

# IN PURSUIT OF CARBON NEUTRALITY

Integrated annual report

# 21

[SAMRUK-ENERGY.KZ](https://www.samruk-energy.kz)



1 VOLUME

## ABOUT THE REPORT

The report contains an overview of operating results and achievements of "Samruk-Energy" JSC group of companies for 2021 as well as description of plans for the future in accordance with the Company's Development Strategy for 2022-2031. When preparing the Annual Report, the opinions of stakeholders were considered including covering all the main aspects in accordance with the principles of ESG, GRI Standards: "Basic option", the principles of preparing reports of the "Global Reporting Initiative" and the GRI industry protocol in electricity (Electric utility, EU), the reporting requirements of the UN Global Compact, the Corporate Governance Code, the number of indicators of the LSE Listing Rules, the FCA Disclosure Guidance and Transparency Rules sourcebook, as well as International Standard financial statements. The Company's audited consolidated financial statements for 2020 as of 31 December 2020 and for 2021 as of 31 December 2021 are the result of an independent audit by "PricewaterhouseCoopers" LLP (Volume 2).

Information related to the Company's future activities is based on forecasts determined on the basis of the current situation. Due to the impact of various objective factors, actual results may differ from forecasts. The annual report is preliminarily approved by the "Samruk-Energy" JSC Management Board, checked and evaluated by the Audit Committee of "Samruk-Energy" JSC Board of Directors and approved by "Samruk-Energy" JSC Board of Directors (Minutes of the meeting of the Board of Directors (No. 06/22 dated May 27, 2022).



Online version of the report  
is available on the Company's  
website  
[www.samruk-energy.kz](http://www.samruk-energy.kz)

# IN PURSUIT OF CARBON NEUTRALITY

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## MESSAGE OF THE CHAIRMAN OF “SAMRUK-ENERGY” JSC BOARD OF DIRECTORS



### Dear reader!

The Annual Report presented to your attention contains detailed information on operations in 2021 of the leading player in the electricity market of our country – “Samruk-Energy” JSC.

The company holds a strategic position in energy system of Kazakhstan. “Samruk-Energy” JSC holding company comprises the flagships of the domestic power industry – Ekibastuz SDPP-1 and SDPP-2, the largest open-pit mines of Ekibastuz coal basin, Almaty power plants complex and power networks, renewable energy facilities, hydropower plants. At the end of 2021, “Samruk-Energy” JSC group's share in electricity generation of Kazakhstan amounted to circa 31.1%. The Company increased the production of electricity to 35,609.3 bn kWh, which is 13.5% higher than 2020 figures. The volume of coal production in 2021 amounted to 44,632 mln tons, which is 2,572 tons or 6.1% higher than the plan. These are results of work of thousands of employees of a large holding company, whose high-level expertise lays the groundwork for the reliable operation of the country's energy system and ensures a stable supply of electricity to consumers.

Apart from performing key production tasks, “Samruk-Energy” JSC efforts in 2021 were associated with improvement of financial well-being of the company, implementing activities aiming to reduce adverse environmental impact, strengthening the work in workplace injuries and implementing investment projects in the country's energy sector.

The launch of some innovative mechanisms at the holding company had a positive result, which enabled to centrally manage the cash flows of the group of companies, make the better use of internal resources and reduce the borrowing rate. It is worth noting that despite a number of familiar external negative factors, the financial soundness indicators of “Samruk-Energy” JSC group are stable.

In 2021, “Samruk-Energy” JSC, with the support of “Samruk-Kazyna” JSC, continued working towards expansion of electrical capacities. This involves the implementation of essential investment projects for the industry associated with rehabilitation of power unit at Ekibastuz SDPP-1, construction of a new unit at Ekibastuz SDPP-2, cyclical-and-continuous technology for mining and transporting coal at the Bogatyr open-pit mine. In the northern and southern regions of the country, phased activities on building RE facilities are underway in the northern and southern regions of the country.

Kazakhstan, like the entire world, embarks on the next phase of energy transition to the widespread use of alternative energy sources. Global trends towards the transition to a “green economy” and the growing ESG requirements of stakeholders are also challenges for “Samruk-Energy” JSC. In this connection, the event that happened at the end of the year should not be left unmentioned – the Company's Board of Directors approved the new Development Strategy for the next 10 years. Among other matters, the document involves plans for the development of “green” energy. The development strategy of a major Kazakhstani power holding company pays due regard to the state policy in strategic planning of the national energy security system and is in line with key strategic directions, goals and objectives of “Samruk-Kazyna” JSC.

All of the above-mentioned proves that the largest domestic power holding company is developing and moving in the right direction. “Samruk-Energy” JSC considers itself as an efficient high-tech operating energy company with high social and environmental responsibility – the leader in the energy sector of Kazakhstan. In this vein, I would like to wish it achieve the highest possible performance in all its endeavours! Health, prosperity, great victories – to all “Samruk-Energy” JSC employees, partners and friends!

**N. Kazutin**



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



## Dear colleagues and partners!

The year 2021 for the Company was full of bright and significant events and challenges. The year passed under the sign of the 30<sup>th</sup> anniversary of Kazakhstan's Independence, and power engineers have contributed significantly to the country's development, ensuring its energy security with their work.

Amid the COVID-19 epidemic, “Samruk-Energy” JSC ramped up efforts to secure occupational safety across its group of companies and successfully conducted an employee vaccination campaign. In 2021 all our power plants and enterprises operated as usual and fully met their commitments to consumers for the supply of electricity and coal shipment owing to effective measures aimed at fighting coronavirus infection

According to the data from System Operator, the republic's electricity consumption demonstrated a 6% increase in January-December 2021 compared to January-December 2020. Thus, consumption grew by 5% in the northern zone of the republic, by 9% in the southern zone, and by 7% in the western zone. During this period, “Samruk-Energy” JSC energy-producing organizations increased electricity generation by 13.5%. In 2021, “Bogatyr-Komir” LLP, a coal mining company that is a part of our power holding company, sold 44,741 thous. tons of coal, of which 34,939 thous. tons were shipped to Kazakhstani consumers, and 9,802 thous. tons were exported (the RF).

Against the backdrop of rapidly growing electricity consumption in the republic, growing issues of reducing the available power reserves has become one of the challenges for the entire industry. Construction and commissioning of new power plants and the expansion of existing ones are the ways for “Samruk-Energy” JSC to handle the problem at this stage. In 2021, as part of its investment programs, the company continued implementing several key projects. The restoration of 500 MW power unit No. 1 at Ekibastuz SDPP-1 is underway. The implementation of the project will allow restoring the plant's design capacity of over 4,000 MW. The work on the expansion of Ekibastuz SDPP-2 including the construction of power unit No.3 continues. The delivery of equipment was completed in 2021, and construction and installation work on switching to a cyclic-and-continuous technology for the extraction, transportation, blending, and loading of coal at the Bogatyr open-pit mine was performed. The project is scheduled to be completed in 2022. A decision on the gasification of Almaty CHP-2 was made, this will improve the environmental situation in the country's largest city, and it was decided to retrofit Almaty CHP-3, which involves the increase in installed capacity to 450 MW.

The development of renewable energy sources occupies a major part of “Samruk-Energy” JSC investment projects. The company plans to complete two projects in wind energy. The first 60 MW wind power plant is being built in the Enbekshikazakh district of Almaty region; in the future, the station's capacity is planned to be increased to 300 MW. The site of the second 50 MW wind power plant is located in the vicinity of Ereymentau city in Akmola region.

Speaking about the ongoing projects and comprehensive work performed by “Samruk-Energy” JSC group in 2021, it is worth noting the contribution of all our employees. Successful performance and stability of a large power holding company are ensured by daily and hard work in workshops and plants, construction sites, open-pit mines, offices, and laboratories of our companies. Gratitude is extended to the sole shareholder of the company – “Samruk-Kazyna” JSC, and all our partners and power industry experts for their assistance and support.

I would like to wish you all sound health, happiness, well-being, and good luck to your family and friends!

S. Yessimkhanov





# STRATEGIC REPORT

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Online version of the report  
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"Samruk-Energy" JSC was established in accordance with the resolution of the general meeting of shareholders to implement a long-term state policy on retrofitting existing and commissioning of new generating facilities.

"Samruk-Energy" JSC was incorporated on May 10, 2007. "Samruk-Kazyna" JSC is the sole shareholder of "Samruk-Energy" JSC. For more details about the Company: [www.samruk-energy.kz](http://www.samruk-energy.kz)

"Samruk-Energy" JSC core business includes management of energy assets in the Republic of Kazakhstan, assistance in upgrading of current and construction of new generating

capacities, deployment of new technologies in the Republic of Kazakhstan power industry.

"Samruk-Energy" JSC group of companies include the largest generating companies, including plants of national importance, such as Ekibastuz SDPP-1 and SDPP-2, hydropower plants in the southern regions of the country – Shardarinsk and Moynak HPP, the largest coal mining enterprise in Kazakhstan "Bogatyir Komir" LLP, renewable energy generating facilities – wind and solar power plants, as well as regional distribution network and a sales company.

### "SAMRUK-ENERGY" JSC GROUP OF COMPANIES

To fully implement its mission and meet requirements of the shareholder and other concerned parties (subsidiaries and affiliates, employees, partners, etc.), the Company has developed and maintained a system for management of subsidiaries and affiliates of "Samruk-Energy" JSC.

### THE OBJECTIVES OF THE MANAGEMENT SYSTEM



observance of the hierarchy of the procedure for examination of issues and making decisions



improve the quality of handling processes for the bodies of SA



timely decision-making by the corporate bodies of "Samruk-Energy" JSC group



enhance the compliance of subsidiaries' corporate governance level with the best world practice

At the same time, the priority levers for managing Samruk-Energy subsidiaries and affiliates are:

1. improvement of SA corporate governance rate through establishment of qualified Boards of Directors/Supervisory Boards, ensuring the effectiveness of performance of the Boards of Directors/Supervisory Boards and CEOs of SA;
2. securing an effective management of SA by setting strategic goals (KPI) of SA, monitoring and assessment of efficiency of implementation of the Development Strategy and the Development Plan of SA;
3. creation of single policies, corporate standards and methodological recommendations to ensure unified approaches to key issues across "Samruk-Energy" JSC group, promotion of best practices for management of daily operations at SA;
4. providing support and expertise for SA operations in compliance with the current corporate governance principles and within the competence of the Company for

- the implementation of policies, standards and guidelines, building competencies, improving performance and / or addressing issues of SA;
5. promotion of interests of companies group and individual SA in order to accomplish the Company's strategic goals, add value to the investment portfolio of "Samruk-Energy" JSC group on such issues as government agencies relations, antimonopoly regulation, tariff policy, attracting investors, etc;
6. search and implementation of business cooperation to achieve a synergistic effect at the level of "Samruk-Energy" JSC group by searching and offering opportunities for cooperation between SA, for instance, through complementary activities, the creation of service enterprises, shared service centers, to reduce costs, introduce new functional standards, etc.

### MANAGEMENT SYSTEM PRINCIPLES



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;



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 Regulations on "Samruk-Energy" JSC subsidiaries and affiliates relations were updated in 2021. The main changes relate to the competence of the Sole Shareholder / Sole Participant, the General Meeting of Shareholders / General Meeting of Participants, the Board of Directors / Supervisory Board with respect to making decisions on issues that fall within their competence. To improve corporate governance and performance, the Regulations introduces a classification of the Company's subsidiaries and affiliates was depending on the ownership structure and nature of financial and economic activities, asset value, size and complexity of the organizational structure, headcount, and other factors (large and small SA).

The main activities of subsidiaries and affiliates of "Samruk-Energy" JSC are shown 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.

During the reporting period, there were no significant changes in the activities and in the supply chain of the group of companies of "Samruk-Energy" JSC.



# Structure of assets of "Samruk-Energy" JSC



## COAL COMPANIES

- 'Forum Muider B.V.' Company (50%)
- 'Bogatyr Komir' LLP
- 'Resursenergougol' LLC
- Mettlera Corporation LTD

## GENERATION COMPANIES

- 'Almaty Power Plant' JSC
- 'Ekibastuz SDPP-1' LLP
- 'Ekibastuz SDPP-2' JSC (50%)
- 'Balkhash TTP' JSC
- 'Tegis Munay' LLP
- 'Mangyshlak-Munay' LLP

## RES AND SERVICE COMPANIES

- 'First wind power plant' LLP
- 'Energy Solutions Center' LLP
- 'Ereymenay Wind Power' LLP
- 'Samruk-Green Energy' LLP
- 'Energya-Semirechiya' LLP
- 'Kazhydrotechenergo' LLP
- 'Teploenergomash' LLP (95%)

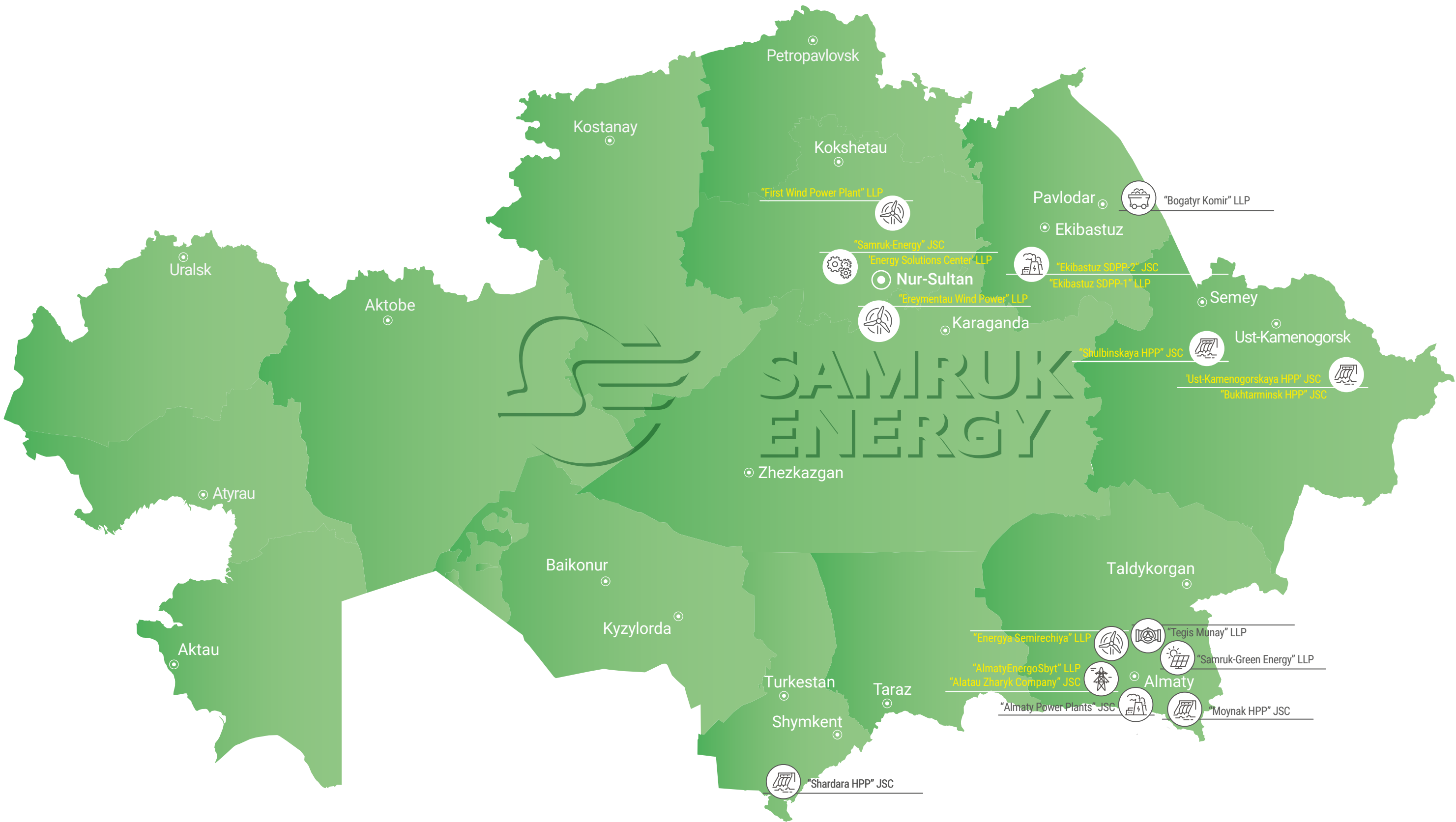
## DISTRIBUTION COMPANIES

- 'AlmatyEnergoSbyt' LLP
- 'Alatau Zharyk Company' JSC (97.4%)

## HYDROPOWER COMPANIES

- 'Shardara HPP' JSC
- 'Moynak HPP' JSC
- 'Shulbinskaya HPP' JSC (92.14%)
- 'Ust-Kamenogorskaya HPP' JSC (89.99%)
- 'Bukhtarminskaya HPP' JSC

# “Samruk-Energy” JSC assets map





# 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) **44.6**

of the volume of coal mined in Ekibastuz coal basin **66.6 %**

**SHARE OF COAL VOLUME**  
of the total volume of coal mined in Kazakhstan **40.2 %**

**EXPORT**  
The volume of coal exports to the Russian Federation (thous. tons) **9,802.2**

## 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** (bln kWh) **35.6**

**SHARE OF ELECTRICITY PRODUCTION**  
in the total volume of electricity production in the EEC of Kazakhstan **31.1 %**

**RENEWABLE ENERGY SOURCES**  
Electricity production volume (mln kWh) **325.3**

Share of electricity generation in the total volume of renewable energy electricity in the Republic of Kazakhstan **7.7 %**

**CAPACITY (MW)**

TPP	<b>5,328</b>
HPP	<b>833.7</b>
RES (SPP and WPP)	<b>53.4</b>

## TRANSMISSION, DISTRIBUTION

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



Capacity of substations (MVA) **9,954.07**

The length of 220-0,4 kV overhead and cable transmissions lines **30,577**

Number of substations **7,230**

Electricity transmission volume (mln kWh) **7,650**

**INSTALLED CAPACITY**  
"Samruk-Energy" JSC **6,215.1** MW

**25.9 %**

**23,959.3** MW  
Kazakhstan

The total installed capacity of power plants "Samruk-Energy" JSC as of 01.01.2022 was 6,215.1 MW, which is 25.9% of the total installed capacity of the total installed capacity of power plants in Kazakhstan.

## 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) **6,723.9**

The volume of heat energy supply by heat and power producing company "Almaty Power Plants" JSC (mln Gcal) **5.8**

### EXPORT

The volume of electricity export to Uzbekistan (mln kWh) **1,272.3**



# 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 named after B.Orazbayev; CHP-2 named after A.Zhakkutov; CHP-3; Kapshagay HPP named afer Sh.Chokin; Cascade of Almaty HPP; Western Thermal Complex; Center for receiving and discharge of fuel, Industrial repair enterprise (IRE) “Energoremont”.

#### 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. 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.

**Location:** the Republic of Kazakhstan, Almaty c., Dostyk ave, 7

**Chairman of the Management Board:** Kirkinbayev Y.A.

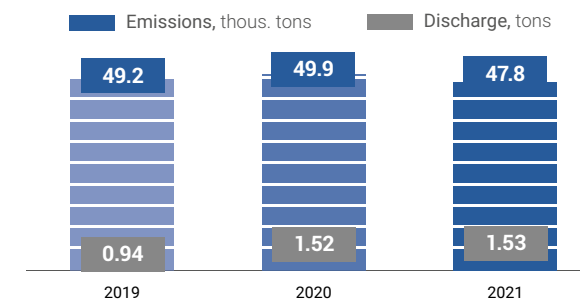
### Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	4,073	5,685	(11,656)
EBITDA	mln tenge	14,326	17,457	16,664
EBITDA Margin	%	22	23	21

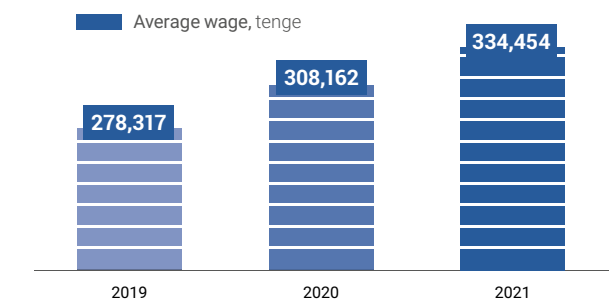
### Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Installed electric capacity	MW	1,235.7	1,235.7	1,235.7
Electricity production volume	mln kWh	5,397	5,335	5,008
Electricity sales volume	mln kWh	4,726	4,689	4,253
Heat production volume	thous. Gcal	5,024	5,596	5,826
Heat sales volume	thous. Gcal	4,980	5,564	5,554
Main consumers	“AlmatyEnergoSbyt” LLP, “Alatau Zharyk Company” JSC, “Almaty International Airport” JSC, “Holding Almaty Su” PU			

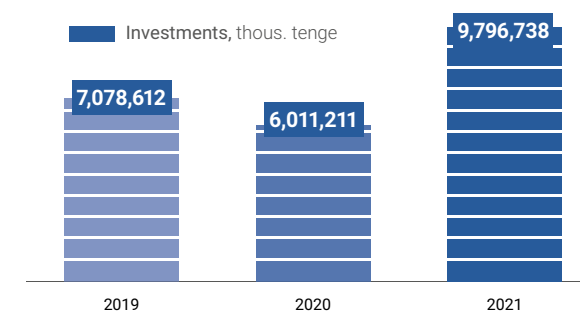
### ENVIRONMENTAL PERFORMANCE



### SOCIAL INDICATORS



### THE AMOUNT OF UTILIZED INVESTMENTS



Full information is available  
on the company's website: [www.ales.kz](http://www.ales.kz)





01.1 About the Company

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

"Ekibastuz SDPP-1" LLP is a thermal power plant with an installed capacity of 4,000 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-1” LLP is also one of the largest coal-fired power plants in the world with a current available capacity of 3,500 MW. The complex consists of eight 500 MW power units, currently, power unit No. 1 is implementing a project for the modernization and reconstruction of equipment.

A supply chain of the entity

The enterprise provides electricity to the northern, eastern and southern regions of Kazakhstan, part of the electricity (2%) is exported to the Republic of Uzbekistan (RU). The sale of electric energy is carried out from stations, with the exception of exports (on the border of the Republic of Kazakhstan-neighboring states).

**Location:** the Republic of Kazakhstan, Pavlodar region, Ekibastuz c., Industrial zone SDPP-1, building 2.

**Director General:** Yertayev E.E

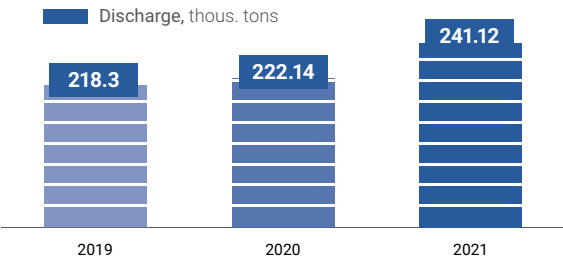
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	6,406	4,754	19,121
EBITDA	mln tenge	47,870	43,851	61,176
EBITDA Margin	%	44	36	37

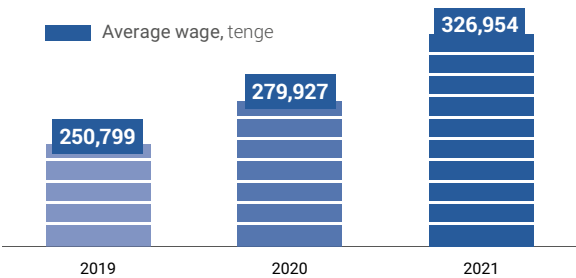
Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Installed electric capacity,	MW	3,500	3,500	3,500
Electricity production volume	mln kWh	18,301	19,466	22,788
Electricity sales volume	mln kWh	17,622	18,901	22,496
Heat production volume	Gcal	132.3	288.9	397.18
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.			

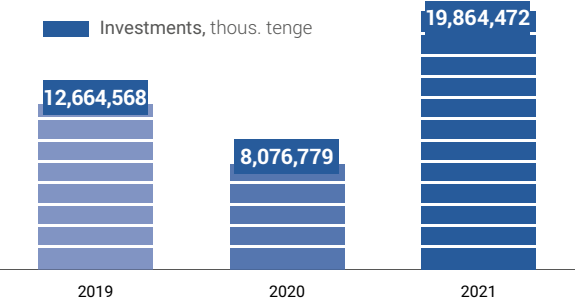
ENVIRONMENTAL PERFORMANCE



SOCIAL INDICATORS



THE AMOUNT OF UTILIZED INVESTMENTS



Full information is available  
on the company's website:  
[www.gres1.kz](http://www.gres1.kz).



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

“Ekibastuz SDPP-2 Plant” JSC is the thermal power plant in Ekibastuz city of Pavlodar region, 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%.

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.

**Location:** the Republic of Kazakhstan, Pavlodar region, Ekibastuz c., Solnechny village, ABK, room 32.

**Chairman of the Management Board:** Medeuov Zh.K.

Financial performance

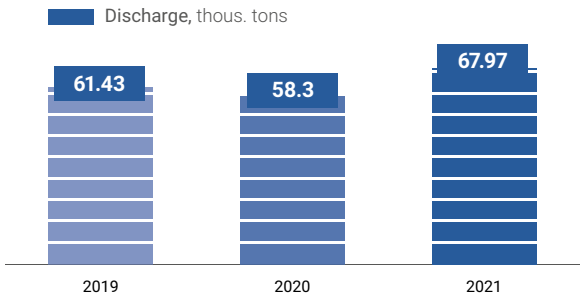
Indicator	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	(3,063)	(3,706)	4,413
EBITDA	mln tenge	17,170	19,843	27,912
EBITDA margin	%	42	43	42

01.1 About the Company

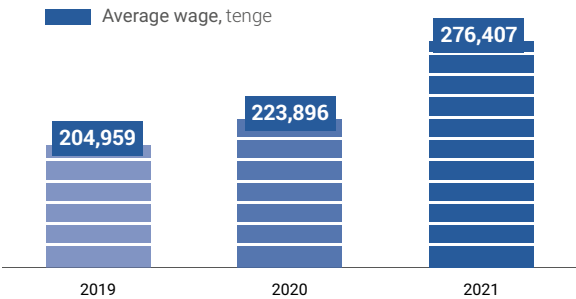
Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Installed electric capacity	MW	1,000	1,000	1,000
electricity production volume	mIn kWh	4,928.5	4,974	6,433
electricity sales volume	mIn kWh	4,689.5	4,809	6,336.4
volume of heat sales	thous. Gcal	82.8	66.9	76
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, "Aktobeenergосnab" LLP, "Ergosistema" LLP, "Akbulak" JSC, "Transenergo" JSC			

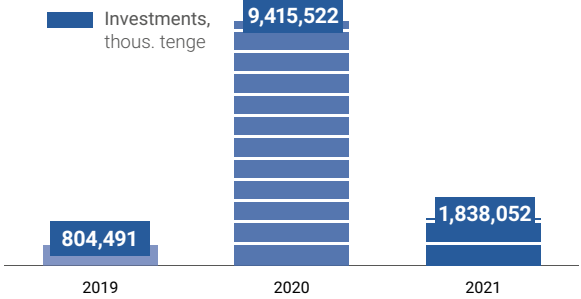
ENVIRONMENTAL PERFORMANCE



SOCIAL INDICATORS



THE AMOUNT OF UTILIZED INVESTMENTS (50%)



Full information is available  
on the company's website: [www.gres2.kz](http://www.gres2.kz).



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 the Shardirinsk HPP is to enhance the coordination of activities for the operation of water and energy facility of Naryn-Syrdarya cascade, to improve 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 auxiliary equipment in the building of the hydropower plant.

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.

**Location:** the Republic of Kazakhstan, South-Kazakhstan region, Shardara c., Elmuratov st., 13.

**Chairman of the Management Board:** Berlibayev A.A.

Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	mIn tenge	(692)	612	1,124
EBITDA	mIn tenge	909	4,739	4,934
EBITDA Margin	%	40	70	69

Results of operating activities

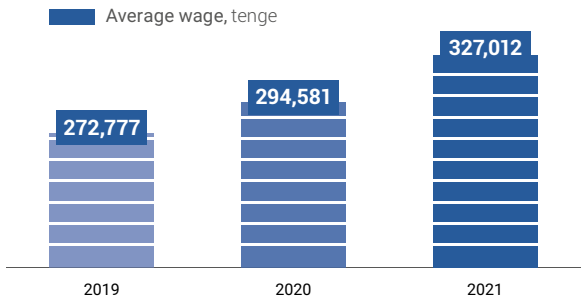
Indicator	Measurement unit	2019	2020	2021
Installed electric capacity	MW	50/63MW * from 27.05.2019	63/126 MW *-from 25.02.2020	126
Electricity production volumes	mIn kWh	464.8	513.5	455.8
Electricity sales volumes	mIn kWh	466.2	521.3	468.0
Major consumers	"Energopotok" LLP, "Ontustik-Zharyk" LLP, "Ontustik Zharyk Transit" LLP, "Kazsbytgrou" LLP, "Energосnab XXI" LLP, "Yugenergoimpuls" LLP, "Garant Energo" LLP			

\* the decrease will be until completion of hydraulic units retrofit.



01.1 About the Company

SOCIAL INDICATORS



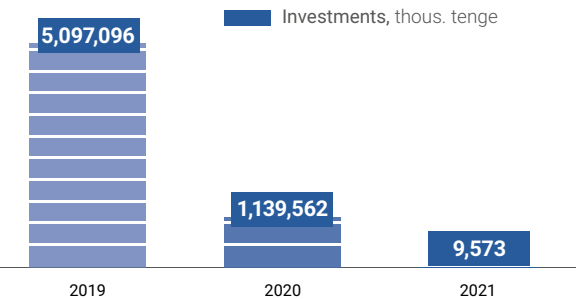
Full information is available on the company's website: [www.sharges.kz](http://www.sharges.kz)



“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 Kegen 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 bn kWh. State-of-the-art technological equipment used at the plant provides maximum automation and stability of the electricity

THE AMOUNT OF UTILIZED INVESTMENTS



production process. The plant is equipped with the latest hydraulic units with high technical parameters and efficiency.

A supply chain of the entity

“Moynak HPP” JSC generates electricity and is an energy-producing organization. Electricity is supplied from energy sources through 220 kV grids to consumers in the volumes agreed in concluded agreements.

**Location:** the Republic of Kazakhstan, Almaty region, Kegen district, Zhylyesai rural district, Moynak village, 81.

**Chairman of the Management Board:** Aidarbekov G.A.

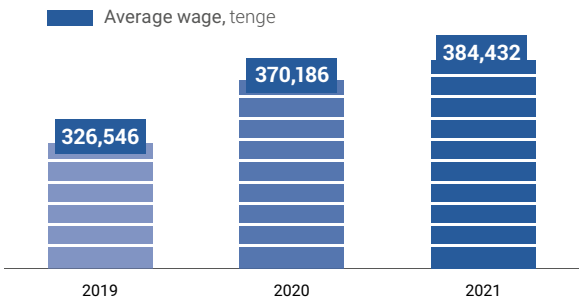
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	186	8,923	9,532
EBITDA	mln tenge	7,386	17,462	15,798
EBITDA Margin	%	75	85	83

Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Installed electric capacity	MW	300	300	300
Electricity production volume	mln kWh	951	929	758.3
Electricity sales volume	mln kWh	952	944	780.9
Major consumers	“AlmatyEnergoSbyt” LLP			

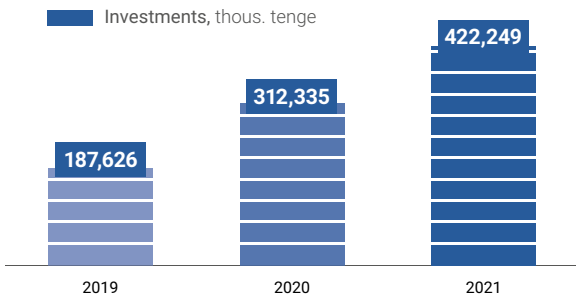
SOCIAL INDICATORS



Full information is available on the company's website: [www.moynak.kz](http://www.moynak.kz)



THE AMOUNT OF UTILIZED INVESTMENTS



“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, Ust-Kamenogorsk, Ablaketka village.

**Director:** Ustyancev V.M.

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

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 st. *The Company is on lease.*

**Director:** Rubtsov S.N.

01.1 About the Company

“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.

“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 920 mln kWh of electricity. During this time, the rotating blades of 85-meter structures generated electricity for more than 13 bln tenge. 100% of all generated electricity goes to the National Power Grid of Kazakhstan – “KEGOC” JSC.

**Location:** The Republic of Kazakhstan, Semey, Shulbinsk village

**Director:** Volkov V.F.

**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.

**Location:** the Republic of Kazakhstan, Akmola region, Ereymentau district, Taibai rural district, Taibai village, block No. 041, building No. 95.

**Director General:** Yeskhozhin R.K.

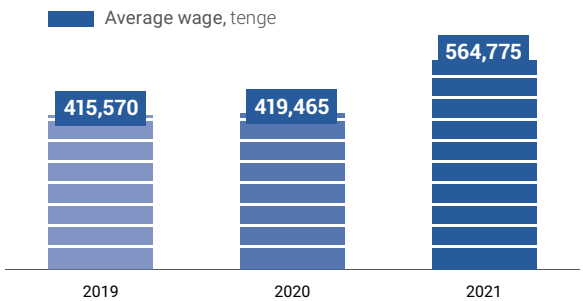
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	1,017	1,880	1,551
EBITDA	mln tenge	3,532	3,842	3,973
EBITDA Margin	%	77	76	81

Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Installed electric capacity	MW	45	45	45
Electricity production volume	mln kW*h	153	159.36	144,593
Electricity sales volume	mln kW*h	152	159.1	144,592

SOCIAL INDICATORS



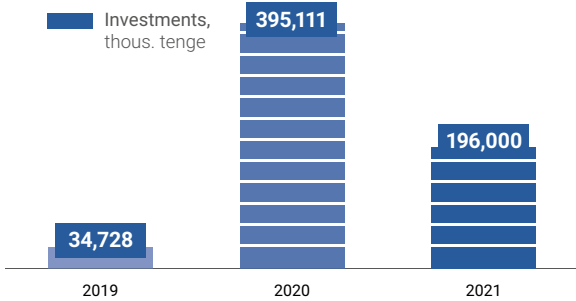
Full information is available on the company's website: [www.pves.kz](http://www.pves.kz)



“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. 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.

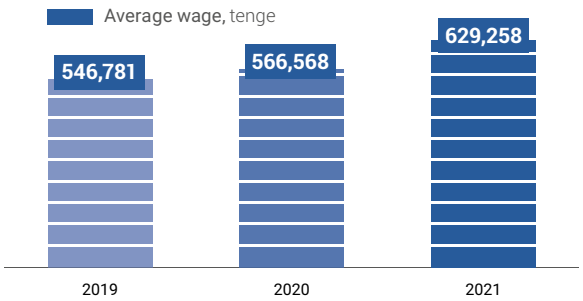
THE AMOUNT OF UTILIZED INVESTMENTS



Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income	thous. tenge	(179)	(89)	(385)
EBITDA	thous. tenge	(176)	(181)	(218)

SOCIAL INDICATORS



Full information is available on the company's website: [www.ewp.kz](http://www.ewp.kz)





01.1 About the Company

“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 2020, the Partnership commissioned 5 MW wind power plant Shelek, which was built as part of intergovernmental agreement between PRC and the Republic of Kazakhstan.

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:** the Republic of Kazakhstan, Almaty region, Kapshagay, Industrial st., 35/2.

**Director General:** Bukenov T. Sh.

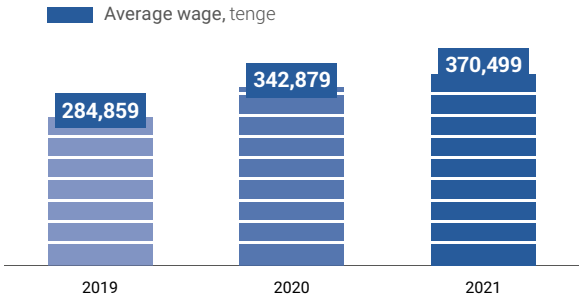
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	thous. tenge	(42)	(125)	12
EBITDA	thous. tenge	36	26	136
EBITDA Margin	%	23	11	34

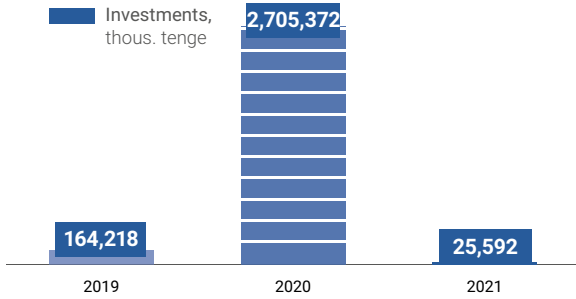
Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Installed electric capacity	MW	2.4	7.4	8.4
Electricity production volume	mIn kWh	3,327	7,366	20,454
Electricity sales volume	mIn kWh	3,246	7,216	20,216

SOCIAL INDICATORS



THE AMOUNT OF UTILIZED INVESTMENTS



Full information is available on the company’s website: [www.samruk-green.kz](http://www.samruk-green.kz).



“Energia Semirechya” LLP (“Samruk-Energy” JSC – 25%, Hydrochina Corporation – 50%; Powerchina Chengdu Engineering Corporation Limited – 15% and Powerchina Resources Limited – 10%)

“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 in order to conduct activities in the construction of wind power plant with the capacity of 60 MW to 300 MW in Shelek corridor.

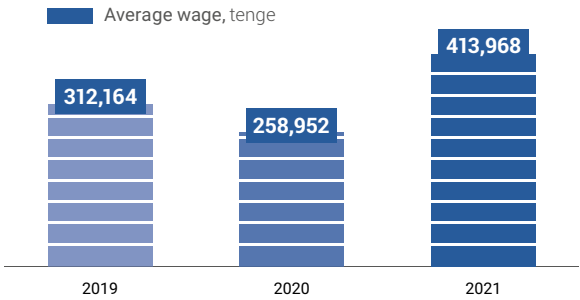
**Location:** the Republic of Kazakhstan, Almaty, Al-Farabi Avenue, 75v/7.

**Director General:** He Junwen

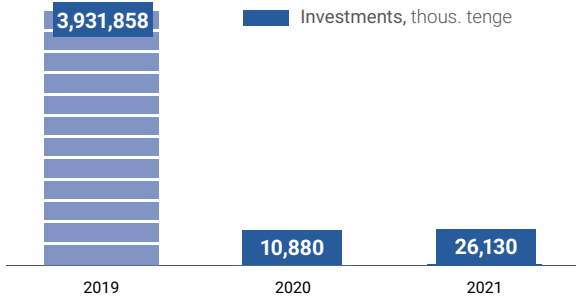
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income	thous. tenge	21	(177)	(134)
EBITDA	thous. tenge	(123)	(97)	(103)

SOCIAL INDICATORS



THE AMOUNT OF UTILIZED INVESTMENTS (25%)



01.1 About the Company

**“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:** the Republic of Kazakhstan, Almaty, Kunaev st., 21B, BC "Sat", office 71

**Director General:** 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

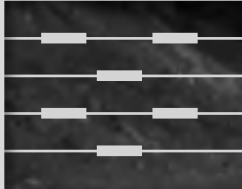
**Location:** the Republic of Kazakhstan, Almaty c.13, Al-Farabi ave., BC “Nurly Tau”, c.1V, suite 505

**Director General:** Abdukarimova A.S.





# MINING AND SERVICE COMPANIES



## “Bogatyр Komir” LLP (Forum Muider B.V. – 100%)

“Bogatyр Komir” LLP is one of the largest enterprises in the world in terms of open-pit coal mining. “Bogatyр Komir” LLP accounts for 59 percent of all coal mined in the Ekibastuz coal basin and circa 40 percent of the total coal production in the RK. “Bogatyр Komir” LLP approved coal reserves amount to circa 2.9 bln tons. Coal reserves at “Bogatyр Komir” LLP were approved up to minus 200 m 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.

“Bogatyр” 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 230 m from the surface (mark: the horizon is minus 30 m 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 bn tons.

## Confirmed coal reserves of “Bogatyр” and “Severny” coal mines of “Bogatyр Komir” LLP

mln tons

Seam	Confirmed reserves	Seam	Confirmed reserves	Seam	Confirmed reserves
“Severny” mine (sections 1,2,3,4)		“Bogatyр” mine (sections 5,6,9,10)		Total for “Bogatyр Komir” LLP	
1	199.8	1	198.1	1	397.9
2	298.1	2	332.8	2	630.8
3	662.2	3	739.4	3	1,401.7
4	205.9	4	278.7	4	484.6
5	1,336.0	Total:	1,549.0	Total:	2,915.0

## A supply chain of the entity

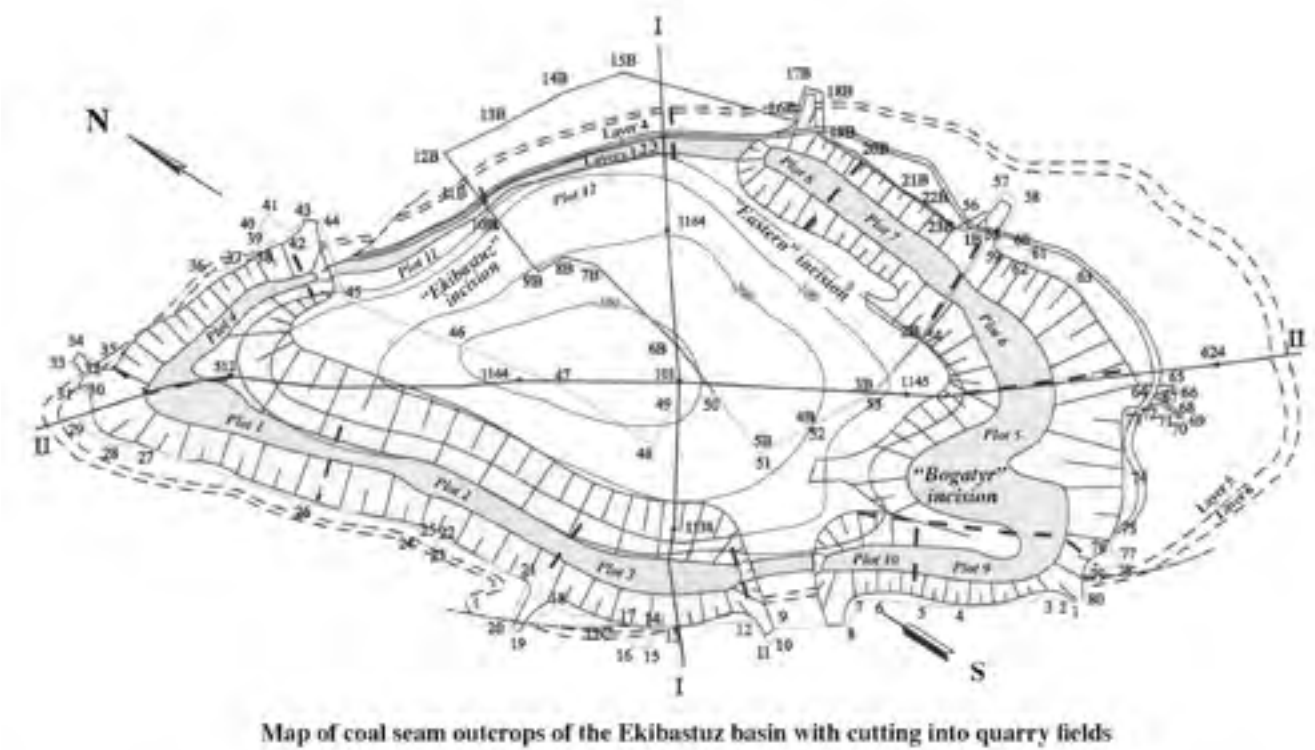
“Bogatyр Komir” LLP extracts KSN grade (coking caking slightly metamorphosed) coal with an average calorific value of ~ 4,000 kcal / kg, ash content ~ 43%, moisture ~ 5%.

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”.

**Location:** the Republic of Kazakhstan, Pavlodar region, Ekibastuz c., B. Momysuly st., 23.

**Director General:** Korsakov N.N.



01.1 About the Company

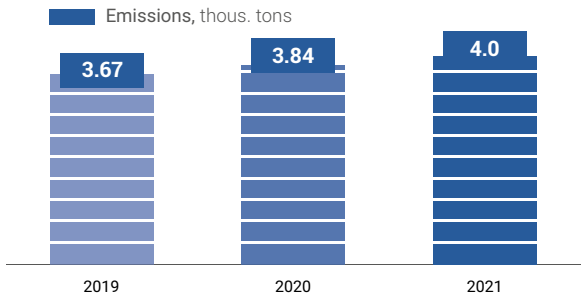
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	26,917	24,093	23,421
EBITDA	mln tenge	40,415	36,728	34.666
EBITDA Margin	%	43	36	34

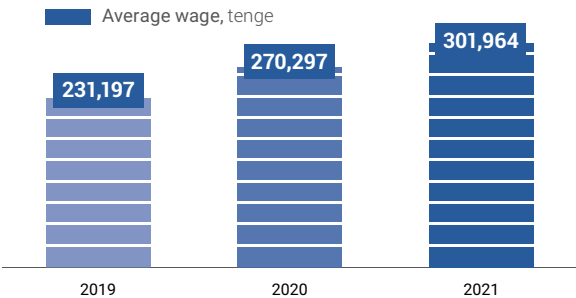
Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Coal production volume	mln tons	44.8	43.3	44.6
The volume of coal sales in the RK	mln tons	33.8	33.4	44.7
to own PP	mln tons	17.5	17.8	20.0
third party PP	mln tons	16.3	15.6	14.7
Coal export volume	mln tons	10.9	10.1	9.8
Major consumers	"Ekibastuz SDPP-1" LLP, "Ekibastuz SDPP-2 Plant" JSC, Astana Energia" JSC CHP-1, CHP-2, "KaragandaEnergocenter" LLP CHP-1, CHP-3, "SevKazEnergo" JSC CHP-2, Petropavlovsk CHP-2, "Pavlodarenergo CHP-2, 3, Reftinsk SDPP, Troitskaya SDPP and Kurgansk CHP			

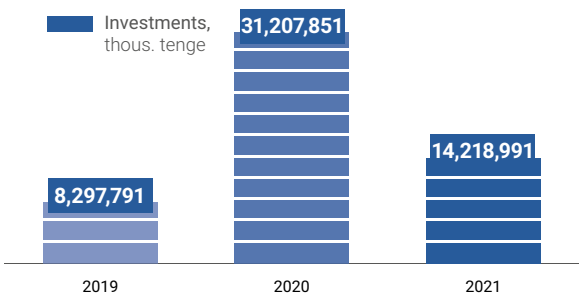
ENVIRONMENTAL PERFORMANCE



SOCIAL INDICATORS



THE AMOUNT OF UTILIZED INVESTMENTS (50%)



Full information is available  
on the company's website: [www.bogatyr.kz](http://www.bogatyr.kz)



"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.

"Mangyshlak-Munay" LLP ("Tegis Munay" LLP – 100%)

"Mangyshlak-Munay" LLP, according to the Contract No. 4631-UVS-ME dated 30.07.2018 is the holder of the subsoil use right to conduct gas exploration at the Pridorozhnoe field in Turkestan region. The project involves the development of a gas field. 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.

In accordance with the agreement on trust management of 100% of the share in the authorized capital of "Mangyshlak-Munay" LLP dated August 26, 2021 No. 1c/U/5-21, concluded between the Partnership and "Amangeldy Gas" LLP, 100% of the share in the authorized capital of "Mangyshlak-Munay" LLP was transferred to the trust management of "Amangeldy Gas" LLP.

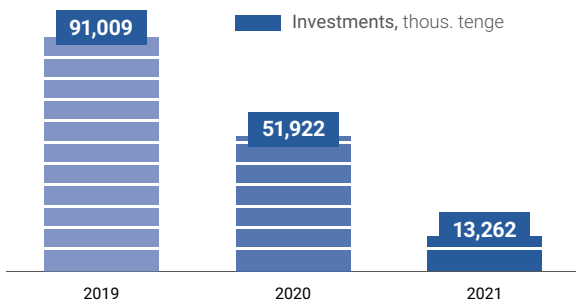
Full information is available on the company's website: [www.mangyshlak-munay.kz](http://www.mangyshlak-munay.kz)

"Tegis Munay" LLP is an investment project of "Samruk-Energy" JSC, the profit is expected to be received from 2020-2021.

**Location:** the Republic of Kazakhstan, Almaty c., Askarova st., 40.

**Director:** Tastemirova G.

THE AMOUNT OF UTILIZED INVESTMENTS



**Location:** the Republic of Kazakhstan, Almaty c., Askarova st., 40.

**Director:** Zhylykshiev K.B.





01.1 About the Company

“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.

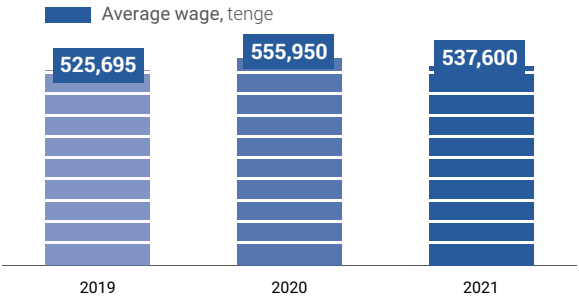
**Location:** the Republic of Kazakhstan, Nur-Sultan city, Kabanbay batyr ave., 15 A, block B.

**Director General:** Begimov G.A.

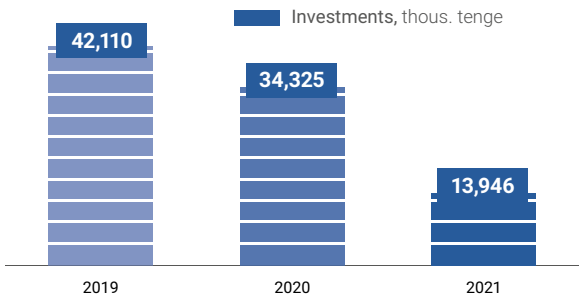
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	thous. tenge	3	27	35
EBITDA	thous. tenge	68	121	137
EBITDA Margin	%	6	9	12

SOCIAL INDICATORS



THE AMOUNT OF UTILIZED INVESTMENTS  
(25%)



Full information is available on the company's website: [www.e-s-center.kz](http://www.e-s-center.kz).





# DISTRIBUTION AND SALES COMPANIES



“Alatau Zharyk Company” JSC (“Samruk-Energy” JSC – 97.4%, “AZhC” JSC – 2.6%)

“Alatau Zharyk Company” JSC is a large regional electricity grid company that provides electricity to 2.5 mln people in Almaty city and Almaty region, operates more than 30 thousand km of power grids, 208 substations 35 kV and above, and 7,085 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 “AZhC” JSC is a reliable and high-quality supply of electricity to the people.

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 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.

Location: the Republic of Kazakhstan, Almaty c., Manas st., 24B.

Chairman of the Management Board: Asylov A.N.

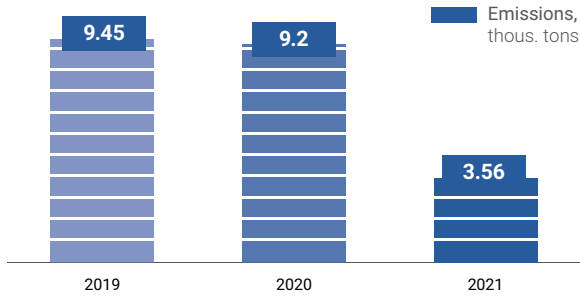
Results of operating activities

Description	Measurement unit	2019	2020	2021
PTL-220 kV	km	457.79	457.79	410.34
PTL-110 kV	km	2,881.76	2,880	2,673.94
PTL-35 kV	km	2,603.01	2,604.72	2,543.06
PTL-10 kV	km	10,903.46	10,951.46	9,363.04
PTL -6 kV	km	1,765.65	1,792.23	140.36
PTL -0,4 kV	km	11,659.81	11,771.74	10,127.52
SS-220 kV	pcs.	8	8	8
SS-110 kV	pcs.	95	95	93
SS- 35 kV	pcs.	106	106	106
Electricity transmission	mln kWh	6,961	6,838	7,650
Number of consumers (commercial and others)	pcs.	21	21	12

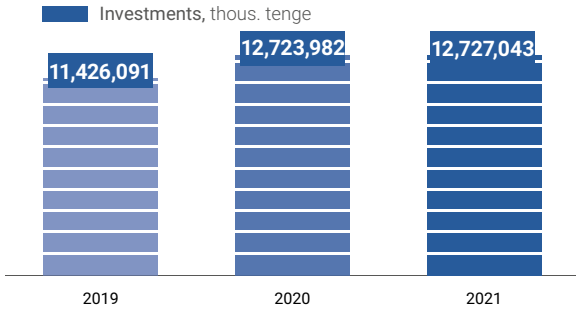
Financial performance

Indicators	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	2,719	3,366	2,907
EBITDA	mln tenge	12,408	11,966	13,136
EBITDA Margin	%	33	29	28

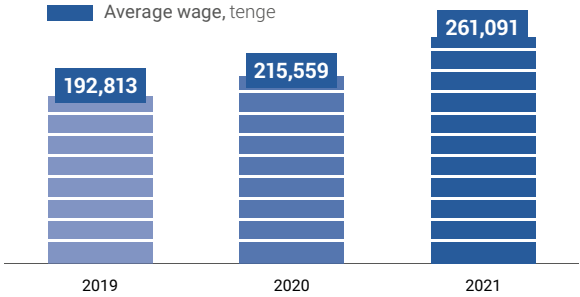
ENVIRONMENTAL PERFORMANCE



THE AMOUNT OF UTILIZED INVESTMENTS



SOCIAL INDICATORS



Full information is available  
on the company's website:  
[www.azhk.kz](http://www.azhk.kz)





01.1 About the Company

“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).

There are more than 34 thousand corporate entities and circa 830 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 and a Contact Center.

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

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.

**Location:** the Republic of Kazakhstan, Almaty c., Almaly district, Aiteke bi str., 172/27.

**Acting Director General:** Kopenov E.K.

Consumers groups	2019	2020	2021
Population	811,295	835,509	862,980
Commercial users, including:	32,939	34,171	36,154
- industrial consumers and similar to them consumers	1,934	1,952	1,936
Consumers groups	2019	2020	2021
- State-financed organizations	1,228	1,295	1,319
Consumers groups	2019	2020	2021
- Other consumers	29,777	30,924	32,899
TOTAL:	844,234	869,680	899,134

Full information is available on the company's website: [www.esalmaty.kz](http://www.esalmaty.kz).



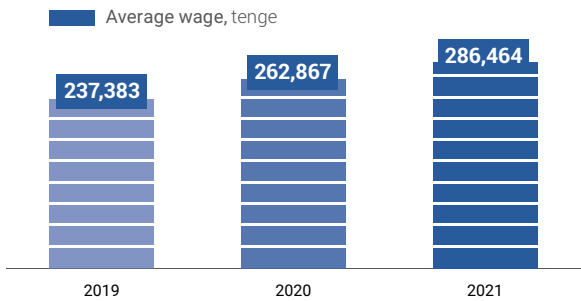
Financial performance

Indicator	Measurement unit	2019	2020	2021
Net income/loss	mln tenge	(1,185)	(4,035)	(1,742)
EBITDA	mln tenge	(1,499)	(4,796)	(3,149)
EBITDA Margin	%	(1.5)	(4.5)	(2.5)

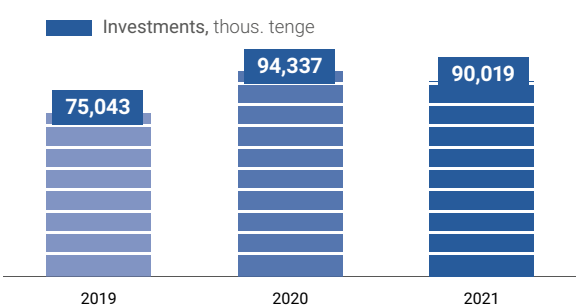
Results of operating activities

Indicator	Measurement unit	2019	2020	2021
Volume of electricity sale	mln kWh	6,218	6,055.5	6,723.8
Average electricity sale rate	tenge/kWh	16.11	17.67	18.25

SOCIAL INDICATORS



THE AMOUNT OF UTILIZED INVESTMENTS



# KEY PERFORMANCE INDICATORS

Indicator	2019	2020	2021	2022 plan
Installed capacity	6,133	6,200	6,215	6,215
Electricity production volume, bln kWh	30.2	31.4	35.6	35.6
"Samruk-Energy" JSC group's share of electricity production in the RK, %	28.5	29.0	31.1	29.0
Electricity sales volume, mln kWh	6,218	6,055.5	6,723.9	6,878
Electricity export, mln kWh	966.5	1,105.9	1,272.3	659.7
Electricity transmission volume, mln kWh	6,961	6,838	7,650	7,638
Heat output, mln Gcal	5.2	5.8	5.8	5.3
Coal production, mln tons	44.8	43.3	44.6	44.6
"Samruk-Energy" JSC group's share of coal production in the total production across the RK, %	40.5	39.7	40.2	39.0
Coal exports (thous. tons)	10,893	10,058	9,802.2	10,100



INSTALLED CAPACITY

6,215

ELECTRICITY  
PRODUCTION VOLUME,  
bln kWh

35.6

SALES  
ELECTRICITY VOLUME,  
mln kWh

6,723.9

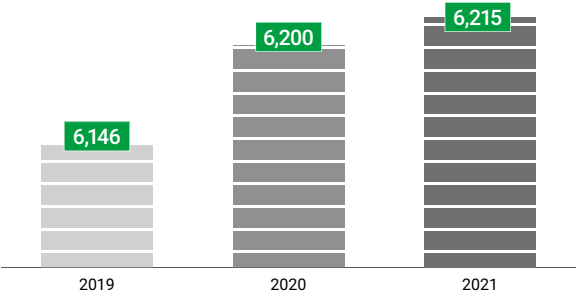
"Samruk-Energy" JSC  
power plants

Installed capacity  
as of 01.01.2022

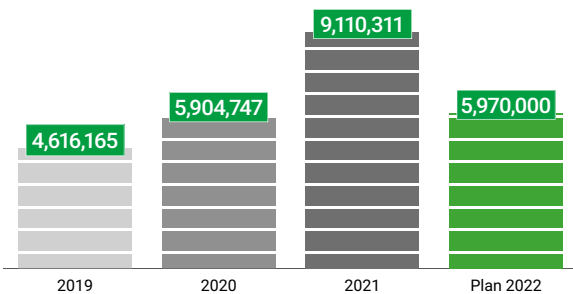
Available capacity  
01.01.2022

"Samruk-Energy" JSC	6,215.1	5,753.4
"Almaty Power Plants" JSC	1,235.7	904.7
"Ekibastuz SDPP-1" LLP	3,500	3,500
"Ekibastuz SDPP-2 Plant" JSC	1,000	971.3
"Shardara HPP" JSC	126	25
"Moynak HPP" JSC	300	300
"Samruk-Green Energy» LLP	8.4	8.4
"FWPP" LLP	45	45

DYNAMICS OF CHANGES IN THE INSTALLED  
CAPACITY "SAMRUK-ENERGY" JSC



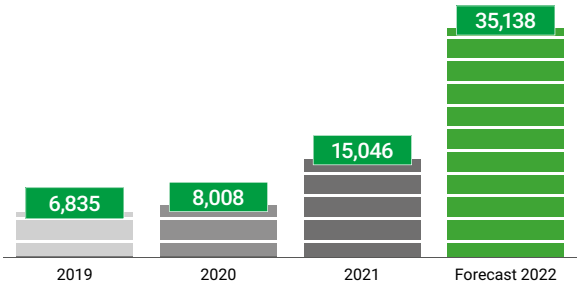
INVESTMENTS IN  
ENVIRONMENTAL PROTECTION (thous. tenge)



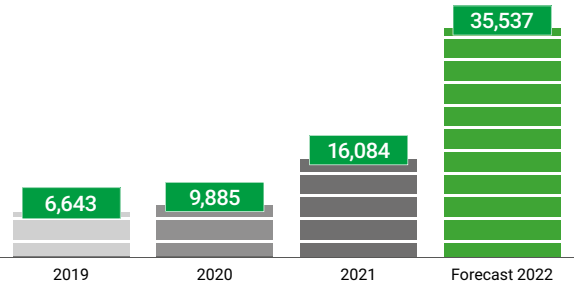


# KEY FINANCIAL AND ECONOMIC INDICATORS

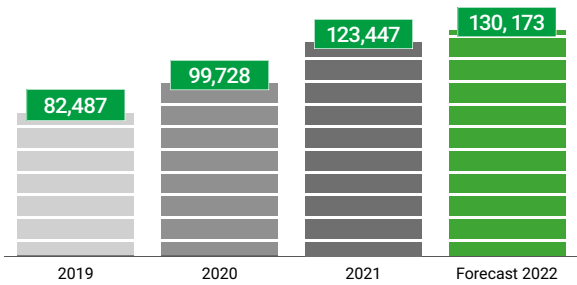
NET INCOME/LOSS ATTRIBUTABLE  
TO SHAREHOLDERS (mln tenge)



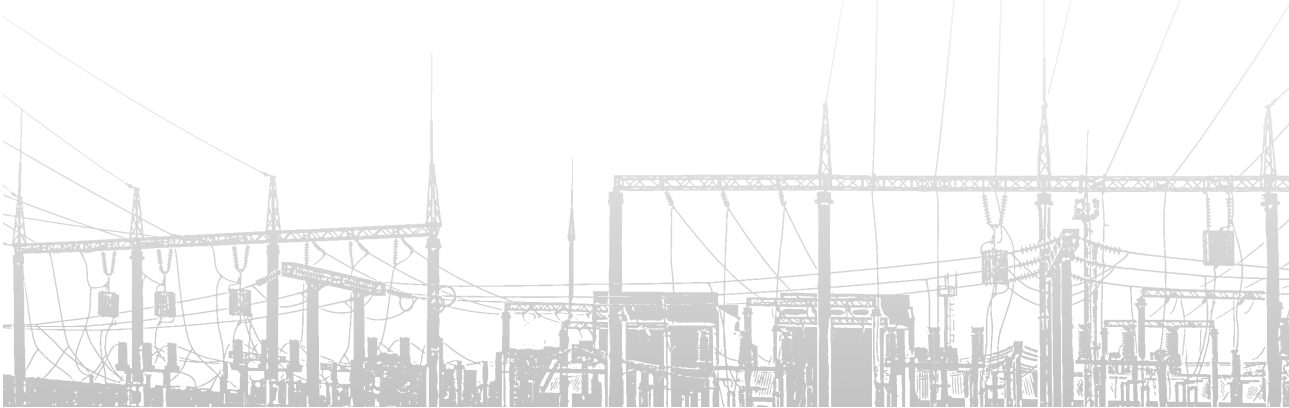
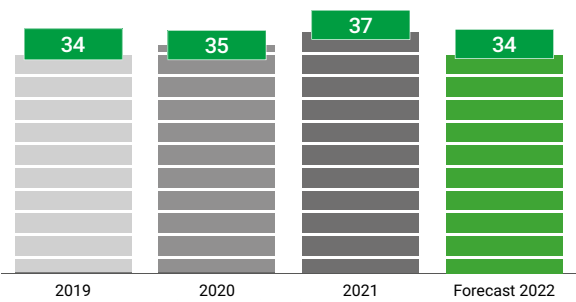
NET INCOME EXCLUDING EXCHANGE RATE,  
DIFFERENCES (as well as excluding exchange rate  
differences of jointly controlled entities and associated  
companies), mln tenge



EBITDA (mln tenge)



EBITDA Margin (%)



Social performance

Description	Measurement unit	2019	2020	2021	2022 plan
Average wage	thous. tenge	243,722	273,830	310,765	325,974
Average headcount, total	people	17,737	17,783	17,690	18,090
Annual staff turnover	%	9	6	10	14
Training costs for 1 employee per year	thous	45	15	19,6	15
% of training costs from payroll	%	1	1	1	1
Number (ratio) of workplace accidents per thousand people	Q-ty /1 000 people in conv.units	0.56	0.45	0.34	Is not projected
Share of local content in procurements of goods	%	79	79	89	83
Share of local content in procurements of works, services	%	81	79	93	58
Social stability rating	%	65	79	76	Is not projected





# 2021 KEY EVENTS

## JANUARY

1. "Samruk-Energy" JSC strengthened its financial stability and entered the "green" risk zone.
2. "Samruk-Energy" JSC expands digitization in energy sector. The installation of special equipment has commenced at the energy facilities of Kazakhstan; the equipment will enable controlling power flows and distribution in the Unified Energy System of the Republic (UES).

"Samruk-Energy" JSC plans to gain financial benefits of more than 4 bn tenge within 2021-2025 through introduction of digital solution and delivering services to the System Operator.

## APRIL

3. The international rating agency Fitch Ratings raised the outlook on "Samruk-Energy" JSC rating.
4. A memorandum of cooperation was concluded between "Samruk-Energy" JSC, Legal Advisers Chamber "Kazakhstan Bar Association" and PF "Legal Policy Research Center".

Fitch Ratings has revised the outlook on Samruk-Energy's rating, raising it from "Stable" to "Positive", and has also affirmed the long-term credit ratings of "Samruk-Energy" JSC at 'BB'.

According to this document, the parties are expected to participate in the project "Implementation of a systematic, structured and effective policy to improve business integrity and enhance corporate governance in Kazakhstan in accordance with OECD standards", implemented by KazBar and LPRC with the support of Siemens Integrity Initiative.

## OCTOBER

5. "Samruk-Energy" JSC Board of Directors approved the new Development Strategy of the Company for 2022-2031.

## NOVEMBER

6. "Samruk-Energy" JSC debut placed "green" bonds through public subscription on stock exchange of Astana International Financial Center – Astana International Exchange in the amount of 18.4 bn tenge with a coupon rate of 11.4% per annum and maturity of 6.5 years. Proceeds from placement will be used to finance green eligible projects in accordance with Green Bond Principles (GBP) of the International Capital Markets Association (ICMA).

7. Public hearings on transfer of Almaty CHP-2 to gas were held in Almaty city.

The issues of reducing environmental footprint during the implementation of the project on retrofit of Almaty CHP-2 were discussed with the city residents at the above-mentioned hearings. Public hearings were arranged with participation of the customer of the project's feasibility study (FS) – "APP" JSC, the author of FS – "KazNIPiEnergoprom" JSC Institute and chaired by a representative of the Green Economy Department of Almaty c.

## DECEMBER

8. The Eurasian Development Bank plans to finance the reconstruction of Almaty CHP-3. The Eurasian Development Bank (EDB), "Samruk-Energy" JSC and "APP" JSC signed a tripartite agreement on cooperation in arranging financing for the project "Reconstruction of Almaty CHP-3 using combined cycle gas turbine unit including raising the capacity to 450 MW".



# “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.

# 01|2 **COMPANY'S DEVELOPMENT STRATEGY**



## VISION

An efficient high-tech operating energy company with high social and environmental responsibility – the leader in Kazakhstan's energy sector.

## MISSION

Create value for shareholders, meet growing demand through reliable energy supplies, high-tech development, environmental friendliness, guided by the principles of sustainable development.

## STRATEGIC DIRECTIONS

01 Transition to a "green economy"



02 Ensuring reliable competitive supplies of energy resources in target markets



03 Maximizing shareholder value





# COMPANY'S DEVELOPMENT STRATEGY

The world is embarking on the stage of 4<sup>th</sup> energy transition to the widespread use of renewable energy sources, which over time will largely supersede fossil fuels – gas, oil, coal.

Recognizing the importance of the agenda and risks associated with operations based on coal generation, the Company will be committed to minimize adverse environmental impact and achieve carbon neutrality until 2060.

In this connection, the Company updated its Development Strategy in 2021, approving it for 2022–2031. Various activities are planned to be implemented, which include: the construction of renewable energy generation facilities, the transfer of some assets to gas, the use of best available technologies in carbon capture and storage, accumulation, planting trees, digitization, and energy efficiency.

The major factors contributing to the need for updating the Strategy are:

1. The need to develop and implement the energy transition program and its integration into the Development Strategy.
2. The need to apply the best available technologies (BAT) to reduce emissions.
3. The need to apply ESG principles.
4. The trend towards digitization of production and operating processes.
5. Changes in the list and key characteristics of investment projects.
6. Changes in the regulatory environment in power industry.

"Samruk-Energy" JSC Strategy for 2022–2031 adheres to the principles of sustainable development set out in the United Nations Global Compact, such as:

1. Commitment to the principles of sustainable development at the level of the Board of Directors, executive body and employees.
2. Analysis of the internal and external situation in three components (economics, ecology, social issues).
3. Identification of risks in sustainable development in the social, economic, and environmental areas.
4. Creation of stakeholders' map.
5. Setting goals and KPI in sustainable development, development of an action plan and identification of responsible persons.
6. Integration of sustainable development into key processes, including risk management, planning, human resource management, investments, reporting, operations, and others, as well as into the Development Strategy and decision-making processes.
7. Professional development of senior executives and employees in sustainable development.
8. Regular monitoring and evaluation of activities in sustainable development, assessment of performance and goals achievement, taking corrective actions, implementing a culture of continuous improvement.

The updated Development Strategy also considers the state policy in strategic planning of the national energy security system, the development of power industry, and is in line with the key strategic directions, goals and objectives of the Sole Shareholder.

The Company's strategic goals and objectives are determined using the PESTEL analysis, analysis of macroeconomic and industry trends and internal environment.

## KEY EXTERNAL CHALLENGES

### Tightening of environmental legislation requirements.

The new RK Environmental Code (hereinafter – the Code) imposes requirements for 1<sup>st</sup> category enterprises for the transition to integrated environmental permits and introduction of the best available techniques. In case of non-compliance with the Code's requirements, there will be a phased increase in tax rates for environmental emissions.

### Establishment of electricity balancing market.

The introduction of online balancing electricity market involves the creation of economic signals for entities of the wholesale electricity market to comply with their own daily schedule for production / consumption of electricity and participate in the elimination of power imbalances in the power system.

### Regulatory measures on development of centralized electricity trading.

As part of legislative changes on development of competition, the Agency for the Protection and Development of Competition proposes to amend the Law of the Republic of Kazakhstan "On Power Industry" as regards establishing the share of electricity subject to mandatory sale through centralized bidding.

### Establishment of Common Electricity Market of Eurasian Economic Union.

The full-scale operation of the common market is expected from January 1, 2025 after establishment of the common gas market. As a result of establishment of the common electricity market of the EAEU, the Republic of Kazakhstan will receive not only simplified access to the markets of the Union member states, but also increase the openness of the internal market for external suppliers of electricity.

### Implementation of national and infrastructure projects.

"Samruk-Energy" JSC subsidiaries are working on the following projects: "Modernization of Almaty CHP-2 including reduction of environmental impact", "Reconstruction of Almaty CHP-3 on the basis of a CCGT unit with an increase in the capacity of the station to 450 MW", "Expansion of CHP-1 with construction of a 200-250 MW CCGT unit" and "Reconstruction of cable grids in Almaty city and Almaty region".

### Implementation of Transformation Program.

The world is rapidly moving towards a new type of economy, where digital technologies are becoming the main tool for its formation. In modern conditions, information technology and transformation are the main driver of technological change and a condition for ensuring competitiveness both at the level of individual enterprises and at the level of countries.

## KEY INTERNAL CHALLENGES

### The need to improve the operating efficiency of the Company and increase the profitability indicator, taking into account the use of best available technologies, digitization and transformation.

### Lack of human resources and expertise in view of future trends.

### Uncompetitive tariffs.

"Samruk-Energy" JSC is constantly working to improve its trade and sales policy, striving to create a favorable and transparent pricing mechanism for all its consumers, excluding discriminatory conditions and principles, as well as ensuring the reliable operation of power plants and the fulfillment of financial obligations.

### High level of debt burden on the Company is because of implementation of the investment program.

SWOT-ANALYSIS

S

### STRENGTHS

- Vast expertise in implementation of RE projects.
- Availability of RES and HPP assets in the Company's portfolio.
- Effective energy capacities in relation to the general level of deterioration of capacities in the Republic of Kazakhstan.
- Support from the state and the Fund.

W

### WEAKNESSES

- High deterioration level of capacities
- Implementation of social projects without a sufficient return on investment in invested capital.
- High level of debt burden.
- Regulatory environment in tariff setting.
- Low opportunities for managing quotations.
- Limited export supplies of coal due to the substitution of Ekibastuz coal in traditional markets, and low characteristics because of noncompetitiveness in other markets.
- The availability of large reserves of thermal coal

O

### OPPORTUNITIES

- Gradual reorientation of global oil companies as part of decarbonization of business into "green" projects – an opportunity to attract to the Company's RE projects.
- The trend for electrification of sectors of the economy (road transport, railway transport, etc.).
- Expanding market share owing to growing demand, ensuring competitiveness, and changing the market model in the future.
- Enhancing export capacity.
- Optimization of the balance of capacities in accordance with market needs (TPP, CHP, HPP, RES)
- Development of RE generation together with a strategic partner, including technologies in greenhouse gas reduction, carbon capture and storage (CCS).
- Development of "clean" coal technologies incl. through its preparation.

T

### THREATS

- A global trend towards reduction of funding for projects that do not contribute to "greening" of the economy.
- Maintenance and expansion of combined generation.
- Tightening of the RK environmental legislation, including the risk of an increase in payments for emissions by 2, 4, 8 times in case of refusal to switch to integrated environmental permits (IEP).
- Increasing access to the market of the Republic of Kazakhstan through the development of the common electricity market of the EAEU.
- More expensive major investment projects, which results from the weakening of national currency.
- Volatility of commodities in world markets.
- Unstable geopolitical situation in neighboring countries.

Strategic risks are described in the "Key Impacts, Risks and Opportunities" section.

KEY PRIORITIES OF THE COMPANY

For effective implementation of the mission and strategic goals, considering the challenges and opportunities at the global, national, and corporate levels, the Company's key priorities have been identified through the lens of ESG:

1. SUSTAINABLE DEVELOPMENT

The key factors of sustainable development for the Company should be the well-being of people, environmental balance and, at the same time, ensuring the long-term financial stability of the company. Accordingly, the Company's operations should be based on the consistency with environmental **(E)**, social **(S)** and management **(G)** principles and observe interests of all stakeholders.

2. RESPONSIBLE INVESTMENTS

Investments must be commercially viable and aimed at creating long-term value, introducing new technologies and creating quality jobs. Responsible investment is an investment approach that seeks to integrate environmental, social and governance (ESG) factors into investment decisions to better manage risk and build long-term sustainability.

3. EFFECTIVE AND PROACTIVE PORTFOLIO MANAGEMENT

Increasing the performance of the Company's assets requires streamlining and improving business processes, introducing of up-to-date applicable solutions, corporate governance improvement and development of human resources to provide a basis for growth.

"Samruk-Energy" JSC will regularly monitor the achievement of goals set using the following strategic key performance indicators for 2022–2031

Nº	Description	2024 forecast	2027 forecast	2031 forecast
1	Reduction of net carbon footprint, %	–	–	≥(-10%) against 2021
2	Workforce productivity, ratio	1.1x against 2021	1.2x against 2021	1.5x against 2021
3	ROI*	>CoE	>CoE	>CoE
4	Net asset value (NAV), mln tenge	1.2x against 2021	1.5x against 2021	2x against 2021
5	Debt/EBITDA (ratio)	≤ 3,5	≤ 3,5	≤ 3,5
6	Corporate governance rating	BBB	A	AA
7	Production of non-resource-based goods and services	1.1x against 2021	1.2x against 2021	1.5x against 2021

\*Strategic ROI will be applicable subject to the sale of assets.



# COMPANY'S DEVELOPMENT STRATEGY

## STRATEGIC GOALS



**REDUCTION OF NET  
CARBON FOOTPRINT**



**PERFORMANCE  
IMPROVEMENT**



**INCREASING THE NET  
ASSET VALUE**

## KEY PRIORITIES

Effective and active portfolio management

Responsible investments

Sustainable development

## OBJECTIVES

### Environmental responsibility

1. Modernization of electrostatic precipitators using the technology of moving electrodes
2. Installation of an automated system for monitoring emissions into the environment
3. The use of low-emission swirl pulverized coal burners

### R&D

Conducting R&D (including the works on study, analysis of the using and development of carbon capture and storage (CCS) technologies, production of coal chemistry products).

### Green finance

The Company plans to use "green" financing tools for promising and ongoing projects, including refinancing the obligations of subsidiaries in the nearest future.

### Resource saving

1. Modernization of brush-contact devices with a system of permanent electronic monitoring.
2. "Construction of a pumping station for return of clarified water of "SDPP-2".

### Decarbonization

1. Gasification of Almaty CHPs.
2. Construction of RE facilities.
3. Implementation of the forest and climate project by 2031.

### Human resources development

1. Creation of attractive conditions for employees
2. Retention of internal talents and recruitment of high-performing employees
3. Ensuring social guarantees and social stability in the Company

### Social responsibility

Training of employees aimed at employees' understanding of ethical norms and principles, as well as absolute intolerance to corruption and bribery.

### Increasing electricity sales in the domestic and foreign markets

1. Receiving additional income by generating assets owing to the natural annual increase in consumption volumes.
2. Strategic activities aimed at further increasing of electricity sales in the Republic of Kazakhstan market.

### Increasing sales of coal in the domestic and foreign markets

The Company plans to increase coal sales to "Samruk-Energy" companies by 3.31 mln tons, as well as to third-party consumers in the Kazakhstani market by 1.69 mln tons.

### Improvement of performance of existing facilities

1. Implementation of the energy conservation and energy efficiency program.
2. Reduction of grid losses.
3. Implementation of ASCAPC and SCADA system.

### Equipment retrofit

Retrofit of turbine units with replacement of HPC and IPC rotors.

### Innovative development

"Samruk-Energy" JSC, in line with its Development Strategy, plans to scale up "Bogatyr-Komir" LLP coal business through the introduction of coal preparation technology.

### Digitization

1. Automation and visualization of updated information and daily reports.
2. Installation of process control systems.

### Improvement of business processes

1. Reengineering of the processes of the company's group to achieve the greatest possible effect from production, financial and economic activities.
2. Robotization of routine business processes.

### HSE Best Practices

1. Automation of the process of registering hazardous actions/ conditions and incidents to reduce accidents.
2. Cooperation with leading companies, the conclusion of memorandums.

### Improving financial stability

1. Credit rating management
2. Optimization of the covenant package

### Implementation of investment projects

1. Expansion and reconstruction of Ekibastuz SDPP-2 with the installation of power unit No. 3;
2. Expansion and reconstruction of Ekibastuz SDPP-1 facilities (Restoration of unit No. 1);
3. Gasification of Almaty CHPs;
4. Reconstruction of cable grids in Almaty city and Almaty region;
5. Transition of "Bogatyr" open pit mine to advanced continuous and cycling method (CCM) of coal mining;

6. Transfer of Kensu river flow;
7. Construction of counter regulating Kerbulak HPP on the Ili River;
8. Construction of 50MW WPP in the vicinity of Ereymentau city;
9. Construction of 60 MW WPP in Shelek corridor;
10. Construction of 240 MW WPP and HPP 29 (71 MW) in the Shelek corridor.

### Corporate governance

1. Preparation of an annual sustainability report in accordance with GRI.
2. Conducting of an independent diagnostics of corporate governance by Shareholder, and development of medium-term plans to improve corporate governance.
3. Obtain an ESG rating.

STRATEGIC REPORT ON KEY INDICATORS OF THE COMPANY'S DEVELOPMENT STRATEGY FOR 2018–2028\*

Implementation of strategic KPIs in accordance with the Company's Development Strategy for 2018–2028

Nº	Description	2019 actual	2020 actual	2021 actual	2022 forecast	2023 forecast
1	Net income, mln.tenge	6,835	8,008	15,046	35,138	66,041
2	Debt/EBITDA* (ratio)	2.91	2.67	2.41	3.52	3.70
3	ROACE, %	3.43	3.60	4.23	5.46	6.84
4	Net asset value (NAV), mln tenge	392,073	400,623	412,899	442,461	508,490
5	Corporate governance rating	-	-	BB	-	-
6	Share in the RK electricity market, %	28,5	29	31.1	27,1	27,6
7	LTIFR	0,33	0,27	0,19	0,33	0,30

\*The indicator for 2019 was recalculated according to the changed methodology.

In general, the Company's strategic indicators tend to improve between 2019 and 2023. The main growth factors are an increase in sales of electricity and capacities in the domestic market, obtaining individual tariffs for capacity, reducing per unit consumption of fuel and water for process needs, reducing expenses for fuel and energy resources, as well as decreasing the debt burden.

STRATEGIC REPORT ON THE OBJECTIVES OF THE COMPANY'S DEVELOPMENT STRATEGY FOR 2018–2028

<b>Ensuring supply electricity to consumers of the Fund's group of companies</b> ► 5.53 bn kWh electricity was supplied to consumers of the Fund's group of companies	<b>Implementation of activities aimed at reduction of electricity loss rate</b> ► ASCAPC and SCADA projects are being implemented	<b>Implementation of the project "Expansion and reconstruction of Ekibastuz SDPP-2 with the installation of power unit No. 3"</b> ► A tender for construction and installation works for the construction of the Project's equipment hangars was conducted.	<b>Effective stakeholder engagement</b> ► The Integrated Annual Report on "Samruk-Energy" JSC operating results for 2020 was published ► A comprehensive work with the media is underway
<b>Ensuring supply electricity for energy-intensive industries</b> ► 1.140 bn kWh electricity was supplied to energy-intensive industries	<b>Innovative development and digitization</b> ► "Digital Power Plant" project implementation ► "Digital coal mine" project implementation	<b>Implementation of the project "Expansion and reconstruction of Ekibastuz SDPP-1 facilities (Recovery of unit No. 1)"</b> ► An investment agreement for setting an individual capacity tariff was signed with the RK ME. ► The main equipment has been supplied, installation works are underway.	<b>Corporate governance improvement</b> ► Corporate governance improvement plan is successfully implemented

Sales of coal, including through crowding out competitors

- 34.94 mln tons was sold in the Kazakhstani market. An increase is owing to consumption by main energy producing organizations.

Implementation of the project "Technologies of furnace boiler devices gas for firing high-ash coals of Ekibastuz coal deposits (R&D)"

- Pilot studies on firing of high-ash Ekibastuz coal and its by-products at the complex fluidized bed bed and circulating fluidized bed plant were conducted.
- The data confirming the possibility of efficient combustion was received.
- Technical proposals on the concept of industrial and energy boilers were developed.

Implementation of the project for the transition to a continuous and cyclical method of production, transportation, blending and loading of coal at the Bogatyr open pit mine (CCM)

- The delivery of equipment has been completed.
- Installation of metal structures is underway.

Development of human resources

- The following activities are implemented:
  - Leadership development;
  - Development of corporate culture;
  - Development of HR competencies

Assessment of potential new directions for electricity and coal export

- As part of the monitoring of potential sales markets' demand for electricity and coal, markets of Kyrgyzstan, Uzbekistan, Turkmenistan, Ukraine, Belarus, Russia, China, Tajikistan were studied.

Improving financial sustainability Companies

- All financial covenants of the Company's lenders Are met. Fitch International Agency Ratings revised the outlook on the Company's rating, increasing it from "Stable" to "Positive", and confirmed the long-term credit ratings of the Company at "BB".

Implementation of the project "Construction of 50 MW WPP in the vicinity of Yereymentau city"

- Construction and installation works are underway.

Increase of electricity and coal sales in foreign markets

- Electricity was exported to the Republic of Uzbekistan. 592 mln kWh electricity was exported.
- The export of coal to Russia amounted to 9.8 mln tons.

Implementation of the Company's transformation program

- All scheduled activities specified in the roadmap for implementation of the Digital Transformation Program were completed.

Implementation of the project "Construction of 60 MW WPP in Shelek corridor including a possible increase in capacity up to 300 MW"

- Construction and installation works are underway.



RESULTS OF THE PROGRAM FOR DIGITAL TRANSFORMATION OF BUSINESS

In 2021, the Company continued to implement the projects and activities of the Transformation Program:

1. Project "Introduction of automated load and frequency control (ALFC)"

A joint project with "KEGOC" JSC (System Operator). As part of the project, it is planned to install hardware and software at the Stations, as well as to integrate with the System Operator's existing ALFC, to automate frequency and power control services including a time for executing the System Operator's commands and eliminating the human factor.

**Goals:** Obtaining an additional source of income and reducing the balance of power flows at the border of the UES of Kazakhstan and the UES of Russia, as well as ensuring energy security and energy independence of the RK.

**Implementation period:** 2019–2021.

**Status:** The project has been completed, ALFC has been put into operation at "ESDPP-1" LLP and "MHPP" JSC.

2. Project "Integrated Planning System (IPS)"

**IPS** – a system (tool) of planning and modeling which is intended to set goals for the medium term and search for the most appropriate mode of operation of the plant by balancing production and financial and economic indicators.

**Goals:**

- 1. Increasing the accuracy of forecasting production and financial performance.

- 2. Reducing the Company's costs by choosing the most preferable scenario.
- 3. Prompt response to changing external and internal factors.

**Implementation period:** 2017–2021.

**Status:** The project has been completed, the system has been successfully put into operation at "ESDPP-1" LLP, "ESDPP-2 Plant" JSC and "MHPP" JSC.

3. Project "Introduction of the new integrated safety management model"

Introduction of the new integrated safety management model includes:

- 1. Improving the organization of the process of analyzing the effectiveness of the management system in prevention of injuries;
- 2. Transition to a risk-based approach in hazard analysis and accident prevention;
- 3. Introduction of corporate standards:
  - ▶ "Assessment of occupational health, safety and environmental protection system by the Management";
  - ▶ "Conducting a leadership behavioral safety audit";

- ▶ "Assessment of risks in industrial safety, OHS, radiation safety, environment";
- ▶ "Golden safety rules";
- ▶ "Accounting and investigation of incidents";
- ▶ "Motivating staff to safe behavior".

**Goals:** Improvement of safety culture and involvement of staff in occupational health and safety issues. Reducing injury rates (LTIFR, LDR) by 30% within 3 years after project implementation.

**Implementation period:** 2017–2022.

**Status:** The project has been implemented and new processes are used in operations of "ESDPP-1" LLP, "ESDPP-2 Plant" JSC, "MHPP" JSC, "ShHPP" JSC, "FWPP" JSC, "APP" JSC, "AZhC" JSC, "SGE" JSC.

4. Project "Introduction of information security management system"

IT directions are rapidly developing in Kazakhstan and therefore the demand for systems and data protection is growing. The implementation of the ISMS fully complies with the requirements of the Cybersecurity Concept (approved in June 2017 by the RK Government) and enable to prevent information attacks and improve information security.

**Goals:** development of processes of information security management system, implementation of cybersecurity activities in existing and future business processes of companies, mitigating of risks of violation of the stability of vital facilities by introducing targete processes, information security systems and increasing the hours of monitoring of all information security activities by 24/7.

**Implementation period:** 2017–2021.

**Status:** The project has been completed, all declared sources of activities of "Samruk-Energy" JSC, and eight subsidiaries and affiliates of the organizational perimeter are connected, information security incidents detection is monitored 24/7.

5. "Safe production" project

The automated system "Safe Production" ensures the maintenance of occupational health and safety (OHS) processes online. The system registers non-compliance with health and safety requirements, maintains training logs and security audits, which allows automatically controlling the elimination of non-compliances, generating reports, and analyzing data. The system is available for use by all employees of enterprises, which allows increasing the involvement of staff in the processes of health and safety, makes them transparent and helps registering and eliminating more non-compliance with health and safety requirements.

**Goals:** Reduction of occupational injuries rate by improving the safety culture of employees through the introduction of an accessible and transparent automated system for registering and investigating incidents.

6. Project "Analysis of commercial losses in grids using data analytics"

The project is aimed at analyzing the data collected in the automated system for commercial accounting of power consumption (ASCAPC) to identify excess losses in grids of "AZhC" JSC through:

- ▶ Building a model of predictive electricity consumption;
- ▶ Localization of excess losses;
- ▶ Determination of places of illegal connection to power grids by means of automated data analytics from ASCAPC.

**Goals:** Reduction and compliance with losses for each power distribution zone of "AZhC" JSC to the standard level by the end of the first quarter of 2022.

**Implementation period:** 2021–2022.

**Status:** a system for analyzing commercial losses has been developed, test activities are performed using ASCAPC data, following these activities, user training will be arranged and the system will be put into operation.

Furthermore, the following activities were implemented in 2021: "Leadership development", "Development of corporate culture", "Development of HR competences", "Introduction of master data management process", "Advancement of continuous improvement process", "Corporate governance system improvement" and "Improving the model for purchasing electricity from RES (Pass-through extra charge)".

**Implementation period:** 2020–2022.

**Status:** The system has been successfully put into operation at "ESDPP-1" LLP, "ESDPP-2 Plant" JSC and "APP" JSC. During the operation of the system, 3,514 non-compliances were registered at "ESDPP-1" LLP, 2,062 non-compliances at "ESDPP-2 Plant" JSC, and 3,687 non-compliances at "APP" JSC.

Since the first wave was successfully completed, the implementation of the second wave of the Safe Production project at "Bogatyr-Komir" LLP, "Alatau Zharyk Company" JSC, "Moynak HPP" JSC and "Shardarinsk HPP" JSC in 2022 was agreed.

At the end of the year, net benefits in the amount of 4.3 bn tenge were received from the implementation of the "IPS", "Introduction of the ALFC and "Improving the model for purchasing electricity from RES.

The Portfolio of projects and activities of Transformation Program for 2022–2026, which was created taking into account "Samruk-Energy" JSC Development Strategy for 2022–2031, was approved by the resolution of the Board of Directors dated December 14, 2021 and includes:

- ▶ **The project "Reduction of carbon footprint"** (implementation years 2021–2026) is aimed at minimizing the carbon footprint to achieve the goals of decarbonization of the company's operations (to learn more about this, see the Energy Transition Program of "Samruk-Energy" JSC).
- ▶ **The project "Introduction of ESG best practices"** (implementation years 2022–2025) is aimed at improving the investment attractiveness of the Company through obtaining an ESG rating. (learn more in the section "Sustainable development").
- ▶ **The project "Changing the decision-making model based on data analysis"** (implementation years 2021–2026) is aimed at reducing the costs of an enterprise through digitization of production processes.
- ▶ **Project "Safe production".** The implementation of the second wave of the project is expected in 2022 (more details in paragraph 5).

01|3

# 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-IV 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 implements the state policy in the areas of natural

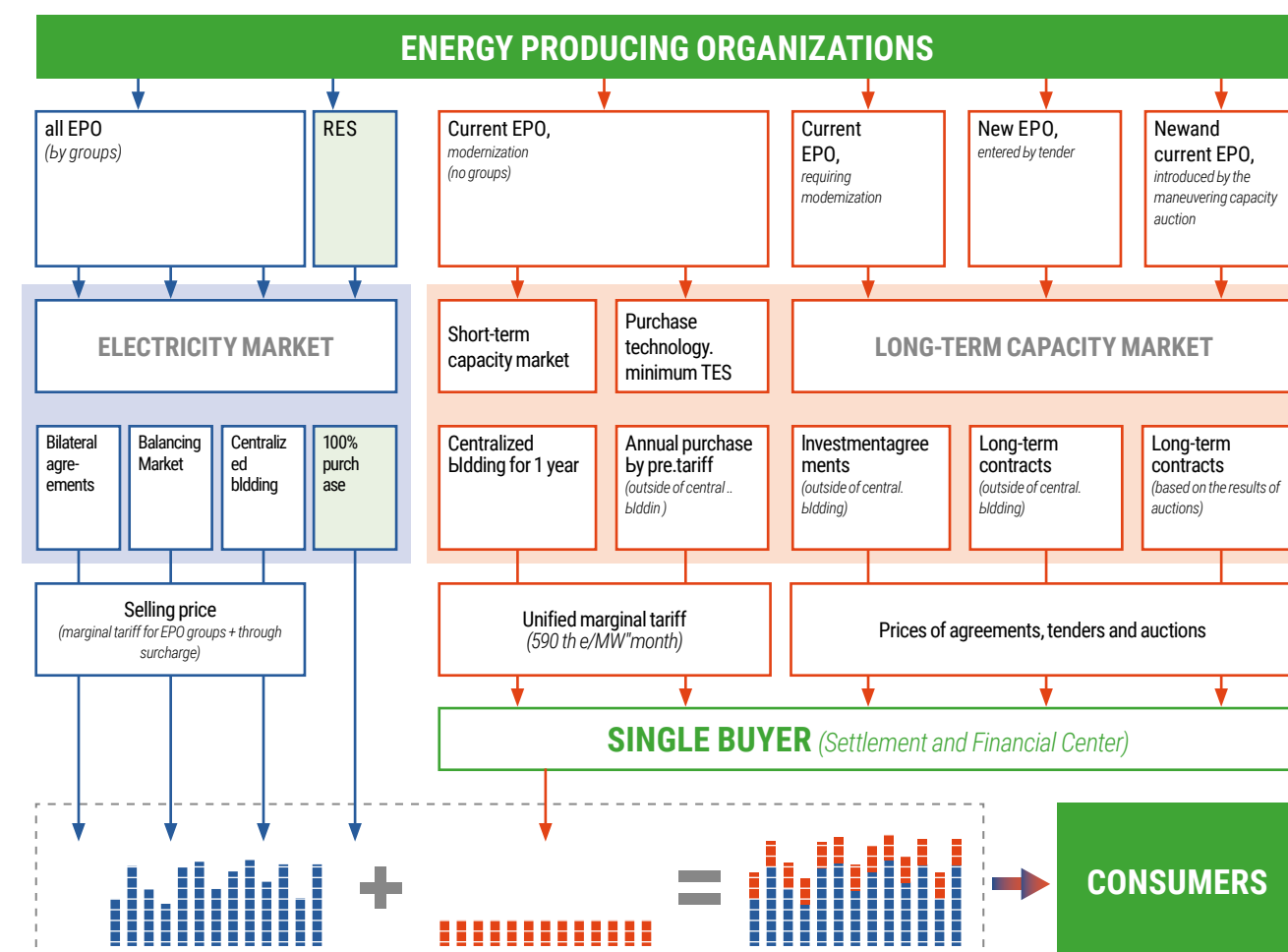
monopolies, including on regulated services for electricity transmission, heat production, transmission, distribution and supply in line with the Republic of Kazakhstan Law dated December 27, 2018 No. 204-VI "On Natural Monopolies".

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".

Along with electricity market, the electric capacity market has started operating since January 1, 2019; the capacity market aims to attracting investments to maintain existing and commissioning of new electric capacities to cover the demand for electricity.

## ELECTRICITY AND COAL MARKET MODEL

Marke Council  
(market monitorin)





01.3 Electricity and coal market overview

Attracting investments for the modernization, expansion of existing capacities and construction of new power plants is provided under long-term contracts, attracting investments to cover current costs is provided as part of a competitive selection through centralized capacity auctions.

With the introduction of the capacity market, the existing electricity tariff was divided into two components:

1. electricity tariff – a variable part, which is formed on the basis of the costs for the production of electricity by energy-producing organizations (including depreciation, interest on loans), taking into account the rate of return;
2. capacity tariff – a constant part that will ensure the return on investment in the construction of new and renovation, modernization, reconstruction, expansion of existing electrical capacities.

The electricity market will retain the possibility of concluding direct bilateral contracts for the purchase and sale of electricity, as well as the purchase and sale of electricity at centralized auctions. At the same time, in accordance with paragraph 2 of Article 12-1 of the Law “On the Electric Power Industry”, electricity production is in a competitive environment, and energy-producing organizations independently determine the selling price within the marginal tariff of the corresponding group.

Capacity is purchased by the Single Purchaser at the level of the maximum annual power consumption of the UES of Kazakhstan, considering the required power reserve.

A single purchaser sells capacity to all wholesale buyers (power transmission, power supply organizations and wholesale consumers) at a single, averaged price. This mechanism will smooth out different capacity prices for power generating organizations, since the investment needs of existing power generating organizations are less than for new power plants commissioned because of a tender for the construction of power plants.

KAZAKHSTAN ELECTRICITY BALANCE

As of January 1, 2022, the installed capacity of Kazakhstan's power plants was 23,959 MW, which is 412 MW more compared to 2020.

The available capacity of power plants in the Republic of Kazakhstan amounted to 20,200 MW, which is 161.4 MW more than last year, incl. an increase in the Northern zone is 95 MW and the Southern zone is 67 MW.

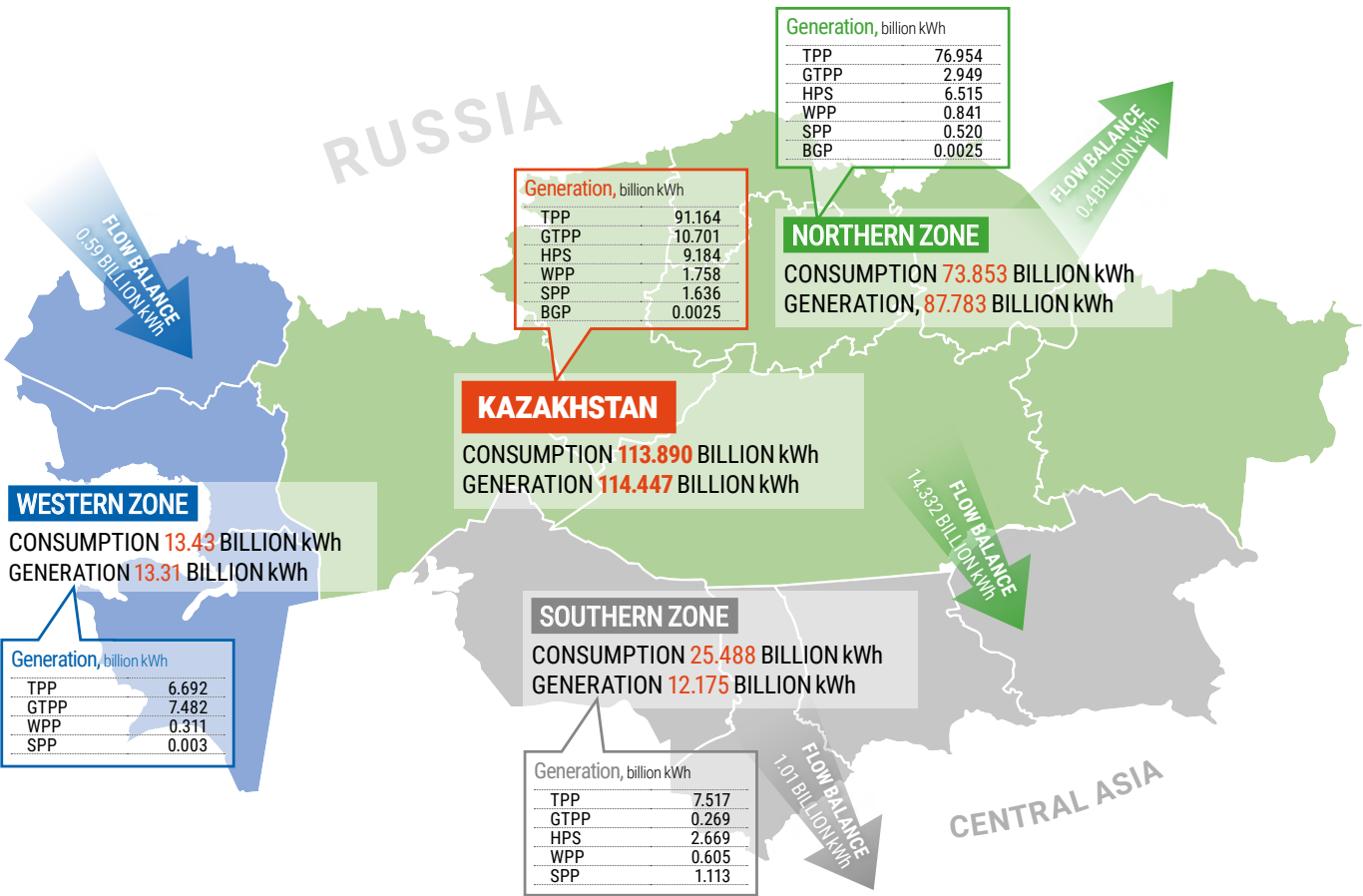
Electricity in Kazakhstan was mainly produced at thermal power plants – 79.7%, HPP accounted for 8%, and the share of renewable energy was about 3.7%.

76.7% of electricity from the total production in the country was generated in the **Northern zone**. The main coal deposits and water energy resources are located here. Excess electricity is transferred to the southern zone that experiences power shortages and exported to the Russian Federation.

The **Southern zone** is power hungry zone, and the shortage of electricity is covered by supplies from the northern zone, where the share of electricity generation was 10.6%.

In the **Western zone**, a significant share of electricity consumption was accounted for by oil and gas enterprises with their own generating sources. There are no electrical connections between the West and the North and the South of Kazakhstan across the country.

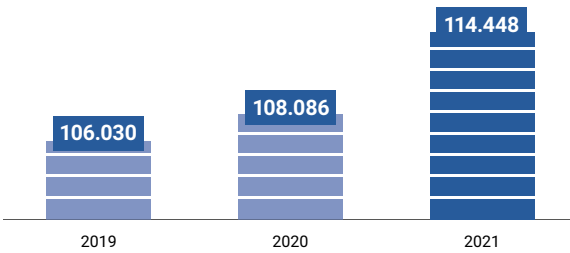
According to the System Operator, power plants of the Republic of Kazakhstan 2021 produced 114,447.9 mln kWh of electricity in January-December 2021, which is 5.8% more than the same period in 2020. All zones of the UES of Kazakhstan had an increase in generation.



In January-December 2021, compared to the same period in 2020, electricity generation increased considerably (an increase of 15% or more) in Akmola, Zhambyl, Kyzylorda and Turkestan regions. At the same time, electricity generation decreased in Aktobe, Almaty, East Kazakhstan, Karaganda, Kostanay, North Kazakhstan regions.

Electricity generation at HPPs of Kazakhstan decreased by 365.9 mln kWh (14.19%). The operating mode of the stations was determined by the water management balance and the hydrological situation.

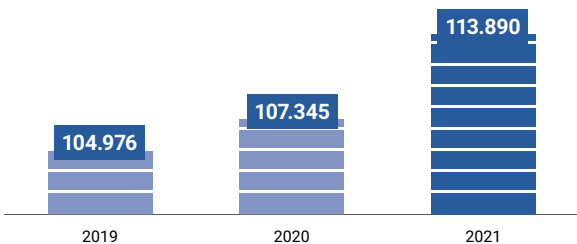
ELECTRICITY PRODUCTION IN RK, bn kWh



According to the System Operator, in January-December 2021, there was an increase in the dynamics of electricity consumption in the republic compared to January-December 2020 by 6%. So, in the northern zone of the republic, consumption increased by 5%, in the southern zone by 9% and in the western zone by 7%.

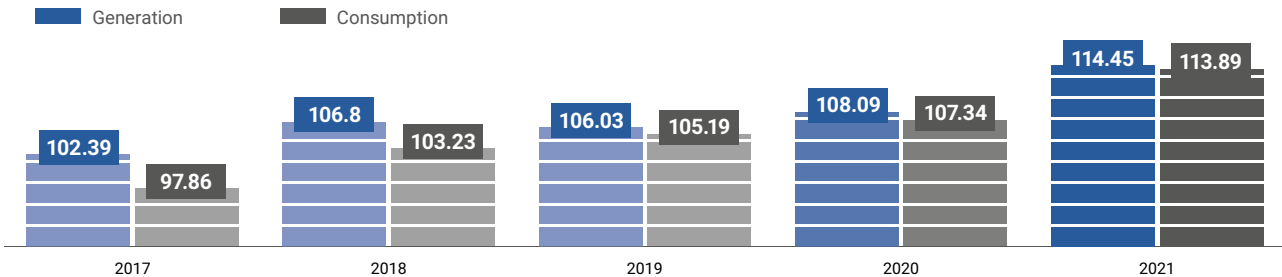
01.3 Electricity and coal market overview

CONSUMPTION OF ELECTRICITY IN RK, bn kWh



In 2021, compared to the same period in 2020, the maximum increase in electricity consumption was in Akmola region – by 1,108.4 mln kWh (12%), Almaty region – by 1,085 mln kWh (9.5%), Karaganda region – by 540.5 mln kWh (2/9%), Turkestan region – by 548.7 mln kWh (10.5%), Pavlodar region – by 750.9 mln kWh (3.6%), East Kazakhstan regions – by 432 mln kWh (4.6%).

THE BALANCE OF ELECTRICITY PRODUCTION/  
CONSUMPTION IN THE RK bn kWh



Electricity indicators across the Republic of Kazakhstan

mln kWh						
Nº	Indicators across the RK	2018	2019	2020	2021	Δ 2021/ 2020
1.	Electricity consumption	103,228.3	105,193.1	107,344.8	113,890.3	6%
	Electricity production, incl.:	106,797.1	106,029.8	108,085.8	114,447.9	5.8%
	TPP	86,795.1	85,955	86,662.6	9,1164.2	5.2%
	GTPP	9,119.3	8,975.6	9,527.7	10,701.8	12.3%
2.	HPP	10,343.0	9,984.9	9,545.8	9,184.9	-3.8%
	WPP	400.5	701.9	1,094.1	1,758.0	60.6%
	SPP	137.9	409.4	1,250.7	1,636.5	30.8%
	Biogas plant	1.3	3	4.9	2.5	-49%
	Net power flow "+" shortage, "-" excess incl.:	-3,568.8	-836.7	-741	-557.6	-2%
3.	Russia	-3,566	-3,057.8	123.1	461.7	237%
	Central Asia	-2.8	-962.4	-864.1	-1,019.3	26.3%

ELECTRICITY EXPORT-IMPORT OF THE  
REPUBLIC OF KAZAKHSTAN

To balance the production and consumption of electricity in January-December 2021, exports to the Russian Federation amounted to 1,326.6 mln kWh, imports from the Russian Federation 1,788.32 mln kWh.

Including export of "KEGOC" JSC to the Russian Federation in the amount of 1,267.7 mln kWh, import of electricity for the reporting period was 1,506.41 mln kWh.

The growth of exports to the Russian Federation compared to 2020 amounted to 18.7%, the growth of imports from the Russian Federation for the same period amounted to 44.2%.

Name	January-December 2020	January-December 2021	Δ 2021/2020 г	
			mln kWh	%
<b>Kazakhstan's export</b>	<b>-2,296.46</b>	<b>-2,650.43</b>	<b>-353.97</b>	<b>15.4%</b>
<b>To Russia</b>	<b>-1,117.48</b>	<b>-1,326.60</b>	<b>-209.13</b>	<b>18.7%</b>
ESDPP-1	-0.04	-0,050435	-0.01	16.3%
"SevKazEnergo" JSC	-51.26	-58,85506	-7.60	14.8%
"Neverovsky crushed stone" LLP – LLP "SPST Company" LLP – "AES ShHPP" LLP	-0.55	0.00	0.55	-100.0%
"INTER RAO" PJSC – "KEL" LLP – "ESDPP-2" JSC	-0.02	0.00	0.02	-97.5%
"KEGOC" JSC (sales agreement) (balancing market)	-1,065.61	-1,267.70	-202.09	19.0%
<b>To UES of Central Asia</b>	<b>-1,178.98</b>	<b>-1,323.83</b>	<b>-144.85</b>	<b>12.3%</b>
ESDPP-1 to Uzbekistan	-806.65	-392.92	413.73	-51.3%
"KEGOC" JSC for "NPS of Kyrgyzstan" OJSC	-3.66	-5.83	-2.17	59.3%
SDPP-1 to "Power plants" (as part of mutual exchange) for Kyrgyzstan	-280.07	-680.25	-400.18	142.9%
ESDPP-2 for Uzbekistan	-72.51	-190.24	-117.73	162.4%
TOPAR SDPP for Uzbekistan	-16.09	-54.58	-38.49	239.2%
From "Topar SDPP" – "AB Energo" LLP – "AB ENERGO" OJSC for "Power Plants of Kyrgyzstan" JSC	0	-0.74	-0.74	100%
<b>Import of Kazakhstan</b>	<b>1,555.44</b>	<b>2,093.53</b>	<b>538.08</b>	<b>34.6%</b>
<b>From Russia</b>	<b>1,240.60</b>	<b>1,788.32</b>	<b>547.72</b>	<b>44.2%</b>
"INTER RAO" PJSC	263.59	281.91	18.32	6.9%
"INTER RAO" PJSC (purchase agreement) (balancing market)	977.00	1,506.41	529.41	54.2%
<b>From UES of Central Asia</b>	<b>314.85</b>	<b>305.21</b>	<b>-9.64</b>	<b>-3.1%</b>
Incl."NPS of Kyrgyzstan" OJSC for "KEGOC" JSC"	2.65	5.21	2.56	96.6%
Incl. "AlmatyEnergoSbyt" LLP	312.20	300.00	-12.20	-3.9%
<b>power flow "+" shortage, "-" excess</b>	<b>-741.01</b>	<b>-556.90</b>	<b>184.11</b>	<b>-24.8%</b>

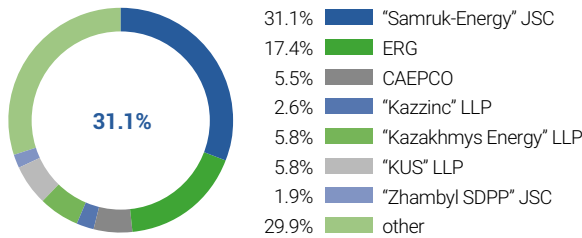


01.3 Electricity and coal market overview

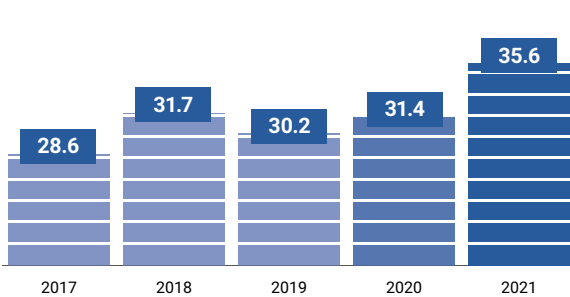
COMPETITIVE ENVIRONMENT IN  
ELECTRICITY MARKET

The volume of electricity production by "Samruk-Energy" JSC energy producing organizations was 35.6 bn kWh. The share of electricity generation by "Samruk-Energy" JSC power plants amounted to 31.1% in the total volume of electricity generation in the UES of Kazakhstan. An increase in electricity generation compared to the same period in 2020 amounted to 13.5%.

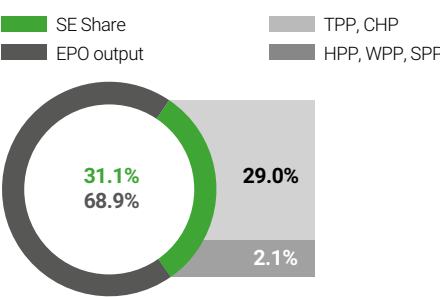
SHARES OF ELECTRICITY PRODUCTION BY  
"SAMRUK-ENERGY" JSC MAJOR COMPETITORS IN  
THE WHOLESALE MARKET IN 2021, bn kWh



ELECTRICITY PRODUCTION OVER TIME BY ENERGY  
PRODUCING ORGANIZATIONS OF "SAMRUK-  
ENERGY" JSC, bn kWh



"SAMRUK-ENERGY" JSC SHARE IN THE GENERAL  
ELECTRICITY PRODUCTION ACROSS THE RK FOR  
2021



The share of "Samruk-Energy" JSC in the total electricity generation in the Republic of Kazakhstan in 2021 amounted to 31.1%, the share increased by 2.1% compared to 2020.

Electricity production by Kazakhstan's major producers

mln kWh						
Nº	Name	2018	2019	2020	2021	Deviation 2020/2021 Share in the RK, %
1	"Samruk-Energy" JSC	31,703	30,200.3	31,385.4	35,609.3	4,223.9 31.1%
2	ERG	19,573.9	18,545.0	18,856.2	19,914.6	1,058.4 17.4%
3	CAEPCO	7,025.7	7,032.8	7,035.4	6,238.5	-796.9 5.5%
4	"Kazzinc" LLP	3,271.6	3,093.2	2,941.3	2,974.1	32.8 2.6%
5	"Kazakhmys Energy" LLP	6,437.0	7,443.6	7,267.5	6,601.4	666.1 5.8%
6	"KUS" LLP	6,376.8	6,645.4	6,445.7	6,596.9	151.2 5.8%
7	"Zhambyl SDPP" JSC	1,792.4	1,878.8	1,809.1	2,139.4	330.3 1.9%

"SAMRUK-ENERGY" JSC IN ELECTRICITY PRODUCTION SECTOR

Strengths and weaknesses of Samruk-Energy JSC in the competitive environment in the electricity market

Strengths	Weaknesses
<ol style="list-style-type: none"><li>Availability of large reserves of thermal coal with low production costs</li><li>Availability of RES and HPP assets in the Company's portfolio</li><li>Effective energy capacities in relation to the general level of depreciation of capacities in the Republic of Kazakhstan</li><li>Export potential and receipt of foreign exchange earnings</li><li>Support from the state and the Fund</li></ol>	<ol style="list-style-type: none"><li>High rate of deterioration of capacities</li><li>High debt burden</li><li>Poor quotation management capacity</li><li>Scarce export supplies of thermal coal because of replacement of Ekibastuz coal in traditional markets, as well as uncompetitiveness in other markets due to low characteristics</li></ol>

Operational KPI (broken down by producers)

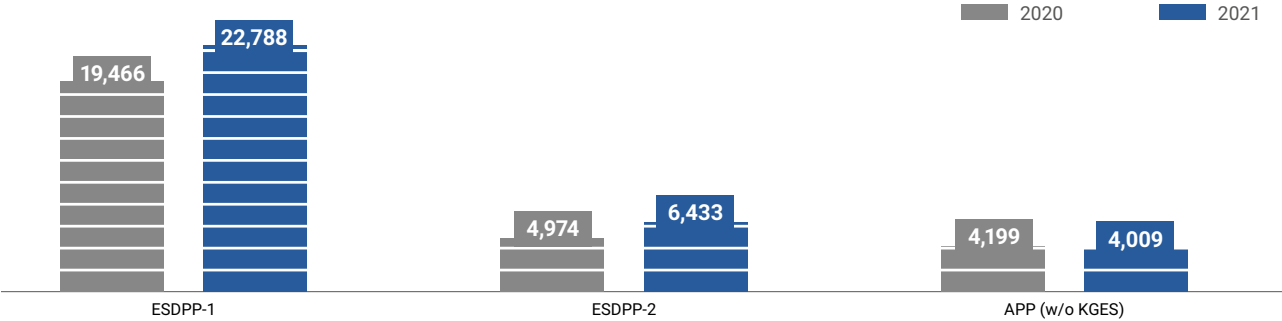
Subsidiary and affiliate name	2019	2020	2021	Deviation of 2021 vs. 2020	2022 (forecast)	2023 (forecast)
Electricity production volume, mln kWh						
"Almaty Power Plants" JSC	5,397.4	5,335.1	5,008.4	94%	5,165.9	5,165.9
"Ekibastuz SDPP-1" LLP	18,301.5	19,466.4	22,788.4	117%	20,787.3	20,927.1
"Ekibastuz SDPP-2 Plant" JSC	4,928.5	4,974.2	6,433.4	129%	6,002.0	6,001.3
"Shardara HPP" JSC	464.8	513.5	455.8	89%	500.0	537.0
"Moynak HPP" JSC	951.5	929.5	758.3	82%	814.0	906.0
"Samruk-Green Energy" LLP	3.3	7.4	20.5	278%	20.7	20.7
"First Wind Power Plant" LLP	153.3	159.4	144.6	91%	159.0	175.3
"Ereymtau Wind Power", LLP					18.0	193.5
"Energiya Semirechiya", LLP					61.0	243.8
Total	30,200.3	31,385.4	35,609.3	113%	33,527.9	34,170.7
Electricity volume, mln kW						
"Almaty Power Plants" JSC	4,725.4	4,689.1	4,425.0	94%	4,682.1	4,764.0
"Ekibastuz SDPP-1" LLP	17,642.5	19,001.0	22,496.1	118%	20,983.8	21,557.4
incl. export	966.6	859.2	400.3			
"Ekibastuz SDPP-2 Plant" JSC	4,689.5	4,809.3	6,336.4	132%	6,016.4	6,121.5
Incl.export			191.8			
"Shardara HPP" JSC	466.2	521.3	468.0	90%	521.4	570.6
"Moynak HPP" JSC	952.3	943.7	780.9	83%	858.6	967.3
"Samruk-Green Energy" LLP	3.2	7.2	20.2	280%	19.9	19.9

01.3 Electricity and coal market overview

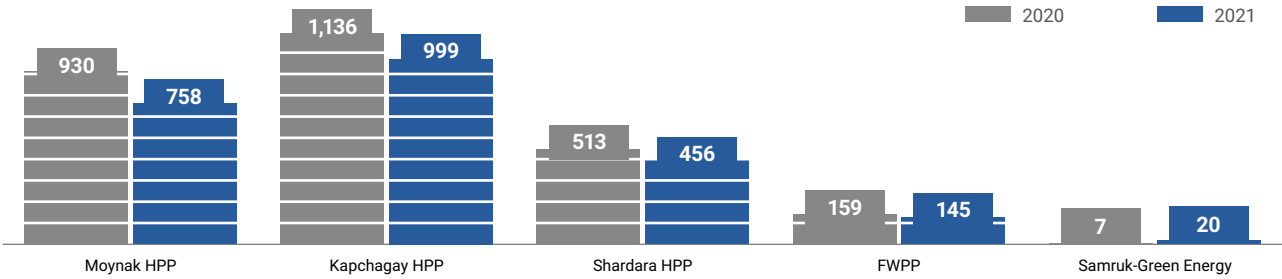
Subsidiary and affiliate name	2019	2020	2021	Deviation of 2021 vs. 2020	2022 (forecast)	2023 (forecast)
"FWPP" LLP	152.9	159.1	144.3	91%	156.8	174.7
"Ereymentau Wind Power", LLP			0.0		17.8	191.6
"Energiya Semirechiya", LLP			0.0		54.4	217.7
<b>Total</b>	<b>28,632.1</b>	<b>30,130.6</b>	<b>34,670.9</b>	<b>115%</b>	<b>33,311.3</b>	<b>34,584.6</b>
Capacity sales volume, MW						
"Almaty Power Plants" JSC	817.4	872.1	806.1	92%	850.0	850.0
"Ekibastuz SDPP-1" LLP	501.9	1,556.4	1,565.1	101%	1,827.0	2,187.3
"Ekibastuz SDPP-2 Plant" JSC	846.8	743.3	524.7	71%	870.0	870.0
"Shardara HPP" JSC	41.6	47.6	61.0	128%	61.0	61.0
"Moynak HPP" JSC	280.9	285.7	291.5	102%	298.0	298.0
<b>Total</b>	<b>2,488.6</b>	<b>3,505.2</b>	<b>3,248.4</b>	<b>93%</b>	<b>3,906.0</b>	<b>4,266.3</b>
Electricity transmission volumes, mln kWh						
"Alatau Zharyk Company" JSC	6,961.3	6,837.8	7,649.7	112%	7,638.4	7,868.6
<b>Total</b>	<b>6,961.3</b>	<b>6,837.8</b>	<b>7,649.7</b>	<b>112%</b>	<b>7,638.4</b>	<b>7,868.6</b>
Electricity sales volumes, mln.kWh						
"AlmatyEnergoSbyt" LLP	6,218.2	6,055.5	6,723.9	111%	6,878.0	7,084.3
<b>Total</b>	<b>6,218.2</b>	<b>6,055.5</b>	<b>6,723.9</b>	<b>111%</b>	<b>6,878.0</b>	<b>7,084.3</b>
Heat production volumes, thous.Gcal						
"Almaty Power Plants" JSC	5,024.5	5,596.4	5,553.8	99%	5,313.4	5,313.4
"Ekibastuz SDPP-2 Plant" JSC	82.8	66.9	76.2	114%	76.0	76.0
"Ekibastuz SDPP-1" LLP	132.3	155.4	136.0	88%	155.4	155.4
<b>Total</b>	<b>5,239.6</b>	<b>5,818.7</b>	<b>5,766.0</b>	<b>99%</b>	<b>5,544.8</b>	<b>5,544.8</b>
<b>Coal sales volumes, mln.tons</b>	<b>44.7</b>	<b>43.4</b>	<b>44.7</b>	<b>103%</b>	<b>44.0</b>	<b>46.3</b>

The volume of electricity production in 2021 amounted to 35,609.3 mln kWh, 13% higher or 4,223.9 mln kWh compared to the same period of last year. Growth was mainly at "Ekibastuz SDPP-1" LLP (an increase of 3,322.0 mln kWh or by 17%) because of demand growth in the domestic market, and "Ekibastuz SDPP-2 (an increase of 1,459.1 mln kWh or by 29%) due to downtime of power unit No. 2 for repair purposes in the 1<sup>st</sup> quarter of 2020.

ELECTRICITY PRODUCTION VOLUMES (mln kWh) at TPP, CHP



ELECTRICITY PRODUCTION VOLUMES (mln kWh) at HPP, WPP, SPP



FORECAST FOR THE FUTURE:

The volumes of electricity production in the forecast for 2022 are expected to reduce gradually in relation to the 2021 actual. Electricity output reduction in 2022 by 2,081.4 mln kWh is mainly because of the decrease in electricity generation by "Ekibastuz SDPP-1" LLP.

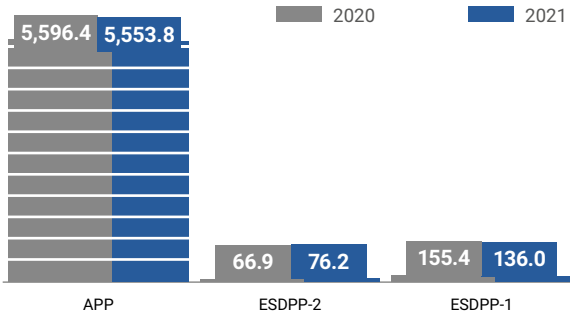
The volume of heat production amounted to 5,766.0 thous. Gcal. Compared to the same period last year, the decrease is (1)% as a result of the higher average monthly temperature during the heating period in the reporting period.

FORECAST FOR THE FUTURE:

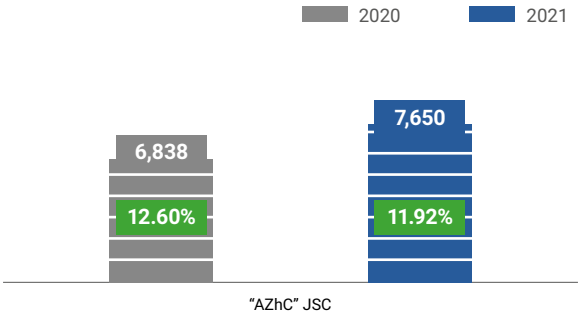
The volumes of heat production in the plan for 2022 are forecasted to decline by 4% compared to the 2021 actual, mainly due to the decrease in the heat production by "Almaty Power Plants" JSC.

The volume of electricity transmission through "AZhC" JSC grids in 2021 amounted to 7,650 mln kWh, which is 12% or 812 mln kWh higher than in 2020.

DYNAMICS OF CHANGES IN HEAT PRODUCTION VOLUMES, thous. Gcal



ELECTRICITY TRANSMISSION VOLUMES (mln kWh) AND GRID LOSSES (%)





01.3 Electricity and coal market overview

FORECAST FOR THE FUTURE:

As regards transmission and distribution of electricity in 2022, the decrease of 0.15% is expected compared to the 2021 actual.

Name	2020 actual	2021 Actual	Deviation	%
AlmatyEnergSbyt				
Number of consumers, incl.:	869,680	899,134	29,454	3%
Population	835,509	862,980	27,471	3%
Corporate entities	34,171	36,154	1,983	6%
Sales volumes, mln kWh	6,055.5	6,723.9	668.4	11%

The total volume of electricity sales at power supply organizations for the reporting period amounted to 6,723.9 mln kWh, which is more than the same period in 2020 by 11%, due to an increase in the volume of electricity consumption in the Partnership's service area.

FORECAST FOR THE FUTURE:

The volume of electricity sales in the forecast for 2022 increases by 2% from the actual rate in 2021.

RENEWABLE ENERGY SOURCES

Over the past 7 years, the installed capacity of renewable energy facilities has grown by almost 11 times – from 177.52 MW in 2014 to 2,010 MW in 2021.

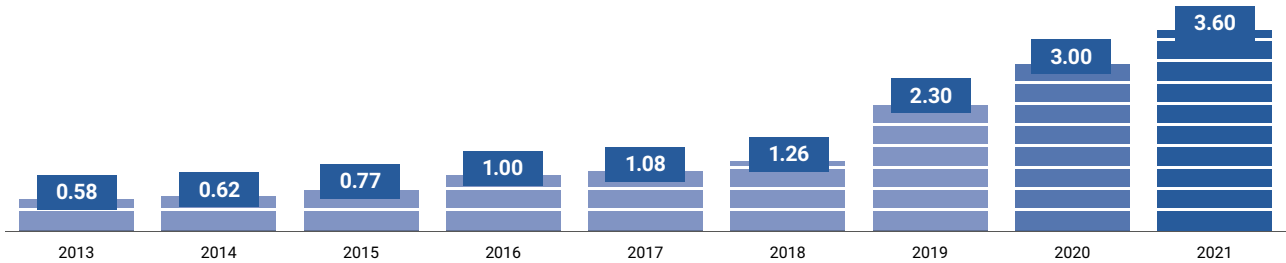
According to the Ministry of Energy, as of January 1, 2022, 134 renewable energy facilities operate in the Republic of Kazakhstan.

The volume of electricity production by renewable energy facilities (SPP, WPP, BGP, small HPP) for 2021 amounted to 4,220.3 mln kWh.

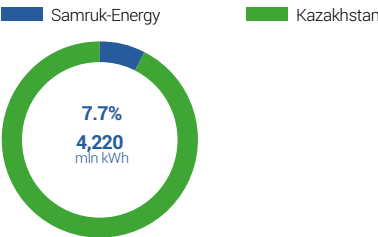
Compared to the period of 2020 (3,072.3 mln kWh), an increase in electricity generation amounted to 30%, which is comparable to more than one billion kWh or a share of 3.69% in the total electricity production in Kazakhstan.

In January-December 2021, electricity produced by SPP, WPP and small HPP increased compared to the same period in 2020.

SHARE OF ELECTRICITY GENERATION BY RE FACILITIES OF THE REPUBLIC OF KAZAKHSTAN IN TOTAL  
ELECTRICITY PRODUCTION, %



SHARE OF RENEWABLE ENERGY PRODUCTION BY “SAMRUK-ENERGY” JSC IN KAZAKHSTAN



Electricity generation by “Samruk-Energy” JSC renewable energy facilities (SPP, WPP, small hydropower plants) for 2021 amounted to 325.3 mln kWh or 7.7% of the volume of electricity generated by renewable energy facilities in the Republic of Kazakhstan, which compared to the same period in 2020 year is 2.1% lower (in 2020, electricity generation by “Samruk-Energy” JSC renewable energy facilities was 332.3 mln kWh, and the share of renewable energy sources in electricity generation by renewable energy facilities of the Republic of Kazakhstan was 10.8%).

№	Description	2019		2020		2021	
		January-December	Share in the RK, %	January-December	Share in the RK, %	January-December	Share in the RK, %
	“Samruk-Energy” JSC production of “clean electricity” (RES without major HPP), incl.:	342.5	17.8%	335.8	10.8%	325.3	7.7%
1	“APP” JSC Cascade of small HPP	190.9	9.9%	165.6	5.3%	160.3	3.8%
2	“Samruk-Green Energy” LLP 2 MW SPP	3.2	0.2%	3.8	0.1%	5.3	0.1%
3	“Samruk-Green Energy” LLP 5 MW Shelek WPP		0.0%	3.5	0.3%	15.1	0.4%
4	“First Wind Power Plant” LLP 45 MW WPP	148.4	7.7%	162.9	5.2%	144.6	3.4%

The decrease in electricity production by “Samruk-Energy” JSC RE facilities is connected with an increase in electricity production by other RES facilities because of commissioning of new RE facilities in Kazakhstan.

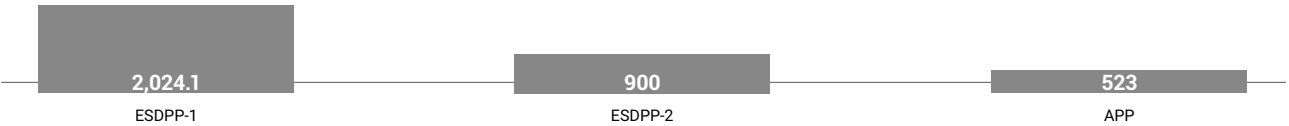
“SAMRUK-ENERGY” JSC PARTICIPATION IN THE CAPACITY MARKET

In 2021, “Samruk-Energy” JSC power plants participated in electric capacity bidding held on the trading platform of “KEPMO” JSC.

Based on the results of centralized capacity biddings held on November 16, 2021, the Company's power plants sold 3,447.1 MW at a price of 590 thousand tenge/MW per month, incl.

In accordance with the Republic of Kazakhstan Law “On Amendments and Additions to Certain Laws and Regulations of the Republic of Kazakhstan on Special Economic and Industrial Zones, Attracting Investments, Development and Promotion of Exports, and Social Security”, “Moynak HPP” JSC and “APP” JSC received individual tariffs for capacity.

The capacity amounted to 61 MW for “Shardarinsk” HPP JSC and 298 MW for “Moynak” HPP JSC. Individual capacity tariffs will contribute to the return of borrowed funds used for the already built power plant (MHPP JSC), as well as refinancing of the previously received targeted loan for investment programs (APP JSC).



01.3 Electricity and coal market overview

TARIFF POLICY

Electricity tariff setting scheme

Tariff regulation, depending on the type of activity of energy companies, falls within the competence of the Committee for the Regulation of Natural Monopolies and Protection of Competition under the Ministry of National Economy of the Republic of Kazakhstan (hereinafter – the Committee) or line ministry – the Ministry of Energy (hereinafter – the ME).

Electricity tariffs for energy producing organizations (hereinafter – EPO) between 2016 and 2018 were set at the level of ceiling tariffs for plants which were approved in 2015.

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

In the context of control over prices and tariffs in power industry, the ME is entrusted with the functions of approval of ceiling tariffs for electricity, ceiling tariffs for balancing electricity, and ceiling tariffs for the service of maintaining the availability of electrical capacity. The ME also establishes individual tariffs for the service of maintaining the availability of electric capacity for existing and newly commissioned generating plants.

Starting from 2019 considering the introduction of the capacity market for energy-producing organizations, the following were formed:

- ▶ ceiling tariffs for capacity, including the costs of investment projects and repayment of the principal debt (on credit funds attracted for the implementation of investment projects);
- ▶ ceiling tariffs for electricity, including the cost of electricity production and the rate of return. The Order No. 205 dated

May 22, 2020, on the approval of the "Methodology for establishing the rate of return considered when approving ceiling tariffs for electricity, as well as a fixed profit for balancing taken into account when approving ceiling tariffs for balancing electricity" was amended by the Order No. 76 of the Republic of Kazakhstan Minister of Energy dated March 11, 2021.

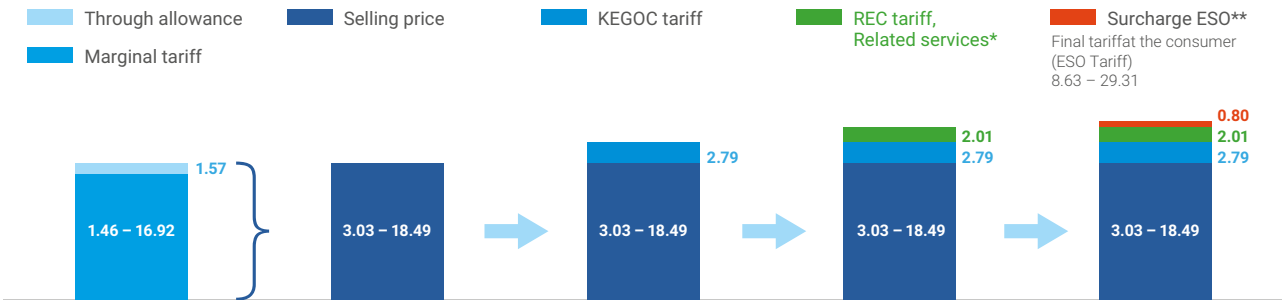
The mechanism of a pass-through charge included in EPO electricity sales tariff has been introduced since July 1, 2021 in accordance with the Republic of Kazakhstan Law "On Supporting the Use of RES", in order to reimburse the costs of purchased EPO electricity. The pass-through charge is calculated by "SFC for RES Support" LLP based on expenditures for supporting RES in the Republic of Kazakhstan and the volumes of electricity supply by EPO, which are conditional consumers. Considering the introduction of RES pass-through charge, the tariffs for electricity of the country's energy-producing organizations were revised.

Tariffs for the transmission and distribution of electricity for power transmission companies, to produce heat and tariffs for energy supply (ESO) are regulated by the Committee. Regulation and control by the Committee is performed in strict accordance with the laws and regulations.

Tariff decisions are heavily influenced by social and political issues. Economic, social, and other policies of the Government of the Republic of Kazakhstan may have a significant impact on the Group's operations.

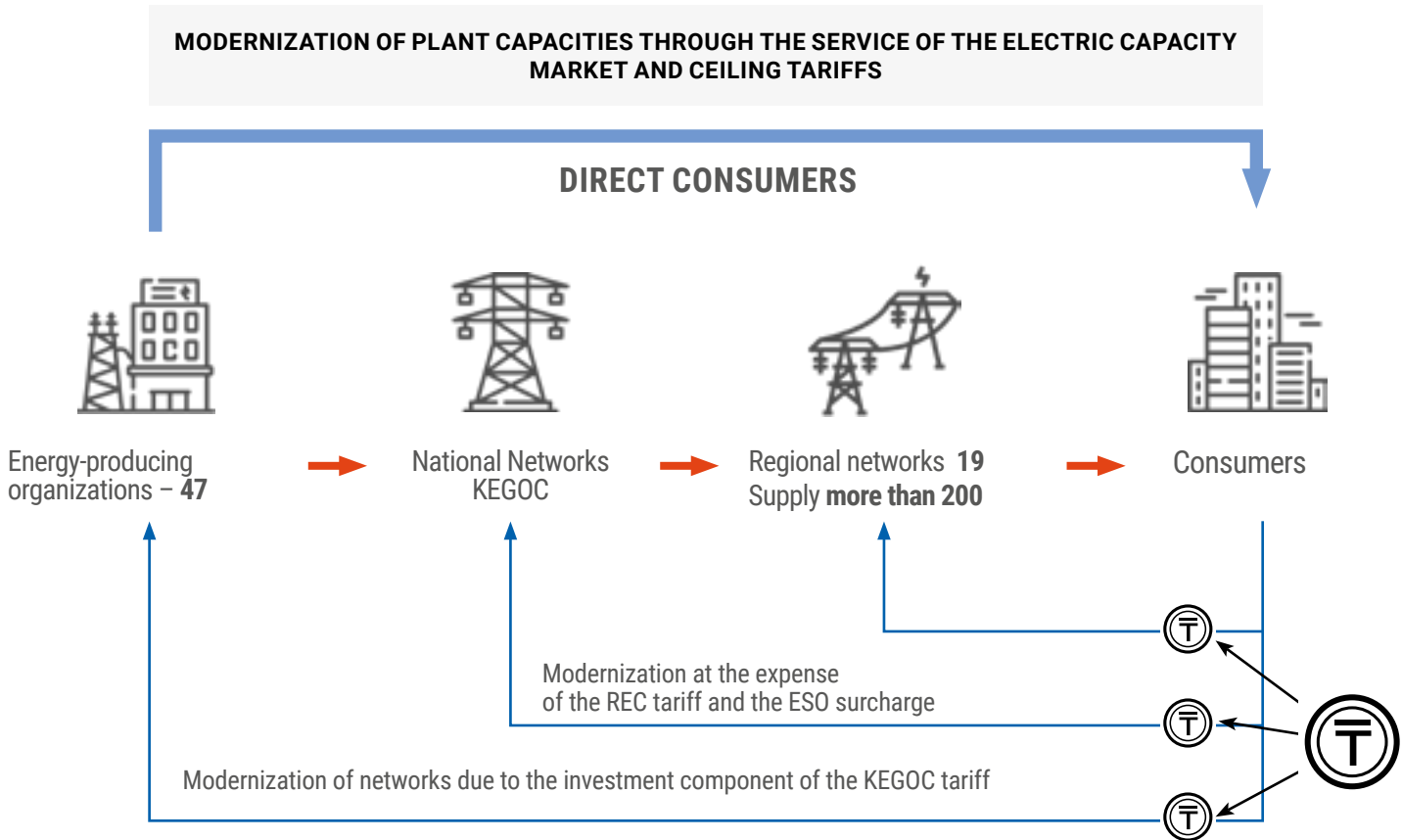
The final electricity tariff comprises the below components:

- ▶ the selling price of the energy producer (ceiling tariff and pass-through charge);
- ▶ prices for electricity transmission through the National Grid;
- ▶ prices for transmission and distribution over REC networks;
- ▶ regulation, balancing and dispatching services;
- ▶ services to ensure the availability of electric capacity.



\* ESO related services include expenses for KEGOC services (dispatching, balancing), KEPMO services, power regulation services, as well as services for maintaining the availability of capacity.

\*\*The ESO charge also includes income adjustments as compensation for the difference between the approved and actual purchase and transmission prices of electricity, as well as other losses (losses from the use of differentiated electricity tariffs by consumers and services to ensure the availability of electric capacity).







01.3 Electricity and coal market overview

Average weighted tariffs for electricity generation

Description	2019 actual	2020 actual	2021 actual	2022 forecast	2023 forecast
"Ekibastuz SDPP-1" LLP Average weighed tariffs, tenge kWh	6.07	6.44	7.31	8.22	8.97
export tariff, tenge/kWh	9.64	10.22	10.31		
RK tariff, tenge/kWh	5.87	5.86	6.82	7.60	8.25
Incl. electricity tariff, tenge kWh	5.65	5.65	6.76	7.60	8.25
Incl. capacity tariff, thousand tenge/MW*month	590	590	590	590	590
"Ekibastuz SDPP-2 Plant" JSC , average weighted tariffs, tenge kWh	8.70	9.64	10.38	11.46	12.09
electricity tariff, tenge/kWh	7.42	8.55	9.79	10.44	11.08
capacity tariff, thous. tenge/MW*month	590	590	590	590	590
"Almaty Power Plants" JSC , average weighted tariffs, tenge kWh	9.66	11.41	13.12	14.36	15.42
electricity tariff, tenge kWh	8.43	9.45	11.16	12.62	13.71
average weighted tariffs for capacity, thous. tenge/ MW*month	590	875	899	798	798
capacity tariff, thous. tenge/MW*month	590	590	590	590	590
Individual capacity tariff, thous. tenge/MW*month		4,169	4,169	3,139	3,139
"Shardarinsk HPP" JSC, average weighted tariffs, tenge kWh	4.86	12.95	15.32	16.70	16.25
electricity tariff, tenge kWh	4.23	8.49	9.27	11.27	11.28
capacity tariff, thous. tenge/MW*month	590	4,069	3,868	3,868	3,868
"Moynak HPP" JSC, average weighted tariffs, tenge kWh	10.02	21.33	23.74	24.38	23.92
electricity tariff, tenge kWh	7.93	12.02	12.26	13.70	14.44
capacity tariff, thous. tenge/MW*month	590	2,564	2,564	2,564	2,564
"Samruk-Green Energy" LLP, tenge kWh	48.54	32.73	19.74	23.80	24.77
"First Wind Power Plant" LLP, tenge, kWh	30.03	31.62	33.83	35.52	36,36
"Ereymentau Wind Power" LLP				22.68	22.68
"Energia Semirechya" LLP				22.68	22.68

Capacity market has commenced operation in the Republic of Kazakhstan from January 1, 2019. The income received 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 capacity (used for repayment of the principal debt and investments). A single cap tariff for the service of maintaining the availability of capacity for all EPOs was approved in the amount of 590 thousand tenge/MW\*month. Electricity tariffs were approved for 2020–2025. However, the approved tariffs do not provide for indexation by years. At the same time, in accordance with paragraph 2 of Article 12-1 of the Law of the Republic of Kazakhstan "On Electricity", if necessary, electricity tariffs are adjusted annually.

With the introduction of the capacity market, the average weighted electricity tariffs in 2020 for stations increased, considering adjusted ceiling tariffs introduced from July 1, 2020 and the introduction of individual capacity tariffs.

In connection with the approval of deficit tariffs for stations by the ME of the Republic of Kazakhstan, in accordance with the Regulations, EPO submitted applications for adjusting the ceiling

tariffs for electricity to the ME of the Republic of Kazakhstan. As a result, from July 1, 2020, the ME of the Republic of Kazakhstan approved the ceiling tariffs for electricity, which were valid until March 31, 2021.

Considering the approval of the Methodology for determining the rate of return (Order of the Minister of Energy No. 205 dated May 22, 2020, as amended in accordance with Order No. 76 dated March 11, 2021) – the rate of return was included in the ceiling tariffs of EPO from April 1, 2021 in accordance with the Order of the Minister of Energy of the Republic of Kazakhstan dated 30.03.2021.

In accordance with the Republic of Kazakhstan Law "On supporting the use of renewable energy", EPO's electricity sales tariff has included the markup for supporting the use of RES from 01.07.2021 at the level of 1.57 tenge/kWh, calculated by "SFC for RES Support" LLP based on the costs of supporting RES in the Republic of Kazakhstan and the volume of electricity supply by EPO, which are conditional consumers. Considering the introduction of RES pass-through charge, EPO's new ceiling electricity tariffs were approved by the Order of the Minister of Energy of the Republic of Kazakhstan No. 211 dated 24.06.2021.

Thus, the following ceiling electricity tariffs were in effect during 2021:

tenge/kWh						
EPO name	Approved tariff 01.01.2021- 31.03.2021	Approved tariff 01.04.2021- 30.06.2021	ME tariffs approved without surcharge from 01.07.2021	RES mark- up	Tariffs with RES mark- up from 01.07.2021	% of growth vs. approved tariff from 01.01.2021
"SDPP-1" LLP	5.80	7.25	5.90	1.57	7.47	28.7%
"SDPP-2" JSC	9.13	9.69	8.59	1.57	10.16	11.3%
"APP" JSC	10.30	11.01	10.23	1.57	11.80	14.5%
"MHPP" JSC	12.02	12.03	10.90	1.57	12.47	3.7%
"SharHPP" JSC	8.10	9.74	8.77	1.57	10.34	27.6%

From the beginning of 2021 a significant increase in the tariff occurred "ESDPP-1" LLP and "SharHPP" JSC by 28.7% and 27.6%, respectively, at "SDPP-2" JSC and "APP" JSC by 11.3% and 14.5% respectively. For "MHPP" JSC, the tariff increased slightly from 12.02 tenge/kWh to 12.47 tenge/kWh, or by 3.7%.

The work with the Ministry of Energy of the Republic of Kazakhstan has been carried out starting from 2020 regarding the approval of investment tariffs for stations implementing large-scale investment projects – "MHPP" JSC, "SharHPP" JSC, "APP" JSC and "SDPP-1" LLP.

On 28.02.2021, "SDPP-1" LLP concluded an investment agreement with the Ministry of Energy of the Republic of Kazakhstan for modernization, reconstruction, expansion, and renewal of the Project for the restoration of power unit No. 1 with the establishment of a tariff in the amount of 1,199 thousand tenge / MW\* month for 2025–2031 for volume of services amounting to 476,6.

Parameters of concluded investment agreements below.

01.3 Electricity and coal market overview

The parameters of the concluded investment agreements are given below

Thous. tenge /MW*month			
EPO name	Volume	Individual tariff	Period
"APP" JSC	69.5 MW	4,168.60	2020–2024
"MHPP" JSC	298 MW	2,563.67	2020–2026
"SharHPP" JSC	61 MW	4,069.3	2020–2028
"SDPP-1" LLP	476.6	1,199	2025–2031

ESDPP filed an application to the Market Council (KEA) on 26.01.2021 for approval of an individual tariff for the implementation of the project "Expansion and reconstruction of ESDPP-2 with the installation of power unit No. 3". After receiving a positive recommendation from the Market Council

on March 29, 2021, the application was submitted to the Ministry of Energy of the Republic of Kazakhstan.

From 2022 onwards, electricity and capacity tariffs are forecasted with indexation.

Tariffs for electricity transmission services

tenge/kWh					
Name	2019 actual	2020 actual	2021 actual	2022 forecast	2023 forecast
"Alatau Zharyk Company" JSC	5.46	5.95	6.07	6.60	7.25

The ceiling tariff for 2021–2025 with its entry into force from 01.06.2021 was approved for "Alatau Zharyk Company" JSC, which is also a natural monopoly entity, by the Decree of the DCRNM dated May 17, 2021. The approved tariff for 2021 is 6.09 tenge/kWh with an increase of 0.8% to the current tariff.

An increase (adjustment) of tariffs is made no more than once a year, in cases of an increase in the costs of RES for objective reasons (in accordance with Article 22 of the Law of the Republic of Kazakhstan "On Natural Monopolies", the grounds for changing the tariff approved by the authorized body are changes in the cost of strategic goods (purchased electricity).

Tariffs for electricity sale

tenge/kWh					
Name	2019 actual	2020 actual	2021 actual	2022 forecast	2023 forecast
"AlmatyEnergoSbyt" LLP	16.11	17.66	18.69	21.32	22.82

The power supply company "AlmatyEnergoSbyt" LLP is a socially significant market entity and is also subject to regulation by the authorized body. The tariff calculation includes operational, financial and investment components. There are risks of artificial containment of tariff growth by the Regulator to maintain the social stability of the population in the regions. For individuals, differentiation in terms of consumption rates has been maintained, for legal entities, electricity is supplied at average selling tariffs.

On February 1, 2021 in connection with the reduction of "KEGOC" JSC tariff, tariffs for "AES" LLP were reduced to 18.25

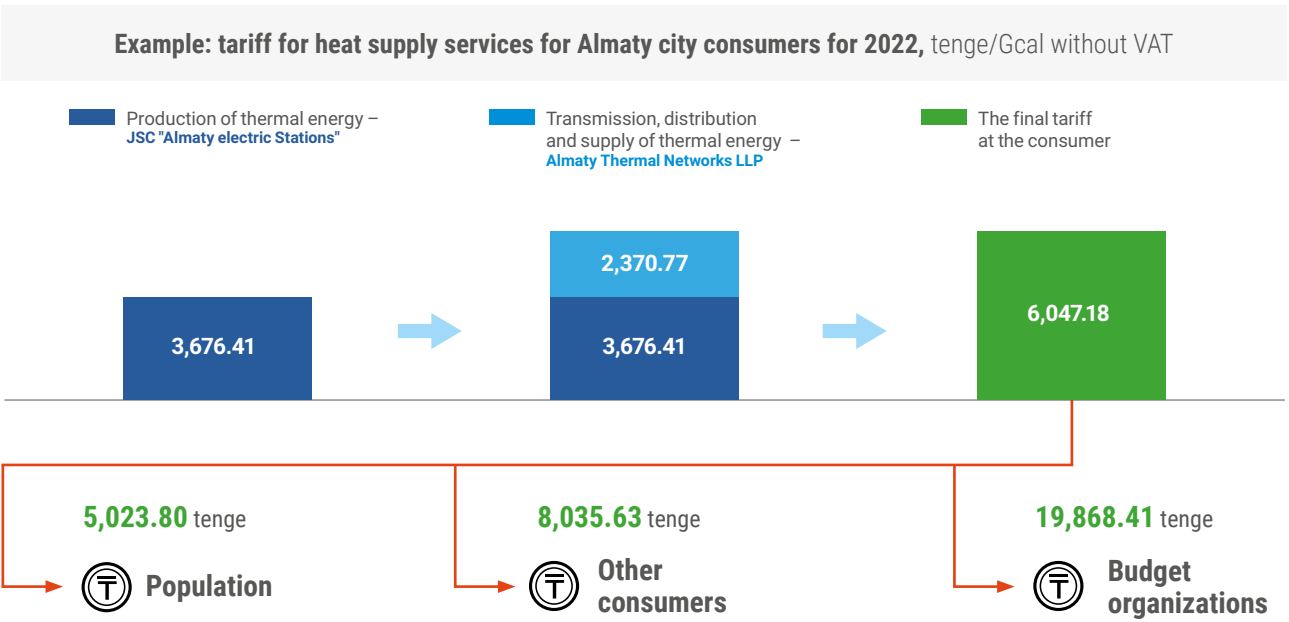
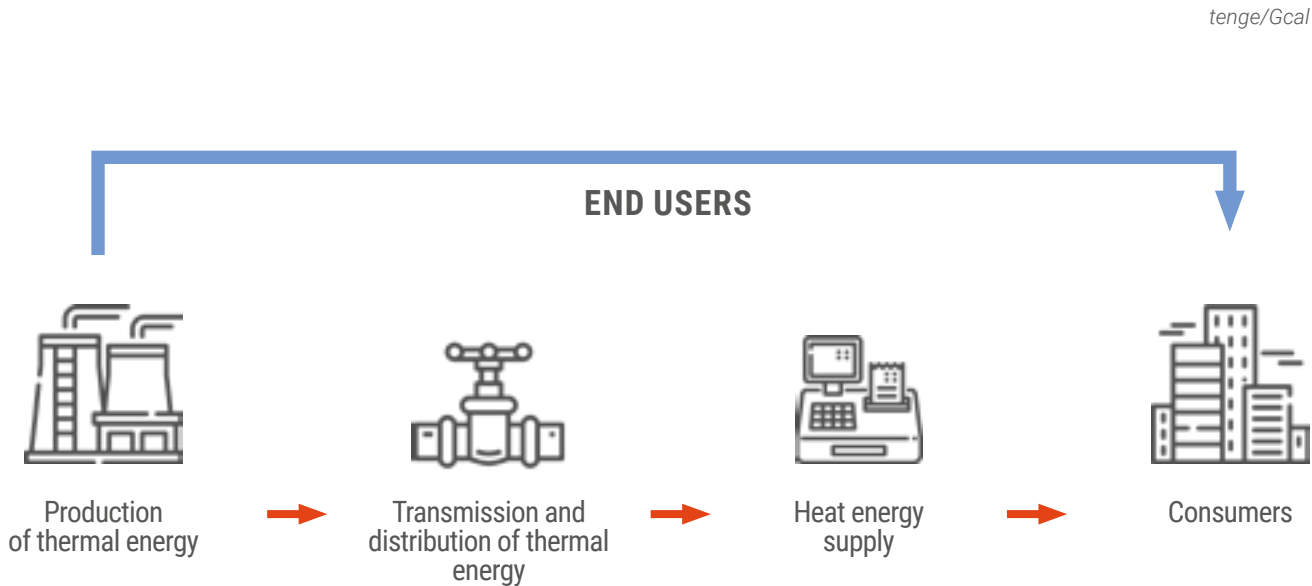
HEAT TARIFF SETTING SCHEME

In view of the social significance of heat energy prices, the state, through CRNM, is implementing a policy of restraining the growth of tariffs, which is expressed in the desire to underestimate heat energy tariffs.

Unlike the power industry, the structure of heat supply systems consists of three sectors: production, transmission (including distribution and sale of heat) and consumption of heat.

The heat energy market is represented only by the retail sector, with the actual absence of a retail consumer's practical ability to choose heat energy suppliers.

Heat production volumes





01.3 Electricity and coal market overview

Name	2019 actual	2020 actual	2021 actual	2022 forecast	2023 forecast
"Almaty Power Plants" JSC	3,354	3,441	3,392	3,621	3,694
"Ekibastuz SDPP-2 Plant" JSC	809	697	772	867	938
"Ekibastuz SDPP-1" LLP	572	367	233	367	367

As for a 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 and annual indexation of costs. The ceiling tariffs are approved by the Committee. However, an increase in tariffs is made no more than once a year and there are risks of maintaining tariffs without an increase in cases of an increase in station costs for objective reasons.

Tariffs for regulated services on production of heat for 2022–2026 with entry into force from 01.01.2022, were approved for "APP" JSC by a joint order of the Departments of the Committee for the Regulation of Natural Monopolies (hereinafter DCRNM) under the RK Ministry of National Economy for Almaty city No. 141-OD and for Almaty region No. 267-OD dated November 29, 2021, where for 2022 an increase to the current tariff was 8.6%.

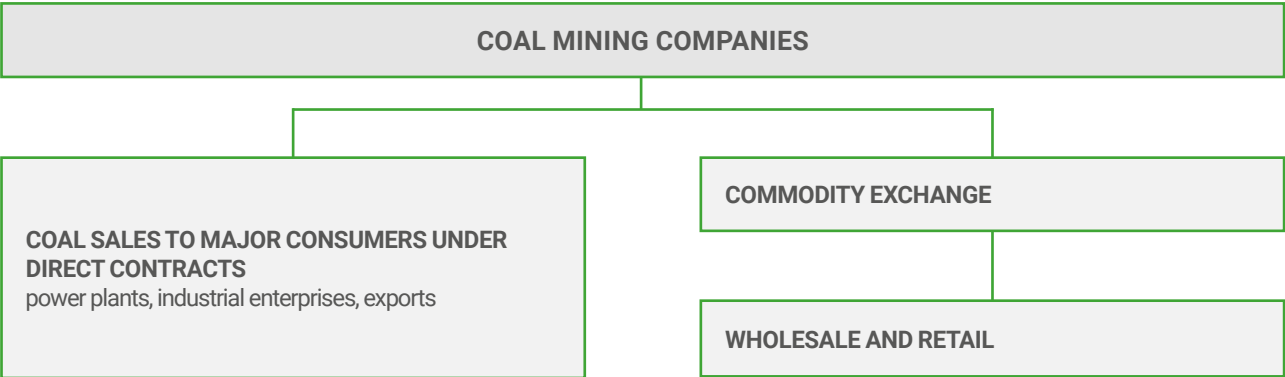
COAL MARKET

According to the Statistics Committee of the RK Ministry of National Economy, the country's coal production amounted to 111.7 mln tons of coal in 2021 (excluding coal concentrate) or 102.3% against the same indicator in 2020 (109 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	Δ, 2021/2020%	2019	2020	2021	Δ, 2021/2020%
1	Pavlodar	68,364.9	67,049.9	66,932.3	99.8
2	Karaganda	34,217.1	33,614.6	35,362.6	105
3	East-Kazakhstan	8,157.7	8,388.8	8,804.1	105
Total across RK		111,083.2	109,227.6	111.099	102

GENERAL SCHEME OF COAL SALES



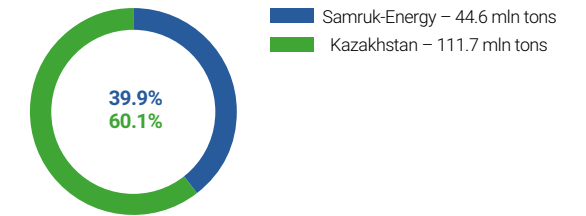
Power systems of Nur-Sultan, Almaty, Karaganda, Petropavlovsk, Pavlodar, Stepnogorsk cities and Ekibastuz SDPP-1, SDPP-2 are among the major consumers of "Bogatyr Komir" LLP in Kazakhstan.

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 using their own resources; to this end they conclude contracts with various freight forwarding companies, which engage car owners (operators) to arrange transportation.

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 2021 results, the Company's share amounted to 39.9% of the total coal mined in Kazakhstan and 66.6% of the volume of coal mined in the Ekibastuz coal basin.

COAL MINING



In January-December 2021, "Bogatyr Komir" LLP produced 44,632 thous. tons, which is 0.5% less than in the corresponding period of 2020 (44,848 thous. tons).

01.3 Electricity and coal market overview

44,741 thous. tons were sold in January-December 2021, including:

- to the domestic market of the Republic of Kazakhstan 34,939 thous. tons, which is 5% more than in the corresponding period of 2020 (33,378 thous. tons);

- for export (Russian Federation) – 9,802 thous. tons, which is 2.5% less than for the corresponding period of 2020 (10,058 thous. tons).

Sales of coal to consumers between 2019 and 2021

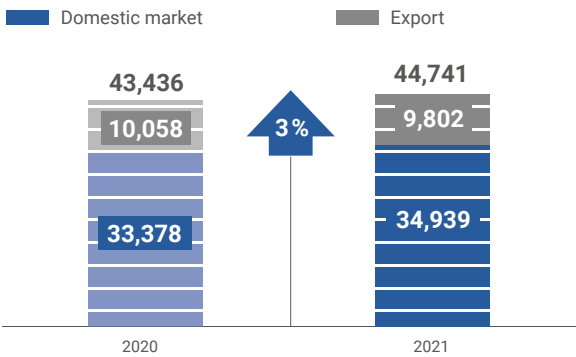
№	Region	Sales volume, thous. tons			Δ, % 2021/2020
		2019	2020	2021	
1	"APP" JSC	3,338	3,291	2,997	91.1%
2	"Karaganda Energocenter" LLP	3,417	3,500	2,777	79.4%
3	"Astana-Energia" JSC	3,779	3,837	4,326	112.8%
4	"Pavlodarenergo" JSC PCHP-2, 3	3,004	2,494	2,855	114.5%
5	"Stepnogorsk CHP" LLP	986	950	995	104.6%
6	"ESDPP-1" LLP	10,937	11,553	13,374	115.8%
7	"ESDPP-2 Plant" JSC	3,203	3,007	3,676	122.3%
8	"Bassel Group LLS" LLP	622	539	416	77.1%
9	"SevKazEnergo" JSC	2,949	2,773	2,254	81.3%
10	"Ekibastuzteploenergo" LLP	499	481	542	112.6%
11	MUS based on the REM "Kokshetau Zhylu"	281	316	336	106.5%
12	Household	775	637	391	61.4%
Total for the domestic market of the RK		35,572	33,378	34,939	104.7%
13	Reftinsk GRES	10,893	10,058	9,802	97.5%
Total for export to the RF			10,058	9,802	97.5%

At the end of 2021, the volume of coal sales amounted to 44,741 thous. tons, which is 3% or 1,305 thous. tons more than the same period.

Increase in coal sales volumes in the domestic market by 1,560 thous. tons or 5% is because of an increased demand. At the same time, the decrease in the volume of coal sales in the foreign market by 256 thous. tons or 3% is due to the lack of an agreement on coal price.

The stripping rate for 2021 was 0.73 m³/t with 0.84 m³/t in the same period.

BOGATYR KOMIR COAL SALES , (thous. tons)



Forecast for the future period:

The volume of coal sales in the 2022 forecast will drop by 741.2 thous. tons, or by 2% compared to the 2021 actual.

Coal sales price

tenge/tons

Name	2019 actual	2020 actual	2021 actual	2022 forecast	2023 forecast
"Bogatyr- Komir" LLP	2,120	2,311	2,292	2,553	2,945

"Bogatyr- Komir" LLP coal sales price is approved independently by the price list for consumers of the Republic of Kazakhstan for 3 groups of consumers (energy sector at the KTZh junction

station, energy sector at the coal collection station, utility needs). Regulation is performed in line with the Entrepreneurial Code of CRNM and PC under MNE.





01|4

FINANCIAL  
AND ECONOMIC  
OVERVIEW OF  
THE COMPANY'S  
OPERATIONS



KEY FINANCIAL EVENTS

Date	Event
2021	The past 2021 is described by the improvement of the economic situation across the globe amid implications of COVID-19 virus spread, including in the Republic of Kazakhstan. Despite repeated outbreaks of the coronavirus, businesses throughout the world continue to recover, however, the industry is growing at a slower pace than services. As before, disruptions in supply chains, soaring energy prices, and shortages of materials and workforce constrain industrial production, which combined with the imbalance between supply and demand in global markets, amplify the global inflationary background, resulting in an increase in the actual inflation in 2021 against target values in the EU, USA, China, and other states.
During January 2021	In order to reduce interest payments, "SDPP-1" LLP early repaid the principal debt of 17.6 bn tenge to "Halyk Bank of Kazakhstan" JSC.
February 12, 2021	"Samruk-Green-Energy" LLP commissioned 1 MW solar power plant in Almaty city.
February 28, 2021	"ESDPP-1" LLP signed an investment agreement for retrofit, reconstruction, expansion, and renovation of power unit No. 1 (with installation of new electrostatic precipitators) with the RK Ministry of Energy on 28.02.2021, tariffs in the amount of 1,199 thous. tenge/MW* month for 2025–2031 for the volume of services – 476.6 MW.
March 30, 2021	Ceiling tariffs for electricity of EPO from 01.04.2021 were approved by the Order of the RK ME No. 108 dated 30.03.2021.
During March 2021	To reduce interest payments, SDPP-1 early repaid its principal debt of 1 bn tenge to "Halyk Bank of Kazakhstan" JSC, so did "APP" JSC, it extinguished the principal of 4.2 bn tenge to HBK.
April 8, 2021	The international rating agency Fitch Ratings revised the outlook on Samruk-Energy's rating, raising it from "Stable" to "Positive", and confirmed the long-term credit ratings of the Company in foreign and national currency at the "BB" level.
April 24, 2021	As part of securing financing for the Project "Modernization and reconstruction of Ekibastuz SDPP-1. Restoration of Unit No. 1", 1 <sup>st</sup> loan limit at "Halyk Bank of Kazakhstan" JSC in the amount of 18 bn tenge was opened.
May 17, 2021	The ceiling tariff from 2021 to 2025 was approved on 17.05.2021 by the order of DCRNM for Almaty city and Almaty region; the tariff will enter into force from June 1, 2021. The approved tariff for 2021 is 6.09 tenge/kWh.
May 31, 2021	The RK Government headed by Mamin A.U., the Prime Minister, approved the proposal for construction of a 600 MW combined cycle gas turbine unit at Almaty CHP-2 site.
June 11, 2021	As part of securing financing for the Project "Modernization and reconstruction of Ekibastuz SDPP-1. Restoration of Unit No. 1", 2 <sup>nd</sup> loan limit at "Halyk Bank of Kazakhstan" JSC in the amount of 12.8 bn tenge was opened.
June 15, 2021	"AES" LLP sent a new application for increasing the ceiling price with entry into force on July 20, 2021, the draft price was 20/89 tenge/kWh, a 14/5% increase to the current price of 18/25 tenge/kWh. As of 01.08.2021, DCRNM did not approved tariffs for AES due to the growth.
June 24, 2021	Ceiling tariffs for power generating stations considering changes in law on pass- through charge of RES were approved by the order No. 211 dated 24.06.2021 of the RK Ministry of Energy. Tariffs are effective from July 1, 2021.



01.4 Financial and economic overview of the company's operations

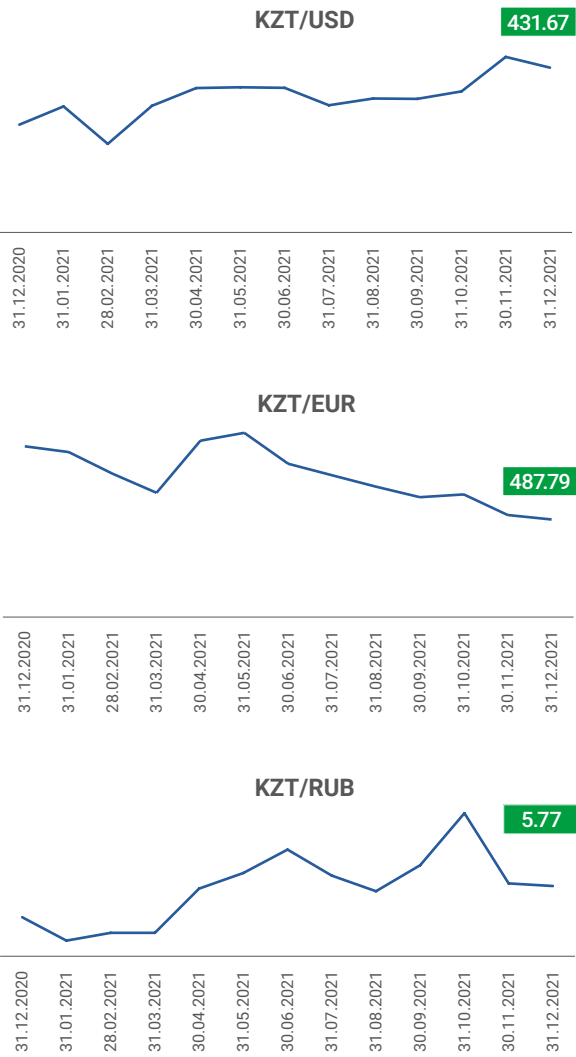
Date	Event
From July 1, 2021	In compliance with subparagraphs 4-5) of paragraph 3 of Article 7-1 of the Law "On Supporting the Use of Renewable Energy Sources", a markup for supporting the use of renewable energy sources is determined and applied for conventional power plants. Thus, the selling price of conventional plants is divided into two components (ceiling tariff established by the authorized body and markup for supporting the use of renewable energy sources determined by the SFC for the calendar year).
August 23, 2021	As part of securing financing for the Project "Modernization and reconstruction of Ekibastuz SDPP-1. Restoration of Unit No. 1", 3 <sup>rd</sup> loan limit at "Halyk Bank of Kazakhstan" JSC in the amount of 12 bn tenge was opened.
October 8, 2021	"Halyk Bank of Kazakhstan" JSC has reduced "AES" LLP investment loans' interest rates from 10.75% to 10.5% per annum.
October 20, 2021	"Halyk Bank of Kazakhstan" JSC has reduced "AZhC" JSC investment loans' interest rates from 12.1%–12.0% to 11.5% per annum.
October 29, 2021	"Samruk-Energy" JSC Development Strategy for 2022–2031 was approved by the resolution of the Board of Directors.
November 8, 2021	The concepts of small and large HPPs were defined by the RK Government Decree No. 792 ""On Amendments to the RK Government Decree No. 271 dated March 27, 2014 "On Approval of the Rules for setting fixed tariffs and cap auction prices".
November 16, 2021	Centralized trading of electric capacity for 2022 was held on the trading platform of "KEPMO" JSC . As a result of trading, "Samruk-Energy" JSC sold 3,447.1 MW, incl. APP – 523 MW, ESDPP-2 – 900 MW, ESDPP-1 – 2,024.1 MW.
November 18,2021	As part of securing financing for the Project "Modernization and reconstruction of Ekibastuz SDPP-1. Restoration of Unit No. 1, 4 <sup>th</sup> loan limit at "Halyk Bank of Kazakhstan" JSC in the amount of 60.3 bn tenge was opened. (the total final limit for the Project amounted to 103 bn tenge)
November 25, 2021	The debut placement of "green bonds" was made on the Astana International Exchange in the amount of 18.4 bn tenge with a coupon rate of 11.4% per annum and a maturity of 6.5 years. This is the first issue of "green" bonds at the Fund's group, and it contributes to the development of infrastructure for future issues of ESG financing.
November 26, 2021	To eliminate the inflation risk in terms of interest expenses generation, reduction of interest payments, as well as optimization of the covenant package, the loan of "Shardarinsk HPP" JSC to the European Bank for Reconstruction and Development was refinanced by issuing bonds with a fixed interest rate.
December 15, 2021	To reduce interest payments, "APP" JSC refinanced investment loans from "Halyk Bank of Kazakhstan" JSC in the amount of 12.4 bn tenge at a rate of 11.4% by raising loans from "First Heartland Jusan Bank" JSC at a rate of 11.3%.
December 29, 2021	Biddings for construction of newly commissioned generating facilities with a maneuverable generation mode were held. "APP" JSC was recognized as the winner with the project "Reconstruction of Almaty CHP-3 based on a CCGT unit with an installed capacity of up to 450 MW" (28.01.22, a letter was received from the RK ME regarding the cancellation of biddings results with the withdrawal of sent draft agreement on the purchase of services).

MACROECONOMIC FACTORS

According to the Bureau of National Statistics under the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, inflation was 0.6% in December 2021 (0.9% in December of 2020). Annual inflation was 8.4% (in December 2020 – 7.5%). As the inflation structure shows, groceries prices increased by 9.9% yoy, non-food products – by 8.5%, paid services – by 6.5%. According to the results of a population survey, in December 2021, the quantitative estimate of inflation expected in a year, was 10.3%.

As regards the monetary policy, on October 25, 2021, the National Bank decided to raise the base rate from 9.5% to 9.75%. Continuing inflationary pressure, which created the inflation that was even higher than that forecasted by the National Bank, rise in the prices in global commodity markets, accelerating inflation in countries-trade partners and high level of inflation expectations were major contributors to a such decision. On December 6, 2021, the National Bank decided to keep the base rate at 9.75% per annum. The decision on the base rate was made in the light of the ongoing inflationary processes in the economy.

In December 2021, the tenge exchange rate fluctuated in the range of 431.20 – 436.36 tenge per US dollar. At the end of December 2021, the exchange rate of the tenge against the US dollar was 431.80 tenge per US dollar, having strengthened by 0.6% over the month.



Dynamics of exchange rates:

	31.12.2020	31.12.2021	%
KZT/USD	420.71	431.67	103%
KZT/EUR	516.13	487.79	95%
KZT/RUB	5.65	5.77	102%



01.4 Financial and economic overview of the company's operations

Financial and economic performance indicators

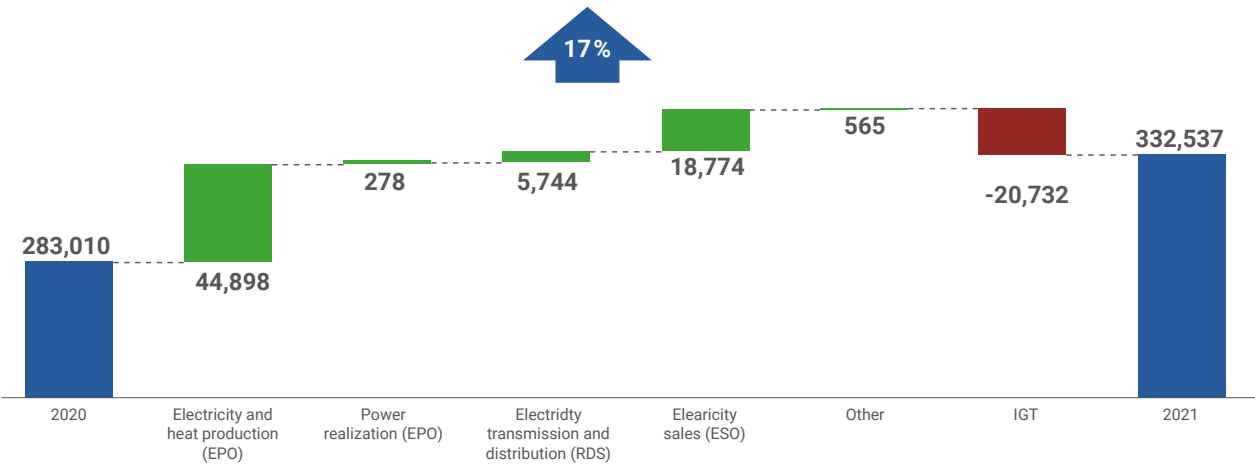
Nº	Indicator, mln tenge	2019 (actual)	2020 (actual)	2021 (actual)	2022 (forecast)	2023 (forecast)
1	Income from sales of goods and services delivered	243,722	283,010	332,537	378,964	423,928
1.1.	Electricity production	169,369	207,917	253,593	275,737	310,351
1.2.	Sale of electricity by energy supplying organizations	100,171	106,911	125,685	146,617	161,635
1.3.	Heat production	16,781	19,202	18,703	19,244	19,628
1.4.	Transmission and distribution of electricity	38,028	40,685	46,428	50,413	57,040
1.5.	Sale of chemically purified water	1,515	1,626	1,781	1,787	1,791
1.6.	Lease	3,925	4,041	3,930	8,005	10,627
1.7.	other	2,555	3,181	3,702	5,089	5,351
2	Cost of goods sold	(195,891)	(225,185)	(254,847)	(292,079)	(326,183)
2.1.	Cost of electricity production	(130,934)	(156,182)	(183,478)	(204,488)	(232,865)
2.2.	Cost of electricity sales by energy supplying organizations	(101,280)	(111,195)	(128,428)	(146,118)	(161,127)
2.3.	Cost of heat production	(16,338)	(18,804)	(19,306)	(20,027)	(21,191)
2.4.	Cost of electricity transmission	(32,543)	(54,365)	(39,358)	(44,976)	(49,008)
2.5.	Cost of sale of chemically purified water	(1,356)	(1,679)	(1, 848)	(1,789)	(1,868)
2.6.	Cost of other types of core business	(832)	(946)	(767)	(1,233)	(1,222)
	Amortization of fixed and intangible assets	(54,223)	(57,331)	(55,168)	(58,030)	(66,344)
3	Gross profit	47,832	57,826	77,690	86,885	97,745
4	Financing income (1)	2,377	2,916	2,616	633	709
5	Other income (1) (2)	5,376	4,637	7,278	982	1,034
6	Expenses for sale of products and services	(7,999)	(10,202)	(9,029)	(8,235)	(8,584)
7	General administrative expenses	(12,710)	(15,826)	(14,793)	(15,051)	(14,840)
8	Operating profit	27,123	31,798	53,868	63,599	74,320
9	Earnings before amortization, interest and CIT (EBITDA)	82,487	99,728	123,447	130,173	168,907
10	Finance costs	(32,319)	(31,025)	(30,139)	(23,799)	(21,300)
11	Other expenses from non-core operations (3) (4) (5) (6)	(1,920)	(4,061)	(23,354)	(137)	(141)

Nº	Indictor, mln.tenge	2019 (actual)	2020 (actual)	2021 (actual)	2022 (forecast)	2023 (forecast)
12	Share of profit / loss of organizations accounted for using the equity method and investments impairment	11,191	9,474	13,455	7,619	27,416
13	Profit (loss) from discontinued operations	0	0	0	0	0
	Profit (loss) from disposal of subsidiaries	0	0	0	0	0
14	Profit (loss) before tax	11,829	13,739	23,723	48,897	82,039
15	Corporate income tax expenses	(4,717)	(5,655)	(8,377)	(13,118)	(15,140)
16	Total profit before minority interest	7,111	8,083	15,347	35,778	66,899
17	Minority interest	276	76	300	641	858
18	Total profit attributable to the Group's Shareholders	6,835	8,008	15,046	35,138	66,041

1. In Financial Report, foreign exchange income/expenses arising from loans received are reflected in financial income/expenses, depending on whether the difference has arisen, positive or negative. The rest of the exchange rate difference is shown in other income/expenses. In management reporting, any exchange rate income/expenses are reflected in other income/expenses
2. in FS impairment loss (NET) was recognized in "Impairment loss/income from recovery of non-financial assets(net)" 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 2021 amounted to 323,537 mln tenge



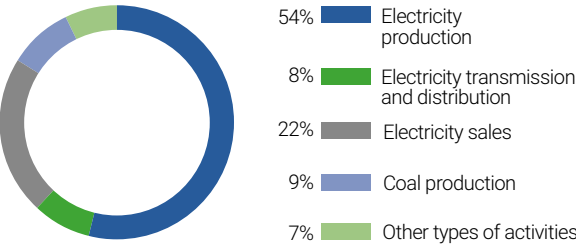
01.4 Financial and economic overview of the company's operations

Consolidated revenue increased in the electricity generation segment because of the growth of electricity tariffs and sales volumes. The main growth is observed at “Ekibastuz SDDP-1” LLP due to an increase in the volume of electricity sales in the domestic market by 18% which resulted from an increase in demand for electricity in the domestic market, as well as an increase in the selling tariff.

An increase in electricity transmission revenue is because of an increase in electricity transmission volumes by 812 mln kWh (12%) and the electricity transmission tariff of “Alatau Zharyk Company” JSC from 5.95 tenge/kWh to 6.07 tenge/kWh.

In the sales (sales) segment, the growth in revenue is associated with an increase in the volume of electricity sales by 668 million kWh (11%) and the tariff for the sale of electricity by “AlmatyEnergoSbyt” LLP from 17.66 tenge/kWh to 18.69 tenge/kWh.

STRUCTURE OF INCOME IN 2021 BROKEN DOWN  
BY CORE BUSINESSES:



**Forecast for the future period:** in the forecast for 2022, sales revenue is planned in the amount of 378,964 mln tenge, which is higher than 2021 actual by 46,427 mln tenge or 14%. An increase is connected with the growth of tariffs for electricity generation and transmission.

In the forecast for 2023, there is an increase in income compared to the forecast for 2022 because of an increase in income from electricity generation, mainly due to an increase in sales, transmission and sales of electricity, as well as due to an increase in tariffs for generation, transmission and sales of electricity.

Revenues from sales of products and services rendered detailed per producer

Indicator, mln tenge	2019 (actual)	2020 (actual)	2021 (actual)	2022 (forecast)	2023 (forecast)
<b>Income from sales of products and services rendered</b>	<b>243,722</b>	<b>283,010</b>	<b>332,537</b>	<b>378,964</b>	<b>423,928</b>
“ESDPP-1” LLP	108,017	123,478	166,366	174,846	195,733
“AlmatyEnergoSbyt” LLP	100,171	106,911	125,685	146,617	161,635
“Almaty Power Plants” JSC	64,047	74,481	78,654	88,385	95,002
“Alatau Zharyk Company” JSC	38,167	40,819	46,594	50,585	57,414
“Moynak HPP” JSC	9,883	20,520	19,003	21,642	23,870
“FWPP” LLP	2,279	6,761	7,183	8,721	9,282
“Shardarinsk HPP” JSC	4,592	5,031	4,881	5,570	6,350
“Bukhtarminsk HPP” JSC	3,924	4,040	3,927	8,005	10,627
“Ereymtau Wind Power” LLP				403	4,345
‘Energy Solution center’ LLP	1,105	1,287	1,128	1,645	1,672
“Samruk Green Energy” LLP	158	236	399	475	493
<b>Intercompany turnover (elimination)</b>	<b>-88,621</b>	<b>-100,554</b>	<b>-121,285</b>	<b>-127,929</b>	<b>-142,496</b>

The main share in the Company's operating income is occupied by “Ekibastuz SDDP-1” LLP, “Almaty Power Plants” JSC, “Alatau Zharyk Company” JSC, “AlmatyEnergoSbyt” LLP. At the same time, when consolidating income, intra-group turnovers are excluded from the total amount, mainly for power generation and distribution companies.

Cost of goods sold and services delivered

Indicator, mln tenge	2019 (actual)	2020 (actual)	2021 (actual)	2022 (forecast)	2023 (forecast)
Fuel	52,340	59,109	60,320	69,214	71,508
Remuneration of labor and related expenses	26,775	29,394	34,120	36,524	38,187
Cost of purchased electricity	13,673	22,865	42,426	53,388	69,791
Maintaining the availability of electric capacity	7,692	10,094	8,718	10,006	9,924
Depreciation of property, plant and equipment and amortization of intangible assets	54,227	57,331	55,168	58,030	66,344
Maintenance & repair	6,879	8,520	9,901	12,694	13,281
Services for electricity transmission and other services	10,331	11,494	13,239	13,103	13,909
Materials	1,844	1,713	1,930	2,343	2,360
Water supply	3,962	4,847	6,329	6,697	7,121
Grid losses	193	2	2	5	5
Taxes other than income tax	4,586	4,704	4,923	5,976	7,194
Emission charges	4,338	4,616	7,802	9,220	10,189
Outsourced services	5,383	6,003	5,649	11,439	12,770
Other	3,668	4,492	4,320	3,440	3,600
<b>TOTAL</b>	<b>195,891</b>	<b>225,185</b>	<b>254,847</b>	<b>292,079</b>	<b>326,183</b>

(1) in FS emission charges for 2018–2020 were recorded “Taxes other than income tax” item

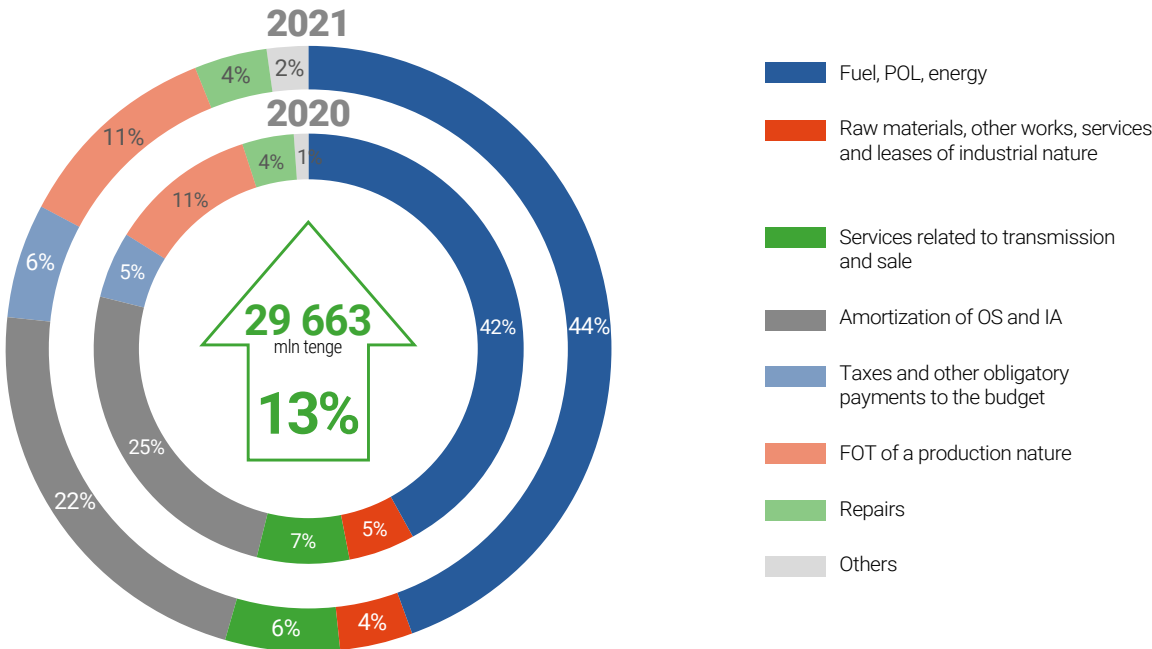
**According** to results of 2021, cost of goods sold amounted to 254,847 mln tenge, which is 13% higher than 2020 actual figure. An increase in costs is mainly due to an increase in coal costs (because of an increase in electricity production volumes) and the cost of purchased electricity from “SFC RES” LLP (increase

in purchase volumes). There is also an increase in expenses due to the growth in prices for goods and services, and an increase in depreciation mainly at “Ekibastuz SDDP-1” LLP as a result of fixed asset revaluation performed on 31.12.2020.



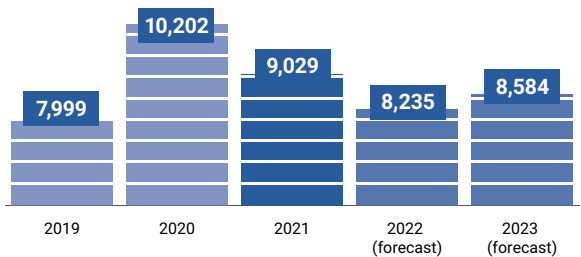
01.4 Financial and economic overview of the company's operations

THE STRUCTURE OF COST OF GOODS SOLD BY MAIN TYPES OF ACTIVITY



**Forecast for the future period:** in the forecast for 2022 and 2023, cost of goods sold increases due to an increase in prices for goods and services.

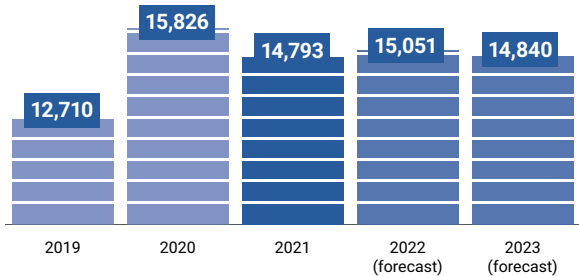
DISTRIBUTION COSTS, MLN TENGE



Distribution costs for 2021 decreased by 1,173 mln tenge (by 11%) compared to 2020 and amounted to 9,029 mln tenge. This deviation is caused by a 53% decrease in exports compared to 2020, as well as due to reduced prices for KEGOC services in 2021.

**Forecast for the future period:** In the forecast for 2022, distribution costs is planned in the amount of 8,235 mln tenge, which is lower than the 2021 actual by 794 mln tenge or 9%. The decrease is due to the exclusion of export volumes.

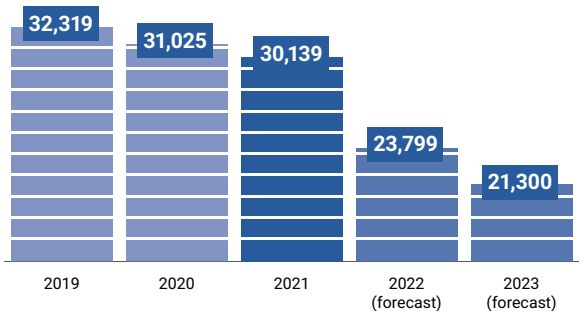
ADMINISTRATIVE EXPENSES, mln tenge



At the end of 2021, administrative expenses amounted to 14,793 mln tenge, which is 1,033 mln tenge less or 7% compared to the same period in 2020. The decrease was mainly for "Bukhtarminsk HPP" JSC due to additional VAT taxes and accrual pennies in 2020.

**Forecast for the future:** In the forecast for 2022, administrative expenses are higher than in 2021 and amount to 15,051 mln tenge. An increase is because of indexation of staff salaries.

FINANCE COSTS, MLN TENGE

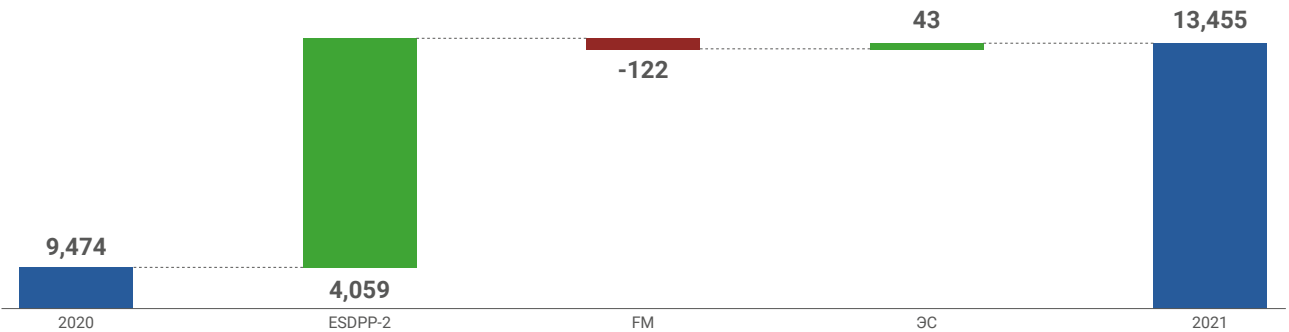


Financial expenses at the end of 2021 amounted to 30,139 mln tenge, which is lower than the 2020 actual value by 886 mln tenge. The main decrease at "Ekibastuz SDPP-1" LLP is connected with the repayment of principal debt.

**Forecast:** Forecast for 2022, financing costs amount to 23,799 mln tenge. The deviation is mainly caused by HO due to the planned early repayment of the borrowed loan from ADB, as well as the decrease in expenses at "Ekibastuz SDPP-1" LLP and "Ereymentau Wind Power" LLP because of the change in raising borrowed funds.

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

Indicator, mln tenge	2019 (actual)	2020 (actual)	2021 (actual)	2022 (forecast)	2023 (forecast)
Share of profits of joint ventures and associates	11,191	9,474	13,455	7,619	27,416



Share profit for 2021 amounted to 13,455 mln tenge, an increase compared to the same period by 3,981 mln tenge or 42%.

mainly because of growth of operating profit by 4,054 mln tenge as a result of growth in income from core activities (growth in sales volumes and electricity tariffs).

The main changes occurred in the following assets:

**ESDPP-2 (50%)** – profit for 2021 amounted to 2,206 mln tenge, with a loss for 2020 (1,853) mln tenge, an increase in profit by 4,059 mln tenge compared to the same period of last year is

**Forum Muider (50%)** – profit for 2021 amounted to 11,383 mln tenge, profit for 2020 amounted to 11,504 mln tenge, 122 mln tenge decrease was mainly due to the reduction of operating profit as a result of an increase in cost of goods sold and G&A.



01.4 Financial and economic overview of the company's operations

LIQUIDITY AND FINANCIAL STABILITY INDICATORS

Compliance with covenants from external lenders:

Covenant	Standard	2019 actual	2020 actual	2021 actual	note
Debt/Ebitda (EBRD, ADB)	No more than 3.5	3.31	2.96	2.70	Is complied
EBITDA/Interest (EBRD, ADB)	No less than 3.0	3.34	3.76	5.00	Is complied
Debt/Equity (KDB)	No more than 2.0	0.56	0.54	0.59	Is complied

Description	2018 actual	2019 actual	2020 actual	2021 actual
Debt/EBITDA	3.18	3.31	2.96	2.7
Debt/Equity	0.65	0.56	0.54	0.59
Current liquidity	1.04	0.70	0.75	0.53

At the end of 2021, "Samruk-Energy" JSC complied with financial and non-financial covenants of creditors, which are fixed on a semi-annual basis.

At the end of 2021, "Samruk-Energy" JSC achieved the target indicators with regard to financial stability ratios set by the shareholder.

Growth in debt load

At the end of 12 months of 2021, the consolidated nominal debt of the Company amounted to 349.9 bn tenge, the growth of nominal debt for the reporting period compared to the 2020 results (325.4 bn tenge) amounted to 24.5 bn tenge.

The growth of nominal debt in 2021 is due to the implementation of the Project "Restoration of power unit No. 1 including the installation of new electrostatic precipitators at "Ekibastuz SDPP-1" LLP plant".

As part of mitigating currency and inflation risks, the Company conducted following activities in 2019–2021:

Refinancing of foreign exchange liabilities in tenge – "Moynak HPP" JSC in the amount of 148 mln US dollars, "Ekibastuz SDPP-2" JSC in the amount of circa 100 bn tenge. As a result, the share of foreign currency liabilities in the loan portfolio was

reduced from 17% to 1% (considering SDPP-2, the effect is higher than these figures).

To reduce inflation risks, activities on early repayment of EBRD loans in the amount of 21 bn tenge, of which 18 bn tenge were repaid by issuing the Company's first green bonds on the AIX platform.

Reduction of interest expenses

Interest expenses reduced owing to scheduled (20.8 bn tenge) and early repayments of debt (36.9 bn tenge), performance of works aimed at reducing interest rates by changing the terms of financing and refinancing existing loans of "Samruk-Energy" JSC group of companies using new alternative sources of financing.

Credit rating (Fitch Ratings)

At the end of 2021, the long-term credit ratings of Samruk-Energy JSC from the international rating agency Fitch Ratings were confirmed at the level of "BB", the outlook was changed from "Stable" to "Positive".

Deals

Information on significant, major deals, interested party transactions and other important transactions is disclosed in "Samruk-Energy" JSC Financial Statements (Volume 2).

Fines

The total amount of significant fines and non-financial sanctions across "Samruk-Energy" JSC group	2021
On labor (number of inspections), including:	5
The amount of fines (thous. tenge)	0
On occupational safety, including	3
The amount of fines (thous. tenge)	656,325
For fire safety, including:	8
The amount of fines (thous. tenge)	451.76
On sanitary and epidemiological supervision, including:	10
The amount of fines (thous. tenge)	3,098,375
Energy supervision and control, including:	24
The amount of fines (thous. tenge)	291.7
Total amount of fines with respect to all inspections (thous. tenge)	4,498.16

Cases related to hindering from competition and violation of antimonopoly legislation that occurred during the reporting year were unavailable.

The monetary value of significant fines and the total number of non-monetary sanctions imposed for non-compliance with environmental laws and regulations are presented in the Environment section.

Authorized state bodies (labor inspection, occupational safety, fire safety, energy supervision and control, sanitary and epidemiological supervision) checked for compliance with the requirements of the law and issued 33 nonconformance reports without imposing financial sanctions.

Comparative analysis (benchmarking)

Benchmarking serves as one of the essential elements of governance of "Samruk-Energy" JSC. The purpose of the benchmarking is to compare the operating and financial performance with foreign peer companies to identify 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);

For benchmarking, data from the following peer companies were used:

- ▶ Mosenergo JSC (Russia);
- ▶ CEZ Group (Czech Republic);
- ▶ Drax Group (Great Britain).



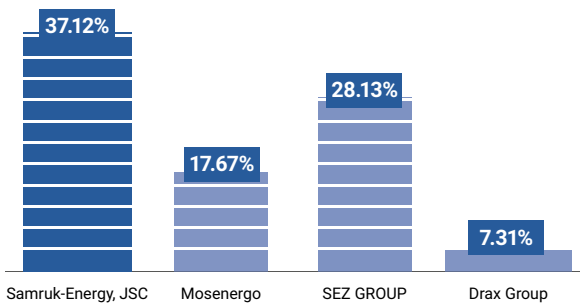
01.4 Financial and economic overview of the company's operations

Benchmarking results

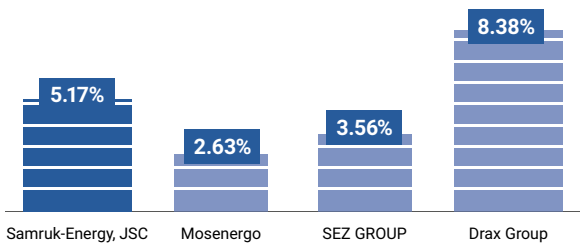
Criterion	Measure	Status	Min _____ Bechmarking _____ Max			
EBITDA margin	%	<div></div>	Drax Group (7.31)	Mosenergo (17.67)	CEZ (28.13)	SE (37.12)
Debt / EBITDA	ratio	<div></div>	Mosenergo (0.77)	CEZ (1.75)	SE (2.41)	Drax Group (2.76)
Debt / CK	ratio	<div></div>	Mosenergo (0.10)	SE (0.59)	CEZ (0.68)	Drax Group (0.81)
ROIC	%	<div></div>	Mosenergo (2.63)	CEZ (3.56)	SE (5.17)	Drax Group (8.38)

Better than peer average Corresponds to the average of peers Worse than peer average

EBITDA MARGIN for 2021



RETURN ON INVESTED CAPITAL (ROIC) in 2021



Source: ru.investing.com

As of today, Samruk-Energy is inferior in some respects compared to foreign peer companies.

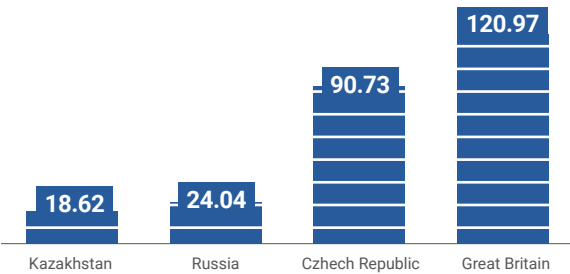
Financial strength indicators show that Samruk-Energy uses all available financial leverage.

At the same time, in terms of **EBITDA margin**, Samruk-Energy outperforms its peers. This indicator demonstrates a high profitability of sales. As regards **ROIC** (return on long-term invested capital), Samruk-Energy is at the level of European peers. At the same time, according to this indicator, Samruk-Energy is considerably inferior to the English holding company.

Along with that, it should be noted that, unlike public analogue companies, "Samruk-Energy" JSC belongs to the Government of the Republic of Kazakhstan, and therefore, the Company is an agent of state policy in power industry. In this regard, as well as with a high degree of depreciation of energy sector, socially significant investment projects have been implemented since 2009 (aimed at the reliable and stable operation of the Republic of Kazakhstan energy system), which resulted in a significant increase in invested capital and, accordingly, reduced the rate of return on investment.

An additional factor affecting the profitability of investments is the low level of electricity tariffs in the Republic of Kazakhstan in comparison with the countries of peer companies.

Average electricity tariff in 2021, tenge/kWh



Country	Average tariff per kWh	In tenge/kWh	Average rate for 2021
Kazakhstan	18.62 tenge	18.62 tenge/kWh	
Russia	4.16 rouble	24.04 tenge/kWh	5.78 tenge/rouble
Czech Republic	0.18 euro	90.73 tenge/kWh	504.04 tenge/euro
Great Britain	0.24 euro	120.97 tenge/kWh	

Source: Eurostat, Rosstat



01|5

## INVESTMENT ACTIVITY MANAGEMENT



The Company's investment approach is based on the principles of responsible investment, aimed at considering ESG factors, environmental, social and governance, in investment decisions, for better risk management and building long-term sustainability.

As part of implementation of transformation program, "Samruk-Energy" JSC has introduced the best investment activity management practices, including:

- ▶ management of the Company's portfolio of projects and activities, which enabled to significantly improve the distribution of financial resources by increasing the share of profitable projects in the total portfolio of projects and activities;
- ▶ project management, which will raise the level of control at the stage of implementation of investment projects (budgets, deadlines).

The Company's investment projects are based on the principles of business viability and long-term interests, as well as return on capital. The company is aware of its responsibility and strives to contribute to the development of society by supporting the principles of ESG, as well as plans for sustainable development.

In assessing the ESG, the Company is guided by the provisions of the Corporate Governance Code and the best-in-class international standards recognized by the international community, such as the UN Sustainable Development Goals, the Global Reporting Initiative, IFC and EBRD Environmental and Social Standards, the UN Principles for Responsible Investment, etc.

The company adheres to the following key principles directly related to investments:

1. incorporating ESG criteria in the investment analysis and decision making process;
2. compliance with the Republic of Kazakhstan legislation and proper use of confidential information;
3. preparation of annual reports, including financial statements, reports on sustainable development, including ESG factors, in accordance with generally recognized international or national auditing standards;
4. availability of formal risk identification, assessment and management system.

The advantages of compliance with the ESG principles are:

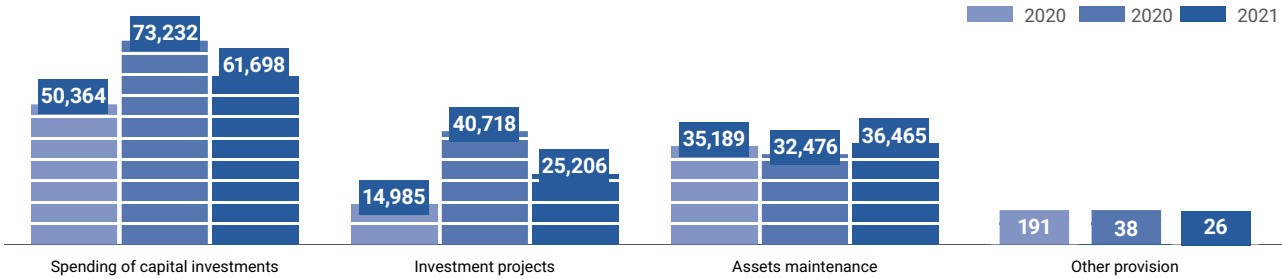
1. informed investment decisions through an understanding of essential ESG factors, corresponding potential liabilities, costs and impact on financial performance, and potential opportunities for value creation;
2. minimizing exposure to reputational or legal risks;
3. ensuring that adequate systems are in place to assess and monitor the effectiveness of the Fund's and portfolio companies' compliance with ESG principles, compliance with applicable ESG requirements, and management of associated investment risks;
4. laying the groundwork for ongoing engagement with companies to discuss, assess and manage the risks and impacts of ESG, and to identify and seize opportunities;
5. Demonstrate proper consideration and management of relevant ESG factors for corresponding stakeholders.

Based on the results of the analysis conducted, a list of capital projects was formed in 2021, including "green" energy transition projects included in the Company's Development Strategy for 2022-2031. ([learn more on the website of "Samruk-Energy" JSC: www.samruk-energy.kz](https://www.samruk-energy.kz)).



01.5 Investment activity management

INVESTMENT COSTS, mln tenge



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

	2018 actual	2019 actual	2020 actual
TOTAL	50,364	73,232	61,698
own	42,836	35,129	59,336
borrowed	7,528	35,122	1,993
State budget funds		2,982	368

Capital expenditures for maintenance of production assets are aimed at repairing the main and auxiliary equipment, as well as acquiring fixed assets of a production nature to ensure the reliability of the power plants.

"Bogatyr Komir" LLP, "Ekibastuz SDPP-1 named after Bulat Nurzhanov" LLP, "Alatau Zharyk Company" JSC and "Almaty Power Plants" JSC account for the main share of capital expenditures for maintenance of production assets and other fixed assets. At year-end 2021, expenditures for maintenance of production assets covered major and regular comprehensive repairs of power units of "Ekibastuz SDPP-1 named after Bulat Nurzhanov" LLP, as well as reconstruction of distribution power

grids, construction and reconstruction of transmission lines and substations, and other costs for repair of production assets and other fixed assets of "Alatau Zharyk Company" JSC. Capital expenditures of production nature of "Bogatyr Komir" LLP and "Almaty Power Plants" JSC were used to purchase fixed assets that are directly involved in operations and for carrying out major overhauls.

Capital expenditures of an administrative nature and other investments were planned for purchasing fixed assets and intangible assets that do not directly influence production activities, as well as for activities aimed at implementing "Samruk-Energy" JSC Transformation program.

Analysis of capital expenditures according to the spending method

		mln tenge				
Nº	SA	2019	2020	2021	2022	2023
		actual	actual	actual	forecast	forecast
	TOTAL	50,364	73,232	61,698	361,598	396,273
1	Investment projects, incl.:	14,985	40,718	25,206	312,280	350,919
1.1	Rehabilitation of Power unit#1 with installation of new ESP	4,953	1,890	10,930	26,110	105,528
1.2	Expansion and reconstruction of Ekibastuz SDPP-2 with installation of power unit No. 3	0	8,322	104	6,684	47,197
1.3	Transition to cyclical-and-continuous method of mining, transportation, blending and loading of coal at the "Bogatyr" open-pit coal mine of Ekibastuz coal deposit	553	25,504	9,693	11,445	0
1.4	Construction of SS "Kokozek"	0	20	2,000	758	0
1.5	Construction of SS "Turksib"	0	0	19	0	522
1.6	Reconstruction of Almaty city cable grids	0	0	0	6,000	9,160
1.7	Expansion of Almaty CHP-1 with the construction of 200-250 MW CCGT unit	0	0	0	45,014	43,668
1.8	"Modernization of Almaty CHP-2 including reduction of environmental footprint"	0	0	314	124,832	63,400
1.9	Reconstruction of Almaty CHP-3 based on CCGT unit with an increase in the plant's capacity up to 450 MW"	0	0	0	81,025	78,602
1.10	Construction of a 60 MW wind power plant in Shelek corridor including a possible increase in capacity to 300 MW (25%)	3,917	11	23	3,189	0
1.11	Construction of 50MW Ereymentau WPP	200	913	2,099	6,398	25
1.12	Construction of a gas turbine power plant based on Pridorozhnoe gas field	91	52	13	0	0
1.13	Other projects	5,270	4,006	11	825	2,816
2	Maintenance of production assets	34,596	31,787	35,198	46,818	44,994
2.1	"Bogatyr Komir" LLP (50%)	7,658	5,547	4,243	8,288	9,133
2.2	"Station Ekibastuz SDPP-2" JSC (50%)	798	1,050	1,616	2,068	3,232
2.3	"Ekibastuz SDPP-1" LLP	7,711	6,187	8,886	14,844	14,153
2.4	"Alatau Zharyk Company" JSC	11,124	12,646	10,692	9,791	12,187



01.5 Investment activity management

№	SA	2019	2020	2021	2022	2023
		actual	actual	actual	forecast	forecast
2.5	“Almaty Power Plants” JSC	6,991	5,616	9,042	9,928	5,553
2.6	“Moynak HPP” JSC	168	307	415	1,264	235
2.7	“Shardarinsk HPP” JSC	38	6	10	54	111
2.8	“AlmatyErgoSbyt” LLP	75	94	90	95	81
2.9	“Samruk-Green Energy” LLP	0	3	24	19	14
2.10	“First Wind Power Plant” LLP	33	332	180	348	295
2.11	"Ereymtau Wind Power" LLP	0	0	0	51	0
2.12	“Energia Semirechya” LLP (25%)	0	0	0	0	0
2.13	"ESC" LLP	0	0	0	69	0
3	Maintenance of administrative assets	592	690	1,267	2,293	360
4	Other	191	38	26	207	0

INVESTMENT PROJECTS

Project "Restoration of power unit No. 1 with the installation of new electrostatic precipitators"

The project is aimed at the construction of a power unit with an installed capacity of 500 MW with the installation of new electrostatic precipitators, which will increase the installed capacity of SDPP-1 to 4,000 MW.

2021 results:

An investment agreement No. 12 for establishing an individual tariff for capacity was signed with the RK ME in February. The tariff is set at 1,199 mln tenge/ (MW\*month).

The delivery of the boiler unit, turbine unit, generator, electrostatic precipitators was completed. The volume of equipment supply is estimated at 51%.

Construction and installation works are underway.  
The planned commissioning date – December 2023.

Project "Expansion and reconstruction of the Ekibastuz SDPP-2 with installation of a power unit No. 3"

The project involves improving the reliability of energy supply to industry, the household sector and the population of the Republic of Kazakhstan, increasing the export potential, increasing the energy security and energy independence of the country.

2021 results:

The design and estimate documentation under stage “P” has been adjusted.

On November 25, 2021, the adjusted design and estimate documentation was uploaded on the State Expertise portal, taking into account the comments. It is expected to receive a positive conclusion from Gosexpertiza by the end of 2021.

Project “Transition to continuous and cyclical technology of extraction, transportation, blending and loading of coal in the Bogatyr open-pit mine”

The project involves a phased transition of the Bogatyr open pit mine to continuous flow process technology for delivering coal by conveyor transport to near-surface blending warehouses, followed by its loading at surface loading facilities. This will increase the output of the enterprise. Replace obsolete fixed assets involved in shipment, crushing and transportation of coal.

2021 results:

ThyssenKrupp has 100% completed the equipment supply, construction and commissioning of electrical equipment is currently underway (Staker, Crushing Transfer Stations, Lifting Belt Conveyor, Drum Reclaimer).

Installation of metal structures, pre-assembly of all equipment carried out 90%.

Concrete, foundation work readiness is – 90%.

Project "Construction of 50 MW wind power plant in the vicinity of Ereymtau city"

The project provides for the construction of a wind power plant in the vicinity of Ereymtau city with a capacity of 50 MW. The Project implementation will additionally produce more than 215 mln kWh of electricity annually. The project's aim is to use renewable energy sources to reduce the use of hydrocarbon energy resources when producing electricity.

The project's construction and installation works have commenced in 2020.

Results for 2021:

The works on construction of access and on-site roads, setting up of installation sites for wind turbines (wind turbine foundations), reorganization of existing power lines and laying of 35 kV cable lines, as well as construction of 220/35 kV substation are underway.

It is planned to complete the construction of 50 MW wind power plant in the vicinity of Ereymtau city. The implementation of the project will additionally produce more than 215 mln kWh of electricity annually.

Project "Construction of 60 MW wind power plant in Shelek corridor including a 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 the equipment delivery is underway.

Results for 2021:

It is planned to complete the work on the project "Construction of 60 MW WPP in the Shelek corridor with a possible increase in capacity up to 300 MW." The implementation of the project will additionally produce more than 225.7 mln kWh of electricity annually.

Project "Expansion of Almaty CHP-1 with the construction of 200-250 MW CCGT unit"

The project involves expansion of Almaty CHP-1 with the construction of 200-250 MW CCGT unit to ensure the reliability of heat and electricity supply to Almaty city.

Results for 2021:

“KazNIPiEnergoprom” JSC is working on the development of a feasibility study for ACHP-1 Project.

Project "Modernization of Almaty CHP-2 including reduction of environmental footprint"

The project involves reduction of the negative environmental impact of the plant on the environmental situation in Almaty city by transfer the station to firing natural gas.

Results for 2021:

A positive conclusion for the feasibility study (FS) was received from RSE "Gosexpertiza" on December 30, 2021. Currently, internal corporate procedures to agree the results of the feasibility study for ACHP-2 Project are underway.

"Samruk-Energy" JSC conducts negotiations and carries out preparatory activities for arranging of financing. As of today, arranging of financing with the European Bank for Reconstruction and Development (hereinafter – the EBRD) is considered in detail.

Project "Reconstruction of Almaty CHP-3 based on CCGT unit with an increase in the plant's capacity up to 450 MW"

The project involves the reconstruction of the Almaty CHPP-3 with the construction of a CCGT unit with a capacity of up to 450 MW to partially cover the shortage of maneuvering capacities in the southern zone of Kazakhstan.

Results for 2021:

On September 3, 2021, “APP” JSC signed an agreement for development of a feasibility study for the project with “KazNIPiEnergoprom” JSC.

A feasibility study is under development. The project's FS considers the use of GTP + RB and / or 450 MW CCGT including the ability to operate in a maneuverable mode.

To ensure the completion of the construction of the new station at the ACHP-3 site, in December 2024, “APP” JSC plans to conclude an EPC contract through an open international two-stage tender by holding a reversed auction.



01.5 Investment activity management

**Project “Construction of counterregulating Kerbulak HPP on the Ili river”**

The project involves creation of a reservoir-counter-regulator in the downstream of the Kapshagay HPP to equalize uneven weekly-daily releases of the Kapshagay HPP and transfer of Kapshagay HPP to the mode of covering peak loads using all available capacity in Almaty energy system and in South energy zone of Kazakhstan, which experience shortage in capacity and energy as well as improvement of environmental situation in the lower reaches of the Ili River by applying a uniform regime of daily releases from the reservoir-counter-regulator.

**2021 results:**

As part of the practical implementation of the project, registration of land plots for construction of Kerbulak HPP was carried out.

**NEW INVESTMENT PROJECTS**

**Project “Reconstruction of cable grids in Almaty city”**

The project involves a positive effect for the economy and the country:

- Increase in transmission capacity by 30% in Almaty c.;
- Reduction of accident rate in distribution grids of “AZhC” JSC.

*This project was approved by Decree of the Republic of Kazakhstan President No. 670 dated October 7, 2021 “National project “Sustainable economic growth aimed at improving the welfare of Kazakhstani people” (Item 7).*

The approval to commence the project was obtained from “Samruk-Energy” JSC on December 30, 2021.

Documents were submitted to “Samruk-Energy” JSC.

**Project “Reconstruction and modernization of the Cascade of HPPs”**

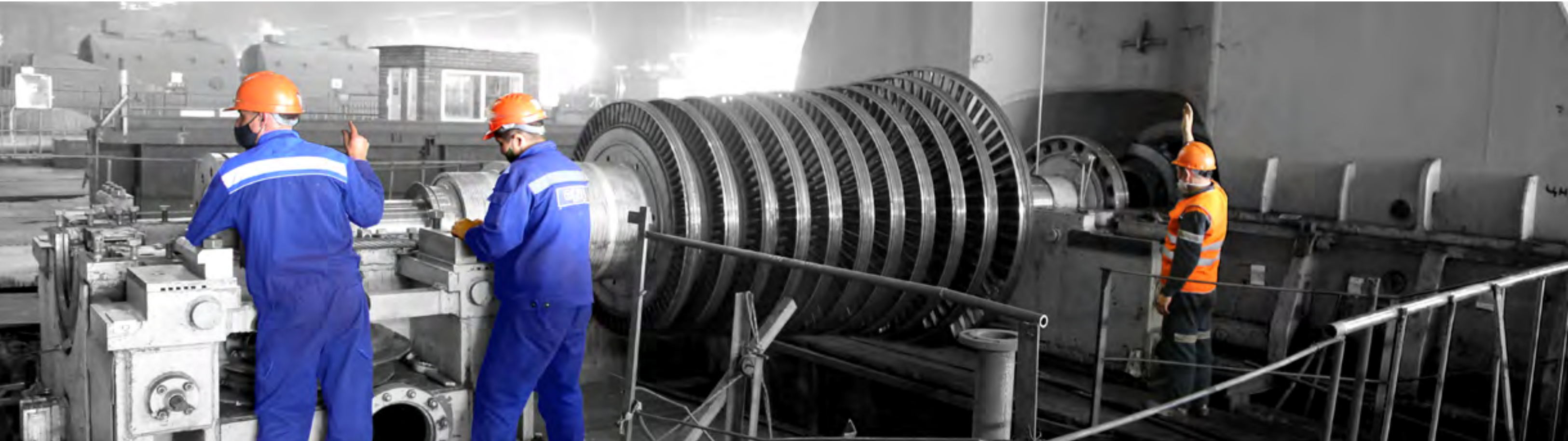
The project involves an increase in installed capacity by 7.5 MW, an increase in electricity generation by 41.7 mln kWh every year, ensuring the reliability and safety of operation of the Cascade of HPPs, as a result of an increase in electricity generation by the Cascade of HPPs, a reduction in firing of energy resources (coal, gas, etc.) by thermal power plants, providing Almaty city and Almaty region consumers with a reliable and trouble free supply of electricity in accordance with load schedules.

On November 12, 2021, “APP” JSC Board of Directors decided to approve the development of a feasibility study as part of the pre-investment stage of the investment Project.

**Project “Construction of a combined wind farm, hydropower plant with a capacity of 310 MW in Almaty region”**

The project involves the production of over 1,227 mln kWh of electricity annually using renewable energy sources. Partial coverage of the electricitys shortage, receipt of taxes and other contributions to the budget of Almaty region, mitigation of climate change effects through the transition to “Green Energy”.

The pre-investment stage of the project was approved on December 30, 2021 by “Samruk-Energy” JSC IIC.







### Procurement activity methodology

The procurement procedures at "Samruk-Energy" JSC group were conducted in accordance with the Procedure for making procurements by the "Sovereign Wealth Fund "Samruk-Kazyna" JSC and organizations fifty or more percent of the voting stock (equity stake) of which are directly or indirectly held by "Samruk-Kazyna" JSC on the right of ownership or trust management, approved by the resolution of the Fund's Board of Directors No. 190 d/d December 9, 2021 and the Standard for managing the procurement activities of "Sovereign Wealth Fund "Samruk-Kazyna" JSC and organizations fifty or more percent of voting shares (participatory interests ) which are directly or indirectly owned by "Samruk-Kazyna" JSC on the right of ownership or trust management, approved by the decision of the Executive Board of the Fund No. 59/21 dated December 30, 2021.

The key principles and approaches of procurement activities are described in the procurement procedure. In turn, the details of procurement processes (procedures, deadlines, requirements for the content of documents) are set out in the Procurement Activities Management Standard.

### CATEGORY PROCUREMENT MANAGEMENT

The process of category procurement management involves streamlining 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.

For instance, as part of the implementation of the procurement category strategy for the category "Electric lighting equipment",

### The Program of support for upgrading the existing and creating the new production facilities for 2014–2022 (phase-out of imports)

To implement strategic tasks on promoting the development of national economy, which were set by the Head of State and the Government of the Republic of Kazakhstan, "Samruk-Kazyna" JSC is carrying out an extensive work together with the "Atameken" National Chamber of Entrepreneurs of the Republic of Kazakhstan to create new competitive domestic production facilities in the field of processing industries.

To achieve this objective, the Fund implements the program of support for upgrading the existing and creating the new production facilities for 2014–2022 (import substitution) (hereinafter – the Program), aimed at import substitution of goods purchased by the Fund's group on an ongoing basis.

The program involves the conclusion of long-term contracts for the procurement of goods (off take contracts). As part of the Program implementation, 20 off-take contracts totaling 3.2 bn tenge were signed in 2021 across "Samruk-Energy" JSC group of companies.

the agreement with a domestic commodity producer was concluded using a standard form of an energy service contract, which implies saving operating costs by increasing energy efficiency and introducing technologies that ensure energy conservation.

The actual economic result in the amount of 4.68 bn tenge was achieved over the time of implementation of procurement category strategies.

It is worth noting that benefit from the implementation of procurement category strategies is estimated at 5.8 bn tenge by the end of 2022.

### Information on the share of local (RK) content in procurements during 2019-2021, mln tenge\*

	2019 actual		2020 actual		2021 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	159,847.19	80%	168,776.88	79%	187,631.25	89%
W/S	159,365.72	87%	104,660.70	79%	144,451.81	93%

\*Note: "Samruk-Kazyna Contract" LLP data.





# THE REPORT ON CORPORATE GOVERNANCE

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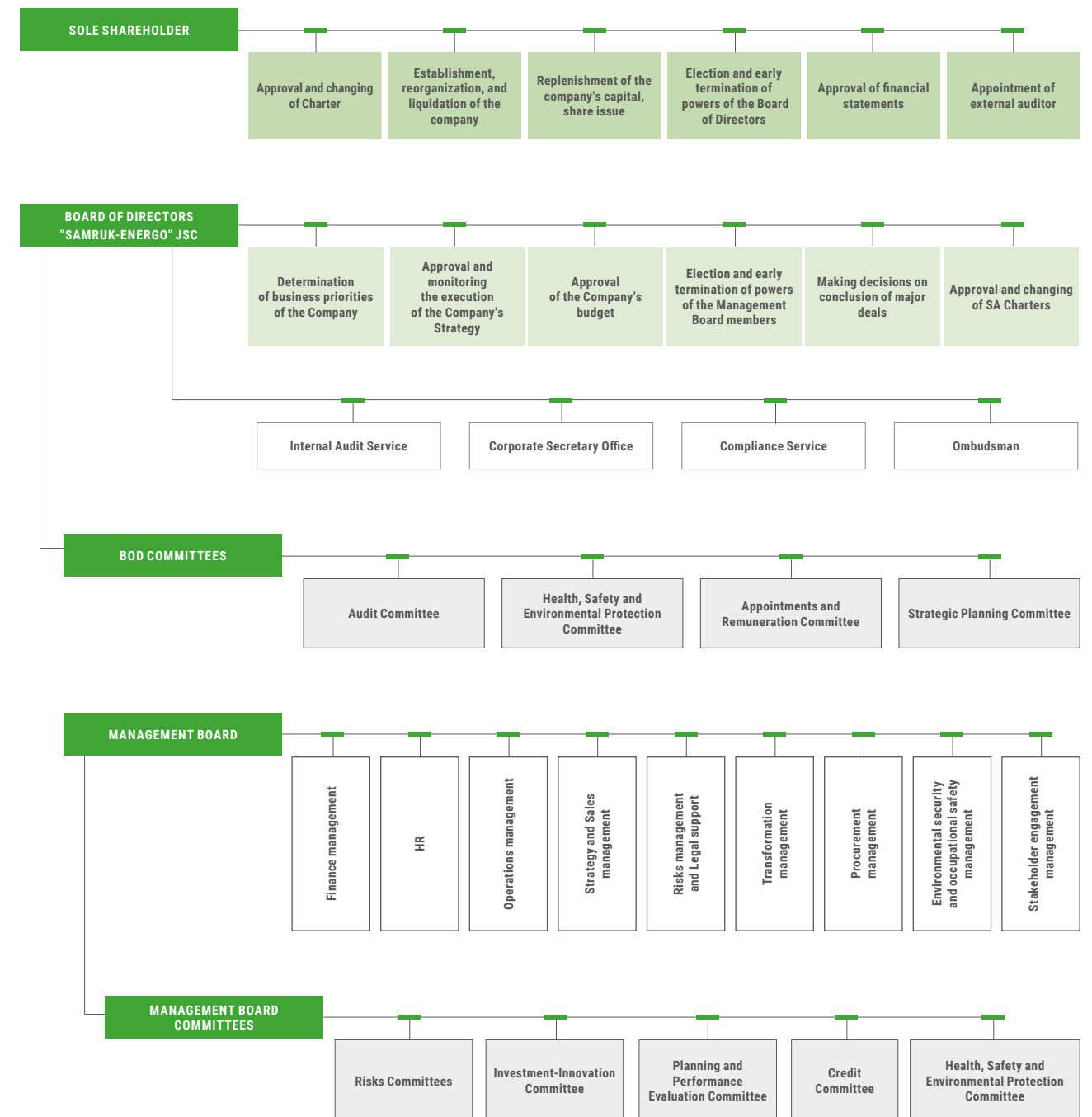
Online version of the report  
is available on the Company's  
website  
[www.samruk-energy.kz](http://www.samruk-energy.kz)



# 02|1 CORPORATE GOVERNANCE AND ETHICS

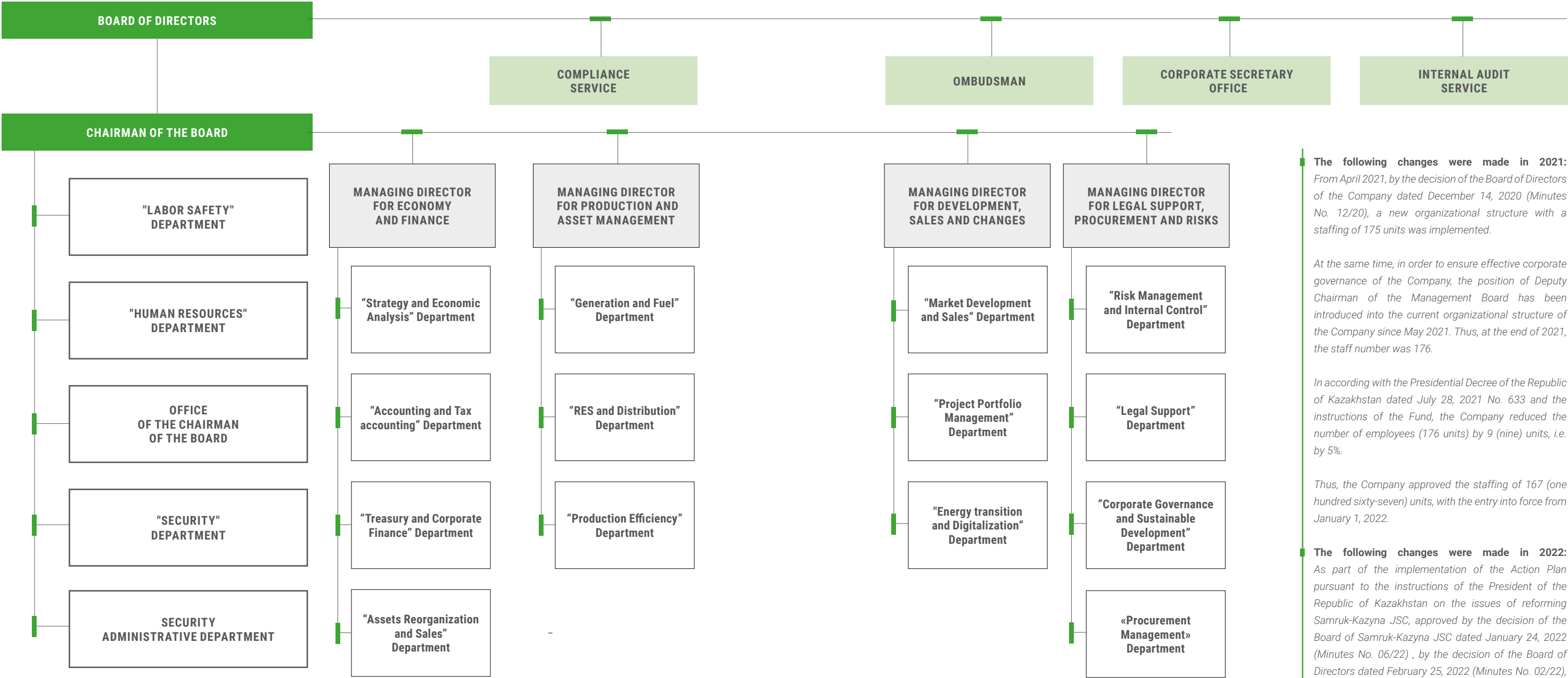


## CORPORATE GOVERNANCE STRUCTURE





# Organizational structure



**The following changes were made in 2021:**  
From April 2021, by the decision of the Board of Directors of the Company dated December 14, 2020 (Minutes No. 12/20), a new organizational structure with a staffing of 175 units was implemented.

At the same time, in order to ensure effective corporate governance of the Company, the position of Deputy Chairman of the Management Board has been introduced into the current organizational structure of the Company since May 2021. Thus, at the end of 2021, the staff number was 176.

In according with the Presidential Decree of the Republic of Kazakhstan dated July 28, 2021 No. 633 and the instructions of the Fund, the Company reduced the number of employees (176 units) by 9 (nine) units, i.e. by 5%.

Thus, the Company approved the staffing of 167 (one hundred sixty-seven) units, with the entry into force from January 1, 2022.

**The following changes were made in 2022:**  
As part of the implementation of the Action Plan pursuant to the instructions of the President of the Republic of Kazakhstan on the issues of reforming Samruk-Kazyna JSC, approved by the decision of the Board of Samruk-Kazyna JSC dated January 24, 2022 (Minutes No. 06/22) , by the decision of the Board of Directors dated February 25, 2022 (Minutes No. 02/22), a new organizational structure of the Company with a staffing of 150 (one hundred and fifty) units was approved, with effect from April 1, 2022.

02.1 Corporate governance and ethics

The Company considers improving the efficiency of corporate governance as a key driver in securing sustainable business development and making informed management and investment decisions.

In line with the best world practices, the Company strives for continuous improvement of the corporate governance system, which ensures effective risk management and a reliable internal control system, facilitates access to external capital and improves the Company's reputation.

To continuously improve corporate governance, the Company is committed to:

- ▶ strictly observe the rights of shareholders, investors and other stakeholders;
- ▶ clearly delineate the powers and responsibilities between the Company's bodies and divisions;
- ▶ improve the performance of the Board of Directors and its Committees, as well as the Executive Body and its Committees;
- ▶ avoid corporate conflicts and conflicts of interest;
- ▶ improve the management reporting system;
- ▶ apply the best global corporate governance practices by further implementing the principles and provisions of the Corporate Governance Code;
- ▶ stick to the principles of information transparency for shareholders and other stakeholders (formalized and transparent policy and procedure for remuneration of directors and executives of the Company, transparent dividend policy, publication of annual report with financial statements and a report in sustainable development, in accordance with GRI standards and IFRS every year, etc.);
- ▶ secure the existence of effective planning processes, effective systems of internal control, compliance and internal audit, an effective risk management system, an effective sustainable development management system.

The Action Plan for improvement of corporate governance has been in effect at the Company from 2019 to 2021. To implement the Plan, a self-assessment of the Board of Directors of "Samruk-Energy" JSC was conducted, the Charter of the Company, the Regulations on the Board of Directors were updated, the composition of the Boards of Directors / Supervisory Boards of subsidiaries was updated, a number of internal regulatory documents were updated, and the work related to websites of "Samruk-Energy" JSC group were performed. According to 2021 results, the Plan was implemented by 92%.

In 2021, the Sole Shareholder of "Samruk-Kazyna" JSC initiated an independent diagnostics of the corporate governance level

at "Samruk-Energy" JSC with the involvement of an independent consultant "Pricewaterhousecooper" LLP. The scope of work included studying corporate governance mechanisms and evaluation of maturity level and corporate governance rating.

The assessment was made in accordance with the Methodology for diagnosing corporate governance in organizations where "Samruk-Kazyna" JSC directly or indirectly holds more than 50% of their voting shares, on the main aspects of corporate governance (Efficiency of the Board of Directors and the Executive Body; Risk management, internal control and audit; Sustainable Development; the Sole Shareholder rights; Transparency), as well as taking into account internationally recognized corporate governance practices, the legislation of the Republic of Kazakhstan, and a review of the best corporate governance practices adopted by established companies.

Based on the results of an independent diagnostics of the Company's corporate governance system, the corporate governance level compliance rating was set at "BB", corresponding to the "medium" maturity level, which means that the Company's corporate governance system, in all material respects, complies with most of the established criteria.

An independent consultant noted positive dynamics in the components "Efficiency of the Board of Directors and the executive body" (in 2018 – "B", in 2021 – "BB") and "Transparency" (in 2018 – "B", in 2021 – "BB"), which was possible owing to a regular implementation of actions aimed at improving the Company's corporate governance system.

Relying on the results of the corporate governance diagnostics and recommendations of an independent expert, the Action Plan for improvement of corporate governance for 2022–2023 was approved.

The Company has set its target corporate governance rating for 2021 at 'BBB'.

Key priority directions of "Samruk-Energy" JSC development in the area of corporate governance are:

1. application of the best corporate governance practices through further introduction of principles and provisions of the Corporate Governance Code;
2. effective risk management and internal control system, which facilitates access to external capital, reduces the cost of capital and improves the Company's reputation;
3. development of an comprehensive business continuity system;
4. strict observance of the rights of shareholders, investors and other stakeholders;
5. clear division of powers and responsibilities between the bodies of the Company and units;
6. increasing the efficiency of the Board of Directors and its Committees, as well as the Executive body and its

COMPLIANCE WITH THE PRINCIPLES AND PROVISIONS OF THE CORPORATE GOVERNANCE CODE

There is a Corporate Governance Code at "Samruk-Energy" JSC approved by the resolution of "Samruk-Kazyna" JSC Management Board dated May 27, 2015.

In 2021, the Company conducted a self-assessment and analysis of the actual compliance of the Company's current operations with the principles and provisions of the Code.

The results of the self-assessment conducted show that in 2021 the Company ensured compliance with the basic principles and provisions of the Code. At the end of 2021, 60 provisions out of 64 provisions of the Code complied, 4 provisions partially complied. Inconsistencies are presented in the sections "Government as a shareholder of the Fund" and "Effectiveness of the Board of Directors and the Executive Body".

Thus, the below mentioned items have been determined as partially complying with the provisions of the Code:

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. 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 Republic of Kazakhstan Government decree dated December 29, 2020 No. 908 "On some matters of privatization for 2021–2025" as well as activities on establishing the perimeter of the Company's companies for sale as part of the Company,

Committees, management bodies of subsidiaries and affiliates;

7. avoidance of corporate conflicts and conflicts of interest;
8. fight all types of corruption and adherence to business ethics;
9. improvement of the management reporting system, including in the area of Sustainable Development at different levels of management;
10. effective interaction with shareholders and other stakeholders and improvement of principles of information transparency (formalized and transparent policy and procedure for remuneration of directors and managers of the Company, transparent dividend policy, publication on an annual basis of an annual report with financial statements and a report on sustainable development, in accordance with GRI standards, IFRS and best practices in the field of corporate governance, etc.);
11. ensuring the availability of effective planning processes and systems, internal control, compliance and internal audit, risk management, sustainable development management.

the activities on changing/simplifying the structure of the Company's group including organizational and legal forms of subsidiaries of the Company were not conducted.

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.
3. Item 7 of Chapter 5 "Effectiveness of the Board of Directors and Executive Body", according to which the Board of Directors approves 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. The corporate secretary ensures the implementation of these programs. Thus, in 2021, the Corporate Secretary implemented the procedure for inducting newly elected members of the Board of Directors. Training program for members of the Company's Board of Directors in 2021 has not been developed.
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 size 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





02.1 Corporate governance and ethics

Management Board, early terminates their powers (except for the Chairman of the Management Board). At this, 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.

Being aware of the importance of adhering to national and international corporate governance standards, the Company

CORPORATE CULTURE AND ETHICS

The introduction of high ethical standards and building a corporate culture based on trust is among the main directions of "Samruk-Energy" JSC.

"Samruk-Energy" JSC group has a Code of Conduct, which establishes high professional and ethical standards, and activities of "Samruk-Energy" JSC employees must comply with these standards regardless of their position.

The purpose of the Code is to ensure that "Samruk-Energy" JSC corporate life and business relations with all stakeholders are characterized by common values.

Therefore, during interaction with its suppliers and contractors, the Company requires observance of labor laws, including compliance with health and safety requirements. The relevant requirements are included in standard contracts for the group of companies of Samruk-Energy JSC.

intends to continue the development its corporate governance system to maintain a high level of trust on the part of all stakeholders and ensure sustainable business development.

To review the full report on the compliance of corporate governance practices with the principles and provisions of the Corporate Governance Code, follow the link: <https://www.samruk-energy.kz/ru/shareholder/other-statements>

Pursuit of "Samruk-Energy" JSC corporate values specified in the Code of Conduct, contributes to the achievement of strategic goals and accomplishment of the Company's mission.

A member of the executive body who violated the provisions of the Code of Business Ethics cannot be a member of the executive body.

The Board of Directors ensures the implementation of ethical standards and their observance. All officers and employees sign a statement that they got acquainted with the Code of Conduct and regularly confirm their knowledge of the Code. The Company regularly conducts training for officials and employees aimed at understanding the Code of Conduct, the role of the Ombudsman and the availability of the system for reporting alleged violations.

According to the results of 2021, there were no cases of violation of the Code of Conduct by the members of the Board of Directors and the executive body of "Samruk-Energy" JSC.

SHAREHOLDER

The Sole shareholder "Samruk-Kazyna" JSC holds 100% of "Samruk-Energy" JSC shares ([www.sk.kz](http://www.sk.kz)).

The relationship with the Sole Shareholder involves ensuring protection and respect for its rights and legitimate interests and is based on honesty, accountability, responsibility, and transparency.

The Sole Shareholder ensures the management of the Company by setting priorities and strategic directions of business.

The rights of the Sole Shareholder are exercised in accordance with the Law of the Republic of Kazakhstan "On joint-stock company" and "Samruk-Energy" JSC Charter.

KEY DECISIONS OF SOLE SHAREHOLDER

The Sole Shareholder considered the following key matters in the reporting year:

April 12, 2021 (Minutes No. 13/21) – On approval of the annual financial statements of "Samruk-Energy" JSC for 2020, the procedure for distributing the net income of "Samruk-Energy" JSC for 2020 and the amount of dividend per one ordinary share of "Samruk-Energy" JSC.

June 30, 2021 (Minutes No. 28/21) – On making additions to "Samruk-Energy" JSC Charter.

October 28, 2021 (Minutes No. 49/21) – On the results of independent diagnostics of corporate governance at 11 portfolio companies of "Samruk-Kazyna" JSC.

EQUITY HOLDING STRUCTURE

According to the operating results of the Company, as of December 31, 2021, the number of authorized securities reached 8,602,187 pieces. The number of placed securities is

5,601,812 pieces. The nominal value of one ordinary share as of December 31, 2021 amounted to 10,000 tenge.

EARNINGS PER SHARE AND BALANCE-SHEET VALUE PER SHARE

Basic earnings per share is calculated as the ratio of profit attributable to "Samruk-Energy" JSC group's shareholders to the weighted average number of ordinary shares outstanding

during the year. "Samruk-Energy" group does not have dilutive potential ordinary shares, therefore diluted earnings per share are the same as basic earnings per share.

In thousands of Kazakhstani tenge	2021	2020
Profit for the year attributable to the shareholders of "Samruk-Energy" JSC group of companies (in thousands of Kazakhstani tenge)	15,046,311	8,007,623
Weighted average number of ordinary outstanding shares	5,601,812	5,601,812
Earnings per share attributable to the shareholders of "Samruk-Energy" JSC group (rounded to tenge)	2,686	1,429

02.1 Corporate governance and ethics

BALANCE-SHEET VALUE OF ONE SHARE

In accordance with the decision of the Exchange Council of Kazakhstan Stock Exchange JSC (hereinafter "KASE") dated October 4, 2010, the consolidated financial statements must contain data on the balance-sheet value of one share (common and preferred) as of the reporting date, calculated in accordance with the approved KASE rules. As of December 31, 2021, the

balance-sheet value of one share (common and preferred), calculated by "Samruk-Energy" JSC group's management team using the data from consolidated financial statements, amounted to 88,985 tenge (31 December 2020: 86,937 tenge). Below is a table for calculating the balance sheet value of one share:

In thousands of Kazakhstani tenge	2021	2020
Total assets	939,820,011	885,705,149
Less: intangible assets	(4,165,145)	(3,570,398)
Less: total liabilities	(437,179,560)	(395,129,513)
Net assets for ordinary shares	498,475,306	487,005,238
Number of ordinary shares as of December 31	5,601,812	5,601,812
Balance sheet value of one share, tenge	88,985	86,937

DIVIDEND POLICY

The Company's Dividend policy is based on the principles of meeting interests of the Sole Shareholder, increasing the long-term value of the Company, transparency of the mechanism for determining the amount of dividends and ensuring the financial stability of the Company;

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.

The amount of dividends paid in line with Resolutions of the Sole Shareholder

Period	Amount
2021 (according to the 2020 results)	3,242,143,450
2020 (according to the 2019 results)	3,066,231,000
2019 (according to the 2018 results)	2,041,000,000

dynamism of the Board of Directors or the decision-making process of the Board of Directors members.

The selection and nomination of members of the Board of Directors is carried out by the decision of the Sole Shareholder in accordance with the norms and principles of the Corporate Governance Code (see on the website: www.samruk-energy.kz).

In 2021, the number of members of the Board of Directors was 5 people, including 2 independent directors.

THE BOARD OF DIRECTORS

As a governing body the Board of Directors ensures strategic management of the Company and long-term performance by making informed decisions, considering the interests of all stakeholders, and relying on principles of sustainable development.

The Company strives for balance and ensuring diversity in terms of experience and personal characteristics in the composition of the Board of Directors. The size of the Board of Directors corresponds to the scale, complexity, goals, and objectives of the Company, is not excessive and does not reduce the

THE COMPOSITION OF THE COMPANY'S BOARD OF DIRECTORS AS OF 31.12.2021:



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

**Citizenship:** Republic of Kazakhstan

**Date of birth:** November 28, 1982

**Date of first election:** February 18, 2022

Does not own shares of the company, suppliers, or competitors

**Term of office:** until June 23, 2022

Managing Director for Legal Support and Risks of "Samruk-Kazyna" JSC.

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



**Yessimkhanov Sungat Kuatovich**  
*Member of the Board of Directors, Chairman of the Board*

**Citizenship:** Republic of Kazakhstan

**Date of birth:** November 30, 1973

**Date of first election:** May 2, 2021

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

**Term of office:** until June 23, 2022

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



**Repin Alexey Yurevich**  
*Member of the Board of Directors*

**Citizenship:** Republic of Kazakhstan

**Date of birth:** April 11, 1961

**Date of first election:** February 18, 2022

Does not own shares of the company, suppliers, or competitors

**Term of office:** until June 23, 2022

Head of Energy and Mining Assets Sector of Oil and Gas, Mining and Energy Assets Department at "Samruk-Kazyna" JSC.

Expert in strategic and corporate governance and energy sector.



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**Dr. Andreas Stoerzel**

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

**Citizenship:** Federal Republic of Germany

**Date of birth:** October 12, 1963

**Date of election:** June 24, 2019

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

**Term of office:** until June 23, 2022

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

Expert in corporate management and governance, strategy, investments, commercial management, and mergers and acquisitions.

Combined jobs and memberships:

- ▶ Executive Director Corporate Development, ENOWA (NEOM Group), 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:** Kingdom of Spain

**Date of birth:** August 27, 1957

**Date of election:** June 24, 2019

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

**Term of office:** until June 23, 2022

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

Expert in business management and economics, generation, and engineering.

You may learn about full resume of each Board member on the website: [www.samruk-energy.kz](http://www.samruk-energy.kz)

**Changes in the composition of the Board of Directors at the time of publication of this Annual Report**

The powers of Akchulakov B.U., Chairman of the Board of Directors, were terminated on February 18, 2022 by the resolution of the Sole Shareholder (Minutes No. 12/22).

The powers of Kravchenko A.N., Chairman of the Board of Directors, were terminated on February 18, 2022 by the resolution of the Sole Shareholder (Minutes No. 12/22).

The following members of the Board of Directors were elected on February 18, 2022 by the resolution of the Sole Shareholder (Minutes No. 12/22):

Kazutin Nikolay Yurevich – Chairman of the Board of Directors of "Samruk-Energy" JSC.

Repin Aleksey Yurevich – member of the Board of Directors of "Samruk-Energy" JSC.

A high-quality Board of Directors is key to the successful implementation of our Strategy, so balance is an important requirement for the composition of the Board, not only in terms of the number of directors, but also in terms of experience, diversity of skills, knowledge and thinking styles.

The sole shareholder elects the members of the Board of Directors on the basis of clear and transparent procedures in accordance with the current legislation, the Charter and the Regulations on the Board of Directors, taking into account the

competencies, skills, achievements, business reputation and professional experience of the candidates. When re-electing individual members of the Board of Directors or its entire composition for a new term, their contribution to the efficiency of the Board of Directors is taken into account.

Acting members of the Board of Directors have the business skills and mindset necessary to make an appropriate contribution to the Company's business. Members of the Board of Directors have an impeccable business and personal reputation and act in the interests of the Company, and in their work are based on the principles of sustainable development.

Current composition of the Board of Directors is balanced in terms of industry experience, skills, international relations, and independence, but does not ensure diversity in terms of gender.

**Evaluation of the efficiency of the Board of Directors**

The Board of Directors, committees and members of the Board of Directors must be evaluated on an annual basis through a structured process approved by the Board of Directors. Methods of assessment are self-assessment or the involvement of an independent consultant to improve the quality of the assessment. At the same time, an assessment with the involvement of an independent consultant is carried out at least once every three years.

In 2021, as part of an independent diagnostics of corporate governance, an assessment was made of the performance of the Board of Directors, committees and members of the Board of Directors by an independent consultant. The overall performance rating of the Board of Directors was 'BB', which is up from the 2018 rating ('B'). The activities of the Board of Directors of the Company comply in all material respects with most of the established criteria.

The result of the evaluation of the activities of the Board of Directors showed directions for further development of corporate governance practices. The activities identified based on the results of the assessment were included in the Action Plan to improve corporate governance for 2022.

**Meetings schedule**

Meetings of the Board of Directors are held in line with the work plan approved prior to the start of the calendar year, which includes a list of items under consideration and a schedule of meetings. Critical and strategic items are considered and decisions on them are made only at meetings of the Board of

Directors with in-person voting. Information materials for the Board of Directors meetings are sent in advance – no less than 7 calendar days in advance, and on more important items no less than 15 business days in advance.

**Independence of decisions made**

The presence of Independent Directors in the Board of Directors ensure the independence of decisions made by the Board of Directors.

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 chair 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 2021 results, the Independent Directors of the Company fully met the independence criteria.

**Dynamics of the Board of Directors meetings**

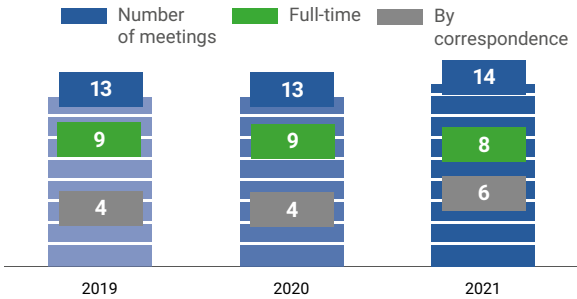
The Board of Directors approves the annual work schedule before the start of the financial year and follows the plan after its approval. The Chairman of the Board of Directors controls that the agenda of the meetings of the Board of Directors covers all important issues for the Company.

In 2021, the Board of Directors of the Company considered 204 items. Critical and strategic items are considered only at in-person meetings of the Board of Directors. The Company strives to reduce in absentia meetings of the Board of Directors.

The procedure for informing the Board of Directors about critical financial and non-financial issues is regulated in accordance with the current legislation and internal regulations. According to the 2021 results, these cases were unavailable.

02.1 Corporate governance and ethics

The meetings of the Board of Directors



Attendance of the members of the Board of Directors

	2019	2020	2021
General statistics	100 %	100 %	100 %
Karymsakov Beibit Yerkinovich	100 %	100 %	100 %
Zhamiev Almat Kunzholovich	–	100 %	100 %
Zhulamanov Bakitzhan Tolevzhanovich	100 %	100 %	100 %
Akchulakov Bolat Uralovich	–	–	100 %
Andreas Stoerzel	100 %	100 %	100 %
Joaquin Galindo Velez	100 %	100 %	100 %
Yessimkhanov Sungat Kuatovich	–	–	100 %
Kravchenko Andrei Nikolaevich	–	–	100 %

ITEMS WITH REGARD TO WHICH THE BOARD OF DIRECTORS MADE DECISIONS



The role of the Board of Directors in determining the Company's Strategy and monitoring its implementation

The Board of Directors is directly involved in the development and monitoring of the implementation of the company's main document – the Development Strategy.

The main roles of the Board of Directors on the issues of the Company's Development Strategy are the development/ updating, approval and monitoring of the Company's

Development Strategy. In 2021, "Samruk-Energy" JSC performed a comprehensive work on updating of the Development Strategy for the coming years. In the course of this work, issues on macroeconomic and industry trends, market development prospects, analysis of the internal environment, PESTEL analysis, SWOT analysis, benchmarking results and other issues were considered jointly during the meetings of the Strategic Planning Committee, the Board of Directors, and strategic sessions. The result of the work is the calculation of target values of strategic KPI.

10 strategic sessions were held in 2021, where the issues related to the market trend in the future and changes in tariff regulation, improving the performance of existing facilities, innovative development, enhancing the Company's financial stability and many other issues were discussed.

The role of the Board of Directors in the corporate risk management and internal control system

The role of the Board of Directors in risk monitoring is based on the principle of a risk-based decision-making approach. The approach "possible risks in adopting and not adopting the resolution" is applied to all decisions made by the Managing body. The Charter of the Company clearly delimits the responsibility between the bodies: the exclusive competence of the Board of Directors includes such items as increasing liabilities by 10 percent or more of the Company's equity; acquisition or alienation of 10 or more percent of shares of other legal entities; as well as issues related to operations of legal entities, 10 or more percent of shares of which is held by "Samruk-Energy" JSC.

The Board of Directors has established risk appetites – restrictions on the types of the Company's business: operating, financial, and investment activities. These restrictions include such indicators as minimum restrictions on the degree of investment development; minimum restrictions on the technical readiness of generating capacities; restrictions on the timing of the implementation of the Roadmap of the Digital Transformation Program, financial restrictions, for example, foreign exchange transactions and liquidity issues; restrictions on new investments, etc. The Board of Directors, as part of the Risk Management Report, regularly conducts detailed monitoring of the implementation of all the above restrictions every quarter and, if necessary, gives specific instructions. Thus, at the initiative of the Company's Board of Directors, the information regarding the information security of "Samruk-Energy" JSC, occupational safety, the degree of production readiness of facilities to bear loads, the current situation in terms of exposure to credit risk, etc is considered during the meetings regularly every quarter.

Participation of the Board of Directors in the risk management system is significant and highly effective; key risks are monitored on a quarterly basis: information on changes in exposure to these risks is provided, and the implementation of mitigation plans for them is monitored.

The role of the Board of Directors in monitoring investment projects

Major and significant investment projects at "Samruk-Energy" JSC group is implemented if there is a positive approval of the Board of Directors. These requirements and procedures are clearly described and regulated by the Rules for the management of capital investment projects.

Furthermore, the members of the Board of Directors are provided with a report on the Company's investment activities every quarter. After the end of the calendar quarter, independent directors of the Board of Directors are presented with a detailed report on investment projects: detailed schedules, plans and necessary measures to achieve project milestones (points) are discussed at a meeting of the Strategic Planning Committee.

The role of the Board of Directors in promoting ESG principles

The Board of Directors implements the sustainable development policy and reviews the main ESG documents. The Board of Directors approved the Guidelines in sustainable development, which is the main document in this area, which is aimed at systematizing the processes of sustainable development at "Samruk-Energy" JSC group. The Board of Directors approved the Plan of Initiatives in sustainable development, prepared for the medium term until 2023. The plan contains initiatives in three areas – economic, environmental, and social, which include activities, timing, and efficiency of the implementation of these initiatives. Initiatives are considered annually at a special strategic session with the participation of members of the Board.

In 2021, the Board of Directors determined the direction in ESG and, as part of the updated Development Strategy for 2022–2031, the Company is making arrangements for receiving ESG rating from internationally recognized analysts.

Continuity of performance of the Board of Directors

To maintain continuity of performance and progressive renewal of the composition of the Board of Directors, the Company has a Succession Plan for "Samruk-Energy" JSC Board of Directors including, among other things, an Action Plan for its implementation.

The procedure for appointment and selection of candidates for members of the Board of Directors, its committees, as well as the criteria used in the nomination and selection considering



02.1 Corporate governance and ethics

diversity factors, including, but not limited to independence, professional qualifications and experience, is carried out in accordance with the Regulations on the Board of Directors, the RK Law "On joint-stock companies", Corporate Governance Code. These documents regulate the procedures used by the Board of Directors to prevent and manage conflicts of interest.

The Company has approved the Induction Program for newly elected members of the Board of Directors, which allows the newly elected member of the Board to learn about their rights and obligations, key aspects of the Company's activities and documents, including those associated with huge risks.

Remuneration of members of the Board of Directors

Independent directors receive annual fixed remuneration for performing their duties as members of the Company's Board of Directors. The amount and procedure for paying remuneration is determined by the decision of the Sole Shareholder.

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 "Samruk-Energy" JSC Board of Directors held outside the place of the permanent residency of an independent director.

In total, remuneration to independent directors for 2021 amounted to 122,222 US dollars or 52,527,182 tenge, which is 46% less compared to the previous period (in 2020 – 76,937,592 tenge).

Conflict of interest

A number of actions are taken to create an effective system for managing conflicts of interest and to set the requirements for employees' behavior, the observance of which allows mitigating the risks of making decisions under the influence of personal interests and connections in the Company.

The Policy on settlement of corporate conflicts and conflicts of interest has been in effect since 2018, under which executives and employees from the head of the department and those holding higher positions, fill in the declaration of absence of a conflict of interest.

Preliminarily, to eliminate corruption risks and conflicts of interest in the selection process, candidates for vacant positions at "Samruk-Energy" JSC and senior positions at subsidiaries and affiliates (according to the list of positions) are checked for compliance with expertise requirements and affiliation with officials of "Samruk-Kazyna" JSC group.

In accordance with the Policy for Settling Corporate Conflicts and Conflicts of Interest, members of the Board of Directors did not have a conflict of interest in 2021, situations at which personal interest of the Board of Directors members could affect the proper performance of their job responsibilities were unavailable; situations with conflicts of interest that affect or could potentially affect the impartial decision-making were not reported, the members of the Board of Directors were not involved in the discussion and adoption of such decisions.

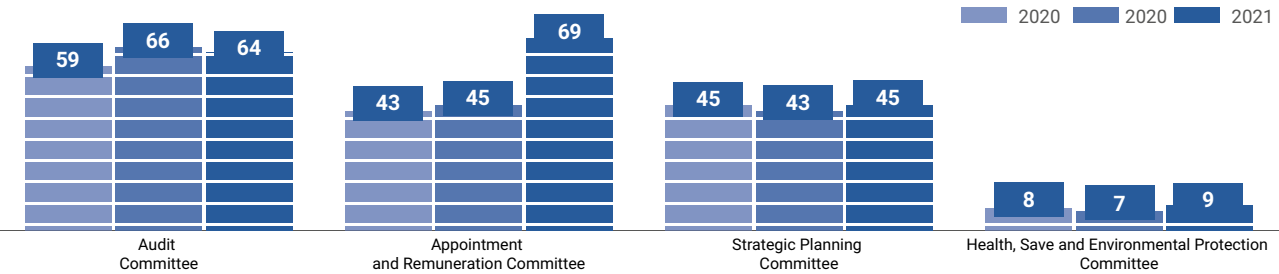
THE BOARD OF DIRECTORS COMMITTEES

The Board delegates authority to its committees to carry out certain tasks on its behalf, so that it can perform its roles effectively and give an appropriate attention to more in-depth study and quality study of issues and decisions taken.

The Company has Committees under the Board of Directors responsible for preparing recommendations on economic, environmental and social issues: the Audit Committee, the Appointment and Remuneration Committee and the Strategic Planning Committee, as well Health, Safety and Environmental Protection Committee. Based on the in-depth study and developed recommendations of the Committees, the Board of Directors makes decisions on the specified aspects, taking into account the principles of sustainable development.

THE REPORT ON PERFORMANCE RESULTS OF THE BOARD OF DIRECTORS COMMITTEES

The number of items considered at the meetings broken down Committees



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:

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

Number of the audit committee meetings

	2019	2020	2021
Number of meetings	8	8	7
In presentia	8	8	7
In absentia	0	0	0
Attendance of the Committee members with voting rights	100%	100%	100%
The number of items considered in 2021	64		

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:

- Joaquin Galindo – Independent Director, Chairman of the Committee
- Andreas Stoerzel – Senior Independent Director, member of the Committee

02.1 Corporate governance and ethics

Number of meetings of the Appointment and Remuneration Committee

	2019	2020	2021
Number of meetings	8	9	8
In presentia	8	9	8
In absentia	0	0	0
Attendance of the Committee members with voting rights	100%	100%	100%
The number of items considered in 2021	69		

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 were provided as regards a preliminary review of the Program for succession to key positions of CEO-1 for 2021–2022, on the preliminary approval of the job description and assessment of the position of the Managing Director for Business Transformation, on the preliminary review of the individual development plan of the Managing Director for Business Transformation – a member

of the Management Board of “Samruk-Energy” JSC for 2021, on preliminary approval of the Report on the progress of implementation of the HR policy of “Samruk-Energy” JSC, on approval of the organizational structure of the Company in the new edition.

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 Committee's composition:

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

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.

Number of the Strategic Planning Committee meetings

	2019	2020	2021
Number of meetings	8	8	8
In present	8	8	8
In absentia	0	0	0
Attendance of the Committee members with voting rights	100%	100%	100%
Number of items considered in 2021	45		

Main items considered

**Consideration of the following Reports every quarter:** on preliminary consideration of the Development Strategy for 2022–2031, 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 Development Plan of the Company, on the use of investments in the investment projects of the Company, on the progress of the Company's Digital Transformation Program.

**Consideration** of the Company's Materiality Matrix, Innovation policy of “Samruk-Energy” JSC, Financial strategy of the Company, project on major repair of power unit No.4 of Ekibastuz SDPP-1 worth more than 1 bn.tenge, the list of

non-strategic assets (divestments) subject to withdrawal at the Company level, stakeholder engagement and feedback mechanism report for 2020.

Health, Safety and Environmental Protection Committee

The purpose of the Committee is to ensure an increase the Company's performance by preparing recommendations for the Board of Directors, evaluation, analysis and effective work on occupational safety and environmental protection issues.

The Committee's composition:

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

Number of Health, Safety and Environmental Protection Committee meetings

	2019	2020	2021
Number of meetings	4	4	5
In present	4	4	5
In absentia	0	0	0
Attendance of the Committee members with voting rights	100%	100%	100%
The number of items considered in 2021	9		

Main items considered

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

Consideration of the Policy of the corporate governance system of “Samruk-Energy” JSC group, the Action Plan for management of occupational health and safety and environmental protection issues at the Company's group for 2021.

THE EXECUTIVE BODY

Day-to-day operations of the Company are managed by a joint executive body represented by the Management Board.

The Management Board, by interacting in a collaborative way with the Board of Directors and all stakeholders, ensures compliance with the Company's performance, development strategy, development plan and decisions made by the Sole Shareholder and the Managing Body.

The chairman and members of the executive body have sufficient knowledge, skills, and experience to perform their roles, as well as have spotless business and personal reputation.

Composition of the Management Board

1. Yessimkhanov S.K.
2. Tutebayev S.S.
3. Ryskulov A.K.
4. Ivchenko E.D.
5. Adylkerimov A.A.

Changes in the composition of the Executive Body for date of approval of this Annual Report

Zhatkanbay Ruslan, member of the Management Board, ceased powers by the resolution of “Samruk-Kazyna” JSC Board of Directors dated January 27, 2022 (Minutes No.01/22).

By the decision of the Board of Directors of Samruk-Energy JSC dated May 27, 2022 (Minutes No. 06/22) by members of the Management Board Elena Ivchenko and Arman Adylkerimov were elected.



02.1 Corporate governance and ethics



**Yessimkhanov Sungat Kuatovich**

*Chairman of the Management Board*

**Citizenship:** the Republic of Kazakhstan

**Date of birth:** November 30, 1973

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](http://www.samruk-energy.kz)



**Tutebayev Serik Suinbekovich**

*Managing Director for Production and Asset Management, member of the Management Board*

**Citizenship:** the Republic of Kazakhstan

**Date of birth:** May 27, 1985

Coordinates and supervises activities across “Samruk-Energy” JSC group of companies: production and technical of the group of companies, coordination and 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](http://www.samruk-energy.kz)



**Ryskulov Aidar Kairatovich**

*Managing Director for Economy and Finance, member of the Management Board*

**Citizenship:** the Republic of Kazakhstan

**Date of birth:** September 20, 1981

He coordinates the Company’s operations in financial and economic matters, asset and liability management, fund raising, 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](http://www.samruk-energy.kz)



**Ivchenko Elena Dmitrievna**

*Managing Director for Development, Sales and Changes, Member of the Management Board*

**Citizenship:** Republic of Kazakhstan

**Date of birth:** April 09, 1975

Supervises and ensures the organization of work in the group of companies of JSC “Samruk-Energy” on international cooperation, development and implementation of sales Strategy, analysis of domestic and foreign markets of electricity, capacity and coal, development, management of investment projects, investment attraction, project management Transformation and digitalization.

You may learn more about her resume on the website: [www.samruk-energy.kz](http://www.samruk-energy.kz)



**Adylkerimov Arman Adylkerimovich**

*Managing Director for Legal Support, Collateral and Risks*

**Citizenship:** Republic of Kazakhstan

**Date of birth:** September 24, 1980

Controls and ensures the organization of work in the “Samruk-Energy” JSC group of companies to protect the rights and interests of the Company and SDEs in accordance with the legislation of the Republic of Kazakhstan, ensure and control the risk management system, internal control system, sustainable development management, corporate governance, management.

You may learn more about his resume on the website: [www.samruk-energy.kz](http://www.samruk-energy.kz)

THE MANAGEMENT BOARD PERFORMANCE

The number of meetings of “Samruk-Energy” JSC Management Board

	2019	2020	2021
Number of meetings	39	35	36
The share of in-person meetings	100%	100%	100%
Attendance	99.74%	92.3%	95.6%
The number of items considered	418	504	402

The Management Board limited the cases of holding meetings in absentia. The items of implementing the development strategy, decisions of the Sole Shareholder, the Board of Directors and day-to-day activities were discussed at the in-person meetings. Particular attention was paid to occupational health and safety issues.

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 of SA, 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’ bodies, etc.



02.1 Corporate governance and ethics

Remuneration of the Management Board members

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.

In thousands of Kazakhstani tenge	2021	2020
Key executive staff	318,044	210,832
Total remuneration of key executive staff	318,044	210,832

Key executive staff remuneration consists of salaries, bonuses and other short-term employee benefits. Key management staff

as at 31 December 2021 comprises 4 people (31 December 2020: 5 people).

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 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 also develops 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;
- **Members of the Committee** – Managing Director for Business Transformation, 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 Compliance Service (without voting right).

2021 Report	
Number of meeting	4
Number of items considered	9
Attendance, %	100

2021 Report	
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 4 <sup>th</sup> quarter of 2020, 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> quarters of 2021; 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 2022. On preliminary approval of risk appetite of "Samruk-Energy" JSC for 2022–2028. On consideration of the Report on execution of the Department's Work Plan for 2021. On consideration of the Report on execution of 2021 Work Plan of the Committee for Risks and approval of the Work Plan of the Risk Committee for 2022. On approval of the Department's Work Plan for 2022.

The Committee for Planning and Performance Evaluation

The main goal of the Committee is to increase the efficiency of the "Samruk-Energy" JSC group of companies, including optimizing the structure of their assets and costs, 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)

2021 report	
Number of meetings	53
Number of items considered	106
Attendance, %	100
Key items	Approval of the adjustment of the Head Office and SA budget within the approved indicators of the Annual Budget for the first calendar year. Consideration of the report on implementation of SA Development Plan for the 1 <sup>st</sup> half of 2021. Consideration of the draft SA Development Plan for 2022–2026.

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 stages of the pre-investment and investment project, development of recommendations on the transition to the next stage; acquisition and alienation by the Company of shares (equity stakes) of other legal entities, including within the framework of the implementation of the priority right to acquire the right of

subsoil use of an object related to the right of subsoil use, the merger of the "Samruk-Energy" JSC group of companies with third-party legal entities, establishment 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





02.1 Corporate governance and ethics

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.	
2021 report	
Number of meetings	9
Number of items considered	42
Attendance, %	80%
Key items	On certain matters regarding implementation of the project "Reconstruction of cable grids in Almaty city".
	On approval of adjustment of the design and estimate documentation for pre-commissioning works of the investment project "Rehabilitation of power unit No.1 with installation of new electrostatic precipitators".

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 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 Risks and Legal Affairs; Director of Treasury and Corporate Finance Department; Director of Risk Management and Internal Control Department; Head of the Office "Projects portfolio management"
- **Independent expert** – Head of Compliance Service.

2021 report	
Number of meetings	7
Number of items considered	8
Attendance, %	89%
Key items	Matters related to obtaining/providing loans and financial assistance, placing free funds of "Samruk-Energy" JSC on deposits in second-tier banks were considered.

Health, Safety and Environmental Protection Committee

The aim of the Committee is to ensure effective work in resolving issues related to occupational safety 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 occupational safety 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;

2021 Report	
Number of meetings	4
Number of items considered	14
Attendance, %	100
Key items	Consideration of Reports on the work performed in occupational health and safety, workplace injury and environmental protection.
	Consideration of the annual report on the Committee's performance.

COMPLIANCE RISK AND COMPLIANCE CULTURE MANAGEMENT IN "SAMRUK-ENERGY" JSC

Compliance is one of the principles of "Samruk-Energy" JSC business. Abiding by the rules allows us to remain a team of professionals united by common goals, a culture of behavior and traditions, and helps to maintain mutual understanding at an appropriate level both in the Company itself and with business partners and customers.

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 group, creating zero tolerance for corruption and bribery, building an anti-corruption culture and preventing compliance risks.

The Company created its approach based on the following principles:

- Active involvement and support from management in the development of compliance system. The Company's Board of Directors regularly reviews reports on implementation of compliance program.
- The company regularly carries out activities aimed at identifying of corruption risks and after updates them.
- The company develops and implements anti-corruption procedures that meet the level and nature of identified risks, improves and updates internal policies and procedures.

Hot line

Email address: sk.hotline@deloitte.kz

Telephone: 8 800 080 19 94

- The company implements and maintains employees training program on the principles and standards of compliance with anti-corruption legislation.
- The company controls over effectiveness of the implemented procedures to prevent corruption.
- To mitigate the risk of the Company's involvement in corruption activities, the Company has developed due diligence procedures both in relation to counterparties and in relation to individuals. One of the key tools of the Company's compliance program is the due diligence of third parties, partners, contractors that establish relations with the Company. In order to eliminate corruption risks and risks of loss of business reputation, the Service implemented the practice of third parties due diligence. To extend the application of the Code of Conduct provisions to business partners, suppliers and other third parties who work with the Company, the provisions of "Anti-corruption clauses" are included in standard business contracts.

**The Company's compliance program is fully supported by the Board of Directors and the Management Board and is an integral part of the Company's culture.**

In 2021, for the purpose of implementing anti-corruption activities, the positions of compliance officers were introduced in the organizational structures of "Samruk-Energy" JSC subsidiaries and affiliates.

02.1 Corporate governance and ethics

According to the 2021 results, compliance officers conducted more than 50 training activities across “Samruk-Energy” JSC group, which included explanations about changes in anti-corruption legislation, tax declaration, hotline operation.

To build an anti-corruption culture and zero tolerance for any form of bribery and corruption, trainings explaining the requirements, adopted compliance policies and anti-corruption laws were held for employees of “Samruk-Energy” JSC group.

In 2021, the following activities were performed as part of anti-corruption activities:

1. on April 15, 2021, a Memorandum of Cooperation was signed between Samruk-Energy JSC, the Chamber of Legal

Advisers “Kazakhstan Bar Association” (KazBar) and PF “Legal Policy Research Center” (LPRC);

2. the Action Plan for the implementation of requirements of the Republic of Kazakhstan Law “On Combating Corruption” dated November 18, 2015 No. 410-V RKL at “Samruk-Energy” JSC and SA was developed and approved by the BoD resolution No. 11/20 dated 06.1.2020.
3. corruption risks of the entire “Samruk-Energy” JSC group were studied.

All employees of “Samruk-Energy” JSC group learned about requirements of the Code of Business Conduct, the Anti-Fraud and Anti-Corruption Policy, and employees were tested.

Anti-corruption policies and methods training

Name	Total	Administrative and management staff	Production staff	Training Actual
“Samruk-Energy” JSC	167	167	–	100%
“AlmatyEnergoSbyt” LLP	509	56	453	100%
“Moynak HPP” JSC	123	22	101	100%
“Shardarinsk HPP” JSC	137	20	117	100%
“Ekibastuz SDPP-2” JSC	1,417	86	1,331	100%
“Alatau Zharyk Company” JSC	3,822	129	3,693	100%
“APP” JSC	3,116	174	2,942	100%
“Ekibastuz SDPP-1” LLP	1,393	115	1,278	100%
“Bogatyr Komir” LLP	7,298	472	6,826	100%
“Samruk-Green Energy” LLP	22	8	14	100%
“FWPP” LLP	29	11	18	100%
“Energia Semirechya” LLP	21	21	–	100%
“Bukhtarminsk HPP” JSC	10	10	–	100%
“Tegis Munay” LLP	3	3	–	100%
“Ereymentau Wind Power” LLP	14	14	–	100%
“Kazhydrotechenergo” LLP	2	2	–	100%
“Energy Solutions Center” LLP	68	18	50	100%
<b>TOTAL</b>	<b>18,151</b>	<b>1,328</b>	<b>16,823</b>	<b>100 %</b>

As part of compliance program, all employees and stakeholders are provided with communication tools like Hotline (Speak up) so that they can report their concerns regarding actual and suspected violations of legislation, regulatory requirements and internal ethics documents and compliance. Individuals reporting violations are given the opportunity to send a message on a confidential and anonymous basis, as well as guarantees that they will be prevented from harassment and their rights and interests will be protected. To comply with the best international practices and protect the interests of informants, the hotline is administered by an independent company “Deloitte”, all complaints and requests received through the hotline are registered and transferred to the Compliance Service, which ensures professional and confidential consideration. In order to process the message in the most efficient way, there is a function of leaving a contact information, but a person can also leave an anonymous message. Regarding anonymous complaints, responses are given to an independent company for further forwarding them to a person who submitted a complaint/inquiry.

In 2021, the Compliance Service of the Company considered 70 appeals and complaints received by the Company and the hotline.

OMBUDSMAN

The Ombudsman performs his roles at the Company to protect employees’ rights. The Ombudsman is a high-level independent manager who reports to the Board of Directors, whose principles of work are independence, neutrality, impartiality, and confidentiality. The Ombudsman promotes the institution and development of corporate values and culture, high standards of professional behavior and business ethics at the Company. Akylov Nariman Beketovich was appointed as the Ombudsman of the Company from April 1, 2021 by the resolution of “Samruk-Energy” JSC Board of Directors dated March 30, 2021.

The Ombudsman tasks are:

- assistance in resolving labor disputes, conflicts, problematic social and work-related issues as well as in observing the principles of business ethics by employees;
- assistance in improving the rating and image of the supervised Company, early prevention and settlement of disputes and conflicts;

Compliance checks and investigations were carried out, as well as scheduled checks on request of the Audit Committee were conducted during consideration of appeals and complaints. As a result of the audit, violations of the requirements of legislation and internal documents in the processes were revealed across “Samruk-Energy” JSC group, recommendations on elimination and reducing risks were provided, disciplinary actions against heads and responsible persons were taken.

At year-end 2021, 1 corruption offense in actions of chief engineer of “AZhC” JSC PDZ was reported across the Company’s group. According to the court verdict of November 2, 2021, the employee was found guilty. In order to prevent similar situations, as well as the formation of an anti-corruption culture and zero tolerance for any form of bribery and corruption, training events were held for employees of the group of companies of “Samruk-Energy” JSC to clarify the requirements, adopted compliance policies and anti-corruption legislation. Cases of termination of contracts with business partners in connection with violations related to corruption were not recorded.

No cases of discrimination were recorded in 2021.

**Email address:** akylov@samruk-energy.kz,  
ombudsman@samruk-energy.kz  
**Telephone:** +7 (7172) 55-30-15

- provide informal communications between officials and employees of the Company, identify issues and areas for improvement followed on from such informal communication results, making proposals for improving the policies and procedures of the Company.

The Ombudsman annually communicates problematic issues identified by him, which are of a systemic nature and require the adoption of appropriate decisions (comprehensive measures), to the Board of Directors, and gives effective suggestions for their solution.

The Ombudsman received more than 50 appeals in 2021, the vast majority of which are related to consultations on labor law and the provisions of the code of business ethics. Most of the appeals raised the issues of social and labor relations; social status (position); dissatisfaction with wages and bonuses; application of the regional coefficient; surcharges for harmfulness and overtime; health insurance, etc.



02.1 Corporate governance and ethics

Appeals related to dangerous working conditions during the pandemic, such as the purchase and issuance of personal protective equipment, the quality of protective clothing were reported during the reporting period.

The Ombudsman held consultations on all appeals, provided comprehensive answers and recommendations, met (held

conversations) in person with employees and with the heads of subsidiaries and affiliates. Appeals and responses to them do not have a negative impact on the social stability of the Company. There was no case when employees reported to the Ombudsman regarding discrimination on racial, religious, national, gender, age, political and other grounds.

THE AUDIT OF OPERATIONS

The Internal Audit Service

The Internal Audit Service of "Samruk-Energy" JSC (hereinafter – the IAS) contributes to achieving strategic goals and tasks by providing independent, objective guarantees and advice aimed at improving risk management, internal control, and corporate governance systems at the Company.

The Service, when performing its tasks and roles in line with international professional standards, is independent owing to a corresponding status at the company, which provides organizational subordination and functional reporting of the IAS to the Board of Directors.

The Board of Directors, being the supreme governing body of the Company, is responsible for control and supervision over operations and management staff of the Company.

For an in-depth study of issues within the competence of the Board of Directors, to supervise the performance of the Management Board and develop the necessary recommendations to the Management Board and the Board of Directors, the Audit Committee performs its roles under the Board of Directors, which is a permanent consultative and advisory body.

The Company has control processes – policies, procedures (automated / non-automated), and activities that are part of the control system, designed and implemented to ensure the level of risk, which the Company intends to take.

In its work, the IAS:

- ▶ assesses the efficiency of risk management processes and contributes to their improvement;
- ▶ regularly reports about the results of the quality assurance and improvement program to the Board of Directors and the Management Board;
- ▶ regularly provides the Board of Directors with progress reports and communicates information on the implementation

- of internal and external audit recommendations to the Management Board;
- ▶ prepares the IAS Annual Audit Plan based on risk assessment, considering the opinions of the Board of Directors, the Management Board and the Sole Shareholder.

The frequency of reporting and its content are determined in discussions with senior management and the Board of Directors and depend on the importance of the information reported and the urgency of action required by senior management and the Board of Directors of the Company.

The Internal Audit Service completed all 22 audits in 2021 in accordance with the Annual Audit Plan.

The audit tasks are prioritized by selecting processes with the highest inherent risks, as well as with priority requests for conducting audits from the Sole Shareholder and the Board of Directors of "Samruk-Energy" JSC.

The main directions of audits of the reporting period:

- ▶ evaluation of health, safety, and environmental protection processes;
- ▶ assessment of the degree of achievement of KPI by executive staff;
- ▶ audit of the business and financial performance;
- ▶ assessment of current and capital repairs and investments;
- ▶ diagnostics of corporate governance;
- ▶ evaluation of procurement processes.

All audit assignments are performed in accordance with the International Standards for the Professional Practice of Internal Auditing and contain conclusions, findings, and recommendations aimed at taking corrective/preventive measures to improve risk management, internal control, and corporate governance systems.

The IAS provided 191 recommendations as part of audit reports, those included 79 – category A, 102 – category B, and 10 – category C.

Following the results of 2021, the Board of Directors rated the IAS performance as "EFFICIENT".

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.

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 PwC Company, the largest centers of which are located in Moscow, London and Houston. PwC's World Energy Service, with more than 4,000 professionals.

More detailed information is available on [www.pwc.kz](http://www.pwc.kz) website.

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 Inkarebekova 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

02.1 Corporate governance and ethics

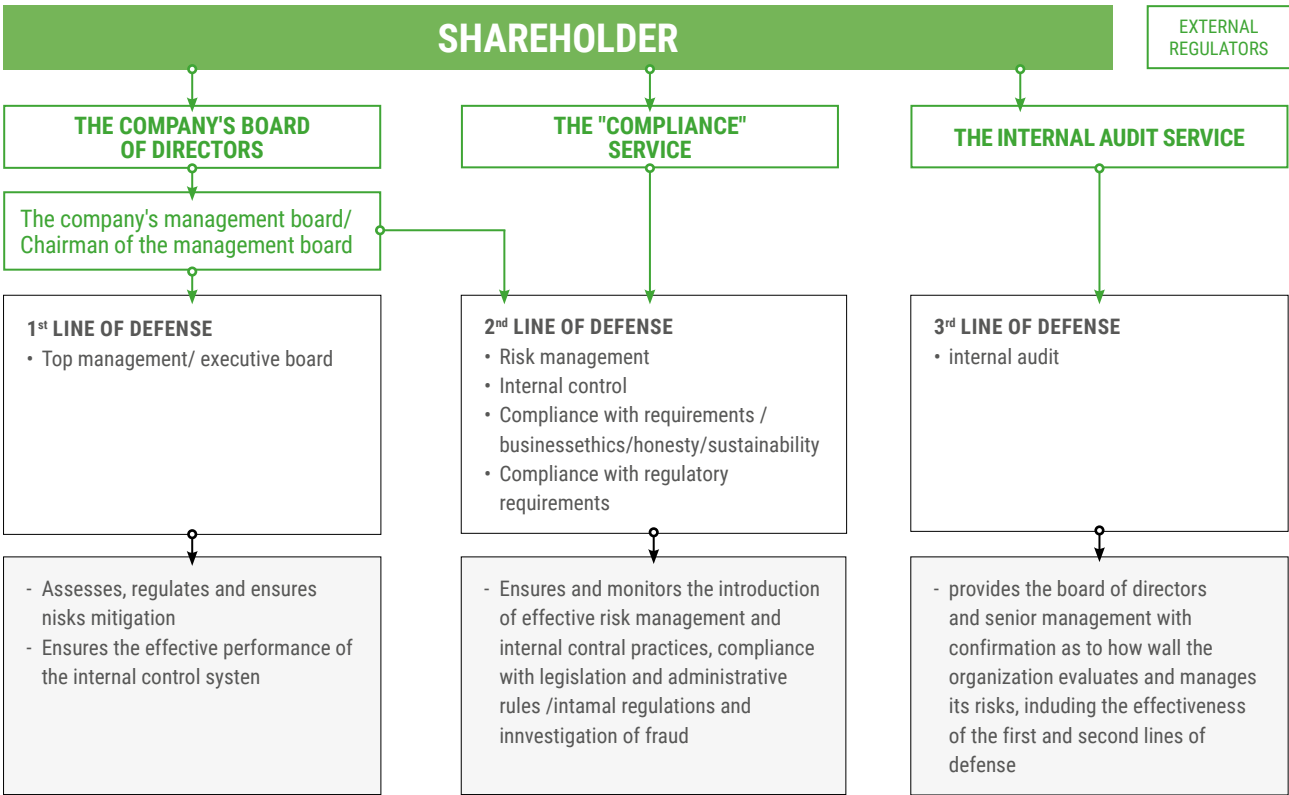
Fees paid to the audit firm for audit services in 2021

Services	"Samruk-Energy" JSC	"Samruk-Energy" JSC group of companies
Audit for 2021	32,408,800 tenge	159,323,729 tenge

PWC did not deliver services not associated with an audit of financial statements during 2021.

KEY IMPACTS, RISKS, AND OPPORTUNITIES

Corporate risk governance and internal control system effectively perform its roles and is regularly improved at the Company.



The risk management system allows the Management Board and the Board of Directors to effectively manage and allocate resources in priority areas to ensure the level of risks acceptable

to the Company and to get the most return on such investments by identifying, assessing, managing, and monitoring risks.

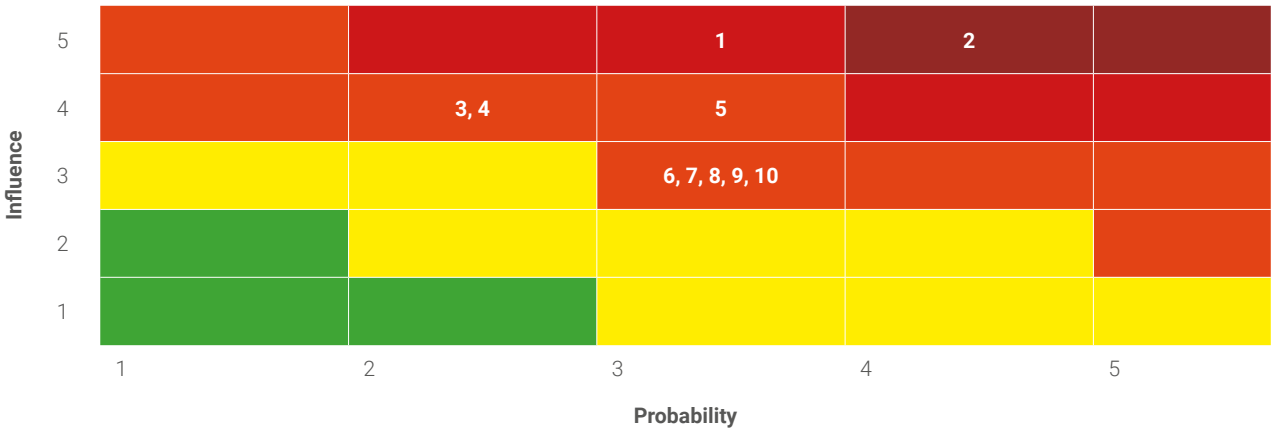


The organization of the internal control system involves the creation of a management system by the Company, which is capable of quickly responding to risks, controlling over the main and auxiliary business processes and daily operations of the Company, as well as immediately informing the management of the appropriate level about any significant shortcomings and areas for improvement.

The Board of Directors sets the Company's risk appetite both in quantity and quality terms every year; the risk appetite includes restrictions on core activities, and compliance with such restrictions is monitored every quarter.

The owners of key business processes update the risk and control matrices regularly, including the process of preparing

financial statements, and then they submit them to the Board of Directors of the Company for review and approval. The Risk Register, the Risk Map, KRP (key risk indicators) and the Action Plan for managing key risks are formed annually and submitted for consideration and approval by the Board of Directors of the Company. After considering the results of performed work on identification of "Samruk-Energy" JSC group's risks for 2021, 33 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. According to the results of revaluation, 10 risks were included into the key zone of the Risk Map for 2021 (in 2020 – 10 key risks):



Nº	Risk description
1	The risk of damage to health and life of employees during performance of their duties, workplace accidents
2	Risks of ongoing/ future investment projects and investment programs of "Samruk-Energy" JSC group
3	The risk of failure to fulfill the electricity sales plan
4	The risk of occupational accidents and disasters
5	The risk associated with digital transformation program implementation
6	The risk of human resources of the Company's group
7	Currency risk
8	Credit risk
9	Risk of tariff setting
10	The risk of violation of covenants of external creditors and listing requirements (without changes)



02.1 Corporate governance and ethics

Key changes in 2021 (mitigation of key risks)

Risk	Measures
Environmental risk (increase in probability and impact – transition to key zone) <i>New Environmental Code</i>	Measures aimed at reducing per unit greenhouse gas emissions are taken annually.
<i>Risks of ongoing/promising investment projects and investment programs of "Samruk-Energy" JSC group of companies (unchanged)</i> <i>The main deviation in underspending with regard to investment projects resulted from the project "Expansion and reconstruction of Ekibastuz SDPP-2 with installation of power unit No. 3" due to quarantine restrictions imposed by the PRC on the border with the Republic of Kazakhstan and the length of corporate procedures for concluding an agreement.</i>	The spending of planned investments is postponed to a later period.
The risk of accidents at work that caused damage to the health and life of employees during the performance of job responsibilities (increase in probability) <i>Since the beginning of 2021, 5 work-related accidents have been reported,</i>	In accordance with the Work Plan of HSE department.
Credit risk (unchanged) <i>Unstable situation in second-tier banks</i>	Monitoring compliance with limits for counterparty banks and regular assessment of STBs stability,
Risk of violation of covenants of external creditors and listing requirements (increase in probability)	Monitoring compliance with covenants, as well as financial stability ratios, measures to reduce the level of debt burden and interest payments,
Risk of failure to implement the electricity sales plan (unchanged)	Daily involvement in preparation of daily schedules for the supply of electricity to the wholesale market and participation in centralized trading, attracting consumers of the wholesale market of the Republic of Kazakhstan,
Risk associated with transformation program implementation (unchanged)	Monitoring the implementation of Roadmap,
The risk of occupational accidents and disasters (unchanged)	Performing major and current repairs, periodic surveys of the technical condition of equipment, conducting briefings and emergency response training for operational personnel of enterprises
Interest rate risk (increase in probability – transition to the key zone) <i>Increase in interest expenses because of rising inflation</i>	Refinancing of loans with floating rate,

During the process of formation and development of business processes, many innovative solutions have been created to manage possible and potential risks.

As practice has shown, in any business processes there are risks that need to be assessed and prevented.

Works on implementation of the project "Introduction of the new risk management model" have commenced since

November 2018; the project is an important part of corporate governance, and consists of 3 integrated subsystems subject to the following changes:

1. risk management system (system improvement);
2. internal control system (refinement of the system in terms of design assessment and testing of the operational efficiency of control procedures);
3. business continuity support system (system implementation).

At year-end 2021, as part of implementation of the project "Introduction of the new risk management model" (the Project), several activities have been carried out in stages, such as:

1. subsidiaries and affiliates that are key in the implementation of the Project were identified;
2. the plan for implementation of the Project was determined, which outlines the activities for "Samruk-Energy" JSC and its key subsidiaries and affiliates;
3. the processes that are involved in the implementation of the Project (production and IT processes) have been identified;
4. people responsible for ensuring the continuity of operations as part of the Project at "Samruk-Energy" JSC were appointed in and its subsidiaries and affiliates, appointed ("Ekibastuz SDPP-1 named after Nurzhanov" LLP, "Ekibastuz SDPP-2" JSC, "Almaty Power Plants" JSC, "Moynak Hydropower Plant" JSC, "Alatau Zharyk Company" JSC, "Shardarinsk hydropower plant" JSC, "AlmatyEnergoSbyt" LLP);
5. the processes identified at SA ("Ekibastuz SDPP-1 named after Nurzhanov" LLP, "Ekibastuz SDPP-2" JSC, "Almaty Power Plants" JSC, "Moynak Hydropower Plant" JSC, "Alatau Zharyk Company" JSC, "Shardarinsk hydropower plant" JSC, "AlmatyEnergoSbyt" LLP) were allocated into criticality groups;
6. internal regulatory documents have been developed (Internal control arrangement and implementation rules, business continuity rules) at subsidiaries and affiliates (Ekibastuz SDPP-1 named after Nurzhanov" LLP, "Ekibastuz SDPP-2"

JSC, "Almaty Power Plants" JSC, "Moynak Hydropower Plant" JSC, "Alatau Zharyk Company" JSC, "Shardarinsk hydropower plant" JSC, "AlmatyEnergoSbyt" LLP)

7. Business continuity plans and business continuity recovery plans were developed at "Samruk-Energy" JSC and its SA (Ekibastuz SDPP-1 named after Nurzhanov" LLP, "Ekibastuz SDPP-2" JSC, "Almaty Power Plants" JSC, "Moynak Hydropower Plant" JSC, "Alatau Zharyk Company" JSC, "Shardarinsk hydropower plant" JSC, "AlmatyEnergoSbyt" LLP)
8. Draft Methodology for testing the internal control system was developed on the basis of existing Rules for arrangement and implementation of internal control for key subsidiaries and affiliates as part of the Project implementation;
9. Draft Methodology for testing the business continuity management system was developed on the basis of existing Business Continuity Rules for key subsidiaries and affiliates as part of the Project implementation;
10. trial testing of internal control and business continuity management systems was conducted at "Ekibastuz SDPP-2" JSC, "Almaty Power Plants" JSC, "Moynak Hydropower plant" JSC, "Alatau Zharyk Company" JSC;
11. awareness raising activities were held regularly during the reporting period as part of the Project activities;
12. inspections of the Project implementation activities were carried out (off-premise).





# SR

## THE REPORT ON ACTIVITIES IN SUSTAINABLE DEVELOPMENT

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Online version of the report  
is available on the Company's  
website  
[www.samruk-energy.kz](http://www.samruk-energy.kz)

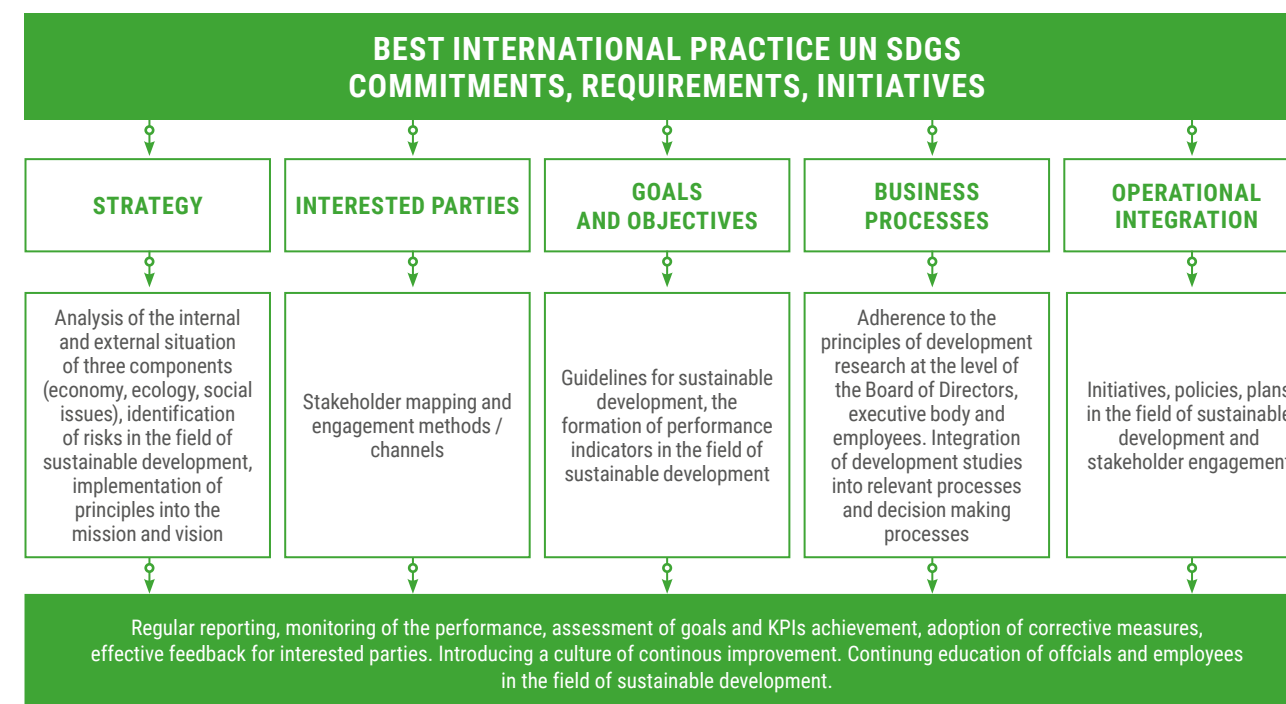


03|1

## SUSTAINABILITY AND COMPLIANCE WITH THE ESG PRINCIPLES



The Company recognizes the importance of its impact on the economy, the environment and society and, while striving to increase long-term value, ensures its sustainable development in the long term, balances interests of stakeholders.



The principles of sustainable development are implemented in the context of three levels:

1. **Strategic integration** – the principles of sustainable development are incorporated into the Strategy (for more details, see the "Company's development strategy" section);
2. **Operational integration** – all corporate decisions are made by the Company's management based on the criteria of compliance with the principles and goals of sustainable development;
3. **Cultural integration** is implemented as part of conducting training at the Company, posting articles on the corporate portal of the Company, as well as within the Code of Conduct (for more details, see the section "Social Aspect").

"Samruk-Energy" JSC updated the Development Strategy in, according to which the Company plans to accomplish the mission and vision from the perspective of ESG principles, by choosing Sustainable Development as one of the key priorities of the Strategy.

The key factors of sustainable development for the Company are the well-being of people, ecological balance and, at the same time, ensuring the long-term financial stability of the company. Accordingly, the Company's operations determined

for 2022–2031, are based on the consistency of environmental (E), social (S) and management (G) principles, while maintaining a balance of interests of all stakeholders.

The company, applying a risk-based approach in its operations, strives to achieve a stable increase in value and enhance competitiveness in the long term.

To this end, a comprehensive risk assessment is conducted regularly, using risk management tools and a systematic approach to sustainable development:

1. assessment of current and future risks associated with the effect of global factors of sustainable development;
2. forecasting economic, socio-demographic and environmental trends;
3. analysis of social, environmental and economic aspects of current impact of the Company on the region where it operates;
4. development of measures aimed at managing the Company's impacts on the region where it operates, mitigate risks and realize opportunities;
5. enhancing the risk culture in general, analyzing the effectiveness of risk management actions, identifying opportunities associated with current and future risks.



03.1 Sustainability and compliance with the ESG principles

Key trends and risks in sustainable development for the Company

Economic aspect		
Trends	Risks	Opportunities
Slowdown in electricity consumption growth rate	Deterioration of the macroeconomic environment, slowdown in growth in demand for electricity; high planned rates of commissioning of new facilities that exceed the actual growth in demand	Efficient use of the existing portfolio of assets
Growing instability of the economic system due to the susceptibility of resource-extracting industries to crises because of global price volatility	Increasing the likelihood of crises that hinder access to financing for new projects	Improvement of production efficiency, upgrading of existing assets
Increasing energy conservation and increasing the energy efficiency of the economy	Lowering of demand for electricity from conventional generation	Use of coal combined with advanced clean coal technologies
Environmental aspect		
Trends	Risks	Opportunities
The trend towards decarbonization of the economy	Deterioration of competitive position of coal generation in comparison to gas, HPP, NPP, RES.	Receipt of loans under favorable terms for the development of new projects (clean coal, underground coal gasification, methane production, development of renewable energy generation); improving the quality of the fuel used
Tightening of environmental legislation	Tightening of environmental regulations and standards; increase in payment rates for emissions; tightening requirements for water consumption – transition to recycling water supply, tightening regulation of greenhouse gas emissions; waste disposal costs	Increasing the use of green technologies
Growth of environmental requirements of local communities	Media activity in sharing environmental information while there is no sufficient professional analysis, creation of a negative image of the Company	PR as a "green" leader and responsible nature management entity, increasing the loyalty of the society
Social aspect		
Trends	Risks	Opportunities
Slowdown in population growth rate	Slowdown in electricity demand growth rate	Development of export capacity, if feasible
Increasing demand for highly qualified personnel	Lack of qualified specialists needed, "outrunning" an increase in the cost of labor and growth in the share of payroll in costs	Performance improvement; enhancing the quality of production; improving the quality of education and training of specialists
Decreased attractiveness of work in the industrial sector	Growing challenges in filling company's job openings	Development of a personnel reserve, succession of positions within the Company

Based on these principles, external and internal assessment of the Company's operations, risks in sustainable development, in order to effectively and successfully manage economic, environmental and social aspects, the Company implements sustainable development initiatives in the following areas:

1. introducing high ethical standards and building a corporate culture based on trust;
2. the introduction of the principles of sustainable development and the application of a risk-based approach to the practice of project management at all investment stages: assessment and management of the impact on social, environmental and economic environment (involuntary resettlement, biodiversity, cultural heritage, etc.) in accordance with the Company's Guide in sustainable development;
3. enhancing financial stability;
4. promoting responsible procurement based on the principles of fair and free competition, mutual benefit, transparency and full responsibility for the obligations assumed, as well as introducing a requirement for suppliers to comply with ethical standards and Guiding principles for the Company's suppliers, set out in the Company's sustainable development guidelines;
5. improving the safety culture through the involvement of employees in the occupational safety management system and improving the efficiency of control over OHS management system using international standards;
6. increasing of social responsibility, following the principles of the UN Global Compact, investing in human capital;
7. ensuring environmental sustainability, including the search for and implementation of the best technologies from an environmental and economic perspective, streamlining of production processes, implementation of projects using renewable energy sources, identification and prevention of potential emergencies.


All initiatives are prioritized based on the importance of a certain initiative for all key stakeholders.

The report on the implementation of the 2021 sustainable development initiatives plan has been posted on the corporate website of the Company: <https://www.samruk-energy.kz/ru/sustainability>


"SAMRUK-ENERGY" JSC CONTRIBUTION TO 17 SUSTAINABLE DEVELOPMENT GOALS

"Samruk-Energy" JSC, integrating the principles of sustainable development in its business, declares its commitment to the 17 Sustainable Development Goals. The company is aware that the environmental and social issues that reflect each of the SDGs are relevant and affect any organization.

"Samruk-Energy" JSC, in its operations, seeks to contribute to the achievement of the following UN sustainable development goals:



**Goal 1: End poverty in all its forms everywhere**



**Goal 2: End hunger, achieve food security and improve nutrition, and promote sustainable agriculture**

"Samruk-Energy" JSC group of companies strives to preserve jobs and index wages (according to the results of 2021, indexation averaged 5%). In 2021, the average salary of employees in the Company's group increased in relation to the same indicator by 14%. In 2021, the average salary of employees across the company's group increased in relation to the same indicator from 273,628 tenge to 311,652 tenge.

The ratio of the minimum wage for women to the minimum wage for men is 100%. "Samruk-Energy" JSC, in accordance with Collective Bargaining Agreement, provides for: payment for overtime work, payment for work on holidays and days off, at night, allowances and additional payments, remuneration for labor of workers engaged in heavy work, work in hazardous (especially harmful), dangerous working environment, additional paid annual leave, financial assistance in connection with the birth of a child, financial assistance for the wedding and a one-time incentive in connection with the anniversary of employees (50, 60 and 70 years). According to Collective Bargaining Agreement, employees are paid a compensation payment in the amount of 3 wages upon termination of the employment contract, in connection with retirement (for more details, see the Social Aspect section).

The company seeks to ensure uninterrupted power supply to all regions where it operates, including in remote areas and settlements, for the possibility of sustainable farm management by local population.

03.1 Sustainability and compliance with the ESG principles

"Samruk-Energy" JSC, being a socially responsible company, strives to pay attention to the social well-being of the regions where subsidiaries are located. In An active cooperation with "SK-Trust" CF on the possibility of obtaining support and implementing charity programs in the regions of subsidiaries' location has started in 2019.

Every year the Company implements several social initiatives to help people with disabilities, the poor, retired employees, and patients suffering from cancer (for more details, see "Social aspect" section)



**Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

The total cost of education in 2021 was 306,428 thous. tenge. The number of trained employees is 13,873 (79% of the headcount across the Company's group).

The average number of training hours per employee was 49.5 hours per year. Employees who combine work with study at educational organizations are also provided with additional vacations for the period of examination or orientation sessions, preparation, and defense of a graduation project (thesis), passing final exams. "Samruk-Energy" JSC cooperates with leading domestic universities, one of the priority areas in training is the certification of personnel according to internationally recognized training programs (for more details, see the "Social Aspect" section).



**Goal 5: Achieve gender equality and empower all women and girls.**



**Goal 10: Reduce inequality within and among countries.**

Samruk-Energy" JSC recognizes that gender equality is a basic human right, a key pillar for achievement of peace, prosperity and sustainable development. "Samruk-Energy" JSC supports 7 Principles for the Empowerment of Women developed as part of UN-Women partnership and the United Nations Global Compact. This document involves a commitment to the principles of gender equality as a key element of sustainable development, as well as a conviction that companies that provide women and men with equal opportunities are more successful and achieve better results. To achieve this goal, the Company has adopted an Action Plan.

In line with the Code of Conduct, values and principles, the Company declares that its zero tolerance to non-discrimination in daily operations, pursuit of reducing inequality and ensuring that no one is left behind, are an integral part of the process of achieving sustainable development goals (to learn more, please see section "Social Aspect").



**Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all**

The company makes every effort to ensure that energy becomes more sustainable and widely available and focuses on the development of "clean" energy (RES).

As of the end of 2021, "Samruk-Energy" JSC has 5 operating renewable energy facilities. A unique 2 MW solar power plant was commissioned in Kapshagay city in 2013. The specific feature of this power plant is the use of the first tracker system in Kazakhstan for tracking the energy source. The first industrial-scale 45 MW wind power plant in Kazakhstan was put into operation in Akmola region in the vicinity of Ereymentau city in 2015. The wind farm consists of 22 turbines with a unit capacity of 2.05 MW. A 416 kW solar power plant was commissioned in Kapshagay city in 2019, where polycrystalline panels with a capacity of 245 W each produced by Astana Solar were used. In 2020, a wind power plant with a capacity of 5 MW was put into operation in the Nurly village of Almaty region. A 1 MW solar power plant was put into operation in Almaty city. These projects were implemented as part of the Agreement between the Governments of the Republic of Kazakhstan and the People's Republic of China.

At year-end 2021, the share of electricity generation by energy producing organizations of "Samruk-Energy" JSC was 7.7% of the total volume of renewable energy in the Republic of Kazakhstan

On November 25, "Samruk-Energy" JSC debut placed 18.4 bn tenge "green" bonds with a coupon rate of 11.4% per annum and a maturity of 6.5 years.

As part of the issue of green bonds, "Samruk-Energy" JSC has developed a Green Finance Policy that defines the principles in the field of green finance in order to ensure transparency in the processes of attracting investments through green finance instruments.

"Samruk-Energy" JSC energy producing organizations produced 35.6 bn kWh electricity in 2021. Generation by renewable energy facilities of "Samruk-Energy" JSC (SPP, WPP, small HPPs) in January-December 2021 amounted to 325.3 million kWh.



**Goal 8: Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all**

"Samruk-Energy" JSC is one of major employers in the Republic of Kazakhstan. As of December 31, 2021, the headcount of "Samruk-Energy" JSC group of companies amounted to 17,645 people.

The share of full-time employees in the reporting period was 100%. The ratio of the minimum wage for women to the minimum wage for men is 100% (to learn more about this, visit "Social Aspect" section).



**Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation**

One of the strategic goals of the Development Strategy of Samruk-Energy JSC for 2022–2031 is to reduce the net carbon footprint.

The Company is engaged in activities on facilitating R&D, building close relationships with the research community and increasing the practical effect of scientific developments, including with the support of research work by domestic human resources. Particular emphasis has been place on issues of commercialization of R&D in order to obtain a timely economic effect from scientific developments.

In this regard, the Company has started research and development work to study the possibility of applying carbon capture and storage technologies at coal-fired power plants, gasification, and production of synthesis gas for coal chemistry.

The aim of the project is to study existing and promising technologies for capturing CO<sub>2</sub> from flue gases of thermal power plants, to analyze the possibility of their integration into existing technological schemes and disposal of captured CO<sub>2</sub> with an assessment of the most promising technologies for the conditions of Kazakhstan, to conduct experiments to produce synthesis gas from CO<sub>2</sub> and to produce coal chemistry products.

The project is planned to be implemented between 2022 and 2024.

Another important initiative of the Company is a project designed to improve the technical and economic performance of firing of high-ash coal at the Company's thermal power plants. As part of this project, the possibility of introducing the technology of a system of oil-free startup of boiler units (plasma-fuel system) was studied.

The project implementation was approved by the resolution taken by "Samruk-Energy" JSC Board of Directors at meeting held on May 31, 2021.



**Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.**

The company adheres to high standards of business ethics, transparency, and legality, independent from business customs and other business practices in a particular jurisdiction. (to learn more, visit "Compliance" and "Stakeholders engagement" sections).



**Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development**



03.1 Sustainability and compliance with the ESG principles

The Company, in its operations, is a member in the following national and international organizations, associations / organizations:



*The CIS Electric Power Council* (hereinafter – CIS EPC). 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 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.



*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.



*ALE "Union of machine builders of Kazakhstan"*. "Samruk-Energy" JSC joined in 2021. Membership in the Union offers participation in import substitution activities as part of a program for promotion of new industries. Contributes to promotion of "Samruk-Energy" JSC as a company aimed at developing local content. Access to information about new and manufactured equipment, materials for the energy sector produced in the Kazakhstani market.

Coordinating Electricity Council of Central Asia. Participation in CEC CA contributes to enhancing of business ties between Central Asia countries and the discussion of problematic issues in the region.



*World Energy Council* (hereinafter - WEC). *WEC membership is a program for a limited number of the world's leading energy companies interested in working with WEC on projects and issues of a global and regional nature. The WEC program allows to participate in exclusive events and round tables that contribute to the development of cooperation with international companies.*

"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.

In view of joining to the UN Global Compact, the Company annually publishes Communication on Progress, which it posts on <https://www.unglobalcompact.org/> and on the website of the Company: <https://www.samruk-energy.kz/ru/sustainability/soobshchenie-o-dostignutom-progresse-v-2019-godu-ao-samruk-energo>.

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/sustainability>.

To improve the system of sustainable development and corporate governance, the Company plans to obtain an ESG rating from a global rating agency in 2022–2023.

CORPORATE COMMUNICATIONS STRATEGY

Interaction with stakeholders is essential for "Samruk-Energy" JSC.

The purpose of "Samruk-Energy" JSC interaction with stakeholders is to choose the right strategic development of the Company and ways to improve its operations, as well as to assist it in achieving such a level of sustainable development, from which everyone benefits both the Company and its stakeholders, and society, as they can know, determine and analyze:

- ▶ needs, expectations and opinions of internal and external stakeholders;
- ▶ challenges and prospects from the perspective of stakeholders;
- ▶ the most significant issues of concern to internal and external stakeholders.
- ▶ The interaction of the Company with stakeholders is based on the following principles:
- ▶ respect and consideration of the interests, opinions and preferences of stakeholders;
- ▶ timely and regular informing of stakeholders;
- ▶ responsible discharge of obligations assumed.

The basis for interaction with stakeholders is the identification of stakeholders that have a significant impact on the Company and the degree of dependence of stakeholders on the Company, creation of a materiality matrix, a Stakeholder Engagement Plan and/or a Stakeholder Communication Plan.

In accordance with the best practices in interaction with stakeholders (standards of the AA1000 series, GRI), the principle of "involvement" is applied to build effective interaction.

This principle considers the interests of all stakeholders at all stages of the process of managing the Company's operations.

The principle of "involvement" is based on three main principles of interaction:

- ▶ "materiality" (correct assessment of the significance of problems for stakeholders and the organization),
- ▶ "completeness" (understanding the significance of consequences of the company's operations);
- ▶ "response" (demonstration of an adequate response).

Following each principle is aimed at comprehensive, mutually beneficial, and effective interaction with stakeholders.

The group of companies of Samruk-Energy JSC shares the main provisions of the precautionary principle. Before launching new projects and facilities, as part of the environmental impact assessment, the Company must take a number of measures aimed at informing the public about the planned activity and its possible impact, in order to identify public opinion and take it into account in the impact assessment process. All activities are included in the Stakeholder Engagement Plan, monitoring is carried out for each of the projects, the results of which are annually reported to the Board of Directors.

In order to improve the efficiency of communications and constructive dialogue with all stakeholders, Samruk-Energy JSC updated the Stakeholder Engagement Plan in 2021.

The updated Stakeholder Engagement Plan of Samruk-Energy JSC describes the principles of the Company's interaction with stakeholders, the Company's approach to identifying and analyzing stakeholders, requirements for stakeholder engagement, a grievance mechanism and stakeholder engagement activities.

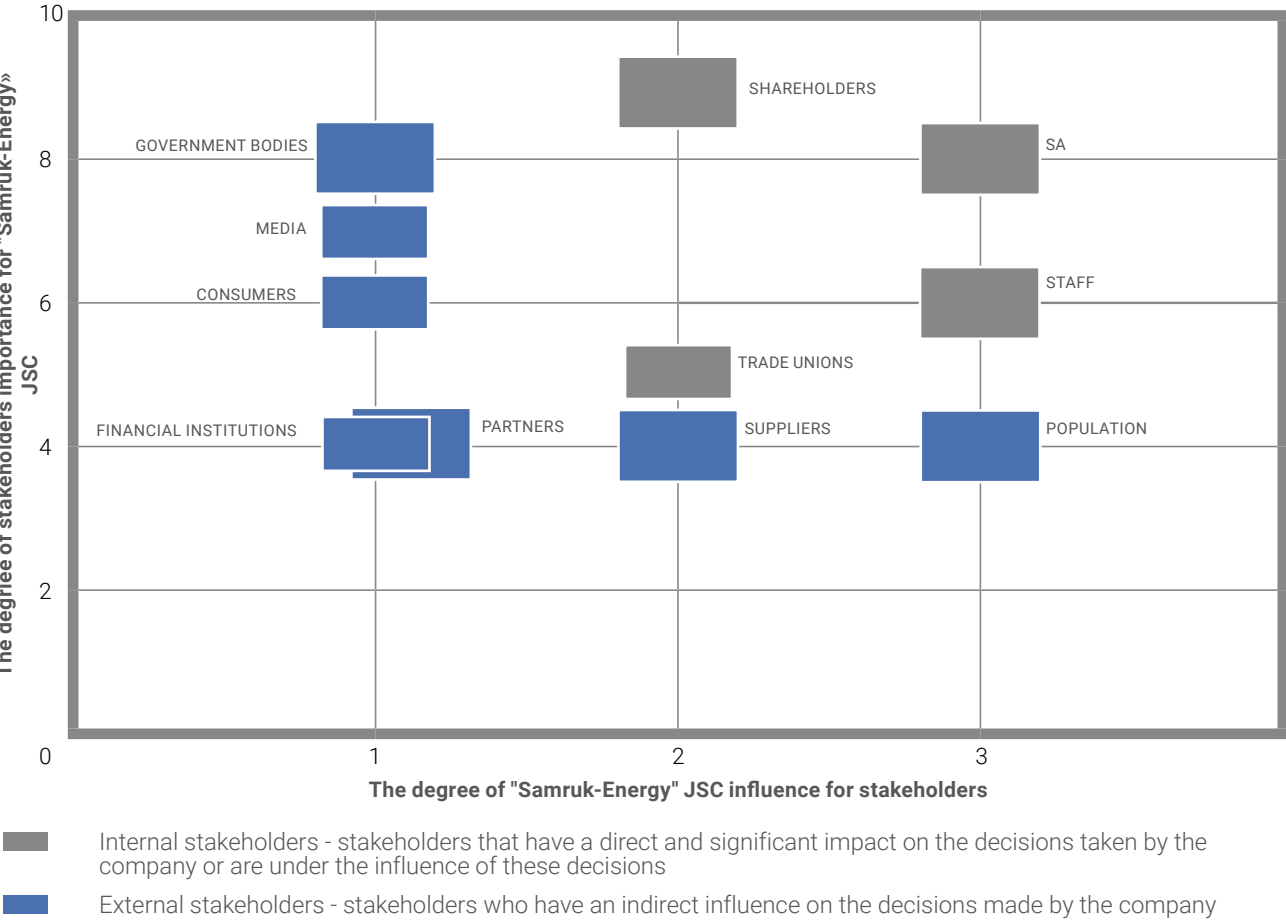
You can learn more about the Plan on "Samruk-Energy" JSC website at the link:  
<https://www.samruk-energy.kz/ru/corporate-governance/corporate-documents#6>.

The plan is based on the Stakeholder Map and stakeholder engagement practices. The activities of "Samruk-Energy" JSC Stakeholder Engagement Plan in 2021 were implemented in full (Attachment 1).

Subsidiaries and affiliates studied the approved Stakeholder Engagement Plans, which are based on "Samruk-Energy" JSC Stakeholder Engagement Plan (SEP), in 2021 for the current investment projects:

03.1 Sustainability and compliance with the ESG principles

“SAMRUK-ENERGY” JSC STAKEHOLDER MAP



- "APP" JSC:**
- Expansion of CHP-1 with installation of a new energy source based on gas turbine technologies.
  - Gasification of Almaty energy complex. Retrofit of Almaty CHP-2 including of reduction of environmental footprint.
  - Reconstruction of CHP-3.
- "MHPP" JSC:**
- Diversion of the Kensu River flow to the Bestyubinsk reservoir of "Moynak HPP named after U.D. Kantaev".
- "AZhC" JSC:**
- Construction of 110 kV substation "Kokozek" with connection to the OS-110 kV of the 220 kV substation "Kaskelen" of Karasai district in Almaty region.

- "EWP" LLP:**
- Construction of a 50 MW wind farm in the vicinity of Yereymentau city.
- "Energia Semirechya" LLP:**
- Construction of a 60 MW wind power plant in Shelek corridor including a possible increase in capacity up to 300 MW.
- The Road Map for obtaining an ESG rating was approved by the resolution of "Samruk-Energy" JSC Management Board (No.9 dated March 14, 2022).
- To this end, the Company plans to conduct the work on assessment and implementation of the best ESG practices in the nearest future, which include:

- analysis and updating of documents/policies for compliance with ESG criteria (Environmental policy, Occupational health and safety policy, documents on social responsibility, stakeholder engagement, policy on quality and safety of products/services, human rights, etc. .d.), development of non-financial reporting;
- assessment of the Company's risks associated with climate change;
- setting requirements for suppliers with the use of ESG criteria;
- monitoring the compliance of the Company's operations with the requirements of PRI – Principles for Responsible Investment (UN principles for responsible investment) to attract investment;
- establishment of ESG criteria along with standard financial analysis – assessment of both ESG risks and opportunities;
- staff motivation and remuneration system development, associated with ESG criteria.

Thus, the Company intends to regularly improve its performance in sustainable development and aims to achieve the goals set out in the Strategy from the perspective of ESG principles (ESG goals are described in relevant sections: "Corporate Governance", Category "Environmental", Category "Social").





03.1 Sustainability and compliance with the ESG principles

STAKEHOLDER FEEDBACK MECHANISM

It is essential for the Company that all external and internal stakeholders are heard. "Samruk-Energy" JSC has the below mentioned feedback tools for stakeholders that guarantee protection from retaliation and prosecution of anyone who leaves a message in good faith:

- 1. Hotline 24/7 : <https://www.samruk-energy.kz/ru/navigation-and-support/hotline>  
Website: [www.sk-hotline.kz](http://www.sk-hotline.kz)  
Postal address: [sk.hotline@deloitte.kz](mailto:sk.hotline@deloitte.kz)  
Phone: 8 800 080 19 94
- 2. Feedback form on the corporate website <https://www.samruk-energy.kz/ru/feedback-all>
- 3. Feedback form for the category of persons associated with the implemented investment projects, where local communities, contractor employees, 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. Appeals on emerging issues with contact details on the website: <https://www.samruk-energy.kz/ru/company/contact>
- 6. Ombudsman  
By e-mail: [akylov@samruk-energy.kz](mailto:akylov@samruk-energy.kz)  
By phone: 8 (7172) 55-30-15, +7-701-788-8416
- 7. Blog of the Chairman of the Management Board: <https://www.samruk-energy.kz/ru/navigation-and-support/chairmans-blog>

The Company monitors incoming requests every year. This enable the Company to study the concerns of all stakeholders, identify systemic problematic issues, and determine the effectiveness of existing mechanisms for stakeholder engagement for a follow-up response.

and analysis of complaints. Each complaint was assigned a category.

There is a trend of steady growth in the receipt of applications and complaints. The share of open requests is moderate (in 2021 – 76%; in 2020 – 84%), the share of anonymous requests increased by 10% compared to 2020 (in 2021 – 18%, in 2020 anonymous requests amounted to – 8%). Stakeholders, in 2021, were interested in the issues of wages, remuneration and payments set out in Collective Agreement. Most often, stakeholders expressed an interest in the issue of wage increases. In 2021, stakeholder interest in issues related to workplace and work management during a pandemic was noted for the first time; this is the provision of protective equipment and violation of quarantine measures, as well as mandatory vaccination issues.

All incoming requests to the Company were answered in a timely manner. Responses were provided in ways convenient for stakeholders. Confidentiality and anonymity of appeals were maintained. No facts of harassment were reported.

The conclusions made based on the stakeholders' appeals and inquiries, were communicated at the Company's Board of Directors meeting, where recommendations on improvement of stakeholder engagement were made and actions were developed.

Appeals and inquiries statistics\*\*\*

№	Source	Number		
		2019	2020	2021
1	Hotline	29	46	70
	"Samruk-Energy" JSC registry	10,297	9,741	10,296
2	From state agencies	445	298	321
	From the Shareholder	617	596	737
	Complaints and requests	45	38	76
3	Directly sent to Security Service	6	2	0 (11)*
4	"Feedback" form on the website	1	4	1
5	Ombudsmen	28	36	46
6	Trade unions	28	29	27
7	Courts and supervision agencies	10	10	5
8	Written requests sent to the chief executive officer	5	2	18
9	Conciliation committees	–	–	10**
TOTAL		148	203	253

\*Appeals and complaints considered by the Security Service were received from various sources of feedback. The number of appeals and complaints considered by the Security Service is indicated in brackets.

\*\* Statistics have not been maintained until 2021.

\*\*\* appeals and inquiries unrelated to current operations of "Samruk-Energy" JSC group were consolidated.

Mentioned appeals were analyzed in terms of aspects raised, determination of the regions with the largest number of

appeals, categories of persons who submitted an appeal to "Samruk-Energy" JSC group, statistics on the subject of appeals



# “ECONOMIC” CATEGORY



## THE COMPANY'S CONTRIBUTION TO THE COUNTRY'S ECONOMY

Economic performance of the Company is shown in created and distributed economic value table.

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 etc.
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 2021, the created economic value amounted to 466 bln tenge and the distributed economic value amounted to 364 bln tenge, as a result, the undistributed

economic value amounted to 102 bln tenge. According to the approved Development Plan for 2022–2026, it is planned to increase the created and distributed economic value.

mln tenge

Indicator*	2020	2021	2022	2023
	actual	actual	forecast	forecast
Created economic value	382,199	465,806	523,007	587,748
Sales proceeds	380,990	463,690	522,624	587,256
Interest received	1,209	2,116	383	492
Distributed economic value	312,894	363,943	426,618	454,795
Payments to suppliers and contractors	194,386	228,733	287,730	321,986
Payments to employees	43,700	50,327	51,677	54,445
Payments to capital suppliers	32,571	32,702	28,448	22,036
Payments to the government	42,152	52,149	58,703	56,269
Undistributed economic value	69,305	101,862	96,389	132,953

\*Previously indicators were calculated on an accrual basis. In order to exclude non-cash transactions and depreciation, current indicators were calculated using the data of the cash flow statement. Ownership interests in joint ventures were taken into account in the figures.

## INNOVATION ACTIVITY

Reduction of net carbon footprint is among strategic goals of “Samruk-Energy” JSC Development Strategy for 2022–2031.

To accomplish this strategic goal, the Company is working on scientific developments, establishing close relationships with research community and increasing the practical effect of scientific developments, including support for research work by domestic specialists. A considerable attention is paid to commercialization of R&D to obtain timely economic benefits from scientific developments.

Nowadays, gas utilization during firing coal at power plants is becoming relevant in Kazakhstan because of:

- Kazakhstan's obligations under the Paris Climate Agreement;
- tightening of environmental legislation of the Republic of Kazakhstan, including the risk of increasing payments for emissions in the event of refusal to switch to integrated environmental permits;
- a global trend towards reduction of financing for projects that did nothing to "greening" of the economy;
- strategic plans for development and transition to a "green economy": the doctrine (strategy) of achieving carbon neutrality of the Republic of Kazakhstan until 2060.





03.1 Sustainability and compliance with the ESG principles

In this regard, the Company has launched research and development work to study the possibility of applying carbon capture and storage technologies at coal-fired power plants, gasification, and production of synthesis gas for coal chemistry.

The project aims to study existing and promising technologies for CO<sub>2</sub> capturing from flue gases of thermal power plants, to analyze the possibility of their integration into current technological schemes and disposal of captured CO<sub>2</sub> including an assessment of most promising technologies adapted to conditions of Kazakhstan, to conduct experiments for the production of synthesis gas from CO<sub>2</sub> and for the production of coal chemistry products.

The project is planned to implemented within 2022–2024.

The Company has another important initiative – the project designed to improve the technical and economic performance of firing high-ash coal at the Company's thermal power plants. For the purpose of this project, the possibility of introducing the technology of a system of fuel oil free startup of boiler units (plasma-fuel system) has been explored.

The implementation of the project will enable to address the tasks below:

- ▶ stabilization of combustion of a pulverized coal torch at reduced loads of boiler units;
- ▶ exclusion of fuel oil consumption during firing of high-ash coals;
- ▶ elimination of negative consequences of co-firing of coal and fuel oil in one furnace volume, which provides improved performance and reliability of boilers.

This technology has been successfully applied at power units from 200 to 1,000 MW in the People's Republic of China, the Russian Federation, Indonesia, etc.

The project implementation was approved by the resolution of “Samruk-Energy” JSC Board of Directors at the meeting on 31 May 2021.

“ENERGY EFFICIENCY” ASPECT

Energy

The Company's energy policy focuses on the path towards energy conservation and efficiency that contributes to energy consumption and reduces environmental impact.

The company annually consolidates and analyzes data on energy consumption and key energy efficiency indicators across “Samruk-Energy” JSC group of companies, compares it with previous periods, and identifies opportunities for improvement.

The Company's energy conservation and energy efficiency activities rely on the methodology of the international standard ISO 50001 "Energy Management Systems".

There is Energy Conservation and Energy Efficiency Improvement Program for 2015–2025 at the Company. The Program is a fundamental document for planning and implementing activities in energy conservation and energy efficiency.

The Program aims to develop measures for effective and economically expedient use of fuel and energy resources.

The decrease in energy intensity of the gross commodity product across “Samruk-Energy” JSC group by 10.5% in 2025 compared to the base year 2014 is the outcome the Company expects.

Target instruments of the Program:

- ▶ setting target indicators and indicators of energy conservation and energy efficiency improvement across “Samruk-Energy” JSC;
- ▶ regularly control over the achievement of indicators established by conducting an energy-economic analysis in accordance with the developed methodology for calculating key indicators of energy efficiency;
- ▶ development, implementation and improvement of the energy management system at “Samruk-Energy” JSC group;
- ▶ implementation of organizational and technical activities focusing on energy conservation and energy efficiency improvement in accordance with the approved action plans for energy conservation and energy efficiency improvement;
- ▶ building an integrated system for automated accounting of energy resources consumption.

As part of performed work on energy conservation and energy efficiency, 63 activities were taken over the past year to reduce the consumption of fuel and energy resources, which enabled to save 523 thousand tons of standard fuel across “Samruk-Energy” JSC group.

The total energy consumption has increased in comparison with the past year and was 15.7 mln GJ, however at the same time the decrease is observed in comparison with the base 2014 year (17.7 mln GJ).

Consumption within the organization

Consumption	2019	2020	2021
Total fuel consumption, mln GJ, incl:	291.2	306.3	346.3
Coal	279.9	291.8	333.0
Gas	9.2	12.0	10.9
Fuel oil	0.8	0.9	0.8
Petroleum	0.2	0.2	0.2
Diesel	1.2	1.2	1.4
Electricity consumption, mln GJ	11.3	11.5	12.6
incl. from RES	1.3	2.6	4.8
Heat consumption, mln GJ	2.6	2.4	3.0
incl. from RES	-	-	-
Total energy consumption, mln GJ	14.0	13.9	15.7
incl. from RES	1.3	2.6	4.8

Energy intensity

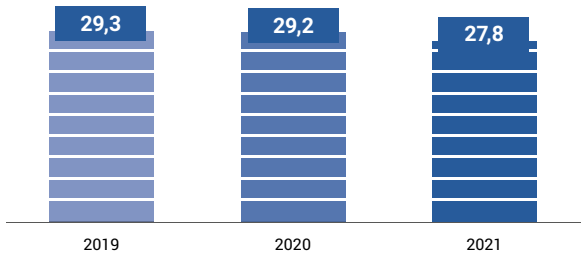
This indicator uses the volumes of consumption of fuel and energy resources within “Samruk-Energy” JSC group, as well as the volumes of generated electricity and heat, transmitted electricity, and mined coal.

The energy intensity of the gross commodity product across “Samruk-Energy” JSC group at-year end 2021 amounted to 27.8 tons of reference fuel / million tenge and decreased compared to the previous year.

Increased consumption of energy and fuel relates to the growth of electricity production at “Ekibastuz SDPP-1” LLP and “SDPP-2” JSC, an increase in heat output at “APP” JSC.

In the reporting year, compared to the previous year, the total energy consumption from renewable energy sources increased to 4.8 mln GJ. In general, over the years, there is a positive trend towards an increase in energy consumption from RES, which is driven by the growth of RES share in the country's electricity production.

ENERGY INTENSITY, t.s.f./mln tg





03.2 “Economic” category

The reduction of energy consumption

Electricity consumption has decreased in relation to base year (14.0 mln GJ), increased in comparison with the last year and was 12.6 mln GJ.

Heat consumption also decreased in relation to the base year (3.7 mln GJ), and so in relation to the last year and amounted to 3.0 mln GJ.

In general, there is a trend towards reduction in total energy consumption over the years in relation to the base year 2014 (17.7 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 of the Republic of Kazakhstan and the Committee.

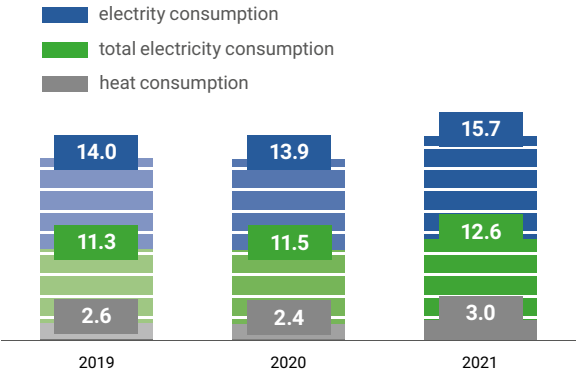
In the production of electricity:

Measurement unit		Materials used		
		volume		
		2019	2020	2021
Coal	tons	16,565,570	16,652,949	19,667,845
Fuel oil	tons	15,746	19,925	14,815
Gas	thous. m³	38,472	46,370	44,115

In the production of heat:

Measurement unit		Materials used		
		volume		
		2019	2020	2021
Coal	tons	764,291	1,446,269	898,922
Fuel oil	tons	2,358	1,740	2,913
Gas	thous. m³	226,580	284,914	268,167

GENERAL CONSUMPTION OF ENERGY, mln GJ



The company does not carry out any marketing communications regarding the manufactured product, including advertising and promotion.

List of materials used in our facilities in the manufacture of products.

For auxiliary needs in the production of both types of products:

Measurement unit		Materials used		
		volume		
		2019	2020	2021
Petroleum	t.n.f	3,570	3,656	3,721
Diesel fuel	t.n.f	28,586	34,662	33,471

“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.

Electricity and thermal energy were produced using fossil fuels. Chemical reactions occurring during the combustion of 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 a loss of the required quality of the natural environment. For such control, Kazakhstan has a system of state regulation in the form of environmental and natural resource law (for more details, see the Environmental Category section).

In 2021, there were no cases of Company non-compliance with the requirements of the current legislation regarding the impact of products on health and safety.

CONTRIBUTION OF JSC "SAMRUK-ENERGY" TO THE DEVELOPMENT OF "GREEN" ECONOMY

The company regularly observes sustainable development principles and meet the requirements of standards in sustainability. Green financing mechanism is one of the key drivers that ensure the implementation of the ESG principles.

Green finance is a financial instrument aimed at the implementation of environmentally friendly, energy efficient and low carbon projects. green bonds, concessional lending, subsidies for green projects are main instruments of green

financing. These financial instruments are essential for development of green projects. As of today, the required legal framework has been created in Kazakhstan for the issuance of green finance instruments, including the introduction of a taxonomy of green projects, a legislative definition of green finance, including green bonds, green loans, and other financial tools.

The Company developed a green finance policy throughout the 2021, that establishes the principles in sustainable finance to ensure transparency in the processes of attracting investments through green finance instruments. In accordance with the policy, the Company adheres to the Green Bonds Principles (GBP) and Green Loan Principles (GLP), designed for use by all participants in the green lending market, for maintaining the flexibility of loan products and maintaining the integrity of green lending market as it evolves.

The Company made a debut issue of "green" bonds in the amount of 18.4 bn tenge on the stock exchange of the Astana International Financial Center – Astana International Exchange in November 2021. Proceeds obtained from the placement of the bonds were used to finance green eligible projects that comply GBP and GLP. The Company received an independent opinion on the compliance of bonds with the green bonds' principles (Second Party Opinion) during the issue of green bonds by the Company.



03.2 "Economic" category

FINANCIAL ASPECTS AND OTHER RISKS AND OPPORTUNITIES FOR THE BUSINESS  
OF "SAMRUK-ENERGY" JSC ASSOCIATED WITH CLIMATE CHANGE

Climate change issue has been discussed across the globe for decades. The United Nations Framework Convention on Climate Change (UNFCCC), signed in 1992 by more than 180 countries, confirms the concern of the global community on this issue.

The key features of this stage are decarbonization, diversification and digitalization aimed at solving the global challenges facing the world community in providing economies and populations with affordable energy resources, strengthening global energy security, and reducing human impact on the environment.

At the same time, bearing in mind that the energy sector is the largest source of emissions in Kazakhstan, producing about 80% of all greenhouse gas emissions in the country, and the share of "Samruk-Energy" JSC is 9% of total emissions, addressing the issue of the Company's assets decarbonization today is a challenge. When developing the Company's Energy Transition Program, it is essential to strike a balance between achieving the goal of reducing the carbon footprint, ensuring reliable supplies of electricity to consumers at affordable prices, as well as maintaining jobs in the regions where the Company operates.

Based on expert opinion, "Samruk-Energy" JSC considers climate risk in setting the context of the organization and SWOT analysis when developing an energy transition strategy. To be fair, it should be noted that global decarbonization trends, largely set by developed countries as opportunities, entail more risks and challenges for emerging markets. On the one hand, a delay in following global development trends leads to social costs associated with anthropogenic impact on the environment and limited access to up-to-date technologies and financial resources, but on the other hand, forcing the transition can result in a loss of competitiveness of the economy, deindustrialization, and an increase in electricity prices, job cuts in traditional industries, not to mention the issues associated with the need to ensure the reliability of energy supply.

Recognizing the importance of power industry's influence on the environment, "Samruk-Energy" JSC supports the government's endeavors to achieve carbon neutrality and at this stage sets itself the task of maintaining the share of conventional generation, retrofit of existing plants and minimizing the impact on the environment by implementing renewable energy projects, introducing the best available technologies, as well as the development of alternative energy.

The main directions and goals to reduce the carbon intensity of the Company's processes and products are specified in the long-term Development Strategy, the Company's Environmental Policy, and the Energy Transition Program of "Samruk-Energy" JSC.

SWOT-analysis of "Samruk-Energy" JSC standing in the context of climate change issue



03.2 "Economic" category

"Samruk-Energy" JSC Energy Transition Program for 2022–2060

The main drivers of the energy transition have been global trends in combating climate change, including:

1. The Paris Agreement, adopted in December 2015 at the 21<sup>st</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), designed to give an incentive to states around the world to reduce greenhouse gas emissions and thereby contribute to curbing the rise in the temperature of the earth's atmosphere not higher than 2<sup>o</sup>.
2. International and carbon regulation and the introduction of a cross-border carbon mechanism "Carbon Border Adjustment Mechanism" (CBAM) in the EU under the "European Green Deal". This mechanism will have significant implications for EU trading partners, including Kazakhstan. If successfully implemented, after the initial introduction on January 1, 2023, CBAM will be the first example of the introduction of border charges for greenhouse gas emissions.
3. Tightening of the RK Environmental Code from July 1, 2021, under which the requirements for greenhouse gas emissions into the atmosphere were strengthened and the system of emissions trading of the Republic of Kazakhstan was introduced.
4. The next annual Address to the people of Kazakhstan dated September 1, 2021, in which the Head of State Qassym-Zhomart Toqayev noted the global trend towards the greening of industry and the economy and set the goal of achieving carbon neutrality by 2060.
5. Commitment to the 17 global sustainable development goals of the United Nations, including those that address combating climate change and protecting the environment.

"Samruk-Energy" JSC includes three large energy generating organizations, SDPP-1, SDPP-2 and APP, which produce electricity using traditional fuel (gas, coal), as well as one of the largest enterprises in the world that mines open-pit coal – Bogatyr Komir.

Coal is a strategic resource, the most accessible, inexpensive and, accordingly, the most demanded source of energy. The country's coal industry ensures the generation of about 70% of electricity in Kazakhstan, and completely satisfies the fuel needs of the population and the domestic sector.

In the coming decades, traditional energy sources will still play an important role in the country's energy system. Given the prevailing share of traditional generation in the Company's assets, reducing CO<sup>2</sup> emissions from the use of fossil fuels will be a key area of the Company's activities.

Recognizing the importance of power industry's impact on the environment, "Samruk-Energy" JSC supports the government endeavors in achieving carbon neutrality and at this stage is committed to maintaining the share of conventional generation, upgrading of existing plants and reducing carbon footprint by implementing renewable energy projects, deploying the best available technologies, as the development of alternative energy.

As of today, the Company has developed the Energy transition program. The implementation of "Samruk-Energy" JSC Energy Transition Prog will require expanding the competences of the concerned ministries and the expert community in coordinating and substantiating decisions in the field of environmental policy of the state, which are of a long-term nature. The energy transition program has not only domestic but also international significance.

In the future, the Program should be supported by many concrete decisions and actions. Now, the main directions of development have been formed, considering the scenarios. At the same time, the development of technologies, new eco-trends, and the receipt of new information on changes in legislation (calculations of carbon offsets, cross-border carbon tax, taxonomy, etc.) will contribute to updating the Program in the future.

1 ALTERNATIVE ENERGY

This area includes the implementation of renewable energy projects, conducting comprehensive research in the development of alternative energy (nuclear, hydrogen, geothermal), the possibility of using eco-technologies in transport, etc.

3 GRID INFRASTRUCTURE AND REGULATION

Within this direction, activities on retrofit of grids and introduction of Smart Grid, systems for accumulating and storing electricity, and developing flexible generation are planned to be implemented. All this will significantly improve the reliability and quality of power supply, reduce the costs of production processes and the impact on the environment.

THE GOAL OF  
THE PROGRAM

to reduce the Company's net  
carbon footprint by 2060.

To achieve the goal, five directions  
for the development of the Company  
have been identified:

4 EMISSION MANAGEMENT

It includes activities on introduction of innovative technologies at the Company's existing conventional generation facilities that reduce CO<sup>2</sup> emissions, such as carbon capture and storage (CCS), measures to improve energy efficiency and energy conservation, as well as the implementation of a forest climate project.

2 CONVENTIONAL ENERGY

Reducing CO<sup>2</sup> emissions through gasification of thermal power plants in Almaty city.

5 SUPPORTING ACTIVITIES

This direction combines a set of measures necessary to ensure the possibility of implementing measures to reduce the carbon footprint, compliance with international standards and the requirements of the legislation of the Republic of Kazakhstan in environment. Such activities will include the introduction of ESG principles, the development of digitization, the study and development of proposals for improving the regulatory framework of the Republic of Kazakhstan, as well as the use of green financing tools to attract additional sources of financing for the development of renewable energy projects.





# “ENVIRONMENT” CATEGORY

The global trend towards the transition to a "green economy", the growing ESG requirements of stakeholders simultaneously set both challenges for the Company and provide the opportunity to be a key responsible link in power market on the way to a low-carbon economy. The company strives to contribute to the structure of the national economy, facilitating the development of renewable energy sources, reduction of emissions into the atmosphere to the fullest degree and the improvement of the ecosystem.

## ASPECT “COMPLIANCE WITH REQUIREMENTS”

Being the largest electricity holding company in Kazakhstan, “Samruk-Energy” JSC is aware of the importance of the environmental aspect in a sustainable development of the company. Environmental protection and efficient use of resources play an important role in operations of the Company and its subsidiaries and affiliates.

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. So, the new Environmental Code of the Republic of Kazakhstan was approved on 02.01.2021, whereby the “polluter pays” principle was revised and significantly strengthened.

Of course, in environmental protection, we, first off, adhere to existing legislative requirements and norms in Kazakhstan, but at the same time we strive to comply with more stringent standards of developed countries, consistently implementing a number of energy-saving, material-saving and environmental protection measures.

### Management approach

Considering the existing experience and specific features of technologies used, the available types of fuel, peculiarities of our climate, as well as a number of other motivating and sometimes constraining factors common to sustainable development concept, we have developed an environmental policy as a comprehensive long-term program, which is part of the Company's long-term Development Strategy.

To manage environmental safety – as part of comprehensive occupational safety – an environmental management system (EMS) has been established at “Samruk-Energy” JSC group of companies, which is a component of corporate governance system and an essential part of non-financial risk management system. EMS at “Samruk-Energy” JSC is constantly assessed for compliance with the best world practices with the involvement of independent international consultants and is improved step by step. All subsidiaries and affiliates of the Company engaged in production activities have implemented the ISO 14001 “Environmental Management” standard.

In accordance with the approved Strategy, the Company plans to seek to reduce the impact of production activities on the environment by modernizing existing technologies and using renewable energy sources.

As preventive measures, 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 objects of industrial monitoring.

In addition, in case of emergencies, compulsory environmental insurance and liquidation funds are available as required by the Republic of Kazakhstan legislation.

### Assessment of management approach

Particular attention is paid to the new technologies: RES development, oil fuel-free start-up and other energy-efficient technologies.

The Company has successfully implemented several investment projects in RES and HPP sector since 2013: 300 MW “Moynak HPP” JSC, 45 MW First wind power plant, 2 MW solar power plant, retrofit of “Shardarinsk HPP” JSC with an increase in capacity to 126 MW.

Given the large reserves of coal in Kazakhstan and its attractiveness in terms of price, it is feasible to support the development of innovative technologies to improve its environmental characteristics. To this end, the Company established the Clean Coal Technologies research laboratory together with Nazarbayev University AEO.

In 2021, the Company continued to implement initiatives in the field of sustainable development, which included, among other things, initiatives in the field of ecology: energy efficiency, efficient use of materials, energy and water, compliance with

environmental obligations: reduction of greenhouse gas emissions, reduction of emissions of significant pollutants into the atmosphere, general costs and investments in environmental protection.

Moreover, the Company implements a comprehensive environmental protection activities program, which provided the following results at the end of 2021:

- ▶ absence of emergency situations that caused harm to the environment: during the reporting period, there were no accidental discharges and spills, including oils, waste, fuel, chemicals and other substances that caused damage to the environment;
- ▶ the share of “clean” energy production – RES and HPP – 6.7% of the total output of the company's group;
- ▶ unit emission of pollutants into air has reduced by 4% in comparison with 2020 indicator owing to the reduction of UCEF and an increase in the share of production by SDPP-1, environmental performance of which is better than of other coal-fired power plants of “Samruk-Energy” JSC group.

### The monetary value of significant fines and the total number of non-financial sanctions for non-compliance with environmental laws and regulations

To prevent damage to the environment, the legislation involves environmental inspections, which may result in imposing fines for violating legislation requirements. 4 inspections were carried out in 2021 – 2 times at “SDPP-1” LLP, at “SDPP-2” JSC, “APP” JSC. Some violations of requirements of legislative acts were revealed, fines amounted to 56 mln tenge. All fines were paid in full. Corrective activities were carried out.



03.3 “Environmental” category

	Measurement unit	Amount		
		2019	2020	2021
The sum of money of significant fines	thous. tenge	4,751	14,448	56,000
number of cases when non-financial sanctions were applied	–	0	20	0
Cases filed through dispute resolution mechanisms	–	–	3	–

Total expenditures and investments in environmental protection broken down by types

The Company implements a comprehensive environmental protection activities program covering such aspects as:

- ▶ protection of atmospheric air;
- ▶ reduction of greenhouse gases;
- ▶ reclamation of ash dumps;
- ▶ waste management;
- ▶ protection and efficient use of water resources;
- ▶ implementation of management systems and the best safe technologies;

- ▶ R&D and other works;
- ▶ environmental training and advocacy.

In line with existing RK law, “Samruk-Energy” JSC group of companies have an environmental protection action plan agreed with the authorized body, the implementation of which is mandatory requirement of a special management of natural resources.

	Measurement unit	Amount		
		2019	2020	2021
costs associated with waste management and cleaning of emissions, discharges, as well as the elimination of environmental damage	thous. tenge	4,242,256	5,604,706	5,972,610.75
expenses for the prevention of environmental impact and environmental management system		373,908	286,567	256,816.36

Future Statement

“Samruk-Energy” JSC updated its Development Strategy and approved the updated tasks for 2022–2031. In accordance with this, the main priority areas for the development of “Samruk-Energy” JSC in environmental protection are:

1. decarbonization of economy by “Samruk-Energy” JSC, including an increase in the share of electricity generation by renewable energy sources and hydropower plants, implementation of projects using renewable energy sources, activation of support for clean technologies, gasification of coal departments of Almaty city power complex;
2. ensuring environmental sustainability, including the search and implementation of best technologies from an environmental and economic point of view: installation of automated monitoring systems at emission sources at 1<sup>st</sup> category enterprises, installation of dust collection systems at GRES facilities, modernization and updating of equipment, maintaining efficient operating modes, identifying and prevention of potential emergencies, etc.

3. minimization of impacts in the field of water resources protection, incl. a decrease in the volume of fresh water consumption, an increase in the share of reusable and recycled water, a decrease in the volume of wastewater discharge and the concentration of harmful substances in wastewater;
4. reducing the impact on flora and fauna by improving the activities included in the environmental impact assessment;
5. improvement of activities in managing large-tonnage waste and consumer waste;
6. implementation of energy conservation and energy efficiency program;
7. advancedment of environmental management system.

“Samruk-Energy” JSC plans to minimize the adverse impact on the environment through retrofitting of equipment, using advanced technologies in the implementation of new investment projects. It is planned to introduce an integrated approach through promotion of environmental friendliness culture, obtaining international ratings in ESG, as well as using digital

technologies to monitor environmental impact. Considering the main development priorities of power industry in Kazakhstan, the Company will make every effort to develop and apply clean coal and other best available technologies, as well as emissions capture technologies.

The company will ensure commitment to “green” economy principles and will implement the activities and indicators of the Concept for the Republic of Kazakhstan transition to “green economy”.

ASPECT “WATER AND WASTE WATER”

Water is a unique substance and an essential component of all living creatures on Earth. Along with that, water is used in many processes in production of goods necessary for human life.

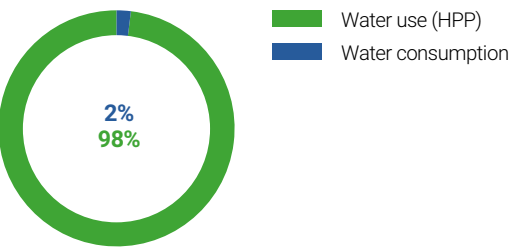
Historically the water has played a great role in power industry: at “Samruk-Energy” JSC group of companies, water is used not only as a driving force for hydro and steam turbines, but also for feeding reservoirs and compensating for losses in other processes, to irrigate ash beaches, to maintain the water level in ash dumps, and for public living needs of employees.

“Samruk-Energy” JSC objectives 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).

Considering that “Samruk-Energy” JSC’s portfolio includes hydropower and thermal power plants, we classify interaction with water into water use and water consumption, respectively. At the same time, 98% of the volume of water withdrawn is classified as water use at HPPs, and 2% – as water consumption. “Samruk-Energy” JSC group of companies does not consume water in regions that experience water shortage.

WATER INTAKE



Management approach

Interaction with water as natural resource

Interaction with water resources at “Samruk-Energy” JSC SA is regulated and managed in accordance with the current legislation of the RK. Subsidiaries of “Samruk-Energy” JSC withdraw water in volumes determined by production needs in accordance with the developed projects and regulations that are agreed with authorized state agencies.

Thus, the main sources of water for technological needs are: 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).

To save water, reverse water supply systems with a bulk reservoir-cooler and once-through hydraulic ash removal systems are used at Ekibastuz stations and Almaty power plants use recirculating water supply systems with cooling towers as well as reuse wastewater from ash dumps.

Water discharge related impact management

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 sites. They are used as hydrotransport to remove ash and slag waste to ash dumps.

Permissible standards for content of pollutants in wastewater and their volume are established by law. Before being discharged, wastewater is properly treated to the approved sanitary and hygienic standards.

Moreover, to avoid environmental damage, analytical 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 is carried out on a regular basis.



03.3 “Environmental” category

Assessment of the management approach

Water intake		All areas Megaliters			Areas experiencing water shortage
		2019	2020	2021	
44,917	46,260				
The volume of water taken by sources	from surface water sources (total)	11,924,598	10,473,288	9,165,293	none
	fresh water (≤1,000 mg /l of total dissolved solid)	11,924,598	10,473,288	9,165,293	none
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	none
	from underground sources (total)	6,630	6,061	5,379	none
	fresh water (≤1,000 mg /l of total dissolved solid)	0	0	0	none
	other water (> 1,000 mg /l of total dissolved solid)	6,630	6,061	5,379	none
	sea water (total)	0	0	0	none
	fresh water (≤1,000 mg /l of total dissolved solid)	0	0	0	none
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	none
	stratal water (total)	0	0	0	none
	fresh water (≤1,000 mg /l of total dissolved solid)	0	0	0	none
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	none
	from public and other water supply systems	44,917	36,227	40,084	none
	fresh water (≤1,000 mg /l of total dissolved solid)	44,917	36,227	40,084	none
	other water (> 1,000 mg /l of total dissolved solid)	0	0	0	none
	Total water volume from public and other water supply systems				
	surface	40,084	40,084		none
	underground	0	0		none
	marine	0	0		none
	stratum	0	0		none
The total amount of water taken		11,976,439	10,515,575	9,210,756	

Discharge		All areas Megaliters			Areas experiencing water shortage
		2019	2020	2021	
Discharge by types	Surface	73,751.3	75,313	81,489	none
	Underground	0	0	0	none
	Sea	0	0	0	none
	Public and other water supply systems	0	0	0	none
	Volume of wastewater given for use to other organizations	0	0	0	none
Total discharge		73,751.3	75,313	81,489	none
Wastewater according to treatment level	Without purification				none
	Before fishery requirements				none
	Before cultural and household requirements				none
	Other	73,751.3	75,313	81,489	none
Water consumption		All areas Megaliters			Areas experiencing water shortage
		2019	2020	2021	
Water consumption	Total water consumption	198,438	201,229	216,756	none
Water use		All areas Megaliters			Areas experiencing water shortage
		2019	2020	2021	
Water use	Total water consumption	11,778,000	10,317,737	8,994,000	none
Water efficiency of production		All areas, m³/kWh			
		2019	2020	2021	
Water efficiency	The volume of water withdrawn per unit of output	0.396	0.335	0.336	

The share and total volume of recycled and reused water for the reporting period:

	Measurement unit	Volume		
		2019	2020	2021
Total volume of water withdrawn	thous. m³	11,976,439	12,395,614	9,210,756
The volume of recycled and reused water	thous. m³	3,212,285	3,098,904	3,548,556
The share of recycled and reused water	%	26.8	25	38.5





03.3 “Environmental” category

ASPECT “BIODIVERSITY”

Given that the portfolio of “Samruk-Energy” JSC includes hydropower plants, renewable energy sources and RECs, the Company evaluates the “Biodiversity” aspect as significant in relation to these assets. However, we believe that fuel stations of “Samruk-Energy” JSC and coal mines of “Bogatyr Komir” LLP do not have a direct negative impact on wild vegetation and animals because they are located within settlements or in industrial areas, as well as considering that the scarcity of biodiversity of the construction site was considered as an environmental solution during the design of these production facilities.

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 within zones of impact of “Shardarinsk HPP” JSC, “Moynak HPP” JSC, Cascade of HPP, Kapshagay HPP, as well as “FWPP” LLP and “AZhC” JSC.

Management approach

At planning production activities, an environmental impact assessment including on the flora and fauna is performed at “Samruk-Energy” JSC group to minimize adverse effect on biodiversity. The EIA procedure is regulated by the legislation of the Republic of Kazakhstan. Monitoring of the impact on the flora and fauna during further operation of enterprises is also regulated.

Evaluation of management approach

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, to minimize the cases of death of birds on overhead lines from electric shock, lines are reconstructed by equipping with insulated wires (SIW).

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 scare the fish. The movement of fish occurs through bends for idle spillway (IS). 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).

Visual field observations were introduced at HPP and WPP to monitor the impact on the plant and animal world.

Protected and rehabilitated habitats

In 2021, “Samruk-Energy” JSC did not operate in territories that have any special sanitary or environmental regime or the status of specially protected natural territories.

ASPECT “EMISSIONS”

For “Samruk-Energy” JSC, the aspect of the impact on air from production activities of its TPPs is the most significant in comparison with other environmental aspects. Most electricity produced by the Company’s group (in 2021 – 93.3%) is generated using fossil fuels, resulting in origination of flue gases that pollute the atmospheric air. At the same time, because of chemical reactions that occur during fuel combustion, greenhouse gases are released into the air, affecting climate change.

Management approach to reducing greenhouse gas emissions

“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 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.

In addition, such subsidiaries of “Samruk-Energy” JSC as “Ekibastuz SDPP-1” LLP, “Ekibastuz SDPP-2 Plant” JSC, “APP” 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.

Management Approach to emissions of significant pollutants

The main sources of pollutant emissions in the Company are 1<sup>st</sup> category fuel stations. Significant substances common to TPP are nitrogen oxides, sulfur oxides, carbon monoxide, dust (ash).

The efficiency and correctness of environmental decisions taken during the design of stations is confirmed by the years of their operation. The choice of construction site for Ekibastuz stations of national importance is not a coincidence – proximity to the fuel source has been provided, which minimizes the negative impact of coal transportation, and most preferable conditions for dispersion of pollutants such as the height of the chimneys, the location that considers the topography and wind pattern, remoteness from residential areas were ensured.

Considering the opinion of the public and authorized bodies, gasification of CHP-2,3 is planned at Almaty stations located in urban agglomeration in addition to the CHP-1 and WHC already converted to gas.

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.

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 4<sup>th</sup> 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.

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	Ereymtau 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 Ereymtau 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

03.3 “Environmental” category

Evaluation of management approach

According to the 2021 results, the volume of electricity production by renewable energy sources (RES) of the group amounted to about 336 mln kWh, thus Samruk-Energy share in RES market was about 10%.

To implement instructions of the Republic of Kazakhstan President, given during the extended meeting of the Government held on July 10, 2021, to “to commence the implementation of the project on retrofit of Almaty CHP-2 and complete the first stage in 2023”, “APP” JSC developed a FS of the project and received a positive conclusion from Gosexpertiza. At the same time, it is planned to implement the project on reconstruction of the Almaty CHPP-3 with an increase in installed capacity up to 450 MW.

According to the 2021 results, the following was achieved across the group of companies:

- ▶ lack of emergency situations that resulted in environmental damage;
- ▶ the share of “clean” energy production – RES and HPP – 8.7% of the total output of the company’s group;
- ▶ unit emission of CO<sub>2</sub> in comparison with 2019 is owing to the reduction of unit consumption of fuel equivalent (UCFE);
- ▶ unit emission of pollutants into air has reduced by 3.5% in comparison with 2019 indicator owing to an increase in share of generation using RES and share of production by HPP, gas-fired CHP-1, as well as SDPP-1, environmental performance of which is better than of other coal-fired power plants of “Samruk-Energy” JSC group of companies.

Direct greenhouse gas emissions

	Measurement unit	volume		
		2019	2020	2021
Carbon dioxide	thous. tons	31,593	33,413,98	32,920,447
Methane		353,850	341.6	347,123
Nitrogen oxide		0,275	0,296	15,425

The Republic of Kazakhstan law does not require a mandatory assessment of indirect greenhouse gas emissions, however, we suppose that the indicated volumes of greenhouse gas emissions contain 95% of total greenhouse gas emissions,

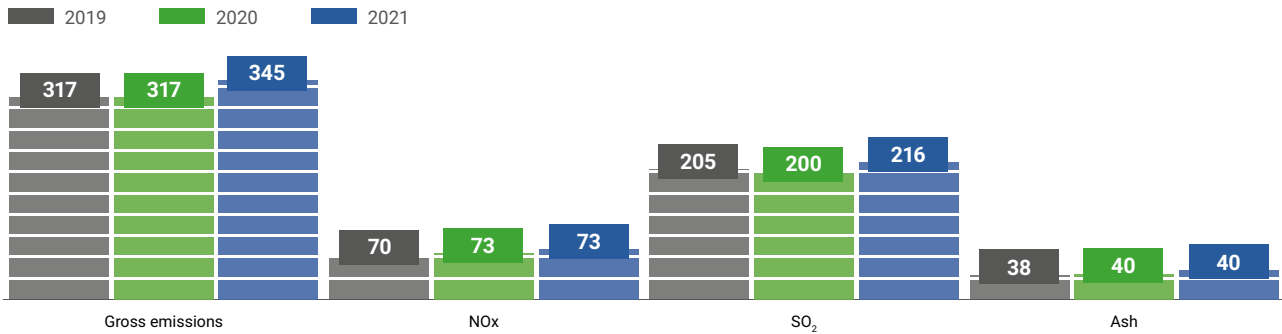
including indirect (Scope 1 and 2) of “Samruk-Energy” JSC group of companies, since when calculating direct emissions, SA auxiliary power is considered.

ODS and other emissions

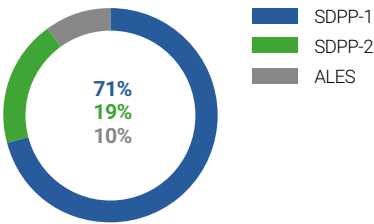
	Measurement unit	volume		
		2019	2020	2021
ODS production volume	-	–	–	–
ODS import volume		–	–	–
ODS export volume		–	–	–
Persistent organic pollutant (POP)		–	–	–
VOC	tons	261.6	261.4	260.77

Pollutant emissions

GROSS EMISSIONS ACROSS “SAMRUK-ENERGY” JSC GROUP



CONTRIBUTION OF SA IN TOTAL EMISSIONS OF THE COMPANY “GENERATION” SECTOR 2021



ASPECT “WASTE”

The production process is bound to waste generation, and when managing those wastes “Samruk-Energy” JSC group of companies strive to comply with environmental, sanitary, and epidemiological requirements and standards in treatment of certain types of waste.

Taking into account the specifics of operations of “Samruk-Energy” JSC large enterprises, production wastes are classified as large-tonnage – ash and slag waste at TPP and overburden at “Bogatyr Komir” LLP coal mine.

These types of waste are non-hazardous and make up most of the total waste. Other types of waste are classified as consumption waste. Measures regarding them involve separate collection and further transfer of these wastes for recycling or disposal.

Management approach

As required by Kazakhstan environmental legislation, the volumes of waste disposal are controlled. As regards the consumer waste, there are requirements for separate collection and temporary storage in specially equipped places, as well as types of waste that are not acceptable for burial at landfills are determined.

Thus, the types of waste, which are suitable for reuse and classifying as secondary raw materials followed by transfer to corporate entities and individuals, are determined. At “Samruk-Energy” JSC such wastes include waste paper, cardboard and paper waste, plastic and plastic waste, mercury-containing lamps, scrap of non-ferrous and ferrous metals, electronic and electrical equipment, batteries, tires and their fragments and other hazardous waste.



03.3 “Environmental” category

The total mass of waste by type and method of treatment

		Measurement unit	Mass		
			2019	2020	2021
1	Total waste produced, incl.		75,476	97,513.5	88,841,030
2	Hazardous	thous. tons	20	21.3	19.76
3	Non-hazardous		75,456	97,492.2	88,821,267

Evaluation of management approach

Production waste across “Samruk-Energy” JSC group is disposed in the most secure way.

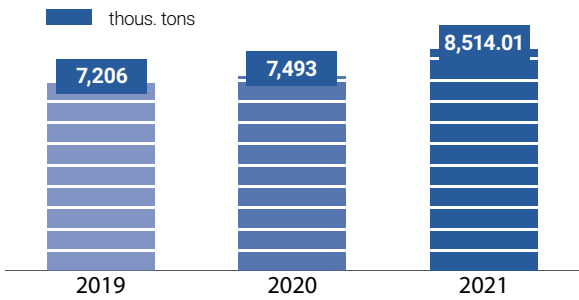
To mitigate the negative impact of “Bogatyr Komir” LLP on adjacent territories, the works on reducing the volume of overburden disposal at external dumps, for this purpose, the projects on using the internal mined-out space of “Severn” and “Bogatyr” open-pit mines as internal. For preventing oxidative 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.

Ash and slag waste of TPP are buried in ash dumps, dust suppression works are carried out as well, at SDPP – under the edge of the water, and at Almaty stations – using a unique combined technology with topping a layer of soil and planting of perennial and shrubs. 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 per unit of production.

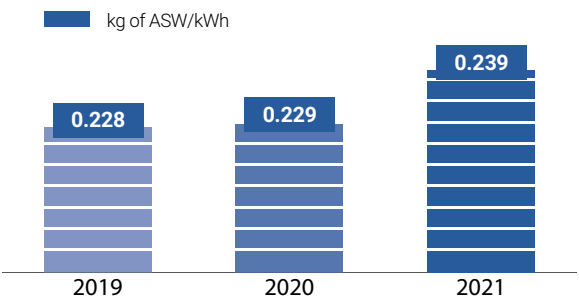
At the same time, ash and slag disposal also belongs to production waste management activities – they are used in construction of roads.

About 17.5 thousand tons of dry ash were disposed in 2021. However, the demand for ash and slag as a raw material is low.

BEMAND FOR ASH AND SLAG AS A RAW MATERIAL



PER UNIT INDICATOR OF ASH AND SLAG  
PRODUCTION FUEL GENERATION SECTOR





# “SOCIAL” CATEGORY



Human resources policy is based on the objectives of the Company's Development Strategy and aims to contribute to the most efficient implementation of strategic initiatives.

Human resources policy is a basic document in human resources management and focuses on development of human potential and determines the need for the development of personnel competencies for the successful implementation of the activities described in the Strategy.

The personnel management policy is aimed at creating attractive conditions for employees and becoming one of the key and most prestigious employers in the regions of presence.

## The mission of personnel policy

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.

## Human Resources Policy Vision

Combining the efforts of human resources to achieve strategic goals of the Company in the long term and provide a competitive advantage in the market.

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 personnel policy of the Company is based on the principles of sustainable development – it is respect for the interests of stakeholders, respect for human rights, openness, accountability, transparency, legality, ethical behavior, personal example, intolerance to corruption, inadmissibility of conflicts

of interest, provision of equal employment opportunities, non-discrimination, prevention of sexual harassment and others.

On March 07, 2019, the company signed a statement of support for the Women's Empowerment Principles, developed as part of the UN Women partnership and the United Nations Global Compact.

The company aims to develop a human rights policy and focus on key issues related to promoting gender equality in the workplace, empowering women. The signing of this statement demonstrates the Company's commitment to the principles of gender equality as a key element of sustainable development, as well as the conviction that organizations that provide equal opportunities for women and men are more successful and achieve better results.

“Samruk-Energy” JSC is one of the largest employers in the Republic of Kazakhstan. As of December 31, 2021, the Company's headcount amounted to 17,645 people.

“Samruk-Energy” JSC group's personnel structure has remained stable over the past years. The average length of service of employees – 13 years.

The share of full-time employees in the reporting period was 100%.

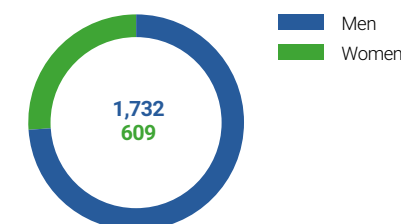
In connection with the production specifics of the Company's operations, male employees are involved in the main production areas, whose share of the total staff in 2021 was 74%.

“Samruk-Energy” JSC supports 7 Principles for the Empowerment of Women, developed through a partnership between UN-Women and the United Nations Global Compact. This document involves the commitment to the principles of gender equality as a key element of sustainable development, as well as the conviction

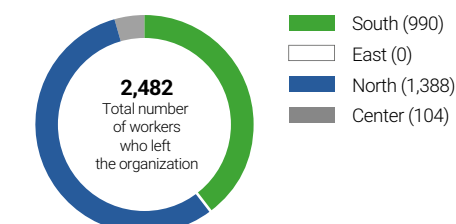


In 2021, 2 341 people were hired across the Company's group

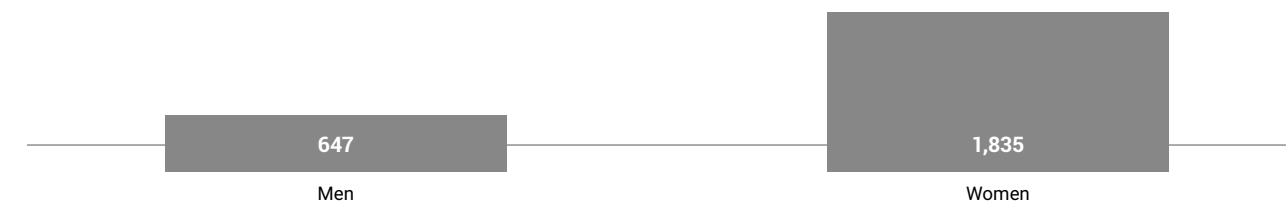
## HEADCOUNT



## STAFF TURNOVER BY REGIONS FOR 2021



## STAFF TURNOVER BY GENDER FOR 2021



that companies that provide women and men with equal opportunities are more successful and achieve better results. To achieve this goal, the Company has adopted the Action Plan.

The share of top-ranking managers in significant regions of operation, hired from representatives of the local population during the reporting period amounted to 100%.

In 2021, the employee turnover rate was 10%. The main reasons are the prospect of getting a higher salary elsewhere and the lack of career and professional development and training.

Because of specifics of its operations, “Samruk-Energy” JSC has no risk of using child and forced labor, as well as performance of hazardous work by young employees.

To retain internal talents and attract highly competent staff, as well as improve the quality of “Human Capital”, the Company secures the mainstreaming of selection and recruitment of employees in accordance with the principles of meritocracy and transparency, as well as development of internal competencies and participation in the implementation of projects “Zhas-Orken” and “Digital Summer”.

03.4 “Social” category

This approach will contribute to the accumulation of competencies and skills necessary for business development,

achievement of specific results and sustainable development of the Company.

Staff profile

Nº	Indicator	Employees	Share
1.	Total headcount (list-based)	17,645	
2.	Gender		
2.1.	Men	13,061	74%
2.2.	Women	4,584	26%
3.	Minority groups (racial / ethnic, religious, disabled)	17,645	
3.1.	Kazakh	11,167	62%
3.2.	Russian	4,402	26%
3.3.	Ukrainian	608	4%
3.4.	Uighur	345	2%
3.5.	Tatar	324	2%
3.6.	German	230	1%
3.7.	Belorussian	123	1%
3.8.	Korean	54	0,3%
3.9.	Other	392	3%
4.	Age groups (average age of employees – 38 years)	17,645	
4.1.	under 30 years	2,632	17%
4.2.	from 30 to 50 years	9,711	53%
4.3.	over 50 years	5,302	30%

The Company strictly complies with the current legislation, in the event of other significant changes relating to business, including the termination of an employment contract, it notifies employees in writing at least one month in advance.

The company aims to create attractive conditions for employees and the task of becoming one of the key and respected employers in the regions where it operates. As part of this goal, the Company will continue working on development of HR branding, including the approval of an approach to creating an EVP (employer value proposition), as well as the approval of a roadmap (action plan) for creating “Samruk-Energy” JSV EVP.

The main priority areas for the development of “Samruk-Energy” JSC in social aspect as part of the implementation of the ESG principles and in accordance with the Development Strategy for 2022-2031 are:

1. increasing the level of social responsibility, adherence to the principles of the UN Global Compact.
2. Introducing high ethical standards, developing a value system, and building a corporate culture based on trust, investing in human capital and professional development.
3. Provision of social guarantees and social stability in the Company (growth of personnel involvement, regulation of social and labor relations based on the principle of social partnership and social responsibility).
4. Social security (prevention of discrimination, prevention of violations of human rights, equal rights, and opportunities).
5. Promoting the principles of gender equality (increasing the number of women in the labor force, ensuring the optimal number of women in leadership positions, increasing the number of women in the personnel reserve).
6. Staff turnover control. Retention of internal talents and attraction of highly professional personnel (talent management, development of internal competencies).

7. Development of HR branding.
8. Improving the occupational health and safety management system and improving its results (increasing the transparency of reports on occurred incidents in order to prevent cases with more severe consequences (deaths, accidents); improving safety culture through the involvement of employees in occupational safety management system and increasing efficiency control over occupational safety management system using international standards.

OCCUPATIONAL HEALTH AND SAFETY

Guided by the principles of sustainable development, the Company implements a policy aimed at reducing workplace injuries and improvement of working environment for employees.

One of priority areas for the development of “Samruk-Energy” JSC as part of the further implementation of the ESG principles and the updated Development Strategy for 2022–2031 is:

1. Improving the occupational health and safety management system and increasing its results (more transparency of reports on occurred incidents to prevent cases with more serious consequences (deaths, accidents);
2. Improving the safety culture through the involvement of employees in the OHS management system and improving the efficiency of control over occupational safety management system using international standards.

In this regard, the Company's HSE best practices:

- The SKE 01.01 project "Introduction of the new integrated safety management model" was implemented as part of Transformation program.
- A pilot project "Safe Production" is implemented within the framework of the Concept of a unified automated system for registering incidents and violations in occupational health and safety;
- "Visualization of performance management" pilot project was implemented.
- HSE department employees complete trainings on the topics such as audits of management systems, proactivity, and internal coaching of the system is conducted, an info session is held for the top management of the Company and its subsidiaries.
- Competitions in OHS are held.
- An Action Plan for addressing health, safety and environmental protection issues as a motivational KPI for chief executive officers of an enterprise, are developed.
- Summing-up meetings on health and safety issues are held quarterly, which are chaired by the Company's Chairman of the Management Board.

- Memorandums of cooperation in occupational health and safety were concluded with leading companies to exchange experience.

All subsidiaries and affiliates developed and approved OHS work plans, a set of organizational and preventive measures in accordance with the Action Plan for the Management of Occupational Health and Environmental Protection at the Company's group for 2021 and the Company's Policy on Occupational Safety and Health.

In compliance with Article 203 of the Republic of Kazakhstan Labor Code, production councils in charge of occupational health and safety issues operate throughout “Samruk-Energy” JSC group of companies. It consists of representatives of the employer, representatives of employees, including OHS technical inspectors on a parity basis.

Workplace assessment in terms of working conditions was conducted at all subsidiaries and affiliates of the Company. Following workplace assessment, workplaces with harmful and dangerous working conditions have been identified. At the same time, all employees are provided with appropriate benefits, including personal protective equipment and clothing in accordance with the legislation of the Republic of Kazakhstan.

In accordance with Article 185 of the Labor Code of the Republic of Kazakhstan, employees, which are engaged in works associated with increased danger, machines and mechanisms, undergo a pre-shift and post-shift medical examination.

“Samruk-Energy” JSC group regularly conducts vaccinations for its employees, and also uses other forms of maintaining immunity in order to prevent diseases, the condition of sick employees is monitored, and the use of the Ashyq app has been introduced. Preventive measures have been taken to avoid the spread of COVID-19, employees' temperature is measured at the entrance, and the mask regime is observed.

The Company has adopted the practice of conducting scheduled and unscheduled (sudden) inspections to ensure compliance with the requirements of international standards, laws, and regulations of the RK, internal regulatory documents of the Company in occupational health and safety. During the reporting period, 11 scheduled inspections and 6 unscheduled (sudden inspections) were conducted.

Despite the large number of preventive and corrective measures implemented, 6 work-related accidents were reported in 2021: 4 of them with a severe outcome, 2 with a mild outcome.



03.4 “Social” category

Description of injuries	2019	2020	2021
Chemical burn, thermal burn	2	–	
Bruise	1	1	2
Traumatic amputation	–	1	
Electrical injury (thermal burns)	1	1	
Fractures	5	1	3
Combined injury (fractures, bruises, ruptures of internal organs)	–	4	1
Eye injury	–	–	
Traumatic brain injury, concussion	2	–	
Total	11	8	6

Indicators of 2021 results		
LTIFR		0.19
FIFR		0
LDR		138.41
Lost day rate		446
Missed days rate		115,668
Occupational illness rate		none

Prevention and elimination of natural disasters and emergencies in activities

All enterprises that are part of “Samruk-Energy” JSC group are provided with primary fire extinguishing equipment: portable and mobile fire extinguishers, equipped with fire hydrants, provided with boxes with a powder composition (sand), as well as fire-resistant fabrics (mat, felt, etc.).

Supervisory state bodies, representatives of “Samruk-Energy” JSC employees, as well as OHS officers of an enterprise, monitor the availability of serviceable fire extinguishing equipment during scheduled and unscheduled inspections.

The Company conducts safety briefings, as well as training and preparing employees to act during emergencies. Measures taken to prevent occupational injuries.

Measures taken to prevent industrial injuries

To reduce occupational injuries across “Samruk-Energy” JSC group, the following measures are taken:

1. The circumstances and causes of accidents are communicated to all employees.
2. An unscheduled briefing is conducted for all production staff.
3. Extraordinary test of Operating and maintenance rules, safety regulations is conducted for employees of departments, in which occurred an accident.

4. Safety Days are held monthly with the participation of top managers of enterprises. Measures aimed at eliminating of violations identified are developed following such safety days.
5. Occupational safety and health services organize comprehensive inspections of equipment, buildings and structures, workplaces. Action plans with deadlines and responsible persons are developed following these comprehensive inspections.
6. All production personnel are trained in accordance with the Rules for training, instructing, and testing the knowledge of employees on OHS issues.
7. Prior to repair campaign, seminars-meetings are held at all enterprises of the Company with engineering and technical employees of structural units who have the right to issue job orders, be managers and site supervisors, with practical exercises on the correct admission of the team to performance of works and execute the job order.
8. Enterprises conduct workplaces assessment in terms of working conditions no less than once in every five years.
9. Planned replacement of equipment that has exhausted its service life and poses a danger to production personnel is conducted.
10. The practice of conducting leadership behavioral security audits is introduced.
11. The risk maps/registries are updated at workplaces, considering additional training/education of personnel on hazard identification and risk assessment.





# "SAMRUK-ENERGY" JSC VALUES

"Samruk-Energy" JSC strives to constantly improve the working conditions of employees, safety measures and other social aspects to improve people's well-being. The company sees the balance between production approaches and social priorities as one of the main tasks in the regions of where it operates.



## 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



## ҮАДЕГЕ БЕРИКТИК 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



03.4 “Social” category

MOTIVATION AND REMUNERATION

The company adheres to the following policy of remuneration and motivation:

- 1. 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;
- 2. wage indexation based on the consumer price index;
- 3. periodic increase in wages resulting from better performance;
- 4. the use of flexible bonus systems for complete consideration of an individual labor contribution of an employee;
- 5. the objectivity and unity of the system of payment and motivation of workers and its competitiveness at the national level;
- 6. rewarding with corporate and industry awards.

The average salary of employees at “Samruk-Energy” JSC group of companies in 2020 increased in relation to the same indicator by 14% – from 273,628 tenge to 311,652 tenge. The growth of the average salary of production staff amounted to 14% – from 256,611 tenge to 292,092 tenge, administrative staff amounted to 15% – from 467,305 tenge to 535,282 tenge.

The minimum wage across the group of companies is 137,021 tenge. The ratio of the minimum wage for women to the minimum wage for men is 100%. The wage is set based on the salary scheme and the tariff rate.

In order to increase the content of wages and compensate for inflationary processes, as well as in accordance with the concluded Collective Agreements at “Samruk-Energy” JSC group of companies, the indexation of wages was carried out by an average of 5% in 2021.

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). According to the Collective Agreement, upon termination of the employment contract, employees are paid a compensation payment in the amount of 3 wages in connection with retirement.

Employees who combine work with education in educational institutions are also provided with additional leave for the period of examination or adjustment sessions, the preparation and protection of the graduation project (thesis), and the passing of final exams.

To motivate and encourage employees across “Samruk-Energy” JSC group of companies, the honoring of distinguished employees with state, departmental and industry awards was held as part of the corporate culture development.

According to the results of 2021, “Samruk-Energy” JSC group employees were presented for awarding the following merits:

- Order of the Republic of Kazakhstan "Kurmet" – 1 employee, Medal of the Republic of Kazakhstan "Eren Enbegi Ushin" – 3 employees;
- Anniversary medal for the 30th anniversary of the Independence of the Republic of Kazakhstan – 35 people;
- Badge for the 100th anniversary of GOELRO – 141 employees;
- Medal "KAZENERGY" – 3 employees, Certificate of honor "KAZENERGY" – 5, "KAZENERGY" letter of gratitude – 7 employees;
- Awarded with a badge of “Samruk-Kazyna” JSC in honor of the 30th anniversary of Independence of the Republic of Kazakhstan – 11 employees, Certificate of Honor of “Samruk-Kazyna” JSC – 15 employees;
- The title of "Honored Power Engineer of the CIS" – 3 employees, Certificate of Honor of the Electricity Council of the CIS – 2 employees;
- The title of "Enbegi Singen Energetik. Kazakhstan Elektr energeticalyk Kauymdastygy" (well earned power engineer title given from Kazakhstain Power Indsutry Union) – 2 employees; "Kurmetti Energetik Kazakhstan Elektr Energetikalyk Kauymdastygy" (Honored power engineer title given from Kazakhstani Power Industry Union) – 2 employees, "Kazakhstan Elektr Energetikalyk Kauymdastygynyn qurmet gramatasy" (Honorary Diploma from Kazakhstani Power Industry Union) – 6 employees;
- Medal "Elektr energetica salasyna koskan ulesi ushin" (for contribution made to the power industry), badge "Enbek Sinirgen Energetic" (well deserved power engineer), badge "Kurmetti Energetic" (honored power engineer), Certificate

of Honor of the RK Ministry of Energy and Letter of Gratitude from the RK Ministry of Energy – 50 employees;

- Certificate of honor from "Samruk-Energy" JSC, Letter of gratitude from "Samruk-Energy" JSC – 144 employees.

DEVELOPMENT AND CAREER GROWTH

One of the priorities of the Human Resources Policy is to provide massive opportunities for staff training and development. The Company sees staff training as an integral project that provides employees with the level of competence required for addressing tasks at work, and contributes to the growth of loyalty of employees of the Company and SA, creates a favorable social climate in the team and has a direct impact on the development of corporate culture.

The specifics of power industry require 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 the equipment and the company.

The main directions of staff development of the Company's group:

- Leadership Development Program;
- Operation of coal-fired boiler / steam turbines of thermal power plants;
- Training courses “Mentorship”, “Preparation of internal trainers”;
- MBA and EMBA programs;
- Corporate English language and state language courses;
- Seminars, trainings, and conferences on the functional orientation of employees’ occupation.

The processes of training, reskilling and upskilling of employees are systematized at “Samruk-Energy” JSC group.

Furthermore, “Samruk-Energy” JSC group creates all the necessary conditions for training and development of the pool of talents, the main principle of which is the targeted training of management personnel in order to ensure the continuity of management, as well as provide employees with opportunities for development and career growth at the Company’s group.

The execution of the Calendar plan for training employees is monitored regularly as part of the Leadership Development Program. To implement the Roadmap for the Company's Transformation, in order to develop the mandatory Leadership Program for 2021, the schedule for training of CEO, CEO-1, CEO-2 was approved by the Order No. 40-P dated February 2, 2021.

As of December 2021, leadership program training were completed by CEO – 100%; CEO-1 – 100%, CEO-2 – 100%. Trainings under programs such as "People Management", "Public Speaking", "Strategic Management", "Coaching Skills", "Digital Skills", "Change Management" and "Strategic Management" were arranged.

A Mentoring Program was developed and approved as part of the development of leadership in the Company. This program aims at facilitating the achievement of following goals:

- development of mentoring culture;
- reduction of staff turnover;
- the Company's employees' performance management.

In 2021, the Company created three pairs of Mentor and Mentee. The mentors analyzed strengths and weaknesses while working with Mentee and shared their experience, knowledge, and expertise with Mentee.

A mentee, who participated in the Program, fully realized capacity, received the support and experience of the Mentor.

In 2021, the total expenditures for education amounted to 306,428 thous. tenge. The number of trained employees is 13,873 (79% of the headcount in the Company’s group).

Description	Measurement unit	Total training costs for 2021
Training and development costs	thous. tenge	306,428
Percentage of training costs from payroll	%	0

03.4 “Social” category

The average number of training hours per employee was 49.5 hours per year

Personnel category	Total headcount at the end of 2021	Amount of training hours for 2021	Average training hours per employee per year
Senior management (top management)	69	2,266	32.84
AMS	1,360	60,835	44.75
Production staff	15,963	800,413	50.14
Service staff	253	9,892	39.10
<b>TOTAL</b>	<b>17,645</b>	<b>873,406</b>	<b>49.50</b>

TALENT MANAGEMENT

The Company's Talent Management Rules were updated to bring the Talent Management Rules in compliance with the Corporate Standard, as well as to improve HR functions.

On December 21, 2021, the members of the Appointment and Remuneration Committee of the Company held an annual meeting with the most promising employees included in the succession plan and the talent pool. The meeting was held online using the Zoom remote video conferencing platform.

Performance appraisal

In line with the recognized international practice of effective human resource management, the assessment procedure is based on an assessment of the business and leadership competencies of employees, considering the performance appraisal, received by employees during the reporting year.

The following types of assessment are conducted in compliance with current Rules for performance appraisal of the Company's employees:

- a comprehensive (final) assessment of goals and competencies, which includes: self-assessment, review meetings, a review of skills, potential, assessment and providing employees with guidelines to improve performance and development opportunities;
- an interim review of employees performance, which is carried out on a quarterly basis, in order to monitor the degree of achievement of goals for the reporting period.

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 develops 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.

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.

PROVISION OF SOCIAL GUARANTEES AND  
SOCIAL STABILITY AT “SAMRUK-ENERGY” JSC

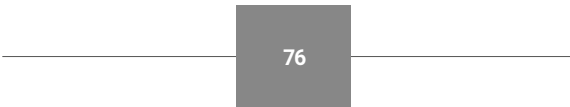
The annual measurement of indicators of social stability and employee involvement allows taking timely measures on increasing employee loyalty and trust, social welfare, and employee involvement, improving working conditions and processes associated with staff work, developing communication systems, and informing about any changes.

In 2021, the methodology for determining the engagement index and social stability rating was updated. The purpose of updating the methodology is to increase the practical significance of results and the value of recommendations to ensure social stability in a team.

In 2021 the study was conducted by telephone survey within Samruk Research Services platform.

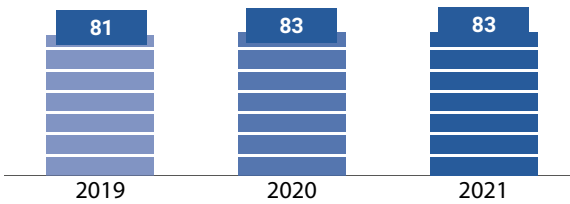
According to the research results, the Social Stability Index across “Samruk-Energy” JSC group was 76% in 2021.

The share of engaged production workers across the  
Company group



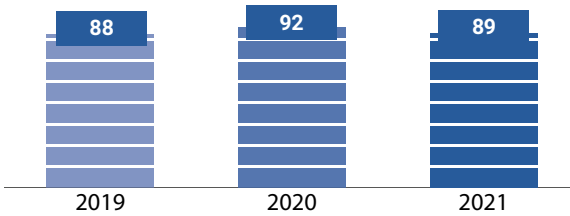
The indicator of the survey of **administrative and management staff engagement** across “Samruk-Energy” JSC group in 2021 amounted to 83%, which has not changed if compared with 2020.

THE SHARE OF ENGAGED ADMINISTRATIVE AND  
MANAGEMENT STAFF ACROSS THE COMPANY'S  
GROUP



The indicator of the survey of the Company's (Head office) **administrative and management staff involvement** in 2021 was 89% and is in the positive zone.

THE SHARE OF ENGAGED EMPLOYEES OF THE  
COMPANY



Share of employees under collective bargaining agreement

№	Indicator	Value (2021)	Measurement unit
1.	Total number of employees (headcount) as of the end of 2021	17,645	pers.
2.	Including employees under collective bargaining agreement for 2021:	15,567	pers.
3.	Share of total employees under collective bargaining agreements:	88%	%

The Company implements the following activities for health improvement, and recreation organization:

1. the provision of additional days to paid annual labor leave for years of employment;

Conciliation committees are formed and operate in the 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 employees, complaints and appeals consideration 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





03.4 “Social” category

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

The process of managing corporate culture has been regulated to create and develop a system of behavior and values that contribute to the effective achievement of companies’ goals.

The main goal of this process is to ensure the formation and development of a system of provisions of behavior and values, compliance with which will contribute to the achievement of the Company's goals, and also facilitate the Company to interact with the external environment.

YOUNG EMPLOYEES’ RELATIONS POLICY

An important direction of the personnel policy of “Samruk-Energy” JSC group is young experts’ relations. “Samruk-Energy” JSC group applies a comprehensive approach to work with young staff. There is a Council of Young Professionals at “Samruk-Energy” JSC group, the purpose of which is the creation and implementation of a unified youth policy.

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 public youth 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.

Every year this youth movement strengthens its position. Young active members of the Company participate in work-related and social life. There are many creative talents among them who are involved in organizing corporate events.

Young specialists implemented several activities in 2021 in order to considerably support the volunteer movement:

- ▶ The Jas Energy Youth Council organized a charity event "Shyn Zhurekten" (from the bottom of heart). On frosty days, members of Jas Energy Youth Council treated to hot coffee employees of the public utilities of Yesil district of Nur-Sultan city, who clean snow and garbage from the streets of the city all day long;
- ▶ in the framework of implementation of charity project, the volunteers of the united youth movement of “Bogatyr-Komir” LLP organized a fair in “Shakhter” park;
- ▶ as part of implementing "Road to School" campaign, the youth asset of "Ekibastuz SDPP-1 named after B. Nurzhanov" LLP purchased and prepared sets of school supplies for 100 students of schools No. 9 and No. 11 of Ekibastuz city;
- ▶ on the eve of the New Year, the Jas Energy Youth Council made the wishes of children who suffer from cancer come true with the help of the annual Magic Tree charity event.

HUMAN RIGHTS

“Samruk-Energy” JSC is guided by the current legislation of the Republic of Kazakhstan in the field of human rights protection. Guided in its operations by the Constitution of the Republic of Kazakhstan, the Company recognizes, guarantees and ensures the observance of human rights and freedoms. “Samruk-Energy” JSC does not tolerate actions that violate human rights or that may indirectly cause such violations.

“Samruk-Energy” JSC also recognizes the importance and value of the fundamental human rights and freedoms proclaimed by the UN, the Universal Declaration of Human Rights of 1948, the International Covenant on Civil and Political Rights of 1966 and the International Covenant on Economic, Social and Cultural Rights of 1966, including freedom of association, recognition of the right to collective bargaining, labor rights, the right to a healthy environment, health protection.

The principles of human rights observance are reflected in the Code of Conduct of “Samruk-Energy” JSC, which sets high professional and ethical standards that activities of “Samruk-Energy” JSC employees must comply with, regardless of their position. Human rights are secured by the standards of equal employment and work conditions enshrined in the Code of Conduct, the prohibition of discrimination and harassment. Compliance with the norms and provisions of the Code is obligatory for all employees of the Company, members of the Board of Directors, Management Board and third parties who work with “Samruk-Energy” JSC.

Follow this link to learn more about the Code of Conduct: [#2](https://www.samruk-energy.kz/ru/corporate-governance/corporate-documents).

One of the main documents in the Company is the Sustainable Development Guidelines, which govern the provision of fundamental human rights and freedoms. The document outlines the Company's position on supporting internationally proclaimed human rights not only within the Company's activities, but also in relation to third parties with whom “Samruk-Energy” JSC works.

As a Company adhering to high standards of ethical behavior, responsible for ensuring that any areas of its activity do not contribute directly or indirectly to the violation of human rights, to strengthen relationships with Suppliers, the Company has developed guidelines for Suppliers. The Supplier Guidelines are based on the belief that corporate social responsibility is fundamental to long-term commercial success and must be reflected in the relationships and actions we take in the marketplace, workplace, and community.

The Sustainable Development Guidelines is available on the Company's website at the link: [#tab18](https://www.samruk-energy.kz/ru/navigation-and-support/sustainabledevelopment).

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 at “Samruk-Energy” JSC 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, taking into account 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.

12 trade union organizations comprising 15,567 members operate at “Samruk-Energy” JSC in order to regulate and protect the professional, economic, and social labor rights and professional interests of “Samruk-Energy” JSC employees.

“Samruk-Energy” JSC trade union protects the interests of employees – members of the trade union of “Samruk-Energy” JSC, in terms of compliance with labor laws, established social guarantees and fulfillment of the provisions of the contract.



03.4 “Social” category

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:	
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. Global level agreements usually address:	yes
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

“Samruk-Energy” JSC establishes dialogues with stakeholders on various aspects of its operations. In particular, to obtain information on concerns and complaints, a mechanism for submitting and reviewing complaints was developed using the

feedback system on “Samruk-Energy” JSC external website – a written request or a telephone call to the “hot line”.

Thus, 118 appeals were registered across the Company in 2021, all of them were settled during the reporting period.

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 2021, among them	118
1.1.	Processed during the reporting period	118
1.2.	Settled during the reporting period	118

Cases of discrimination, violation of human rights and freedoms among the employees of “Samruk-Energy” JSC group during the reporting year were not reported.

“Samruk-Energy” JSC group of companies respects the religious beliefs and political preferences of its employees, if they do not conflict with the current legislation of the Republic of Kazakhstan. In addition, “Samruk-Energy” JSC does not interfere with the participation of its employees in political, religious, and social activities as private individuals and during non-working hours.

Due to the specifics of the activity, there is no risk of using child and forced labor for the group of companies of “Samruk-Energy” JSC and for suppliers.

If available, job openings are regularly posted on the Company's website to ensure equal access to employment for all qualified candidates.

When hiring employees, discrimination based on gender, age, nationality, or any other grounds that infringe on human rights to work is not available.

SOCIAL INITIATIVES IN THE REGIONS  
OF OPERATION

For many 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.

To facilitate employment of the population, the enterprises of the Company's group provide information to the local employment authorities on the availability of vacancies, indicating working conditions and wages for inclusion in the database of current vacancies and future jobs.

Employees of “Samruk-Energy” JSC group systematically participate in charity: providing financial assistance to victims of natural disasters, low-income families.

All employees of “Moynak HPP” JSC were provided with company housing (77 apartments building) – comfortable houses with 3, 4, 5 bedrooms with all amenities. Houses have personal plots of land with an area of 6 acres with household outbuildings. A trade point was opened to provide food and essential goods. There is a kindergarten for 30 children in the operation service camp for the children of the Company's employees. “Moynak HPP” JSC provides ongoing support to the kindergarten located on the territory of Moynak village.

“SDPP-2” JSC is a city-forming enterprise for “Solnechny” rural area, where 60% of the total number of employees work.

“SDPP-2” JSC comprises social facilities: a medical and preventive service, a swimming pool, a hotel-type hostel, work is constantly being carried out to improve and landscape the territory. Funds are allocated from the station's budget for their maintenance and operation.

Each year the station's budget allocates funds for their maintenance and operation.

The enterprises of the Company's group regularly participate in citywide community workdays, landscaping, and gardening of surrounding area, interact with religious denominations and public funds, provide financial assistance as monthly subsidies, one-time cash payments, food baskets, preferential vouchers, etc.to retired employees, veterans of the Great Patriotic War, low-income families, the disabled, single mothers.

The companies fully support various social initiatives aimed at improving the quality of life of people, actively participate in urban social programs.

In 2021, all enterprises carried out landscaping and planting of assigned and adjacent territories, lawns, and green spaces.

Moreover, it is worth noting that “Samruk-Energy” JSC group shares the main provisions of the precautionary principle. Before launching new projects and facilities, as part of the environmental impact assessment, the Company must take several actions aimed at informing the public about the planned activity and its possible impact, to know public opinion and take it into account in the impact assessment process.

On November 28, 2015, the Law of the Republic of Kazakhstan “On Charity” came into force, and amendments were made to the Law of the Republic of Kazakhstan “On the National Wealth Fund”, in accordance with which a moratorium was announced on independent sponsorship and charitable activities in the portfolio companies of “Samruk-Kazyna” JSC. According to the new model, all charitable and sponsorship activities of the group are carried out by a single Operator – the “Samruk-Kazyna Trust” Social Projects Development Fund, including as part of investments in sustainable development.

# About the report

This “Samruk-Energy” JSC Annual report (hereinafter – the Report), which contains the Report in sustainable development, was prepared on the basis of “Samruk-Energy” JSC group’s operating results for 2021.

The content of this Report has been defined in accordance with the principles recommended by the GRI Standards. The Company applied the following approaches and principles in preparation of the Report.

### Stakeholder Engagement and materiality

Identification of stakeholders that considerably influence the Company and the degree of stakeholders’ dependence on the Company, creation of materiality matrix, a Stakeholder Engagement Plan and a Stakeholder Communication Plan serve as the basis for “Samruk-Energy” JSC stakeholders engagement.

“Samruk-Energy” JSC stakeholder engagement is based on the principle of “Inclusion” and is based on the Company’s readiness to invest in the development, in the future of its customers and employees, partners and suppliers, ensuring sustainable development of both the Company and local communities, making social investments in areas significant for the territory

### The list of substantial topics in 2021

1	The Company’s contribution to the country’s economy (including created and distributed economic value)	16	“Samruk-Energy” JSC principles and approaches to interaction with subsidiaries and affiliates
2	Financial stability	17	Supporting Kazakhstani producers in procurement
3	COVID-19 pandemic impact, including restrictions associated with the pandemic on “Samruk-Energy” JSC development strategy and the degree of its implementation	18	Engagement in implementation of social programs and interaction with local communities
4	Reliability and security of electricity supply	19	Strengthening of business reputation and stakeholder engagement
5	Tariff regulation	20	Support and respect for protection of internationally proclaimed human rights
6	Effective investment activity and implementation of socially significant projects	21	Introduction of high ethical standards and building a corporate culture based on trust

of the Company’s presence, readiness to develop interaction with all persons for an appropriate and flexible response to external and internal challenges (for more details, see the section “Sustainable Development”).

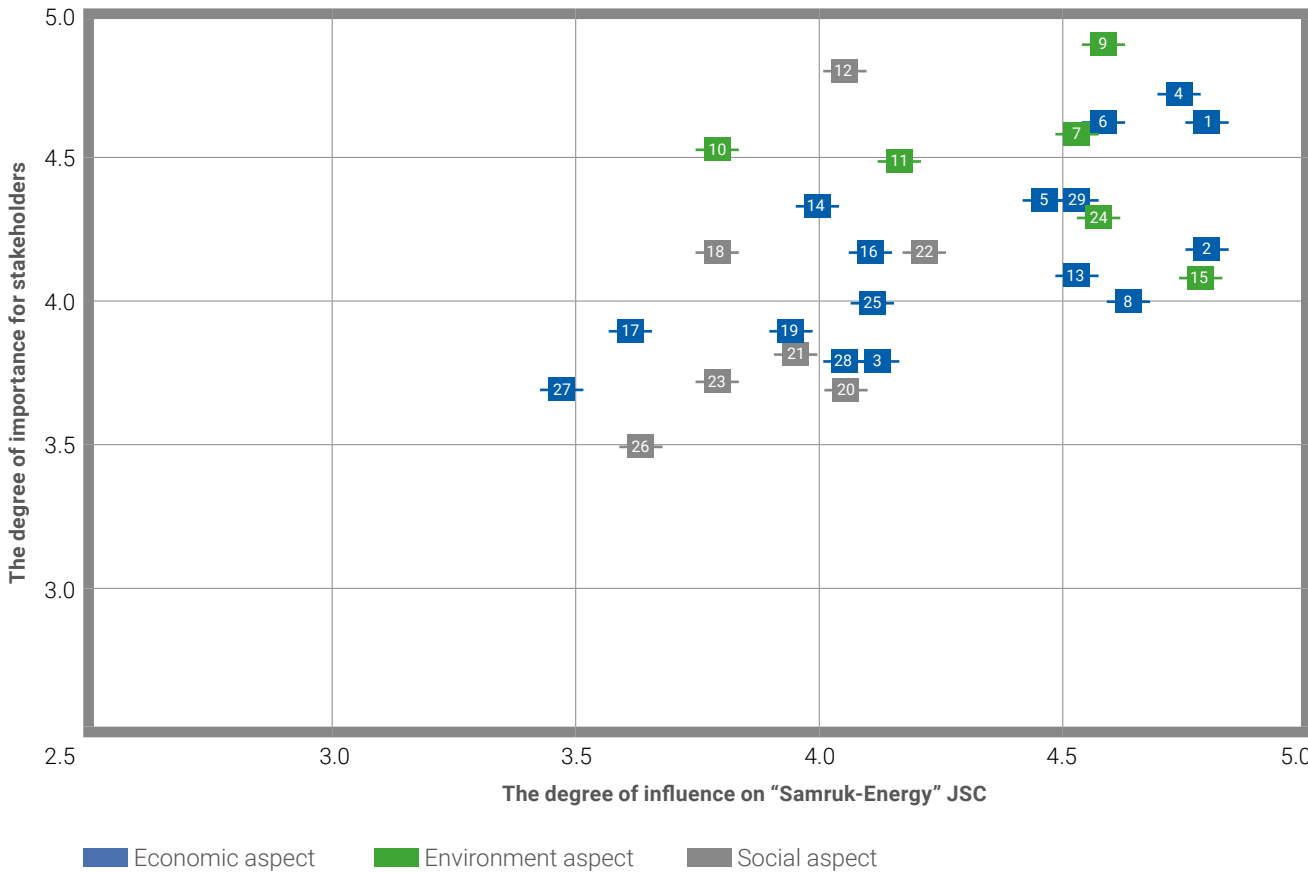
Considering the principle of “transparency” as part of stakeholder engagement, every year, the Company checks the balance and completeness of the information disclosed in the annual report after the release of the annual report, and also identifies topics and aspects that have a significant impact on the Company’s operations and its stakeholders, and which should be taken into account when building the structure of the annual report for the next reporting cycle, which includes: determination of a list of significant topics; survey of external and internal stakeholders; creation of a materiality matrix based on annual results.

### Changes in Reporting

To make a list of relevant topics and aspects, internal stakeholders were interviewed, general trends of foreign and Kazakhstani companies, GRI standards, the Company’s Development Strategy for 2022–2031, features of the Company’s operations and other significant aspects that may be important, were examined.

7	Decarbonization at “Samruk-Energy” JSC group	22	Ensuring social guarantees and social stability at “Samruk-Energy” JSC
8	Financial aspects and other risks and opportunities for “Samruk-Energy” JSC operations associated with climate change	23	Promoting the principles of gender equality, diversity, and equal opportunities
9	Development of renewable energy facilities	24	Improving the performance of occupational safety management system
10	Conservation of biological diversity	25	Compliance risk management and compliance culture at “Samruk-Energy” JSC
11	Waste management	26	Grievance mechanism
12	Prevention and elimination of natural disasters and emergency situations in the course of business	27	Corporate conflicts and conflicts of interests
13	Innovations and transformation	28	International cooperation
14	Information security	29	“Samruk-Energy” JSC contribution to 17 Sustainable Development Goals
15	Compliance with ESG principles		

### “SAMRUK-ENERGY” JSC MATERIALITY MATRIX







1 About the report

The analysis shows that as previously the topics related to tariff regulation and financial stability of the company, the company's contribution to the country's economy, effective investment activity, innovation and transformation, investments in renewable energy sources, information security, prevention and elimination of natural disasters and emergencies, principles and approaches to interaction with subsidiaries and affiliates, improving the occupational safety management system, etc. remain relevant for the Company and its stakeholders.

The evaluation of these aspects by stakeholders remains high, as in 2020.

Furthermore, considering the tasks on transition to clean technologies, technological transformation with a focus on low-carbon development assigned to the Company in 2021, important topics related to decarbonization at the Company's group, financial aspects and other risks, and opportunities for the company's operations associated with climate change, were included, and highlighted in the draft Materiality Matrix.

In accordance with the updated Development Strategy, the Company focuses on compliance of production activities with the principles of sustainable development, the consistency of its economic, environmental and social goals for sustainable development and the creation of economic value in the long term. In this regard, the draft Materiality Matrix also includes topics related to the development of ESG principles, the company's contribution to 17 sustainable development goals, and the provision of social guarantees and social stability at the Company's group, etc.

In comparison with the Materiality Matrix for 2020, the Company and its stakeholders also noted the importance of issues related to waste management, compliance risks and the company's compliance culture.

These and other topics raised by stakeholders, are included in this Report.

The Context of Sustainable Development

The report provides information on the Company's contribution to the economic, environmental, social aspects. The information on the degree of "Samruk-Energy" JSC contribution to 17 sustainable development goals according to the results of 2021 was disclosed.

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 shows the positive and negative aspects of the Company's results for the reporting year. Certain indicators 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.

In order to constantly improve the quality of the annual report, the Company annually conducts a comparative analysis and evaluates the progress (regression) achieved in comparison with the previous period.

Benchmarking covers: analysis of information disclosure (aspects, content structure, etc.); principles of information presentation (design, concept); approaches to disclosure and choice of materiality of topics. Comparative analysis was carried out on the basis of the annual report for the previous year with similar companies.

The comparative analysis of the annual reports for 2021 includes "KEGOC" JSC, "InterRAO" PJSC, "Kazatomprom" JSC. Based on the results of benchmarking, this Annual Report includes additional disclosure indicators, including within the framework of the ESG principles, and the analysis also showed the need to disclose activities through the prism of strategic goals, which is implemented in this Report.

At the same time, the integrated Annual Report of Samruk-Energy JSC for 2020 became the winner in the nomination "The Best Annual Report for 2020 in the non-financial sector" and the winner in the nomination "The Best Design of the Annual Report for 2020" in the competition of annual reports organized by JSC "Kazakhstan Stock Exchange (KASE).

When determining the winners in the nomination "Best Annual Report for 2020 in the non-financial sector", the expert commission and the jury of the competition analyzed the annual reports issued in Kazakhstan, with the main focus on content with the most complete and high-quality disclosure of information.

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 few 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 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.

There were no significant changes in the format of information presentation in this Report compared to last year. There were no restatements in the reporting period.

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, 2021, in electronic, paper form or online. The date of publication of previous Integrated Annual Report of the Company – 27<sup>th</sup> of July 2021.





1 About the report

LIMITATION OF THE SCOPE AND BOUNDARIES OF THE REPORT

The audited consolidated financial statements of the Company for 2020 as of December 31, 2021, and as of 31 December 31, 2020, 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 2021, to compare and analyze information in indicators, data for 2020 and 2019 were used, where applicable.

The Company determined the Report scope in accordance with GRI Standards: “Basic version”.

For the purpose of a unified approach, when compiling a report on the results of financial and economic activities, the Group of Companies of Samruk-Energy JSC uses the equity method in consolidation. In addition, in accordance with the current accounting policy, fixed assets and intangible assets

are recorded at their original cost, that is, without revaluation. Subsidiaries are included in the consolidated financial statements using the acquisition method. Identifiable assets acquired and liabilities and contingent liabilities acquired in a business combination are measured at their fair value at the acquisition date, irrespective of the extent of any non-controlling interest.

Based on the above, when using the method equity participation in the consolidated balance sheet excludes the turnover of such large companies as JSC Station “Ekibastuz SDPP-2”, coal assets company “ForumMuiderB.V”, the share of ownership in which by “Samruk-Energy” JSC is 50%.

When forming the consolidated financial result of Samruk-Energy JSC, the share of profit for these companies is reflected in the item “share of profit / loss of organizations accounted for using the equity method and impairment of investment.

The indicators of the following subsidiaries and affiliates of “Samruk-Energy” JSC were used in the audited consolidated financial statements of the Company for 2021:

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

Name of the company	Nature of business	% voting right	Interest	Country of registration
“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
“Tegis Munay” LLP and “Mangyshlak Munay” LLP	Exploration and development of gas field	100%	100%	Kazakhstan

STATEMENT OF RESPONSIBILITY

Based on all available information, “Samruk-Energy” JSC confirms that this Report fairly presents information on the results and changes in operations of “Samruk-Energy” JSC group, its current position, as well as the main risks and factors associated with operations of “Samruk-Energy” JSC group.

The report contains forecast statements regarding production, financial, economic, and social indicators that describe further development of the Company. The implementation of plans and intentions is tied to political, economic, social and legal situation in Kazakhstan and in the world. In this regard, the actual results of the Company's operations in the future may differ from those forecasted.

CONTACT PERSON FOR ANY QUERIES REGARDING THIS REPORT OR ITS CONTENTS

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FEEDBACK

The Company is interested in receiving feedback for further improvement of the integrated Annual Report, and quality disclosure of information to stakeholders. The Company will be thankful for completing the online questionnaire posted on “Samruk-Energy” JSC website in the interactive version of this Report.





2 The Report on Stakeholder communication plan of “Samruk-Energy” JSC based on 2021 results

The Report on Stakeholder communication plan

of “Samruk-Energy” JSC based on 2021 results

Nº	Activity on informing stakeholders	Stakeholder	Deadlines / frequency	Status of execution (executed/ not executed/ partially executed)	Brief information about compliance with the principle
1	2	3	5	6	7
1	Submission of reporting (financial, non-financial) in accordance with the requirements of the legislation of the Republic of Kazakhstan, internal regulations of the Sole Shareholder or relevant requests	Shareholder, government agencies, financial institutions	On a regular basis	Executed	<p>The following was provided in accordance with the established deadlines:</p> <p><b>To Shareholder:</b></p> <ul style="list-style-type: none"><li>▶ financial reporting packages for the relevant periods provided as part of SAP BPC system, information on the status of implementation of investment projects, as well as all types of management reporting (Development Plan, Development Strategy, Presentations to various hearings, etc.);</li><li>▶ packages 2HR, 1HR (quarterly), headcount optimization form (quarterly);</li></ul> <p><b>Financial statements depository:</b></p> <ul style="list-style-type: none"><li>▶ financial statements for 2020 (annual financial statements), the first quarter of 2021, half of 2021, and the third quarter of 2021 by uploading to the "Unified Reporting System" (on the submission of annual separate financial statements for 2020 – notification No. 1910 dated 16.08.2021; on submission of the annual financial consolidated statements for 2020 – notification No. 1909 dated 16.08.2021; on submission of financial statements for the first quarter of 2021 – notification No. 588 dated 29.04.2021; on submission of financial statements for the second quarter of 2021 – notification No. 125 dated 30.07.2021; for submission of financial statements for the third quarter of 2021 – notification No. 308 dated 29.10.2021).</li></ul> <p><b>State authorities</b> (Department of Statistics, State Revenue Office):</p> <ul style="list-style-type: none"><li>▶ 1 T reporting regarding labor matters;</li><li>▶ tax declarations by types of taxes (declarations form 100.00, form 700.00 for 2020; form 200.00, form 300.00, calculations form 101.01, form 101.02, form 101.03, form 101.04, form 701.01, form 851.00);</li></ul> <p><b>Development Banks:</b></p> <p>Reports to creditors are sent regularly (monthly, quarterly and every six months).</p> <p><b>NB of the RK</b></p> <ul style="list-style-type: none"><li>▶ Report on participation in the capital of the investment object for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2021;</li><li>▶ Report on used and servicing of a commercial loan, financial loan for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2021;</li><li>▶ Report on the movement of funds under the foreign exchange agreement for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2021;</li><li>▶ Report on financial claims to non-residents and liabilities to them for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2021;</li><li>▶ Report on international transactions with non-residents for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2021.</li></ul> <p>All the above-mentioned reports were submitted to the National Bank of the Republic of Kazakhstan correctly, ahead of schedule.</p> <p>In addition we would like to note that in order to reduce social contacts and minimize the risk of the spread of COVID-19 between government agencies and respondents, the above-mentioned reports were provided through the portal of the National Bank of the Republic of Kazakhstan.</p>
2	Provision of reports / information about the Company in accordance with the requirements of existing loan agreements	Financial institutions	On a regular basis	Executed	<p>The reports were sent to lenders regularly throughout the 2021 (monthly, quarterly and every six months). Business correspondence and information about the company is maintained on a regular basis.</p>



2 The Report on Stakeholder communication plan of “Samruk-Energy” JSC based on 2021 results

Nº	Activity on informing stakeholders	Stakeholder	Deadlines / frequency	Status of execution (executed/ not executed/ partially executed)	Brief information about compliance with the principle
3	Holding meetings, business correspondence with stakeholders	Shareholder, partners, consumers, government agencies, suppliers	On a regular basis	Executed	<p>Negotiations, meetings, business correspondence are conducted regularly, including those related to current loan agreements and issues of financing the Company's group of companies.</p> <p><b>Meetings/negotiations:</b></p> <ul style="list-style-type: none"><li>▶ More than 22 meetings were held with financial institutions during 2021 (second-tier banks, development banks, AIX) and potential investors;</li><li>▶ Meetings on horizontal monitoring project were held with representatives of the State Revenue Committee of the RK Ministry of Finance the</li><li>▶ A Strategic session on the consideration of the draft updated "Strategy for the Development of the Company for 2022–2031" dated September 29, 2021 was held with the Board of Directors of the Company (Minutes No. 3);</li><li>▶ On May 21, 2021, at the request of the Fund, information was prepared for the meeting of Mamin A.U, the Prime Minister of the Republic of Kazakhstan with EU ambassadors;</li><li>▶ On June 8, 2021, a meeting to discuss the prospects for cooperation was held with the French Development Agency;</li><li>▶ August 6, 2021, a meeting with Tetra Tech ES Corporation. Inc (USAID Energy of Central Asia project) to discuss the energy transition plan with the participation of R.T. Rakymbekov, Managing Director for Business Transformation and SU;</li><li>▶ August 25, 2021 participation in the signing ceremony of the Memorandum of Cooperation between Samruk-Energy JSC and Tetra Tech Es Corporation, implementing the Power Central Asia project;</li><li>▶ September 2, 2021, a meeting at the venue of the Institute of Parliamentarism regarding the discussion of the draft law "On Amendments and Additions to Certain laws and regulations of the Republic of Kazakhstan on supporting the use of renewable energy sources, power industry and natural monopolies";</li><li>▶ September 22, 2021, a meeting of Tutebaev S.S, the Managing Director for Production and Asset Management with Andritz Hydro;</li><li>▶ November 22, 2021, a round table meeting at the RES Association ("The current situation in power industry in Kazakhstan: challenges and solutions");</li><li>▶ From September 14 to December 23, the draft amendments to ensure the return on investment for the CHP-2 project in Almaty were agreed and considered by government agencies, the Office of the Prime Minister and the Presidential Administration and the Mazhilis of the Parliament; meetings (Meeting of PM Administration, President administration, Mazhilis of the Parliament of the Republic of Kazakhstan);</li><li>▶ In May 2021, a trip was organized to the Novomoskovsk and International SDPP (CCGT) operating in the Russian Federation with the participation of the partners from Siemens concern and General Electric to learn the experience and further implementation in APP JSC's Almaty CHP gasification projects;</li><li>▶ Negotiations and preparatory activities on arranging financing for the Project "Modernization of Almaty CHP-2 with minimization of environmental impact" were held, a detailed study is underway with the Development Bank of Kazakhstan;</li><li>▶ March 26, 2021, participation in the 11th meeting of the Coordinating Council of "Samruk-Kazyna" JSC on corporate security issues;</li><li>▶ On July 13, 2021, participation in the 12th meeting of the Coordinating Council of "Samruk-Kazyna" JSC on corporate security issues;</li><li>▶ On October 27, 2021, participation in the 13th meeting of the Coordinating Council of "Samruk-Kazyna" JSC on corporate security issues;</li><li>▶ A meeting was held in videoconferencing mode, it was dedicated to the launch of implementation of the Project "Reconstruction of cable networks in Almaty" with the participation of the Ministry of Energy, the Ministry of National Economy of the Republic of Kazakhstan and "Samruk-Energy" JSC;</li><li>▶ November 4, 2021 participation of "Samruk-Energy" JSC in the Republican meeting on the development of single-industry towns with presentation of issues on the implementation of the projects "Restoration of power unit No. 1" "Ekibastuz SDPP-1" LLP, "Expansion and reconstruction of Ekibastuz SDPP-2 with installation of power unit No. 3";</li><li>▶ On November 22, 2021, a meeting regarding concluding an investment agreement on the project "Expansion and reconstruction of the Ekibastuz SDPP-2 with installation of power unit No. 3" was held at the Ministry of Energy of the Republic of Kazakhstan;</li><li>▶ In August 2021, a videoconferencing meeting was held with participation of "INTER RAO – Export" LLC and the Trade Representation of the Republic of Kazakhstan in the Russian Federation on the participation of Russian manufacturers of equipment for power plants in "Samruk-Energy" JSC projects;</li><li>▶ Negotiations were held with potential partners as they officially submitted their requests regarding possible cooperation in the renewable energy sector to "Samruk-Energy" JSC.</li></ul>



2 The Report on Stakeholder communication plan of “Samruk-Energy” JSC based on 2021 results

Nº	Activity on informing stakeholders	Stakeholder	Deadlines / frequency	Status of execution (executed/ not executed/ partially executed)	Brief information about compliance with the principle
					<p><b>Business correspondence:</b></p> <p>According to the statistics of registration of incoming correspondence for the reporting period, the Company received 10,296 documents, the volume of initial correspondence is 3,948 documents. Also:</p> <ul style="list-style-type: none"><li>▶ On February 11, 2021, proposals on the General Agreement between the Government, employers and trade unions were sent to KEA;</li><li>▶ On February 25, 2021, proposals regarding the draft amendments to the Rules for determining fixed tariffs and ceiling auction prices were sent to KEA and KAZENERGY Association;</li><li>▶ From April to October 2021, the work was performed in cooperation with government agencies on development and approval of the National project "Sustainable economic growth aimed at improving the welfare of Kazakhstanis";</li><li>▶ On April 1, 2021, comments were prepared on the draft Resolution on the issue of ceiling bidding price of waste incineration waste;</li><li>▶ On April 2, 2021, comments and proposals to the draft law on development of competition were sent to the Kazenergy Association;</li><li>▶ April 8, 2021, at the request of the Fund, proposals were prepared and submitted for development of the Concept for low-carbon development of the Republic of Kazakhstan until 2050;</li><li>▶ On April 30, 2021, proposals regarding amendments to the Code of the Republic of Kazakhstan "On taxes and other obligatory payments to the budget" were sent to Kazenergy Association;</li><li>▶ On June 15, 2021, comments and proposals on the draft Rules for provision of services by the system operator, the organization and operation of the market for system and ancillary services were sent to KAZENERGY Association;</li><li>▶ On August 28, 2021, comments and proposals to the draft Rules for operation of balancing electricity market were sent to KAZENERGY Association and KEA;</li><li>▶ On December 14, 2021, comments on the draft Law of RK "On amendments and additions to certain laws and regulations of the Republic of Kazakhstan on balancing electricity market and the development of renewable energy sources" were sent to KAZENERGY Association and KEA.</li><li>▶ On September 14, 2021, remarks on the Minister of Energy of the Republic of Kazakhstan draft "On amendments and additions to the order of the Acting Minister of Energy of the Republic of Kazakhstan dated April 30, 2021 No. 161 "On approval of the Rules for organizing and conducting biddings for construction of newly commissioned generating units with a flexible generation mode" were sent to KKAZENERGY Association;</li><li>▶ On October 22, 2021, at the initiative of "Samruk-Energy" JSC, amendments were adopted to the Power Market Rules regarding the reduction factor k3, which will take into account the electric mode of operation of hydropower plants during seasonal pressure reduction and limitation of water flow from the reservoir. This work has been carried out since October 2020;</li><li>▶ On October 27, 2021, proposals on making amendments to the Rules for the organization and operation of power market regarding the unlawful application of the coefficient k5 were sent to the Kazakhstan Electricity Association;</li><li>▶ "Samruk-Energy" JSC together with the Ministries of Energy and National Economy of the Republic of Kazakhstan are working to introduce appropriate amendments to the Law "On Power Industry", which provides for the return of investments to operating energy producing organizations included in the Register of energy producing organizations. (CHP-2).</li></ul>
4	Preparation of the Company's media plan	Shareholder, subsidiaries and affiliates, employees, trade union, partners, consumers, government agencies, financial institutions, suppliers, population, media	Every quarter	Executed	"Samruk-Energy" JSC basic media plans are prepared for a period of 3 months (quarterly). During 2021, the Company's PR activities were performed in compliance with 4 media plans.
5	Publications of information about the activities of the Company in the media	Shareholder, subsidiaries and affiliates, employees, trade union, partners, consumers, government agencies, financial institutions, suppliers, population	Regularly	Executed	In 2021, 41 information messages (press releases) were prepared and sent to the media. More than 40 articles on "Samruk-Energy" JSC and its SA operations have been published in the corporate publication of "Samruk-Kazyna" JSC – SK-news. 15 videos about employees-veterans of the industry of "Samruk-Energy" JSC were made and posted on social networks, Youtube, on the website and internal portal of the company.
6	Placement of up-to-date public information about the activities of the Company (as it becomes available) on the corporate website of the Company / social networks	Shareholder, subsidiaries and affiliates, employees, trade union, partners, consumers, government agencies, financial institutions, suppliers, population, media	On a regular basis	Executed	<p>Information is updated daily. 43,375 users visited the website from January 1, 2021 to December 31, 2021, of which 21,888 were new visitors.</p> <p>In addition, the information about "Samruk-Energy" JSC operations is regularly posted on social networks such as Facebook, Instagram, and video materials on YouTube hosting.</p>



2 The Report on Stakeholder communication plan of “Samruk-Energy” JSC based on 2021 results

Nº	Activity on informing stakeholders	Stakeholder	Deadlines / frequency	Status of execution (executed/ not executed/ partially executed)	Brief information about compliance with the principle
7	Informing stakeholders through the participation of the Company's management as speakers/ discussants at conferences, forums, etc.	Shareholder, SA, employees, partners, consumers, government agencies, financial institutions, suppliers, media	On a regular basis	Executed	<p>The Company's management attended meetings round tables, forums throughout the 2021, including:</p> <ul style="list-style-type: none"><li>▶ On January 27, 2021, Yessimkhanov S.K., “Samruk-Energy” JSC Chairman of the Board participated in the meeting of the Council of KAZENERGY Association;</li><li>▶ On May 21, 2021, materials for participation of Satkaliyev A.M.”Samruk-Energy” JSC Chairman of the Board at SPIEF-2021 were prepared;</li><li>▶ May 23, 2021, the report for participation of the Chairman of the Board in the International Congress “ECOJER”;</li><li>▶ June 16, 2021 materials for the meeting of the Board of Directors of KEA were prepared;</li><li>▶ On June 17, 2021, the information for the meeting of the Presidium of the Energy Committee under Atameken NEP was prepared and updated;</li><li>▶ On September 22, 2021, the participation of Adylkerimov A.A., the Managing Director for Procurement of Samruk-Energy JSC at the IX Forum of machine builders of Kazakhstan;</li><li>▶ On October 3, 2021, the report of Yessimkhanov S.K., the Chairman of the Management Board of Samruk-Energy JSC at the Panel session No. 1 “Introduction of BAT as a mechanism for promoting the Green Bridge Partnership Program in the CA region using Kazakhstan as an example: development of the Central Asian BAT Bureau”, Dubai, UAE, National Pavilion of the Republic of Kazakhstan, World Expo 2020;</li><li>▶ October 6, 2021, the Report of Yessimkhanov S.K. “Samruk-Energy” JSC Chairman of the Management Board at the XIV Eurasian Forum KAZENERGY and WORLD ENERGY WEEK;</li><li>▶ October 6, 2021 participation of Yessimkhanov S.K “Samruk-Energy” JSC Chairman of the Board at the Summit of World Energy Leaders;</li><li>▶ November 4, 2021, Yessimkhanov S.K., Chairman of the Board of “Samruk-Energy” JSC chaired meetings of the Coordinating Council for the Development of the Energy Industry of the ALE “Kazakhstan Association of Organizations of the Oil and Gas and Power Sector” KAZENERGY ”;</li><li>▶ On November 10, 2021, the participation of Yessimkhanov S.K., “Samruk-Energy” JSC Chairman of the Management Board at a meeting of the Board of Directors of the ALE “Kazakhstan Power Industry Association”;</li><li>▶ December 7, 2021 participation of Yessimkhanov S.K., “Samruk-Energy” JSC Chairman of the Board in the meeting of the Council of KAZENERGY Association;</li><li>▶ On December 21, 2021, the participation of Yessimkhanov S.K., Chairman of the Management Board of “Samruk-Energy” JSC at a meeting of the Interdepartmental Commission for the Development of the Oil and Gas and Energy Industries of the Republic of Kazakhstan chaired by Mamin A.U., the Prime Minister of the Republic of Kazakhstan.</li><li>▶ December 23, 2021, participation of Yessimkhanov S.K., the Chairman of the Management Board of “Samruk-Energy” JSC at the meeting of the Coordinating Council of the Union of Machine Builders of Kazakhstan.</li></ul>
8	Conducting a stakeholder survey to identify substantial topics and aspects and disclose them in the Company's annual report	Shareholder, subsidiaries and affiliates, employees, trade union, partners, consumers, government agencies, financial institutions, media	Annually	Executed	<p>To know the opinion of stakeholders regarding the organization's annual reporting for 2020, as well as to create the structure and content of the annual report for 2021, the Company conducted a survey of internal and external stakeholders; the Materiality Matrix for 2021 was prepared using the results of such survey, and then it was approved by the decision of the Board of Directors dated 27/12/2021 (Minutes No. 14/21).</p>
9	Preparation and publication of the integrated annual report of the Company	Shareholder, SA, partners, consumers, government agencies, financial institutions, suppliers	Annually	Executed	<p>The integrated annual report on “Samruk-Energy” JSC operating results for 2020 was approved by the decision of the Board of Directors on May 31, 2021. (Minutes No. 06/21).</p>
10	Holding press conferences, provision of press releases	Mass media	When necessary	Executed	<p>In 2021, the press service prepared and sent out 41 press releases to the media. 2 press conferences were held (1. As part of the implementation of projects in the Ekibastuz energy complex. 2. As part of Public hearings on the modernization and transfer to gas of Almaty CHP-2), and 3 press tours were organized.</p>
11	Discussion of the progress of the Development Strategy, the Business Plan, the Digital Transformation Program, the implementation of investment projects, etc at the meeting of the Board of Directors.	Shareholder	Every quarter	Executed	<p>The Company's Board of Directors regularly considers reports on the implementation of the Development Strategy, Business Plan, Transformation Program, investment activities of the Company:</p> <ul style="list-style-type: none"><li>▶ The report on the implementation of the Action Plan for execution of “Samruk-Energy” JSC Development Strategy for 2018-2028 is submitted to the Board of Directors of the Company on a quarterly basis. Thus, the report on the results of 2020 was approved by the Board of Directors on March 30, 2021 (Minutes No. 03/21), the report on the results of the 1<sup>st</sup> quarter of 2021 was approved by the Board of Directors on May 31, 2021 (Minutes No. 06/21), the report on the results of the 1<sup>st</sup> half of 2021 was approved by the Board of Directors 17 September 2021 (Minutes No. 09/21), the report on the results of 9 months of 2021 was approved by the Board of Directors on December 14, 2021 (Minutes No. 13/21);</li><li>▶ The progress report on “Samruk-Energy” JSC Business Plan is provided quarterly. So the report on the results of 2020 was approved by the Board of Directors on March 30, 2021. (Minutes No. 03/21), the report on the results of the 1<sup>st</sup> quarter of 2021 was approved by the Board of Directors on May 31, 2021 (Minutes No. 06/21), the report on the results of the 1<sup>st</sup> half of 2021 was approved by the Board of Directors on September 17, 2021 (Minutes No. 09/21), the report on the results of 9 months of 2021 was approved by the Board of Directors on December 14, 2021 (Minutes No. 13/21);</li><li>▶ The progress report on “Samruk-Energy” JSC Transformation Program is provided quarterly. Thus, the Report on the results of the 1<sup>st</sup> quarter of 2021 was approved by the BoD on 10.06.2021 (minutes 07/21), the report on the results of the 2<sup>nd</sup> quarter of 2021 was approved by the BoD on 17.09.2021 (minutes 09/21), the report on the results of the 3<sup>rd</sup> quarter of 2021 was approved by the BoD in December 2021 (minutes 14/21).</li></ul>
12	Participation in hearings held by “Samruk-Kazyna” JSC on the results of the Company's operations for the reporting period	Shareholder	When necessary	Executed	<p>In 2021, the Company took part in 6 hearings of “Samruk-Kazyna” JSC regarding the Company's operating results for the reporting period.</p>





2 The Report on Stakeholder communication plan of “Samruk-Energy” JSC based on 2021 results

№	Activity on informing stakeholders	Stakeholder	Deadlines / frequency	Status of execution (executed/ not executed/ partially executed)	Brief information about compliance with the principle
13	Posting of relevant information on the internal corporate portal of the Company	Employees, SA	On a regular basis	Executed	The following materials regarding the implementation of “Samruk-Energy” JSC Transformation Program were posted during 2021: <ul style="list-style-type: none"><li>▶ 37 publications on “Samruk-Energy” JSC corporate portal (Start.kz);</li><li>▶ 13 publications on “Samruk-Energy” JSC official website;</li><li>▶ 4 publications on “APP” JSC and “SDPP-2” JSC websites;</li><li>▶ 3 publications on the SK News information portal;</li><li>▶ 3 information materials in the SK News Digital Digest;</li><li>▶ 55 publications in social networks.</li></ul>
14	Holding meetings with the staff, representatives of subsidiaries and affiliates, a trade union, including the meetings on a year’s results	Employees, SA, trade unions	When necessary	Executed	In the 1 <sup>st</sup> and 4 <sup>th</sup> quarters of 2021, meetings were held between the staff of the SA and management with the participation of “Samruk-Energy” JSC executives, representatives from the Center for Social Interaction and Communications. During the meeting, issues on existing problems of social activity were discussed and explanatory work regarding wage issues was conducted. Following the meeting, the executives were assigned specific tasks to maintain social stability and transparency in addressing social issues.
15	Organization of corporate cultural events for employees	Employees, SA	Annually	Not executed	During the COVID-19 pandemic, to ensure safety, all sports and cultural events were canceled at “Samruk-Energy” JSC and its SA
16	Informing employees via e-mail, intracorporate portal about vacancies, intracorporate competitions	Employees	On a regular basis	Executed	When there were requests for the search and selection of candidates for vacant administrative job openings of the Company during 2021, the information was posted on the internal corporate portal with notification of employees by e-mail.
17	Conducting a survey of employees as part of the annual measurement of the employee involvement indicator	Employees	Annually	Executed	In 2021, a study was carried out on the index of social stability and employee engagement for the Company’s group of companies. The annual measurement of indicators of social stability and staff involvement allows timely taking measures aimed at increasing the loyalty and trust of employees, social well-being and staff involvement, improve working conditions and processes related to the work of staff, develop communication systems and inform about any changes.
18	Visit to the production sites of SA by the Company’s management	SA	When necessary	Executed	“Samruk-Energy” JSC management visited all production sites of SA during 2021: <ul style="list-style-type: none"><li>▶ “AZhC” JSC: 28.05.2021; 10.09.2021; 29.09.2021; 19.11.2021; 29.12.2021;</li><li>▶ “APP” JSC: 12.11.2021; 19.11.2021;</li><li>▶ “ESDPP-2 Plant” JSC: 03.09.2021; 11.11.2021; 21-22.12.2021</li><li>▶ “Shardarinsk HPP” JSC: 25.06.2021;</li><li>▶ “MHPP” JSC: 18-19.08.2021;</li><li>▶ “SDPP-1” LLP: 03.09.2021; 11.11.2021; 21-22.12.2021;</li><li>▶ “AES” LLP: 20.09.2021; 09.07.2021;</li><li>▶ “FWPP” LLP: 19.11.2021;</li><li>▶ “SGE” LLP: 28.05.2021; 15-16.07.2021;</li><li>▶ “Bogatyr Komir” LLP: 03.09.2021; 11.11.2021; 21-22.12.2021.</li></ul>
19	Conducting hearings of SA on operating results	SA, employees	Annually	Executed	In 2021, 2 meetings were held to review SA operating results for 2020. Also, 18 meetings of the CPandPA were held to review the results of SA operations for the 1 <sup>st</sup> half of 2021.
20	Communicating requirements for development of IRD, and other information to SA via email, telephone, administrative office – regularly	SA	On a regular basis	Executed	The information regarding various target indicators, requirements for development of IRD is regularly communicated to SA by means of letters, e-mail, telephone, administrative support office.
21	Discussion about the progress of the implementation of the Business Plan, the implementation of investment projects, the achievement of key performance indicators and other relevant issues at the Board of Directors/SB of SA	SA	On a regular basis	Executed	Discussions on the progress of the implementation of the Business Plan, implementation of investment projects, achievement of key performance indicators and other topical issues at the BoD/SB of SA are held quarterly in accordance with the Work Plan of the BoD/SB of SA for 2021.
22	Ensuring uninterrupted operation and access to the complaint’s mechanism (“hot line”) and other feedback channels of the Company	SA, employees, trade union, partners, consumers, financial institutions, suppliers, population, media	On a regular basis	Executed	The Company introduced initiative information sharing line operated by an independent operator. Since 28.06.2021, KPMG Tax and Advisory LLP was appointed an independent operator of the Hot Line. To ensure timely response and consideration of appeals in a timely manner, “Samruk-Kazyna” JSC has automated submission of appeals to the Hotline.



2 The Report on Stakeholder communication plan of “Samruk-Energy” JSC based on 2021 results

Nº	Activity on informing stakeholders	Stakeholder	Deadlines / frequency	Status of execution (executed/ not executed/ partially executed)	Brief information about compliance with the principle
23	Providing feedback on requests and complaints received through all feedback channels	SA, employees, trade union, partners, consumers, financial institutions, suppliers, population, media	On a regular basis	Executed	As of December 31, 2021, 70 appeals and complaints were received through all feedback channels, of which 4 are under consideration. The Ombudsman received more than 50 appeals during the reporting period. The Ombudsman held consultations on all appeals, gave answers and recommendations, held personal meetings (conversations) with employees and managers of SA.
24	Organization and holding of volunteer and charity events	Population	Annually	Executed	As part of the youth policy, in March 2021, the Company's Youth Council "Jas Energy" organized "the Shyn Zhurekten" charity event. Also, "Jas Energy" active members provided hot coffee to employees of the public utilities of the Yessil district of Nur-Sultan city who clean snow and garbage from the streets of the city all day long. In December 2021, young activists set up a Christmas tree as part of the annual Magic Tree campaign to help children with cancer. Thanks to the responsiveness of the Company's employees, children with cancer received their New Year's gifts.
25	Participation in public hearings as part of implementation of investment projects in accordance with current environmental legislation of the Republic of Kazakhstan	SA, population	When necessary	Executed	The following public hearings were held in 2021: ► June, 24, 2021 "Environmental Impact Assessment" for adjustment of DED, stage P No. 2 for the project "Expansion and reconstruction of Ekibastuz SDPP-2" with installation of power unit No. 3; ► August 9, 2021 – public hearings on the project "Environmental Impact Assessment" to detailed design "Engineering works on design in power industry and related work: Overhaul of section No. 1 with the development and placement of ASW of CHP-2 named after A. Zhakutov of "APP" JSC. Correction"; ► November 29, 2021 – public hearings on the draft "Report on possible impacts" to the feasibility study "Modernization of Almaty CHP-2 named after A. Zhakutov including reduction of environmental impact"; ► December 22, 2021 – public hearings on the environmental protection section for detailed design "Reconstruction and expansion of ash dump of CHP-3" 4 <sup>th</sup> stage.

3 Table of report’s compliance with gri guidelines

# 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	10-15	not applicable
	102-3	Location of headquarters	12-13, 219	not applicable
	102-4	Location of operations	12-13, 16-39	not applicable
	102-5	Ownership and legal form	8	not applicable
	102-6	Markets served	8, 12-15, 16-39	not applicable
	102-7	Scale of the organization	8, 10-13, 16-39	not available
	102-8	Information on employees and other workers	177-178	not available
	102-9	Supply chain	16-39, 105	not available
	102-10	Significant changes to the organization and its supply chain	9, V2	PWC
	102-11	Precautionary principle or approach	131-135, 150, 152-153, 190	not available
	102-12	External initiatives	146, 148	not available
	102-13	Membership in associations	148	not available
	102-14	Statement from senior decision-maker	2-3	not applicable
	102-15	Key impacts, risks and opportunities	52, 121, 128, 131-135, 136-139, 144, 162-163	not available
	102-16	Values, principles, standards and norms of behavior	46-47, 114, 131-133, 182-183, 189-191	not available
	102-17	Mechanisms for advice and concerns about ethics	114, 122, 131-135, 152-153, 189-190	not available
	102-18	Governance structure	8-9, 109, 110-111	not available
	102-19	Delegating authority	109-111, 122-125, 128-131	not available
	102-20	Executive-level responsibility for economic, environmental and social topics	117-122, 126-127	not applicable

GRI Standard	No.	Content	Page no.	Assurance
	102-21	Consulting stakeholders on economic, environmental and social topics	117-118, 126-127, 131-135, 150-153, 198-209	not available
	102-22	Composition of the highest governance body and its committees	109-111, 117-118, 122-127, 128-131	not available
	102-23	Chair of the highest governance body	117	not available
	102-24	Nominating and selecting the highest governance body	116, 122, 128	not applicable
	102-26	Role of highest governance body in setting purpose, values, and strategy	120-122,	not applicable
	102-31	Review of economic, environmental and social topics	143-191	not available
	102-35	Remuneration policies	119, 122, 128	not available
	102-36	Process of determining remuneration	119, 128	not available
	102-40	List of stakeholder groups	150, 198-209	not available
	102-41	Collective bargaining agreements	145, 184, 186-189	not available
	102-42	Identifying and selecting stakeholders	150	not available
	102-43	Approach to stakeholder engagement	150-153, 192, 198-199	not available
	102-44	Key topics and concerns raised	133, 152-153, 190, 192-194	not available
	102-45	Entities included in the consolidated financial statements	196, V.2	PWC
	102-46	Defining report content and topic boundaries	192-196	not available
	102-47	List of material topics	192-193	not available
	102-48	Restatements of information	V.2	PWC
	102-49	Changes in reporting	195	not available
	102-50	Reporting period	195	not applicable
	102-51	Date of most recent report	195	not applicable
	102-52	Reporting cycle	195	not applicable
	102-53	Contact point for questions regarding the report	197, 219	not applicable
	102-54	Claims of reporting in accordance with the GRI Standards	1, 196, 197	not available
	102-55	GRI content index	210-214	not available
	102-56	External assurance	210-214	not available



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GRI Standard	No.	Content	Page no.	Assurance
Specific topics				
GRI 200: Economic topics 2016				
Economic performance				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	192-193	not available
	103-2	The management approach and its components	154	not available
	103-3	Evaluation of the management approach	154-155	not available
GRI 201: Economic performance	201-1	Direct economic value generated and distributed	154-155	not available
	201-2	Financial aspects and other risks and opportunities associated with climate change	160-161	
Market presence				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	176, 192-193	not available
	103-2	The management approach and its components	176-177	not available
	103-3	Evaluation of the management approach	176-178	not available
GRI 202: Market presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	145	not available
	202-2	Proportion of senior management hired from the local community	177	not available
Procurement practices				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	105	not available
	103-2	The management approach and its components	105	not available
	103-3	Evaluation of the management approach	105	not available
GRI 204: Indirect economic impact	204-1	Proportion of spending on local suppliers	105	not available
Anti-corruption				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	131	not available
	103-2	The management approach and its components	131-132	not available
	103-3	Evaluation of the management approach	131-132	not available
GRI 205: Anti-corruption	205-1	Operations assessed for risks related to corruption	132	not available
	205-2	Communication and training about anti-corruption policies and procedures	131-133	not available
	205-3	Confirmed incidents of corruption and actions taken	133	not available

GRI Standard	No.	Content	Page no.	Assurance
GRI 300: Environmental topics 2016				
Materials				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	158	not available
	103-2	The management approach and its components	158	not available
	103-3	Evaluation of the management approach	159	not available
GRI 301: Materials 2016	301-1	Materials used by weight or volume	158-159	not available
Energy				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	156	not available
	103-2	The management approach and its components	156-157	not available
	103-3	Evaluation of the management approach	156-157	not available
GRI 302: Energy 2016	302-1	Energy consumption within the organization	157	not available
	302-3	Energy intensity	157	not available
	302-4	Reduction of energy consumption	158	not available
Water and effluents				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	167	not available
	103-2	The management approach and its components	167	not available
	103-3	Evaluation of the management approach	167	not available
GRI 303: Water and effluents 2018	303-2	Water sources significantly affected by organization's water withdrawal	168-169	not available
	303-3	Water recycled and reused	169	not available
Biodiversity				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	170	not available
	103-2	The management approach and its components	170	not available
	103-3	Evaluation of the management approach	170	not available
GRI 304: Biodiversity 2016	304-2	Significant impacts of activities, products, and services on biodiversity	170-171	not available
Emissions				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	171	not available
	103-2	The management approach and its components	171	not available
	103-3	Evaluation of the management approach	172	not available
GRI 305: Emissions 2016	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	172-173	not available

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GRI Standard	No.	Content	Page no.	Assurance
Effluents and waste				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	167, 173	not available
	103-2	The management approach and its components	167, 173	not available
	103-3	Evaluation of the management approach	167, 173	not available
GRI 306: Effluents and wastes 2016	306-2	Waste	174	not available
Environmental compliance				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	164	not available
	103-2	The management approach and its components	164-165	not available
	103-3	Evaluation of the management approach	165-166	not available
GRI 307: Environmental compliance 2016	307-1	Non-compliance with environmental laws and regulations	166-167	not available
GRI 400: Social aspects 2016				
Employment				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	176	not available
	103-2	The management approach and its components	176-177	not available
	103-3	Evaluation of the management approach	177	not available
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	177	not available
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	188	not available
Occupational Health and Safety				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	176, 179	not available
	103-2	The management approach and its components	179	not available
	103-3	Evaluation of the management approach	179-180	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	180-181	not available
	403-9	Work-related injuries	180-181	not available

GRI Standard	No.	Content	Page no.	Assurance
Training and education				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	176-177	not available
	103-2	The management approach and its components	176	not available
	103-3	Evaluation of the management approach	185	not available
GRI 404: Training and education 2016	404-1	Average hours of training per year per employee	186	not available
	404-3	Percentage of employees receiving regular performance and career development reviews	185-186	not available
Non-discrimination				
GRI 103: Management approach 2016	103-1	Explanation of material topic and its boundary	145, 189	not available
	103-2	The management approach and its components	176	not available
	103-3	Evaluation of the management approach	190	not available
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	133, 190	not available



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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
BAO	Big Almaty lake
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
SPAID	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 holding company registered in the Republic of Kazakhstan that manages its subsidiaries and affiliates

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
Procurement plan	The list of purchased goods, works and services with indication of name, measurement unit, volumes, terms, and also the maximum amounts to be used for purchase of each type of goods, works and services
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
PCB	Polychlorinated biphenyl
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





3 Table of report’s compliance with gri guidelines

RK	The Republic of Kazakhstan
RF, Russia	The Russian Federation
IAS	Internal Audit Service
BOD	Board of Directors
EIW	Equipped with insulated wired
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
CO <sub>2</sub>	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 (DiplFA)	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 NO2
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 <sub>2</sub>	Sulfur oxide
SWOT	Analysis of positive and negative effects of external and internal environmental factors



3 Table of report’s compliance with gri guidelines

MEASUREMENT UNITS	
%	Percent
GWh	Gigawatt per hours
GJ	Gigajoule
Gcal	Gigacalorie
kV	Kilovolt
kVh	Kilowatt per hour
Km	Kilometer
m	Meter
m³	Cubic meter
MVA	Megavolt-ampere
MW	Megawatt
Mln	Million
Bln.	Billion
Thous.	Thousand
El.,elec.	Electricity

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When using an information contained in the annual report, a reference to it is obligatory.

