3) in FS forex loss for 2018 was reported in "finance costs" section
(4) in FS forex gain for 2019 was reported in "finance income" section
(4) in FS impairment loss (NET) was recognized in "other expenses" item
Note: interpretation of income and cogs was presented with a breakdown by types of activities (not by segments) and was mentioned without elimination.

Revenues from sales of products and services provided across "Samruk-Energy" JSC Group of Companies in 2019 amounted to 243,722 mln. tenge:

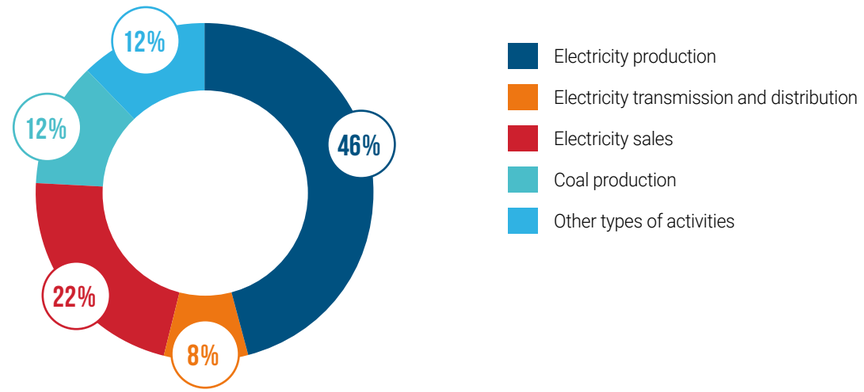


Consolidated revenue decreased in the electricity generation segment due to lower tariffs and volumes of electricity sales. The main decrease occurred at "Ekibastuz GRES-1" LLP because of a decrease in electricity sales volume from 18,340 mln. kWh to 17,642 mln. kWh and a decrease in the average tariff from 6,86 tenge / kWh to 6,07 tenge / kWh.

The decrease in revenue for electricity transmission is connected with a decrease in "Alatau Zharyk Company" JSC tariff for electricity transmission from 5,89 tenge/kWh to 5,46 tenge/kWh.

As regards the sales segment, revenue growth is because of an increase in electricity sales by "AlmatyEnergoSbyt" LLP.

Structure of 2019 income by main types of activity



Forecast for the future period: in the forecast for 2020, revenue from sales is planned in the amount of 289,052 mln. tenge, which is 45,330 mln. tenge or 19% higher than the 2019 actual. The increase is due to growth of rates for electricity generation and transmission.

Revenue in the forecast for 2021increases vs. forecast for 2020 because the income from electricity production grows, mainly owing to an increase in electricity generation, electricity rates and rates for provision of services for maintaining the availability of electric capacity. In addition, revenues from the transmission and sale of electricity are expected to grow because of an increase in volumes and tariffs.

Revenues from sales of products and services rendered detailed per producer

Indicator, mln. tenge	2017 (actual)	2018 (actual)	2019 (actual)	2020 (forecast)	2021 (forecast)
Income from sales of products and services rendered	**219,892**	**260,400**	**243,722**	**289,052**	**319,535**
"ESDPP-1" LLP	90,177	125,598	108,017	122,453	134,865
"AlmatyEnergoSbyt" LLP	94,458	96,955	100,171	108,141	119,942
"Almaty Power Plants" JSC	62,349	65,542	64,047	70,440	75,166
"Alatau Zharyk Company" JSC	38,658	40,258	38,167	42,361	49,393
"Moynak HPP" JSC	10,889	10,217	9,883	20,399	20,424
"FWPP" LLP	4,388	4,460	4,592	5,004	5,636
"Shardarinsk HPP" JSC	3,405	3,318	2,279	7,304	8,928
"Bukhtarminsk HPP" JSC	3,288	3,541	3,924	4,402	4,147
Energy Solution Center					2,414
"Green Energy" LLP	666	937	1,105	1,487	1,521
"ESDPP-1" LLP	131	141	158	193	372
Intercompany turnover (elimination)	**–88,517**	**–90,566**	**–88,621**	**–93,131**	**–103,273**

The major share in the Company's operating income comes from "Ekibastuz SDPP -1" LLP, "Almaty Power Plants" JSC, "Alatau Zharyk Company" JSC, "AlmatyEnergoSbyt" LLP. At the same time, at consolidation of revenues, intercompany turnover mainly in respect of energy producing and distribution companies is excluded from total amount.

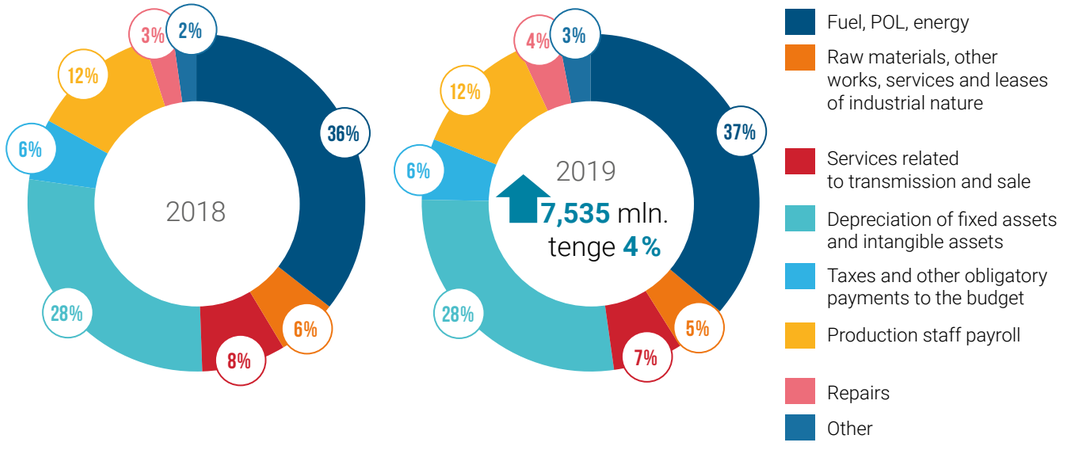
Cost of goods and services

Indicator, mln. tenge	2017 (actual)	2018 (actual)	2019 (actual)	2020 (forecast)	2021 (forecast)
Fuel	43,363	56,768	52,340	57,271	62,121
Remuneration of labor and related expenses	24,035	25,231	26,775	29,422	30,904
Cost of purchased electricity	7,256	10,178	13,673	16,623	17,233
Services on maintaining the availability of electric capacity			7,692	9,667	10,278
Depreciation of property, plant and equipment.	43,824	52,364	54,227	58,537	62,349
Maintenance & repair	6,517	6,344	6,879	10,108	11,113
Services for electricity transmission and other services	8,506	10,019	10,331	10,779	11,502
Materials	1,762	1,773	1,844	2,236	2,259
Water supply	4,455	4,664	3,962	5,114	5,486
Grid losses	205	193	193	392	61
Taxes other than income tax	4,143	4,876	4,586	5,472	6,008
Emission charges	2,909	4,036	4,338	4,616	4,941
Outsourced services	7,394	8,219	5,383	8,444	9,632
Others	5,241	3,690	3,668	3,038	3,267
TOTAL	**159,611**	**188,356**	**195,891**	**221,717**	**237,155**

(1) in FS emission charges for 2017 were recorded in "Others" item.
(2) in FS emission charges for 2018 and 2019 were recorded "Taxes other than income tax" item.

According to the 2019 results, **the cost of goods sold** amounted to 195,891 mln. tenge, which is 4% higher than the 2018 actual. An increase in expenses is mainly related to the costs of maintaining the availability of electric capacity in connection with the introduction of the capacity market and the division of the tariff into electricity and capacity components. Payment for capacity is made to the SFC. Previously, these expenses were completely intergroup and were eliminated. There is also an increase in expenses due to rising prices for goods and services, and an increase in depreciation (mainly at "Ekibastuz SDPP-1" LLP).

The structure of cost of goods sold by main types of activity

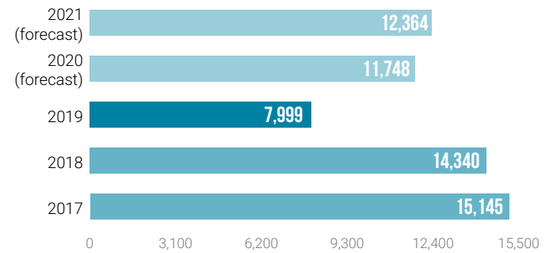


Forecast for the future period: in the forecast for 2020, cost of goods sold increases due to the growth of production and sales, as well as due to an increase in prices for goods and services. The increase in expenses in the forecast for 2021 is due to higher prices for goods and services.

Sales costs, mln.tenge

Following the 2019 results, sales costs decreased by 6,342 mln. tenge compared to 2018 and amounted to 7,999 mln. tenge. This deviation was caused by a decrease in electricity exports from 3,758 mln. kWh (the RF) to 967 mln. kWh (Uzbekistan) in 2019.

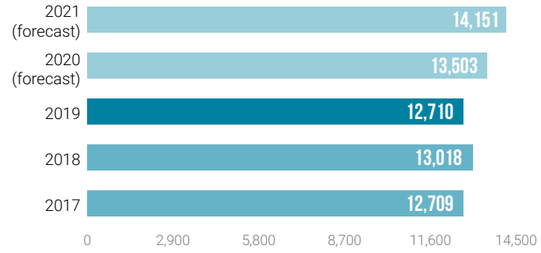
Forecast for the future period: In the forecast for 2020, an increase in sales costs compared to the 2019 actual is 47% due to an increase in the cost of electricity transmission, which results in an increase in exports to Uzbekistan.



Administrative costs, mln.tenge

At the end of 2019, administrative expenses amounted to 12,710 mln. tenge, which is 308 mln. tenge or 2% less in comparison with the same period in 2018.

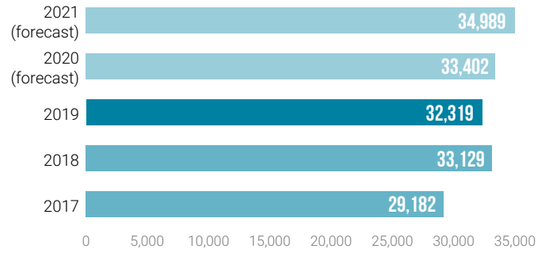
Forecast for the future period: in the forecast for 2020, administrative expenses are higher than the 2019 level and amount to 13,503 mln. tenge. An increase is mainly due to rising prices for goods and services, as well as due to the annual indexation of inflation. In the forecast for 2021, administrative expenses are reduced by 649 mln. tenge compared with the forecast for 2020 and amount to 14,151 mln. tenge mainly because of an increase in prices for goods and services.



Finance costs, mln. tenge

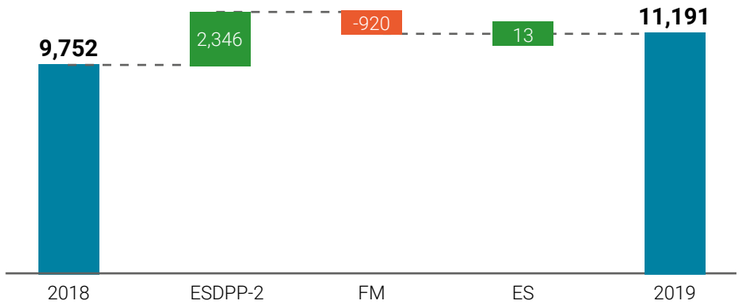
According to the 2019 results, financial expenses amounted to 32,319 mln. tenge, which is less than the 2018 actual figure by 810 mln. tenge. The decrease in financing expenses is mainly due to reduction of interest expenses in connection with long-term loan repayments.

Forecast for the future period: in 2020–2021 forecast, finance costs increases due to working capital financing.



Share in profits of joint ventures and associates and impairment of investments

Indicator, mln. tenge	2017 (actual)	2018 (actual)	2019 (actual)	2020 (forecast)	2021 (forecast)
Share in profits of joint ventures and associates	(26,636)	9,752	11,191	2,347	20,589



Share income for 2019 amounted to 11,191 mln. tenge, having increased by 1,440 mln. tenge compared to the same period.

The main changes occurred with respect to the following assets:

«Ekibastuz SDPP-2 Plant» JSC – loss reduction by 2,346 mln. tenge in comparison with the previous year was caused because of the below factors:

- an increase in operating profit by 486 mln. tenge (an increase in the weighted average tariff for electricity from 7,53 tenge / kWh to 8,70 tenge/kWh);
- the decrease in foreign exchange losses in the amount of 5,703 mln. tenge.

At the same time, finance costs increased in the amount of 484 mln. tenge (50%) and reduction of other income by 3,379 mln. tenge (50%).

Forum Muider – the decrease in profit by 920 mln. tenge was mainly driven by reduction of coal sales volumes at "Bogatyr-Komir" LLP in the domestic market by 1,779 thous.tons (5%) and the decrease in sales prices by 0.4%.

The share of profit in the plan for 2020 is 2,347 mln. tenge (the decrease is mainly due to foreign exchange losses), in 2021 it is 20,589 mln. tenge.

Profit/ (loss) from discontinued operations

Indicator, mln.tenge	2017 (actual)	2018 (actual)	2019 (actual)	2019 (forecast)	2020 (forecast)
Profit from discontinued operations	1,670	(1,584)	–	–	–

Tariff policy

The operations of "Samruk-Energy" JSC subsidiaries and joint ventures, which are natural monopoly entities, entities of the competitive and socially significant markets, are regulated by the laws of the Republic of Kazakhstan "On power industry", "On Natural Monopolies" , Entrepreneurial Code of the Republic of Kazakhstan and other legislation of the Republic of Kazakhstan. Tariff regulation, depending on the type of business of energy companies, falls within the competence of the Committee for Regulation of Natural Monopolies and Protection of Competition of the RK Ministry of National Economy (hereinafter – the Committee) or the industry-specific ministry – the Ministry of Energy (hereinafter – ME).

Tariffs for electricity for energy-producing organizations for 2016–2018 were set at the level of ceiling tariffs for power plants earlier approved for 2015.

Based on the Concept for the Development of the Fuel and Energy Sector (FES) of Kazakhstan until 2030, adopted in 2014, the Capacity Market was introduced in 2019 as an effective mechanism for providing the industry with a sufficient level of investment, which will have a favorable effect on the market in the long term.

Between 2019 taking into account the introduction of a capacity market for energy-producing organizations, the following have been established:

- cap tariffs for capacity, including the costs of investment projects and repayment of principal (for credit funds raised for the implementation of investment projects);
- cap tariffs for electricity, including the costs of operating and interest expenses (for credit funds raised for the implementation of investment projects).

Tariffs for the supply of electricity produced by RES using facilities, are fixed and were approved by the Republic of Kazakhstan Government depending on RES technology (separately for wind, solar and other resources) and these tariffs are subject to annual indexation. At the same time, the financial and settlement center acts as a buyer, and an energy-producing organization acts as a seller.

The Committee regulates tariffs for the transmission and distribution of electricity for energy transmission companies, for heat production and tariffs for energy supply. Regulation and control by the Committee is carried out in strict accordance with the legislative and regulatory legal acts of the Republic of Kazakhstan.

Social and political issues significantly affect tariff decisions. Economic, social and other policies of the Government of the Republic of Kazakhstan may have a significant impact on the Group's operations.

Weighted average tariffs for electricity generation

Description	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
"Ekibastuz SDPP-1" LLP Average weighted tariff, tenge kWh	6,39	6,85	6,07	6,77	7,26
tariff for export, tenge/kWh	5,46	5,18	9,64	10,84	10,50
the RK tariff, tenge/kWh	6,86	7,28	5,87	6,39	6,97
Incl.electricity tariff, tenge kWh			5,65	5,76	6,16
Incl.capacity tariff, thous. tenge/ MW*month			590	590	620
"Ekibastuz SDPP-2" JSC, average weighted tariff, tenge kWh	6,60	7,53	8,70	9,50	9,42
Electricity tariff, tenge/kWh			7,42	8,25	8,53
Capacity tariff, thous. tenge/MW*month			590	590	620
"Almaty Power Plants" JSC, average weighted tariff, tenge kWh	8,60	8,60	9,66	10,90	11,70
Electricity tariff, tenge/kWh			8,43	9,04	9,77
Capacity tariff, thous. tenge/MW*month			590	894	921
"Shardarinsk HPP" JSC, average weighted tariff, tenge kWh	9,50	9,50	4,86	13,25	15,21
Electricity tariff, tenge/kWh			4,23	8,74	10,38
Capacity tariff, thous. tenge/MW*month			590	4,069	3,868
"Moynak HPP" JSC, average weighted tariff, tenge kWh	8,65	9,51	10,02	22,28	22,28
Electricity tariff, tenge/kWh			7,93	12,02	12,02
Capacity tariff, thous. tenge/MW*month			590	2,564	2,564
«Samruk-Green Energy» LLP, kWh tenge	42,12	45,11	48,54	53,77	17,50
"First Wind Power Plant" LLP, kWh	26,44	28,31	30,03	31,62	33,20
"Ereymentau Wind Power" LLP					22,68
"Energia Semirechya" LLP				22,68	22,68

The following tariffs were in effect during the reporting period:

Capacity market began its operation in the RK from January 1, 2019. The income received by electricity producers is divided into two components – income from the sale of electricity (allocated to cover current expenses) and income from the provision of services to maintain the availability of electricity capacity (allocated to repay principal and for investments). The unified cap tariff for the service for maintaining the availability of electric capacity for all EPOs in the amount of 590 thousand tenge / MW * months was approved. Electricity tariffs were approved for the period from 2019 to 2025. However, the approved tariffs do not provide for profitability and indexation by year. Moreover, according to paragraph 2 of Article 12-1 of the Law of the Republic of Kazakhstan "On Power Industry", electricity tariffs are adjusted annually, if necessary,

With the introduction of the capacity market, the average weighted tariffs for electricity in 2019 for some plants were below the 2018 tariff level. So, at the average weighted tariff in the Republic of Kazakhstan for Ekibastuz State District Power Plant-1 in 2018 – 7,28 tenge / kWh, the average weighted tariff for 2019 were set at the level of 5,87 tenge/kWh. For Shardarinsk HPP, at an individual tariff 9,50 tenge / kWh that was in effect in 2018, the average weighted tariff taking into account the capacity market for 2019 was set at the level of 4,86 tenge/kWh.

In connection with the approval of deficit tariffs for stations by the RK ME, in accordance with regulations of RK, EPO submitted applications for adjusting cap tariffs for electricity to the RK ME before September 1, 2019. As a result, from November 1, 2019, the RK ME approved the following cap tariffs for electricity.

For Ekibastuz SDPP-1, the tariff was maintained at the level of 2019 – 5,76 tenge / kWh. A significant increase in tariffs for Moynak HPP and Shardarinsk HPP stations was made in connection with ongoing large-scale investment programs and the inclusion of interest of borrowed funds in the tariffs, an increase in depreciation expenses and property tax. For Ekibastuz SDPP-2 stations and Almaty Power Plants, tariffs were increased by 6 and 4%, respectively, due to an increase in operating expenses.

tenge/kWh

EPO name	RK ME approved		deviation	
	From January 1, 2019	From November 1, 2019	(+,-)	в %
"Ekibastuz SDPP-1" LLP	5,76	5,76	0	100%
"Ekibastuz SDPP-2 Plant" JSC	7,31	7,73	0,42	106%
"Almaty Power Plants" JSC	8,33	8,70	0,37	104%
"Moynak HPP" JSC	7,14	12,02	4,88	168%
"Shardarinsk HPP" JSC	3,25	8,72	5,47	268%

For 2020, the Company worked with the RK Ministry of Energy on the approval of investment tariffs for plants implementing large-scale investment projects – "Moynak HPP" JSC, "Shardarinsk HPP" JSC and "Almaty Power Plants" JSC.

*thous. tenge /MW*month*

EPO name	Volume	Individual tariff	Period
"Almaty Power Plants" JSC	69,5 MW	4,168.60	2020–2024
"Moynak HPP" JSC	298 MW	2,563.67	2020–2026
"Shardarinsk HPP" JSC	61 MW	4,069.3	2020–2028

From 2021 onwards, electricity and capacity tariffs are projected taking into account the consumer price index.

Tariffs for the supply of electricity produced by renewable energy sources are fixed and approved by the RK Government depending on renewable energy technology (separately for wind, solar and other sources) and are subject to annual indexation.

Tariffs for heat production, *tenge/Gcal*

Name	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
"Almaty Power Plants" JSC	3,363	3,917	3,354	3,444	3,514
"Ekibastuz SDPP-2 Plant" JSC	740	816	809	849	867
"Ekibastuz SDPP-1" LLP	352	446	572	438	438

As for natural monopoly entity, the legislation provides for the approval of long-term (5+ years) ceiling tariff levels for organizations producing heat, with the inclusion of an investment component in them and annual indexation of costs. The Committee approves ceiling tariffs. However, an increase in tariffs is carried out no more than once a year and there are risks of maintaining tariffs without increasing, in cases of a plant's costs escalation for objective reasons.

Tariffs for electricity transmission services, *tenge/kWh*

Name	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
"Alatau Zharyk Company" JSC	5,83	5,89	5,46	5,95	6,92

For "Alatau Zharyk Company" JSC, which is also a natural monopoly entity, long-term ceiling tariffs have been approved based on tariff estimates with an investment component for 2016–2020 for regional energy transmission companies (RETC); an authorized body adjusts them if necessary. However, tariffs are increased no more than once a year, in cases of an increase in RES costs for objective reasons (adoption of unowned networks and equipment, etc.). There are also risks of maintaining tariffs without increasing.

Tariffs for electricity sale by ESO, *tenge/kWh*

Name	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
"AlmatyEnergoSbyt" LLP	16,38	16,42	16,11	18,29	20,27

The energy supplying organization "AlmatyEnergoSbyt" LLP is an entity of a socially significant market and is regulated by an authorized body. The tariff calculation includes operating, financial and investment components. There are risks of artificial containment of tariff growth by the Regulator in order to maintain social stability of the population in the regions. For ESO, differentiation is maintained for individuals according to consumption norms, electricity for legal entities is supplied at average selling rates.

Coal sales price, *tenge/tons*

Name	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
"Bogatyr Komir" LLP	1,944	2,013	2,120	2,302	2,389

The selling price of "Bogatyr Komir" LLP's coal is approved independently by the price list for consumers of the Republic of Kazakhstan for 3 groups of consumers (energy sector at KTZh's connecting station, energy sector at the coal-gathering station, public living needs). Regulation is performed on the basis of the Entrepreneurial Code of Committee for Regulation of Natural Monopolies and Protection of Competition under the RK Ministry of National Economy.

Liquidity and financial stability indicators

Compliance with covenants from external lenders:

Covenant	Standard	2019 Actual	2020 Forecast	Note
Debt/EBITDA (EBRD,HBK)	No more than 3,5	3,31	3,04	Is complied
EBITDA/interest rate (EBRD)	No less than 3,0	3,34	3,97	Is complied
Debt/Equity (EDB and KDB)	No more than 2,0	0,56	0,65	Is complied

Description	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
Debt/EBITDA	4,64	3,18	3,31	3,04	2,32
Debt/equity	0,75	0,65	0,56	0,65	0,53
Current liquidity	1,36	1,04	0,70	0,78	0,93

At the end of 2019, "Samruk-Energy" JSC (hereinafter – the Company) complied with lenders' financial and non-financial covenants, which are set on a semi-annual basis.

According to the 2019 results, "Samruk-Energy" JSC reached the target indicators for financial stability ratios set by the shareholder.

Debt burden reduction

According to the results of 12 months of 2019, the consolidated debt of the Company amounted to 338 bln. tenge, the decrease in debt for the reporting period compared to the results of 2018 (382.9 bln. tenge) amounted to 45 bln. tenge.

Debt reduction in 2019 is associated with planned repayment of debts and early repayment of debts in the amount of 25.6 bln. tenge.

As part of mitigating of currency risks, the Company implemented the following activities in 2019:

- refinancing of foreign currency liabilities of "Moynak HPP" JSC from the CDB for 136 mln. US dollars in tenge. As part of this deal, a guarantee of the Fund for 50 mln. USD was released, the level of foreign currency liabilities in the loan portfolio was reduced from 17% to 3%.
- additionally, the currency liabilities of "Moynak HPP" JSC from "KDB" JSC in the amount of 11.7 mln. were converted into tenge. The deal allowed to reduce the level of foreign currency liabilities in the group's loan portfolio from 3% to 1,5%.
- reservation of the full amount of obligations under the EPC contract in euros (balance hedging) was ensured, which made it possible to mitigate the risk of rising project costs taking into account currency fluctuations.

Interest expense reduction

At the same time, according to the 2019 results, a decrease in interest expenses was achieved owing to scheduled and early repayments of debt, refinancing of foreign currency liabilities and a reduction in interest rates on existing loans of "Samruk-Energy" JSC group of companies.

Credit Rating (Fitch Ratings)

According to the 2019 results, the long-term ratings of "Samruk-Energy" JSC from the international rating agency Fitch Ratings were kept at "BB"; the outlook is "Stable".

Fines

The total amount of significant fines across "Samruk-Energy" JSC group of companies – 4,023,837 thous. tenge.

The authorized state agencies (labor inspection, workplace safety, fire safety, energy supervision and control, sanitary and epidemiological supervision) checked for compliance with legal requirements and issued 9 improvement notices without imposing financial sanctions.

Cases associated with hindering competition and violation of antimonopoly legislation,which occurred during the reporting year, were not reported.

Cases associated with hindering competition and violation of antimonopoly legislation,which occurred during the reporting year, were not reported.

Comparative analysis (benchmarking)

Benchmarking is one of the most important elements of "Samruk-Energy" JSC management. Benchmarking aims to compare operating and financial pefromance with foreign peer companies to determine the strengths and weaknesses of "Samruk-Energy" JSC. The following indicators were used for benchmarking:

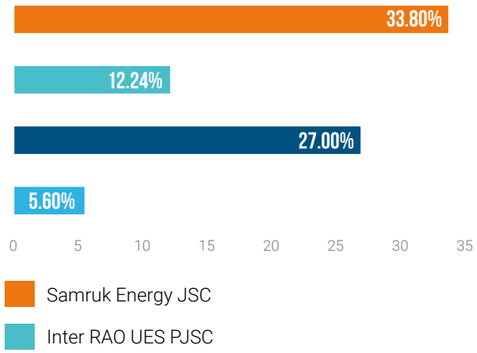
- EBITDA margin;
- Debt/EBITDA
- Ratio of the share of borrowed funds (Debt / Equity)
- Return on invested capital (ROIC);

The following peer companies were used for benchmarking:

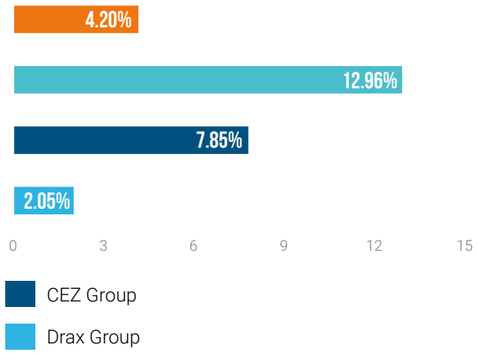
- Inter RAO UES PJSC (Russia);
- CEZ Group (Czech Republic);
- Drax Group (Great Britain).

Benchmarking results:

EBITDA margin for 2019



Return on Invested Capital (ROIC) for 2019



Source: Bloomberg

At present, in comparison with foreign peer companies, "Samruk-Energy" is inferior in respect to certain indicators.

Financial stability indicators shows that Samruk-Energy fully uses available financial leverage.

At the same time, according to **EBITDA margin**, Samruk-Energy outcompetes its peers. This indicator demonstrates a high profitability of sales. As regards **ROIC** (return on long-term invested capital), Samruk-Energy is at the same level with its European peers. At the same time, in terms of this indicator, Samruk-Energy is significantly inferior to the Russian holding company, characteristics of business of which are identical due to the similarity of economic conditions of operations, which indicates about the need to increase the efficiency (profitability, return) of investments.

At the same time, it should be noted that "Samruk-Energy" JSC is an agent of the state policy in power sector. In this connection, as well as with a high degree of depreciation of energy sector, socially significant investment projects (aimed at reliability and continuity of the energy system of the Republic of Kazakhstan) have been implemented since 2009, which led to a significant increase in invested capital and respectively decreased the company's return on investments indicator.

An additional factor that influences on the return on investment indicators is the low level of the electricity tariff in the Republic of Kazakhstan in comparison with the countries of peer companies.

Country	Tariff/kWh	In US cents	Average exchange rate of USD over 2019
Kazakhstan	14,17 tenge	14,17 tenge/kWh	
Russia	3,89 rouble	23,02 tenge/kWh	5,92 tenge/rouble
Czech Republic	0,13 euro	55,72 tenge/kWh	428,63 tenge/euro
Great Britain	0,18 euro	77,15 tenge/kWh	

Investment activity

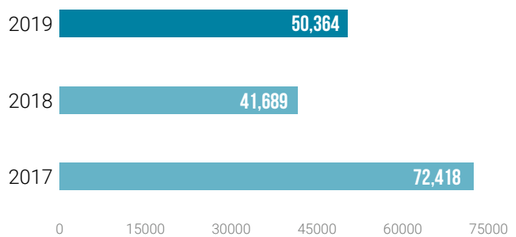
"Samruk-Energy" JSC is faced with the task of creating a balanced development model, which includes the optimal ratio of energy supply to domestic consumers and exports, combining high economic efficiency, innovative improvement and advanced standards of social responsibility.

The implementation of "Samruk-Energy" JSC investment projects is a tool to achieve the strategic mission of the company and allows meeting the growing demand of Kazakhstan in electricity and capacity, increasing the export potential of the Republic.

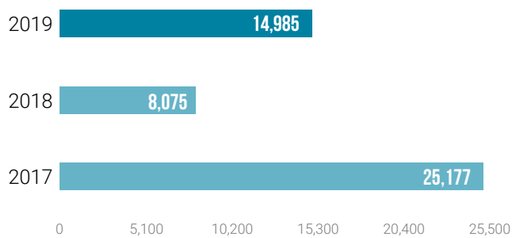
The investment program of "Samruk-Energy" JSC is aimed at modernization, reconstruction and construction of generating facilities, as well as ensuring reliable energy supply and meeting the needs for electricity and heat.

Investment expenses, *mln.tenge*

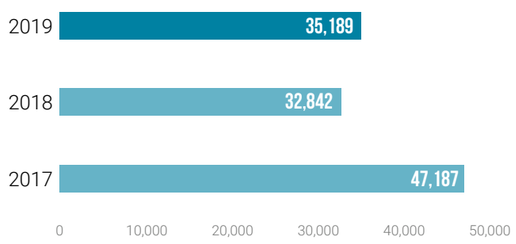
Disbursement of investments



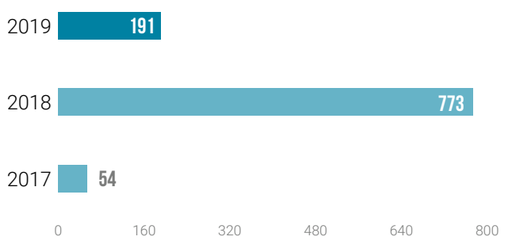
Investment projects



Asset Maintenance



Other investments



The investment program is financed using own funds, debt financing of international financial organizations and second-tier banks of the Republic of Kazakhstan.

mln. tenge

	2017 actual	2018 actual	2019 actual
TOTAL	**72,418**	**41,689**	**50,364**
Own	57,622	35,342	42,836
Borrowed	8,196	6,211	7,528
State budget funds	6,601	137	–

Analysis of capital expenditures according to the spending method, *mln. tenge*

No.	SA	2017 actual	2018 actual	2019 actual	2020 forecast	2021 forecast
	TOTAL	**72,418**	**41,689**	**50,364**	**103,564**	**108,395**
1	**Investment projects, including**	**25,177**	**8,075**	**14,985**	**60,409**	**66,318**
1.1	Rehabilitation of Power unit #1 with installation of new electrostatic precipitator	3,962	2,156	4,953	3,602	19,440
1.2	Expansion and reconstruction of Ekibastuz SDPP-2 with installation of power unit No. 3	- 36	–	–	8,395	16,511
1.3	Transition to cyclical-and-continuous method of mining, transportation, blending and loading of coal at the "Bogatyr" open-pit coal mine	30	113	553	25,233	12,476
1.4	Transfer of load of 220/110/10kV SS # 131A "Gorny Gigant" to 220-kV 110 / 10kV Substation # 160A "Yermensay" via 110kV grids followed by dismantling of SS-131A	5,079	137	–	–	–
1.5	Retrofit of Shardarinsk HPP	11,263	4,482	5,059	1,902	–
1.6	Construction of 416 kW SPP in Kapshagay c.	7	6	160	–	–
1.7	Construction of a 60 MW wind power plant in Shelek corridor including a possible increase in capacity to 300 MW	–	–	3,917	5,814	–
1.8	Construction of 50MW Ereymentau WPP	100	21	200	12,758	12,760
1.9	Construction of a gas turbine power plant based on Pridorozhnoe gas field	140	758	91	313	334
1.10	Other projects	4,632	402	51	2,394	4,797
2	**Maintenance of production assets**	**46,042**	**31,534**	**34,596**	**41,876**	**41,692**
2.1	"Bogatyr Komir" LLP (50%)	3,508	4,242	7,658	7,673	12,617
2.2	"Ekibastuz SDPP-2 Plant" JSC (50%)	224	439	798	1,219	1,585
2.3	"Ekibastuz SDPP-1" LLP	17,919	10,238	7,711	13,734	9,374
2.4	"Alatau Zharyk Company" JSC	13,580	11,501	11,124	10,743	9,794
2.5	"Almaty Power Plants" JSC	4,848	4,411	6,991	6,753	7,559
2.6	"Aktobe CHP" JSC	374	–	–	–	–
2.7	"Moynak HPP" JSC	304	369	168	1,090	650
2.8	"Shardarinsk HPP" JSC	120	251	38	4	10
2.9	"Mangistau DPGC" JSC	2,251	–	–	–	–
2.10	"AlmatyEnergoSbyt" LLP	35	75	75	96	82
2.11	"Samruk-Green Energy" LLP	0,3	1	0,5	11	7
2.12	"First Wind Power Plant" LLP	3	8	33	552	15
2.13	"East Kazakhstan Regional Energy Company" JSC	2,861	–	–	–	–
2.14	"Shygysenergotrade" LLP	16	–	–	–	–
3	**Maintenance of administration assets**	**1,145**	**1,307**	**592**	**1,171**	**287**
4	**Others**	**54**	**773**	**191**	**108**	**98**

Effective portfolio management of investment projects provides the Company with the opportunity to create long-term value of the portfolio of investment projects of the Company, as well as implement projects in a competitive and rapidly changing environment.

The portfolio approach to investments is focused on careful selection, prioritization, even distribution and exit from investments in accordance with the strategic goals and priorities of the Company and market opportunities. Efficient portfolio management allows the Company to achieve tangible results, ensures coordination of activities with the Development Strategy, and also integrates it with investment decisions and operational characteristics, making it possible to improve planning and allocation of resources and analyze investment decisions.

In 2019, the portfolio of completed projects was supplemented by the investment project "Construction of 416 kW SPP in Kapshagay city". A 416 kW solar power plant in the city of Kapshagay was built using photovoltaic modules based on Kazakhstan silicon produced by "Astana Solar" LLP. Implementation of the project will allow producing an additional 0.5 mln. kWh of electricity per year. The aim of the project is the production of electricity using renewable energy sources to provide electricity to the energy-deficient southern zone of Kazakhstan.

The portfolio of ongoing investment projects of the Company includes 8 investment projects, the implementation of which will enable to make up the deficit of Kazakhstan in electricity and capacity by increasing the installed capacity of available plants and establishing new facilities.

The project "Transition to cyclical-and-continuous method (CCM) for extraction, transportation, blending and loading of coal at "Bogatyr" open-pit coal mine of Ekibastuz coal field"

CCM project assumes a step-by-step transition of the «Bogatyr» mine to the cyclical-continous technology of coal mining and delivery by conveyor transport to the blending warehouses with subsequent loading on the surface loading units. The need to implement the project is related to the achievement of the depth of mine works, at which the use of rail transport becomes less effective.

The implementation of the project will allow increasing the production capacity of "Bogatyr" open-pit coal mine from 32 to 40 mln. tons of coal per year, improving labor productivity, reducing cost of coal mining and upgrading premises and equipment relating to transportation and unloading of coal.

In 2019, the project entered an active implementation phase, which involves construction and installation works and equipment manufacturing.

The project «Development of the gas field «Pridorozhnoe»

The project provides for the construction of infrastructure for the production of natural gas for sale to domestic and foreign markets. The project also plans to build a high-pressure gas pipeline from Pridorozhnoe field to the Beineu – Bozoy – Shymkent gas pipeline.

The aim of the project is to cover the deficit of gas demand in the South Kazakhstan region of the Republic of Kazakhstan, with the maximum annual gas production amounting to about 290 mln. m3.

Project «Modernization of Shardarinsk HPP»

The Project involves the replacement of obsolete and worn-out equipment to improve performance and operational safety of the plant, which will increase the installed capacity to 126 MW and produce an additional 57 mln. kWh of electricity per year.

Hydraulic units No. 1 and No. 2 were commissioned in 2019. Pre-commissioning works at hydraulic units No. 3 and No. 4 are underway. The project is planned to be completed by 2020.

The project «Expansion and reconstruction of Ekibastuz SDPP-2 with the installation of power unit No. 3»

The project provides for construction of power unit No. 3 with an increase in the installed capacity of the plant by 636 MW and the production of an additional 4,8 bln. kWh of electricity per year. The project was suspended until December 2019.

Reconstruction and expansion of the capacity of Ekibastuz SDPP-1 (Restoration of power unit No. 1).

The project involves the restoration of 500 MW power unit No. 1 at Ekibastuz SDPP-1 to meet the growing demand for electricity.

According to the results of 2019, construction and installation works are underway. The total volume of work performed on the project is 44%.

The project «Construction of a 50 MW wind power plant near Ereymentau city"

The project provides for construction of a 50 MW wind power plant near Ereymentau city. The implementation of the project will allow for the additional production of more than 215 mln. kWh (increase in design capacity from 180 mln. per year) of electricity per year. The project aims to use renewable energy sources to reduce the level of use of hydrocarbon energy carriers in production of electricity. The design and estimate documentation was developed in 2019. The project is planned to be completed in 2021.

The project «Construction of a 60 WPP in Shelek corridor with possible increase in capacity up to 300 MW»

The project involves the construction of a 60 MW wind power plant in Shelek corridor of Almaty region, Enbekshikazakh district including a possible expansion of capacity up to 300 MW. The project implementation will allow producing additional 225.7 mln. kWh of electricity per year.The project aims to use renewable energy sources to reduce the level of use of hydrocarbon energy resources in electricity production.

The project's design and estimate documentation was developed in 2019, construction and installation works are underway.

Project «Almaty CHP-2 of "APP « JSC

The main goal of the project on retrofit of existing Almaty CHP-2 is to reduce the negative impact on the environment of Almaty city and the Almaty region. The project's pre-feasibility study was developed in 2018, where several implementation options were considered.

Development of the feasibility study of the project began in 2019.

Projects scheduled for completion in 2020

Activities under "Modernization of Shardarinsk HPP" project will be completed in 2020. The project will increase the installed capacity of the plant from 100 MW to 126 MW.

In addition, it is planned to complete the project «Construction of a 60 MW wind farm in Shelek corridor including a possible increase in capacity up to 300 MW».

Projects scheduled for completion in 2021

It is planned to complete the construction of a 50 MW wind power plant in the vicinity of Ereymentau city. The implementation of the project will allow producing. The commisssioning of the wind power plant is scheduled for the second half of 2021 over 215 mln. kWh of electricity per year additionally.

Also, it is planned to complete the project «Construction of a 60 WPP in Shelek corridor with possible increase in capacity up to 300 MW.»

The Company regularly monitors key investment indicators to make timely decisions by the management of the Company.

In order to promptly take corrective actions, investment projects are subject to constant monitoring by the Company's Board of Directors.

Procurement management

The Government of the Republic of Kazakhstan initiated "Economy of Simple Things" program in 2019. This program aims to ensure the purchase of goods of light, furniture, food industries, as well as goods from building materials sector only from domestic producers.

In this area, in 2019, "Samruk-Energy" JSC group of companies provided the Holding company's producers with orders to the amount of 324,9 mln. tenge.

At the same time, "Samruk-Kazyna" JSC has actively implemented a program for import substitution of goods since 2019. The purpose of this program is to ensure the purchase of goods subject to import substitution, with a suspensive condition of delivery, from suppliers who have launched the production of such goods in the territory of the Republic of Kazakhstan.

The results of the work in 2019 are 6 concluded off-take contracts with domestic producers for total amount of 534.5 mln. tenge.

In general, in 2019, "Samruk-Energy" JSC group of companies purchased goods from the Holding's producers for a total amount of 9,1 bln. tenge.

Moreover, in 2019, the total amount of contracts concluded with organizations of persons with disabilities across "Samruk-Energy" JSC group of companies amounted to 481 mln.tenge.

Category Procurement Management

In 2019, Transfomation program project "Category Procurement Management" was transferred from the project to the operational management of the Company. The process of category procurement management involves the improvement of procurement activities.

The concept of category procurement management is based on a decrease in the total cost of ownership indicator, i.e. cutting costs of GWS categories throughout the entire life cycle of its ownership, and not just direct purchase costs, which allows choosing the most up-to-date and cost-effective solutions. Changes that are being introduced in procurement activities contribute to lowering of procurement prices, improving the quality of purchased goods, works and services, and promote domestic producers.

Procurement category strategies were developed in 2019 for the categories "Pumps and Compressors", "Industrial Chemistry". These strategies include conclusions made using the analysis of past expenses, future needs, suppliers market and business requirements.

As of today, the procurement category group developed 10 procurement category strategies during the introduction and the actual economic effect is 2.5 bln. tenge.

The goal to cover at least 80% of the cost of annual purchases of managed categories by category management by 2022 has been set. To achieve this goal, it is necessary to develop and approve 27 procurement category strategies. The potential benefit from the implementation of procurement category strategies is estimated at 4.4 bln. tenge.

It is worth noting that "Samruk-Energy" JSC's procurement category strategy "Oils and Lubricants" won in the nomination "The best project on upgrading business processes in procurement" in the competition on category procurement management among specialists of the Fund's companies, which was held by the Competence Center of "Samruk-Kazyna" SWF" JSC for the management of procurement categories represented by the authorized body "Samruk-Kazyna Contract" LLP.

In compliance with principles of procurement, the Company continues focusing on monitoring the share of local content in the procurement of goods, works and services.

Information on the share of local content, mln. tenge*

	2017 actual		2018 actual		2019 actual	
	The total amount of actually supplied GWS	% LC	The total amount of actually supplied GWS	% LC	The total amount of actually supplied GWS	% LC
Goods	122,783.06	75%	152,323.77	83%	157,260.5	79%
Works, services	149,580.49	80%	153,420.06	88%	153,998.2	81%

*Note: "Samruk-Kazyna Contract" LLP data

JAS ENERGY

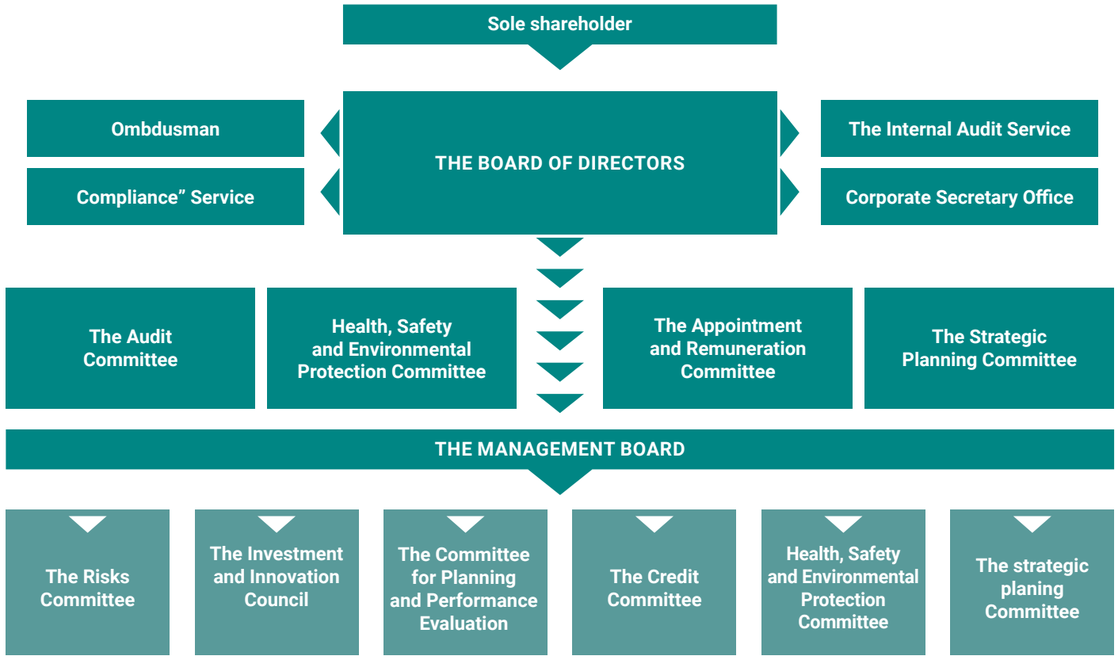
"Energy is romance! Despite the cold and hot weather and snowstorm, people climb power transmission line supports, go on a shift every day. Let's say Moynak Hydropower Plant, which is 300 km from Almaty, you come there – it has a village of 85 houses, and people who devote all their time for this hydropower plant reside there.... Night and day shifts, downtown or the edge of the universe, electricity is needed everywhere... "

ANUAR ABITAYEV
Head of Production programs monitoring, RES and Distribution Department at "Samruk-Energy" JSC

CORPORATE GOVERNANCE

Energy of Victory

Corporate governance structure



The company sees effective corporate governance more than just compliance with requirements.
Effective corporate governance system is an important factor in sustainable development business and successful implementation of the Strategy ***(https:// www.samruk-energy.kz/en/shareholders-and-investors/annual-reports-on-the-results-of-the-company-s-activities).***

A particular attention in 2019 was given to improving internal corporate procedures and practices in accordance with the activities described in the Corporate Governance Improvement Plan approved by the Board of Directors for 2019–2021.

The Board of Directors Committess with a new team were established. The new initiatives in the field of sustainable development were developed, and processes that contributes to the improvement of the Board of Directors and the Executive Body's performance were introduced.

The Regulations on the Ombudsman, the Regulations on the Management Board, the Information Policy, the Code of Conduct, the Investment Policy and the Policy for the Settlement of Corporate Conflicts and Conflicts of Interest and other internal regulatory documents were revised for improving the system of relations between governing bodies, investors, shareholders and stakeholders.

The Corporate Governance Improvement Plan for 2019 provided for 131 activities, 125 activities were implemented, 3 were implemented partially, 2 – were not executed and 1 activity is in progress.

The implementation of the Plan at the end of 2019 amounted to 95.4%.

Compliance with the principles and provisions of the Corporate Governance Code

The principles of the corporate governance system were set out in the Corporate Governance Code of the Company: strict observance of the rights of shareholders, investors and other stakeholders; a clear separation of powers and responsibilities between the bodies of the Company and divisions; increasing the effectiveness of the Board of Directors and its Committees, as well as the Executive Body and its Committees; prevention of corporate conflicts and conflicts of interests; improvement of management reporting system; the pursuit to apply the best global corporate governance practices; compliance with the principles of information transparency for shareholders and other interested parties; ensuring the availability of effective planning processes, internal control, compliance and internal audit, risk management and sustainable development management; information transparency for shareholders and other interested parties.

Based on the results of the self-assessment, the Company as a whole ensures compliance with the basic principles and provisions of the Code.

The exception was 4 items, which were assigned the status "Partially Complies"

1. Item 2 of Chapter 1 "Government as the shareholder of the Fund" according to which Companies should seek to simplify the structure of their assets and their legal forms to the maximum. So, the Company's group includes subsidiaries of various corporate forms: both joint-stock companies and limited liability partnerships.

Due to the implementation of activities on the sale of the Company for the purpose of the execution of the RK Government decree dated December 30, 2015 No. 1141 "On some matters of privatization for 2016–2020," as well as the decisions made by the State Commission for the Modernization of the Economy of the Republic of Kazakhstan and authorized bodies of the Fund in this connection, on issues relating to the approval of the method and strategy of sale of the Company, including the perimeter of companies included in the group of the Company as part of the privatization of the Company as a whole, at present, the structure of assets and corporate forms of subsidiaries and affiliates of the Company is not expected to change. Assets will be sold within the Company's privatization as a whole.

2. Item 5 of Chapter 5 "Effectiveness of the Board of Directors and Executive Body", according to which it is necessary to provide a variety of experience, personal characteristics and gender composition in the composition of the Board of Directors. The current composition of the Board of Directors provides diversity in the necessary skills, knowledge and competencies, but does not provide gender diversity.
The Company decided to take into account this factor at re-election of the Board of Directors members.

3. Item 12 of Chapter 5 "Effectiveness of the Board of Directors and Executive Body", in order to perform their job responsibilities, the Board of Directors shall have access to the complete, relevant and timely information. At this, there were cases of adding additional items to the agenda during meetings of the Board of Directors during 2019, which, respectively, violated the deadline for submission of materials, and members of the Board of Directors noted cases of poor preparation of materials submitted to the Board of Directors.
In this connection, the Regulations on the Board of Directors was updated, which includes the guidelines for preparation of materials to be reviewed. The Corporate secretary has scheduled the internal training on the improvement of the quality of preparing materials submitted to the Board of Directors for the Company's employees. The Company plans to update its Regulations on the management of subsidiaries and affiliates, which will also involve the section of ensuring timely and quality preparation of materials.

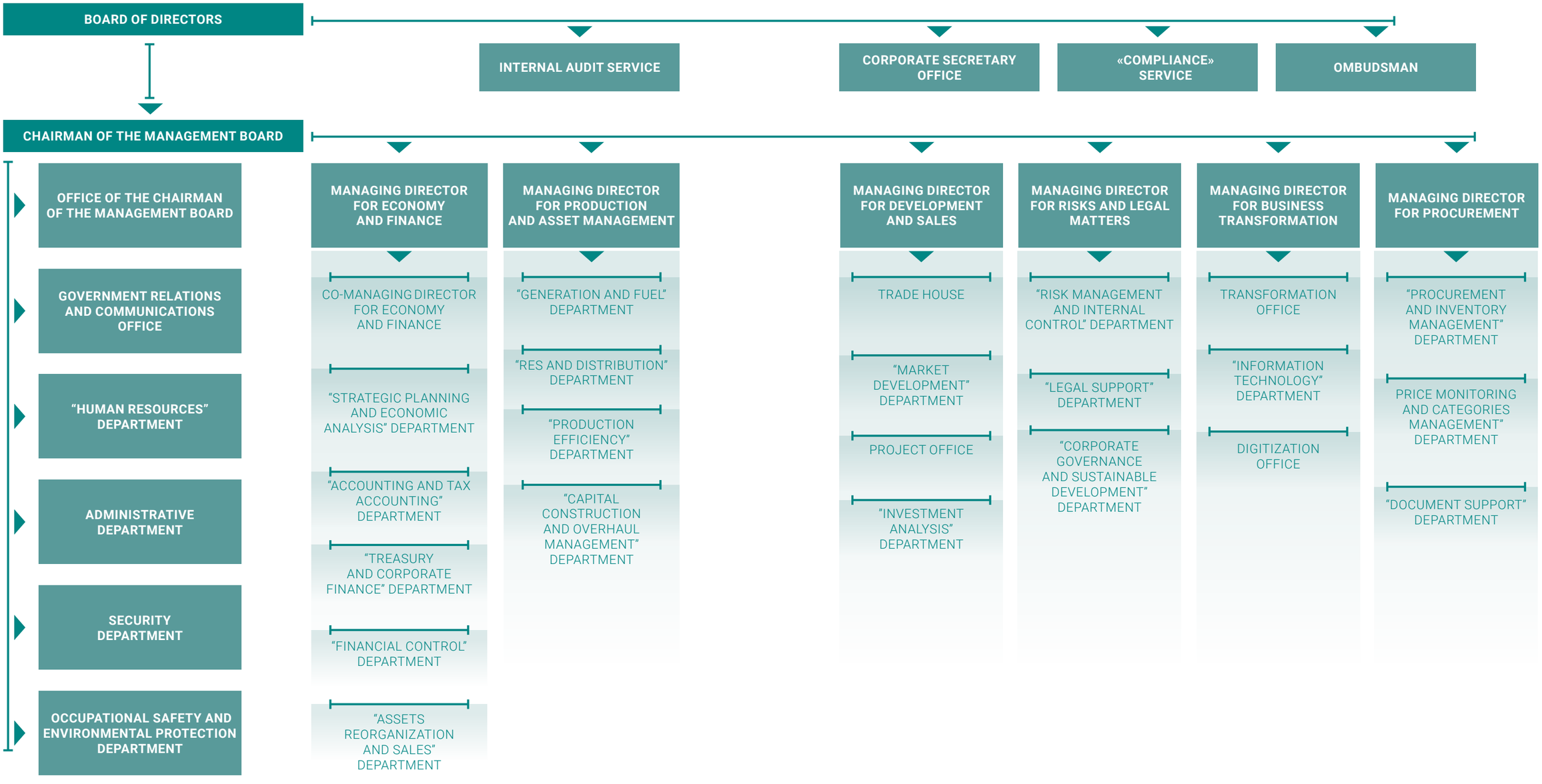
4. Item 18 of Chapter 5 "Effectiveness of the Board of Directors and Executive Body", according to which the Board of Directors elects the head and members of the executive body, sets the terms of office, the amount of wages, conditions of their labor remuneration, and terminates the powers of the head and members of the executive body. In accordance with the Charter and internal documents of the Company, the Board of Directors determines the size, term of office of the Management Board, elects members of the Management Board, early terminates their powers (except for the Chairman of the Management Board). The matter of appointment (election) and early termination of powers of the Company's Chairman of the Management Board pertains to the competence of the Sole Shareholder. The Corporate Governance Code was approved by the decision of "Samruk-Kazyna" JSC Management Board, and accordingly it is regulated by the Sole Shareholder.

The Company's performance has a positive dynamics compared to the previous reporting period. In 2018, the Company partially complied with six items. Two of which were implemented in 2019. This is the introduction of the induction program for newly elected members of the Board of Directors and the professional development program for each member of the Board of Directors, as well as bringing the Regulations on the Ombudsman in accordance with the recommendations of the Code as regards the quarterly submission of the Progress Report to members of the Board of Directors and the Audit Committee of the Board of Directors.

The Company intends to continue improving corporate governance in order to increase business efficiency and strengthen its competitive advantages. First, the Company plans to focus on the implementation of those practices and procedures that are more in demand and the applicability of which is confirmed by best practice.

Please follow the link ***https://www.samruk-energy.kz/en/shareholders-and-investors/other-reporting#corporate-governance-code-report*** *to learn more about the report on compliance of corporate governance practices with principles and provisions of the Corporate Governance Code.*

Organizational structure of “Samruk-Energy” JSC



The following changes were made in 2019:

- Functional reporting of Occupational Health and Safety, Environmental protection department was transferred to the Chairman of the Management Board.
- The position of Co-Managing Director for Economy and Finance was introduced.

The Shareholder

"Sovereign Wealth Fund "Samruk-Kazyna" JSC holds 100% of "Samruk-Energy" JSC shares ***(www.sk.kz)***.

The sole shareholder is the supreme management body of the Company.

The rights of the Sole Shareholder are exercised in accordance with the Law of the Republic of Kazakhstan "On joint-stock companies" and the Charter of "Samruk-Energy" JSC. The rights of shareholders include, but are not limited to the timely receipt of information sufficient to make a decision, in the manner established by the legislation of the Republic of Kazakhstan, the charter and internal documents of the Company in the field of information disclosure; voting on matters within its competence; participation in determining the size, term of office of the Board of Directors, election of its members and termination of their powers, as well as setting the amount and terms of payment of remuneration; receipt of dividends based on a clear and transparent dividend policy. The sole shareholder manages the Company by establishing priorities and strategic areas of business.

The Company, in turn, seeks to ensure protection and respect for the rights and legitimate interests of the Sole Shareholder.

The relationship with the Sole Shareholder is based on honesty, accountability, responsibility and transparency.

In 2019, the Sole Shareholder considered matters related to the approval of the annual financial statements of the Company and the distribution of net profit based on the results of the 2018 fiscal year, the early termination of powers of some members of the Board of Directors, the election of new members and the Chairman of the Board of Directors.

The company, in turn, is committed to complying with interests of the Sole Shareholder by ensuring the growth of long-term value and sustainable development of activities and building the most open and effective dialogue of the Sole Shareholder.

The Company timely and regularly provides the Sole Shareholder with information on its activities to the extent necessary for making an informed decision through meetings, reporting and posting the necessary information on the Company's website, KASE and the financial reporting depository.

Equity holding structure

As of December 31, 2019, the number of authorized securities remained at the same level and amounted to 8,602,187 pieces.

The number of placed securities is 5,601,687 pieces.

The carrying value of one ordinary share as at December 31, 2019 amounted to 85,925 tenge.

Earnings per share was 1,220 tenge.

Dividend policy

The Company has the Dividend Policy of "Samruk-Kazyna" JSC in relation to subsidiaries, approved by the resolution of "Samruk-Kazyna" JSC Management Board dated October 2, 2012 (Minutes No. 39/12).

Dividend policy is based on the following principles:

1) meeting interests of the Sole Shareholder;

2) increase in the long-term value of the Company;

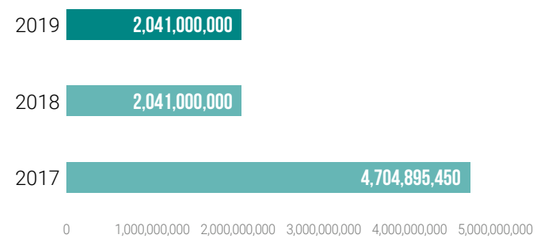
3) ensuring the financial stability of the Company;

4) providing financing of the Company's activities, including financing of investment projects implemented by using the Company's funds;

5) transparency of the mechanism for determining the amount of dividends;

6) the balance of short-term (income generation) and long-term (development of the Company) interests of the Sole Shareholder.

Amount of dividend paid



Dividends are calculated based on the amount of a company's net income reported in the annual audited financial statements of the Company, compiled in accordance with the requirements of the legislation of the Republic of Kazakhstan on accounting and financial reporting and international financial reporting standards.

Dividends on ordinary shares in the amount of 2,041,000,000 according to the 2018 results were paid in 2019 by the decision of the Sole Shareholder.

The Board of Directors

The Board of Directors in its activities is guided by the Law of the Republic of Kazakhstan «On joint-stock companies», the Charter of the Company, the Corporate Governance Code, the Regulation on the Board of Directors, decisions of the Sole Shareholder, as well as the legislation of the Republic of Kazakhstan and internal documents of the Company.
In line with its competence, the Company's Board of Directors institutes the the development policy, priority areas for the development of the Company, including in the areas of corporate governance, risk management and internal control, sustainable development, implementation of large investment projects, key performance indicators of the Company's development plan and other strategic projects within the competence of the Board of Directors.
The Company seeks to balance and ensure diversity in experience and personal characteristics in the Board of Directors. In 2019, the number of members of the Board of Directors was 6 people, including 3 Independent Directors.

The composition of the Company's Board of Directors as of 31.12.2019:
The Chairman of the BOD – Karymsakov Beibit Yerkinbaevich
Chairman of the Management Board – Zhulamanov Bakitzhan Tolevzhanovich
The representative of the Sole Shareholder – Zhamiev Almat Kunzholovich
Independent Director – Luca Sutera
Independent Director – Andreas Stoerzel
Independent Director – Joaquin Galindo Velez

The main data of the members of the Board of Directors are given below. You may learn more about the full resume of each member of the Board of Directors on the website: ***www.samruk-energy.kz.***

Karymsakov Beibit Yerkinbayevich

Chairman of "Samruk-Energy" JSC Board of Directors, representative of the Shareholder's interests

Citizenship: the Republic of Kazakhstan
Date of birth: October 31, 1962
Date of first election: January 28, 2019

Does not hold the company's as well as suppliers and competitors' shares

Managing Director for Economy and Finance of "Samruk-Kazyna" JSC, member of "Samruk-Kazyna" JSC Management Board.

Expert in strategic and corporate governance, economics, finance, law and audit.

Zhulamanov Bakitzhan Tolevzhanovich

Member of the Board of Directors, Chairman of the Board

Citizenship: the Republic of Kazakhstan
Date of birth: December 23, 1966
Date of first election: September 24, 2018

Does not hold the company's as well as suppliers and competitors' shares.

Expert in strategic planning, corporate governance, finance, market development and law.

Zhamiev Almat Kunzholovich

Member of the Board of Directors, representative of the Shareholder's interests

Citizenship: the Republic of Kazakhstan
Date of birth: November 8, 1979
Date of first election: June 24, 2019

Does not hold the company's as well as suppliers and competitors' shares

Director of Legal Support and Methodology Department of "Samruk-Kazyna" JSC.

An expert in law, mergers and acquisitions, strategy, corporate governance.

Luca Sutera

Senior Independent Director of "Samruk-Energy" JSC Board of Directors

Nationality: Citizen of the Italian Republic
Year of birth: July 7, 1971.
Date of first election: May 8, 2012

Date of election as Senior Independent Director from October 14, 2016.

Does not hold the company's as well as suppliers and competitors' shares.

Chairman of the Audit Committee, Chairman of the Appointment and Remuneration Committee, member of the Strategic Planning Committee; member of Health, Safety and Environmental Protection Committee.

Expert in the following areas:
- Accounting, finance, audit, (holds the CPA certificate)
- Risk management and internal control
- Corporate strategy
- Mergers and acquisitions
- Investment valuation
- HR and organization
- Performance management
- Corporate Governance (Chartered Director of IoD UK)
- Commissioning, integration and turnover of companies.
- Large-scale transformation programs of the company.

Combining jobs and membership in the BOD:
- Vice President for Finance of the Group, Member of the Executive Board at Nebras Power (Qatar Sovereign International Power Company)
- From April 2011, he is a member of the Russian Association of Independent Directors.
- From April 2014, he is a member of the British Institute of Directors (IoD)
- From August 2015, Group Chief Financial Officer at Nebras Power, Qatar Sovereign International Power Company.

Andreas Stoerzel

Independent Director of "Samruk-Energy" JSC Board of Directors

Citizenship: citizen of Germany
Year of birth: October 12, 1963
Date of first election: July 05, 2016

Does not hold the company's as well as suppliers and competitors' shares

Chairman of the Strategic Planning Committee, member of the Appointment and Remuneration Committee, member of the Audit Committee; member of Health, Safety and Environmental Protection Committee.

Expert in corporate management, strategy, finance, investments, mergers and acquisitions.

Combining jobs and membership in the BOD:
- From 2020 – Executive Director, Energy Sector, NEOM, Saudi Arabia
- From 2019 to 2020 – Vice-President Business Development, Grid &Infrastructure, Innogy SE, Germany.
- From 2014 to 2018 – Chief Executive Officer, Innogy Middle East & North Africa, Dubai, UAE.

Joaquin Galindo Velez

Independent Director of "Samruk-Energy" JSC Board of Directors

Citizenship: citizen of Spain
Year of birth: August 27, 1957
Date of first election: January 28, 2017

Does not hold the company's as well as suppliers and competitors' shares

Chairman of the Health, Safety and Environmental Protection Committee; Member of the Appointment and Remuneration Committee; member of the Audit Committee; member of the Strategic Planning Committee.

Expert in the following areas:
- Conventional and Renewable generation
- O&M and Energy Management
- Engineering and Construction
- Strategic Development
- Business Development
- Environmental Matters
- Integration and Transformation Programs

Combining jobs and membership in the BoD:
- Member of the Spanish Institute of Directors (ICA)
- Member of the Spanish Energy Club

The Board of Directors members adhere to the following principles in performance of their job responsibilities:
1) to act within own powers – members of the Board of Directors make decisions and act within their powers set out in the Charter;
2) to devote sufficient time to participate in meetings of the Board of Directors, its committees and prepare for them;
3) contribute to the growth of long-term value and sustainable development of the Company;
4) maintain high standards of business ethics and set an example for employees of the Company;
5) not tolerate conflict of interest;
6) to act with due rationality and diligence

Director's job requires profound practical knowledge, experience and constant improvement.

For these purposes, "Samruk-Energy" JSC evaluates the performance of the Board of Directors as one of the key processes in corporate governance. An independent consultant PWC evaluated the performance of the Board of Directors in 2018. The results of the assessment were taken into account when preparing work plans for the Board of Directors and committees of the Board of Directors.

The procedure for the nomination and selection of candidates for members of the Board of Directors, its committees, as well as the criteria used in the nomination and selection, taking into account diversity factors, including but not limited to gender diversity, independence, professional qualifications and experience, are carried out in accordance with the Regulation on the Board of Directors, the Law of the Republic of Kazakhstan «On Joint Stock Companies», and the Corporate Governance Code. These documents govern the procedures used by the Board of Directors to prevent conflicts of interest and manage them.

The presence of the Independent Director in the current team is a guarantee of making unbiased decisions that best complies with the Company's interests.

The main criterion for the selection of Independent Directors is to have sufficient professionalism and autonomy to make unbiased decisions free from the influence of any parties. Independent directors actively share their experience and knowledge to apply the best international practice standards at the Company. Independent directors chairs the committees of the board of directors and bring in international management experience.

Independent Directors actively participate in the discussion of issues where a conflict of interests is possible (preparation of financial and non-financial statements, conclusion of interested-party transactions, nomination of candidates to the executive body, establishment of remuneration to members of the executive body). "Samruk-Energy" JSC Independent Director monitors the possible loss of independence status.

According to the 2019 results, the Independent Directors of the Company fully met the independence criteria.

Activities of the Board of Directors

Number of the Board of Directors' meetings	2017	2018	2019
Number of meetings	11	14	13
In person	9	11	9
In absentia	3	3	4
Attendance of the Board of Directors' members	**2017**	**2018**	**2019**
General statistics	100%	95%	100%
Karymsakov Beibit Yerkinbayevich	–	–	100%
Luca Sutera	100%	100%	100%
Andreas Stoerzel	100%	100%	100%
Joaquin Galindo Velez	100%	100%	100%
Zhamiev Almat Kunzholovich	–	–	100%
Zhulamanov Bakitzhan Tolevzhanovich	–	100%	100%

Main items considered

The Board of Directors of the Company considered 199 items in 2019.

The Board of Directors reviewed the Reports every quarter: on risk management, corporate governance improvement, implementation of activities on meeting Shareholder expectations, use of investments in investment projects, implementing the development plan, activities on the Company's entry into the green risk zone, the work in the field of occupational health, work-related injuries and the environment.

The Company's Information Policy in the new edition, the materiality matrix of the Company, Regulations on the Ombudsman in the new edition were approved, the Report on the implementation of the Sustainable Development Initiative Plan for 2018 was reviewed, the Code of Conduct was amended, and the Corrective Action Plan for improving the financial performance of the Company for 2019–2020 was approved, the Regulations on the Management Board of the Company in the new edition, the Guide to Sustainable Development of the Company in the new edition and the Plan of Initiatives in the field of sustainable development of the Company, the new version of the Investment Policy of the Company were approved, the Committees under the Board of Directors in the new composition were established, amendments and additions were made to the Regulations on the Strategic Planning Committee of the Company's Board of Directors, the new version of the Compliance Risk Management Policy of the Company, as well as changes and additions to the Policy for settlement of conflicts and conflicts of interests of the Company were approved.

The procedure for informing the Board of Directors about critical financial and non-financial issues is regulated in accordance with applicable law and internal regulatory documents. There were no cases according to the results of 2019.

Remuneration of the Board of Directors members

The representatives of the Sole shareholder and the Chairman of the Board as members of the Board of Directors receive no remuneration.

Independent directors receive annual fixed remuneration for performing their duties as members of the Company's Board of Directors and additional remuneration for participating in each meeting in present of the Committee of the Company's Board of Directors as members of the committee.

An independent director is reimbursed for expenses (transport, accommodation and daily allowance) related to departure for meetings of the Board of Directors and committees of the Board of Directors held outside the place of his/ her permanent residency.

In total, remuneration to independent directors for 2019 amounted to $ 240,000 or 91,339,605 tenge.

The Board of Directors Committees

The Board delegates the authority to its committees for performance of certain tasks on its behalf, so that it can perform its roles effectively and pay due attention in order to explore the matters in depth and make sound decisions.

The Company has Committees under the Board of Directors: the Audit Committee, the Appointment and Remuneration Committee and the Strategic Planning Committee, as well as Health, Safety and Environmental Protection Committee.

Report on performance results of the Board of Directors' Committees

Number of items considered at meetings broken down by committees	2017	2018	2019
The Audit Committee	48	81	59
The Remuneration and Appointment Committee	40	68	43
The Strategic Planning Committee	30	28	45
Health, Safety and Environmental Protection Committee	–	8	9

The Audit Committee

The purpose of the Committee's activities is to assist the Board of Directors for in-depth study of issues to establish an effective system of control over the financial and economic activities of the Company, including the completeness and reliability of financial statements, control over the reliability and efficiency of internal control and risk management systems, and the execution of documents in areas of corporate governance, monitoring the independence of external and internal audit, as well as the process of ensuring compliance with the legislation of the Republic of Kazakhstan.

The Committee's composition:

- Luca Sutera – Senior Independent Director, Chairman of the Committee;
- Andreas Stoerzel – Independent Director, member of the Committee;
- Joaquin Galindo – Independent Director, member of the Committee.

Number of the audit committee meetings	2017	2018	2019
Number of meetings	9	12	8
In presentia	9	12	8
In absentia	0	0	0
Attendance of the Committee members with voting rights	100%	100%	100%
The number of items considered in 2019		59	

Main items considered

Meetings with the executive body regarding the preparation of financial statements, meetings with external auditors were held. The issues of the work of the Internal Audit Service, Compliance Service and Risk Management and Internal Control Department were considered.

The Appointment and Remuneration Committee

The Appointment and Remuneration Committee is an advisory body of the Board of Directors, which provides recommendations on the issues of appointment and remuneration of members of the Board of Directors, the Management Board, the Corporate Secretary, and other employees in accordance with the internal regulatory documents of the Company.

The Committee's composition:

- Luca Sutera – Independent Director, Chairman of the Committee
- Andreas Stoerzel – Independent Director, member of the Committee
- Joaquin Galindo – Independent Director, member of the Committee.

Number of meetings of the Appointment and Remuneration Committee	2017	2018	2019
Number of meetings	9	12	8
In presentia	9	12	8
In absentia	0	0	0
Attendance of the Committee members with voting rights	100%	100%	100%
The number of items considered in 2019		43	

Main items considered

During the reporting period the Board of Directors was provided with recommendations on the election of members of the Supervisory Boards / Boards of Directors across "Samruk-Energy" JSC group. Recommendations on the appointment of the Managing Director for Economy and Finance of the Company, on the approval of the job description and evaluation (Job description) of the Managing Director for Risks and Legal Affairs, and on the approval of the new version of the organizational structure of the Company were given.

Actual values of key performance indicators of the Management Board members, Head of the Internal Audit Service and Corporate Secretary of "Samruk-Energy" JSC, motivational KPI of members of the Management Board, Head of Internal Audit Service and Corporate Secretary of "Samruk-Energy" JSC were considered.

The Strategic Planning Committee

The aim of the Committee is to provide recommendations to the Council on the development of priority areas of activity (development), strategic goals (development strategies) of the Company, the implementation of a sustainable development management system, including labor and environmental issues, the implementation of investment projects, the Company's master plan and events that contribute to improving the efficiency of the Company in the long term.

The Committee's composition:

- Andreas Stoerzel – Independent Director, Chairman of the Committee;
- Luca Sutera – Independent Director, member of the Committee;
- Joaquin Galindo – Independent Director, member of the Committee.

Number of the Strategic Planning Committee meetings	2017	2018	2019
Number of meetings	7	10	8
In present	7	10	8
In absentia	0	0	0
Attendance of the Committee members with voting rights	100%	100%	100%
Number of items considered in 2019		45	

Main items considered

Consideration of the following Reports every quarter: on the implementation of the Action Plan for improving corporate governance and the introduction of the Corporate Governance Code of "Samruk-Energy" JSC, on the consideration of the Action Plan for the implementation of the Company's Development Strategy for 2018–2028, on the implementation of the Action Plan for meeting the expectations of the shareholder of the Company for 2019–2023, on the implementation of the Development Plan of the Company, on the use of investments in the investment projects of the Company, on the implementation of the Company's Transformation Program.

Consideration of the Materiality Matrix and the Company's Stakeholders Map, on submitting the item on the approval of Regulations on the Board of Directors of the Company in the edition to the Sole shareholder, on preliminary review of the Company's Digitization Strategy for 2019–2023.

Health, Safety and Environment Protection Committee

The purpose of the Committee is to ensure the improvement of the Company's performance through preparation of recommendations for the Board of Directors, assessment, analysis and effective work on health, safety and environmental protection issues.

- Joaquin Galindo – Independent Director, Chairman of the Committee;
- Luca Sutera – Senior Independent director, a member of the Committee;
- Andreas Stoerzel – Independent Director, member of the Committee.

The Committee's composition:

Number of Health, Safety and Environmental Protection Committee meetings:	2018	2019
Number of meetings	4	4
In present	4	4
In absentia	0	0
Attendance of the Committee members with voting rights	100%	100%
The number of items considered in 2019	9	

Main items considered

Consideration of the Report on the work performed in the field of occupational health and safety and workplace injuries on a quarterly basis.

Environmental policy of the Company in the new edition was considered, as well as the extension of the Moratorium on taking disciplinary actions against those responsible for incidents in the field of occupational health and safety until 2022, the concept of a unified automated system for recording incidents and violations were also considered.

The executive body

The joint executive body in the form of the Management Board plays an essential role in ensuring prompt and effective addressing daily tasks of the Company and implementation of the development strategy and the plan.

The Management Board provides:
1) carrying out activities in accordance with provisions of the legislation of the Republic of Kazakhstan, the Charter and internal documents of the Company, decisions of the Sole Shareholder and the Board of Directors;
2) appropriate risk management and internal control;
3) allocation of resources for the implementation of decisions of the Sole Shareholder and the Board of Directors;
4) ensuring the safety of the Company employees;
5) creating an atmosphere of interest and loyalty of the Company's employees, development of corporate culture.

Composition of the Management Board as of December 31, 2019:
1. Zhulamanov B.T.
2. Tutebayev S.S.
3. Uldanov M.A.
4. Amirkhanov M.A.
5. Ryskulov A.K.

Powers of M. Amirkhanov, the member of the Management Board were terminated by the resolution of the Board of Directors dated February 28, 2020 (Minutes No. 02/20).

Karagaishiev R.K. was elected as a member of "Samruk-Energy" JSC Management Board by the resolution of the Board of Directors dated March 27, 2020 (Minutes No. 03/20).

Zhulamanov Bakitzhan Tolevzhanovich

Chairman of the Management Board
Born on December 23, 1966
Citizenship: the Republic of Kazakhstan

He is the chief executive officer of the Company and carries out general management of the executive body of the Company.

You may learn more about his resume on the website:
www.samruk-energy.kz

Tutebayev Serik Suinbekovich

Managing Director for Production and Asset Management, member of the Management Board
Born on May 27, 1958
Citizenship: the Republic of Kazakhstan

Coordinates and supervises activities across "Samruk-Energy" JSC group of companies: production and technical production and technical activities control over the targeted use of state budget funds by the company's group and the quality and timeliness of the performance of scope of work; addresses issues related to the Program for retrofit and technical re-equipment of existing production and capital construction; control over the timely conduct of the tariff campaign at "Samruk-Energy" JSC group of companies, controls the activities in the field of energy conservation and energy efficiency.

You may learn more about his resume on the website:
www.samruk-energy.kz

Karagaishiev Ruslan Kazbekovich

Managing Director for Risks and Legal Affairs, member of the Management Board
Born on April 30, 1978
Citizenship: the Republic of Kazakhstan

Supervises legal matters of the Company, risk management and internal control systems, processes of the development and implementation of business continuity plans of "Samruk-Energy" JSC group of companies, sustainable development management plans, controls over the implementation of stakeholder engagement plan, corporate governance system improvement at the Company and its subsidiaries.

You may learn more about his resume on the website:
www.samruk-energy.kz

Uldanov Marat Askarovich

Managing Director for Development and Sales, member of the Management Board
Born on December 29, 1980
Citizenship: the Republic of Kazakhstan

Coordinates the development and implementation of the Sales Strategy, the Company's work related to international cooperation, activities aimed at promoting the export potential of the Company; ensures trade operations for the development of new electricity and coal markets and the inclusion of the Company's investment projects in the State program of industrial and innovative development, republican and regional industrialization maps.

You may learn more about his resume on the website:
www.samruk-energy.kz

Ryskulov Aidar Kairatovich

Managing Director for Economy and Finance, member of the Management Board
Born on September 20, 1981
Citizenship: the Republic of Kazakhstan

He coordinates the activities of the Company in the field of financial and economic matters, asset and liability management, raising finance, accounting and reporting issues, monitors the implementation of the Development Strategy.

You may learn more about his resume on the website:
www.samruk-energy.kz

The Management Board performance

The number of meetings of "Samruk-Energy" JSC Management Board	2017	2018	2019
Number of meetings	19	30	39
The share of in-person meetings	100%	100%	100%
Attendance	100%	84%	99.74%
The number of items considered	344	381	418

Main items considered

The following was done across "Samruk-Energy" JSC group of companies: internal regulatory documents, the total number of employees, organizational structure, staff list and wages schemes of employees of the group of companies were approved, the issues related to investment projects, changing the amount of the authorized capital and amending the charters of subsidiaries and affiliates were considered, as well as determining the voting position by representatives of "Samruk-Energy" JSC in subsidiaries and affiliates, etc.

The following internal documents were approved in "Samruk-Energy" JSC: the Regulations on interaction of "Samruk-Energy" JSC on external social projects, the Change Management Standard of "Samruk-Energy" JSC, the Rules for ensuring the continuity of operations of "Samruk-Energy" JSC, the Rules for organizing and implementing internal control" at Samruk-Energy JSC, the Regulation on "Samruk-Energy" JSC youth policy.

Remuneration of the Management Board members

In order to determine the conditions and procedure for performance evaluation and payment of remuneration to the Company's Management Board, the "Rules for performance evaluation and remuneration of executive and management employees of "Samruk-Energy" JSC are in effect.

The rules are based on the following principles:
1) interrelation of remuneration with the implementation of tasks that meet the interests of the Company and its shareholders,
2) simplicity and transparency of principles of setting the remuneration amount
3) the dependence of the amount of remuneration on the Company and employees performance

The Board of Directors evaluates the head and members of the executive body. The main evaluation criterion is the achievement of KPI set.

The remuneration of key executive staff of "Samruk-Energy" JSC in 2019 amounted to 139,906 thous. tenge, which includes wages, remuneration based on the results of the year and other short-term payments.

The Management Board Committees

There are advisory bodies under the Management Board, which were established to provide the Management Board members with expert assistance in tackling the most complex issues.

All committees report to the Company's Management Board and act within the competence provided to them by the Management Board in accordance with the provisions on these bodies.

The Risks Committee

The Committee assists the Board in making decisions in the field of risk management and internal control of the Company, prepares recommendations and proposals for organizing and maintaining an effective risk management system, internal control, ensuring their functioning and development of processes designed to identify, measure, monitor and control risks. The Committee is also preparing proposals for monitoring the coordination of work in these areas.

The composition of the Committee:
Chairman of the Committee – Managing Director for Risks and Legal Affairs;
Deputy Chairman of the Committee – Managing Director for Business Transformation;

Members of the Committee – Managing Director for Development and Sales; Managing Director for Economy and Finance; Managing Director for Production and Asset Management; Managing Director for Procurement; Financial controller; Director of "Risk management and internal control" department; Head of the Internal Audit Service (without voting right); Head of Compliance Service (without voting right).

2019 Report	
Number of meeting	4
Number of items considered	9
Attendance, %	84
Key items	On preliminary approval of the Risk Management Report with description and analysis of key risks, as well as information on the implementation of plans and programs for mitigating "Samruk-Energy" JSC risks for the 4th quarter of 2018, 1st, 2nd and 3rd quarters of 2019; On preliminary approval of the consolidated Risk Register, the consolidated Risk Map, Key Risks Management Action Plan with determination of tolerance levels for each key risk, Passports of "Samruk-Energy" JSC Key Risk Indicators for 2020. On preliminary approval of risk appetite of "Samruk-Energy" JSC for 2020; On preliminary approval of the Plan for the implementation of the project "The introduction of the new risk management model" at "Samruk-Energy" JSC and subsidiaries (within the perimeter) in 2020–2021; On consideration of the Report on execution of the Department's Work Plan for 2019. On consideration of the Report on execution of 2019 Work Plan of the Committee for Risks and approval of the Work Plan of the Risk Committee for 2020 On approval of the Department's Work Plan for 2020.

The Committee for Planning and Performance Evaluation

The main goal of the Committee is to increase the efficiency of "Samruk-Energy" JSC group of companies, including optimizing the structure of their assets and costs, monitoring monitoring of KPI, reviewing development plans and financial statements.

The committee's composition:
Chairman of the Committee – Managing Director for Economy and Finance

Deputy Chairman of the Committee – Managing Director for Development and Sales
Committee members – Managing Director For Production and Asset management, Managing Director for Business Transformation, Managing Director for Procurement, Managing Director for Risks and Legal Affairs, Head of "Financial Control" Department, Head of "Price Monitoring and Category management" Department, the auditor of the internal audit service (without voting right).

2019 report	
Number of meetings	27
Number of items considered	53
Attendance, %	100%
Key items	On business and financial performance of "Samruk-Energy" JSC On consideration of the draft Development plan of "Samruk-Energy" JSC group of companies for 2020–2024 On consideration of the draft Annual budget of "Samruk-Energy" JSC group of companies On approval of adjustments of the approved budget

The Investment and Innovation Council

The Council helps to increase the efficiency of investment and innovation activities at "Samruk-Energy" JSC group of companies. For these purposes, the Council develops recommendations on issues of investment and innovation activities, the implementation of certain stages of the pre-investment and investment project, development of recommendations on the transition to the next stage; acquisition and alienation of shares (equity stake) of other corporate entities by the Company inlcuding as part of exercising a priority right for acquisition of an entity's mineral rights, establishement of legal entities as part of investment projects.

The Committee's composition:

Chairman of the Committee – Chairman of the Management Board;

Deputy Chairman of the Committee – Managing Director for Production and Asset Management;

The Committee members – Managing Director for Development and Sales; Managing Director for Economy and Finance; Managing Director for Business Transformation; Managing Director for Procurement; Managing Director for Risk and Legal Affairs; Head of the Project Office; Head of the Company's Compliance Service – as an expert without the right to vote; chief auditor of the Internal Audit Service of the Company – as an expert without voting right.

Independent expert – The Representative of "Almaty University of Power Engineering and Telecommunications" NJSC.

2019 report	
Number of meetings	10
Number of items considered	19
Attendance, %	90
Key items	On approval of pre-investment stage of the project "Modernization of Almaty CHP-2 with minimization of environmental impact". On the progress of the project "Reconstruction of 10-6 / 0.4 kV power grids in Almaty region with the replacement of wires with SSIW".

The Credit Committee

The main objectives of the Credit Committee are to ensure timely and high-quality decision-making on issues related to attracting, providing credits (loans), financial assistance and issuing guarantees, minimizing risks, with developing recommendations for the effective management of the structure of assets and liabilities of "Samruk-Energy" JSC.

The Committee's composition:

Chairman of the Committee – Managing Director for Economy and Finance;

Committee members – Managing Director for Production and Asset Management, Managing Director for Risk and Legal Affairs; Director of Treasury and Corporate Finance Department; Director of Risk Management and Internal Control Department; Head of the Project Office; Financial Controller;

Independent expert – Head of Compliance Service.

2019 report	
Number of meetings	10
Number of items considered	16
Attendance, %	89%
Key items	On the conclusion of a supplementary agreement on amendments and additions No. 7 to the Facility agreement concluded between "Shardarinsk HPP" JSC, European Bank for Reconstruction and Development and "Samruk-Energy" JSC dated August 24, 2012 On approval of the conclusion of supplementary agreement No. 25 to the Bank loan agreement concluded between "Moynak HPP" JSC and "Kazakhstan Development Bank" JSC On approval of the conclusion of the Loan Agreement between "Ereymentau Wind Power" LLP and the Eurasian Development Bank

The Personnel and Remuneration Committee

The purpose of the Committee is to develop recommendations on human resources management, analyze, evaluate and monitor the compliance of the personnel policy of the Company's Strategy, review the list of positions of executive staff and managers of subsidiaries and affiliates of the Company, the appointment or approval of which is carried out by the Management Board.

The Committee's composition:
Chairman of the Committee – Managing Director for Business Transformation;

Deputy Chairman of the Committee – Head of the Office of the Chairman of the Management Board;

Committee members – Managing Director for Production and Asset Management; Managing Director for Risk and Legal Affairs; Advisor to the Chairman of the Board (for security matters); Director of Human Resources Department.

2019 Report	
Number of meetings	13
Number of items considered	44
Attendance, %	100%
Key items	Development of recommendations on human resource management (provision of recommendations on the approval of staff lists / wages schemes, personnel policy) Appointment or approval of appointments made by the Management Board

It was decided to terminate the activities of Personnel and Remuneration Committee under the Management Board by the decision of the Management Board of "Samruk-Energy" JSC dated November 25, 2019 (Minutes No. 35).

Health, Safety and Environment Protection Committee

The aim of the Committee is to ensure effective work in resolving issues related to labor protection and environmental protection of the Company by providing appropriate recommendations on the assessment of the effectiveness of policies and systems for identifying and managing risks related to labor and environmental protection; analysis of all fatal accidents, as well as serious incidents, and the measures taken as a result of such cases and incidents; studying the results of any independent audits in the field of labor and environmental protection, reviewing any strategies and action plans developed in response to the questions raised and, if possible, providing the Board of Directors with recommendations regarding these issues.

The Committee's composition:

Chairman of the Committee – Chairman of the Management Board;

Deputy Chairman of the Committee – Director of "Occupational health and safety and environmental protection" department.

Committee members – Director of "Generation and Fuel" Department; Director of "RES and Distribution" department; director of "Corporate governance and sustainable development" department, senior manager of "Occupational health and safety and environmental protection" department.

2019 Report	
Number of meetings	4
Number of items considered	9
Attendance, %	95
Key items	Consideration of the 2020 Action Plan for the management of OHS and environmental protection issues at "Samruk-Energy" JSC group of companies Consideration of the enterprise standard "System of individual responsibility of employees in OHS area" Consideration of the need to develop, implement and continuously improve an effective appraisal and motivation system, with the aim of encouraging, motivating and encouraging executives and employees to achieve success in OHS field

Compliance

Hot line
Phone: 8 800 080 30 30
Website: nysana.cscc.kz
e-mail: nysana@cscc.kz

The Company maintains high standards of business ethics, transparency and legality that are independent of business customs and other business conditions in a particular jurisdiction.

The primary target of compliance direction is to carry out activities on identifying, evaluating, preventing and monitoring compliance risks arising in the course of business of "Samruk-Energy" JSC, creating zero tolerance for corruption and bribery, building an anti-corruption culture and preventing compliance risks.

The Service aims at creating a compliance system at the Company that meets international standards and best practices in this field. Particular attention is paid to meeting the requirements of the Republic of Kazakhstan law "On fight against corruption", recommendations of international organizations and international studies of the compliance function. As part of the development of a compliance system, the Company strives to maintain a high level of efficiency of its work, to be business-oriented and proactive in risk management, taking into account the large-scale strategic goals of the Company.

The Republic of Kazakhstan law "On fight against corruption" is the main regulatory document, documents that regulate anti-corruption requirements within the Company are the Code of Business Conduct, Compliance Risk Management Policy, the Anti-Fraud and Corruption Policy, Corporate Conflicts and Conflict of Interest Resolution Policy, Initiative Information Sharing Policy. The Company in these documents publicly declares zero tolerance for corruption in any form and occurrence both in everyday life and during implementation of strategic projects.

Moreover, the procedures for ensuring the implementation of anti-corruption legislation are set out in the regulations of the Company's business processes.

Adhering to recommendations of the regulatory authorities and exploring the best international practices in the development of corporate anti-corruption compliance programs, the Company has created its approach based on the following principles:

- Active involvement and support by management in the development of a compliance system. The Company's Board of Directors of the Company regularly reviews reports on the implementation of the compliance program.
- The Company regularly conducts activities aimed at identifying and further updating of corruption risks.
- The Company develops and implements anti-corruption procedures that meet the level and nature of the identified risks, improves and updates internal policies and procedures.
- The Company implements and supports a training program for employees on principles and standards of compliance with anti-corruption legislation.
- The Company monitors the effectiveness of the implemented procedures to prevent corruption.
- To reduce the risk of the Company's involvement in corruption activities, the Company developed Due Diligence procedures for both counterparties and individuals.
- Corruption risks in business processes are regularly evaluated at the Company.
- A single "hot line" operates at the Company, which is serviced by an independent company Deloitte.

In 2019, the Company implemented the following projects and initiatives as part of the development of the compliance program and strengthening the compliance culture:

- Corruption risks in the processes were evaluated across "Samruk-Energy" JSC group of companies.

The results of analysis of corruption risks across "Samruk-Energy" JSC group of companies state that the below listed are most exposed to corruption risks:

- In line with requirements of the Compliance Risk Management Policy of the Company – a zero tolerance level is set for any corruption scheme and in each case it is necessary to take actions to mitigate consequences and eliminate the causes of compliance risk
- Development of Action Plan for mitigating established compliance risks by responsible structural units of the Company and SA

Risk assessment was conducted in 2019 at all key subsidiaries and affiliates (coverage of 76%) and 100% of divisions of "Samruk-Energy" JSC.

- The Board of Directors of the Company approved the Action Plan for mitigating corruption risks based on the results of the assessment; its execution is monitored on an ongoing basis.
- Activities on training of "Samruk-Energy" JSC and subsidiaries and affiliates' employees were carried out in order to create an anti-corruption culture among employees in the field of anti-corruption compliance.
- In particular, all newly hired employees completed adaptation trainings on anti-corruption compliance issues, and employees of the Head Office and SA attended trainings in person (according to the training plan).
- Training was conducted for PR employees of subsidiaries and affiliates of the Company on the topic: "Compliance ideology in the life of the company and its employees"
- Corporate media has been actively covering compliance issues. News, articles, event announcements, training video clips, information about possible risks and corruption scandals (in world and in the country), as well as the need to report violations of the law and internal regulations to the "hot line" were posted on the internal corporate portal during the year.
- Anticorruption provisions stipulating obligations of suppliers to comply with the laws of the Republic of Kazakhstan on anti-corruption issues, as well as obligations on inform the customer of any alleged and actual violations of anti-corruption laws and procurement rules through the hotline were included in standard agreements across "Samruk-Energy" JSC group.
- The Rules for competitive selection for vacant positions of "Samruk-Energy JSC" were amended in part of verification of candidates for affiliation with officials of "Samruk-Energy" JSC group of companies.
- In order to implement the project "Diagnostics and development of corporate culture", corporate values of the Company were developed. The Board of Directors approved amendments to the Code of Business Conduct.
- In order to create an anti-corruption culture and promote zero tolerance for any form of bribery and corruption, the Compliance Service of the Company, together with the Anti-Corruption Agency of the Republic of Kazakhstan, organized a training on "Combating corruption at quasi-public sector entities" for employees of the Head Office and SA at the head office.

Addressing conflicts of interest

In order to create an effective system for managing conflicts of interest, as well as determining requirements for the behavior of employees, compliance with which allows reducing risks of decision-making under the influence of personal interests and relationships at the Company, a number of measures are being taken.

In 2018, the Company's Board of Directors approved the new version of the Policy for the Settlement of Corporate Conflicts and Conflicts of Interest of "Samruk-Energy" JSC. Employees who hold executive positions are required to set an example of law-abiding and ethical behavior and actively support the implementation of the Policy. At employment, all employees learn about this document, fill out and sign Personnel department form. In 2019, the Board of Directors introduced changes to the Policy and supplemented the procedure for declaring a conflict of interest. Employees including department heads and those who are on higher positions annually fill out a Conflict of Interest form.

Preliminarily, in order to eliminate corruption risks and conflicts of interest during the recruitment process, candidates for vacant positions at the Company and senior positions at subsidiaries and affiliates (according to the list of positions) are checked for affiliation with officials of "Samruk-Kazyna" JSC group of companies.

The Compliance Service regularly monitors situations for conflicts of interest; 1 potential conflict of interest was settled in 2019.

Fight against corruption

In 2019, 100% of "Samruk-Energy" JSC employees learned about the Anti-Fraud and Corruption Policy. The results of testing the knowledge of the Policy demonstrated 100% coverage of employees' knowledge in this area.

Number of employees broken down by region and category of employees who have been informed and completed training on anti-corruption politics and methods

Name	Training actual (person)			Training actual (%)
	Total	Administrative and management staff	Production staff	
"Samruk-Energy" JSC	186	186	0	100%
"AlmatyEnergoSbyt" LLP	517	55	462	100%
"Moynak HPP" JSC	125	23	102	100%
"Shardarinsk HPP" JSC	131	20	111	100%
"Ekibastuz SDPP-2" JSC	1,413	88	1,325	100%
"Alatau Zharyk Company" JSC	3,819	150	3,669	100%
"APP" JSC	3,085	197	2,888	100%
"Ekibastuz SDPP-1" LLP	1,370	126	1,244	100%
"Bogatyr Komir" LLP	6,412	445	5,967	100%
"Samruk-Green Energy" LLP	19	8	11	100%
"FWPP" LLP	22	11	11	100%
"Energia Semirechya" LLP	17	17	0	100%
"Bukhtarminsk HPP" JSC	10	10	0	100%
"Mangyshlak Munay" LLP	22	13	9	100%
"Ereymentau Wind Power" LLP	15	15	0	100%
"Kazhydrotechenergo" LLP	1	1	0	100%
"Energy Solutions Center"	30	17	13	100%
TOTAL	**17,197**	**1,385**	**15,812**	**100%**

The Company employees are checked for knowledge of requirements of anti-corruption law and internal documents every year.

In 2019, the Company's Compliance Service conducted 6 internal investigations and 10 compliance checks on appeals received through the "hot line" and violations of requirements of internal regulatory documents and legislation at subsidiaries and affiliates. Following the inspections and investigations, activities on mitigating risks were carried out at subsidiaries and affiliates, as well as disciplinary actions were taken against executives and responsible officers.

According to the 2019 results, 1 case of a corruption offense in the actions of the head of a subsidiary was reported across the group of companies, the results of an internal investigation were sent to the authorized body.

To eliminate corruption risks and for the purpose of transparency of the process and compliance with the principles of meritocracy, the Compliance Service is actively involved in the work of competitive commissions held by the Company and in the approval of senior employees of subsidiaries and affiliates.

The Compliance Service monitored changes in the anti-corruption legislation on a regular basis in order to respond in a timely manner and to comply with requirements.

In order to prevent corruption, the Company prepared the Action Plan for fighting corruption at "Samruk-Energy" JSC. According to the 2019 results, all planned activities were completed within the established deadlines and in full.

Ombudsman

Email address: o.bekbas@samruk-energy.kz
Telephone: +7 (7172) 69-23-56

Acting as an independent party, the Ombudsman contributes to the establishment and development of corporate values and culture, high standards of professional conduct and business ethics at the Company.

Independence, neutrality, impartiality and confidentiality are basic principles of Ombudsman's work.

Independence:
1) The Ombudsman is independent in his activities and independent in his judgments;
2) The Ombudsman cannot hold another position in the supervised Company that could compromise his independence and neutrality;

Neutrality and impartiality:
1) The Ombudsman is neutral, impartial and independent when considering an appeal;
2) The Ombudsman does not stand with any of the conflicting (arguing) parties;
3) The Ombudsman has no personal financial and (or) non-financial interests resulting from consideration of appeals.

Confidentiality:
1) The Ombudsman does not disclose information if he does not receive permission from the person who submitted an appeal, and even in this case, he independently makes the final decision at his own discretion. The only exceptions are cases that are stipulated by current legislation of the Republic of Kazakhstan.
2) The Ombudsman does not disclose the names of those who addressed an appeal to him at giving recommendations on key trends, identified issues, existing policies and established practice.

The Ombudsman tasks include:
1) assistance in the settlement of labor disputes, conflicts, problematic social and labor issues as well as helping employees in observing the principles of business ethics;

2) assistance in increasing the rating and image of the supervised Company, early prevention and settlement of disputes and conflicts;

3) ensuring informal communications between officials and employees of the Company, timely identification of problems and ways for improvement based on such communication, preparation of propositions for improving policies and procedures of the Company;

4) The Ombudsman submits problematic issues that are systemic in nature and require taking appropriate decisions (comprehensive actions), effective propositions for their resolution to the Board of Directors/Supervisory Board, and if available, to the Audit Committee under the Board of Directors/Supervisory Board.

The Ombudsman acts on the basis of Regulations on the Ombudsman approved by the Board of Directors. In 2019, the Regulations were updated with regard to the inclusion of rules governing the interaction of "Samruk-Energy" JSC Ombudsman with Ombudsmen of subsidiaries and affiliates.

In 2019 the Ombudsman received 20 different verbal appeals. All persons who submitted an appeal received comprehensive answers. Appeals and responses to them do not have a negative impact on the social stability of the Company as a whole. No case of appeal to the Ombudsman regarding discrimination on racial, religious, national, gender, age, political and other grounds was recorded. Respectively, in this regard, there were no written appeals.

The Internal Audit

The mission of the Internal Audit Service is to provide the Board of Directors and the Management Board with necessary assistance in performing their responsibilities to achieve the strategic goals of the Company by conducting unbiased internal audits based on a risk-based approach, providing recommendations and sharing knowledge.

The main goal of the IAS is to provide the Board of Directors with independent, objective audit guarantees and advice aimed at improving risk management, internal control and corporate governance systems.

44 scheduled and 6 unscheduled audit assignments were completed in 2019 across "Samruk-Energy" JSC group of companies, including:
- audit of processes for managing energy efficiency, energy resources, operation and maintenance of production equipment;
- evaluation of Transformation program implementation;
- audit of occupational health and safety and environmental protection processes;
- assessment of the degree of achievement of executives' KPI;
- IT audit and evaluation of human resource management processes.

Based on the results of audits conducted, 295 recommendations were given, including:
- 76 A category (recommendations with immediate priority);
- 102 B category (urgent priority);
- 117 C category (medium priority).

All audit assignments are performed in accordance with the International Professional Standards for Internal Auditing. Based on the audits results, recommendations aimed at improving internal controls, risk management and corporate governance systems were given.

The priority of audit assignments is determined by selecting the processes with the highest available risks, as well as requests for conducting audits made by the Sole Shareholder and "Samruk-Energy" JSC Board of Directors are considered as a priority.

As part of improving the corporate governance system at the Company, in 2019, the IAS continued to implement and update action plans for:
- the strategic plan of the IAS;
- the program for ensuring and improving quality;
- a three-year plan for the transition to audits based on testing of internal controls.

Moreover, the IAS regularly monitors the implementation of recommendations of external auditors and evaluates the effectiveness of activities on the implementation of IAS recommendations.

As part of the organization and coordination of interaction with the 2nd line of defense of the Company, the IAS held meetings with structural units of the 2nd line of defense (Compliance Service, Departments: Risk Management and Internal Control, Legal Support, Security and Financial Control) every quarter. Following the meetings:
- it was agreed to exchange and discuss information requiring attention during inspections conducted by the 2nd and 3rd lines of defense.
- It was decided to organize an internal electronic platform for the regular exchange of information and the subsequent storage of this information.

According to the 2019 results, the Company's Board of Directors evaluated the IAS's performance as "EFFECTIVE".

Quality Management System Audit

A corporate management system was introduced at the Company in accordance with the international standard ISO 9001:2015.

"Samruk-Energy" JSC effectively manages its business while focusing on the needs and expectations of stakeholders.

To confirm the compliance of the corporate governance system with the requirements of the international standard ISO 9001:2015, the Company annually passes an external audit. It is carried out in accordance with TÜV NORD CERT procedures with confirmation of the scope of the management system in part of services for corporate energy asset management.

In November 2019, the Company successfully passed the 2nd External Supervisory Audit. Following the conducted Audit, positive aspects of development and performance of the corporate governance system were noted and recommendations for its further improvement were provided.

The external audit

The Company's audit organization is selected in line with the Rules for selection of an audit organization for "Samruk-Kazyna" JSC and organizations, more than fifty percent of voting shares (equity stake) of which are directly or indirectly held by "Samruk-Kazyna" JSC under ownership or trust management, approved by the decision of «Samruk-Kazyna» JSC Management Board.

Quality and cost of services are the main criteria determining the choice of an audit organization.

PricewaterhouseCoopers («PwC») network of firms has been the external auditor of the Company since 2012.

PwC holds a leading position in the provision of audit and consulting services: the audit clients include almost half of the companies entered into the FTSE 100 and Fortune 500 ratings.

In order to improve the quality of services delivered to fuel and energy industry enterprises in different countries of the world, the Global Energy Center was established as part of the firm, which comprises more than 4,000 professionals.

*Visit **www.pwc.kz** for more information.*

According to "Samruk-Energy" JSC Policy in engaging audit organizations services, the Company applies the principle of rotation of a partner bearing the main responsibility for the audit, every five years. Baurzhan Burkhanbekov was the partner who had main responsibility for the audit in 2016–2017. Dana Inkarbekova has been the partner since 2018.

Furthermore, there are special conditions at "Samruk-Energy" JSC group of companies relating to hiring of audit organizations' employees. Therefore, in the event of expected appointment of an audit organization employee who participated in the compulsory audit of the Company as an employee of an audit organization within two years preceding the date of his/her appointment (election) to the Company as a member of the Management Board, managing director and chief auditor, it is required to obtain a preliminary approval of the Audit Committee in order to avoid conflicts of interest.

PwC conducts audit at the following SA of the Company:

Company	Type of activity	Period
Samruk-Energy, JSC	Holding company	2008–2010, 2012 – to present
Ekibastuz SDPP-1 named after Bulat Nurzhanov, LLP	Production of electricity and heat using coal at the power plant located in Pavlodar region	2013 – to present
Alatau Zharyk Company, JSC	Services for power distribution, technical distribution of power in Almaty city and Almaty region	2010, 2012 – to present
Almaty Power Plants, JSC	Electricity and heat production for Almaty and Almaty region	2010, 2012 – to present
AlmatyEnergoSbyt, LLP	Sale of electricity in Almaty city and Almaty region	2008–2010, 2012 – to present
Shardarinsk HPP	Electricity production	2007
Moynak HPP, JSC	Construction of hydropower plant on Charyn river	2008, 2012 – to present
Ekibastuz SDPP-2 Plant, JSC	Electricity and heat production on the basis of coal extracted from "Bogatyr" and "Severny" open-pit coal mines	2005–2009
Bogatyr Komir, LLP	Extraction of coal by open pit mining at Bogatyr and Severny coal mines	2008–2010, 2012 – to present

Fees paid to the audit firm for auditing services for 2019

Services	"Samruk-Energy" JSC	"Samruk-Energy" JSC group of companies
Audit for 2019	32,250,000 tenge	134,353,400 tenge

PWC delivered services not associated with an audit of financial statements during 2019:

Services	"Samruk-Energy" JSC group of companies
Seminars «Impact of IFRS 15 and 16 on tax accounting», «IFRS update and the impact of changes in IFRS 16, 15, 9 on tax accounting», «ACCA DipIFR»	2,351,440 tenge
Consulting services on the application of IFRS 16 "Leases"	2,500,000 tenge

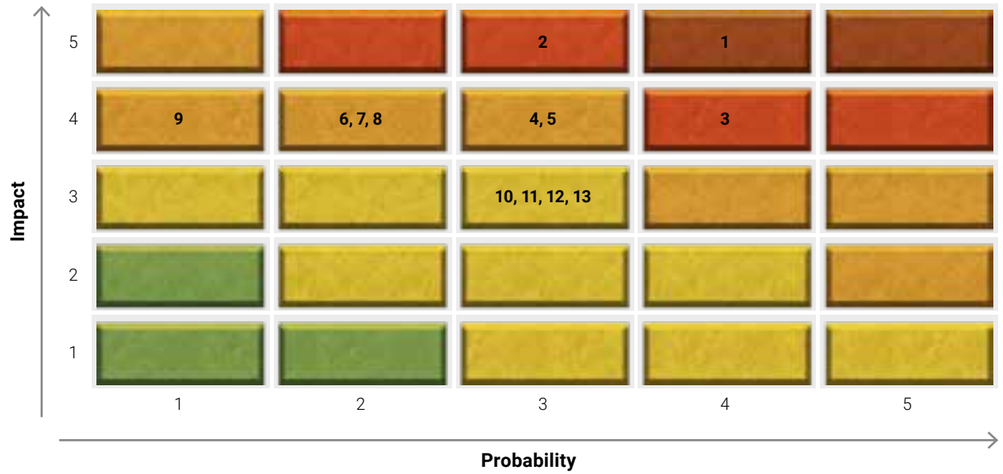
Risk management and internal control

The corporate risk management and internal control system effectively operate and are improved on an ongoing basis at the Company.

On an annual basis, the Board of Directors determines the risk appetite of the Company in quantitative and qualitative terms, risk appetite includes restrictions on principal activities and its compliance is monitored every quarter.

The Risk Register, Risk Map, KRI (key risk indicators) and the Action Plan for the Management of Key Risks are prepared every year and submitted to the Company's Board of Directors for approval.

After considering the results of performed work on identification of "Samruk-Energy" JSC group's risks for 2019, 34 risks involved in operations of "Samruk-Energy" JSC group of companies were identified and assessed, KPI thresholds were updated, risk owners updated risk factors and activities aimed at their mitigation. Risks from the Risk Register were re-evaluated in connection with some of the events that occurred in 2018 (second-tier banks' rating downgrade, the weakening of the national currency), potential factors that could affect the Company's operations (reduced electricity consumption, increased wear of energy producing facilities), as well as on the basis of reports of "Samruk-Energy" JSC Internal Audit Service inspections. According to the results of this revaluation, 13 risks were included into the key zone of the Risk Map for 2019:



№	Risk code	Risk description
1	**10-S-SE**	Risks of ongoing, future investment projects and investment programs of “Samruk-Energy” JSC group of companies
2	**8-S-SE**	The risk of workplace accidents that caused damage to the health and life of “life of employees in the process of performing their official duties”
3	**18-F-SE**	Credit risk
4	**56-S- SE**	The risk associated with implementation of Transformation Program
5	**57-F-SE**	The risk of violation of covenants of external creditors and listing requirements
6	**3-S-SE**	The risk of human resources of the Company's group
7	**55-S-SE**	The risk of failure to fulfill the electricity sales plan
8	**64-S-SE**	The risk associated with acquisition, reorganization and sale of assets
9	**3S-0-SE**	The risk of industrial accidents and disasters
10	**24-F-SE**	The Risk of tariff setting
11	**16-F-SE**	Foreign exchange risk
12	**65-S-SE**	The risk of non-fulfillment of the Company’s long-term development strategy
13	**56-P-SE**	Risk of sanctions

Quarterly reports on management of key risks and plans for mitigating them are drafted and submitted to the Company’s Board of Directors for approval (after prior approval by the Risk Committee of the Company and the Audit Committee of the Board of Directors) every quarter. The Company’s Board of Directors actively discusses non-compliance with restrictions on principal activities of the Company and negative changes in key risks on the Company’s Risk Map.

Key changes in 2019 (key risks mitigation)

Risks of ongoing/ future investment projects and investment programs of SA (without changes)

- The main deviation in the underspending with regard to investment projects occurred at «Bogatyr Komir» LLP due to the suspension of access to debt financing by EDB for the implementation of the project on transition to cyclical-and-continuous method due to US sanctions against the Russian UC RUSAL (50% co-shareholder «Bogatyr Komir» LLP)
- Actions: an alternative debt financing for the project implementation is sought

The risk of workplace accidents that caused damage to the health and life of employees in the performance of their duties (no changes)

- 10 work-related accidents have been reported since the beginning of 2019, including 1 fatal accident
- Actions: in accordance with the work plan «Occupational health and safety and environmental protection» department

Foreign exchange risk (without changes)

- Reduction of currency commitments
- Actions: monitoring changes in foreign exchange quotations, activities on refinancing of current loan

Credit risk (without chnages)

- Unstable situation in second tier banks
- Actions: monitoring of compliance with limits on counterparty banks, as well as regular evaluation of STB stability

The risk of non-fulfillment/untimely update of the Company’s long-term development strategy (reduction by probability)

- Updating of the Company’s long-term development strategy for 2018–2028
- Actions: monitoring the execution of the action plan for the implementation of the Company’s Development Strategy and KPI set

The risk of violation of covenants of external creditors and listing requirements (reduction by probability)

- Actions: monitoring compliance with covenants, as well as financial sustainability ratios, actions aimed at reducing the level of debt burden and interest payments

The risk of failure to fulfill the electricity sales plan (without changes)

- Actions: daily participation in preparation of daily schedules of electricity supply to the wholesale market and participation in centralized auctions, attracting consumers of Kazakhstani wholesale market

The risk associated with transformation program implementation (increase by probability)

- Falling behind with the Roadmap of Business Transformation Program
- Actions: monitoring the execution of the Roadmap

The risk of occupational accidents and disasters (without changes)

- Actions: conducting major and current repairs, periodic inspections of equipment’s technical condition, provision of briefings and emergency training for operating staff of an enterprise

The risk of tariff setting (reduction by probability)

- Obtaining individual capacity tariffs by subsidiaries
- Actions: monitoring the tariff policy of «Samruk-Energy» JSC group of companies, the work on obtaining of necessary tariff levels in the authorized bodies, participation in working groups on legislation amendments

The risk of human resources of the Company’s group (increase by probability)

- Actions: Personnel reserve relations, cooperation with educational organizations on training of specialists in priority areas for power and coal sectors, arrange workshops and and trainings for the Company’s employees, introducing the principles of meritocracy, motivation system development

The risk sanctions (reduction by probability)

- Removal of sanctions from RUSAL UC

Assets sale and reorganization risks

- Measures: in 2019, «AZhC» JSC, «APP» JSC, «AES» LLP were excluded from the list of assets subject to privatization, with keeping these assets in the Company’s perimiter as part of the privatization of the Company as a whole

The effectiveness of risk management and internal control systems is regularly assessed – in 2018, the independent audit company conducted a corporate governance diagnostics, based on which the Company developed a Corporate Governance Improvement Plan, which includes actions aimed at the improvement of risk management and internal control systems. The Board of Directors monitors the implementation of this Plan on a quarterly basis.

In an age of high world technology and improved world practices, many enterprises find themselves in a complex market environment, undergoing frequent transformations that destroy traditional business ideas and require new solutions.

As a result, companies faces many challenges in managing multiple everyday processes, which creates areas of potential risk and leads to the need for the development of new or improved systems to enhance the flexibility of an entity’s business.

One of the priority areas of the risk management system as part of the improvement of the Company’s corporate governance in accordance with the Company’s strategy is the implementation of the project “Introduction of the new risk management model” included in the Transformation Program.

The project “Introduction of the new risk management model” has been transferred to “Samruk-Energy” JSC operations from mid-2019.

The project “Introduction of the new risk management model” consists of 3 integrated subsystems subject to the following changes:

- risk management system (system improvement);
- internal control system (refinement of the system in terms of design assessment and testing the operating effectiveness of control procedures);
- a system for ensuring business continuity (introduction of the system).

The effective implementation of the project “Introduction of the new risk management model” contributes to raising the rating of the effectiveness of the corporate risk management system (rating BB – based on the results of the audit of independent corporate governance diagnostics of “Samruk-Energy” JSC group of companies).

SUSTAINABLE DEVELOPMENT

Energy of future

"Samruk-Energy" JSC is committed to 17 SDGs, integrating principles of sustainable development into its activities.

The company is aware that the environmental and social issues that each of the SDGs reflects are relevant and have an impact for any organization.

The Company's sustainable development policy comprises the extensive application of sustainable development aspects through the introduction of best practices in the field of production, environmental initiatives, occupational safety and the social sphere to ensure sustainable economic growth in the regions where the Company operates, while maintaining an optimal balance between the interests of stakeholders and strategic Company objectives.

Sustainable development management

The Company, applying a risk-based approach in its operations, regularly analyzes its operations and risks in three aspects of sustainable development, and also seeks to prevent or reduce the negative impact of its operations on stakeholders.

A comprehensive risk assessment is conducted regularly through the use of risk management tools and a systematic approach to sustainable development:

1) an assessment of current and future risks associated with the action of global factors of sustainable development;
2) forecasting of economic, social and demographic and environmental trends;
3) analysis of social, environmental and economic aspects of the Company's current impact on the region where it operates;
4) development of actions aimed at managing the Company's impact on the region where it operates, risk reduction and implementation of opportunities;
5) improvement of risk culture in general, analyzing the effectiveness of risk management actions, identifying opportunities associated with current and future risks.

Please use the following link to learn more about key trends and risks in the field of the Company's sustainable development ***https://www.samruk-energy.kz/images/inter/1.pdf***

On the basis of external and internal assessment of the Company's performance, risks and 17 Goals of Sustainable Development, for efficient and successful management of economic, environmental and social aspects, **the Company implements sustainable development initiatives in the below areas:**

1) the introduction of high ethical standards and building a corporate culture based on trust;
2) introduction of sustainable development principles and application of a risk-based approach in the practice of project management at all investment stages: assessment and management of the impact on the social, environmental and economic areas (forced relocation, biodiversity, cultural heritage, etc.) in accordance with Sustainable development guidelines of the Company;
3) an increase in financial sustainability;
4) facilitate responsible procurement based on principles of fair and free competition, mutual benefit, transparency and full responsibility for the commitments made, as well as the introduction of requirements for suppliers to comply with ethical standards and guidelines for suppliers of the Company, set out in the Guidelines for sustainable development of the Company;
5) improving the safety culture through the involvement of employees in occupational safety management system and increasing the effectiveness of control over the occupational health and safety management system through application of international standards;
6) increasing the level of social responsibility, following the principles of the UN Global Compact, investment in human assets;
7) ensuring environmental sustainability, including the search and implementation of technologies, which are considered as the best from an environmental and economic point of view, streamlining of production processes, implementation of projects using renewable energy sources, identification and prevention of potential emergencies.

The report on the execution of the Sustainable Development Initiative Plan for 2019 is available on the corporate website of the Company: ***https://www.samruk-energy.kz/ru/navigation-and-support/sustainable-development***

"Samruk-Energy" JSC has been an active participant of the UN Global Compact since 2011 and has followed the 10 principles of the UN Global Compact in its strategy and daily operations.

The Company has committed to the following principles:

1) In the area of respect for human rights: to support and respect the observance of human rights proclaimed by the international community;
ensure its non-involvement in human rights violations.
2) In the area of labor relations: to support freedom of association and recognition of the right for collective bargaining in practice; stand for the destruction of all forms of forced labor; advocate for the complete elimination of child labor; advocate for the elimination of discrimination in labor and employment.
3) In the area of environmental protection: to contribute to the prevention of negative environmental impacts; take initiatives to increase responsibility for the environment; promote the development and dissemination of environmentally friendly technologies.
4) In the area of fight against corruption: to resist all forms of corruption, including extortion and bribery.

In view of joining to the UN Global Compact, the Company annually publishes Progress Report, which it posts on ***https://www.unglobalcompact.org/*** and on the corporate website ***https://www.samruk-energy.kz/ru/navigation-and-support/sustainable-development#tab13***

The primary goal of the Company is not only to ensure survival in high-risk environment through proper forecasting and planning, but also to turn risks into opportunities and prepare for the unforeseen future.

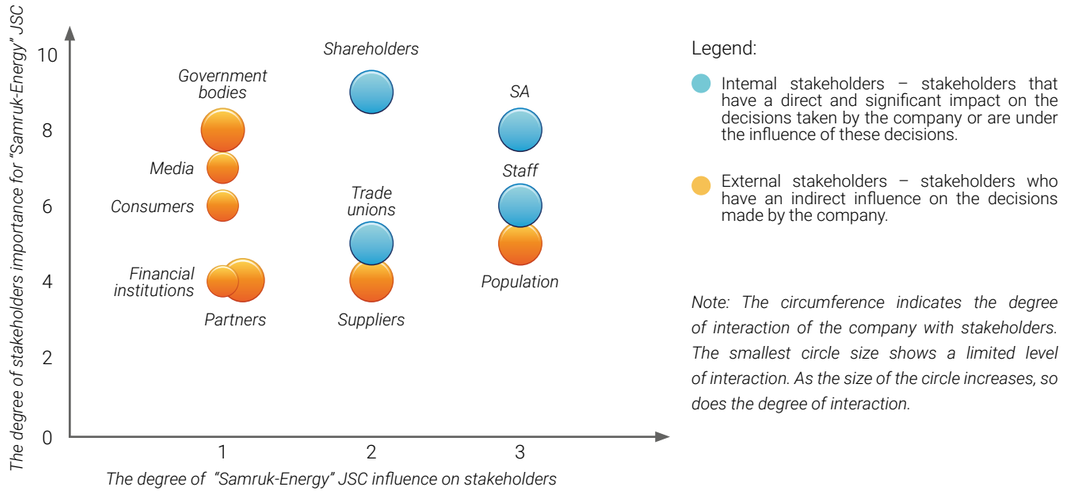
All information about the principles, programs of the Company, reports and new projects in the social, economic and environmental areas is posted as they appear on the corporate website in the section ***https://www.samruk-energy.kz/ru/navigation-and-support/sustainable-development***

Stakeholder engagement

"Samruk-Energy" JSC interaction with stakeholders is based on the Company's readiness to invest in the development and future of its customers and employees, partners and suppliers, ensuring the sustainable development of both the Company and local communities, and making social investments in areas significant for the territory where the Company operates, willingness to develop interaction with all persons for an appropriate and flexible response to external and internal challenges.

In 2019, the Company updated the Stakeholder Map, and determined a complete list of potential stakeholders that it deals with in the course of its business with a description of the contribution of stakeholders and ranked them in accordance with accepted Mitchell, Agle and Wood model.

"Samruk-Energy" JSC Stakeholders map



In order to increase the effectiveness of stakeholder engagement, "Samruk-Energy" JSC introduced the Communication Strategy across all the group of companies in 2019, which provides a unified approach to corporate communications, identifies the target audience, principles of communications, media planning, anti-crisis response, internal and external PR and external positioning of the Company.

Mission of the Communication strategy – Ensure a positive image of the Company by providing target audiences with complete, transparent to the fullest extent and up-to-date information on performance results.

Vision of the Communication strategy – Effectively created communication channels that can make the Company key opinion leader and influencer with respect to matters of Kazakhstan's energy sector development.

In addition, the Company updated the Information Policy by identifying the principles, procedures, terms, list and methods of disclosing information, types of information, and stakeholder engagement, actions aimed at protecting information, monitoring and quality control of information disclosed.

JAS ENERGY

"I believe that my main achievement in life is the right choice of profession. My work path is important and valuable in that it makes an incomparable contribution to the development of the city and the country as a whole"

SAKHIYEVA ZAURE BOLATOVNA
Head of Regimes Service under Operational and Control Department of "AZhC" JSC

“Samruk-Energy” JSC stakeholder engagement practice

“SAMRUK-ENERGY” JSC STAKEHOLDERS	VALUE	AREAS OF INTEREST	INTERACTION PLATFORM
SHAREHOLDERS	■ Share capital ■ Strategic direction and orientation ■ Enhancing transparency and disclosure standards and practice	■ Performance ■ Introduction of a development strategy ■ Dividends ■ Transparency of disclosure	■ Report on Sole Shareholder Expectations and Other Management Reporting ■ Meetings and negotiations ■ Annual report ■ Website ■ Correspondence and inquiries ■ Exhibitions, forums and presentations
SUBSIDIARIES AND AFFILIATES	■ Strategic resources and possibilities ■ Opportunities for future development	■ Introduction of advanced methods and standards ■ Methodological support in the areas of development	■ Meetings, ■ Forums, round tables and summits ■ Website ■ Working groups ■ Creation of cultural corporate events
EMPLOYEES	■ Human resources development ■ Labor relations based on cooperation ■ Loyalty to the company	■ Wage ■ Employee benefits ■ Safe working conditions ■ Professional growth	■ Internal meetings ■ Website ■ Trainings and seminars ■ Corporate events ■ Corporate media ■ Surveys and questionnaires ■ Meetings of the Management Board and Board of Directors
STATE AGENCIES, FINANCIAL INSTITUTIONS	■ Macroeconomic and social policy ■ Lobbying opportunities	■ Tax and social security contributions ■ Local employment ■ Investments in projects that influence the population ■ Social stability rating	■ Involvement in the activities of government agencies ■ Correspondence and inquiries ■ Reporting ■ A dialogue with state authorities regarding legislative and regulatory regulation
POPULATION, CONSUMERS	■ Workforce stability and conflict resolution ■ Mutual support and adaptation	■ Community’s approval ■ Reputation and loyalty ■ Regional development ■ Providing uninterrupted heat and power supply ■ Quality service	■ Annual report ■ Media publications ■ Meetings with representatives of local communities ■ Public hearing ■ Website ■ Media publications ■ Development of social projects ■ Stakeholder Engagement Plan
PARTNERS, SUPPLIERS	■ Efficient supply chain and value chain ■ Joint development, development and problem solving ■ Voluntary application of standards	■ Transparency of procurements ■ Ethical business practices	■ Website ■ Annual report ■ Conferences and meetings and negotiations ■ Consideration of supplier claims ■ Signing partnership agreements
MASS MEDIA	■ Transparency and disclosure ■ Constructive cooperation	■ Transparency and disclosure ■ Reputation Rating	■ Press releases, press conferences, briefings, round tables ■ Annual report ■ Website
TRADE UNIONS	■ Effective communication with internal stakeholders ■ Social guarantees	■ Labor relations based on cooperation ■ Social stability rating	■ Collective bargaining ■ Providing benefits and social guarantees

In order to enhance stakeholders engagement, the Company annually develops Engagement Plan. The report on the Stakeholder Engagement Plan and on the work of stakeholder feedback mechanisms with recommendations for improvement are annually communicated to the Board of Directors.

According to the 2019 results, activities of the Stakeholder Engagement Plan were fully implemented.

The Company, as part of its activities, is a member in the following national and international organizations, associations / organizations:

The CIS Electric Power Council (hereinafter – CIS EPC). An Observer since 2012.Membership in the CIS EPC allows participating in the processes of integration of the CIS member states' energy systems, including ensuring collective energy security; Provision of parallel operation of power systems; Creation of a common electric power market, involvement in preparation of international agreements in power sector; Technical regulations, unification and harmonization of laws and regulations in power industry, etc.

Kazakhstan Electricity Association (hereinafter – KEA). Membership since 2011. Membership in KEA allows exchanging information and participation in development of a regulatory legal framework in power sector, as well as conferences, seminars, forums and other events.

KAZENERGY Association. Member of the Association since 2009. Membership in KAZENERGY Association allows participating in government initiatives and activities aimed at improving the RK investment climate, in developing and implementing measures to increase production and scientific and technical potential; as well as the Company may receive assistance in legal, economic, organizational and management matters.

The National Chamber of Entrepreneurs of the Republic of Kazakhstan (hereinafter referred to as the RK NCE). Membership in the RK NCE since 2013. Membership in the RK NCE helps to strengthen ties with business environment, effective development of electricity business, including as part of improvement of RK regulatory framework.

UN Global Compact. Membership since 2011. In the context of joining the UN Global Compact, the Company declares its commitment to following the ten principles of the Global Compact in its strategy and day-to-day operations.

Stakeholder feedback mechanism

It is essential for the Company that all both external and internal stakeholders are heard. The company values its reputation and insists that its employees and stakeholders comply with the highest standards of ethics and integrity, and all legal provisions.

In addition to the channels of communication generally accepted at each company, "Samruk-Energy" JSC has the following stakeholders' feedback tools that guarantee protection against retaliation and prosecution of anyone who honestly leaves a message.

1. 24/7 hotline

Designed for all stakeholders. An external independent operator with a guarantee of anonymity and confidentiality operates the line.

- By email: sk.hotline@deloitte.kz;
- By number 8 800 080 19 94.

2. Feedback form on the corporate website ***https://www.samruk-energy.kz/ru/feedback-all.***

3. The "Feedback" form for the category of persons associated with ongoing investment projects, where local communities, contractors, or persons related to the project can express their opinion ***https://www.samruk-energy.kz/ru/obrat.***

4. Feedback for shareholders and investors. Investor questionnaire ***https://www.samruk-energy.kz/ru/shareholder/independent-registrar.***

5. Requests, enquiries with leaving contact details on the website ***https://www.samruk-energy.kz/ru/company/contact***

6. Ombudsman

- By email: ***o.bekbas@samruk-energy.kz***
- By phone: 8/7172/69-23-56

Feedback mechanisms allow:

- timely responding and addressing conflict situations;
- analyzing and taking preventative actions regarding the concerns of external stakeholders, the public, and individual citizens;
- enhancing the Company's reputation and maintain confidence in it as a socially responsible Company.

In 2018, the company introduced the practice of studying complaints received through all available feedback channels. Analysis and monitoring of requests allows the Company to study the concerns of all stakeholders, identify systemic issues, and determine the effectiveness of existing mechanisms for interacting with stakeholders for further response.

Inquiries statistics*

No.	Source	Number	
		2018	2019
1	Hot line	33	29
2	Administrative support office, Among them: From state agencies From the Shareholder Inquiries and complaints	9,773 456 537 45	1,0297 445 617 38
3	Directly to the Security Service	6	6
4	Feedback form on the website	1	4
5	Ombudsmen	39	28
6	Trade unions	26	28
7	Courts and supervision agencies	25	10
8	Written inquiries to the head	–	5
TOTAL		**175**	**148**

*inquiries that are not related to "Samruk-Energy" JSC group of companies current operations were consolidated

These appeals were analyzed in terms of the aspects concerned, the identification of regions with the highest number of appeals, the category of persons who sent their appeals to the group of companies, statistics on the subject of appeals and analysis of complaints. Each complaint was assigned a category.

Number of complaints

Reasonable	Partially reasonable	Unreasonable	Were withdrawn by a person who filed a complaint
3	8	38	3
TOTAL		**52**	

Compared to last year, the total number of complaints increased by 15.5%. The number of increased appeals and complaints is most likely due to the popularization of feedback tools with the presentation of further reporting: reports of the Compliance Service, reporting on complaints when publishing the Annual Report, an increase in mentioning about feedback tools during internal seminars and meetings, etc.

The analysis states that responses to all incoming inquires of the Company were provided in a timely manner. There was no information about imposing fines for late response to inquiries of individuals and legal entities. Answers were provided in ways convenient for stakeholders. Confidentiality and anonymity of appeals remained. The facts of harassment were not reported.

Conclusions based on stakeholder inquiries were communicated to the Board of Directors of the Company, which prepared recommendations and developed actions aimed at the improvement of stakeholder engagement quality.

"ECONOMIC" CATEGORY

"Created and distributed economic value" aspect

The created economic value present the main sources of the Company's income, namely, income from electricity production, transmission and sale, as well as from the sale of coal and obtained remuneration.

The created value is distributed between suppliers and contractors, employees of the Company, shareholders and lenders, the state, as well as local communities.

Distributed economic value	
Payments to suppliers and contractors	Operating expenses – payments to counterparties for materials, product components, equipment and services, rental payments
Payments to employees	Payroll, social taxes and contributions, pension and insurance payments, expenses for medical services for employees and other forms of employee support
Payments to capital suppliers	Dividends to all categories shareholders and interest paid to lenders
Payments to the Government	Tax payments
Investments to local communities	Donations to charitable and non-governmental organizations and research institutions, expenses for supporting public infrastructure, as well as direct funding for social programs, cultural and educational activities

According to results of 2019, the created economic value amounted to 338 bln. tenge and the distributed economic value amounted to 276 bln. tenge, as a result, the undistributed economic value amounted to 62 bln. tenge.

According to the approved Development Plan for 2020–2024, the created and distributed economic value is planned to be increased in 2020 and 2021.

mln. tenge

Indicator	2018	2019 Actual	2020 (Forecast)	2021 (Forecast)
Created economic value	**352,681**	**337,794**	**395,654**	**452,798**
Sales proceeds	351,100	336,233	395,134	448,589
Interest received	1,581	1,561	520	4,209
Distributed economic value	272,860	275,649	317,586	347,329
Operating expenses	161,571	161,556	195,970	216,554
Wages and social contributions	37,210	39,589	42,477	45,021
Payments to capital suppliers	34,047	32,369	34,916	32,060
Payments to the government	39,617	41,882	44,022	53,551
Undistributed economic value	79,822	62,145	78,068	105,469

"Innovative development and digitization" Aspect

Innovative development

Over the past decades, the world has been rapidly moving to a new type of economy, at which the introduction of innovative technologies is becoming the primary tool for its formation. In today's environment, innovative development and digital transformation are the key agents of technological change and a condition for ensuring competitiveness both at the level of individual enterprises and at the country level, leading to the restructuring of all economic and production processes, drastic improvement of productivity, quality and reduction of prime cost.

The Company's development strategy provides for the provision of reliable competitive supplies of energy resources in the markets where it operates through the deployment of innovative technologies that increase the efficiency and environmental friendliness of coal generation sources.

The research "Development of the technology of furnace devices for boiler units for firing high-ash coal from Ekibastuz deposit's layer No.3 and depleted coal/coal by-products" is conducted in collaboration with Nazarbayev University. The research execution period is 2018–2020.

In order to conduct research work, a joint research laboratory "Clean Coal Technologies" was established at the premises of the "Nazarbayev University Research and Innovation System" PI.

Expected outcomes:
- development of technology and analysis of the prospects of the use of fluidized bed technologies for burning of high-ash coal;
- reduction of fuel consumption and air emissions compared with conventional coal combustion;
- complete firing of fuel, without leaving the combustion process in the gas space above the fluidized bed and the loss of significant amount of heat with unreasonably overheated flue gases.

The following works were performed in 2019:
- the study was conducted on an integrated installation of a fluidized bed and a circulating fluidized bed (II-FB-CFB) regarding the influence of operation conditions on the efficiency of the process, the emission of nitrogen and sulfur oxides, the degree of use of the active sorbents of ash and limestone when firing ordinary Ekibastuz coal of the 3rd coal bed of gross output at atmospheric pressure in FB and CFB;
- the development of a gas-dynamic model of firing and gasification of Ekibastuz coal in CFB;
- the study was conducted on CFB gasification installation (CFB GI) regarding the influence of operating conditions on the gasification of Ekibastuz plain coal of the 3rd coal bed at atmospheric pressure in the partial air gasification mode.
- the study was conducted on an II-FB-CFB regarding the influence of operating conditions on the efficiency of the process, emission of nitrogen and sulfur oxides, utilization of active sorbents of ash and limestone when firing Ekibastuz coal by-products with an ash content of 60 to 80% at atmospheric pressure in the FB and CFB;
- the first part of the studies was conducted on the isothermal CFB installation (II-CFB) of the external circulation of the solid phase along the furnace circuit with a cyclone and a U-shaped pneumatic valve;
- The first part of research was conducted on the installation of extended furnace of gasifier under superadiabatic combustion (EFGSC) and gasification of Ekibastuz high-ash coals and by-products with an ash content of up to 80% at atmospheric pressure in air gasification mode.

In order to improve technical and economic indicators when firing high-ash coals at thermal power plants of the Company, the possibility of introducing the technology fuel oil free startup of boiler system (plasma-fuel system) is under consideration.

The implementation of the project will solve the following problems:
- stabilization of the combustion of a pulverized coal torch at reduced loads of boiler units;
- elimination of fuel oil consumption in the flame combustion of low-grade coals;
- elimination of the negative effects of co-firing of coal and fuel oil in one furnace volume, which lead to a decrease in the efficiency and reliability of the boiler.

This technology has been successfully applied in the People's Republic of China, the Russian Federation, Indonesia, etc. at power units from 200 to 1000 MW.

In order to determine the possibility of upgrading the ignition systems of Ekibastuz SDPP-1 boiler units by installing plasmatrons, a Cooperation Agreement was signed between "Samruk-Energy" JSC and "CITIC Construction" (China).

In accordance with the Plan of joint activities for the implementation of the Cooperation Agreement, the following activities were carried out over the past year:
- Appropriate laboratory tests of Ekibastuz coal were carried out in China, which confirmed the possibility of ignition by a plasmatron;
- mutual visits of the parties were arranged, so that Chinese specialists could learn more the existing infrastructure of EGRES-1 power unit and our specialists could get acquainted with the operation of plasmatrons at the existing power plan in China;
- a preliminary technical solution for the modernization of the ignition system of the boiler of ESDPP-1 power unit for the installation of plasmatrons was developed and considered.

It is planned to conduct corporate procedures to approve the implementation of the project after the Chinese side submits engineering results.

Digitization

Using the potential of digital technologies will allow the Company to boost productivity, safety at work and reduce the cost of production of goods and the delivery of services, which in turn will contribute to the implementation of the strategic initiative "Improving the efficiency of operations".

The Company aims to ensure digitization by incorporating digital principles into corporate strategy, business model, activities and culture:

1. Business orientation
Digitization initiatives should be aimed at improving the financial condition of the Company, occupational health and safety measures, reducing emissions into the environment, etc.

2. Partnerships with business
Interaction and coordination of activities within the Company and across "Samruk-Energy" JSC group of companies.

3. Search for best practices
Search, selection, initiation of innovative ideas and projects, coordination of research and development in the area of digitization across "Samruk-Energy" JSC group of companies.

4. Timely implementation of projects with agreed budget
When managing projects, ensuring compliance with deadlines, budget and scope of the project as set out in the requirements / contract. Projects should be implemented step-by-step.

5. Automation of processes
The use of automated control systems in technological processes while reducing the human factor.

6. Transition to digital format
Digitization of processes from the production level (application of up-to-date control and measuring instruments, automated process control systems, analytical systems) to the upper level (online monitoring, center of competence, etc.).

Digitization tasks:
- reducing the cost of fuel and equipment maintenance by introducing digital systems and preventive equipment diagnostic systems;
- centralized monitoring of key indicators of "Samruk-Energy" JSC group of companies by centralizing services;
- reduction of the diagnostic period in case of detection of dangerous shortcomings or in case of equipment failure;
- reduction in the collection of information on production figures of "Samruk-Energy" JSC group of companies;
- the possibility of in-depth study of the data collected from the diagnostic equipment and instrumentation;
- the ability to automate production processes and data collection processes.

To achieve the mentioned objectives, a number of activities were carried out in 2019. The company studied the possibility of implementing centralized production monitoring, diagnosing the possibility of implementing predictive analytics, and conducted a survey to determine the possibilities of using Big Data to support and develop a business.

The Portfolio of the projects of the Transformation Program of "Samruk-Energy" JSC includes the Project "Implementation of Automatic Load and Frequency Control".

The project is implemented for the first time in the EEU and is a joint project with "KEGOC" JSC, implemented as part of the state program "Digital Kazakhstan". Thanks to ALFC, "KEGOC" JSC will be able to manage the capacity of power plants of "Samruk-Energy" JSC group within limits set, i.e. directly affect power units / hydraulic units (reduce or increase capacity) in real time when changing the circuit-mode situation in the power system.

Project benefits:
1. Obtaining an additional source of income from payments for the service of balancing frequency and load from the System Operator starting from 2021;
2. Reduction of deviations in the balance of power flows on the border of the UES of Kazakhstan and the UES of Russia since 2021, as well as ensuring energy security and energy independence of the Republic of Kazakhstan.

The phase 0 "Project launch" was completed in 2019, which includes a detailed planning of the project, its formalization and informing the company's stakeholders about the project.

The development of design and estimate documentation is underway.

"Energy efficiency" Aspect

The Company's activities in the field of energy conservation and energy efficiency are based on the methodology of ISO 50001 international standard "Energy management systems".

The Company has the program for energy conservation and improvement of energy efficiency for 2015–2025, which aims to develop measures for wise and economically feasible use of fuel and energy resources.

A 10.5% decrease in power consumption of the gross marketable product of "Samruk-Energy" JSC group of companies in 2025 compared to the base 2014 is the expected effect from the program implementation.

Target-oriented tools of the Program:
- setting targets and indicators for energy conservation and raising of energy efficiency for "Samruk-Energy" JSC group of companies;
- continuous monitoring of the achievement of specified targets through energy-economic analysis in line with the developed methodology for calculating key energy efficiency indicators;
- development, implementation and improvement of the energy management system at "Samruk-Energy" JSC group of companies;
- implementation of organizational and technical activities on energy conservation and energy efficiency in compliance with the approved action plans for energy conservation and energy efficiency across "Samruk-Energy" JSC group of companies;
- carrying out standard activities aimed at energy conservation and energy efficiency at Samruk-Energy group;
- Creation of an integrated system for automated metering of energy resources consumption

As part of the ongoing work on energy conservation and improvement of energy efficiency, 78 measures aimed at reduction of fuel and energy resources consumption were implemented during 2019, which allowed saving 296 thous. nd tons of standard fuel across "Samruk-Energy" JSC group of companies.

Energy consumption within the organization

According to the 2019 results, fuel consumption decreased in comparison with the previous year because of the optimization of the operation modes of power units and, accordingly, the decrease in unit fuel consumption.

The total energy consumption has a steady decline in relation to the base 2014 (17.7 mln. GJ), both in electricity consumption and in heat energy consumption.

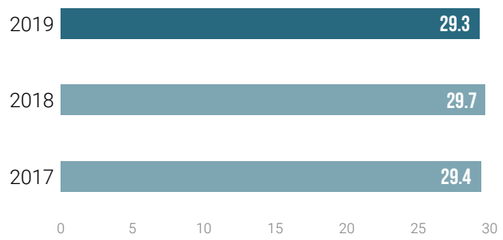
14.0 million GJ of energy was consumed in the reporting year, including 1.3 mln. GJ from renewable energy sources. Overall, over the years, there has been a positive trend towards an increase in energy consumption from renewable energy sources, which is because of the growth of renewable energy sources share in electricity production in the country.

Consumption within the organization	2017	2018	2019
Total fuel consumption, mln. GJ, incl:	285,2	310,5	291,2
Coal	254,8	298,1	279,9
Gas	28,4	10,0	9,2
Fuel oil	0,7	1,2	0,8
Petroleum	0,2	0,2	0,2
Diesel	1,1	1,2	1,2
Total electricity consumption, mln. GJ	13,0	11,8	11,3
Including from RES	0,6	1,0	1,3
Total heat consumption, mln. GJ	2,6	2,7	2,6
Including from RES	–	–	–
Total electricity consumption, mln. GJ	15,6	14,5	14,0
Including from RES	0,6	1,0	1,3

Energy intensity

The volumes of consumption of fuel and energy resources within the organization, as well as volumes of electricity and heat produced, electricity transmitted and coal mined were used in this indicator.

According to the 2019 results, the energy intensity of the gross commodity product across "Samruk-Energy" JSC group of companies amounted to 29,3 t.s.f / mln.tenge and decreased by 1.3% compared to the previous year owing to the implementation of energy conservation and improvement of energy efficiency activities.



The reduction of energy consumption

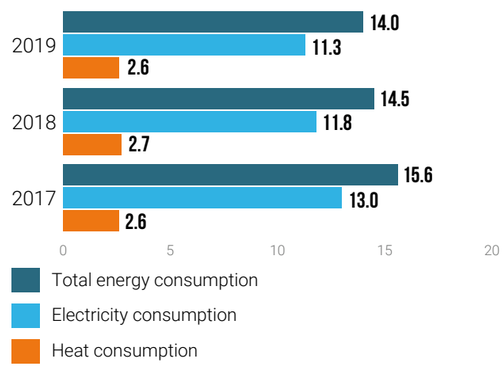
There is a trend towards decrease in total energy consumption over years in relation to base 2014 (17.7 mln. GJ)

Consumption of electricity decreased both in relation to the base (14.0 mln. GJ) and in relation to last year and amounted to 11.3 mln. GJ.

Heat consumption also decreased in relation to the base year (3.7 mln. GJ) and amounted to 2.6 mln. GJ.

The reduction in total energy consumption was driven by reduction of energy use for power plant needs.

Power consumption, *mln.GJ*



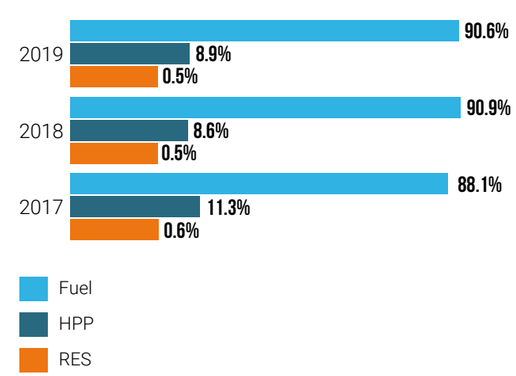
Aspect "Materials Used"

The products of "Samruk-Energy" JSC are thermal and electric energy, as well as thermal coal.

The regulation of this industry is carried out by state bodies represented by the ME and the Committee.

The Company does not carry out any marketing communications regarding the manufactured product, including advertising and promotion.

Generation



According to the 2019 results, the distribution by types of generation (conventional, hydropower plant and renewable energy sources) is as follows:

- conventional generation accounted for 90.6% of the total electricity generation of the group of companies,
- the share of electricity generation at "clean" RE plants and HPP amounted to 9.4% of the total generation of "Samruk-Energy" JSC group of companies. In 2019, the share of electricity generation at "clean" RE plants and HPP amounted to 9.5% of the total output of "Samruk-Energy" JSC group of companies – in 2019, two hydraulic units of "Shardarinsk HPP" JSC were commissioned as part of the plant retrofit project, a 416 kW SPP was commissioned in Kapshagay by "Samruk Green Energy" LLP – this will contribute to increasing the share of "clean" generation.

The list of materials used at our enterprises in the manufacture of products

In the production of electricity:

	Measurement unit	Materials used, volume		
		2017	2018	2019
Coal	tons	14,829,836	17,619,007	16,565,570
Fuel oil	tons	14,491	15,010	15,746
Gas	thous. m3	47,862	35,928	38,472
Water	thous. tons	79,703,620	90,336,918	90,714,286

In the production of heat:

	Measurement unit	Materials used, volume		
		2017	2018	2019
Coal	tons	772,918	839,883	764,291
Fuel oil	tons	2,893	14,031	2,358
Gas	thous. m^3	250,202	251,620	226,580
Water	thous. tons	30,616,907	33,101,844	31,266,335

For auxiliary needs in the production of both types of products:

	Measurement unit	Materials used, Volume		
		2017	2018	2019
Petroleum	t.n.f	5,026	3,588	3,570
Diesel fuel	t.n.f	26,124	25,210	28,586

"Samruk-Energy" JSC products are heat and electricity, as well as thermal coal, respectively, the requirements for environmental labeling and packaging are not applicable to manufactured products.

"Information security" aspect

The information security primary goal – protection of "Samruk-Energy" JSC data and information and the infrastructure that supporting them from any accidental or malicious influences. Any hacker attack threatens to damage both data and information, as well as its owners or supporting infrastructure. The objective of ensuring information security set out in the Information Security Policy of the Company involves the monitoring, forecast and prevention of such impacts, as well as minimizing a damage from their occurrence.

No confidential information was leaked in 2019. Monitoring of user activities performed on personal computers showed a significant reduction of violations of "Samruk-Energy" JSC internal regulatory documentation on information security compared to previous years.

"Introduction of information security management system" project was launched in 2017 as part of Transformation Program.

With its introduction, the risks of information security threats, cyberattacks, and performance disruptions at power plants will be reduced at “Samruk-Energy” JSC and its SA, the state of the relevant infrastructure of the Company will be constantly monitored, and timely response to emerging security incidents, as well as positive result when conducting an international certification audit will be secured. The level of maturity of information security processes will be increased, which in the end will lead to a systematic approach.

The project team completed activities under Phase 0 and Phase 1 of the project in 2019. (ISMS) processes under the project and a system for preventing leakage of confidential information were implemented at “Shardarinsk HPP” JSC, “Moynak HPP” JSC and “Ekibastuz SDPP-1” LLP.

The project team will proceed to the implementation of Phase 2 of the project in February 2020 at “Samruk-Energy” JSC, “Shardarinsk HPP” JSC, “AlmatyEnergoSbyt” LLP, “Energy Solutions Center” LLP.

JAS ENERGY

“I chose the profession of a geologist not by chance, since from childhood I was attracted to searching for small rocks - samples. Now my job is highly demanded, unique and interesting. Providing benefit to my nation is the feature of my job”

ONALBEKOVA ASEM ZHANATOVNA
Resident geologist at “Bogatyr Komir” LLP

“ENVIRONMENT” CATEGORY

Historically the world produced electricity and heat by using fossil fuels. Chemical reactions that occur when firing coal, gas and fuel oil lead to the natural formation of a number of substances, which in the absence of appropriate control can lead to the loss of the required quality of the environment. For such control, there is a system of state regulation in Kazakhstan in the form of environmental and natural resource law.

Therefore, the RK Environmental Code classifies primary production activities of Samruk-Energy subsidiaries as special nature management, and these activities are regulated by the relevant requirements and standards. Thus, each subsidiary and affiliate of “Samruk-Energy” JSC is responsible for its environmental footprint within the obtained environmental permit and other conditions of special nature management.

The RK environmental legislation encourages nature users to reduce their impact on the environment using economic incentive mechanisms. Along with that, “Samruk-Energy” JSC, being an environmentally responsible company, is not limited only by domestic law, but also strives to come closer to more ambitious international standards. Guided by the principles of sustainable development and best international practices, the Company set itself the environmental policy, goals and objectives, which are taken into account in the Company’s Development Strategy.

ISO 14001 “Environmental management” has been introduced at all companies of “Samruk-Energy” JSC that are engaged in operating activities. As part of EMS, all SA identify significant environmental aspects, assess and manage environmental risks and opportunities, distribute roles and responsibilities, set goals to reduce the negative impact on the environment, develop emergency response plans, etc.

As measures that prevent damage to environment, a continuous environmental assessment of the effectiveness of production processes is conducted through industrial environmental monitoring. The monitoring is based on measuring and calculating the rate of emissions into the environment, harmful production factors. Industrial environmental monitoring is carried out with the involvement of independent laboratories accredited in the manner established by the RK legislation in the field of technical regulation. Atmospheric air, surface and underground waters, soils are the subjects of industrial monitoring.

In addition, preventive measures include mandatory environmental insurance and liquidation funds.

Particular attention is paid to the new technologies: RES development, oil fuel-free start-up and other energy-efficient technologies that are offered by specialists in the framework of regular environmental and energy audits. Given that national experts predict that coal will continue to play the role of the most reliable strategic type of fuel for the development of power industry in Kazakhstan in the foreseeable future, we support the development of coal chemistry and comprehensive deep processing of coal. To this end, the Company established “Clean Coal Technologies” research laboratory together with Nazarbayev University AEO.

The implementation of a comprehensive environmental protection program in 2019 resulted in the following achievements:

- lack of emergency spills and other types of emissions;
- the share of renewable energy and hydropower generation – 9.5% of the total output of “Samruk-Energy” JSC group of companies – In 2019, two hydroelectric units of “Shardarinsk HPP” JSC were commissioned as part of a project on the plant retrofit, a 416 kW solar power plant of “Samruk Green Energy” LLP was commissioned in Kapshagai city- this will lead to an increase in the share of “clean” generation.
- reduction of unit emissions of CO2 emissions across Samruk-Energy group of companies by 1% in comparison with 2018 is due to the decrease of fuel power plants’ share of generation and an increase in HPP generation share.
- reduction of unit dust emissions (fly ash) by 2%, unit emissions of NOx by 3%;
- a 6% decrease in the unit indicator of ash and slag waste generation compared to 2018 due to the decrease of coal output and an improvement of the UCSF.

Environmental Compliance

In order to prevent environmental damage, the legislation provides for environmental audits, fines for violating legal requirements may be imposed according to the results of these audits.

In 2019, the authorized body conducted an unscheduled inspection of compliance with environmental laws at CHP-3 of "APP" JSC. At the end of the audit, a fine was issued for exceeding the emission standards of pollutants (g/s) for CO, NOx and SO_2. In addition, in relation to "Ekibastuz SDPP-2 Plant" JSC, the authorized body conducted a preventive monitoring of compliance with environmental requirements with a visit to the monitored entity. According to the results of the analytical control of pollutant emission sources, a maximum of 70–20% of inorganic dust emissions (coal dust) was recorded at CHP, and facts of operation of vehicle, the pollutant content of which exceeds the established standards, were revealed.

The monetary value of significant fines and the total number of non-financial sanctions for non-compliance with environmental laws and regulations

	Measurement unit	Amount		
		2017	2018	2019
The sum of money of significant fines	thous. tenge	12,596	721.5	4,751
number of cases when non-financial sanctions were applied	-	0	0	0
Cases filed through dispute resolution mechanisms	-	-	-	-

All fines were paid in a timely manner. Corrective measures were taken.

In accordance with Article 81 of the Environmental Code of the Republic of Kazakhstan, the reasons for an obligatory environmental audit of individuals and legal entities are:

1) significant damage to the environment caused by business or any other activity of individuals and legal entities, documented;

2) reorganization of the legal entity-subsoil user, carrying out environmentally hazardous types of business or other activities, in the form of merger, separation;

3) bankruptcy of legal entities-subsoil users engaged in environmentally hazardous types of business and other activities.

An obligatory environmental audit was not conducted at Samruk-Energy Group's entities in 2019 because above-mentioned legal grounds were not available. The ISO 14001 Environmental Management standard was introduced across "Samruk-Energy" JSC group of companies that are engaged in production activities.

In 2019, individuals and legal entities filed 7 complaints related to environmental protection, 6 of which were received by "APP" JSC. All cases were reviewed and worked out in accordance with the internal grievance mechanism.

Total environmental expenditures and investments, broken down by types

In accordance with the current legislation of the Republic of Kazakhstan, each subsidiary of "Samruk-Energy" JSC of I-III category has an environmental protection plan approved by authorized body, the implementation of which is an obligatory condition for special nature management.

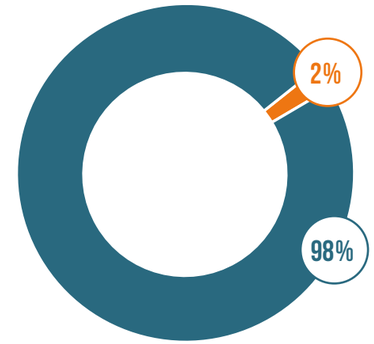
	Measurement unit	Amount		
		2017	2018	2019
Total	thous. tenge	2,213,407.5	6,629,261	4,616,165
* costs associated with waste management and cleaning of emissions, discharges, as well as the elimination of environmental damage		1,825,147	6,556,645	4,242,256
** expenses for the prevention of environmental impact and environmental management system		388,260	72,616	373,908

Aspect "Water and waste water"

Today the world is experiencing a crisis related to the lack of clean water; experts predict the worsening of the problem without due attitude. So, the United Nations declared 2018–2028 decade as an international decade dedicated to the role of water in sustainable development.

In the production activities of "Samruk-Energy" JSC group of companies, this renewable natural resource is used as a force that allows spinning the generator rotor to generate electricity at hydropower and thermal power plants, and also as a coolant when transferring heat to CHP and boiler houses.

Water intake



In addition, water is used to feed reservoirs, to irrigate ash beaches, to maintain the water level in ash dumps, and for public living needs.

Considering that "Samruk-Energy" JSC's portfolio also includes hydropower and thermal power plants, we subdivide our interaction with water into water use and water consumption, respectively. At this, 98.5% of the volume of water withdrawn is classified as water use at hydropower plants, and 2% – as water consumption.

Water used and consumed in compliance with the current legislation of the Republic of Kazakhstan, which is aimed at maintaining and improving the sanitary-epidemiological and environmental situations in the zones of water bodies: subsidiaries of "Samruk-Energy" JSC carry out water withdrawal in volumes determined by production needs in accordance with the developed projects and regulations that are agreed with authorized state agencies and specified in special permits.

Thus, the main sources of water for technological needs are: the Sharyn River and Bestyubinsk Reservoir (Moynak Hydropower Plant), the Syrdarya river and Shardara reservoir (Shardarinsk hydropower plant), channel named after K. Satpayev ("Ekibastuz SDPP named after Bulat Nurzhanov" LLP, "Ekibastuz SDPP-2 Plant" JSC), Shidertinsky channel ("Ekibastuz SDPP-2 Plant" JSC), Big Almaty Lake and the basin of Big Almaty Lake (Cascade of HPP), Kapshagai Reservoir (Kapshagai HPP).

Reverse water supply systems with a bulk reservoir-cooler and once-through hydraulic ash removal systems are used for saving natural resources at Ekibastuz stations; In addition to recirculating water supply systems, Almaty power plants reuse wastewater from ash dumps owing to the unique ash and slag waste disposal technology.

Wastewater of production enterprises of "Samruk-Energy" JSC group of companies consists of industrial and domestic wastewater. The main volume of wastewater is industrial wastes; they are not discharged into natural objects. They are used as hydrotransport to remove ash and slag waste to ash dumps.

The quality and volume of wastewater is regulated by law, and before discharge, the wastewater undergoes appropriate treatment to approved sanitary standards. At the same time, analytical monitoring of surface water environments, monitoring of wastewater, monitoring of processes of changing water and temperature regimes of groundwater through a network of observation wells, repair of equipment and pipelines of HAH system are carried out on a regular basis.

"Samruk-Energy" JSC main objective regarding water resources protection is to minimize the impact, including:
- decrease in fresh water consumption;
- reduction of wastewater discharges and concentrations of harmful substances in wastewater;
- increase in the share of reused water (water circulation).

Water interaction

WATER INTAKE					
			ALL REGIONS Megalitres		Areas experiencing water shortage
		2017	2018	2019	
The volume of water taken by sources	from surface water sources (total)	10,261,611	10,498,150	11,924,598	no
	fresh water (≤1,000 mg /l of total dissolved solid)	10,261,611	10,498,150	11,924,598	no
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	no
	from underground sources (total)	6,858	7,341	6,630	no
	fresh water (≤1,000 mg /l of total dissolved solid)	0	0	0	no
	other water (> 1,000 mg /l of total dissolved solid)	6,858	7,341	6,630	no
	sea water (total)	0	0	0	no
	fresh water (≤1,000 mg /l of total dissolved solid)	0	0	0	no
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	no
	stratal water (total)	0	0	0	no
	fresh water (≤1,000 mg /l of total dissolved solid)	0	0	0	no
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	no
	from public and other water supply systems	44,940	40,577	44,917	no
	fresh water (≤1,000 mg /l of total dissolved solid)	44,940	40,577	44,917	no
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	no
	Total water volume from public and other water supply systems: surface	44,940	40,577	44,917	no
	Total water volume from public and other water supply systems: underground	0	0	0	no
	Total water volume from public and other water supply systems: sea	0	0	0	no
	Total water volume from public and other water supply systems: stratal	0	0	0	no
The total amount of water taken		10,313,409	10,546,314	11,976,439	no

DISCHARGE						
				ALL REGIONS Megalitres		Areas experiencing water shortage
			2017	2018	2019	
Discharge by types	Surface		60,144.078	77,001.4	73,751.3	no
	Underground		0	0	0	no
	Sea		0	0	0	no
	Public and other water supply systems		0	0	0	no
	Volume of wastewater given for use to other organizations		0	0	0	no
Total discharge			60,144.078	77,001.4	73,751.3	no
Wastewater according to treatment level	Without purification					no
	to the requirements of fisheries	Required level of purification				no
	to the requirements of residential-commercial sector	Required level of purification				no
	others	MPD norms	60,144.078	77,001.4	73,751.3	no

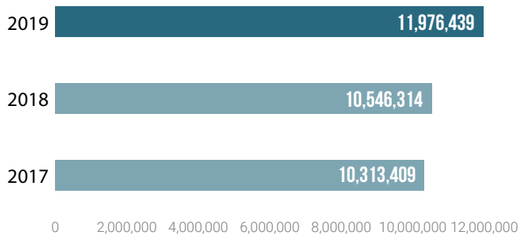
WATER CONSUMPTION					
		ALL REGIONS Megalitres			Areas experiencing water shortage
		2017	2018	2019	
Water consumption	Total water consumption	192,242	201,229	198,438	no

WATER USE					
		ALL REGIONS Megalitres			Areas experiencing water shortage
		2017	2018	2019	
Water use	Total water consumption	10,121,167	10,345,085	11,778,000	no

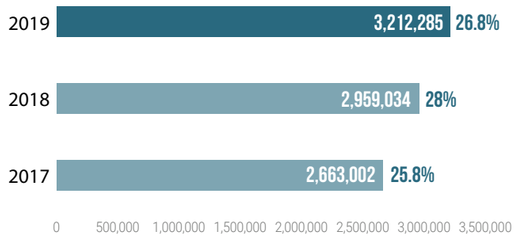
WATER EFFICIENCY OF PRODUCTION					
		ALL AREAS m3 / kWh			
		2017	2018	2019	
Water efficiency	The amount of water taken unit of output	0.371	0.333	0.396	

The share and total volume of recycled and reused water for the reporting period

Total volume of water withdrawn, thous.m³



The volume of recycled and reused water, thous.m³



Aspect "Biodiversity"

International experts are concerned about the extent of uncontrolled consumption and some activities that lead to habitat destruction and the extinction of species.

The Convention on Biological Diversity turned 27 in 2019. During this time, the world community has become aware of the dependence on all types of natural resources and the extent to which their shortage affects investment, reputation and, as a result, the economic performance of a business.

"Samruk-Energy" JSC evaluates the "Biodiversity" aspect as significant in relation to HPP, WPP and REC. The rest of the enterprises do not directly affect the wild vegetation and wildlife because they are located within settlements or in industrial territories.

Thus, "Samruk-Energy" JSC subsidiaries operations may have a negative impact on the ornithological fauna, fish fauna and other freshwater ecosystems, as well as on the flora and fauna of coastal zones.

An environmental impact assessment including on the flora and fauna is performed in order to minimize this impact at planning production activities. The EIA procedure is regulated by the legislation of the Republic of Kazakhstan. Monitoring of the impact on the flora and fauna in the course of further operation of enterprises is also regulated.

At the stage of design, FWPP made provisions to reduce the environmental impact of wind power plants – given that light pollution leads to disruption of the biorhythms of living creatures, nighttime wind turbine lighting is minimized up to the use of only sidelights.

At "AZhC" JSC, in order to minimize the cases of death of birds on overhead lines from electric shock, lines are reconstructed by equipping with insulated wires (SIW).

To reduce the impact on water and terrestrial (coastal) ecosystems, the operating modes of hydropower plants are agreed with the Committee for Water Resources of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, mayor administrations, as well as with the management of SPNR (for example, in the case of Moynak HPP). All hydropower plants are equipped with fish protection devices. In addition, on the recommendation of Kazakh Research Institute of Fisheries, as a fish protection measure, the surface of the water at night is illuminated by spotlights near the water intake in front of the turbine water conduits, thus light spots scares the fish. The movement of fish occurs through bends for idle spillway (IS).

Visual field observations were introduced at HPP and WPP to monitor the impact on the plant and animal world.

In 2019, "Samruk-Energy" JSC did not operate in territories that have any special sanitary or environmental regime or the status of specially protected natural territories.

Operational site	Geogrpahic location	Location with respect to a protected area or area of high biodiversity value outside protected areas	Type of operations	The value of biodiversity, characterized by a feature of a protected area or area with high biodiversity value outside the protected area	Territory management status / class
"FWPP" LLP	Ereymentau city, Akmolinsk region	Buyratau State National Natural Park is 45 km away	Electricity production	There are 2 species of birds included in the Red Book of Kazakhstan in Ereymentau mountains (imperial eagle and steppe eagle). However, clusters of birds were found in lowlands and forest plantations along highways and railways, which in turn are located away from the wind turbines installed at the WPP. Cases of collision with the wind turbine blades since the facility was commissioned were not reported.	Natural park
Moynak HPP	Almaty region	The Charyn National Park is located downstream of the Charyn River at about 55 km away from the Moynak Hydro power plant.	Electricity production	"Moynak HPP" JSC cooperates with UNDP experts in Kazakhstan on the project for preservation of relic aspen grove, which is located downstream of the Charyn River.	Natural park

JAS ENERGY

"Youth is the most energetic part of society; I hope to benefit power industry with my knowledge, and current thinking"

AIBEK NYSANOV
Expert of equipment repair workshop at "Ekibastuz SDPP-1 named after Bulat Nurzhanov" LLP.

Aspect “Emissions”

The problem of air pollution is another most serious global issues, which the human being faces. The relevance of the issue is indisputable – it is no accident that all the activities under the World Environment Day in 2019 were held under the slogan “Beat air pollution”. But the danger of air pollution is not only that clean air is a key component of the right to a healthy environment, but also in changing the planet’s climate.

Given the opinion of experts, “Samruk-Energy” JSC takes climate change seriously. The main directions and goals for reducing the carbon intensity of processes and products are described in the long-term Development Strategy and the Environmental Policy of the Company. Thus, the strategic goals of the Company include the development of renewable energy and hydropower plants, energy management systems have been introduced everywhere, comprehensive programs on increasing energy efficiency and energy conservation were developed, a serious project on gasification of Almaty power plants is planned in addition to the CHPP-1 and WHC that were already transferred to gas.

As part of supporting renewable energy sources, conditional consumers of “Samruk-Energy” JSC group purchased 378 mln. kWh in 2019, which is 40.6% higher than the same period in 2018.

In addition, such subsidiaries of “Samruk-Energy” JSC as “Ekibastuz SDPP-1” LLP, “Ekibastuz SDPP-2 Plant” JSC, “AIES” JSC and “Bogatyr Komir” LLP are facilities that were set quotas and have obligations to reduce GHG emissions as part of the national GHG emissions trading system.

As regards pollutants, the main sources of pollutant emissions in the Company are 1st category fuel stations. Their emissions into the air are strictly regulated by environmental legislation. Air pollutant emissions are produced in volumes determined by production processes in accordance with the developed projects and standards, which are agreed with authorized state agencies and specified in special permits.

Significant substances common to TPP are nitrogen oxides, sulfur oxides, carbon monoxide, dust (ash).

The designing of power plants includes the most preferable conditions for dispersion of pollutants such as the height of the chimneys, the location that takes into account the topography and wind pattern, remoteness from residential areas.

Further, during the operation of the equipment, regular repairs, modernization and other technological measures are carried out that contribute to improving the environmental performance of enterprises. In order to minimize ash emissions, ash collecting technologies are used – at Ekibastuz state district power plants these are electrostatic precipitators, and at Almaty TPPs – new generation emulsifiers. To suppress the production of other gases, low-emission burners are used, the modes are regulated thanks to the high pressure heaters and 4th steam extraction.

Permanent industrial environmental monitoring of compliance with the standards for maximum permissible emissions is carried out and reports are submitted to the regulatory body on a regular basis.

In 2019, two hydroelectric units of “Shardarinsk HPP” JSC were commissioned as part of a project on the plant retrofit, a 416 kW solar power plant of “Samruk Green Energy” LLP was commissioned in Kapshagai city – this will lead to an increase in the share of “clean” generation.

According to the 2019 results, the following was achieved:

- reduction of specific CO_2 emission across Samruk-Energy group of companies in comparison with 2018 (from 0,867 to 0,86 tCO_2/mWh) owing to the decrease in the share of fuel stations’ output and an increase in the share of HPP output;
- specific pollutant emissions across the group of companies amounted to 10,5 g / kWh, which is 3% higher than in 2018 due to an increase in specific emissions of sulfur dioxide, which in turn is caused by an increase in sulfur content in coal (2017 – 0.48% , 2018 – 0.57%, 2019 – 0.67%);
- reduction of unit emissions of dust (ash) by 2%, unit emissions of NOx by 3%.

Direct greenhouse gas emissions

	Measurement unit	Volume		
		2017	2018	2019
Carbon dioxide	thous. tons	29,839.62	33,744	31,593
Methane		321.67	351.98	353.850
Nitrogen oxide		0.285	0.293	0.275

Methodologies: Guidelines for National Greenhouse Gas Inventories, IPCC, 2006; MG for calculating greenhouse gas emissions from thermal power plants and boiler houses, Astana, 2010, Schedule 9 to the order No. 280-p of the MEP of the Republic of Kazakhstan dated 5.11.2010.

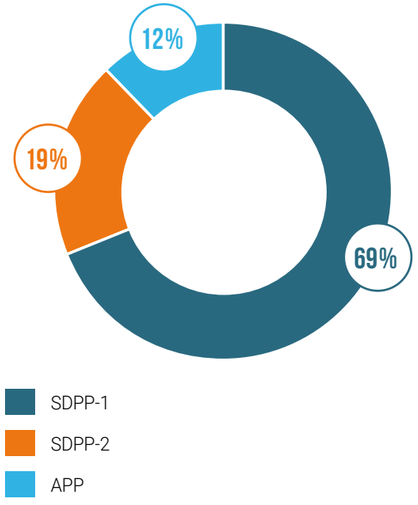
The Republic of Kazakhstan legislation does not require a mandatory assessment of indirect greenhouse gas emissions, but we assume that the indicated greenhouse gas emissions contain 95% of the total greenhouse gas emissions, including indirect (Scope 1 and 2) Samruk-Energy group of companies since at calculating direct emissions, the own energy needs of SA are taken into account.

ODS and other emissions

	Measurement unit	Volume		
		2017	2018	2019
ODS production volume	–	–	–	–
ODS import volume		–	–	–
ODS export volume		–	–	–
Persistent organic pollutant (POP)		–	–	–
VOC	Tons	245.6	297.2	261.6

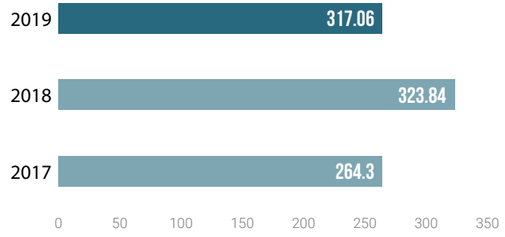
Pollutant emissions, *thous. tons*

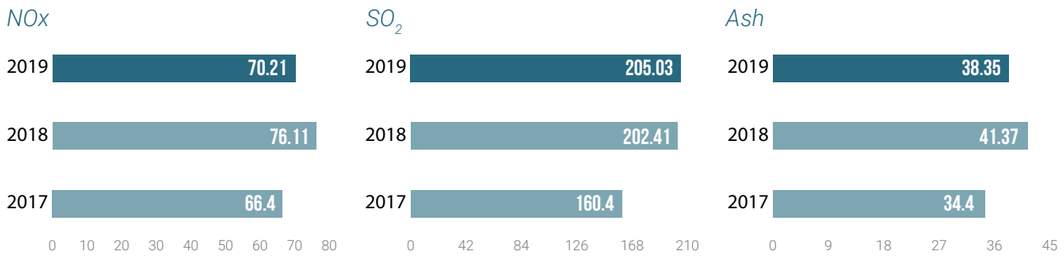
SA input into aggregate emissions of the Company “Generation” sector 2019



The volume of gross emissions across “Samruk-Energy” JSC group of companies

Gross emissions





Aspect "Waste"

The lack of balance in production and consumption results in the increase in the volume and types of waste at an unprecedented rate. When improperly managed, waste can become a serious source of pollution of air, soil and land, as well as groundwater with all its consequences.

The best way to reverse the observed trend is the so-called hierarchical procedure for waste management. Samruk-Energy also observes the hierarchy of waste management striving primarily to reduce waste generation per unit of output.

The production process is bound to waste generation, and when managing those wastes enterprises strive to comply with environmental, sanitary and epidemiological requirements and standards in the field of treatment of certain types of waste. Therefore, production waste at "Samruk-Energy" JSC group includes ash and slag waste at TPP and overburden at "Bogatyr Komir" LLP coal mine. These types of waste are classified as non-hazardous and make up a large proportion of the total waste.

For consumer waste (waste paper, plastic waste, mercury-containing lamps, non-ferrous and ferrous scrap, electronic and electrical equipment, etc.) measures are provided for the separate collection and further transfer of this waste for processing or disposal to third-party companies.

"Samruk-Energy" JSC SA do not import, export, transport, process any kind of hazardous waste.

The total mass of waste by type and method of treatment

		Measurement unit	Mass		
			2017	2018	2019
1	Total waste produced, incl	thous. tons	80,114.8	81,067.7	79,435.9
2	Hazardous		11.8	18.8	18.8
3	Non-hazardous		80,103.0	81,048.9	79,417.13

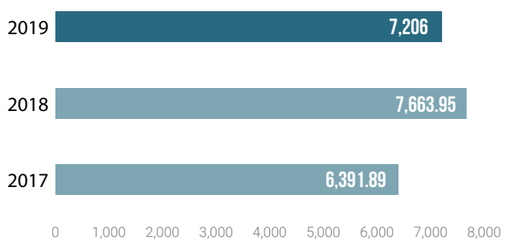
The disposal of production waste across "Samruk-Energy" JSC group is carried out in the most secure way. To prevent dusting, ash and slag wastes at Ekibastuz SDPPs are buried in ash dumps under the edge of the water, a combined ash and slag removal system, which is unique to Kazakhstan, is used and at Almaty power plants. Reclamation of depleted parts of ash dumps is carried out annually. Overall, the development of hydropower plants and renewable energy facilities also contributes to the reduction of ash and slag waste production.

The placement of overburden in the internal dump of the worked out space at the Severny and Bogatyr open pits allowed reducing the placement of overburden on the external dumps and thus reducing the impact on the adjacent territories. In order to prevent oxidative processes and prevent spontaneous combustion of coal-bearing rock stored in dumps, measures on isolating dumps with inert rocks and compacting the roof of dumps are taken.

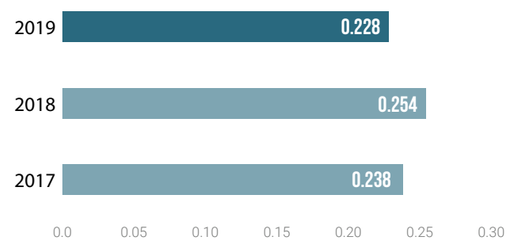
According to the 2019 results, owing to the reduction of fuel consumption per unit of production, ash and slag waste generation was reduced.

The work on disposal of accumulated ash and slag is underway, but at a slow pace, which is because of the lack of sufficient demand for ash and slag materials as raw materials. Dry ash installation (hereinafter – DAI) was launched at "ESDPP-2 Plant" JSC. In 2019, according to current data, about 11,3 thous. tons of dry ash were supplied from DAI. Ash and slag of "ESDPP-1" LLP and "ESDPP-2 Plant" JSC plants are used in the construction of roads in the Pavlodar region.

Ash and slag, *thous. tons*



Per unit indicator of ash&slag generation under Fuel generation sector, *kg of ash and slag/kWh*



JAS ENERGY

"I came to power industry following in the footsteps of my father. I love my job, always learn something new, meet new people and never feel bored. Our job is to prevent work-related injuries, incidents. The issue is serious: the lives and health of the enterprise employees are at stake ..."

ALIYA OSPANBAYEVA

Occupational health and safety leading engineer at "ESDPP-2 Plant" JSC

“SAMRUK-ENERGY” JSC VALUES
KYAT/QÝAT/ENERGY

“ҚАМҚОРЛЫҚ”/QAMQORLYQ/ MENTORSHIP

- We are always ready to help and support
- We act openly to build trust with colleagues and partners
- We are ready to mentorship, preserving and sharing experience

“УӘДЕГЕ БЕРІКТІК”/ÝÁDEGE BERIKTIK/RELIABILITY

- We are responsible for failure-free operation and quality work
- We are responsible for future generations and take care of the environment
- We are responsible for the widespread creation of safe, comfortable and competitive working conditions.
- We are committed to our obligations

“АДАЛДЫҚ”/ADALDYQ/JUSTICE

- We impartially assess a situation and act fairly at addressing any issues
- We apply equal requirements and provide equal opportunities
- We value opinions of others, providing the opportunity to speak and be heard

ТӘЖІРИБЕ/TÁJIRIBE / EXPERTISE

- We treat assigned tasks with due diligence and enjoy our work
- We are professionals, we improve ourselves and achieve results
- We search for different views and apply miscellaneous methods

“SOCIAL” CATEGORY

The Company recognizing the social responsibility of business, in order to ensure maximum benefits to society from its operations, accepts voluntary commitments for the responsible participation in the lives of the Company’s employees, the population in the regions where the Company operates and society as a whole.

Our employees

Human resources management is one of the priority areas in the Company’s business and human resources are managed on the basis of the Personnel Policy of “Samruk-Energy” JSC for 2018–2028.

Personnel Policy’s mission
To pool efforts of human resources for the achievement of strategic goals of the Company in the long term and providing a competitive advantage in the market.

Personnel Policy’s vision
A single effective corporate culture aligned to the values of each employee, which contributes to the growth of human potential and dynamic sustainable business development.

The strategic role of the HR function is expressed primarily in the planning of labor resources for the future in quantitative and qualitative terms.

The special focus of the Company will be on managing the planning and providing labor resources by managing the organizational structure and number of employees, managing the quality and competences system, and recruiting and selecting personnel.

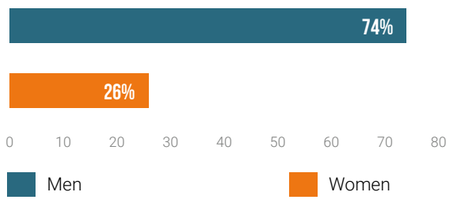
“Samruk-Energy” JSC is one of the largest employers in the Republic of Kazakhstan. As of December 31, 2019, the Company’s headcount amounted to 17,699 people.

“Samruk-Energy” JSC personnel structure over the past years has remained stable.

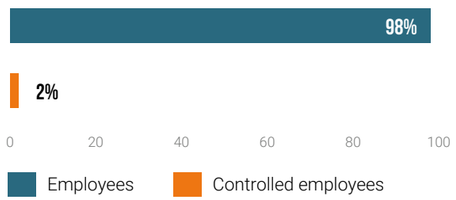
The company strictly complies with applicable laws and, in case of other significant changes related to the activity, including upon termination of the employment contract, the company notifies employees in writing at least one month in advance.

The share of full-time employees in the reporting period was 100%.

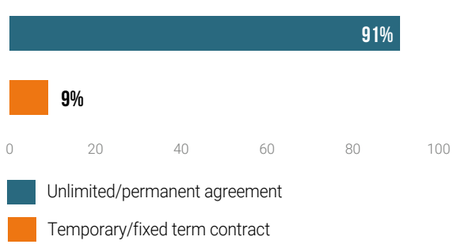
Total workforce by gender for 2019



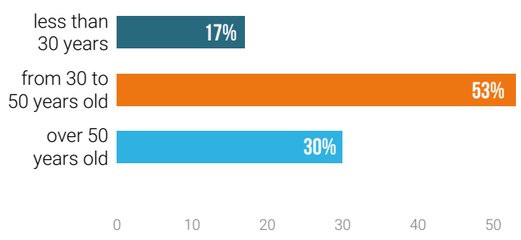
Total workforce by employment type for 2019



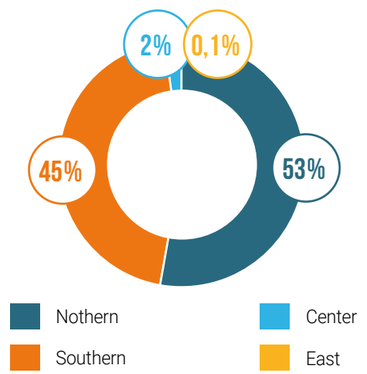
Total workforce by region for 2019



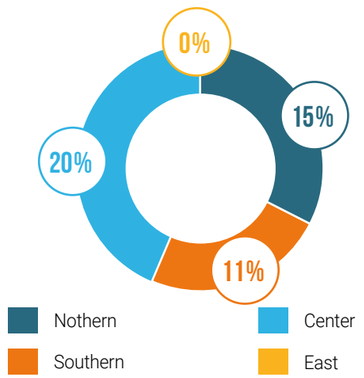
Staff turnover by age for 2019



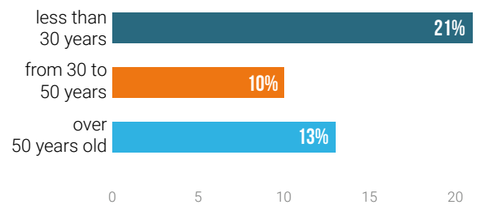
Total workforce by region for 2019



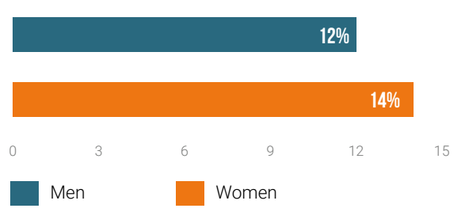
Staff turnover by regions for 2019



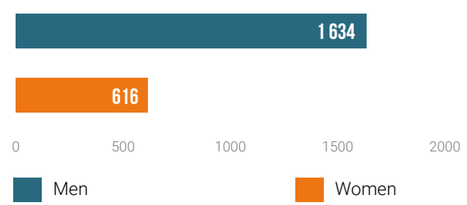
Staff turnover by age for 2019



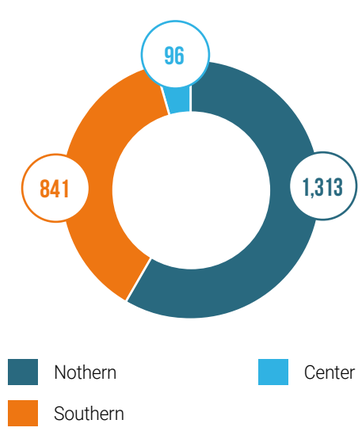
Staff turnover by gender for 2019



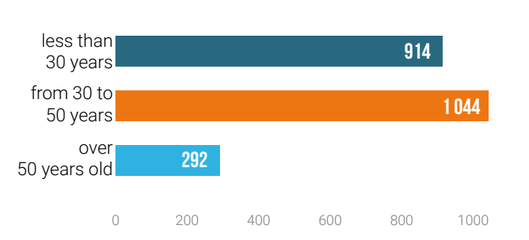
Newly hired employees by gender for 2019



Newly hired employees by regions for 2019



Newly hired employees by age for 2019



The composition of the organization's employees at the end of 2019, broken down by gender, age group with an indication of minorities representatives

№	Indicator	Employees	Share
1.	**Gender**	**17,699**	
1.1.	Men	13,074	74%
1.2.	Women	4,625	26%
2.	**Minority groups (racial / ethnic, religious, with disabilities)**	**17,699**	
2.1.	Kazakhs	10,768	61%
2.2.	Russians	4,794	27%
2.3.	Ukrainians	675	4%
2.4.	Uighurs	341	2%
2.5.	Tatars	343	2%
2.6.	Germans	249	1%
2.7.	Belarusians	123	1%
2.8.	Koreans	46	0,3%
2.9.	Other	360	2%
3.	**Age groups**	**17,699**	
31.	Up to 30 years	3,024	17%
3.2.	From 30 to 50 years old	9,292	53%
3.3.	Over 50	5,383	30%

In connection with the production specifics of the Company's operations, male employees are involved in the main production areas, whose share of the total staff in 2019 was 74%.

Together with the EBRD and Ergon Associates, a project was launched at "Samruk-Energy" JSC, within the framework of which a Statement of Support for 7 Principles for the Empowerment of Women, developed through a partnership between UN-Women and the United Nations Global Compact, was signed. This document assumes adherence to the principles of gender equality as a key element of sustainable development, as well as the conviction that companies that provide women and men with equal opportunities are more successful and achieve better results. To accomplish this goal, the Company has implemented an Action Plan.

Over the reporting period, 170 employees across "Samruk-Energy" JSC group of companies were granted parental leave. Of these, 166 women and 4 men. 123 women resumed their work in the reporting year.
The main share of the Company's staff consists of employees aged from 30 to 50 years (59%).

The average age of staff in 2019 was 42 years.
The average work experience is 11 years.
Percentage of employees hired in the reporting year – 13%.

The share of top managers in significant regions of the organization's activities, hired from among the representatives of the local population – 96%
In 2019, the staff turnover rate was 9%.
The main reasons are the prospect of higher salaries elsewhere and the lack of a career and professional development and training.
Upon termination of the employment contract, the employer notifies employees in writing of termination of the employment contract at least one month in advance.
According to the Collective Agreement, to employees upon termination of the employment contract, in connection with retirement, a compensation payment of 3 wages is paid.

Due to the specifics of the activity, "Samruk-Energy" JSC group of companies has no risk of using child and forced labor, as well as young workers performing hazardous work.

Motivation and remuneration

Understanding and satisfying the current and future expectations and needs of employees is the key to the long-term success and prosperity of the Company.

The Company adheres to the following policy of remuneration and motivation:

- setting a minimum guaranteed level of remuneration in the Company for all employees at a level exceeding the legislatively established minimum amount of remuneration, taking into account the need to meet basic living needs and provide a certain income, taking into account local conditions;
- wage indexation based on the consumer price index;
- periodic increase in wages resulting from better performance;
- the use of flexible bonus systems for complete consideration of an individual labor contribution of an employee;
- the objectivity and unity of the system of payment and motivation of workers and its competitiveness at the national level;
- rewarding with corporate and industry awards.

The average salary of employees across "Samruk-Energy" JSC group of companies for 2019 increased in relation to the same indicator by 4% – from **234,140** tenge to **243,640** tenge.

The minimum wage across the group of companies is 135,526 tenge. The ratio of the minimum wage of women to the minimum wage of men is 100%. Wages are set based on the wage scheme and tariff rate.

In order to increase the content of wages and compensate for inflation processes, as well as in accordance with the Collective Agreements concluded, in 2019 "Samruk-Energy" JSC group of companies carried out an indexation of wages by an average of 5%.

The employee compensation system is based on the principles of: internal justice and external competitiveness; transparency and clarity; compliance with the goals and financial and economic capabilities of companies; remuneration / bonus taking into account the results of the company and personal contribution.

In order to motivate employees, "Samruk-Energy" JSC, in recognition of merit, develops types of non-material motivation and forms of indirect additional financial remuneration – social protection programs for employees and additional benefits.

The Company, in accordance with the Collective Agreement, provides for: overtime pay, pay for work on holidays and weekends, at night, allowances and surcharges, pay for employees engaged in heavy work, work with harmful (especially harmful), dangerous working conditions, additional paid annual leave, financial assistance in connection with the birth of a child, financial assistance for the wedding and one-time bonus in connection with the anniversary (50, 60 and 70 years).

Employees who combine work with training in educational institutions are also provided with additional leave for the period of examination or adjustment sessions, preparation and protection of the graduation project (work), and sitting of final exams.

Range of ratios of standard entry level wage compared to local minimum wage at significant locations of organization's operation

No.	Indicator	Value (2019)	Measurement unit
1.	Minimum wage	42,5	thous. tenge
2.	Wage of entry level employee in an organization in significant regions of operation	135,5	thous. tenge
2.1.	Men	163,9	
2.2.	Women	141,1	
3.	Ratio	319%	%
3.1.	Men	121%	
3.2.	Women	104%	
No.	**Indicator**	**Value (2018)**	**Measurement unit**
1.	Minimum wage	28,3	thous. tenge
2.	Wage of entry level employee in an organization in significant regions of operation	140,7	thous. tenge
2.1.	Men	144,9	
2.2.	Women	136,3	
3.	Ratio	497%	%
3.1.	Men	103%	
3.2.	Women	97%	

To motivate and encourage employees across "Samruk-Energy" JSC group of companies, the honoring of distinguished employees with state, departmental and industry awards from the CIS Electric Energy Council, Kazakhstan Association of Oil and Gas and Energy Sector Organizations "KAZENERGY", "Kazakhstan Electricity Association" ALE, "Samruk-Kazyna" JSC, etc was held as part of the corporate culture development.

No.	Full name	Award type	Company name
1.	**Sabyrkulov Bisembek Abenovich** – Managing Director of the Cascade of HPP	"Qurmet" Order	"Almaty Power Plants" JSC
2.	**Mnaidarova Rauza Eslamgaleyevna** – 2nd category repair engineer of the thermal automation and measurement workshop	"Eren enbegi ushin" medal	"Ekibastuz SDPP-2 Plants" JSC
3.	**Dusembinov Evgeni Nizamovich** – Head of the Commercial Dispatch Division of the Trade House	"Honored Power Engineer of the CIS "	"Samruk-Energy" JSC
4.	**Aidarbekov Galymzhan Abikenovich** – Deputy Chairman of the Management Board for Production	"Honored Power Engineer of the CIS "	"Moynak HPP named after U.D. Kantayev"
5.	**Zhanabaev Bakitbek Kaipzhanovich** – Chairman of the Board	"Honored Power Engineer of the CIS "	"Shardarinsk HPP" JSC
6.	**Tulegenov Gibrat Kalyshovich** – Head of Operations Department	"Honored Power Engineer of the CIS "	"Ekibastuz SDPP-1 named after Bulat Nurzhanov" LLP

In addition, many employees of "Samruk-Energy" JSC group of companies were awarded the ranks and honorary diplomas of Kazakhstan Electricity Association. Employees of "Ekibastuz SDPP-1" LLP, "Shardarinsk HPP" JSC, "Samruk Green Energy" LLP, "First Wind Power Plant" LLP, "Alatau Zharyk Company" JSC were among the employees that were awarded by the Kazakhstan Electricity Association.

Development and career growth

The specifics of power industry requires constant continuous training and retraining of personnel for admission to work and maintaining a high level of professionalism. "Samruk-Energy" JSC group strives to constantly develop and train employees. Personnel training and development are a key success factor in ensuring economical, trouble-free and efficient operation of an equipment and the company as a whole.

The training system aims to develop skills, knowledge and competencies of categories and groups of personnel depending on business's goals and objectives. The priority in the development and implementation of training programs in accordance with the Company strategic directions is the development of employees competencies to work in a competitive environment in the field of developing commercial skills and effective sales, finance and investment management, due-diligence, international deals management, project management, change management, introduction of digital technologies, operational management.

One of the priority areas in training remains certification of personnel according to internationally recognized training programs.

"Global Digital Trends", "Public Speaking" trainings were arranged for CEOs in 2019 as part of leadership programs. As well as training on the topics "People Management", "Change Management", "Strategic Management", "Digital Skills" and coaching skills training for CEO-1 and CEO-2 level employees.

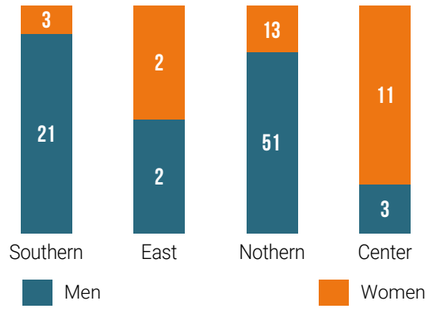
Improving the methods and forms of staff development of "Samruk-Energy" JSC includes the use of advanced digital technologies in training, the development of distance / module training, the introduction of internships, the development of internal coaching, mentoring and coaching.

In 2019, the total expenses for staff training amounted to 361,701 thous. tenge.

Average hours of training per employee per annum, by category of employees

Personnel category	Total headcount as of the end of 2019		Number of training hours for 2019		Average training hours per employee/ year
	men	women	men	women	
Top management	56	7	1,591	240	29
Office and management personnel	1,965	636	35,057	23,372	22
Production personnel	11,005	3,583	586,990	146,747	50
Maintenance personnel	48	399	1,735	7,395	20
Personnel category	**Total headcount as of the end of 2018**		**Number of training hours for 2018**		**Average training hours per employee/ year**
	men	**women**	**men**	**women**	
Top management	53	7	1,631	277	31
Office and management personnel	1,979	631	23,270	15,513	29
Production personnel	10,942	3,644	567,353	141,838	44
Maintenance personnel	46	417	1013	4,321	21

Average training hours per employee per year, broken down by regions



The Company carries out the below described employees performance appraisal:

- a comprehensive (final) assessment of goals and competencies, which includes: self-assessment, review meetings, a review of skills, potential, assessment and provision of directions for employees to improve business performance and development opportunities.
- an interim review of the activities of employees, which is carried out quarterly, with the aim of monitoring the degree of achievement of goals for the reporting period.

An assessment of 94% of the administrative and managerial staff was done, including 95% of men and 94% of women.

In order to maintain and unravel competitiveness, proactively respond to external and internal challenges, build the potential of promising, highly professional and involved employees, educate own executive staff, the Company is developing a system of succession and talent management.

"Samruk-Energy" JSC group of companies creates a single personnel reserve for occupying key positions and introduces selection and appointment procedures from the talent pool based on the principles of objectivity, transparency and fairness, voluntariness, and efficiency.

However, the emphasis should not be placed only on vertical career development, but also on the development of cross-functional expertise.

The process of formation and development of the personnel reserve is closely integrated with the annual employees' performance appraisal, based on which a talent map is created and individual development plans (IPR) of succession pool members are prepared, involved mentoring, internship programs and a succession program are developed.

As part of the development of corporate governance, "Samruk-Energy" JSC Board of Directors and company management bodies pay a great deal of attention to the preparation and implementation of a plan for succession to senior positions.

Safety and health protection of employees

Subject to sustainable development principles, the Company pursues a policy on reducing occupational injuries rate and improve working conditions for employees.

One of the main objectives of "Samruk-Energy" JSC group of companies is to ensure safe working conditions for each employee.

The Company does not have activities that are potentially associated with high injuries or a high risk of certain diseases.

The company carries out the following work (not limited to):

1) hazard and risk analysis for individual professions and jobs;
2) an assessment of potential impacts and risks caused by natural hazards, such as earthquakes, landslides or floods;
3) the provision of personal protective equipment, an explanation of the requirements for the use of personal protective equipment, and ensuring the use of personal protective equipment;
4) safety training for all personnel, taking into account the dangers and risks of their work;
5) development of a program for the investigation of incidents, keeping records of incidents, including: the total number of hours of work, serious injuries, lost time and incidents that could lead to injuries, etc .;
6) the development of a medical examination program for employees;
7) ensuring the implementation of a system for issuing work permits, covering both its own employees and contractors, for hazardous tasks such as working in confined spaces;
8) development and implementation of procedures "blocking and installation of warning plates";
9) monitoring hazard at the workplace;
10) placement of safety signs (fire safety, emergency response, noise, smoking, etc.), where necessary;
11) development of action plans in case of emergency, major industrial accidents.

Each company, which is the member of "Samruk-Energy" JSC group is certified according to the international standard "Occupational health and Safety Management System OHSAS-18001".

Workplace labor conditions compliance certification (1 time in 5 years) is conducted in accordance with the RK legislation. Action Plans were developed on the basis of the certification results in order to improve the working conditions of employees working in harmful and dangerous working conditions.

In accordance with OHS Policy, each organization that is a member of "Samruk-Energy" JSC group of companies annually implements action plans for managing occupational health and safety issues, and conduct a set of organizational and preventive activities.

According to the Rules for working with staff in power sector companies of the Republic of Kazakhstan, approved by the order of the Minister of Energy of the Republic of Kazakhstan dated March 26, 2015 No. 234, SA conduct regular safety training with personnel as follows:

- training for the new position, including: training; internship at a workplace; initial qualification test of knowledge; duplication;
- regular qualification tests of knowledge;
- control emergency and fire training;
- briefings;
- skills upgrading.

Training is conducted on a quarterly basis according to approved schedules.

In accordance with Article 203 of the Labor Code of the Republic of Kazakhstan, production councils in charge of occupational health and safety issues were established at all SA of the Company (production councils). It comprises representatives of an employer, representatives of employees, including technical inspectors for labor protection on a parity basis.

Telephone conferences with the heads of units supervising OHS are conducted every quarter, as a result of which guiding documents on the prevention of workplace accidents are adopted.

Written agreements on cooperation in OHS field were concluded with the authorized labor agencies of Almaty, Pavlodar and Turkestan regions.

The Company has introduced the practice of conducting scheduled and unscheduled (sudden) inspections on compliance with international standards requirements, regulations of the Republic of Kazakhstan, internal regulatory documents of the Company in OHS field. 14 scheduled inspections and 3 unscheduled (sudden inspections) were conducted during the reporting period.

Registration, reporting procedure and accounting of industrial accidents was carried out in accordance with Chapter 20 of the RK Labor Code "Investigation and registration of work-related accidents" and other regulatory legal acts of the RK.

In line with the corporate standard "Accounting and investigation of incidents", the practice of conducting internal investigations of accidents has been introduced in order to determine the root (system) causes. Incidents that did not lead to accidents are studied in line with the aforementioned corporate standard.

In order to maintain occupational safety and reduce occupational injury rate, 44 incidents that did not lead to accidents were investigated during the reporting period. Corrective measures have been developed based on the results of the investigations and are implemented today.

Despite the large number of preventive and corrective measures taken, in 2019 10 workplace accidents were reported, including 1 group: 1 of them was fatal, 5 had a severe outcome, 5 had light outcome. 1 fact of concealment of an accident was revealed at "ESDPP-1" LLP, which occurred on February 23, 2018, it was work-related accident and recorded in 2019. The below are occupational injuries indicators by type of injury.

Number of injured by injury types

Injury description	2017	2018	2019
Chemical burn, thermal burn	–	1	2
Bruise	–	1	1
Traumatic amputation	–	–	–
Electric injury (thermal burn)	2	–	1
Fracture	4	5	5
Combined injuries (fracture, bruises, tears of internal organs)	1	1	–
Eye injury	–	–	–
Traumatic brain injury, brain concussion	–	2	2
Number of injured	**7**	**10**	**11**
Number of accidents	**7**	**10**	**10**

LTIFR, Lost Time Injury Frequency Rate, amounted to: 10 * 1000000/30359979.9 = 0,33.

FIFR, Fatal Injury Frequency Rate, connected with the production activities of FIFR amounted to: 10 * 1000000/303599979 = 0,03.

Accident severity rate – 574, 49.

LDR, Lost Day Rate in connection with injuries amounted to: 1298 * 1000000 / 2259386 = 574,49.

Lost days rate was 1298.

Missed days rate – 172984.

Occupational diseases rate for the reporting period was not identified.

Two fatal accidents recorded during the reporting period. In both cases were male workers in the Almaty region. One of the cases occurred at "AZhK" JSC and the second – at the contracting organization of "APP" JSC.

In order to provide employees with security guarantees, the Company will continue to develop a social protection program (medical insurance, life insurance, pensions, accident insurance, etc.), and improve working conditions.

In accordance with the law, the Company also provides sick leave payment, medical insurance, accident insurance of employees in the performance of their labor (official) duties, annual medical examination of employees and financial assistance in case of industrial injury.

An increase in workplace injury rate in 2018–2019 compared to 2017 is due to enhancing the work on increasing transparency of workplace accidents registration. For instance, the activity "1000 days without accidents" was held at "ESDPP-1" LLP, in 2019 there were 6 accidents, including one accident concealed in 2018.

Each case of work-related injury at any enterprise of the Company gets a high status of importance and is promptly submitted to the Board of Directors / Supervisory Boards of companies that are part of "Samruk-Energy" JSC group.

Actions taken to eliminate workplace accidents

The following measures are taken in order to reduce workplace injury rate across "Samruk-Energy" JSC group of companies:

1. All employees are informed about circumstances and causes of accidents.

2. All production personnel receive unplanned instructions (in case of accident occurrence)

3. Unscheduled test of employees for OR, occupational safety rules knowledge is held at business units at which an accident took place.

4. Occupational safety days with participation of CEOs of companies are organized on a monthly basis. Actions aimed at elimination of identified violations are taken according to the results of the occupational safety days.

5. Occupational health and safety services organize comprehensive inspections of equipment, buildings, facilities and workplaces. Action plans with deadlines and persons in charge based on results of comprehensive inspections are developed.

6. All production personnel are trained according to the Rules for training, instruction, and testing of employees' knowledge of occupational safety. Executives complete training courses on occupational health and safety management systems, specialists take courses on upskilling in OHS field "NEBOSH" International certificate".

7. Seminars and meetings with engineers and technicians of structural subdivisions authorized to give assignments, manage and perform works are held prior to the repair campaign; such workshops cover practical trainings on the correct access for teams to perform works and prepare work orders.

8. At least once every five years, enterprises undergo assessment of workplaces with respect to working conditions.

9. Equipment that exhausted its service life and posing a serious threat to production personnel is replaced according to the schedule.

10. The maps / registers of risks at workplaces are updated, and additional trainings on identification of hazards and risk assessment for staff are held.

11. A system of individual responsibility for violations of OHS requirements safety regulations has been introduced.

12. The practice of maintaining electronic journals has been introduced to record hazardous and harmful production factors.

13. As part of activities aimed at increasing transparency of all accidents reporting and accounting system, the practice of recording and investigating potentially dangerous incidents has been introduced. In 2019, a moratorium for taking disciplinary actions against those responsible for OHS related incidents (hereinafter – the moratorium) was introduced across the Company's group. The moratorium has been extended until the end of 2020.

14. The employees of the Company's group actively participate in events for the exchange of experience in OHS field, including those arranged by "Samruk-Kazyna" JSC (participation in the work of the Committee for OHS, Industrial Safety, Environmental Protection and the Expert Group).

Not least important area of activity on reducing occupational injuries rate is improvement of safety culture. As such, the Project for introduction of the new integrated security management model has been implemented within Transformation Program starting from March 31, 2017.

The project is aimed at reducing injuries and the severity of personnel injuries, as well as improving the safety culture (staff involvement and motivation).

Introduction of new methods/standards in OHS and environmental protection area includes:

1. Improvement of the process of studying the effectiveness of injury prevention management system;

2. The transition to a risk-based approach in the field of hazard analysis and accident prevention;

3. Introduction of the following corporate standards:
- "Assessment of OHS and environmental protection management system by executives";
- "Conducting a leadership behavioral safety audit";
- "OHS,FS, RS, Environmental protection risks evaluation";
- "Golden safety rules";
- "Accounting and investigation of incidents";
- "Motivation of staff for safe behavior."

The project is implemented at a group of companies on a staged basis. Target processes were introduced in 2019 at "Samruk-Energy" JSC, as well as at "Ekibastuz SDPP-1" LLP, "Moynak HPP named after U.D. Kantayev" JSC and "Shardarinsk HPP" JSC. The commencement of the Project was announced at "Ekibastuz SDPP-2" JSC and "First Wind Power Plant" LLP in the second half of 2019.

This is the largest project in terms of impact assessment. Currently, about 3500 employees are involved in the project.

By December 31, 2021, the project will be implemented across the entire group of companies. Injury rate indicator is expected to reduce by 30 % until 2028 owing to the project implementation.

Fire safety

All entities that are part of "Samruk-Energy" JSC group of companies are provided with primary fire extinguishing equipment: portable and mobile fire extinguishers, equipped with fire hydrants, provided with boxes with powder composition (sand), as well as fire-resistant fabrics (felt, etc.). Supervisory government bodies, employees representatives of "Samruk-Energy" JSC, as well as labor protection specialists of an enterprise monitor the availability of fire-fighting equipment during scheduled and unscheduled inspections.

1 case of fire was reported in 2019 at the facilities of enterprises that belong to "Samruk-Energy" JSC group of companies. On April 4, 2019, at "Bogatyr Komir" LLP, fire occurred in the engine compartment of the excavator because the hydraulic pump shell broke. Reason: rupture of shell of the hydraulic pump's high pressure hose; 1 person got injured, it was an excavator operator who was paid 251,375 tenge.

JAS ENERGY

"I decided to become electrical engineer not only because this job is in demand, but also because it is interesting and fascinating. I am glad to contribute to the success of my country and work for its benefit".

TEMIRLAN SEITZHANOV
An expert of thermal automatics and measuring instruments workshop at "ESDPP-2 Plant" JSC.

Social stability and corporate culture development

The annual measurement of indicators of social stability and employee involvement allows taking timely measures on increasing employee loyalty and trust, social welfare and employee involvement, improving working conditions and processes associated with staff work, developing communication systems and informing about any changes. The Company aims for fast improvement of all indicators of these studies based on the analysis of social indicators and a survey of employees.

According to the results of the study, the Social Stability Index for 2019 was 65%. Compared to the previous year, the indicator increased by 1%. At the same time, the Engagement Index according to the results of the study for 2019 increased by 15% compared to the previous year and amounted to 68%.

Corrective Action Plans are developed and approved in order to improve the working conditions of employees and take the necessary management measures to stabilize the situation in the team.

Conciliation committees are formed and operate at "Samruk-Energy" JSC group of companies, consisting of representatives from the employer and representatives of trade union workers, whose main function is explanatory work among the labor collective, complaints and appeals procedures. "Samruk-Energy" JSC group of companies strives to provide a competitive social package, the availability of which allows attracting qualified employees. Compensation and benefits are designed to improve the welfare and level of social protection of employees and their families. The number of social payments and benefits provided to employees of the Company's Group in accordance with signed collective agreements include:

1. financial assistance for health care provided at vacation, for the birth of a child;
2. financial assistance for burial (an employee and immediate relatives), for the treatment of retired employees, for emergency situations, etc.
3. financial assistance in connection with loss of income (registration of maternity leave or leave due to the adoption of a newborn child);
4. voluntary health insurance;
5. health resort treatment
6. a one-time incentive payment in connection with employees anniversary celebration (50, 60 and 70 years);
7. expenses for holding festive, cultural and sports events;
8. payment of loans;
9. allowance for injury and loss of primary income earner;
10. New Year's gifts to children, etc.

Social guarantees and benefits for 2019 were provided in accordance with the Collective Agreement in the amount of 789,942.6 thous. tenge.

Share of employees under collective bargaining agreement

No.	Indicator	Value (2018)	Measurement unit
1.	Total employees (headcount) as of the end of 2019	17,719	People
2.	Including employees under collective bargaining agreement for 2018:	17,151	People
3.	Share of total employees under collective bargaining agreements:	97%	%

The Company implements the following activities for health improvement, sports and recreation organization:

1. the provision of additional days to paid annual labor leave for years of employment;
2. carrying out physical fitness work and the development of mass sports among employees and members of their families, providing them with access to sports infrastructure, organizing training and competitions;
3. regular promotion of healthy lifestyle among employees using corporate media;
4. the annual allocation of funds for holding of cultural events, purchase of New Year's gifts, purchase of valuable gifts on Power Engineer's Day;
5. the organization of leisure activities for school-age children during the summer holidays at health camps or health and recreation resorts of the Republic of Kazakhstan;
6. partial compensation for the cost of trips to health camps and children's health centers for children with disabilities and orphans for employees of the Company.

During the summer period of 2019, 3,134 people were on vacation at "Berezka" recreation facility of "Zhasybay" health and recreation center, and 1,152 children rested at "Karlygash" children's health center of "Zhasybay" health and recreation center.

For improvement of employee's health, in 2019, the management of "Bogatyr Komir" LLP purchased and provided 260 vouchers to "Moildy", "Belokurikha" and "Arman" health and recreation centers.

To provide employees with security guarantees, the Company will continue developing a social protection program (medical insurance, life insurance, pensions, accident insurance, etc.), improving working, and living conditions.

Payments and benefits provided to full-time employees which are not provided to employees who work under conditions of temporary or part-time employment, broken down by core activities

No.	Indicator	For full-time employees	For employees with part-time or temporary employment
1.	**Payments and benefits to employees**		
1.1.	Life insurance	Provided	Provided
1.2.	Healthcare (medical insurance)	Provided	Provided
1.3.	Compensation for disability	Provided	Provided
1.4.	Maternity/paternity leave	Provided	Provided
1.5.	Granting pension (one-time payment upon retirement)	Provided	Not provided
1.6.	Transfer of company shares into ownership	Not provided	Not provided
1.7.	Other (health resorts treatment, financial assistance in connection with the birth of a child, financial assistance for the treatment of family members, financial assistance for rehabilitation)	Provided	Provided

In 2019, social payments across "Samruk-Energy" JSC group of companies were made in the amount of 3,849,496 thous. tenge. In the same period of 2018, expenses for social payments amounted to 3,229,763 thous. tenge. In the structure of payments, the main share is made up of expenses: a one-time allowance for healthcare when granting a leave – 28%, treatment of employees in health resorts – 6%, one-time benefit in connection with employees anniversary (50,60 and 70 years) – 3%, financial assistance in connection with the birth of a child – 2%, expenditures for festive, cultural and sports events – 3%, etc of the total amount of social payments.

As part of the development of corporate culture in the reporting year, the Company group held cultural and leisure events dedicated to the celebration of the Women's Holiday – March 8, Nauryz holiday, Constitution Day, Power Engineer's Day with honoring distinguished employees and awarding state, departmental and industry awards of the CIS Electric Power Council, Kazakhstan Association of oil, gas and energy sector organizations "KAZENERGY", ALE "Kazakhstan Energy Association", JSC ,"Samruk-Kazyna" JSC, etc.

Young employees policy

The Company is fully engaged in increasing youth involvement, aimed at creating an active life position of the young generation, patriotic education, social support of youth and providing the Company with high-level specialists in the future.

The objectives of this area are:
- creation and development of the Youth Council under the management of the Company from among the youth assets of companies;
- interaction with youth public associations;
- participation of young specialists in scientific and practical conferences, forums, competitions and other events;
- the work with specialized educational organizations within cooperation on matters like training, search and selection of best graduates, organization of internships for students, participation in the improvement of curricula and the development of dual training, the development of scholarship programs, etc.;
- development of social support programs for young professionals, young families;
- development of adaptation systems, internships, mentoring, training, career and professional planning in relation to young specialists.

"Jas Energy" Youth Council was established in 2019.

The performance results of the Council as of year-end 2019 were:
1. The first forum for young specialists of "Samruk-Energy" JSC group of companies – Jas Energy Fest;
2. Charity Fair "Shyn zhurekten". The funds raised were used to support mothers with many children and the elderly;
3. Campaign "Vitamin day" in support of a healthy lifestyle among colleagues.
4. Campaign "Wish tree", symbolizing a pure and sincere love of life. Young campaigners made it to help children suffering from cancer. Thus, children with cancer received their gifts.

The company declares its intention to attract and retain young, talented workers, create jobs for young workers, develop a mentoring institute, and educate gifted school graduates at universities of Kazakhstan, near and far abroad in the field of power industry.

As part of the implementation of "Jas Orken" program, "Samruk-Energy" JSC group of companies accepted 7 young specialists and 5 trainees for the internship as part of implementation of "Digital Summer" program.

2 interns were employed at Samruk-Energy JSC after completing an internship under the "Digital Summer" program. With the support of "Samruk-Energy" JSC, the Almaty University of Energy and Communications held the Republican Olympiad in Physics and Mathematics.

Over 60 people – including students from nine technical universities of the country and schoolchildren, attended the competition. Students competed in two disciplines: "Power" and "Heat energy" High school students demonstrated knowledge of physics and mathematics.

Today Samruk-Energy cooperates with leading domestic universities on matters related to students internships.

According to the 2019 results, 420 students undertook an internship at the Company.

Human rights

As regards respect for human rights, the Company operates in strict compliance with the law, recognizes the importance and value of fundamental human rights and freedom proclaimed by the UN, including freedom of association, recognition of the right to collective bargaining, labor rights, the right to a favorable environment, and health protection.

Human rights observance principles are set out in the Code of Business Ethics of "Samruk-Energy" JSC.

Moreover, at interaction with its suppliers and contractors, the Company requires compliance with labor laws, including compliance with health and safety requirements. Relevant requirements are included in the standard agreements of the Company and its SA with suppliers.

Employees have the right to collective bargaining in the context of current legislation through permanent Conciliation Commissions, Committees for the settlement of social and labor conflicts.

The recruitment procedure at the Company is carried out in accordance with the Rules for the competitive selection of personnel for vacant positions and the adaptation of new employees at "Samruk-Energy" JSC using the elements of testing and by complying with principles of transparency and meritocracy and transparency, considering the professionalism, personal qualities of a candidate and his compliance with the qualification requirements and competencies for the position, as well as the principles of fair and equal treatment of employees. "Samruk-Energy" JSC provides maximum assistance in preventing any form of discrimination, the use of child and forced labor, as well as the selection and promotion of personnel solely based on professional skills and knowledge.

11 trade union organizations comprising 15,199 people operate at "Samruk-Energy" JSC in order to regulate and protect the professional, economic and social labor rights and professional interests of the Company's employees.

The trade union at "Samruk-Energy" JSC protects the interests of employees – members of "Samruk-Energy" JSC trade union, in terms of compliance with labor laws, established social guarantees and performance of provisions of the contract.

"Samruk-Energy" JSC establishes dialogues with stakeholders on various aspects of its operations. In particular, in order to obtain information on concerns and complaints, a mechanism for submitting and reviewing complaints was developed using the feedback system on the Company's external website – a written request or a telephone call to the "hot line".

73 appeals were registered across "Samruk-Energy" JSC in 2019, all of these appeals were settled during the reporting period. For the same period of 2018, the company reported 83 complaints and appeals.

Number of complaints about the practice of labor relations filed, processed and settled through formal grievance mechanisms

No.	Indicator	Value
1.	The total number of complaints about the practice of labor relations filed through formal grievance mechanisms during 2019, among them	73
1.1.	Processed during the reporting period	73
1.2.	Settled during the reporting period	73
2.	Indicate the total number of complaints about the practice of labor relations filed before the beginning of the reporting period and settled during the reporting period	

Presentation of health and safety issues in formal agreements with trade unions

No.	Indicator	Value
1.	**Do official agreements (global or local) with trade unions address health and safety issues**	**yes**
2.	**If yes, information on the extent to which health and safety issues are covered by local agreements signed by an organization. Local level agreements usually address issues such as:**	
2.1.	Individual protection means	yes
2.2.	Joint health and safety committees with participation of representatives of management and employees	yes
2.3.	Participation of employees' representatives in health and safety inspections, audits and accident investigations	yes
2.4.	Education and training	yes
2.5.	Grievance mechanism	yes
2.6.	The right to refuse dangerous work	yes
2.7.	Periodical inspections	yes
3.	**If yes, information on the extent to which health and safety issues are covered by local agreements signed by an organization. Local level agreements usually address issues such as:**	
3.1.	Compliance with recommendations of the International Labor Organization (ILO)	yes
3.2.	Actions or mechanisms for solving issues	yes
3.3.	Obligations regarding target performance standards or the level of practical approaches applied	yes

The Company's contribution to social development of regions where it operates

Over the years, as part of the social responsibility of business, the Company has been contributing to the development of the regions where it operates and maintains continuous interaction with local communities on the Company's participation in the development of local infrastructure, improving the environmental situation in the region, social support and others.

Development of regions where the company operate

The implementation of some investment projects entailed the development of local infrastructure in the region where the subsidiaries and affiliates are located. For instance, the infrastructure of Solnechny village and Ekibastuz city is being developed in the region where "Ekibastuz SDPP-1 Plant" LLP and "Ekibastuz SDPP-2 Plant" JSC are located. So, a mosque, a church, a center for social and cultural activities for citizens, fitness centers, a swimming pool, a hotel and other infrastructure facilities were built in Solnechny village. In turn, residential buildings, hostels, cultural center of power engineers were built in Ekibastuz city, and roads from Ekibastuz State District Power Plant-1 to Ekibastuz State District Power Plant-2 were also built.

Similar projects were also implemented in the regions where "Moynak HPP" JSC was located (77 houses, 1 kindergarten and a mosque) for Moynak HPP employees, where 235 people live (of which 100 are workers, 135 are their families).

"Bogatyr Komir" LLP fully supports various social initiatives aimed at improving the quality of people's lives, and is actively involved in urban social programs. Huge work has been done to improve the children's playgrounds and sports grounds of the Mountain municipal district of the city. The playgrounds were repaired and restored, sand was delivered to the sandboxes, and the Shakhtar park was improved. A monument was erected to the great poet and thinker Mashkhur Zhusup Kopeyev, a traffic light was installed on Kunaev street.

"Bogatyr Komir" LLP installed a children's game facility in Ekibastuz city for total amount of 20,541.9 thous. tenge.

With the beginning of winter period, as in previous years, the New Year's ice slide was installed in the city park "Shakhter". In addition, for charity, "Bogatyr Komir" LLP provides assistance in providing ice for four wooden slides installed in Ekibastuz city.

Contribution to the environment

A Memorandum of cooperation in the field of environmental protection as regards the possibility of improvement and phased reduction of emissions into the environment was signed on November 18, 2019 between the Department of Ecology of Almaty region and "Almaty Power Plants" JSC.

Landscaping and planting of designated areas were carried out – planning of the adjacent territory, work on the care of lawns and green spaces. As part of the landscaping, "Bogatyr Komir" LLP performed a compensatory planting of trees in the amount of 50 pieces.

In September 2019, "Almaty Power Plants" JSC held an environmental challenge "Hand over waste paper – save the tree!", According to the results of the campaign, 3,204 kg of waste paper was delivered, worth 144 thous. tenge.

"Almaty Power Plants" JSC hosted the environmental festival "We are for Green Kazakhstan!" The main goal of the festival is creating a responsible attitude to the environment, moral and legal principles of nature management.

Assistance for the population

"Bogatyr Komir" LLP provides annual financial assistance to events under social partnership agreements with Ekibastuz city mayor administration, charitable support was received by city non-profit organizations and educational institutions, such as the sponsored lyceum № 6, the Ekibastuz children's fund, and the public association "Environmental Protection" and others. Religious confessions and Ekibastuz city football club also received financial assistance.

Financial assistance of "Bogatyr Komir" LLP for 2019 amounted to 243,370 thous. tenge.

"Ekibastuz SDPP-2 Plant" JSC provided children with disabilities, children from poor families, orphans and children left without parental care in Ekibastuz city and Solnechny village with New Year gifts. On the eve of the New Year, the Company delighted with New Year's surprises the children with disabilities, orphans and children left without parental care in Solnechny village, and the children of the Orphanage "Umit", Public Association "Kazakh Society of the Blind", Public Association "parents of children with autism" and the Charity Fund of Ekibastuz city were not left out.

"Ekibastuz SDPP-2 Plant" JSC annually participates in the preparation of Solnechny village for the celebration of the New Year. In 2019, the entrance arch of the village was decorated, a tree, the figures of Father Frost (Santa Claus) and the Snow Maiden were installed on the Abay square, and a slide and a skating rink for children were flooded. Also the plant's workshop workers made a present for the people of the city – they made and installed various illuminations in the form of a snowman, New Years' tree, clocks, etc.

160 free vouchers to "Karlygash" children health camps were provided to children from low-income and large families, orphans and children left without parental care. 200 places to the "Karlygash" Children Health Camp located on the shore of Zhasybai lake are annually provided to orphans and children from low-income families.

JAS ENERGY

I chose the profession of a power engineer, because I know for sure that this particular sector of the economy is force for progress

SAPARBAYEV NURKEN DILMAKHAMBETULY
Fitter of the turbine workshop at "Shardarinsk HPP" JSC

In addition to projects aimed at developing local infrastructure, the Company carries out activities in the form of supporting vulnerable population through charity and sponsorship:

- Assistance to pensioners and soldiers – internationalists in the form of a monthly payment for 150 kW electricity consumed ("Shardarinsk HPP" JSC)
- Providing charity to participants of the Second World War, the Labor Front and persons equated to them on the Victory Day ("Ekibastuz SDPP-2 Plant" JSC, "Almaty Power Plants" JSC)
- Assistance to low-income and large families ("Bogatyr Komir" LLP, "Shardarinsk HPP" JSC, "Almaty Power Plants" JSC). In 2019, 5 students from low-income families were provided with school supplies.
- A one-time payment of 30,000 tenge was made to 5 disabled people from the local population.

At the same time, in accordance with the Fund's charity policy, all sponsorship and charity activities of the Fund's group of companies are carried out by a single Operator – "Samruk-Kazyna Trust" Social Project Development Fund, which implements socially significant projects through competitive selection in a number of directions.

In this regard, the Company cooperates with "Samruk-Kazyna Trust" fund as part of "Social Investment Program" implementation and uses the Company's own resources for managing external social programs.

Currently, the work on informing about potential opportunities for receiving social support is conducted with the Company's subsidiaries and affiliates, as well as for submitting applications to "Samruk-Kazyna Trust" fund, the activities on analyzing and identifying the locations of "Samruk-Energy" JSC group enterprises that have the most relevant social problems are underway.

Mass cultural events for the population

"Ekibastuz SDPP-1" LLP was actively involved in organizing mass festivities for residents of Ekibastuz city dedicated to the celebration of "Nauryz meiramy". As part of the celebration, workers played a theatrical performance with a demonstration of beautiful Kazakh custom "Kuda tusu" (marriage proposal) and "Syrga salu" (putting on earrings for the bride). This performance did not leave indifferent the members of the committee of "The Best Yurt" contest and became the winner in the nomination "En uzdik salt-dastur" ("The best custom"). In addition, a festive concert and charity refreshments like plov, nauryz-kozhe and baursaks in the amount of 1000 servings were served and grocery sets were provided to the city's residents.

"Almaty Power Plants" JSC joined the challenge dedicated to the 175th anniversary of the great Abay; at the end of November 2019, they held "Abay Alemi" contest. The main message of the event was to raise public awareness of the way of living and career of Abay, as the country's spiritual wealth. The competition consisted of three stages. 7 teams participated in the competition, the competition participants were awarded in the following nominations: "Best Reader", "Best Fans", "Best expert in the life and works of the poet".

JAS ENERGY

The energy of the future through the eyes of children

ATTACHMENTS

ABOUT THE REPORT

The Company adheres to the following approaches in determining the content and quality of the Report.

Interaction with stakeholders and materiality.

The Company's pursuance of high standards of social responsibility at interaction with stakeholders.

The purpose of stakeholder interaction is to choose the strategic development of the Company and ways to improve its performance, as well as to assist it in achieving a level of sustainable development that benefits everyone and the Company, its stakeholders, and society since the Company strives for high standards of social responsibility at interaction with stakeholders:

- the needs, expectations and opinions of internal and external stakeholders;
- challenges and prospects from stakeholders' perspective;
- the most significant issues of concern to internal and external stakeholders.

The basis of interaction with stakeholders is the identification of stakeholders that have a significant impact on the Company and the degree of stakeholder dependence on the Company, creation of a materiality matrix and preparation of the Stakeholder engagement plan (please see "Sustainable development" section).

Every year the Company, after the issuance of its annual business report, checks the balance and completeness of the information disclosed in the annual report, as well as identifies topics and aspects that significantly affect the Company's operations and its stakeholders, and which should be taken into account when creating the structure of the annual report of the following reporting cycle.

To implement these activities, we collected opinions and have taken into account the interests of a wide range of stakeholders, including the Sole Shareholder, members of the Board of Directors, financial institutions, clients, non-governmental organizations, professional communities, subsidiaries, top management and key employees, etc.

We used a structured process that included:

- identification of significant topics. The Company considered the most complete list of topics that are significant from the perspective of sustainability for the Company and its stakeholders and that takes into account specifics of the Company's operations, the general trends of foreign and Kazakhstani companies, GRI standards, the Company's Development Strategy, Corporate Governance Code, risk register, etc. The list comprised 39 topics (aspects) related to the sustainability of the Company.
- a survey of external and internal stakeholders for exploring the importance and priority of topics and aspects for the Company's operations and its stakeholders. Moreover, for the maximum coverage of all stakeholders, the Company, in the framework of the published interactive version of the Company's 2018 Annual Report, posted an online questionnaire for all stakeholders *(https://ar2018.samruk-energy.kz/en/index.html)*.
- updating the materiality matrix, which gives a visual representation of sustainable development topics that are essential for the Company and its stakeholders, and their position regarding the degree of stakeholder interest and potential impact on the Company's activities. An assessment of the materiality of aspects for the Company is provided along the horizontal axis, along the vertical axis - an assessment of the materiality of aspects for stakeholders. The topics that received a rating of significance above 4 points for stakeholders and for the Company were recognized as the most significant in 2019 and will be shown in the text of the Company's annual report.

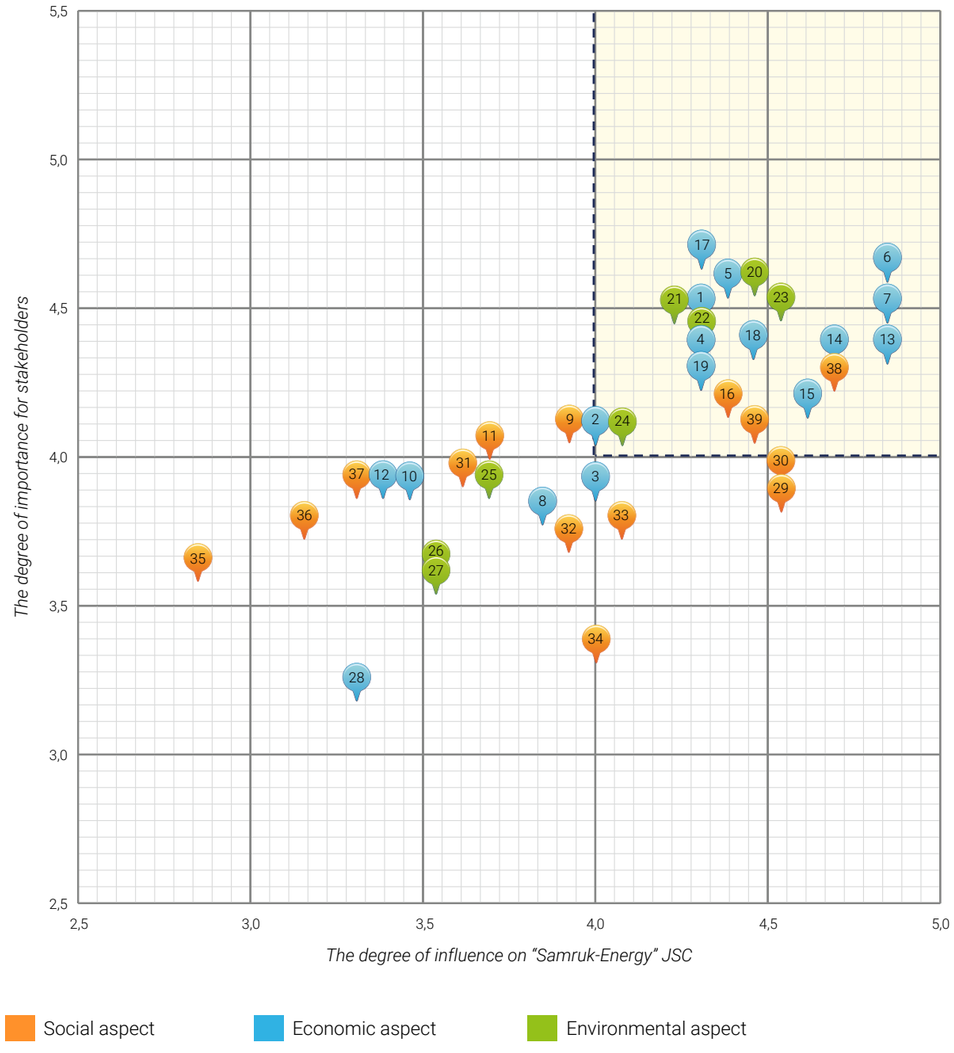
The analysis shows that topics related to the development of innovations, energy efficiency, ensuring compliance with environmental obligations, efficient use of materials, energy and water, ensuring the safety and health of employees and contractors, and reducing greenhouse gas emissions and other pollutants, combating all forms of corruption, including extortion and bribery, and etc remain important topics for both the Company and stakeholders.

Aspects associated with such issues as cybersecurity and information technologies development, compliance risk management, occupational injuries, tariff regulation and financial stability are new and were not considered as separate aspects in the 2018 Materiality matrix.

Also, in 2019 when compared to the 2018 Materiality matrix, the Company and its stakeholders highlighted the importance of issues related to waste management, investments in renewable energy sources, investments and environmental protection costs, enhancing the reputation and positive attitude towards the company, reducing energy consumption, etc.

Issues associated with interaction with open local communities, staff recruitment including an increase in staff employed from the local population, equal opportunities, costs for local suppliers and the transformation of procurement activities by interested parties, were not rated highly, but were disclosed in the Company's annual report.

«Samruk-Energy» JSC 2019 Materiality Matrix



The list of substantial topics in 2019:

1	**Innovation development and digitization**	**21**	**General expenses for investments and environmental protection (broken down by types)**
2	**Cybersecurity and information technologies**	**22**	**Efficient use of materials, energy and water**
3	Prevention and elimination of natural disasters and emergency situations in the course of business	**23**	**Compliance with environmental laws and regulations**
4	**The Company's contribution to the country's economy (including created and distributed economic value)**	**24**	**Waste management**
5	**Tariff regulation**	25	Sources of water, which are significantly affected by water withdrawal
6	**Financial stability**	26	Percentage and total volume of water recycled and reused
7	**Effective investment activity**	27	Water bodies that are significantly affected by discharges of an organization and surface runoff from its territory
8	Interaction with local communities	28	Conservation of biological diversity
9	Implementation of social programs and initiatives	29	Fair remuneration and social support for employees
10	Transformation in procurements	30	Professional and personal growth of staff
11	Social responsibility in procurements	31	Increase in the share of staff from local population
12	Share of expenses for local suppliers in significant regions of operation	32	Staff recruitment
13	**Fight against all types of corruption, including extortion and bribery**	33	Diversity and equal opportunities, including gender equality
14	**Timely risk identification and quality risk management**	34	Grievance mechanism
15	**Compliance risk management**	35	Elimination of all forms of forced labor
16	**Enhancing the reputation and a positive attitude towards the Company**	36	Elimination of discrimination in respect of employment and occupation
17	**Investments in renewable energy sources**	37	Support and respect the protection of internationally proclaimed human rights
18	**Energy efficiency**	**38**	**Employee and contractors safety and health**
19	**Reduction of energy consumption**	**39**	**Workplace injuries**
20	**Reducing emissions of greenhouse gases and other pollutants (NOX, SOX, ozone-depleting and other significant pollutants)**		

The Context of Sustainable Development

The report provides information on the Company's contribution to the economic, environmental, social aspects.

The economic component of the sustainable development of the Company is aimed at increasing long-term value, ensuring the interests of shareholders and investors, increasing the efficiency of processes, increasing investments in the creation and development of more advanced technologies, and performance improvement.

The environmental component aims to reduce the impact on biological and physical natural systems, effectively use limited resources, use environmentally friendly, energy and material-saving technologies, create environmentally acceptable products, minimize, process and dispose waste.

The social component focuses on social responsibility principles, which include, among other things: ensuring employees occupational health and safety, fair remuneration and respect for the rights of workers, individual development of staff, implementation of social programs for staff, creation of new jobs, sponsorship and charity, environmental and educational promotions.

Completeness

The indicators and content of the Report are sufficient to reflect the significant impact of the Company on the economy, the environment and society during the reporting period.

Balance

This Report reflects the positive and negative aspects of the Company's results for the reporting year. Certain indictors were disclosed in 3-year dynamics.

Comparability

Stakeholders using this Report can compare the information provided on the Company's financial and operating performance with the results for previous periods and its objectives.

The report was prepared in accordance with GRI Standards, which allows stakeholders to compare the Company's operations with those of other companies.

Accuracy

The information provided in the Report is accurate enough and detailed so that stakeholders can evaluate the results of the Company's operations for the reporting period. Information is expressed both in quality descriptions and in figures.

Timeliness

The report is provided on an annual basis within the shortest possible time after the approval of the audited financial statements and no later than July 30, which allows assuming that the information reflected in this Report is relevant. The report is posted on the company's website in Kazakh, Russian and English, simultaneously for all stakeholders.

Clarity

The information in the Report is set out in an understandable and accessible form to the interested parties.

Reliability

In preparing this Report, the information provided was preliminarily analyzed and disclosed in such a way that stakeholders could check this report and assess the degree of reliability of its content.

Data sources are official reporting forms, which are submitted to government agencies every year. A number of indicators are collected and calculated in accordance with the forms of internal reporting, which are checked by responsible representatives of companies during internal audit procedures.

Production, social and environmental indicators presented in the Company Report were calculated, collected and consolidated in accordance with principles of reporting and recommendations of Sustainability Reporting Guidelines and the Company's corporate governance procedures. The probability of an error in figures for each category of indicators in the area of sustainable development is minimized. Ratios and specific values are supplemented by absolute values. Figures were indicated by using generally accepted system of measurement units and are calculated using standard coefficients.

The report provides all stakeholders with an overview of operations results and achievements of "Samruk-Energy" group of companies from January 1 to December 31, 2019 in electronic, paper form or online. The date of publication of previous Integrated Annual Report of the Company – July 30, 2019.

Limitation of the scope and boundaries of the Report

The audited consolidated financial statements of the Company for 2018 as of December 31, 2019 and as of 31 December 31, 2018, specified in this Report are the result of an independent audit of "PricewaterhouseCoopers" LLP ("PwC").

This Report provides information on financial and operating results and sustainable development. Qualitative and quantitative information were presented for 2019, in order to compare and analyze information in indicators, data for 2017 and 2018 were used where applicable.

The Company determined the Report scope in accordance with GRI Standards.

The equity method is applied in consolidation during the preparation of the report on financial and operating performance of "Samruk-Energy" JSC group of companies for the purpose of a unified approach. Furthermore, as required by the current accounting policy, property, plant and equipment and intangible assets are reported at historical cost, that is, without revaluation. Subsidiaries are included in the consolidated financial statements using the acquisition method. Purchased identified assets, as well as liabilities and contingent liabilities received in a business combination are measured at fair value at the acquisition date, regardless of the size of the non-controlling interest.

Based on the above mentioned, when using the equity method in the consolidated balance sheet, turnovers of such large companies like "Ekibastuz SDPP-2 Plant" JSC, "Forum Muider B.V." coal assets company, where "Samruk-Energy" JSC owns 50 equity stake, are excluded.

At generation of "Samruk-Energy" JSC consolidated financial result, the share of profit for these companies is reported in the article "share of profit / loss of organizations accounted for using the equity method and impairment of investments".

The indicators of the following subsidiaries and affiliates were used in the audited consolidated financial statements of the Company for 2019:

Name of the company	Nature of business	% voting right	Interest	Country of registration
Subsidiaries:				
"Alatau Zharyk Company" JSC	Transmission and distribution of electricity across Almaty city and Almaty region	100%	100%	Kazakhstan
"Almaty Power Plants" JSC	Production of electricity and heat and hot water in Almaty city and Almaty region	100%	100%	Kazakhstan
"AlmatyEnergoSbyt" LLP	Electricity sale throughout Almaty city and Almaty region	100%	100%	Kazakhstan
"Shardarinsk HPP" JSC	Electricity production at hydropower plant in the Southern Kazakhstan	100%	100%	Kazakhstan
"Moynak HPP" JSC	Electricity production at hydropower plant in Almaty region	100%	100%	Kazakhstan
"Ekibastuz SDPP-1 named after Bulat Nurzhanov" LLP plant	Coal-based production of electricity and heat	100%	100%	Kazakhstan
"Bukhtarminsk HPP" JSC	Is the owner of leased out Bukhtarminsk hydropower plant	90%	90%	Kazakhstan
"Ust-Kamenogorsk HPP" JSC	Since the transfer of hydropower plant to lease, this company does not operate	89.99%	89.99%	Kazakhstan
"Shulbinsk HPP" JSC	Since the transfer of hydropower plant to lease, this company does not operate	92.14%	92.14%	Kazakhstan
"Samruk-Green Energy" LLP	Development of renewable energy	100%	100%	Kazakhstan
"First Wind Power Plant" LLP	Production of electricity at wind power plant	100%	100%	Kazakhstan
"Kazhydrotechenergo" LLP	Implementation of RE projects	100%	100%	Kazakhstan
"Teploenergomash" LLP	Implementation of RE projects	95%	95%	Kazakhstan
"Energy Solutions" LLP	Transportation and other services	100%	100%	Kazakhstan
«Tegys Mynay» LLP and «Mangyshlak munay» LLP	Exploration and development of gas field	100%	100%	Kazakhstan

Table of report's compliance with gri guidelines

GRI Standard	No.	Content	Page no.	Assurance
General elements of the report				
GRI 102: General disclosures 2016				
	102-1	Name of the organization	8	not applicable
	102-2	Activities, brands, products and services	8, 10-12	not applicable
	102-3	Location of headquarters	9, 177	not applicable
	102-4	Location of operations	9, 44-61	not applicable
	102-5	Ownership and legal form	8	not applicable
	102-6	Markets served	8-12, 44-61	not applicable
	102-7	Scale of the organization	8-12, 33-41, 124	not available
	102-8	Information on employees and other workers	144-146	not available
	102-9	Supply chain	44-61, 82-83	not available
	102-10	Significant changes to the organization and its supply chain	2-5, 10-15, 64,82-83, t.2	PWC
	102-11	Precautionary principle or approach	105-108, 122-123, 157	not available
	102-12	External initiatives	116-117, 122-123, 146	not available
	102-13	Membership in associations	122	not available
	102-14	Statement from senior decision-maker	2-5	not applicable
	102-15	Key impacts, risks and opportunities	21-22, 65, 76, 111-113, 117	not available
	102-16	Values, principles, standards and norms of behavior	16-17, 105-108, 142-143, 154-156	not available
	102-17	Mechanisms for advice and concerns about ethics	105-108, 122-123, 157-158	not available
	102-18	Governance structure	44, 86, 88-89	not available
	102-19	Delegating authority	86, 88-89, 92-104	not available
	102-20	Executive-level responsibility for economic, environmental and social topics	92-94, 99-100	not applicable
	102-21	Consulting stakeholders on economic, environmental and social topics	92-94, 99-100, 118-123	not available
	102-22	Composition of the highest governance body and its committees	92-104	not available
	102-23	Chair of the highest governance body	92	not available
	102-24	Nominating and selecting the highest governance body	94-95	not applicable

GRI Standard	No.	Content	Page no.	Assurance
	102-26	Role of highest governance body in setting purpose, values, and strategy	86, 95, 97	not applicable
	102-31	Review of economic, environmental and social topics	116-161	not available
	102-35	Remuneration policies	95, 101	not available
	102-36	Process of determining remuneration	95, 101	not available
	102-40	List of stakeholder groups	119	not available
	102-41	Collective bargaining agreements	155	not available
	102-42	Identifying and selecting stakeholders	119, 120-121	not available
	102-43	Approach to stakeholder engagement	118-123	not available
	102-44	Key topics and concerns raised	165-166, 122-123	not available
	102-45	Entities included in the consolidated financial statements	168, t.2	PWC
	102-46	Defining report content and topic boundaries	166-168	not available
	102-47	List of material topics	165-166	not available
	102-48	Restatements of information	t.2	PWC
	102-49	Changes in reporting	167	not available
	102-50	Reporting period	167	not applicable
	102-51	Date of most recent report	167	not applicable
	102-52	Reporting cycle	167	not applicable
	102-53	Contact point for questions regarding the report	177	not applicable
	102-54	Claims of reporting in accordance with the GRI Standards	1, 167	not available
	102-55	GRI content index	169-173	not available
	102-56	External assurance	169-173	not available
Specific topics				
GRI 200: Economic topics 2016				
Economic performance				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165, 124	not available
	103-2	The management approach and its components	166, 65-66	not available
	103-3	Evaluation of the management approach	76-78	not available
GRI 201: Economic performance	201-1	Direct economic value generated and distributed	124	not available
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GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	144	not available
	103-3	Evaluation of the management approach	144-148	not available
GRI 202: Market presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	147	not available
	202-2	Proportion of senior management hired from the local community	146	not available
Procurement practices				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	65-66	not available
	103-3	Evaluation of the management approach	82-83	not available
GRI 204: Indirect economic impact	204-1	Proportion of spending on local suppliers	83	not available
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GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165, 105,	not available
	103-2	The management approach and its components	105	not available
	103-3	Evaluation of the management approach	105-107	not available
GRI 205: Anti-corruption	205-1	Operations assessed for risks related to corruption	105,107	not available
	205-2	Communication and training about anti-corruption policies and procedures	105-107	not available
	205-3	Confirmed incidents of corruption and actions taken	107	not available
GRI 300: Environmental topics 2016				
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GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165, 128	not available
	103-2	The management approach and its components	128	not available
	103-3	Evaluation of the management approach	128	not available
GRI 301: Materials 2016	301-1	Materials used by weight or volume	129	not available
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GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	126	not available
	103-3	Evaluation of the management approach	127	not available
GRI 302: Energy 2016	302-1	Energy consumption within the organization	127	not available
	302-3	Energy intensity	128	not available
	302-4	Reduction of energy consumption	128	not available
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GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165, 131	not available
	103-2	The management approach and its components	131	not available
	103-3	Evaluation of the management approach	133	not available
GRI 303: Water and effluents 2018	303-2	Water sources significantly affected by organization's water withdrawal	134-135	not available
	303-3	Water recycled and reused	136	not available
Biodiversity				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165, 136	not available
	103-2	The management approach and its components	136	not available
	103-3	Evaluation of the management approach	136	not available
GRI 304: Biodiversity 2016	304-2	Significant impacts of activities, products, and services on biodiversity	137	not available

GRI Standard	No.	Content	Page no.	Assurance
Emissions				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165, 138	not available
	103-2	The management approach and its components	138	not available
	103-3	Evaluation of the management approach	138	not available
GRI 305: Emissions 2016	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	138-140	not available
Effluents and waste				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	140	not available
	103-3	Evaluation of the management approach	140	not available
GRI 306: Effluents and wastes 2016	306-2	Waste	140-141	not available
Environmental compliance				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165, 131	not available
	103-2	The management approach and its components	131, 132	not available
	103-3	Evaluation of the management approach	132	not available
GRI 307: Environmental compliance 2016	307-1	Non-compliance with environmental laws and regulations	132	not available
GRI 400: Social aspects 2016				
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GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	144	not available
	103-3	Evaluation of the management approach	144	not available
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	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	155	not available
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GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	150	not available
	103-3	Evaluation of the management approach	150	not available
GRI 403: Occupational Health and Safety 2018	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	151	not available
	403-9	Work-related injuries	151	not available
Training and education				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	144	not available
	103-3	Evaluation of the management approach	148	not available
GRI 404: Training and education 2016	404-1	Average hours of training per year per employee	149	not available
	404-3	Percentage of employees receiving regular performance and career development reviews	149	not available
Non-discrimination				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	165	not available
	103-2	The management approach and its components	144, 105, 108	not available
	103-3	Evaluation of the management approach	144, 146, 157-158	not available
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	106, 107, 108, 157, 123	not available

ABBREVIATIONS USED

ADB	Asian Development Bank
AZhC	“Alatau Zharyk Company” JSC
JSC	Joint-stock company
“EK REC” JSC	“East-Kazakhstan Regional Energy Company” JSC
“CAEPCO” JSC	“Central-Asian Electric Power Corporation” JSC
“APP” JSC	“Almaty Power Plants” JSC
“KEPMO” JSC	“Kazakhstani Electricity and Power Market Operator” JSC
“MDPGC” JSC	“Mangistau Distribution Power Grid Company” JSC
“SSGPO” JSC	“Sokolov-Sarbai Mining Production Association” JSC
AMS	Administrative and management staff
NPP	Nuclear Power Plant
BGP	Biogas plant
Benchmarking	The analysis method, which “Samruk-Energy” JSC uses to compare its operations with the practices of other companies in order to make changes that will enhance its competitiveness
BK	“Bogatyr Komir” LLP
Incl.	Including
RES	Renewable energy sources
WPP	Wind power plant
PUC	Public utility company
SPAIID	State Program for Accelerated Industrial and Innovative Development of the Republic of Kazakhstan
“Samruk-Energy” JSC group of companies	Subsidiaries and affiliates of “Samruk-Energy” JSC
SDPP	State District Power Plant
GTPP	Gas turbine power plant
HPP	Hydropower plant
DF	Diesel fuel
EBRD	European Bank for Reconstruction and Development
EEC, EurAsEc	Eurasian Economic Community

ECCAA	Eurasian Council of Certified Accountants and Auditors
EEC	European Economic Community
UES RK	Unified Energy System of the RK
Pollutants	Pollutants
ASW volume	Ash and slag waste volume
PRC	People's Republic of China
Company	"Samruk-Energy" JSC
KPI	Key performance indicators, indicators (indicators) that describe the efficiency of the Company's operations, allowing to evaluate the performance of the Company as a whole, as well as its executives
CMS	Corporate Management System
CCSM	Coking caking slightly metamorphosed
HO	Head office (Samruk-Energy JSC)
VOC	Volatile organic compounds
PTL	Power transmission lines
RK MINT	Republic of Kazakhstan Ministry of Industry and New Technologies
RK MNE	Ministry of National Economy of the RK
IFRS	International Financial Reporting Standards
BAT	Best Available Technique
NPG	National Power Grid
UAE	United Arab Emirates
UC	United Company
LLC	Limited Liability Company
UN	United Nations
SPNA	Specially Protected Natural Areas
UPS	Unified Power System
ALE	Association of Legal Entities
PJSC	Public Joint-stock Company
GHG	Greenhouse gases
MPE	Maximum permissible emissions
MPD	Maximum permissible discharges
Development Plan indicators	Indicators that describe production and operating and financial activities. Indicators have quantitative meaning to be approved as part of the Development plan and which meet the results of operations over accounting and planning periods
FSR	Fire safety regulations
UNDP	United Nations Development Program
SR	Safety regulations
LTA	Loading and transportation administration
TOR	Technical Operation Rules
RANS	Russian Academy of Natural Sciences
Risk	Exposure to uncertainty related to events or actions which can affect the achievement of set goals and tasks
RK	The Republic of Kazakhstan
RF, Russia	The Russian Federation
IAS	Internal Audit Service
BOD	Board of Directors

EIW	Self-supporting insulated wire
CIS	Commonwealth of Independent States
POP	Persistent Organic Pollutants
USSR	Union of Soviet Socialist Republics
Strategy	"Samruk-Energy" JSC Long-term Development Strategy
Business units of the Company	Business units of the Company responsible for cetain activity and which are reflected in the Company's organizational structure (department, services)
PMS	Performance Management System
USA	The United States of America
SEZ PIT	Special Economic Zone Park of Information Technologies
EMS	Environmental Management System
SPP	Solar Power Plant
TNC	Transnational company
LLP	Limited Liability Partnership
"AES" LLP	"AlmatyEnergoSbyt"LLP
"KUS" LLP	"Kazakhstan Utility Systems" LLP
"FWPP" LLP	"First Wind Power Plant" LLP
TPP	Thermal Power Plant
CHP	Combined heat and power
SFC	Specific fuel consumption
DAP	Dry ash plant
Fund	"Samruk-Kazyna" Sovereign Wealth Fund Joint-stock Company
SharHPP	Shardarinsk HPP
ESDPP-1	"Ekibastuz SDPP-1 named after B.Nurzhanov" LLP
ESDPP-2	"Ekibastuz SDPP-2 Plant" JSC
ETO	Energy Transmission Organization
ESO	Energy Supplying Organization
CAP	Certified Accounting Practitioner
CASA-1000	Central Asia-South Asia Energy Project
CO2	Carbon dioxide
CPA	Certified Public Accountant
DiPCPIA	Certified Professional Internal Auditor Diploma
DipPIA	Professional Internal Auditor Diploma
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization (operating income before expenses for using loans, paying taxes, depreciation and amortization)
EBITDA margin	EBITDA profitability, EBITDA to revenue ratio
ERG	"Eurasian Resources Group" LLP
GRI	Global reporting initiative
IFA (DipIFA)	Diploma of the International Institute of Auditing and Management
IoD UK	Institute of Directors, United Kingdom
ISO	International Organization for Standardization
KEGOC	"Kazakhstan Electricity Grid Operating Company" Joint-stock Company
LTIFR	Lost Time Injury Frequency Rate, the number of lost time injuries occurring in a workplace per 1 million hours worked.
NAV	Net asset value

NOx	Collective name of nitrogen oxides NO and NO_2
PESTEL-analysis	Tool used by marketers to identify political, economic, social, technological, environmental and legal factors that have an impact on a company's business
SO_2	Sulfur oxide
ODS	Ozone depleting substances
REC	Regional electricity company
EWP	"Ereymentau Wind Power" LLP
FTF	Fuel and transport facility
TS	Transformer Substation
GWS	Goods, Works and Services
EVA	Economic value added
Fitch ratings	International rating agency Fitch Ratings
ROIC	Return on invested capital
CO	Carbon oxide
SWOT	Analysis of positive and negative effects of external and internal environmental factors
	MEASUREMENT UNITS
%	Percent
GWh	Gigawatt per hours
GJ	Gigajoule
Gcal	Gigacalorie
kV	Kilovolt
kVh	Kilowatt per hour
Km	Kilometer
m	Meter
mg/m³	Milligram per cubic meter
m³	Cubic meter
MVA	Megavolt-ampere
MW	Megawatt
Mln.	Million
Bln.	Billion
Thous.	Thousand
El.,elec.	Electricity

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