INTEGRATED ANNUAL R

SAMRUK ENERGY

2022

Energy Driving
Sustainable
Change

1 volume

SAMRUK-ENERGY JSC

Content

Message from the chairman of the board of directors

Chairman of the Board of
Directors of Samruk-Energy JSC

Nikolay Kazutin

Dear Reader!

Kazakhstan is widely known as a country with the largest energy potential, a pacesetter in the Central Asia. Samruk-Energy JSC is the locomotive of the energy sector in Kazakhstan. Its core operations are electricity and heat production, electricity transmission, distribution and sale, as well as the extraction of thermal coal.

Samruk-Energy JSC is the country's largest electricity holding company. It has energy and coal companies under the umbrella, including the flagships of the domestic energy sector, Ekibastuz GRES-1 LLP and Ekibastuz GRES-2 JSC, the largest coal mining company, Bogatyr Komir LLP, as well as Almaty Power Plants JSC, Alatau Zharyk Company JSC, AlmatyEnergoSbyt LLP, Moynak HPP JSC, Shardarinskaya HPP JSC, wind and solar power plants.

2022 was a remarkable year for the Company, as Samruk-Energy marked its 15-year anniversary.

Over the years, the nation's key electricity and heat producer has come a long way, growing and developing substantially. Rising on the wave of major transformation in the early years of independent Kazakhstan, the Company today plays a strategic role in the national economy. Samruk-Energy has contributed about KZT 1.2 trillion to Kazakhstan's GDP over these years. Since its establishment in 2007, Samruk-Energy Group has implemented a number of vital projects for the country. Among them stand out the renovation of Unit 2 and Unit 8, each with a capacity of 500 MW, at Ekibastuz GRES-1, the construction of Moynak HPP, the construction of an unmatched solar power plant in Almaty Province and Kazakhstan's first commercial-scale wind power plant in Akmola Province.

In 2022, Samruk-Energy continued to implement successfully its strategic objectives and meet the targets set by the management and the Government. In partnership with China-based Power China Corporation, the Company built and commissioned a 60 MW wind farm in Almaty Province, signed a loan agreement with the EBRD, started the upgrade of Almaty CHPP-2, and put into pilot operation an in-pit crushing and conveying facility at Bogatyr Komir's open pits.

In line with the international climate agenda and Kazakhstan's commitments to curb the rise in global temperatures under the Paris Agreement, Samruk-Energy JSC approved Energy Transition Programme 2022-2060 in 2022. This Report sets out focus areas, goals, and targets on the Company's journey towards resource-efficient and environmentally friendly technologies, enabling Samruk-Energy to achieve carbon neutrality by 2060.

There is now a trend towards digitalisation of production and operations, which contributes to improved operational efficiency, lower emissions, and reduced repair costs. Working towards these goals, the Group have approved Information Technology and Digitalisation Strategy 2023-2025.

Towards the end of 2022, Fitch Ratings international rating agency upgraded Samruk-Energy JSC's long-term foreign and local currency credit ratings to "BB+", the standalone credit profile from "b+" to "bb-" and its unsecured debt from "BB" to "BB+" with a stable outlook.

These remarkable achievements have become possible thanks to competent and forward-thinking management and coordinated actions of the team. Samruk-Energy's ambitious plans show that the largest domestic power holding is steadily developing, cementing its position as an efficient high-tech energy company that recognises its high social and environmental responsibility and works for the benefit of the people of Kazakhstan.

I wish Samruk-Energy JSC every success in all its endeavours. May the Company grow strong and continue to hold the bar high as one of the best energy companies in our country! I wish Samruk-Kazyna reliable partners, successful projects, financial prosperity, and a constant pursuit of excellence!

Message from the chairman of the management board

Chairman of the Management Board of Samruk-Energy JSC

Serik Tutebayev

Dear colleagues and partners!

I am very proud to present Samruk-Energy JSC Integrated Annual Report 2022. This paper stands out from the Company's traditional series of annual reports and is of particular importance to us. Kazakhstan's largest electricity producer and coal supplier marked its 15th anniversary in 2022!

In 2007, Samruk-Energy Joint-Stock Company was established to implement the long-term national policy on modernisation of generating capacities and commissioning of new facilities. It was registered with the justice authorities and started its production operations.

Fifteen years in business for a company like ours does not seem like such a long time. But this should be judged by what has been done and what goals the organisation has set for itself. In this respect, our electricity holding company has much to say and much to be proud of. The Company has a clear vision of its development horizons. Today, Samruk-Energy holds a strategic position in Kazakhstan's energy system, as evidenced by its production, financial and other performance.

Samruk-Energy is a national leader in electricity generation with a share of 31.8%. As the key electricity producer, Samruk-Energy ensures reliable and stable power supplies to Kazakh consumers, including Kazakhstan Temir Zholy National Company, NAC Kazatomprom, cities of Nur-Sultan, Almaty, Ekibastuz and Kokshetau, as well as Kostanai, Akmola, Karaganda, Zhambyl, Kyzylorda Provinces and other regions in the country.

Samruk-Energy is also Kazakhstan's front runner in coal extraction, with a share of about 40%. We are the key supplier of solid fuel to Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Astana-Energy JSC, SevKazEnergo JSC, Karaganda Energy Centre LLP, Pavlodarenergo JSC, etc.

The total installed capacity of our power plants is 6,275.1 MW today, making 25.5% of total installed capacity of power plants in Kazakhstan.

According to industry experts, the largest domestic electricity holding company is developing and moving in the right direction. I would like to emphasise that all these accomplishments have become possible thanks to the dedicated work of thousands of our employees. Their high professionalism has laid the foundation for the reliable operation of the country's energy system.

Samruk-Energy's success and sustainability rest on the daily hard work in workshops, on industrial and construction sites, in coal mines, offices, and laboratories of our companies. I want to thank every member of our big team for their commitment. Special thanks to our sole shareholder, Sovereign Wealth Fund Samruk-Kazyna, and all our partners and energy professionals for their continued support over these years.

Samruk-Energy JSC sees itself as Kazakhstan's energy sector leader, a resource-efficient high-tech energy company that embraces its high social and environmental responsibility. I wish the Company great success in its aspirations! I also wish a good health, prosperity, and great victories to all employees of Samruk-Energy JSC as well as everyone who stands with us.

Samruk-Energy's key figures 2022

OPERATIONS PERFORMANCE

Electricity output	35.88 billion kWh
Green electricity output	417.5 million kWh
Coal production by Bogatyr Komir	42.47 million tonnes
Coal sale	42.41 million tonnes

FINANCIAL HIGHLIGHTS

Gross profit	92,536 million KZT
EBITDA	141,382 million KZT
Income from services	381,465 million KZT
CAPEX (including jointly controlled organisations)	100,580 million KZT, excl. VAT

SUSTAINABILITY

Headcount	17,650
Fatal occupational injury rate	0.13
Gross pollutant emissions	358.08 '000 tonnes
Environmental investments	7.1 billion KZT

GOVERNANCE

Corporate governance rating	BB
Independent members of the Board of Directors	3
BoD meetings	17
Meetings of BoD Committees	28

Samruk-Energy highlights 2022

27 January	Samruk-Energy JSC makes an early repayment of KZT 15.2 billion of principal debt to the Asian Development Bank.
28 January	The Company changes its procurement procedures to meet new requirements of Samruk-Kazyna JSC.
1 February	MHPP JSC KZT 1 bn bonds are bought back on the AIX.
14 March	Samruk-Energy signs a memorandum of cooperation in health and safety with ArcelorMittal Temirtau JSC.
28 March	The tentrade.kz digital trading platform announced the first tender to sell ash and slag waste generated by Ekibastuz GRES-1.
1 April	The Board of Directors approves Samruk-Energy JSC Energy Transition Programme 2022-2060.
26 April	We make a partial early repayment of KZT 8 billion of the principal to the European Bank for Reconstruction and Development.
10 May	Samruk-Energy JSC, Kazakhstan's key electricity producer and coal supplier, marks its 15th anniversary.
16 May	GRES-1 LLP repays the principal debt of KZT 2.6 billion to Halyk Bank of Kazakhstan ahead of schedule.
18 July	Ekibastuz GRES-2 commissions a new auxiliary power system for the turbine generator.
21 July	The Company signs a statement of commissioning of a 60 MW wind power plant under the umbrella of Energia Semirechya LLP in Enbekshikazakh District, Almaty Province (Shelek Corridor).
22 July	MHPP JSC KZT 5 bn bonds are bought back on the AIX.
26 July	The Company makes an early repayment of KZT 15.4 billion of the principal to the Asian Development Bank.
5 September	Samruk-Energy fully redeems SNRGb2 bonds for KZT 3.1bn as scheduled.
12 September	The 60 MW wind farm of Energia Semirechya LLP is unveiled. Samruk- Kazyna JSC and PowerChina Resources Limited sign a Memorandum of Cooperation to build a combined 310 MW wind and hydro power plant in Almaty Province.
26 September	Samruk-Kazyna JSC and CMEC Group (China) sign a memorandum on the construction of power unit No. 3 at Ekibastuz GRES-2.
7 October	The Agency for Financial Market Regulation and Development of the Republic of Kazakhstan register Samruk-Energy's second bond programme totalling KZT 120 billion.
11 October	The world's largest open pit, Bogatyr, introduces Automated Dispatch Control System (ADCS) as part of its transition to truck and conveyor technology for coal transportation.
7 November	Fitch Ratings upgrades Samruk-Energy"s national long term ratings: foreign and local currency credit ratings to "BB+", the standalone credit profile from "b+" to "bb-" and its unsecured debt from "BB" to "BB+".
25 November	The Development Bank of Kazakhstan and Almaty Power Plants JSC signed a letter of intent to provide financing for the investment project for the gasification of Almaty TPP-2.
25 November	Almaty Power Plants JSC and the European Bank for Reconstruction and Development sign a KZT130bn loan agreement for the implementation of Almaty TPP-2 gasification project
28 November	An emergency situation is declared in connection with an accident at Ekibastuz CHPP. Ekibastuz GRES-1, Ekibastuz GRES-2, and Bogatyr Komir assist utility workers with post-accident cleanup and remediation.
19-27 December	Samruk-Energy passes the first certification audit of its corporate management system for compliance with international standards: ISO 9001, ISO 14001, ISO 45001, ISO 50001, and ISO 37001.
14 December	The Company approves its Information Technologies and Digitalisation Strategy 2023-2025.
15 December	Bogatyr Komir LLP starts pilot operation of the in-pit coal crushing and conveying system.
19 December	The first train carrying Ekibastuz coal extracted with the help of new technologies arrives at CHPP-2 in Astana.
20 December	The Fund contributes KZT 2.5 billion to the statutory capital of Samruk-Energy. The contribution would be transferred to the statutory capital of Alatau Zharyk Company under the project for reconstruction of cable networks in Almaty.
20 December	MHPP KZT 2 bn bonds are bought back on the AIX.
22 December	Samruk-Energy's power plants exceed the annual electricity generation targets, reaching 102%.

SAMRUK ENERGY

01

Integrated annual Report
2022

Samruk-Energy today

Our Profile

GRI 2-1

Samruk-Energy Joint-Stock Company is Kazakhstan's biggest diversified energy group of companies fully integrated into the international energy mix. We create value for our shareholders, striving to build a highly efficient energy supply system, implementing the long-term national policy to upgrade and launch new generating capacities to drive sustainability across all sectors in the country. for more about the Company, please visit: www.samruk-energy.kz.

Samruk-Kazyna JSC is the sole shareholder of Samruk-Energy JSC[1].

Samruk-Energy Group of Companies is located and operates in the Republic of Kazakhstan.

The headquarters are located at 15A Kabanbay Batyr Avenue, Block B, Q Business Centre, Astana 010000.

Kazakhstan's biggest energy sector companies operate under the umbrella of Samruk-Energy Group of Companies: electricity generating companies Ekibastuz GRES-1 and Ekibastuz GRES-2, Shardarinskaya HPP and Moynak HPPs, coal mining company Bogatyr Komir LLP, RES facilities, a regional distribution grid, and a retail company.

[1] Decision of the General Meeting of Shareholders on 10 May 2007.

GRI 2-6

Core operations:

- Management of energy assets in Kazakhstan: coal mining and sales, heat and electricity generation, transmission, distribution and sales
- Upgrade and construction of generating facilities
- Rollout of the latest technologies in the energy sector of Kazakhstan

Key products and services:

heat and electricity generation

electricity transmission and distribution

steam coal extraction

Key markets:

- Northern Zone: Akmola, Aktobe, East Kazakhstan, Karaganda, Kostanay, Pavlodar, North Kazakhstan Provinces and Astana city
- Southern Zone: Almaty, Zhambyl, Kyzylorda, South Kazakhstan Provinces and Almaty city
- The thermal coal produced by the Company is sold in Kazakhstan's domestic market and exported to Russia and Kyrgyzstan

Mission, Values and Principles

MISSION

Creating value for shareholders, meeting the growing demand through reliable supplies of energy resources, high-tech development in line with the principles of sustainable development.

VALUES

MENTORSHIP — providing assistance and support, building trust with all stakeholders, preserving and transferring the best practices

RELIABILITY — ensuring uninterrupted and high-quality operation, embracing our environmental responsibility towards future generations, creating safe, comfortable and competitive working conditions, and meeting our commitments

JUSTICE — objectivity and fairness in handling all issues, equal demands and opportunities, the opportunity to speak up and be heard

PROFESSIONALISM — a responsible approach to delivering on tasks and objectives, continuous improvements, different methods and approaches to improve efficiency

PRINCIPLES

PROFESSIONALISM

a high degree of professionalism is key to our success. We strive to create a comfortable working environment enabling every employee to unleash their potential and provide equal opportunities for personal and professional development.

COMPLIANCE

compliance the rules helps us build a team of professionals united by common goals, ethical behaviour, and traditions.

RISK-BASED APPROACH

we recognise the role of risk management and take measures to identify and mitigate risks in a timely manner.

SAFETY

we generate energy and strive to do it safely.

SOCIAL RESPONSIBILITY

we strive to do our business in a way that protects the environment and respects the communities where we operate.

TRANSPARENCY

long-term cooperation, dialogue, respect for rights and a balance between the interests of the Company and its stakeholders.

Samruk-Energy Group Structure

GRI 2-6

	COAL COMPANIES	GENERATION COMPANIES	DISTRIBUTION COMPANIES	HYDROPOWER COMPANIES	RENEWABLES COMPANIES
SUBSIDIARIES	Forum Muider B.V. Company – 50% Bogatyr Komir LLP – 100% Resursenergougol LLC – 100%	APP JSC – 100% Ekibastuz GRES-1 LLP – 100% Ekibastuz GRES-2 LLP – 50% Balkhash TTP JSC – 100%	Almatyenergosbyt LLP – 100% Alatau Zharyk Company JSC – 97.4%	Shardarinskaya HPP JSC – 100% Shulbinskaya HPP JSC – 92.14% Ust-Kamenogorskaya HPP JSC – 89.99% Bukhtarminskaya HPP JSC – 96.32%	Energy Solutions Center LLP – 100% Ereymentay Wind Power LLP – 100% Qazaq Green Power PLC – 100%
SECOND-TIER SUBSIDIARIES					Energya Semirechiya LLP – 25% First Wind Power Plant – 100% Samruk-Green Energy LLP – 100% Moynak HPP JSC – 100% Kazgidrotekhenergo LLP – 100%
GREAT-GRANDDAUGHTER COMPANIES					Teploenergomash LLP – 95%

Changes in Group's structure

In July 2022, Samruk-Kazyna instructed Samruk-Energy JSC to set up a green company under its umbrella to manage and coordinate all Group subsidiaries that operate in the RES and hydro power sector.

On 15 September 2022, the Board of Directors of the Company decided to establish Qazaq Green Power PLC public company under the jurisdiction of Astana International Financial Center (AIFC). On 4 November 2022, Qazaq Green Power PLC was registered with AIFC, with the stock placed and governing bodies established in due course. Samruk-Energy is the sole shareholder of Qazaq Green Power PLC.

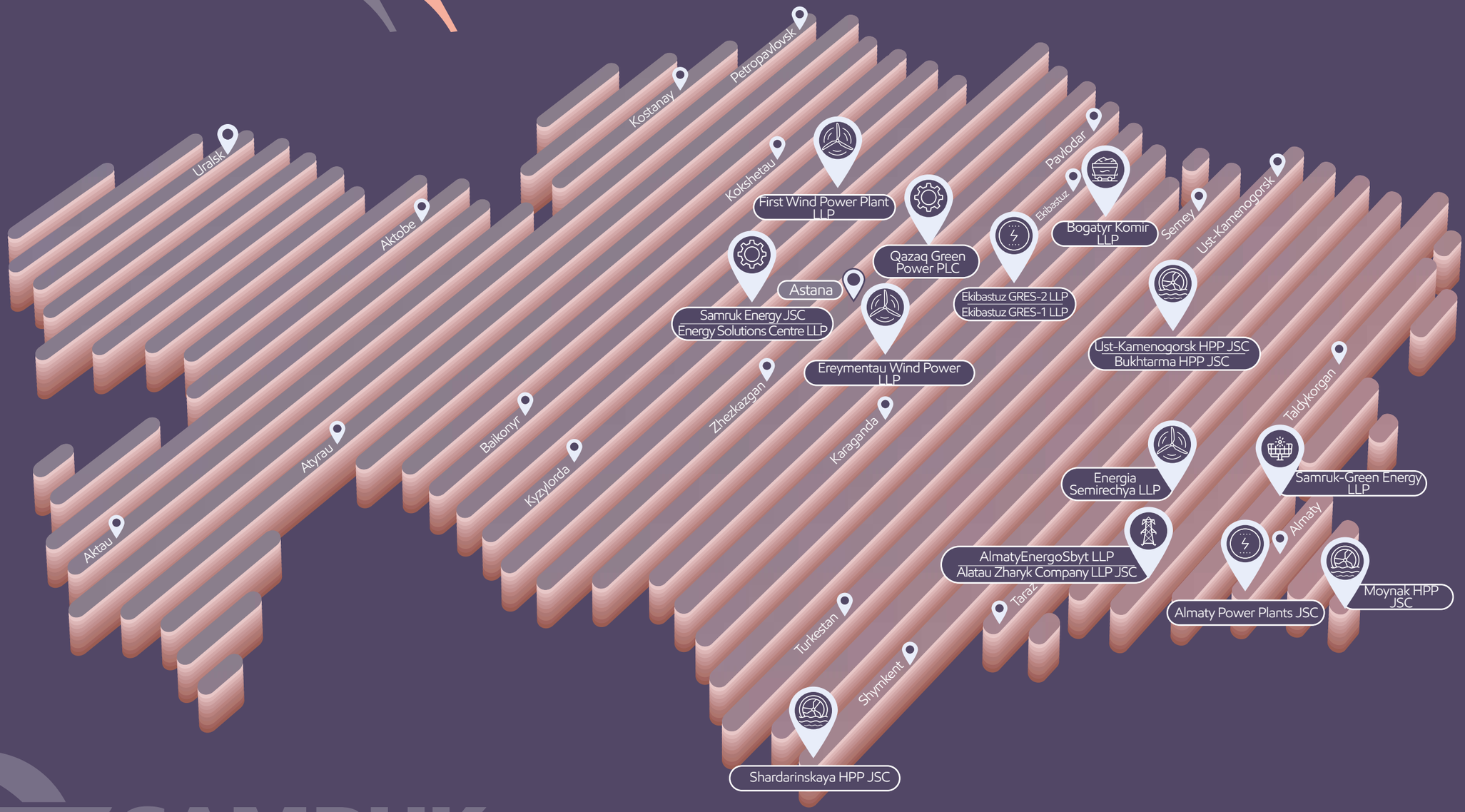
On 27 September 2022, Mettlera Corporation LTD was liquidated and removed from the register of operating legal entities in Cyprus in line with the Government Decree "On Certain Privatisation Matters"[2]

On 28 December 2022, Tegis Munai LLP (comprising Mangyshlak Munai LLP) was transferred to QazaqGaz JSC under a purchase agreement in line with a decision adopted by the Kazakh State Commission for Economic Modernisation.

[2] Decree No. 1141 adopted the Government of the Republic of Kazakhstan On Certain Privatisation Matters in 2016-2020 dated 30 December 2015.

Geography of Assets

GRI 2-1



Business Model

COAL PRODUCTION AND PREPARATION

Bogatyr Komir LLP under Samruk- Energy;s umbrella extracts and supplies steam coal to generating companies in Kazakhstan and exports it to the Russian Federation. The company also supplies utility coal to the domestic market.

Coal output	42.47 million tonnes
The Company's share of total coal mined in the Ekibastuz Coal Basin	62.1%
The Company's share of total coal mined in Kazakhstan	37.3%
Coal domestically	32.32 million tonnes
Exports to Russia	10.1 million tonnes

ELECTRICAL POWER GENERATION

Samruk-Energy JSC operates big generating assets: Ekibastuz GRES- 1, Ekibastuz GRES-2, Almaty Power Plants, Moynak HPP JSC, and Shardarinskaya HPP.

Electricity production by Samruk-Energy	35.88 billion kWh
Samruk-Energy's share in total electricity production in Kazakhstan	31.8%
Electricity produced by Samruk-Energy's RES facilities (solar and wind farms and small HPPs)	417.5 million kWh
The Company's share of green electricity produced in Kazakhstan	8.3%
The Group's installed generation capacity	TPPs 5,328 MW HPPs 790 MW RES 157.1 MW (Cascade of HPPs, solar and wind power plants)

ELECTRICITY TRANSMISSION AND DISTRIBUTION

The Group also includes Alatau Zharyk Company JSC, a regional distribution company.

Capacity of substations Group's	9,954.07 MVA
Length of 220-0.4 kV overhead and cable power lines	30,388.63 km
Number of substations	7,230
Electricity transmission	8,154 million kWh
Installed capacity of Samruk-Energy	Total installed capacity of Samruk-Energy's power plants makes 25.5% of total installed capacity of power plants in Kazakhstan
Installed capacity of power plants in Kazakhstan as of 1 January 2023	24,523.7 MW
Installed capacity of Samruk-Energy Group of Companies	6,275.1 MW
Available capacity of Samruk-Energy Group of Companies	5,310.8 MW

HEAT AND ELECTRIC POWER SALES

AlmatyEnergoSbyt LLP, a power supply company that sells electricity on the retail market to more than 3.6 million residents and over 38,000 businesses in Almaty city and Almaty Province.

Electricity sales	35.4 billion kWh
Heat supply by Almaty Power Plants JSC	5.5 million Gcal
Samruk-Energy's electricity exports to the Kyrgyz Republic	1,257.6 million kWh

The wholesale electricity market is represented by national-scale generating companies and large consumers, including:

- KEGOC JSC
- AstanaEnergoSbyt LLP
- AlmatyEnergoSbyt LLP
- Temirzholenergo LLP
- ZhambylZarykSauda-2030 LLP
- Energopotok LLP
- Alatau Zharyk Company JSC
- Bogatyr Komir LLP
- Zhetysu Energotrade LLP and others

02

Integrated annual Report
2022

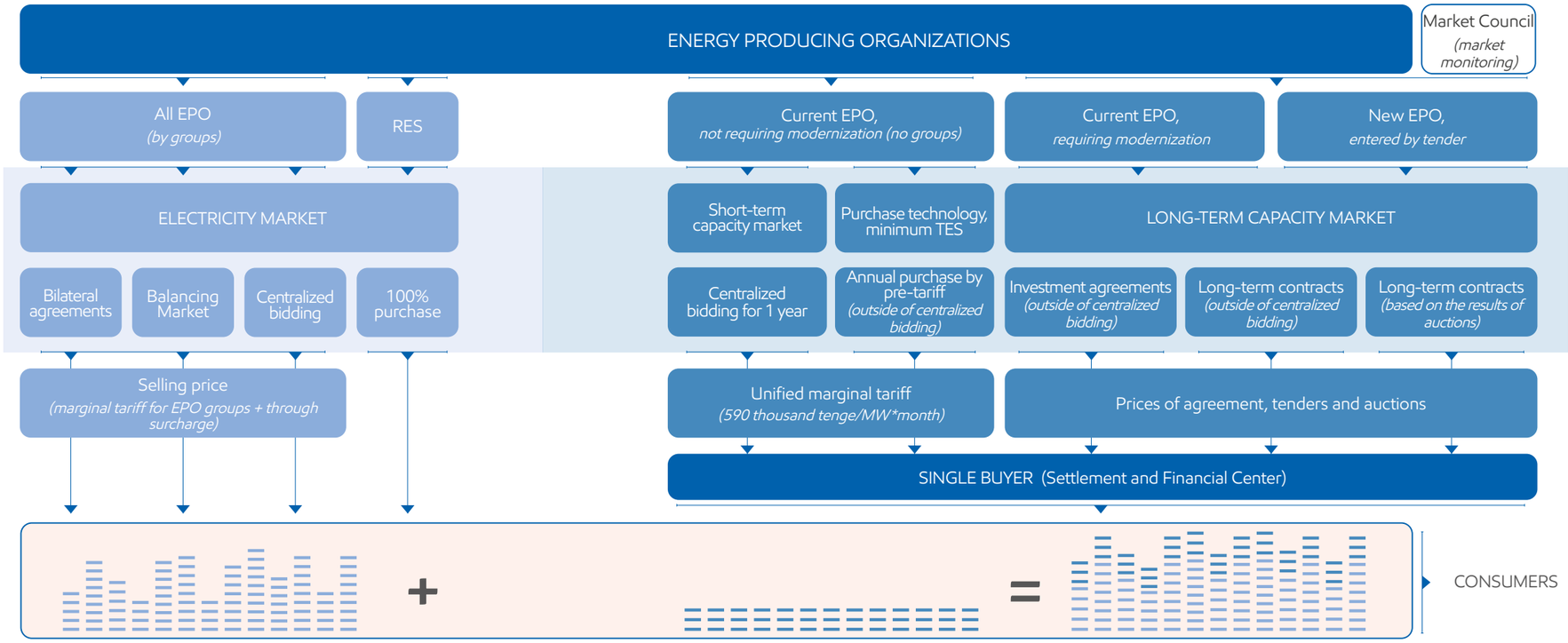
Strategic report

Electricity and Coal Market Overview

ELECTRICITY AND CAPACITY MARKET IN KAZAKHSTAN

Kazakhstan's electricity sector operates within the Unified Electric Power System (UEPS), which is a set of power plants, transmission lines and substations that ensure reliable and high-quality electricity supply to consumers in Kazakhstan.

An authorised government agency represented by the Ministry of Energy of the Republic of Kazakhstan[3] regulates the energy sector, including the RES[4]. The Committee for Regulation of Natural Monopolies under the Ministry of National Economy of the Republic of Kazakhstan is responsible for implementation of the national policy of natural monopolies with regard to regulated services of electricity transmission, production, transmission, distribution and supply of heat[5]. The Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan manages the coal industry[6].



[3] Law of the Republic of Kazakhstan On Electricity Sector No. 588-II dd. 9 July 2004
[4] Law of the Republic of Kazakhstan On Support of the Use of Renewable Energy Sources No. 165-IV dd. 4 July 2009
[5] Law of the Republic of Kazakhstan On Natural Monopolies No. 204-VI dd. 27 December 2018
[6] Code of the Republic of Kazakhstan On Subsoil and Subsoil Use No. 125-VI dd. 27 December 2017

Kazakhstan's electricity balance

In 2022, thermal power plants dominated the electricity generation in the Unified Electric Power System (UEPS) with 78.5% of the total output.

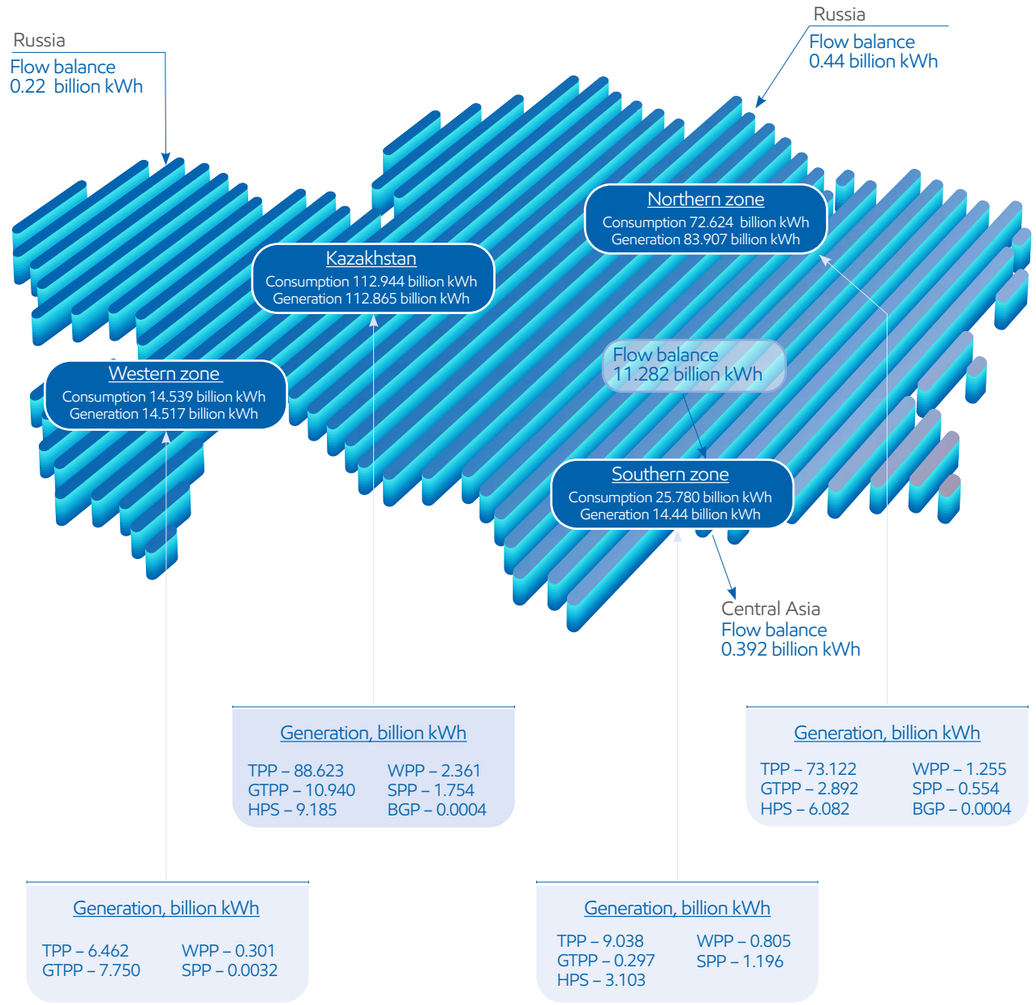
As of 1 January 2023, the installed capacity of power plants in Kazakhstan was 24,523.7 MW, with the available capacity reaching 20,761.7 MW.

According to the System Operator, Kazakhstan's power plants produced 112.86 billion kWh between January and December 2022, a 1.4% drop (up by 1.58 billion kWh) from 2021. In the reporting period, a decrease in power generation was observed throughout the Northern Zone of the UEPS of Kazakhstan and was due to lower consumption, more accidents in energy producing organisations, restrictions imposed on digital mining, etc.

ELECTRICITY GENERATION/CONSUMPTION BALANCE, BILLION KWH

Electricity indicators	2020	2021	2022	Δ 2022/2021, %
Electricity generation, including:	108.09	114.45	112.86	-1.4
Thermal power plants (TPPs)	86.66	91.16	88.62	-2.8
Gas turbine power plants (GTPPs)	9.53	10.70	10.94	2.2
Hydropower plants (HPPs)	9.55	9.18	9.19	0.0
Wind power plants (WPPs)	1.09	1.76	2.36	34.3
Solar power plants (SPPs)	1.25	1.64	1.75	7.2
Biogas plants (BGPs)	0.5	0.3	0.04	-84.0
Electricity consumption	107.34	113.89	112.94	-0.8
Net power flow, "+" deficit, "-" surplus, including:	-0.74	-0.56	0.79	40.5
Russia	0.12	0.46	0.47	2.0
Central Asia	-0.86	-1.02	-0.40	38.5

The Unified Electric Power System of Kazakhstan is conventionally divided into three areas - Northern Zone, Southern Zone, and Western Zone.



The **Northern Zone**, home to major coal deposits and hydropower resources, produced 74.3% (83.9 billion kWh) of the country's total electricity in 2022. The Northern Zone covers electricity shortages in the Southern Zone and supports Kazakhstan's export potential.

In 2022, electricity generation in the **Southern Zone** was 12.7% (14.4 billion kWh), with electricity shortages covered by supplies from the Northern Zone.

In the reporting period, the **Western Zone** generated 14.5 billion kWh (12.8%) of the total electricity. A key aspect of this zone is the absence of electricity connections with the electricity grids in the Northern Zone and Southern Zone in Kazakhstan.

During the reporting period, electricity generation increased significantly in the Atyrau, Jambyl, Kostanay, Kyzylorda, and Turkestan regions. The 54.8% (1.66 billion kWh) surge in electricity generation in Jambyl region was due to the connection of two additional units at Jambyl TPP to cover the deficit in the Southern Zone.

Decrease in electricity production were seen in the Akmola, Aktobe, Almaty, East Kazakhstan, West Kazakhstan, Karaganda, Mangystau, Pavlodar and North Kazakhstan regions. At the same time, electricity consumption increased due to natural growth in Turkestan by 4.3% (249.3 million kWh), in Akmola by 3.7% (380.5 million kWh), in Aktobe by 0.8% (55.2 million kWh), in Mangystau by 0.6% (33.2 million kWh), and in Atyrau by 0.2% (16.1 million kWh).

However, the country as a whole saw a 0.8% decrease in electricity consumption in 2022 compared to 2021. Thus, consumption decreased by 1.7% in the Northern Zone and by 0.1% in the Western Zone, while consumption in the Southern Zone grew by 1.1%.

To balance electricity generation/consumption in January-December of 2022, electricity exports to Russia reached 1.26 billion kWh, while imports from the Russian Federation amounted to 1.14 billion kWh. In particular, in 2022, KEGOC JSC exported 1.21 billion kWh to Russia and imported 0.97 billion kWh.

Electricity export and import

In 2022, electricity exports to Russia grew by 10.9 % compared to 2021, while electricity imports from Russia dropped by 25.6 %.

EXPORT/IMPORT OF ELECTRICITY OF THE REPUBLIC OF KAZAKHSTAN, BILLION KWH

Regions	2021	2022	Changes, %
Kazakhstan exports:	-2.46	-1.83	-25.2
to Russia	-1.13	-1.26	10.9
to UEPS of the Central Asia	-1.32	-0.58	-56.1
Kazakhstan imports:	1.84	1.45	-21.2
from Russia	1.54	1.14	-25.6%
Net power flow, "+" deficit, "-" surplus:	-0.62	-0.39	-37.0

Position of Samruk-Energy JSC in the Kazakhstan electricity market

Electricity production

The Samruk-Energy JSC Group of Companies is the leader among electricity producers in Kazakhstan.

Samruk-Energy's share in the country's total electricity generation increased by 0.8% to 31.8% against 2021.

In December 2022, the Samruk-Energy JSC Group of Companies produced 35.88 billion kWh. Still, the reporting period saw a decrease in production at Ekibastuz GRES-2 JSC, Samruk-Green Energy LLP, and First Wind Power Station LLP due to an unscheduled shutdown of power unit No 1 of Ekibastuz GRES-2, repair of a wind turbine, and adverse weather conditions.

PRODUCERS' SHARE IN THE ELECTRICITY MARKET IN 2022, %

Producers of electricity in Kazakhstan	Indicator
Samruk-Energy JSC	31.8
ERG	17.0
Central Asian Electric Power Corporation JSC	4.5
Kazzinc LLP	2.4
Kazakhmys-Energy LLP	3.7
KKS LLP	5.4
Jambyl GRES LLP	3.2
Others	32

ELECTRICITY OUTPUT BY PRODUCER, BILLION KWH

Producers of electricity in Kazakhstan	2020	2021	2022
Samruk-Energy JSC	31.30	35.61	35.88
ERG	18.80	19.91	19.23
Central Asian Electric Power Corporation JSC	7.03	6.24	5.09
Kazzinc LLP	2.94	2.97	2.69
Kazakhmys-Energy LLP	7.26	6.60	4.22
KKS LLP	6.44	6.60	6.14
Jambyl GRES LLP	1.80	2.14	3.65

ELECTRICITY GENERATION BY TPPS, CHPPS, MILLION KWH

Indicator	2021	2022
Ekibastuz GRES-1	22,788	23,048
Ekibastuz GRES-2	6,433	6,002
Almaty Power Plants (w/o Cascade HPPs)	4,009	4,039

In 2022, electricity generation reached 35,884 million kWh, up by 1% or 275 million kWh YoY. The growth was mainly due to a 14% increase (62 million kWh) in output of Shardarinskaya HPP due to abnormal rainy weather and increased precipitation in summer and autumn across the Naryn-Syrdarya cascade, which led to an increase in water inflow and a 28% increase (215 million kWh) in output by Moynak HPP due to water level in Bestiubinsk water reservoir.

Outlook

Electricity generation are projected to decrease gradually from the 2022 figures in 2023. A decrease in electricity generation y 641 million kWh is expected mainly due to a decrease in electricity generation by Ekibastuz GRES-1 because of scheduled repairs of power units.

Competitive advantages of Samruk-Energy JSC in the electricity market of Kazakhstan in 2022:

- Significant steam coal reserves with low production costs
- Sufficient power generation capacity with a relative level of depreciation in the country
- Government support, as well as support from Samruk-Kazyna JSC

Challenges for Samruk-Energy JSC:

- High level of depreciation of facilities
- Low return on invested capital employed for social projects
- High debt burden
- Government regulation of tariff setting
- Limited capacity to manage the price offer
- Limitations of steam coal exports due to the substitution of Ekibastuz coal in traditional markets, as well as non-competitiveness in other markets due to low coal parameters
- No prospecting to boost coal production

Heat generation

In 2022, heat production was 5,502,000 Gcal. A 5% y-o-y decrease was a result of higher average monthly temperature in the heating period in the reporting period.

HEAT PRODUCTION, '000 GCAL

Indicator	2021	2022
Ekibastuz GRES-1	136	143
Ekibastuz GRES-2	76	78
Almaty Power Plants	5,554	5,282

Outlook

The 2023 heat production targets are projected to rise by 1% against 2022, mainly due to an increase in heat production by Almaty Power Plants JSC.

Electricity transmission

In 2022, electricity transmitted through the networks of Alatau Zharyk Company reached to 8,154 million kWh, up by 7% or 504 million kWh than in 2021.

2021	2022
11.92%	11.45%
7,650 million kWh	8,154 million kWh

Outlook

The 2023 electricity transmission rate is expected to grow 1% year on year.

Electricity sales

In the reporting period, the total electricity sales by the power supply company was 6,847 million kWh, up by 2% year on year, due to an increase in electricity consumption in the area covered by the company.

Indicator	Actual 2021	Actual 2022	Change	%
AlmatyEnergoSbyt				
Number of consumers, including:	899,134	929,929	30,795	104%
households	862,980	891,214	28,234	104%
corporate	36,154	38,715	2,561	106%
Sales, million kWh	6,724	6,847	123	102%

Outlook

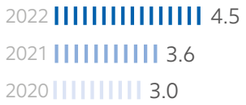
The 2023 electricity sales rate is expected to grow 3% year on year.

Development of RES in Kazakhstan

Renewable electricity is one of the most promising investment areas. Although this market has shown multiple growth in recent years — the installed capacity of Kazakhstan's RES has increased more than 14-fold since 2014 — the share of solar and wind generation in Kazakhstan, both in quantitative and percentage terms, still lags far behind other developed and developing countries.

According to the Ministry of Energy of Kazatomprom, there were 130 RES facilities in operation in Kazakhstan with a total capacity of more than 2,388 MW as of 1 January 2023, generating 4.5% of total electricity. In the reporting period, there was an increase in electricity generation by SPPs, WPPs and small HPPs. In total, RES facilities (SPPs, WPPs, BGPs, and small HPPs) generated 5.11 billion kWh in 2022, up by 21.1% year on year.

Share of RES electricity generation in Kazakhstan's electricity market, %



In 2022, Kazakhstan put 15 new RES facilities into operation. In 2014, the installed capacity of RES facilities operated nationwide was 177.52 MW, and in 2022 it exceeded 2,388 MW.

The production of electricity by Samruk-Energy's RES facilities rose by 28.3% in 2022.

Share of electricity produced by RES at Samruk-Energy JSC in Kazakhstan, %

Electricity generation by RES facilities of Samruk-Energy (SPPs, WPPs and small HPPs) for January-December 2022 amounted to 417.5 million kWh, which corresponds to 8.3% of the total share of electricity produced by RES in RK.

ELECTRICITY GENERATION BY RES FACILITIES AT SAMRUK-ENERGY JSC, MILLION KWH

The Samruk-Energy JSC Group of Companies:	Installed capacity, MW	2021	2022
Almaty Power Plants JSC, cascade of small HPPs	43.7	160.3	173.6
Samruk-Green Energy LLP, SPP	3.04	20.4	5.3
Samruk-Green Energy LLP, Shelek WPP	5	0.0	14.6
First Wind Power Plant LLP, WPP	45	144.6	135.7
Energia Semirechya LLP, Shelek WPP	60	-	88.3
Total		**325.3**	**417.5**

ELECTRICITY GENERATION BY HPPS, WPPS, AND SPPS, MILLION KWH

Indicator	2021	2022
Moynak HPP	758	973
Qapshaghay HPP	999	1,060
Shardarinskaya HPP	456	518
First Wind Power Station	145	136
Samruk-Green Energy	20	20

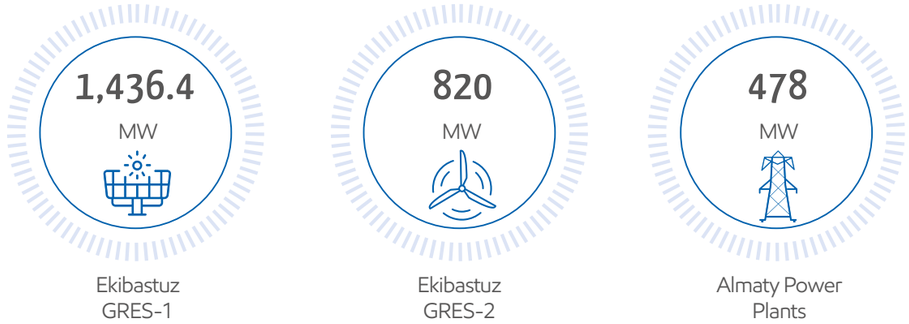
Capacity market

Since 2019, Kazakhstan has had a capacity market functioning alongside the electricity market, the main purpose of which is to attract investment. Investments in modernization, expansion of existing and construction of new power plants are secured through long-term contracts, while investments to cover running costs are secured through centralised competitive capacity tendering.

Samruk-Energy JSC is successfully working to increase the volume of electricity sales by the power plants that are part of the holding. Thus, Samruk-Energy JSC trading house directly communicates with electricity market entities in Kazakhstan and neighbouring countries, carries out commercial dispatching by forming daily schedules of Samruk-Energy JSC Group of Companies and optimally distributes declared volumes in accordance with expediency of load of subsidiary and dependent power plants.

In 2022, Samruk-Energy JSC's power plants participated in electric capacity tenders held on the trading platform of KOREM JSC.

As a result of the centralised tendering held on 19 November 2022, the power plants of Samruk-Energy JSC sold 2,734.4 MW of electricity at a price of 590,000 KZT/MW*month. Including:



In accordance with the law,[7] individual capacity tariffs have been set for Moynak HPP JSC, Shardarinskaya HPP and Almaty Power Plants JSC in 2022. For Shardarinskaya HPP, it was 61 MW and for Moynak HPP it was 289 MW. These tariffs allow the companies to ensure repayment of borrowed funds used to construct a power plant (Moynak HPP), upgrade Shardarinskaya HPP, and to refinance targeted loans previously extended for investment programs (Almaty Power Plants JSC).

In late 2022, Samruk-Energy JSC's electricity sales to consumers amounted to 35.4 billion kWh (including electricity exports). Domestic market sales grew by 102.5% or 0.87 billion kWh.

Also in the reporting period, 473.2 million kWh of electricity was exported to the Kyrgyz Republic in order to increase electricity sales and maximize the export potential of Samruk-Energy JSC.

[7] Law of the Republic of Kazakhstan On Amendments and Additions to Certain Legislative Acts of the Republic of Kazakhstan on Special Economic and Industrial Zones, Investment Attraction, Development and Promotion of Exports, and Social Security No. 243-VI dd. 3 April 2019.

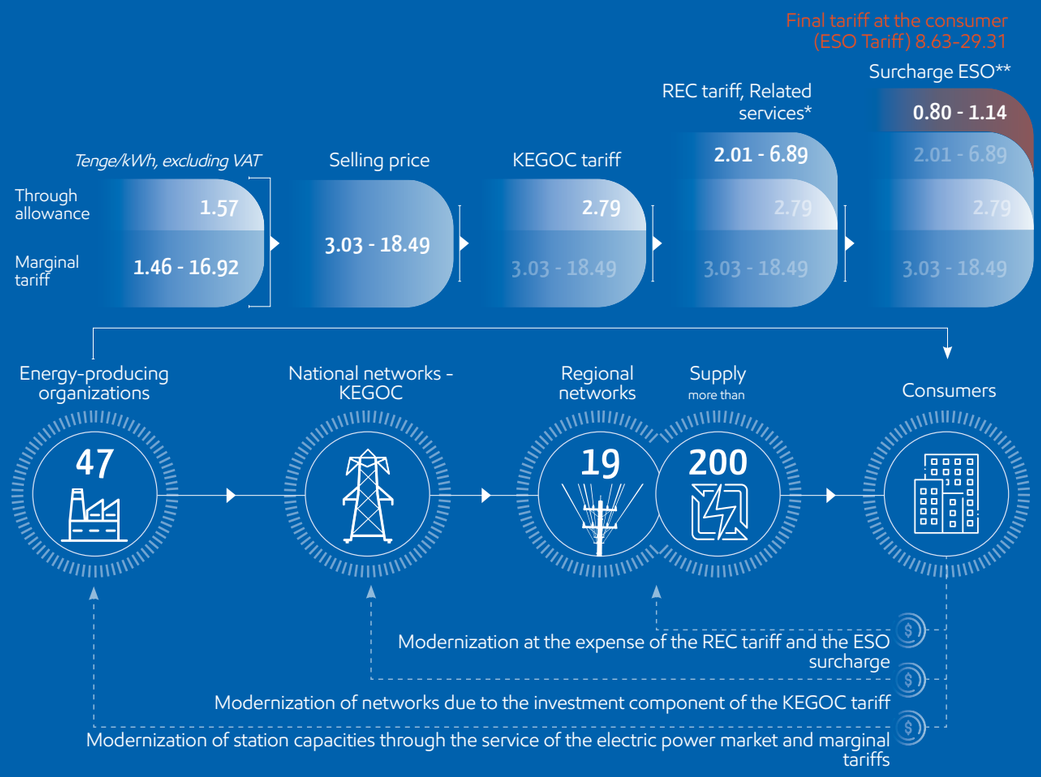
Tariff policy

Electricity tariffs for the Company's power generating plants were approved in 2020 by the Authorised Bodies for the period up to 2025. According to Article 12-1.2 of the Law of the Kazakhstan On Electric Power Industry, electricity tariffs are adjusted annually, when necessary.

In 2022, the electricity end-user tariff was based on:

- selling price of the energy producer (marginal tariff and RES premium)
- prices for transmission of electricity on the National Grid
- prices for transmission and distribution on the grids of electricity distribution companies (EDC)
- the cost of regulation, balancing and dispatching services
- the cost of services to ensure availability of electricity capacity

ELECTRICITY TARIFF SCHEME



* The associated ESO services include the costs of KEGOC services (dispatching, balancing), COREM services, power regulation services, as well as services to ensure the availability of electric power.
** The ESO surcharge 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 power).

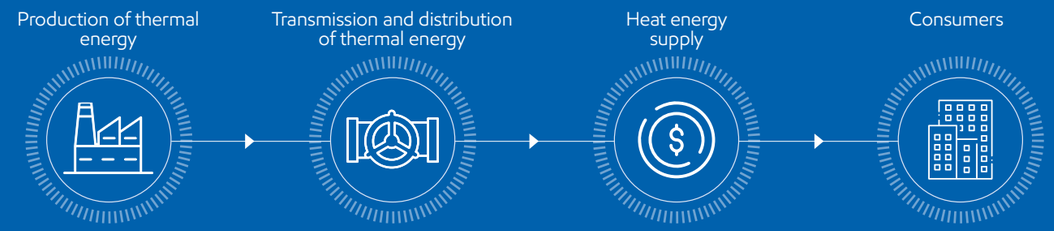
As thermal energy prices play a vital social role, the Committee for Regulation of Natural Monopolies implements a public policy to contain the growth of heating tariffs.

The structure of heat supply systems consists of three sectors: heat production, heat transmission (distribution and sales) and heat consumption. The heat energy market in Kazakhstan is a de facto retail sector where the retail consumer has no practical choice of heat supplier.

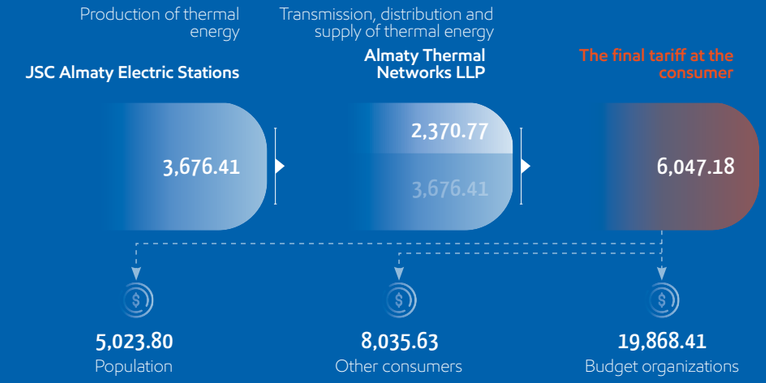
Since this market is a natural monopoly entity, the legislation of the RK provides for approval of long-term (5+ years) marginal tariff levels for heat producing companies, including an investment component and annual indexation of costs.

The marginal tariffs are approved by the CRNP and they are reviewed once a year. In addition, there are risks of tariffs remaining unchanged (increasing) in cases where plant costs have increased for objective reasons.

THERMAL ENERGY TARIFF SCHEME



Example: tariff for heat supple services for Almaty city consumers for 2022, tenge/Gcal without VAT



The electricity capacity market has been operating in Kazakhstan since 1 January 2019. After its launch, the weighted average electricity tariffs for plants rose in 2020, with due account for the adjusted marginal tariffs and the individual capacity tariffs introduced on 1 July 2020.

After the approval of deficit tariffs for plants by the Ministry of Energy of the Republic of Kazakhstan, energy producers submitted requests to the Ministry for adjustment of the electricity ceiling tariffs in line with the Regulatory Acts. This resulted in electricity tariff caps approved by the Ministry on 1 July 2020. They were in effect until 31 March 2021.

The rate of return was included into the marginal tariffs of energy producers on 1 April 2021 according to Order of the Minister of Energy dd. 30 March 2021 and the approved Methodology for the Rate of Return Calculation (Order of the Minister of Energy No.205 dd. 22 May 2020, as amended by Order No.76 dd. 11 March 2021).

In line with the Law of Kazakhstan On Support for the Use of Renewables, the feed-in tariff for energy producers takes into account a RES premium at KZT 1.57/kWh, with effect from 1 July 2021. Calculated by Financial Settlement Centre for Renewable Energy LLP, the premium draws on RES support costs in Kazakhstan and the electricity supply by energy producers, which are nominal consumers. Taking into account the RES premium, new marginal tariffs for energy producers were approved by Order No. 211 of the Minister of Energy of Kazakhstan on 24 June 2021. In 2022, the RES premium was KZT 1.58/kWh.

The table below shows the marginal electricity tariffs that were in force for the energy producers in 2022.

MARGINAL ELECTRICITY TARIFFS, KZT/KWH

Energy producer	Approved tariff 1 January 2022 - 30 June 2022	Tariffs approved by the Ministry, net of premium, from 1 July 2022	RES premium	Tariffs incl. premium	Growth rate, from 1 January 2022
Ekibastuz GRES-1	5.90	5.90	1.58	7.48	-
Ekibastuz GRES-2	8.59	8.59	1.58	10.17	-
Almaty Power Plants	10.23	11.19	1.58	12.77	9.4%
Moynak HPP	10.90	11.71	1.58	13.29	7.4%
Shardarinskaya HPP	8.77	9.82	1.58	11.40	12.0%

As part of the draft Action Plan for the Implementation of the 2022 Agenda of the Government of the Republic of Kazakhstan, a proposal was considered to keep the marginal tariffs of energy producers at the 2021 levels for a period of 180 days as part of the counter-inflation action. The marginal tariff increase was postponed to 1 July 2022.

Based on the applications submitted for tariff increase, the Ministry of Energy issued Order No. 226 on 30 June 2022 to approve the marginal tariff caps by 12% for Shardarinskaya HPP, 9.4% for Almaty Power Plants, and 7.4% for Moynak HPP.

Since 2020, work is underway with the Ministry of Energy to approve investment tariffs for plants implementing large-scale investment projects: Moynak HPP, Shardarinskaya HPP, Almaty Power Plants, and Ekibastuz GRES-1.

On 28 February 2021, Ekibastuz GRES-1 signed an investment agreement with the Ministry of Energy of Kazakhstan for modernisation, reconstruction, expansion and renewal of Power Unit No.1 with a tariff of KZT 1,199,000/MW*month for the period 2025-2031 and the output of 476.6 MW.

SCOPE OF INVESTMENT AGREEMENTS, '000 KZT/MWH*MONTH

Energy producer	Output	Individual tariff in 2022[8]	Period
Almaty Power Plants	69.5 MW	3,139.20	2020-2024
Moynak HPP	298 MW	2,563.67	2020-2026
Shardarinskaya HPP	61 MW	3,867.98	2020-2028
Ekibastuz GRES-1	476.6 MW	1,199	2025-2031
Ekibastuz GRES-2	576 MW	5,372	2027-2036

On 26 January 2021, Ekibastuz GRES-2 submitted an application to the Market Council (KEA), seeking approval of the individual tariff for the expansion and reconstruction of Ekibastuz-2 with Power Unit No. 3. Following an affirmative opinion by the Market Council dated 29 March 2021, the Company submitted the request to the Ministry of Energy for consideration.

Since no decision was made by the Ministry in 2021, Ekibastuz GRES-2 submitted a repeated request on 27 January 2022 for the individual tariff for the expansion and reconstruction of the plant with Power Unit No. 3.

On 30 March 2022, the Market Council held a meeting to recommend that the Ministry of Energy should consider the investment programme of Ekibastuz GRES-2. The request was not decided, nor was a list of energy producers published with which the Ministry planned to make investment agreements in 2022.

[8] Individual tariff may vary from year to year during the period of its validity.

From 2023 onwards, electricity and capacity tariffs are projected to be index-linked.

HEAT ENERGY TARIFFS, KZT/GCAL

Name	2020 actual	2021 actual	2022 actual	2023 projection	2024 projection
Almaty Power Plants	3,441	3,392	3,782	4,031	4,350
Ekibastuz GRES-2	697	772	812	873	906
Ekibastuz GRES-1	367	233	221	233	233

The legislation approves the long-run (5+ years) marginal tariffs for heat producers that are natural monopolies. The tariffs include an investment component and annual indexation of costs. Marginal tariffs are approved by the Committee for the Regulation of Natural Monopolies and Competition Protection. However, tariffs are raised not more than once a year, so there is a risk that the tariffs would remain unchanged where plant costs increase for objective reasons.

The Committee for Regulation of Natural Monopolies of the Ministry of National Economy of the Republic of Kazakhstan issued Order No. 141-OD on Almaty city and No. 267-OD on Almaty Province on 29 November 2021 to approve tariffs for regulated heat energy production for 2022-2026 with effect from 1 January 2022, with a 8.6% increase. The tariffs are applied to Almaty Power Plants. Due to changes in the retail price of commodity gas for thermal power companies, the Committee for Regulation of Natural Monopolies of the Ministry of National Economy of the Republic of Kazakhstan issued Order No. 97-OD on Almaty city on 26 August 2022 and No. 92-OD on Almaty Province on 27 August 2022 to approve tariffs for regulated heat production for 2022-2026, with effect from 1 September 2022, where the increase in tariff made 6.8% against the rates as of 1 January 2022.

ELECTRICITY TRANSMISSION TARIFFS, KZT/KWH

Name	2020 actual	2021 actual	2022 actual	2023 projection	2024 projection
Alatau Zharyk Company	5.95	6.07	6.58	7.33	8.27

The Department for Regulation of Natural Monopolies also issued Order on 17 May 2021 to approve the marginal tariff for 2021-2025 for Alatau Zharyk Company, which also a natural monopoly, with the tariff coming into effect from 1 June 2021. The approved tariff was 6.52 KZT/kWh for 2022 with an increase of 7%.

Due to changes in the tariffs of Almaty Power Plants (electricity is a strategic commodity for Alatau Zharyk Company), Alatau Zharyk Company applied for a change in the electricity transmission tariff for 2022-2026 (Letter No. 14-4304 dated 15 July 2022). Following consideration of the application, the Department for Regulation of Natural Monopolies in Almaty issued Order No. 89-OD on 18 August 2022 to approve marginal tariffs and tariff estimates for 2022-2026, with effect from 01 September 2022. The approved tariff effective from 1 September 2022 was 6.69 KZT/kWh, an increase of 2.6% YTD.

ELECTRICITY SALE TARIFFS OF LOAD SERVING ENTITIES, KZT/KWH

Name	2020 actual	2021 actual	2022 actual	2023 projection	2024 projection
AlmatyEnergoSbyt	17.66	18.69	20.09	23.77	26.71

AlmatyEnergoSbyt load serving entity is of public importance and is also subject to regulation by the authorised agency. The tariff calculations include operational, financial and investment components. There are risks of artificial barriers put to tariff increases by the Regulator to maintain social stability in the regions. Consumption rate differentiation is kept for households, while electricity is supplied at the average rate to legal entities.

As the President instructed the authorities to stabilise the social and economic situation in the country and introduce a moratorium on utility tariff increases for households for 180 days until 1 July 2022, the application was postponed until 1 July 2022.

On 26 August 2022, the Department for Regulation of Natural Monopolies sent a Reasonable Opinion on the price increase to 21.16 KZT/kWh or 7.2% over the current level from 1 September 2022, taking into account the increase of energy source tariffs from 1 July 2021.

COAL SALES, KZT/TONNE

Name	2020 actual	2021 actual	2022 actual	2023 projection	2024 projection
Bogatyr Komir	2,311	2,292	2,669	3,337	3,458

The selling price of Bogatyr Komir's coal is approved independently in the price list for three groups of consumers in Kazakhstan (energy at the junction station, energy at the coal station, municipal and domestic needs). Regulation relies on the Business Code of the Department for Regulation of Natural Monopolies of the Ministry of Energy of Kazakhstan.

Kazakhstan's coal market

The steam coal market in Kazakhstan is characterised by its fragmentation. Thus, the main major players are Bogatyr Komir LLP (Samruk-Energy JSC and UC RUSAL), EEC JSC and Shubarkol Komir JSC (ERG), Kazakhmys Corporation LLP, Karazhyra JSC, and Angrensor Energy LLP.

According to the Bureau of National Statistics, coal producers in Kazakhstan produced 113.93 million tonnes of hard coal between January and December 2022, which is an increase of 2% compared to the same period in 2021.

COAL PRODUCTION, MILLION TONNES

Indicators	2020	2021	2022	Δ, 2022-2021,%
Pavlodar region	67.05	66.93	68.39	2.2 %
Karaganda region	33.61	35.36	34.28	-3.1 %
East Kazakhstan region	8.39	8.80	8.83	0.3 %
Total	**109.22**	**111.74**	**113.93**	2 %

Bogatyr Komir produced 42.47 million tonnes of coal in 2022.

At the end of the reporting period, Bogatyr Komir LLP produced 42.47 million tonnes of coal, which is 4.8% less than in 2021. At the same time, the company's share in 2022 was 37.3% of Kazakhstan's total coal production and 62.1% of Ekibastuz coal basin's coal production.

COAL SALES

COAL PRODUCERS

- Sales of coal to large consumers under direct contracts (power plants, production plants, exports)
- Commodity exchange → Wholesale and retail consumers

Samruk-Energy Group sold 42.41 million tonnes of coal in 2022.

COAL SALES BY BOGATYR KOMIR, MILLION TONNES

Indicator	2021	2022	Change, 2022-2021
Domestic market	34,939	32,325	-5%
Export	9,802	10,084	
Total	**44,741**	**42,409**	

At the yearend of 2022, coal sales reached 42,409,000 tonnes, a decrease of 5% or 2,331,000 tonnes (a decrease of 2,614 thousand tonnes or 7% in domestic coal sales and an increase of 282,000 tonnes or 3% in exports). The stripping ratio was 0.78 m^3/tonne in 2022, compared to 0.73 m^3/tonne last year.

Outlook

Coal sales are forecast to grow by 1,891,000 tonnes in 2023, or 4% above the 2022 actual.

Major coal consumers of Bogatyr Komir LLP include the energy systems of Astana, Almaty, Karaganda, Petropavlovsk, Pavlodar, Stepnogorsk, Ekibastuz TPP-1 and TPP-2. Buyers of coal (power plants) arrange and pay for the transportation of coal from Ekibastuz station (Bogatyr Komir LLP) to the destination point by themselves. Contracts of carriage are entered into with freight forwarders involving wagon owners (operators).

For small boiler houses located in rural areas, Ekibastuz coal is the passport fuel. Under the results of exchange transactions, shipment of coal for domestic needs is carried out: by rail and road transport.

In 2022, Bogatyr Komir LLP's coal sales volume decreased by 5.2% (2.33 million tonnes) compared to 2021.

VOLUME OF COAL SALES TO CONSUMERS, MILLION TONNES

Region	2020	2021	2022
Almaty Power Plants	3.29	3.00	3.00
Karaganda Energocenter	3.50	2.78	2.31
Astana-Energy	3.84	4.33	3.96
Pavlodarenergo PTPP-2, 3	2.49	2.86	2.83
Stepnogorsk TPP	0.95	1.00	0.80
EGRES-1	11.55	13.37	13.10
EGRES-2 Plant LLP	3.01	3.68	3.37
Bassel Group LLS	0.54	0.42	0.47
SevKazEnergo JSC	2.77	2.25	1.44
Ekibastuzteploenergo LLP	0.48	0.54	13.10
Kokshetau Zhylu State Communal Enterprise on the Right of Economic Use	0.32	0.34	0.32
Kombyt	0.64	0.39	0.19
Total for the RK domestic market	**33.38**	**34.94**	**32.32**
Reftinskaya TPP	10.06	9.80	10.08
Total for export to the RF	**10.06**	**9.80**	**10.08**

Development strategy

Development strategy for Samruk-Energy JSC

On 29 October 2021, the Board of Directors of Samruk-Energy JSC approved a new Development Strategy of Samruk-Energy JSC for 2022-2031, which takes into account the state policy on strategic planning of the national energy security system, development of electric power industry, corresponding to the main strategic approaches, goals and objectives of the Sole Shareholder.

DEVELOPMENT GOALS OF SAMRUK-ENERGY JSC

Definition of the Company's strategic goals and objectives is based on a PESTEL analysis, which is an analysis of macroeconomic and industry trends, and an analysis of the internal environment.

To deliver on the mission effectively, considering the challenges and opportunities at global, national and corporate levels, the Company has identified three key priorities for itself through the ESG lens, ensuring that the three strategic goals of the Company are achieved with the most efficient use of available resources.

In order to achieve the strategic goals with due consideration of key priorities, 19 key initiatives/objectives have been identified and are being implemented by the Company as part of its strategic development.

KEY PRIORITIES OF SAMRUK-ENERGY JSC

DEVELOPMENT GOALS OF SAMRUK-ENERGY

	SUSTAINABLE DEVELOPMENT	RESPONSIBLE INVESTMENTS	EFFECTIVE PORTFOLIO MANAGEMENT
Reduced net carbon footprint	**1.** Environmental liability **5.** Decarbonisation	**2.** Research and development (R&D) **3.** Green financing **19.** Reaching new frontiers	**4.** Resource saving
Increase in productivity	**6.** Human capital development **7.** Social responsibility **15.** HSE best practices	**11.** Equipment upgrades **12.** Innovation development	**8.** Increased electricity sales on domestic and foreign markets **9.** Increased coal sales on domestic and foreign markets **10.** Improvement of operational efficiency of existing facilities **13.** Digitalization **14.** Improvement of business processes
Increase in net asset value	**16.** Improved financial sustainability **18.** Corporate management	**17.** Implementation of Investment projects and programs	**18.** Corporate management

Key ESG principles of the development strategy of Samruk-Energy JSC:

- Commitment to the principles of sustainable development at the level of the Board of Directors, the executive body and the personnel
- Analysis of the internal and external situation by components: economy, ecology, social issues
- Identification of sustainable development risks in the social, economic and environmental fields
- Construction of a stakeholder map
- Identification of objectives and key performance indicators in sustainable development, development of an action plan and determination of responsible parties
- Integration of sustainable development into key processes, including risk management, planning, human resource management, investment, reporting, operations, etc., as well as into the Development Strategy and decision-making processes
- Advanced training for officials and employees in the area of sustainable development
- Regular monitoring and evaluation of sustainability development activities, assessing the achievement of objectives and key performance indicators (KPIs), taking corrective action, introducing a culture of continuous improvement

Implementation of the development strategy for Samruk-Energy JSC

The Company's strategic indicators are showing a tendency to improvement. The main growth drivers are increasing domestic sales of electricity and capacity, obtaining individual capacity tariffs, reducing specific fuel and water consumption for technological needs, optimizing fuel and energy resource costs and energy saving, as well as reducing the debt burden.

STRATEGIC PERFORMANCE INDICATORS[9]

Indicator	Fact 2020	Fact 2021	Actual 2022	Forecast 2024	Forecast 2027	Forecast 2031
Reduced net carbon footprint, tonnes	-	32,951,527	31,978,243	-	-	≥(-10%) by 2021
Labour productivity[10], '000 KZT/person	-	10,154	13,273	1.1x vs. 2021	1.2x vs. 2021	1.5x vs. 2021
ROI (strategic ROI KPI will be applicable if assets are disposed)	-	-	-12%	>CoE	>CoE	>CoE
Net asset value (NAV), million KZT	400,623	412,899	442,783	1.2x vs. 2021	1.25 vs. 2021	2x vs. 2021
Debt/EBITDA (ratio)	2.67	2.41	1.90	≤3.5	≤3.5	≤3.5
Corporate management rating	-	BB	-	BBB	A	AA
Output of non-primary goods and services ('000 KZT)	-	332,537,144	381.5	1.1x vs. 2021	1,2x vs. 2021	1,5x vs. 2021

In line with the key strategic goals and the 19 key development initiatives and objectives, the Company implemented activities and projects during the reporting period aimed at achieving the main strategic goals. All initiatives and objectives have been developed in accordance with those of Samruk-Kazyna National Wealth Fund.

[9] Strategic KPIs approved in Smaruk_energy Development Strategy 2022-2031.
[10] Labour productivity restated from 2022 according to new methodology.

IMPLEMENTATION OF THE DEVELOPMENT STRATEGY IN 2022

Strategic goal	Objective	Measure	Comments on implementation
Reduced net carbon footprint	ENVIRONMENTAL LIABILITY	Installation of an automated environmental emission monitoring system at TPP-1, TPP-2, Almaty Power Plants.	The Group made contracts for the development of design estimate documentation. Supply of equipment and preparatory works are in progress.
		Use of low-emission swirl pulverised-coal burners.	Contract for the development of design estimate documentation has been concluded.
	R&D	Carbon capture and storage technologies (CCS), carbonchemistry product generation (R&D).	Technical specification approved and tender launched.
	GREEN FINANCING	Use of green financing instruments.	The Company has issued green bonds. A report on the use/ allocation of revenues and the impact of funded green projects has been prepared and published on the AIX website and the Company's corporate website.
	RESOURCE SAVING	"Construction of a clarified water return pumping station" at TPP-2.	Contract for the development of design estimate documentation has been concluded.
	DECARBONISATION	Sale of carbon units (offsets) from RES facilities	The design documentation and monitoring plan have been approved by the authorised environmental authority. Offset units received and credited.
Increase in productivity	HUMAN CAPITAL DEVELOPMENT	Creating attractive conditions for employees.	Procurement of consultancy services for diagnostics and development of corporate culture has not been agreed with the Fund.
		Retention of internal talent and attraction of highly qualified staff.	The list of key posts and talent pool have been approved by the Management Board of Samruk-Energy JSC.
		Provision of social guarantees and social stability in the Company.	Wages are indexed annually across the group of companies.
	SOCIAL RESPONSIBILITY	Employee training to ensure that employees understand ethics and principles and have zero tolerance for facts of corruption and bribery.	32 training sessions were held/ newsletters were sent. On a quarterly basis, the Company`s Board of Directors is provided with information on the activities implemented in this area as part of the reports by the Compliance Service.

IMPLEMENTATION OF THE DEVELOPMENT STRATEGY IN 2022

Strategic goal	Objective	Measure	Comments on implementation
Increase in productivity	INCREASED ELECTRICITY SALES ON DOMESTIC AND FOREIGN MARKETS	RES sales in 2022.	Actual RES sales for 2022 were 414.57 million kWh.
		Ensuring the supply of electricity to consumers of the Fund`s group of companies.	By the end of 2022, 6,165.1 million kWh of electricity was supplied to consumers of the Fund`s group of companies.
		Supply of electricity to energy-intensive industries (Data Centres, Industrial Zones, etc.).	At the end of 2022, 1,726 million kWh of electricity was supplied to power the energy-intensive industries (Aktogay and Bozshakol mining and processing complexes).
	INCREASED COAL SALES ON DOMESTIC AND FOREIGN MARKETS	Ensuring exports of raw coal to the Russian Federation.	By the end of 2022, the export of raw coal amounted to 10,084 thousand tonnes.
	IMPROVEMENT OF OPERATIONAL EFFICIENCY	Implementation of the energy saving and energy efficiency program until 2025.	During 2022, 58 different measures were taken, implementation of energy efficiency measures in the Samruk-Energy JSC group of companies.
		Reduction of technological losses in Alatau Zharyk Company JSC grids.	Actual losses in the reporting period were 11.45%, a drop against the baseline loss in 2020 (12.6% actual).
		Launch of SCADA system (supervisory control and data acquisition).	The works were not done because of changes in the project (scope and installation locations of equipment).
		Optimization of the repair cycle of equipment	Ministry of Justice of the RK returned the Draft Order for revision by the Committee of Atomic and Energy Supervision and Control of the Ministry of Energy of the Republic of Kazakhstan.
	INNOVATION DEVELOPMENT	Introduction of a pilot dry coal cleaning unit at Severny Open Pit Coal Mine, 3rd seam, with a calorific value of 4,000 kcal/kg, Stage 1.	The project financing documents package (development of design estimate documentation, project feasibility study) is under approval by UC Rusal. Development of design estimate documentation is planned for 2023, with construction and installation starting in 2024.

IMPLEMENTATION OF THE DEVELOPMENT STRATEGY IN 2022

Strategic goal	Objective	Measure	Comments on implementation
Increase in productivity	DIGITALISATION	Analysis of commercial losses in grids using data analytics.	The project was completed, project report signed.
	IMPROVEMENT OF BUSINESS PROCESSES	Electronic archive (part of the measure "Re-engineering the Company's processes to maximise the impact of production, financial and economic activities").	Deadline postponed to 2023-2024.
		Robotisation of routine business processes	Roboticisation of HR routine business processes was introduced thanks to specialised software to free up the time of HR staff. The project was rolled out on the site of Almaty Power Plants.
	HSE BEST PRACTICES	Automation of the process of recording hazardous activities/conditions and incidents to minimize accidents.	The project report has been approved by the Project Management Committee.
		Cooperation with leading companies, conclusion of memoranda.	In March 2022, a Memorandum of Cooperation in H&S was concluded between Samruk-Energy and ArcelorMittal-Temirtau.
Increase in net asset value	IMPROVED FINANCIAL SUSTAINABILITY	Compliance with creditors' regulatory financial covenants with fixation on a semi-annual and annual basis (except for debt incurred and interest costs arising, in force majeure circumstances (quarantine), as instructed by the Fund and/or the Government of the RK).	All financial covenants of the Company's creditors were met.
	IMPLEMENTATION OF INVESTMENT PROJECTS	1. Extension and reconstruction of Ekibastuz TPP-2 with the installation of Unit No. 3.	Delivery of equipment from the PRC is underway.
		2. Extension and reconstruction of Ekibastuz TPP-1 facilities (restoration of Unit No. 1).	Construction and assembly works are in progress. Actual work completion was 75.17%; dismantling reached 84.38%; assembly, 65.96%, and delivery of equipment and supplies, 53.35%.

IMPLEMENTATION OF THE DEVELOPMENT STRATEGY IN 2022

Strategic goal	Objective	Measure	Comments on implementation
Increase in net asset value	IMPLEMENTATION OF INVESTMENT PROJECTS	3. Gasification of Almaty TTPs.	Modification of Almaty TPP-2: An open two-stage international tender for the selection of an EPC contractor under the rules of the European Bank for Reconstruction and Development has been announced. Reconstruction of Almaty TPP-3: on 14 December 2022, Almaty Power Plants won a tender, bidding for the construction of new load-following facilities (KZT 9,788,700/MWh*month excluding VAT). The Bank carried out a preliminary indicative analysis. Reconstruction of TPP-1: On 04 of January 2023, Gosexpertiza RSE gave a clean opinion on the feasibility study of the project.
		4. Reconstruction of cable networks in Almaty city and Almaty region.	The head of state signed the Law On Amendments and Additions to Some Legislative Acts of the Republic of Kazakhstan on Electricity, Energy Saving and Energy Efficiency, Subsoil Use, Local State Administration, State Border, Housing and Public Utility Services and Science, which includes amendments to the Law of Kazatomprom On Electricity concerning the tariff. The data contained in the amendment will allow for a return on project investment. Contracts were concluded for construction and assembly.
		5. Transition of Bogatyr Mine to modern In-pit Crushing and Conveying (IPCC).	Pilot start took place in December 2022. Pre- commissioning is scheduled for 2023.
		6. Diversion of the Kensu River.	The Kensu River Diversion Project is planned to be implemented by QGP PLC, due to the transfer of this asset. The project may be implemented with support of an investor through a public-private partnership.

IMPLEMENTATION OF THE DEVELOPMENT STRATEGY IN 2022

Strategic goal	Objective	Measure	Comments on implementation
Increase in net asset value	IMPLEMENTATION OF INVESTMENT PROJECTS	7. Construction of the counter regulating Kerbulak HPP on the Ili River.	Work is underway with the Ministry of Energy of the RK to amend the statutory instrument to provide a tariff allowing implementation of the project. The Company started implementing the project.
		8. Construction of a 50 MW WPP near Ereymentau city.	To date, access and site roads, as well as mounting pads for wind turbines (foundations for wind turbines) have been constructed; transmission lines have been rebuilt and 35 kV lines have been laid; the 220/35kV substation has been constructed.
		9. Construction of a 60 MW WPP in the Shelek Corridor.	On 21 July 2022, the Facility Commissioning Certificate was signed.
		10. Construction of a combined 310 MW wind and hydro power plant in Almaty Province.	Samruk-Kazyna JSC and PowerChina Resources Limited signed a Memorandum of Cooperation on 12 September 2022 to build a combined 310 MW wind and hydro power plant in Almaty Province.
	CORPORATE MANAGEMENT	Preparation of annual report on sustainable development in accordance with GRI.	Integrated Annual Report for 2021 was approved by the Board of Directors on 27.05.2022.
		Independent corporate management diagnostics by the Shareholder, and development of medium-term plans to improve corporate management (within the terms set by the Shareholder).	In the first quarter of 2022, the Board of Directors approved the Company's Corporate Management Improvement Plan for 2022-2023. Report on the execution of the Corporate Governance Improvement Plan for 2022 was approved by the Board of Directors.
		Regular evaluation of the Boards of Directors (self-evaluation, independent evaluation) in accordance with the internal BOD evaluation document.	The self-evaluation of the BOD activities for 2022 shall be carried out in 2023.
		Improving the image through awareness- raising activities (annually).	All activities to improve the image through awareness-raising are carried out.
		Obtaining an ESG rating.	The ESG rating is planned to be obtained in the second half of 2023.

RISKS AND CHALLENGES RELATED TO THE DEVELOPMENT STRATEGY IMPLEMENTATION

Strategic approach 1. Transition to green economy

Risk or threat	Risk prevention measures
Environmental risk (pollution / exceeding greenhouse gas emission quotas)	Monitoring compliance with environmental legislation, timing of emission permit applications and reporting to state regulatory authorities, compulsory environmental insurance, and compliance with technical regulations. Monitoring budget performance under the environmental protection article, compliance with the plan for upgrades and repair of main and auxiliary equipment, use of greenhouse gas emission limits, adjustments. In accordance with the RK Environmental Code, to obtain additional GHG quotas when necessary, including through purchasing them by auction, and to create liquidation funds.

Strategic approach 2. Ensuring a reliable and competitive supply of energy resources in the target markets

Risk or threat	Risk prevention measures
Risks related to electricity sales	Interaction with the shareholder, state authorities and organisations on the development of the electricity and capacity market. Monitoring the implementation of the electricity sales plan.
Information security risks	Preparation of auxiliary information capacities (servers, computers). Regulations for obtaining or restricting access rights.
Risk of work accidents resulting in damage to the health and life of employees in the course of their duties	Timely provision of personal protective equipment to employees. Control over training of employees in occupational health and safety, checks of knowledge of operational regulations, safety rules, execution in subsidiaries and affiliates of measures developed as part of the Action Plan for management of occupational health and safety and environmental issues in Samruk-Energy JSC Group of Companies. Monthly monitoring of their performance.
Risk of tariff setting	Qualitative preparation of the entity's tariff campaign for tariff approval (harmonization). Timely adjustment of the tariff estimates and investment programs in the CRNP of the Ministry of National Economy of the Republic of Kazakhstan to avoid introducing compensatory (reduced) tariffs for subsidiaries and affiliates. Tariff policy monitoring; weekly report on tariff policy issues of subsidiaries and affiliates. Work with the country's government authorities to obtain the necessary tariff for the goods and services of the Company's subsidiaries and affiliates.

Strategic approach 3. Increasing the cost of equity capital

Risk or threat	Risk prevention measures
Risks of ongoing/prospective investment projects and investment programs of subsidiaries and affiliates	Work with the national government authorities to enlist support for the Company's investment projects. Report on execution of the Development Plan of Samruk-Energy JSC and subsidiaries and affiliates of Samruk-Kazyna JSC. Monitoring of Samruk-Energy JSC capital investments and investment projects under implementation.
Risk of breach of covenants of external creditors and listing requirements	Preparation of the debt and financial sustainability report. Monitoring of compliance with covenants under the Financial Sustainability and Debt Management Policy (financial and non-financial).
Exchange risk	Setting net foreign exchange position limit. Monitoring the net foreign exchange position.
Risk of loss due to compensation for emergency retired capacity at a price of electricity higher than the selling price	Supervision of timely equipment diagnostics to determine the technical condition, as well as the timely and complete execution of necessary repairs to equipment in accordance with the established timetable.

Investment activities

Investment activities of Samruk-Energy JSC rely on the principles of commercial expediency, long-term interests, and capital return. The company is aware of its liability and aims to contribute to the development of society by supporting ESG principles and sustainable development plans.

In assessing ESG, the Company follows the Corporate Management Code and the best internationally recognised standards, such as the UN Sustainable Development Goals, the Global Reporting Initiative, the standards of International Finance Corporation (Industry Foundation Classes, IFC) and the European Bank for Reconstruction and Development, the UN Principles for Responsible Investment , etc.

Priorities of Samruk-Energy JSC investment activities

The priority of investment activities of the Samruk-Energy JSC Group of Companies is the commercial expediency of investments and their focus on generation of long-term value, introduction of new technologies and creation of quality jobs.

The Company's approach to investment activities rests on the principles of responsible investment, taking into account environmental, social and managerial ESG factors in investment decisions, to effectively manage risk and build long-term sustainability.

As part of our transformation program, we implemented best practices in investment management:

- project and activity portfolio management has significantly improved the allocation of financial resources to increase the share of viable projects in the overall portfolio of projects and activities;
- project management raises the level of control in the implementation phase of investment projects (budgets, deadlines).

Key principles of Samruk-Energy JSC investment activities:

- incorporating ESG parameters into the process of investment analysis and decision-making
- compliance with the laws of the Republic of Kazakhstan and proper use of confidential information
- preparation of annual reports, including financial reports, sustainability reports, including ESG factors, in accordance with internationally or nationally recognised auditing standards
- availability of a formalised system for identifying, assessing and managing risks

In line with SG principles, our main advantages are the following:

- informed investment decisions through an understanding of important ESG factors, relevant potential liabilities, costs and impact on financial performance, as well as potential opportunities for value generation;
- minimising exposure to reputational or legal risks;
- ensuring the availability of appropriate systems to assess and monitor the effectiveness of ESG principles compliance by the Fund and portfolio companies, compliance with applicable ESG requirements and management of related investment risks;
- establishing a framework for ongoing interaction with companies to discuss, assess and manage ESG risks and level of effects, and to identify and take advantage of opportunities;
- demonstrating proper consideration and management of relevant ESG factors for relevant stakeholders.

Based on the results of the 2022 analysis, we formed a list of capital projects, including "green energy transition projects" included into the Company's Development Strategy for 2022-2031 (more on the website of Samruk-Energy JSC: www.samruk-energy.kz).

The Investment Programs are financed from the Company's own funds, debt financing from international financial institutions and second-tier banks of the RK.

IMPLEMENTATION OF SAMRUK-ENERGY INVESTMENT PROGRAMME IN 2022, UTILISATION METHOD, KZT MILLION (EXCL. VAT)

Allocation of funds	Actual			Projection	
	2020	2021	2022	2023	2024
CAPEX	73,232	61,698	100,580	189,900	414,670
Investment projects	40,718	25,206	58,372	135,078	360,722
Maintaining production assets	31,787	35,198	41,052	51,576	52,871
Maintaining administrative assets	690	1,267	1,157	2,931	1,077
Other investments	38	26	0	315	0

Capital investments to maintain production assets are aimed at carrying out repairs to major and auxiliary equipment, as well as the purchase of fixed assets of a production nature to ensure the reliability of power plants operations.

In 2022, foreign investments attracted by the Company for its investment projects rose by 587% to KZT 19.37 billion including VAT (excluding stakes in Bogatyr Komir (50%) and Energia Semirechya (25%)).

At the same time, the amount spent on investment activities showed a decrease of 35%, reaching KZT 77.3 billion, including VAT. Expenditures on investment projects amounted to KZT 36.5 billion including VAT, also showing a YoY decrease of 49% (including the stakes in subsidiaries and affiliates: 50% in Ekibastuz GRES-2, 25% in Energia Semirechya, and 50% in Bogatyr Komir).

Investment projects implemented in 2022

In the reporting period, the Company fully implemented the project "Construction of a 60 MW WPP in the Shelek Corridor with the prospect of extension up to 300 MW". On 21 July 2022, the Company received a commissioning certificate, and the facility was officially unveiled on 12 September 2022.

The project was implemented by Samruk-Energy JSC in partnership with China-based Power China and is a successful example of international cooperation in the energy sector.

The new plant consists of 24 wind turbines from GoldWind (one of the world's leading manufacturers of wind turbines), each with a nominal capacity of 2.5 MW allowing to produce more than 225.7 million kWh of additional electricity per year. In addition, the launch of the power plant will reduce greenhouse gas emissions by up to 206,000 tonnes and replace about 89,000 tonnes of fuel equivalent per year.

Investment projects of Samruk-Energy JSC

During the reporting period, the Company continued to implement 12 investment projects aimed at improving the reliability of energy supply in the industrial and domestic sectors of the country, ensuring a low-carbon development strategy, supporting, developing and integrating RES, increasing the export potential, energy security and energy independence of Kazakhstan.

1. REBUILDING UNIT 1 WITH INSTALLATION OF NEW ELECTROSTATIC PRECIPITATORS.

Description and purpose of the project: Construction of a power unit with installed capacity of 500 MW and new electrostatic precipitators, which will increase the installed capacity of TPP-1 to 4,000 MW.

Results for 2022: Removal of main and auxiliary equipment of the power unit and ash collector. Supply of boiler, turbine and their accessories, generator, transformers, electrical equipment. The boiler and electrostatic precipitators were installed. Construction and installation work is underway: installation of the turbine, auxiliary equipment and electrical equipment.

Actual completion rate was 75.17%, removal – 84.38%, installation – 65.96% and supply of equipment and materials – 53.35%.

Financing: The project is implemented with own and borrowed funds (Halyk Bank).

Implementation period: December 2023.

2. EXTENDING AND UPGRADING EKIBASTUZ GRES-2 WITH INSTALLATION OF UNIT 3.

Description and purpose of the project: Extension and reconstruction of Ekibastuz TPP-2, as well as the construction of power unit No 3, will improve the reliability of energy supply to all sectors of the economy and the population, and increase the country's export potential.

Results for 2022: In January 2022, an application was submitted to the Market Council for an individual capacity tariff.

Under the 2021 Mediation Agreement with equipment supplier Quartz KZ LLP (China), 2,184.5 out of 7,781.6 tonnes of equipment (28%) was delivered to the plant in 2022. Delivery of the equipment from the city of Jinan is complete. The equipment has been taken on the balance sheet of Ekibastuz TPP-2. Negotiations are currently underway with HAERBIN ERANTEX TECHNOLOGY for the shipment and repackaging of the equipment in Harbin city.

On 11 November 2022, a contract was signed with a consortium comprising KIT-Holding LLP, together with Design Research Republican Unitary Enterprise BelNIPIErgoprom for amendments of design estimate documentation at P stage, SpetsStroiTekhMontazh-PV LLP for construction of hangars No. 1, 2 and 5. Construction and installation works in progress.

On 26 September 2022, a memorandum was concluded between Samruk-Kazyna JSC and CMEC Group (PRC) for the construction of power unit No. 3.

Financing: Sources of financing are being identified.

Implementation period: 2006-2026.

3. TRANSITION TO IN-PIT CRUSHING AND CONVEYING (IPCC) FOR COAL EXTRACTION, TRANSPORTATION, AVERAGING AND LOADING AT BOGATYR MINES, EKIBASTUZ COAL FIELD

Description and purpose of the project: Replacement of the main worn-up means of coal shipment, crushing and transportation, as well as the phased transition of Bogatyr Open Pit Mine to a flow technology of coal convening to near-surface bedding stockyards, with its subsequent loading at surface haulage systems, which will increase the production capacity of the enterprise.

Results for 2022: ThyssenKrupp equipment has been delivered in full. All foundation work has been completed. The erection of steel structures and the pre-assembly of all equipment have been completed. Currently, construction, installation and commissioning works of the main electrical equipment (stacker, crushing and loading units, belt hoisting conveyor, drum reclaimer) are being carried out.

The management of Bogatyr Komir LLP decided to mine coal in the winter period of 2022- 2023 using the "old technology" with parallel commissioning of the in-pit crushing and conveying system. Therefore, the construction and installation work for the Yuzhny storage and the auto-road leading to the IPCC facilities was postponed to spring 2023. Technical commissioning of the technology was carried out in December 2022 and the commissioning of the IPCC facilities is about to be completed.

Financing: Borrowed funds from EDB.

Implementation period: 2013-2023.

4. CONSTRUCTION OF A 50 MW WIND POWER PLANT NEAR EREYMENTAU

Description and purpose of the project: Construction of a 50 MW wind power plant near Ereymentau city will generate about 215 million kWh of electricity per year. In addition, the use of renewable energy sources will help to reduce the use of hydrocarbon energy products in electricity generation.

Results for 2022: Work was completed on the construction of access and intra-side roads, on the installation sites for wind turbines (foundations for wind turbines), on the reconstruction of existing ETLs and the laying of 35 kV CLs, and on the construction of the 220/35 kV substation (SCB, CCB and checkpoint buildings).

Financing: 30% — the Company's own funds, 70% — borrowings.

Implementation period: 2014-2024.

5. UPGRADE OF ALMATY CHPP-2 WITH LOW ENVIRONMENTAL IMPACT

Description and purpose of the project: Construction of a new plant using gas turbine technology with electric capacity of up to 600 MW and thermal capacity of 800 Gcal/h at the site of Almaty TPP-2 will reduce the negative environmental impact of the plant on the ecological situation of Almaty city. The project is being implemented as part of an order from the President of the Republic of Kazakhstan.

Results for 2022: On 30 of December 20021, RSE Gosexpertiza gave a clean opinion on the feasibility study of the project involving the construction of a new gas turbine TPP at the site of Almaty TPP-2 using the existing infrastructure on the basis of Siemens equipment (GTU- SGT5-2000E). According to European Bank for Reconstruction and Development rules, the final decision on the choice of technology shall be made after a competitive selection process of an EPC contractor.

The feasibility study results were approved by Samruk-Kazyna Board of Directors on 27 June 2022, and by Samruk-Energy Board of Directors on 15 September 2022. On 27 October 2022, an open two-stage international tender for the selection of an EPC contractor was announced. Technical specification for the selection of an EPC contractor and the draft EPC contract are based on the yellow book of the FIDIC (International Federation of Consulting Engineers). An EPC contract is expected to be made.

Financing: Construction work on the new gas plant will be carried out with funds attracted from a syndicate of leading international and Kazakhstan banks – the European Bank for Reconstruction and Development (EBRD), the Asian Development Bank (ADB) and the Development Bank of Kazakhstan (DBK). The financing will be in KZT, with a floating interest rate linked to TONIA (Tenge OverNight Index Average).

On 25 November 2022, a Loan Agreement was concluded between the plant owner Almaty Power Plants JSC and the EBRD to finance the project. A letter of intent to provide financing for the project was also signed between Almaty Power Plants and DBK.

Implementation period: 2022-2026.

6. UPGRADE OF ALMATY CHPP-3

Description and purpose of the project: Reconstruction of Almaty TPP-3 with construction of a CCGT of up to 545 MW will not only cover in part the shortage of manoeuvring capacity in the Southern Zone of Kazakhstan, but will also provide consumers in Almaty and Almaty region with uninterrupted supply of electricity and heat in accordance with load and temperature schedules.

Results for 2022: On 10 of October 2022, RSE Gosexpertiza expert review agency gave a clean opinion on the feasibility study of the project on construction of a new power plant using two combined cycle steam and gas power units of 543.6 MW total capacity (ISO) at the site of Almaty TPP-3 using the existing infrastructure on the basis of Siemens equipment (GTU- SGT5-2000E). Between October and December 2022, results of the feasibility study were approved by the Management Board of Almaty Power Plants JSC, the Management Board of Samruk-Energy JSC, ECC Fund and the Board of Directors of Samruk-Energy JSC. The materials are currently under review by ECC of Samruk-Kazyna JSC.

As part of the Almaty Power Plants project, a tender for the procurement of an EPC contractor service is planned in accordance with the procurement procedures of Samruk-Kazyna JSC through a Prequalification Process (PQP 2.0) for potential suppliers. At present, Almaty Power Plants together with Samruk-Energy JSC and Samruk-Kazyna Contract LLP are preparing the PCR 2.0 materials for potential suppliers. The planned deadline for completion of the technical specification, the client's requirements for the contractor and the draft EPC contract is the second quarter of 2023.

On 14 December 2022, Almaty Power Plants won the auction bidding for the construction of load-following generation facilities (9,788,700 KZT/MWh*month ,excl. VAT). The declared capacity is 480 MW. On 27 January 2023, the contract was signed by Almaty Power Plants JSC for the purchase of electric capacity availability maintenance service was sent to the Financial Settlement Center (FSC).

Financing: Preparations are underway to arrange financing with the Eurasian Development Bank. A preliminary indicative analysis was carried out.

Implementation period: 2021-2025.

7. RECONSTRUCTION OF ORAZBAYEV TPP-1 OF ALMATY POWER PLANTS WITH CONSTRUCTION OF A 200-250 MW CCGT

Description and purpose of the project: Extension of Almaty TPP-1 with construction of a 200-250 MW CCGT will ensure reliability of heating and electrification of Almaty and Almaty region.

Results for 2022: On 4 January 2023, RSE Gosexpertiza gave a clean opinion on the feasibility study of the project.

Implementation period: 2021-2026.

8. CONSTRUCTION OF COMPENSATING KERBULAK HPP ON THE ILI RIVER

Description and purpose of the project: Creation of an equilizing reservoir in the tail of Kapshagai HPP is intended not only to help level out the uneven weekly and daily releases of Kapshagai HPP and put Kapshagai HPP into peak-load coverage mode using all available capacity in the deficit zones of the Almaty power system and the Southern power zone of Kazakhstan, but also to improve the environmental situation in the lower reaches of the Ili River.

Results for 2022: Work has begun on the registration of land for Kerbulak HPP. According to calculations of Kazhydro LLP as a part of the feasibility study, the total area of required land allotment in the area of planned construction of Kerbulak HPP makes 708.5 ha, including: permanent land use of 488.9 ha (20 ha for placement of HPP dam, plant and switchyard are pledged by Halyk Bank), temporary land use of 219.6 ha during construction to accommodate the pit and builders' camp.

Financing: To determine the source of funding, the Company plans to work to ensure that the project's investment is repaid.

Implementation period: 2011-2027.

9. UPGRADE OF CABLE NETWORKS IN ALMATY

Description and purpose of the project: Reconstruction of cable networks will increase the capacity of Almaty city by 30% and will also reduce the accident rate in the distribution networks of Alatau Zharyk Company JSC.

The project was approved as part of the National Project "Sustainable Economic Growth Aimed at Improving the Welfare of Kazakhstanis"[11].

Results for 2022: On 4 of April 2022, implementation of the project was approved by the Decision of Samruk-Energy JSC Management Board. Design and estimate documentation has been approved for 17 sites. Contracts for construction and installation were concluded. As of the reporting date, 162.5 km of cable lines and 76 transformer substations (TS) were replaced. The procurement of a feasibility study development for the project and the implementation of a ACEMS by sites is planned for 2023.

Financing: According to the project structure, financing is planned to be provided by replenishment of equity capital from Samruk-Kazyna JSC with borrowed funds attracted from the Second Tier Bank.

Implementation period: 2022-2030.

10. RECONSTRUCTION AND MODIFICATION OF CASCADE HPPS

Description of the project: Reconstruction and modification of Cascade HPPs will ensure reliability and safety of plant operation, as well as an increase in installed capacity by 7.5 MW and an increase in electricity generation by 41.7 million kWh per year to supply consumers in Almaty and Almaty region.

Results for 2022: As part of the bilateral meetings between Samruk-Energy JSC and the World Bank, an agreement was reached that the bank would finance the development of a feasibility study for the project.

Financing: World Bank's grant for development of a feasibility study.

Implementation period: 2022-2027.

11. CONSTRUCTION OF A 310 MW HYBRID WPP/HPP PLANT IN ALMATY PROVINCE

Description of the project: Construction of the hybrid WPP/HPP plant is intended to partially cover the electricity deficit by generating more than 1,227 million kWh of electricity per year, reduce the use of hydrocarbon energy products in electricity generation, and improve the economic situation in Almaty region.

Results for 2022: On 12 September 2022, a Memorandum of Cooperation was signed between Samruk-Kazyna JSC and PowerChina Resources Limited.

Financing: To identify the source of financing, the Company is set to develop a feasibility study.

Implementation period: 2022-2028.

[11] Presidential Decree No. 670 dated 7 of October 2021.

SAMRUK ENERGY

03

Integrated annual Report
2022

Business performance

Financial Highlights

Macroeconomic factors

Based on Halyk Finance think tank data, in 2022, Kazakhstan's economy experienced the same challenges as the global economy with record consumer inflation, tighter monetary conditions (MCs), and reduced consumption. The negative impact of the January state of emergency across the country, as well as the war in Ukraine, affected Kazakhstan's economy and its main trading partners. They triggered disruptions in the established supply logistics, which indirectly contributed to an acceleration in consumer inflation. In 2022, inflation was the highest since 1996. It amounted to 20.3%, which in turn triggered significant price increases.

State budget expenditure in 2022 has increased by 20%. There was also a 4.3% drawdown in economic growth due to lower oil production because of maintenance work on the country's three biggest oil fields. In autumn, OPEC+ countries decided to limit oil production, which also affected Kazakhstan's quota. Fiscal stimulus, external demand and high hydrocarbon prices, as well as a record grain harvest, kept the Kazakh economy from a greater slowdown. In 2022, the economy of Kazakhstan showed a total growth of 3.2%. Together with extrabudgetary funds, the fiscal impulse has put significant pro-inflationary pressure on the economy of Kazakhstan.

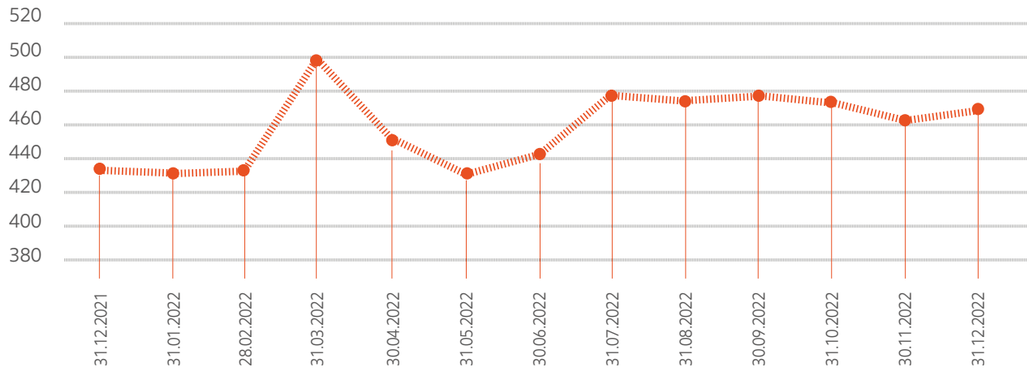
The negative external background in 2022 has also had an impact on the depreciation of the national currency by 8.1% against the US dollar. The tenge also depreciated against the Russian rouble by 20%. Given the prevailing volume of imports from Russia, it led to a further increase in the inflationary pressure on the economy. In view of the high inflation rate and continuing pro-inflation risks, the National Bank of Kazakhstan raised the base rate first to 16.0% and then to 16.75%. It also expressed the need to maintain the base rate at the current level for an extended period.

At the end of 2022, the exchange rate fluctuated from 431.67 KZT/USD to 462.65 KZT/USD (a weakening of ~7%), with a fluctuation of 512 KZT/USD during the year.

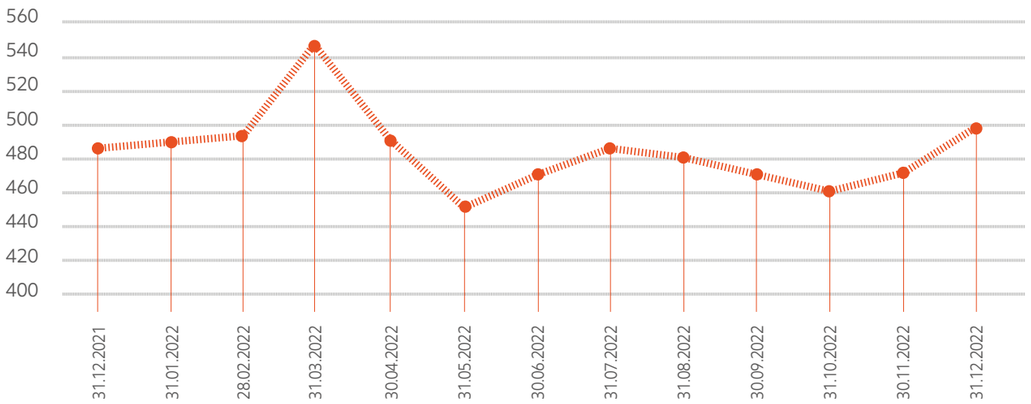
EXCHANGE RATE DYNAMICS

	31 December 2021	31 December 2022	%
KZT/USD	431.67	462.65	107%
KZT/EUR	487.79	492.86	101%
KZT/RUB	5.77	6.43	111%

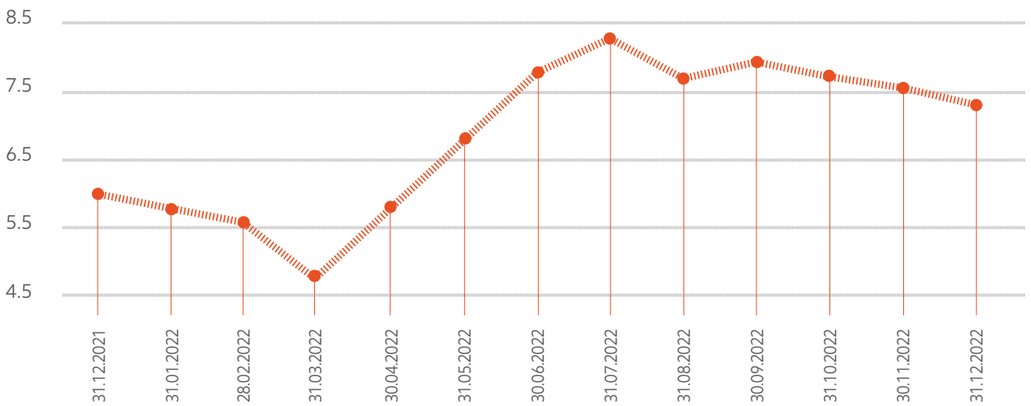
KZT/USD

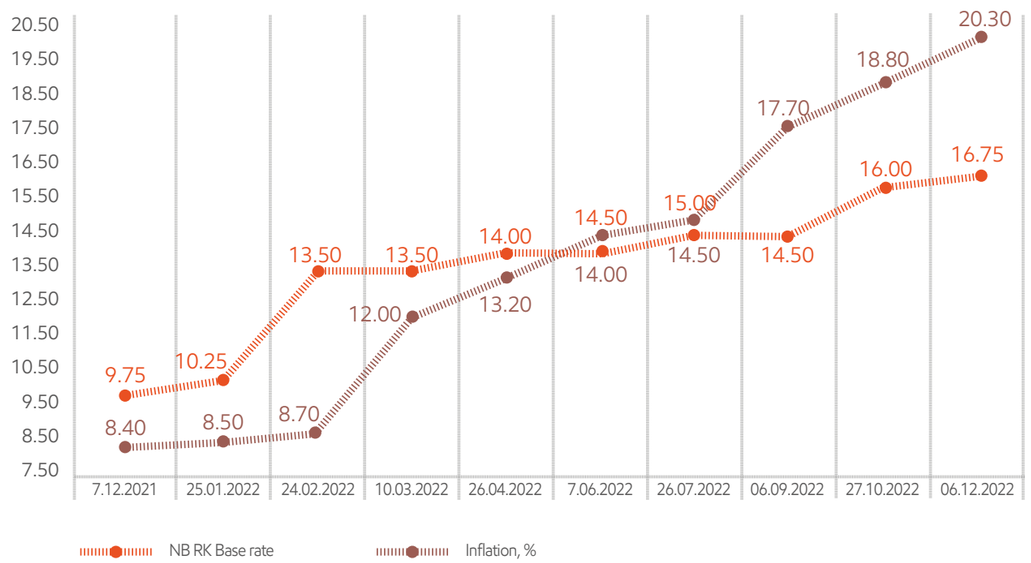


KZT/EUR



KZT/RUB





Financial and economic results

KEY FINANCIAL AND ECONOMIC INDICATORS, KZT MILLION

Indicator[12]	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
Revenues from sale of products and services	283,010	332,537	381,465	429,842	507,436
Cost of products sold and services delivered	(225,185)	(254,847)	(288,929)	(345,454)	(384,733)
Gross profit	57,826	77,690	92,536	84,387	122,703
Operating profit	31,798	53,868	64,574	57,501	96,994
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	99,728	123,447	141,382	135,925	202,303
Profit (loss) before tax	13,739	24,055	47,153	45,799	92,076
Total profit (loss) before minority interest	8,083	15,347	30,306	33,640	74,946
Total profit attributable to Group's Shareholders	8,008	15,046	30,132	33,408	74,602

Revenues from sale of products and services

In 2022, Samruk-Energy revenues from sales of products and services amounted to KZT 381,465 million

REVENUES FROM SALE OF PRODUCTS AND SERVICES, KZT MILLION[13]

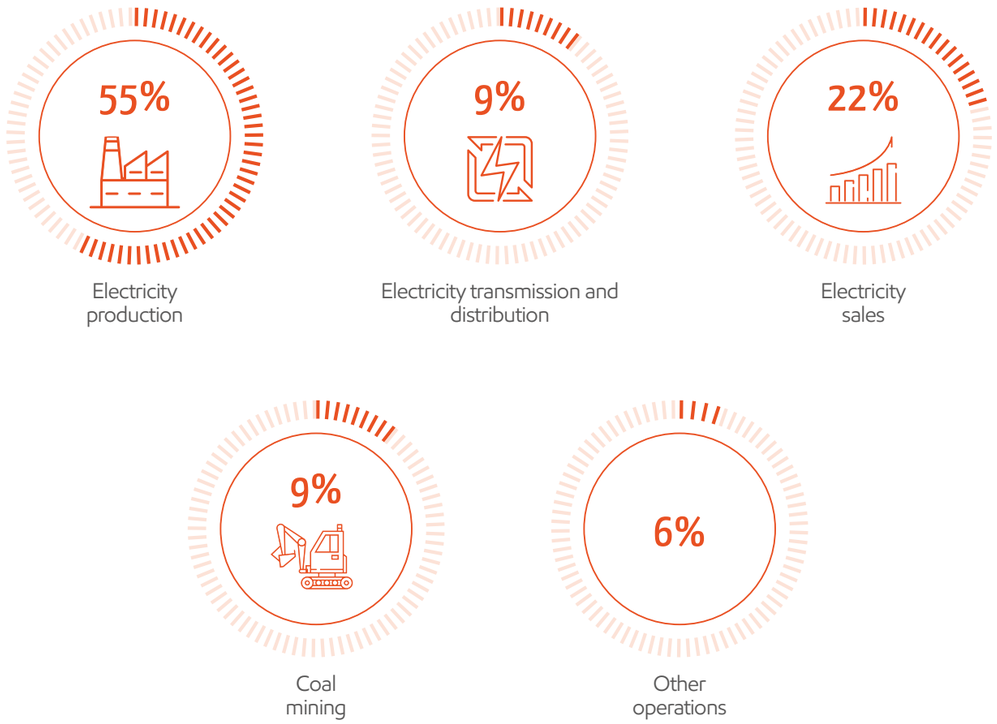
Indicator	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
Electricity production	207,917	253,593	286,873	309,493	372,388
Sales of electricity by energy supply companies	106,911	125,685	137,578	168,405	194,924
Heat production	19,202	18,703	19,762	21,430	23,124
Electricity transmission and distribution	40,685	46,428	53,654	60,552	69,029
Sale of chemically purified water	1,626	1,781	1,852	1,795	1,798
Lease	4,041	3,930	4,188	7,847	11,501
Other	3,181	3,702	5,574	6,435	6,724
Intracompany turnover (elimination)	**100,554**	**121,285**	**128,016**	**146,115**	**172,052**
Total	**283,010**	**332,537**	**381,465**	**429,842**	**507,436**

[12] The breakdown of revenue and cost is shown by area of activity (not by segment) and without elimination.
[13] The breakdown of revenue is shown by areas of activity (not by segment) and with elimination.

The increase in consolidated revenues is largely due to higher electricity production tariffs and sales volumes. Ekibastuz GRES-1 domestic electricity sales increased by 5% due to an increase in demand and an increase in the selling tariff (including an increase in the pass-through surcharge).

The increase in electricity transmission revenue was driven by a 7% (504 million kWh, from 6.07 KZT/kWh to 6.58 KZT/kWh) increase in electricity transmission volumes of Alatau Zharyk Company. Sales revenue increased by 2% (123 million kWh, from 18.69 KZT/kWh to 20.09 KZT/kWh) due to an increase in electricity sales by AlmatyEnergoSbyt.

REVENUES FROM CORE OPERATIONS



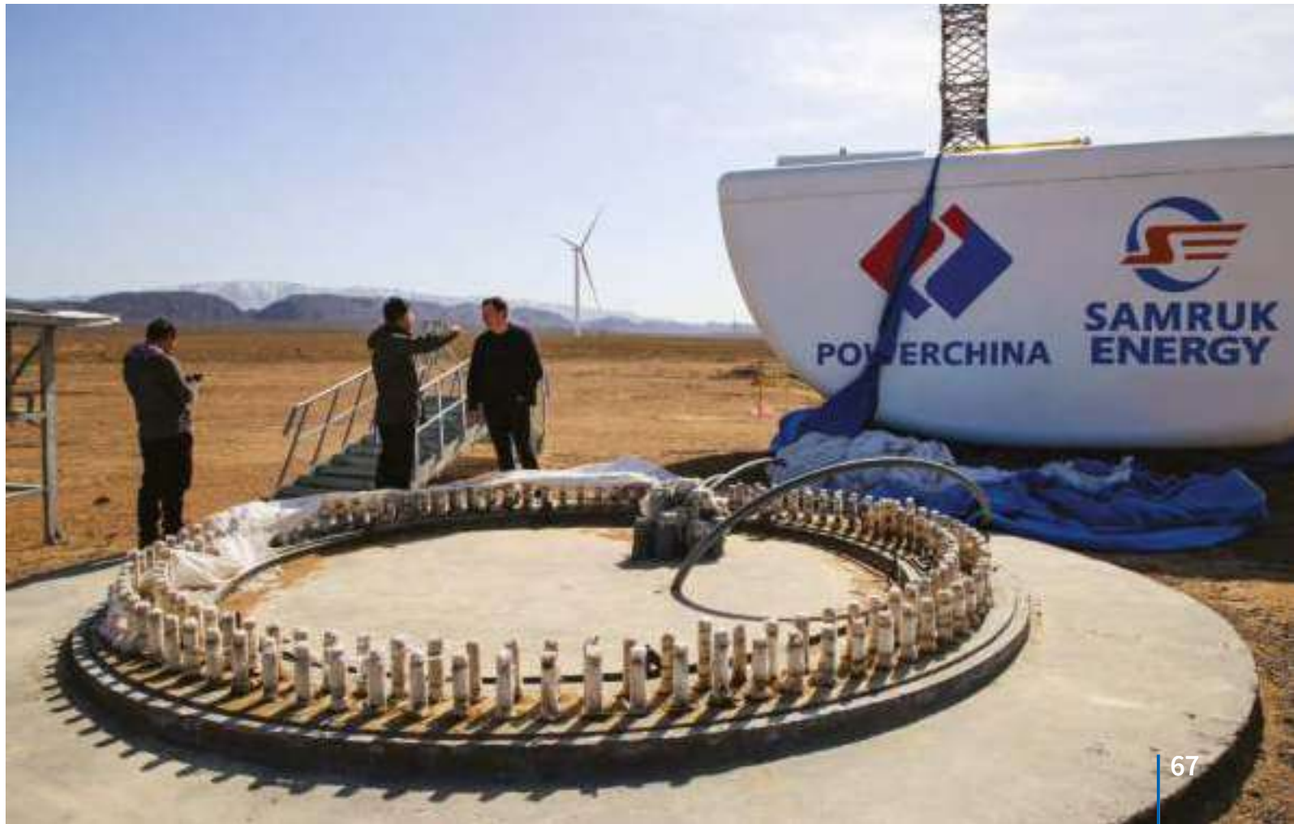
2023-2024 forecast

Due to higher tariffs for electricity production and sale, 2023 revenue is projected at KZT 429,842 million. This is 13% higher than in 2022, which was KZT 48,377 million. In 2024 forecast, the revenue increase results from growth in revenue from electricity generation due to an increase in electricity tariffs, growth in the capacity tariff through centralised bidding and a resulting increase in the electricity sales tariff, growth in sales, transmission and distribution, capacity and growth in electricity transmission tariffs. An increase in electricity tariffs is expected due to the inclusion of the profit margin in the ceiling tariff of Ekibastuz GRES-1, the individual tariff for power generating unit 1 and the first payments under principal loan raised for the project.

REVENUE FROM SALES OF PRODUCTS AND SERVICES BY MANUFACTURERS, KZT MILLION

Indicator	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
Ekibastuz GRES-1	123,478	166,366	189,266	197,180	245,621
AlmatyEnergoSbyt	106,911	125,685	137,578	168,405	194,924
Almaty Power Plants	74,481	78,654	86,220	97,717	110,022
Alatau Zharyk Company	40,819	46,594	53,842	60,769	69,249
Moynak HPP	20,520	19,003	22,804	22,474	23,333
Shardarinskaya HPP	6,761	7,183	8,680	8,038	9,655
First Wind Power Plant	5,031	4,881	4,987	6,935	7,785
Bukhtarma HPP	4,040	3,927	4,181	7,842	11,500
Ereymentau Wind Power			-	4,345	5,045
Energy Solution Center	1,287	1,128	1,515	1,736	1,817
Samruk-Green Energy	236	399	409	516	538
Intracompany turnover (elimination)	**-100,554**	**-121,285**	**-128,016**	**-146,115**	**-172,052**
Total	**283,010**	**332,537**	**381,465**	**429,842**	**507,436**

Ekibastuz GRES-1, Almaty Power Plants, Alatau Zharyk Company and AlmatyEnergoSbyt account for the bulk of the Company's core business revenues. When consolidating revenues, intragroup turnover of generation and distribution companies is excluded from the total.



COST OF PRODUCTS SOLD AND SERVICES DELIVERED, KZT MILLION[14]

Indicator	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
Cost of electricity production	(156,182)	(183,478)	(202,949)	(242,575)	(276,063)
Sales of electricity by energy supply companies	(111,195)	(128,428)	(140,490)	(167,310)	(193,239)
Cost of heat production	(18,804)	(19,306)	(22,168)	(22,473)	(24,769)
Cost of electricity transmission	(54,365)	(39,358)	(47,040)	(54,609)	(57,910)
Cost of sales of chemically purified water	(1,679)	(1,848)	(2,001)	(1,801)	(1,880)
Cost of other core businesses	(946)	(767)	(1,140)	(1,436)	(1,501)
Depreciation of fixed and intangible assets	(57,331)	(55,168)	(59,764)	(65,132)	(77,127)
Intracompany turnover (elimination)	**(117,986)**	**(118,338)**	**(126,859)**	**(144,750)**	**(170,629)**
Total	**(225,185)**	**(254,847)**	**(288,929)**	**(345,454)**	**(384,733)**

COST OF PRODUCTS AND SERVICES, KZT MILLION

Indicator	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
Fuel	59,109	60,320	68,247	82,892	89,251
Remuneration and related expenses	29,394	34,120	45,643	48,650	50,901
Cost of purchased electricity	22,865	42,426	50,991	65,145	77,714
Electric capacity maintenance services	10,094	8,718	8,819	12,435	15,069
Depreciation of fixed assets and amortisation of intangible assets	57,331	55,168	59,764	65,132	77,127
Repairs and maintenance	8,520	9,901	9,950	14,326	15,852
Electricity transmission services	11,494	13,239	16,847	14,180	13,873
Materials	1,713	1,930	2,181	3,592	3,802
Water supply	4,847	6,329	7,106	6,960	7,679
Grid losses	2	2	2	7	8
Taxes other than income tax	4,704	4,923	4,642	7,525	8,258
Charges for environmental emissions	4,616	7,802	7,664	10,518	10,961
Third-party services	6,003	5,649	3,385	9,531	9,499
Other	4,492	4,320	3,688	4,561	4,739
Total	**225,185**	**254,847**	**288,929**	**345,454**	**384,733**

At the end of 2022, the cost of production was KZT 288,929 million, 13% higher than in 2021. The increase in costs is due to increased costs of purchased electricity from the Financial Settlement Centre of Renewable Energy (increased purchase volumes), payroll, coal (increased cost of coal including transportation) and depreciation costs. There has also been an increase in other costs due to rising prices of goods and services.

In 2022, depreciation was KZT 59,764 million. This is 8% (or KZT 4,596 million) higher than in 2021. The increase is due to the rescheduling of operating equipment at Almaty Power Plants (boiler units, turbine units, ash dumps) in connection with the transition to gas of CHPP-2 in 2027 and CHPP-3 in 2025.

[14] The breakdown of cost is shown by areas of activity (not by segment) and with elimination.

COST STRUCTURE BY MAIN TYPES OF BUSINESS, %

Indicator	2021	2022
Fuel, oil and lubricants, energy	44	44
Raw materials, other work, services and rent of production nature	4	4
Services related to transmission and sale	6	6
Depreciation of fixed assets and amortisation of intangible assets	22	21
Taxes and other compulsory payments to the budget	6	6
Production staff payroll	11	13
Repairs	4	3
Other	2	2

2023-2024 forecast

According to the projections, the increase in the cost of production will be due to higher prices for goods and services, as well as an increase in production.

PROFIT AND EXPENSES, KZT MILLION

Indicator	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
Gross profit	57,826	77,690	92,536	84,387	122,703
Operating profit	31,798	53,868	64,574	57,501	96,994
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	99,728	123,447	141,382	135,925	202,303
Profit (loss) before tax	13,739	24,055	47,153	45,799	92,076
Total profit (loss) before minority interest	8,083	15,347	30,306	33,640	74,946
Total profit attributable to Group's Shareholders	8,008	15,046	30,132	33,408	74,602

In 2022, profit from equity companies amounted to KZT 16,103 million, an increase of 20%, or KZT 2,648 million, year on year.

SHARE IN PROFITS OF JOINT VENTURES AND ASSOCIATES, KZT MILLION

2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
9,474	13,455	16,103	12,324	27,437

Changes in assets

Forum Muider (50%) increased its FM profit by KZT 3,029 million year on year. This sum includes KZT 1,260.2 million increase in foreign exchange gain and KZT 1,027.0 million increase in operating profit due to a decrease in administrative expenses (in 2021, KZT 1,369.6 million claim on Arman Kala) and sales expenses resulting from the reduction in tariff for railway siding services.

2023-2024 forecast

The increase in profit of equity companies is planned due to the increase in Ekibastuz GRES-2 profits, capitalisation of finance expenses, and other expenses in connection with the resumption of the project for power generating unit 3, as well as an increase in the tariff for electricity production and capacity.

Sales costs

At the end of 2022, sales costs increased by 1%, or KZT 81 million, against 2021 to reach KZT 9,110 million. This deviation is due to higher prices for KEGOC services.

2023-2024 forecast

In the forecast for 2023, sales expenses are planned at KZT 9,047 million. This is 1% less than in 2022 (KZT 63 million) due to the exclusion of export volumes. In the forecast for 2024, the increase in sales costs is due to an increase in busbar output.

Administrative expenses

In 2022, administrative expenses amounted to KZT 18,852 million, an increase of 27%, or KZT 4,059 million, year on year in 2021. It results from increased expenses of Ekibastuz GRES-1 because of a penalty on corporate income tax (CIT) related to the cancellation of tax preference on 500 kV switchyard, with deduction of interest expenses and CIT accrual, and penalty on headquarters as per state audit order dated 23 September 2022.

ADMINISTRATIVE EXPENSES, KZT MILLION

2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
15,826	14,793	18,852	17,839	15,922

2023-2024 forecast

In the forecast for 2023, administrative costs are lower than in 2022 and amount to KZT 17,839 million. The 2024 forecast includes a reduction in administrative costs through Qazaq Green Power's IPO.

Financial expenses

In 2022, the Company's financial expenses amounted to KZT 29,748 million, which is KZT 391 million lower than the actual amount in 2021. The main decrease is due to the early repayment of two tranches of the ADB loan to headquarters and the partial early repayment of the loan to EBRD.

FINANCIAL EXPENSES, KZT MILLION

2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
31,025	30,139	29,748	27,208	34,948

2023-2024 forecast

In the 2023 forecast, financing costs amount to KZT 27,208 million, driven by plans for early repayment of the ADB loan, as well as lower costs for Ekibastuz GRES-1. The increase in the forecast for 2024 is due to an increase in interest costs in operating expenses resulting from the commissioning of power generating unit 1 of Ekibastuz GRES-1.

Liquidity and financial stability indicators

Samruk-Energy has achieved the targets for financial stability ratios set by the shareholder.

COMPLIANCE WITH COVENANTS FROM EXTERNAL LENDERS

Covenant	Standard	2020 (actual)	2021 (actual)	2022 (actual)	Note
Debt/EBITDA (EBRD, ADB)	no more than 3.5	2.96	2.70	2.14	compliant
EBITDA/interest (EBRD, ADB)	no less than 3.0	3.76	5.00	5.92	compliant
Debt/Equity (KDB)	not more than 2.0	0.54	0.59	0.50	compliant

At the end of 2022, the Company has complied with all financial and non-financial covenants of the lenders, which are fixed on a semi-annual basis.

Loan covenants

The Group has certain covenants on all bank loans and liabilities, bonds, bank guarantees of Samruk-Energy and the loan of Samruk-Energy from Samruk-Kazyna. Non-compliance with these covenants could lead to negative consequences for the Group, including higher borrowing costs and default. In 2022, the Company met all regulatory loan covenants. It also received waivers to reduce thresholds in cases where a breach event was foreseeable.

Debt burden

In 2022, the consolidated nominal debt of the Company was KZT 314.6 billion, a decrease of KZT 35.3 billion. The decrease in nominal debt during the reporting period was due to the partial early repayment of the EBRD loan to headquarters and the full early repayment of two tranches of the ADB loan.

Currency and inflation risks

To mitigate inflation risks, the Company made an early repayment of the EBRD loan to Shardarinskaya HPP through the issue of the Company's first green bonds on the AIX platform. Also, to reduce interest payments, there was a partial early repayment of the EBRD loan to headquarters in the amount of KZT 8 billion and a full early repayment of two tranches of the ADB loan in the amount of KZT 30.6 billion.

Optimisation of interest expenses

Interest expenses were reduced owing to scheduled (KZT 56.6 billion) and early repayments of debt (KZT 76.8 billion), performance of works aimed at reducing interest rates by changing the financing terms and refinancing existing loans of Samruk-Energy from new alternative funding sources.

Credit rating (Fitch Ratings)

On 7 November 2022, Fitch Ratings upgraded the long-term foreign and local currency credit ratings of Samruk-Energy to "BB+" and upgraded the standalone creditworthiness of Samruk- Energy from "b+" to "bb-" and the unsecured credit rating from "BB" to "BB+". The outlook is "Stable".

Capital liabilities

The Company has analysed its exposure to seasonal and other emerging business risks and has not identified any risks that could affect the Group's financial performance or position as of 31 December 2022. The Group has the necessary funds and sources of financing to meet its capital liabilities and to ensure working capital.

As of 31 December 2022, the Company had contractual liabilities to purchase fixed assets for a total amount of KZT 65,331 million. As of 31 December 2021, the amount was KZT 84,376 million.

Comparative analysis (benchmarking)

Benchmarking, or comparing operational and financial indicators with foreign peer companies to identify weaknesses and strengths, is an essential element of Samruk-Energy management.

Samruk-Energy applies the following indicators for benchmarking purposes:
- EBITDA margin;
- Debt/EBITDA;
- leverage ratio (debt/equity);
- return on invested capital (ROIC).

Benchmarking results

According to benchmarking results (data from the following peer companies were used: Mosenergo, Russia; CEZ Group, Czech Republic; Drax Group, Great Britain) Samruk-Energy is inferior to foreign peers in some respects. Financial sustainability indicators show that the Company is making full use of available financial leverage. Samruk-Energy outperforms its peers in terms of EBITDA margin and Debt/EBITDA. This indicates a high return on sales. However, ROIC (return on long-term invested capital) is below its European peers.

EBITDA MARGIN 2022, %

Company	Indicator
Samruk-Energy	37.1
RusHydro	11.1
E.ON	7.0
Drax Group	9.4

RETURN ON LONG-TERM INVESTED CAPITAL (ROIC) 2022, %

Company	Indicator
Samruk-Energy	5.0
RusHydro	7.6
E.ON	13.0
Drax Group	7.1

It is worth noting that, unlike its public peers, Samruk-Energy is owned by the Government of Kazakhstan, and is a promoter of state policy in the electricity sector. This factor, as well as a high degree of depreciation of the energy sector, had a significant impact on the growth of investment in the Company's assets. Since 2009, socially important investment projects aimed at ensuring the reliability and uninterrupted operation of the Kazakh power system have been implemented. This has led to a reduced return on investment.

Criterion	Unit	Status	Mix — Benchmarking — Max
EBITDA margin	%		E.ON (7); Drax Group (9); RusHydro (22); SE (37)
Debt\ EBITDA	Ratio		E.ON (7); RusHydro (2.42); Drax Group (2.18); E.ON (4.06)
Debt\Equity	Ratio		RusHydro (0.35); Drax Group (1.20); CЭ (0.50); E.ON (1.50)
ROIC	%		SE (5.0); RusHydro (7.6); Drax Group (7.1); E.ON (13.0)

Source: ru.investing.com

Another factor affecting return on investment is the low electricity tariff in Kazakhstan compared to peer companies.

DIFFERENCE IN ELECTRICITY TARIFFS IN PEER COUNTRIES

Country	Average kWh tariff	KZT/kWh	Average rate in 2022
Kazakhstan	KZT 20.45	20.42 KZT/kWh	
Russia	RUB 4.44	30.73 KZT/kWh	6.92 KZT/RUB
Germany	EUR 0.19	92.15 KZT/kWh	485.28 KZT/EUR
Great Britain	GBP 0.30	170.92 KZT/kWh	569.73 KZT/GBP

Source: Eurostat, Rosstat

Operating enterprises

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	24,487	23,421	30,286
EBITDA, KZT million	36,646	34,666	37,425
EBITDA margin, %	36	34	33
Amount of disbursed investments (50%), '000 KZT	31,207,851	14,218,991	16,070,953

Coal mining enterprises of the Group

BOGATYR KOMIR LLP

Bogatyr Komir is Kazakhstan's largest and fastest-growing open-pit coal mining company. The company accounts for 62.1% of coal production in the Ekibastuz coal basin and 37.3% of total coal production in Kazakhstan.

In 2022, Bogatyr Komir commissioned a pilot in-pit crushing and conveying system (IPCC).

CEO
Nikolai Korsakov

Address
Kazakhstan, Pavlodar Province, Ekibastuz, 23 Bauyrzhan Momyshuly

Samruk Energy's shareholding
100%

Number of employees
6,582

Reserves and geography of the producing field
As of 1 January 2023, balance reserves of coal at Bogatyr Komir amounted to about 2.5 billion tonnes with 1.2 billion tonnes at Bogatyr surface mine and 1.3 billion tonnes at Severny surface mine.

Official website
www.bogatyr.kz

OPERATING INDICATORS

Indicator	2020	2021	2022
Coal mining volume, million tonnes	43.3	44.6	42.5
Coal sales in Kazakhstan, million tonnes	43.5	34.9	32.3
to own power plants	17.8	20.0	19.5
to third-party power plants	15.6	14.9	12.8
Coal exports, million tonnes	10.1	9.8	10.1
Large consumers	Ekibastuz GRES-1, Ekibastuz GRES-2, Astana-Energy CHPP-1, Karaganda Energy Centre CHPP-1, CHPP-3, SevKazEnergo CHPP-2, Petropavlovsk CHPP-2, Reftinsk SDPP, Troitsk SDPP and Kurgan CHP		

ESG INDICATORS

Pollutant emissions, tonnes '000

Average salary, KZT

Company's supply chain

Bogatyr Komir LLP produces coal of the KSN brand with an average heat of combustion of ~ 4,000 kcal/kg, ash content of ~ 43%, moisture of ~ 5%. The company supplies steam coal for Kazakhstan's domestic generation facilities and exports to the Russian Federation. It also supplies utility coal to the domestic market. Coal is sold to Kazakhstan TPPs under direct supply contracts and to Russian TPPs through a trader. Utility coal is sold at commodity exchanges[15].

Development plans at mining sites

In the third quarter of 2023, Bogatyr mine plans to switch to a cyclic-flow technology of coal conveyance to the surface with its averaging and continuous loading into gondola cars.

In accordance with Bogatyr Komir coal supply forecast for 2023, shipment of 44.3 million tonnes of coal is planned, including 34.0 million tonnes from Bogatyr surface mine and 10.3 million tonnes of coal from Severny surface mine.

[15] Order No. 142 of the Minister of National Economy of Kazakhstan On Approval of the List of Exchange-Traded Commodities and the Minimum Size of Submitted Batches to be Sold through Commodity Exchanges dated 26 February 2015.

Generating companies of the Group

ALMATY POWER PLANTS JSC

Almaty Power Plants is a generating company that produces heat and electricity and supplies all groups of consumers in Almaty and the Almaty region. Almaty Power Plants is included in the Republican section of the State Register of Subjects of Natural Monopolies, as a subject of natural monopoly for production and supply of heat and electricity for the Almaty region and the city of Almaty.

Almaty Power Plants comprises:

- Orazbayev CHPP-1, Zhakutov CHPP-2, and CHPP-3 — production of heat and electricity
- Kapchagay HPP and Cascade HPPs — electricity generation
- Western Thermal Complex — heat energy production
- Energoremont Production and Repair Enterprise
- Fuel Loading and Unloading Centre

Chairman of the Management Board
Yerlan Kirkinbaev

Address
Kazakhstan, Almaty, 7 Dostyk Ave.

Samruk-Energy's shareholding
100%

Number of employees
3,133

Official website
www.ales.kz

Company's supply chain

The production of heat and electricity begins with the supply of energy resources (fuel, water) to the energy equipment, with partial consumption of heat and electricity to meet own needs. The production and supply process ends with the discharge of heat and electricity to the consumers. The entire heat and power production process is comprehensively analysed, identifying corrective and preventive actions to improve the production process.

Heat and electricity sales of the company are made in the Almaty region according to the annual sales plan of Almaty Power Plants based on the sales/purchase agreement concluded with the consumer, specifying the supply volumes and broken down by months.

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	5,685	(11,656)	4,306
EBITDA, KZT million	17,457	16,664	16,785
EBITDA margin, %	23	21	19
Amount of disbursed investments, KZT '000	6,011,211	9,796,738	11,036,602

OPERATING INDICATORS

Indicator	2020	2021	2022
Installed electric capacity, MW	1,235.7	1,235.7	1,235.7
Electricity production, kWh million	5,335	5,008	5,099
Electricity sales, kWh million	4,689	4,425	4,591
Heat production, '000 Gcal	5,596	5,554	5,282
Heat sales, '000 Gcal	5,564	5,504	5,217
Large consumers	AlmatyEnergoSbyt, Alatau Zharyk Company, Almaty International Airport, Holding Almaty Su		

ESG INDICATORS

Pollutant emissions, tonnes '000

2022 48.03
2021 47.8
2020 49.9

Discharges, tonnes

2022 1.53
2021 1.53
2020 1.52

Average salary, KZT

2022 433,391
2021 334,454
2020 308,162

EKIBASTUZ GRES-1 LLP NAMED AFTER BULAT NURZHANOV

Ekibastuz GRES-1 is a condensation thermal power plant with a design capacity of 4,000 MW, including eight 500 MW units. The plant is located on the northern shore of Lake Zhengeldy, 16 km north of Ekibastuz. It is the largest thermal power plant in the country, powered by Ekibastuz's solid fuel deposits, the region's main energy producer, and one of the largest coal- fired power plants in the world.

A modernisation and refurbishment project is currently underway at power generating unit 1.

CEO
Yerzhan Yertaev

Address
Kazakhstan, Pavlodar region, Ekibastuz, GRES-1 Industrial Zone, building 2

Number of employees
1,443

Samruk-Energy's shareholding
100%

Official website
www.gres1.kz

Company's supply chain

The company supplies electricity to Kazakhstan's northern, eastern and southern regions. 2% of electricity is exported to Uzbekistan. Electricity is sold as busbar output, except for export (at the border of Kazakhstan and neighbouring countries).

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	-450	20,344	25,796
EBITDA, KZT million	43,795	61,497	72,267
EBITDA margin, %	35	37	38
Amount of disbursed investments, KZT '000	8,076,779	19,864,472	42,557,298

OPERATING INDICATORS

Indicator	2020	2021	2022
Installed electric capacity, MW	3,500	3,500	3,500
Electricity production, kWh million	19,466	22,788	23,048
Electricity sales, kWh million	19,001	22,496	23,102
Heat production, Gcal	288,9	397,18	378
Heat sales, '000 Gcal	155	136	143
Large consumers	Bogatyr Komir, Energopotok, Ontustik Zharyk, Almatyenergosbyt, Temirzholenergo, Kazphosphat, Zhetysu Energotrade, Tau-Ken Temir, Kazminerals Bozshakol, KEGOC		

ESG INDICATORS

Pollutant emissions, tonnes '000

2022 242.813
2021 241.12
2020 222.14

Average salary, KZT

2022 405,448
2021 326,954
2020 279,927

EKIBASTUZ GRES-2 LLP

Ekibastuz GRES-2 is a thermal power plant with an installed capacity of 1,000 MW (two 500 MW units) and the world's tallest chimney of 420 metres. The chimney is listed in the Guinness Book of World Records. The main type of fuel is high-ash coal from the Ekibastuz Coal Basin.

Chairman of the Management Board
Zhandos Medeuov

Address
Kazakhstan, 141216, Pavlodar Province, Solnechny settlement

Number of employees
1,493

Samruk-Energy's shareholding
50%

Samruk-Kazyna ownership share
50%

Official website
www.gres2.kz

Company's supply chain

The TPP releases electricity to consumers as busbar output. The Buyer shall, at its own expense and without the Seller's involvement, ensure the reception and transmission of electricity from the delivery point to the consumption points, via the interregional and, if necessary, regional networks.

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	(3,706)	4,413	4,536
EBITDA, KZT million	19,843	27,912	27,365
EBITDA margin, %	43	42	40
Amount of disbursed investments (50%), '000 KZT	9,415,522	1,838,052	12,457,528

OPERATING INDICATORS

Indicator	2020	2021	2022
Installed electric capacity, MW	1,000	1,000	1,000
Electricity production, kWh million	4,974	6,433	6,002
Electricity sales, kWh million	4,809	6,336	5,938
Heat supply, '000 Gcal	66.9	76	77.5
Heat production, '000 Gcal	40.9	45.7	45.2
Large consumers	Transenergo, AZKhS, Kazchrome, Lotos-Aktobe, Goar, ZhBI-25 Plant, Gas Logistics, Stroydetal, Aktobe Stroy Kombinat, KSM, Aktobeenergosnab, Energosistema, Akbulak, Transenergo		

ESG INDICATORS

Pollutant emissions, tonnes '000

2022 63.108
2021 67.97
2020 58.3

Average salary, KZT

2022 361,870
2021 276,407
2020 223,896

SHARDARINSKAYA HPP JSC

Shardarinskaya HPP with an installed capacity of 126 MW and four hydroelectric installations is located in the middle reaches of the Syr Darya River and is the terminator of the Naryn-Syr Darya cascade of hydropower plants. The main purpose of the hydro system is to ensure irrigation for agriculture. The water regime is set by the Water Resources Committee of the Ministry of Ecology, Geology and Natural Resources. The average annual electricity generation is 537 million kWh. Electricity is consumed in Turkestan region.

Chairman of the Management Board
Anuar Berlibayev

Address
Kazakhstan, South-Kazakhstan Province, Shardarinskaya, 13 Elmuratova Street

Number of employees
136

Samruk-Energy's shareholding
100%

Official website
www.sharges.kz

Company's supply chain

To transport electricity over long distances, Shardarinskaya HPP uses 110 kV switchgear and transmits electricity to the networks of Ontustik Zharyk Transit, which carries out further transmission to power supply companies that supply electricity to consumers.

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	612	1,124	1,939
EBITDA, KZT million	4,739	4,934	6,026
EBITDA margin, %	70	69	69
Amount of disbursed investments, KZT '000	1,139,562	9,573	53,754

OPERATING INDICATORS

Indicator	2020	2021	2022
Installed electric capacity, MW	63/126 MW*	126	126
Electricity production, kWh million	513.5	455.8	518
Electricity sales, kWh million	521.3	468.0	540.4
Large consumers	Energopotok, Ontustik Zharyk, Ontustik Zharyk Transit, Kazsbytgroup, Energosnab XXI, Yugenergoimpuls, GarantEnergo		

* until 29 February 2020 — reduction of installed capacity until all hydroelectric installations are commissioned.

ESG INDICATORS

Average salary, KZT

2022 413,506

2021 327,012

2020 294,581

UST-KAMENOGORSK HPP JSC

In October 2017, the concession agreement with AES Suntry Power Limited was terminated and the assets were transferred back under the government ownership.

Legal address
Kazakhstan, Ust-Kamenogorsk settlement Ablaketka

Address of the executive body
Kazakhstan, Ust-Kamenogorsk settlement, 27 Kazakhstan Street

Number of employees
10

Samruk-Energy's shareholding
89.99%

Core business
Organisational and management activities

BUKHTARMA HPP JSC

Bukhtarma HPP is a cost-effective hydroelectric power plant, both in terms of work intensity and cost of electricity generation. The installed capacity of the hydropower plant is 675 MW and the average annual output is 2.77 billion kWh. The station covers peak load in Kazakhstan's energy system. In 2002, the Bukhtarma Dam was recognised as the best in the world in terms of concrete quality. The company is currently under lease.

Address
Kazakhstan, 070825, East-Kazakhstan region, Zyryanovsky district, Serebryansk, 5 Graftio Street

Number of employees
10

Core business
Rental and management of own real estate, rental of other machinery, equipment and tangible assets

Samruk-Energy's shareholding
90%

The Group's RES facilities and service companies

QAZAQ GREEN POWER PLC

Qazaq Green Power PLC was established on 4 November 2022 to assist in modernisation of existing and construction of new generating capacities, introduction of new technologies in the energy sector, ensuring increased efficiency of energy systems, implementation of investment projects in Kazakhstan, as well as to implement energy-saving policies and ensure the environmental safety of energy facilities.

CEO
Alexey Repin

Address
Kazakhstan, Astana, 15-A Kabanbay Batyr Street

Number of employees
14

Samruk-Energy's shareholding
100%

MOYNAK HPP JSC

Moynak HPP is located on the Sharyn River in the Kegen district of Almaty region. The plant was constructed as part of the State Programme for Accelerated Industrial and Innovative Development and in accordance with the Kazakhstan Electricity Development Programme until 2030. The HPP successfully contributes to the reduction of electricity shortages in the southern zone of Kazakhstan's Unified Electric Power System (Almaty, Zhambyl, Kyzylorda and Turkestan regions), covering peak loads and regulating capacity in the power system. Modern processing equipment ensures maximum automation and stability of electricity generation. The plant is equipped with the latest hydraulic units, which have high technical parameters and efficiency.

CEO
Galymzhan Aidarbekov

Address
Kazakhstan, Almaty Province, Kegen district, Zhylysairural district, Moynak village, 81.

Number of employees
122

Qazaq Green Power's ownership share
100%

Official website
www.moynak.kz

Company's supply chain

Electricity is supplied to consumers through 220 kV grids in the volumes agreed in the purchase/sale contracts.

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	8,923	9,532	9,981
EBITDA, KZT million	17,462	15,798	18,265
EBITDA margin, %	85	83	80
Amount of disbursed investments, KZT '000	312,335	422,249	102,925

OPERATING INDICATORS

Indicator	2020	2021	2022
Installed electric capacity, MW	300	300	300
Electricity production, kWh million	929	758.3	972.8
Electricity sales, kWh million	944	780.9	1,014.3
Large consumers	AlmatyEnergoSbyt		

ESG INDICATORS

Average salary, KZT

2022 535,611

2021 384,432

2020 370,186

FIRST WIND POWER PLANT LLP

First Wind Power Plant is Kazakhstan's first alternative energy development project that has passed all stages of preparation in accordance with the current legislation on RES support. It was commissioned on 14 August 2015.

The wind farm of 22 turbines with a unit capacity of 2.05 MW is in the Akmola region, near the town of Ereymentau. Since commissioning, the wind power plant has generated more than 920 million kWh of electricity at a total cost of KZT 13 billion. 100% of the generated electricity is supplied to the National Electric Grid operated by KEGOC.

CEO
Rashid Yeskhozhin

Address
Kazakhstan, Nur-Sultan, 15-A Kabanbay Batyr Street

Number of employees
28

Qazaq Green Power PLC ownership share
100%

Official website
www.pves.kz

Company's supply chain

The sale of electricity by First Wind Power Plant is carried out by the Financial Settlement Centre of Renewable Energy.

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	1,880	1,551	2,248
EBITDA, KZT million	3,842	3,973	3,974
EBITDA margin, %	76	81	80
Amount of disbursed investments, KZT '000	395,111	196,000	157,852

OPERATING INDICATORS

Indicator	2020	2021	2022
Installed electric capacity, MW	45	45	45
Electricity production, kWh million	159.36	144.593	135.717
Electricity sales, kWh million	159.1	144.3	135.373

ESG INDICATORS

Average salary, KZT

2022 604,532
2021 564,775
2020 419,465

EREYMENTAU WIND POWER LLP

Ereymentau Wind Power is implementing the project for the construction of a 50 MW wind power plant near Ereymentau and further production of electricity.

CEO
Adil Kynatov

Address
Kazakhstan, Nur-Sultan, 15-A Kabanbay Batyr Street

Number of employees
14

Samruk-Energy's shareholding
100%

Official website
www.ewp.kz

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	(89)	(385)	(6,487)
EBITDA, KZT million	(181)	(218)	(243)
Amount of disbursed investments, KZT '000	919,827	2,099,137	1,064,760

ESG INDICATORS

Average salary, KZT

2022 846,798
2021 629,258
2020 566,568

ENERGY SOLUTIONS CENTER LLP

Energy Solutions Center is a service organisation for administrative support of Samruk-Energy Group of companies, providing IT infrastructure maintenance, Internet resources, real estate management (rent, acquisition, construction), special office services (personnel outsourcing), and transportation services.

CEO
Galymzhan Begimov

Address
Kazakhstan, Nur-Sultan, 15A Kabanbay Batyr Street

Number of employees
66

Samruk-Energy's shareholding
100%

Official website
www.e-s-center.kz

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	27	35	73
EBITDA, KZT million	121	137	204
EBITDA margin, %	9	12	13
Amount of disbursed investments, KZT '000	34,325	13,946	107,511

ESG INDICATORS

Average salary, KZT

2022 618,161
2021 537,600
2020 555,950

SAMRUK-GREEN ENERGY LLP

Samruk-Green Energy provides electricity generation services using renewable energy sources and makes it possible to decentralise electricity supply to remote areas.

Completed construction projects:
- 2 MW solar power plant in Konaev;
- 416 kW solar power plant in Konaev;
- 1 MW solar power plant in Almaty;
- 5 MW wind power plant in Enbekshikazakh district of Almaty region.

Plans for 2023 include the development of a feasibility study for the construction of 50 MW Solar Park in Konaev.

CEO
Talgat Bukenov

Address
Kazakhstan, Almaty, 59 Zenkova Street, office No.145

Number of employees
24

Qazaq Green Power PLC ownership share
100%

Official website
www.samruk-green.kz

Company's supply chain

Electricity is supplied to the grid of Alatau Zharyk Company for the Financial Settlement Centre of Renewable Energy at fixed tariffs. In accordance with the Rules for centralised RES electricity purchase and sale by the Financial Settlement Centre of Renewable Energy, recalculation and redistribution by the Financial Settlement Centre of Renewable Energy of the relevant share of electricity to an eligible provisional consumer, at the end of the calendar year, the Financial Settlement Centre of Renewable Energy pays for the entire volume of electricity produced and supplied to the grid by the power transmission facilities of Samruk-Green Energy within 15 years from the start date of the comprehensive electrical installation test. However, the fixed tariff is subject to annual indexation[16].

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	(125)	12	(2,682)
EBITDA, KZT million	26	136	62
EBITDA margin, %	11	34	15
Amount of disbursed investments, KZT '000	2,750,372	25,592	35,463

OPERATING INDICATORS

Indicator	2020	2021	2022
Installed electric capacity, MW	7.4	8.4	8.4
Electricity production, kWh million	7.366	20.454	19.782
Electricity sales, kWh million	7.216	20.216	19.534

ESG INDICATORS

Average salary, KZT

2022 481,180
2021 370,499
2020 342,879

[16] Rules for Determination of Fixed Tariffs and Auction Marginal Prices No. 271 of 27 March 2014.

ENERGIA SEMIRECHYA LLP

Energia Semirechya was established in 2009 to build a 60 MW wind power plant in the Shelek Corridor with the prospect of expansion to 300 MW and further provide services for electricity generation and sale, RES facilities design and construction.

CEO
Luo Jun

Address
Kazakhstan, Almaty Province, Enbekshikazakh district, Bayseit village, 92 Abaya Street

Number of employees
23

Samruk-Energy's shareholding
25%

HydroChina Corporation shareholding
50%

Official website
www.energy7.kz

PowerChina Chengdu Engineering Corporation Limited shareholding
15%

PowerChina Resources Limited shareholding
10%

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	(177)	(134)	(591)
EBITDA, KZT million	(97)	(103)	872
Amount of disbursed investments (25%), '000 KZT	10,880	26,130	4,946,597

OPERATING INDICATORS

Indicator	2022
Installed electric capacity, MW	60
Electricity production, kWh million	88.258
Electricity sales, kWh million	86.398

ESG INDICATORS

Average salary, KZT

2022 787,204
2021 413,968
2020 258,952

KAZHYDROTEKHENERGO LLP

KazHydroTekhEnergo implements projects for the design, construction and operation of RES facilities, independent technical devices and related facilities for the production of electricity and/or heat using RES. Project for the construction of a 310 MW hybrid wind power plant in Almaty region.

CEO
Marat Bukhanov

Address
Kazakhstan, Almaty, 188 Dostyk Ave., Kulan Business Centre, office 904

Qazaq Green Power's ownership share
100%

Group's distribution companies

ALATAU ZHARYK COMPANY JSC

Alatau Zharyk Company is the largest power grid company in southern Kazakhstan, supplying electricity to all groups of consumers in Almaty city and Almaty Province. Alatau Zharyk Company represents the majority of the electricity grids of the Almaty power node with grids of voltage classes 220/110/35/6-10/0.4 kV. The Company's objective is to provide reliable and quality electricity transmission, while reducing commercial and technical costs and improving the technical performance of substation equipment in a safe and environmentally friendly manner.

Chairman of the Management Board
Abay Asylov

Address
Kazakhstan, Almaty, 24 B Manas Street

Number of employees
3,867

Samruk-Energy's shareholding
97.4%

Alatau Zharyk Company shareholding
2.6%

Official website
www.azhk.kz

Company's supply chain

Regional power grid companies perform the functions of electricity transmitters from power-generating organisations to end consumers through power grids within the boundaries of their balance sheets. Alatau Zharyk Company is a partner of the largest energy companies in Uzbekistan and Kyrgyzstan. Its transmission lines extend from the shores of Lake Balkhash in the north to the borders with Kyrgyzstan in the south, and from the borders of Zhambyl region in the west to the borders with China in the east. The Unified Electric Power System of Kazakhstan operates in parallel with the Unified Electric Power System of Central Asia and the Unified Electric Power System of the Russian Federation.

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	3,366	2,907	3,528
EBITDA, KZT million	11,966	13,136	14,394
EBITDA margin, %	29	28	27
Amount of disbursed investments, KZT '000	12,723,982	12,727,043	11,645,174

OPERATING INDICATORS

Indicator	Units	2020	2021	2022
OHL 220 kV	km	457.79	410.34	410.34
OHL 110 kV	km	2,880	2,673.94	2,673.94
OHL 35 kV	km	2,604.72	2,543.06	2,546.06
OHL 10 kV	km	10,951.46	9,363.04	9,364.55
OHL 6 kV	km	1,792.23	140.36	140.36
OHL 0.4 kV	km	11,771.74	10,127.52	10,127.52
220 kV SS	unit	8	8	8
110 kV SS	unit	95	93	93
35 kV SS	unit	106	106	106
Electricity transmission	million kWh	6,838	7,650	8,154
Number of consumers (commercial and other)	unit	21	12	12

ESG INDICATORS

Pollutant emissions, '000 tonnes

2022 2.93
2021 3.56
2020 9.2

Average salary, KZT

2022 352,818
2021 261,091
2020 215,559

ALMATYENERGOSBYT LLP

AlmatyEnergoSbyt is one of the largest energy-supplying companies in Kazakhstan, providing electricity to more than 3.6 million residents and over 38,000 enterprises in Almaty city and Almaty region. The company is part of the energy complex of Almaty city and Almaty region, consisting of energy producing, regional energy transmitting and energy supplying companies. AlmatyEnergoSbyt share in the total electricity supply to consumers in the country is 7%.

CEO
Yedil Kopenov

Address
Kazakhstan, Almaty, 170 A Kozhamkulov Street

Number of employees
552

Samruk-Energy's shareholding
100%

Official website
www.esalmaty.kz

Company's supply chain

Purchase of electricity from energy transmission companies and sale to the end consumer on the basis of public electricity supply contracts. Electricity tariffs are formed in accordance with the requirements of the Committee for the Regulation of Natural Monopolies.

FINANCIAL INDICATORS

Indicator	2020	2021	2022
Net income/loss, KZT million	(4,035)	(1,742)	(2,784)
EBITDA, KZT million	(4,796)	(3,149)	(3,369)
EBITDA margin, %	(4.5)	(2.5)	(2.4)
Amount of disbursed investments, KZT '000	94,337	90,019	84,922

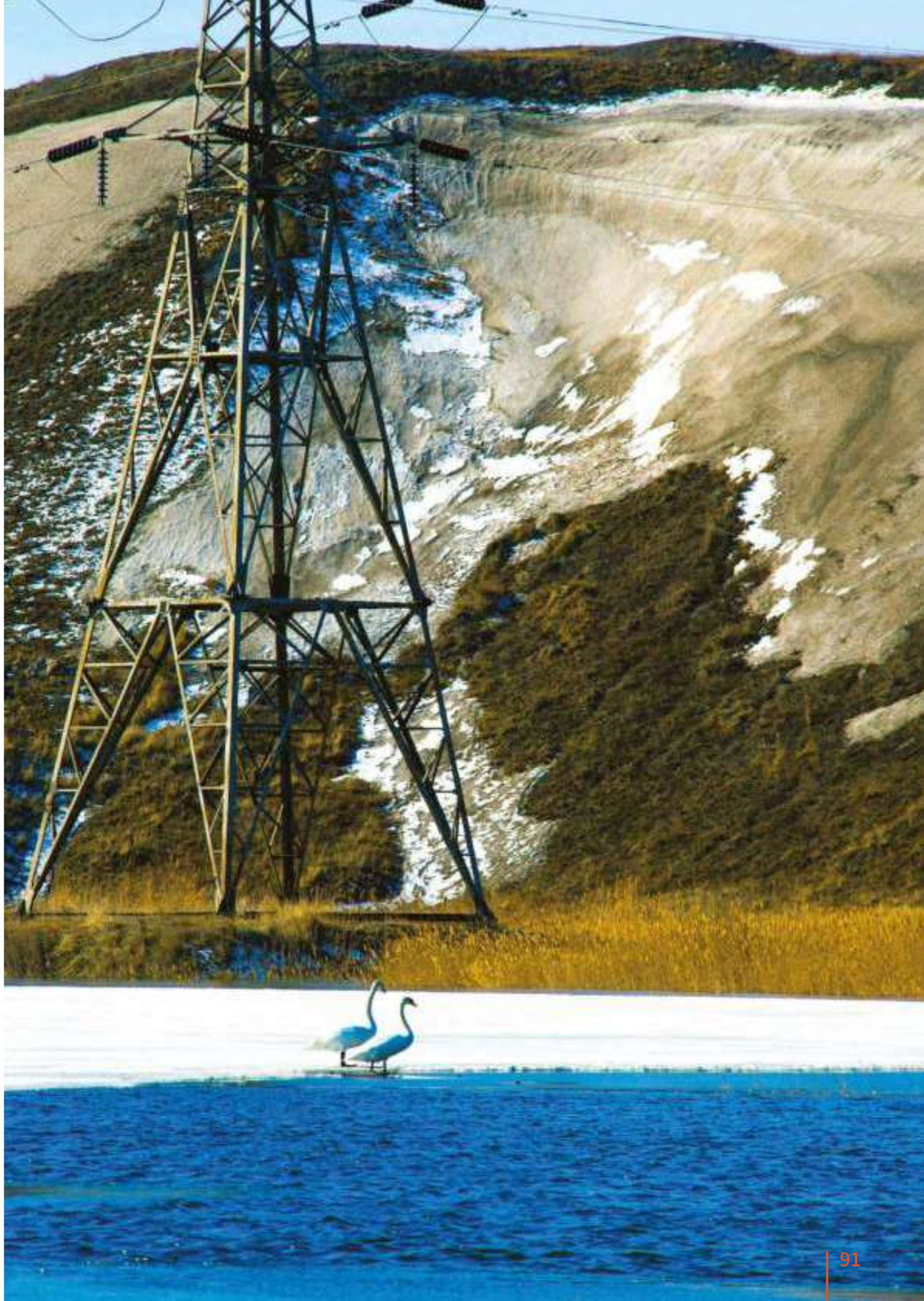
OPERATING INDICATORS

Indicator	2020	2021	2022
Electricity sales, million kWh	6,055.5	6,723.8	6,847
Average electricity sales tariff, KZT kWh	17.66	18.69	20.09
Total consumption by group, million kWh	869,680	899,134	929,929
Population	835,509	862,980	891,214
Non-household consumers, including:	34,171	36,154	38,715
Commercial and equivalent consumers	1,952	1,936	1,912
Budgetary organisations	1,295	1,319	1,337
Other consumers	30,924	32,899	35,466

ESG INDICATORS

Average salary, KZT

2022 396,047
2021 286,464
2020 262,867



Procurements

Establishing and developing a sustainable procurement system is one of our most important and high-priority tasks. We are constantly improving our documents, introducing innovations, automating the procurement process, and training our personnel.

The Company's procurement activities are based on the principles of:

- Optimal and efficient use of funds
- Openness and transparency with respect to suppliers' rights and/or legitimate interests to commercial confidentiality (prior to tender results)
- Fair competition and avoidance of collusion between bidders
- Accountability of procurement participants
- Corrupt practices prevention
- Support of domestic producers of goods, works and services, if this is not contrary to international treaties ratified by Kazakhstan
- Procurement of innovative and high-tech goods, works and services
- Equal opportunities for suppliers to participate in procurement procedures, except in cases provided for by the Law
- Observance of intellectual property rights

Documents governing the Company's procurement activities:

1. The procurement procedure for Samruk-Kazyna and organisations, fifty and more percent of voting shares (participatory interest) of which are directly or indirectly owned by Samruk-Kazyna on the right of ownership or trust management[17]. The document defines the main approaches to procurement activities and methods of procurement.

2. Law of the Republic of Kazakhstan On Procurement of Certain Entities of the Quasi- Public Sector (hereinafter referred to as the Law)[18].

Improved procurement procedures are carried out by the Contracting Authority. Relations with suppliers and potential suppliers are established in accordance with the Law and the Procedure. Once a contract has been signed, relations are governed by the civil legislation and the contract. All quality requirements for goods, works and services are established by the technical specification and the contract. Contracts always provide for local content reporting, penalties and other reports.

Goods, works and services are supplied to the Company in accordance with the internal regulatory documents of subsidiaries and affiliates, with each subsidiary and affiliate developing its own procedure for supplying goods, works and services.

To ensure and improve transparency and effectiveness, all procurement procedures of the Company are carried out on the E-procurement Portal www.zakup.sk.kz, which is designed for procurement procedures, collection of reports, evaluation and qualification of suppliers.

[17] Resolution of the Board of Directors of Sovereign Wealth Fund "Samruk Kazyna", Minutes No. 193 of 3 March 2022.
[18] Law of the Republic of Kazakhstan No. 47-VII On Procurement of Certain Entities of the Quasi-Public Sector of 8 June 2021.

Category management

GRI 2-6

The procurement category management process provides for optimisation of procurement activities. The concept of procurement category management is based on the total cost of ownership — reducing the costs of goods, works and services category over its entire lifecycle, rather than just the direct procurement costs, which allows selecting the most modern and cost-effective solutions. The changes introduced in procurement activities have a positive impact on procurement prices and the quality of purchased goods, as well as contribute to the development of domestic producers.

For example, as part of the procurement strategy for the Industrial Chemicals category, the Company purchases a Russian-made inhibitor of mineral salt deposition (IOMS-1). Domestically produced IOMS-1 was purchased in 2022, resulting in a lower purchase price. The updated version of the Strategy establishes TPF as the priority when announcing the procurement of IOMS-1.

The actual economic effect of KZT 5.2 billion was achieved during implementation of procurement category strategies.

GRI 204-1, GRI 12: Coal Sector: 12.8.6

Samruk-Energy purchased 98.17% of goods and services from local suppliers in 2022[19].

TOTAL PURCHASES, KZT BILLION

Indicator	2020		2021		2022	
	total	% of local suppliers	total	% of local suppliers	total	% of local suppliers
Goods	143.67	99.23	185.30	99.45	173.34	98.50
Works and services	100.83	98.68	155.87	99.96	123.1	99.83
Total	**244.50**	**99**	**341.17**	**99.18**	**296.44**	**98.17**

LOCAL CONTENT SHARE[20], IN DELIVERED GOODS/WORKS/SERVICES, KZT BILLION

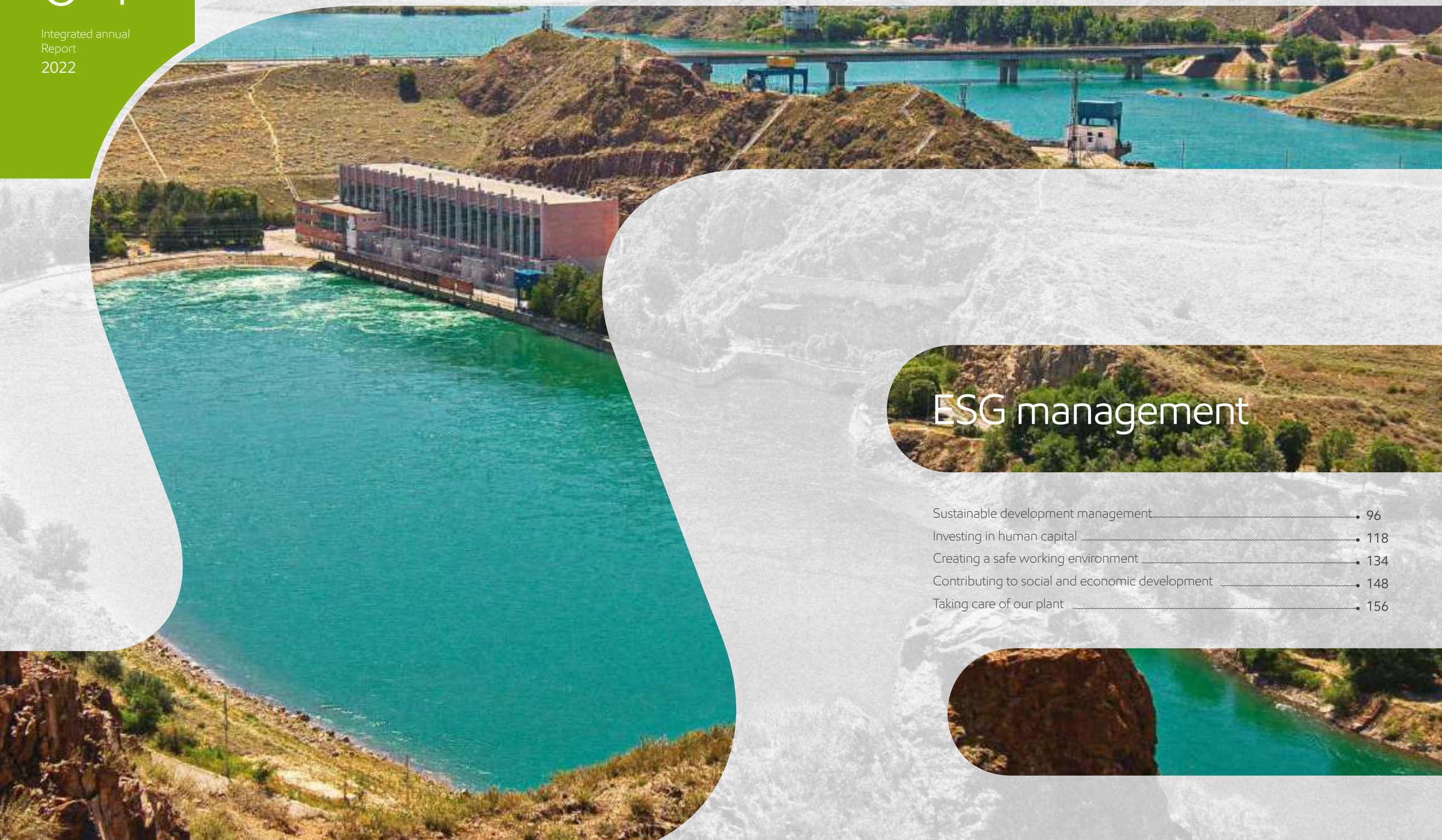
Indicator	2020		2021		2022	
	total	% of local content share	total	% of local content share	total	% of local content share
Goods	168.78	79	187.63	89	174.89	78.42
Works and services	104.66	79	144.45	93	127.06	93
Total	**273.44**	**79**	**332.08**	**91**	**301.95**	**85**

[19] The Company operates in Kazakhstan and therefore its significant business site is in the Republic of Kazakhstan. By 'local' the Company means the relevant surrounding area.
[20] Local content share is the percentage of remuneration of labour of citizens of Kazakhstan involved in the performance of the procurement contract from the total payroll under this contract, and (or) value of local origin shares established in the goods in accordance with the criteria of sufficient processing or full production by residents of the Republic of Kazakhstan from the total value of goods under the procurement contract.

SAMRUK ENERGY

04

Integrated annual Report
2022



ESG management

Sustainable Development Management

The key to the Company's sustainable development is the well-being of people, environmental balance, and long-term financial sustainability. According to the Development Strategy for 2022-2031, the Company's activities are based on the consistency of Environmental, Social and Governance principles considering the balance of interests of all stakeholders.

Our approach

Components of Samruk-Energy sustainable development

Global best practices and standards guide the Company's sustainability activities.

The Company seeks to align its economic, environmental and social objectives for long-term sustainable development. Samruk-Energy recognises three components of sustainable development: economic, environmental and social.

- The economic component of the Company's sustainable development aims to increase long-term value, secure the interests of shareholders and investors, improve process efficiency, increase investment in the creation and development of better technology, and enhance labour productivity.
- The environmental component aims to minimise the impact on biological and physical natural systems, make optimal use of limited resources, use environmentally friendly energy- and material-saving technologies, create environmentally friendly products, and minimise, recycle and dispose of waste.
- The social component focuses on the principles of social responsibility, such as occupational safety and health of employees, fair remuneration and respect for employee rights, individual staff development plans, implementation of social programmes for personnel, creation of new jobs, sponsorship and charity, environmental and educational campaigns.

Samruk-Energy is aware of its significant impact on sustainable development. Since 2016, it has been integrating the principles of sustainable development across all areas of activities. The Development Strategy outlines the Company's mission and vision achievement through the prism of ESG principles, where sustainable development is a key priority. The Company recognises that global factors affecting sustainability will inevitably lead to constraints, challenges and risks in the business process. The main objective of the Company is not only to ensure survival in a high-risk environment through proper forecasting and planning, but also to turn risks into opportunities and prepare for an unforeseeable future. We have to remember that we live in a society and must take care of the environment and future generations, as our Company's activities are directly linked to the development of the country's economy and reliable electricity and heat supply.

We make a voluntary commitment to conducting responsible business, ensuring human rights across the value chain, engaging in the lives of the Company's employees, the communities where the Company operates and society. This is possible by means of integrating human rights principles and sustainable development goals into the Company's strategy, corporate culture and daily operations, as well as maintaining the optimal balance between the interests of our stakeholders and the strategic and operational objectives of the Company.

Samruk-Energy principles of sustainable development

The principles of sustainable development include respect for the interests of stakeholders, respect for human rights, openness, accountability, transparency, legitimacy, ethical behaviour, personal example, zero tolerance of corruption, no conflict of interest, equal employment opportunities, prevention of discrimination and sexual harassment, etc.

Read more about the principles in the Corporate Governance Code and the Sustainability Guide of Samruk-Energy.

The principles of Samruk-Energy sustainable development are implemented at three levels:

1. Strategic integration — sustainable development principles are implemented in the Strategy;
2. Operational integration — the Company's management makes all corporate decisions based on the criteria of compliance with sustainable development principles and goals;
3. Cultural integration is implemented through training in the Company, articles posted on the Company's corporate portal, and as part of the Code of Conduct.

Sustainable development management at Samruk-Energy

The Company follows a strategic approach to sustainable development management.

SUSTAINABLE DEVELOPMENT MANAGEMENT

Consistent framework for sustainability management helps set strategic priorities of the Company in the field of sustainable development with their further:

- breakdown to programme and project levels;
- regular evaluation of the activities' performance based on established priorities and indicators;
- reporting at different levels according to the needs of the users and, if required, its independent assurance.

GRI-2-24

The Company strives for transparency and legality in all its activities. It follows the high standards of business ethics, considering business customs and other prerequisites for responsible business in each jurisdiction. We comply with the rules and remain a team of professionals united by common goals, culture, and traditions, maintain a good mutual understanding within the Company and with our business partners and customers.

The Company fulfils its commitment to responsible business practices at all managerial levels: strategic decision-making by the Board of Directors and the Management Board and operational activities in all areas (human resources management with respect for human rights, responsible investments, environmental risk management, responsible procurement procedures, compliance risk management, monitoring in internal audit processes, etc.).

The Board of Directors is responsible for establishing policies. It exercises strategic guidance and control over the implementation of sustainable development and compliance system in the Company by approving the relevant policies, streamlining processes, approving key performance indicators and monitoring the implementation of its commitments.

Within its competence, the Executive Body implements sustainability principles, compliance procedures, policies, and communicates outcomes to the Board of Directors. As part of reporting on sustainability issues, the Company has established designated committees under the Board of Directors and the Management Board. These committees are responsible for a thorough and in-depth analysis of sustainability issues.

See the CG section for more details

Our Company strives to minimise the negative operational impact on population and the environment, to prevent industrial accidents that harm the environment, and to support the sustainable use and reproduction of natural resources. We are proponents of energy efficiency increase, resources saving and alternative energy sources use. Samruk-Energy shares the main ideas of the precautionary principle. Before launching new projects and facilities as part of environmental impact assessment, the Company carries out a few mandatory activities aimed at informing the public about planned activities and their possible impact in order to gauge and consider the public opinion during impact assessment. All activities are included in the Stakeholder Engagement Plan and each project is monitored. The results of the Stakeholder Engagement Plan implementation are annually communicated to the Board of Directors. The Plan is available on the Samruk-Energy website at:

www.samruk-energy.kz/ru/corporate-governance/ corporate-documents#6

We have developed the Sustainability Guide as a fundamental document for the ESG implementation. The Sustainability Guide governs the safeguarding of fundamental human rights and freedoms. The document outlines the Company's support for universal human rights, not only as part of the Company's activities, but also in relation to its third parties.

Human rights principles are reflected in the Code of Conduct. The document establishes high professional and ethical standards that must be met by Samruk-Energy employees, regardless of their position. The standards for equal employment and working conditions and the prohibition of discrimination and harassment enshrined in the Code of Conduct guarantee the human rights. Compliance with the standards and provisions of the Code of Conduct is binding on all the Company's employees, members of the Board of Directors, the Management Board and third-party partnerships.

The Code of Conduct is available at:

www.samruk-energy.kz/ru/corporate-governance/corporate documents#2

As a Company committed to high standards of ethical behaviour, responsible for prevention of direct or indirect contribution to human rights abuses, the Company has developed the Guidelines for Suppliers to strengthen relations with Suppliers.

To establish a compliance system in line with international industrial standards and best practices, the Company takes measures to identify, assess, prevent, and control compliance risks arising in Samruk-Energy activities, form a zero tolerance for corruption and bribery, build an anti-corruption culture and prevent compliance risks. As part of the compliance system development, the Company aims to maintain a high level of performance, to be business-oriented and proactive in its risk management, considering the Company's ambitious strategic objectives.

As part of a sustainability awareness raising initiative, the Company holds annual sessions for management and employees, as well as sustainability trainings within the scope of standards and regulations set out in the Company's Sustainability Guide.

To raise employee awareness of compliance issues and to inform employees about the latest developments in anti-corruption legislation, the Company conducts training on an ongoing basis.

See the Compliance Policy section for more details

Sustainability risk management

By adopting a risk-based approach in its operations, the Company aims to achieve a sustainable long-term increase in value and competitiveness.

We conduct comprehensive risk assessments on an ongoing basis, using risk management tools and a systematic approach to sustainability:

- assessment of current and future risks related to the global drivers of sustainable development;
- forecast of economic, socio-demographic and environmental trends;
- analysis of social, environmental and economic Company's current impact on the region;

- development of measures to manage the Company's impact in the region, mitigate risks and seize opportunities;
- enhancement of the risk culture, analysis of the efficiency of risk management measures, identifying opportunities associated with current and future risks.

Risk management is an integral part of sustainable development. The company declares its responsibility to all stakeholders and is committed to the timely assessment, monitoring and management of sustainability risks. The Company views the risk in three dimensions — economic, environmental and social —for both internal and external stakeholders.

The definition of "social risks" includes not only responsibility to Company's employees/shareholders, but also concepts such as public health and safety in the regions where the Company operates, the livelihood of local communities, social connectedness, cultural resources, vulnerable groups, gender equality, risks arising in the supply chain and related to non-compliance with relevant labour standards regarding supplier rights.

Environmental risks are presented not only as local impacts on the environment, but also on climate change.

Economic risks extend beyond the economic impact of a particular Company's asset on the local community, but also on the country.

Read more about Risk Management in the Company's Integrated Annual Report for 2021.

Development of Company's sustainability management system

The sustainability management system has been implemented in the Company since 2016 based on the rules and regulations of the Corporate Governance Code. In 2016, the first Sustainability Guide regulating sustainability development approaches and policies was adopted. The Sustainability Guide was revisited in 2018 and 2019 in line with international best practices.

As part of sustainability activities, the Company adopted its Sustainability Initiative Plan in 2018 with further revisiting in 2019 and 2022. To identify a list of sustainability initiatives, the Company has paid attention to a wide range of important aspects, including the organisation's development strategy and business model, significant developments from a sustainability perspective for the Company and stakeholders, materiality matrix and sustainability risks.

Improvement of sustainable development governance

The Company is improving its sustainability management system as well as its corporate governance system.

In 2022, the Company elaborated and approved its Roadmap for Improving the Sustainable Development Management System. The Company also approved a new version of the Samruk-Energy Action Plan for the implementation of the best corporate governance practices.

To improve sustainability activities of Samruk-Energy, the Company conducted GAP analysis of ESG processes and diagnostics of ESG management practices performance. The Company also held external analysis of disclosure practices by reference companies (external analysis).

In December 2022, the Company adopted and approved the 2023-2024 Roadmap for Improving the Sustainable Development Management System. The Roadmap integrates the Action Plan for Corporate Governance Improvement, the Action Plan for Best Practices Implementation in Corporate Governance and the Roadmap for Obtaining an ESG Rating. The Company aims to receive an ESG rating from a global rating agency in the short term. We will report on the progress with the Roadmap and the ESG rating in our following reports.

As part of quality improvement and accessibility of information disclosed in the Company's public reports, including climate-related information, the Company has developed the 2022- 2024 Action Plan for the Implementation of TCDF (Task Force on Climate-related Financial Disclosures) and GRI standards.

PRIORITY AREAS OF THE COMPANY'S SUSTAINABILITY ACTIVITIES

Samruk-Energy implements the following sustainable development initiatives and programmes:

introducing high ethical standards and building a corporate culture based on trust

introducing sustainability principles and applying a risk-based approach to project management practices at all investment stages

improving financial stability

promoting responsible procurement based on the principles of fair and free competition, mutual benefit, transparency and full accountability for its commitments

enhancing safety culture by involving employees in occupational safety and health management and increasing the effectiveness of occupational safety and health management system in line with international standards

enhancing Company's social responsibility, following the UN Global Compact principles, investing in human capital

Compact principles, investing in human capital;
ensuring environmental sustainability, including search for and implementation of environmentally and economically superior technologies, optimisation of industrial processes, implementation of renewable energy projects, identification and prevention of potential accidents

Raising awareness of sustainable development

Following the best international practices, Samruk-Energy raises awareness of sustainable development as follows:

- in September 2022, the Company held a training "Corporate reporting system in the area of ESG" led by PWC international consultants for all employees;
- in December 2022, the Corporate Governance and Sustainable Development Department held a special session on sustainable development with the participation of Members of the Management Board and heads of divisions;
- as part of the Company's Development Strategy for 2022-2031 update, the Corporate Governance and Sustainable Development Department organised an online meeting with the portfolio companies. The topic of the meeting was "Introduction of ESG system at Samruk-Energy";
- as part of the advanced training of Company's officials and employees on sustainable development, a corporate training "Implementation of ESG principles at Samruk-Energy" for Members of the Board of Directors, Members of the Management Board and managers was held.

Materiality assessment

GRI-3-1

The activities led by Samruk-Energy have a much stronger impact than just direct financial and economic results. To be successful in the long term, we strive to align our performance with the expectations of a broad range of stakeholders and society, including the needs of future generations. In 2022, the materiality assessment focused on identifying and prioritising the most significant impacts on the economy, environment, people and human rights in accordance with the updated GRI 2021 guidelines, and a number of other leading standards.

For the purposes of the overall assessment of the Company's ESG impacts and areas of responsibility, when identifying material topics, we have considered the methodological approaches for the identification and recommended lists of topics outlined in international GRI Standards 2021, GRI 12: Coal Sector 2022 and SASB. The Company applied the TCFD recommendations in identifying material topics related to the climate change impact on the Company and its opportunities. We were also guided by the requirements of the Kazakhstan Stock Exchange (KASE) to develop the list of material issues

During the reporting period, we assessed the material topics disclosed in the 2021 Report to confirm their continuing strategic impact. We conducted a survey of internal and external stakeholders.

Aiming to identify the most significant ESG issues, we analysed various areas of our business, including supply chain, operations, employees and communities, and corporate governance.

The ESG materiality assessment included an analysis of:

- our ESG activities;
- current ESG trends;
- legislation and regulatory frameworks;
- external sustainability standards and systems;
- competitors in the industry or companies similar in nature and type of business;
- opinions of stakeholders.

When assessing impacts, internal experts conducted stakeholder surveys, explored and prioritised the most significant positive and negative, actual and potential, short-term and long-term impacts of business activities along the entire value chain. The significance of actual negative impacts was determined by the impact severity. The significance of potential negative impacts was determined by severity and likelihood. The significance of actual positive impacts was determined by the impact magnitude. The significance of potential positive impacts was determined by the impact magnitude and likelihood.

The final decision on most material ESG issues was also influenced using new methodological approaches. One of them was selection based on double materiality. This means the selection of the most important topics for the Company in terms of their impact on the Company's financial performance and business value, as well as those topics that are of the greatest importance to the society (from the stakeholder perspective).

The overall disclosure list was formed based on an analysis of international reporting practices, disclosure expectations and the list of disclosure indicators for companies of similar industries and sizes, as well as a judgement on compliance in terms of reporting principles and reporting requirements under GRI Standards 2021 relating to sustainable development.

We have also defined an additional list of performance indicators, which largely reflect the specifics of the Company's activities and impact. This allows our stakeholders to make a more balanced and correct view of the Samruk-Energy activities. In preparing the present Report, we have benchmarked Annual Reports of similar companies. 2021 Annual Reports from seven leading companies in the field of information disclosure as well as energy companies were used for benchmarking. In view of benchmarking results, investors' expectations, requirements of stock exchanges, recommendations of best practices and trends in information disclosure identified in Annual Reports, we have developed key recommendations and information disclosure indicators to be used in 2022 Samruk-Energy Annual Report.

The active engagement with our stakeholders made it possible to successfully identify priority material issues and the resulting consistency in allocation of resources and time to the activities with the greatest impact.

It should be noted that our list of material topics is benchmarked against the GRI Standards, UN Global Compact Principles and UN Sustainable Development Goals. This demonstrates their full alignment with the most common sustainability practices and standards.

List of material topics

GRI 3-2

In 2022, our list of material topics has changed as we have changed and expanded the approaches to assessing materiality.

1. We have assessed the Samruk-Energy potential and actual impact on the environment, economy and society (including human rights) and its significance for stakeholders' assessments and decisions, in line with the updated Global Reporting Initiative (GRI) standards. The present Report was developed in accordance with GRI Universal Standards 2021.
2. We have considered the impact of sustainable development on productivity, market position, financial results and general opportunities for Samruk-Energy growth, as well as our social and environmental impact and the potential to manage it.
3. Along with double materiality approaches we have also considered topics which are not material for Samruk-Energy these days but can become material in the nearest years or decade. We have applied methodological approaches known as "dynamic" materiality.
4. After the materiality assessment this year, we have identified changes in the list of material topics as compared to the previous reporting periods. They reflect the shift in stakeholders' expectations, evolution of approaches to materiality and introduction of new, more extended requirements to ESG information disclosure.

LIST OF MATERIAL TOPICS

Material topic	Type of impact				GRI Standards	UN Global Compact Principle	UN SDGs
	Negative	Positive	Direct	Indirect			
Climate change and environment							
Climate change	●		●		305	7,8	
Energy transition to sustainable sources	●		●		302	9	
Water resources management	●		●		303	7,8	
Air quality	●		●		301	7,8	
Sustainable waste management	●		●		305	7,8	
People care							
Management, development and motivation of employees		●	●		401, 402, 404		
Occupational safety and health		●	●		403		
Diversity, equality and inclusivity		●	●		405, 406	1,2,6	
Effective management and integrity							
Contribution to economic performance		●	●		201, 203		
Sustainable supply chain		●	●		204		
Compliance with legislation and anti-corruption		●	●		205	10	
State policy		●		●	415		

UN Global Compact Principles

We recognise the environmental and social challenges posed by global climate change. Through continuous development and improvement of our approaches, we strive to demonstrate one of the most advanced levels of ESG practice among leading companies. Samruk-Energy joined the UN Global Compact in 2011 and focused its activity on implementation of environmental protection principles, social responsibility and better corporate governance in all businesses.

We are open to cooperation with Global Compact signatories and are confident that joint efforts and experience sharing will ensure sustainable business for all stakeholders.

As part of our adherence to the UN Global Compact, we publish annual progress reports available at:
www.unglobalcompact.org
https://www.samruk-energy.kz/ru/navigation-and-support/sustainable-development#tab13

UN Global Compact Principles	Section in the Report
Businesses should support and respect the protection of internationally proclaimed human rights	Respect for human rights
Businesses should make sure that they are not complicit in human rights abuses	
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Investments in Human Capital Procurement management
Businesses should uphold the elimination of all forms of forced and compulsory labour	
Businesses should uphold the effective abolition of child labour	
Businesses should uphold the elimination of discrimination in respect of employment and occupation	
Businesses should support a precautionary approach to environmental challenges	Caring for the planet Fighting climate change
Businesses should undertake initiatives to promote greater environmental responsibility	
Businesses should encourage the development and diffusion of environmentally friendly technologies	Business ethics and anti-corruption
Businesses should work against corruption in all its forms, including extortion and bribery	

Our contribution to Sustainable Development Goals

Samruk-Energy has integrated the Principles of Sustainable Development in its business and declares its commitment to 17 UN Sustainable Development Goals. In its operations, the Company seeks to contribute to the following UN Sustainable Development Goals:

UN Sustainable Development Goals	Company's projects and programmes	Results
	Sustainable Development Initiatives Plan for 2022-2026 Implementation of programmes related to controlling staff turnover, retaining internal talents and attracting professionals (talent management, development of internal competences)	Retention of jobs. Competitive salaries, indexation of wages. Samruk-Energy strives to preserve jobs. In 2022, the average monthly salary of employees across the Group increased to KZT 402,990. *Read more in Investments in Human Capital section.* The Company seeks to ensure uninterrupted power supply to all regions where it operates, including in remote areas and settlements, to enable sustainable farming of local population. Samruk-Energy pays attention to social wellbeing of regions where it operates. In 2019, the Company started its cooperation with SK-Trust CF as part of charity programmes for local communities. Every year, the Company carries out social initiatives aimed at helping the disabled, the poor, pensioners and cancer patients. Read more in Contributing to Socio-Economic Development section.
	Sustainable Development Initiatives Plan for 2022-2026	The health and wellbeing of employees and local communities. The Company aims to create a healthy and safe working environment for employees and runs programmes to promote wellness in local communities. *Read more in Contributing to Socio-Economic Development and Creating Safe Working Conditions sections.*
	Implementation of innovative technologies to reduce environmental impact Implementation of programmes to promote wellness in local communities	Reducing environmental impact. Samruk-Energy is aware of the importance of controlling industrial safety and reducing the environmental impact of its operations. The Company strives to keep clean air, water resources, soils. It also contributes to increase forest coverage to create favourable conditions for human well-being. The Company introduces innovative technologies at existing conventional generation facilities that reduce CO2 emissions, improves energy efficiency and energy conservation, and implements a forest- climate project. *Read more in the sections Caring for the Planet, Fighting Climate Change, Creating Safe Working Conditions, and Investing in Human Capital.*
	Sustainable Development Initiatives Plan for 2022-2026 Implementation of employee training programmes	Training and development programs for Samruk-Energy employees. Cooperation with leading domestic universities as part of personnel training. Samruk-Energy believes that the quality of education of employees and the local population in the regions where the Company operates is important for sustainable development of the society and the Company.

UN Sustainable Development Goals	Company's projects and programmes	Results
	New employee onboarding programme Cooperation programmes with educational institutions as part of personnel training	○ The Company cooperates with leading universities in the following areas: personnel training, search and selection of the best graduates, internships and work placements for students at production facilities, curricula improvement and dual training development, grant programmes development, etc. *Read more in Investments in Human Capital section.*
	Action plan to promote equal opportunities Gender Equality Program	○ Samruk-Energy recognizes that gender equality is a basic human right and an important basis for sustainable development. ○ Samruk-Energy supports the Seven Women's Empowerment Principles developed within the framework of the UN Women the UN Global Compact partnership. The Company reaffirms its commitment to gender equality as a key element of sustainable development and is convinced 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 and implemented an Action Plan. ○ In line with its Code of Conduct, values and principles, the Company declares its commitment to non-discrimination and the reduction of inequalities in its daily operations. *Read more in Respect for Human Rights and Investments in Human Capital sections.*
	Sustainable Development Initiatives Plan for 2022-2026	
	Measures to minimise the Company's impact on water resources. Environmental Protection Plan	The main objectives of Samruk-Energy in the field of water resources protection are to minimise the impact by: ○ reducing fresh water consumption; ○ increasing the share of reusable and reused water; ○ reducing the amount of wastewater discharged and the concentrations of harmful substances in wastewater. *Read more in Caring for the Planet and Fighting Climate Change sections.*
	Development of clean energy (RES) Commissioning of new RES facilities Modernisation of assets and digitalisation	○ Samruk-Energy increases energy production from renewable sources and implements programmes and measures to increase energy efficiency. ○ Samruk-Energy invests in green energy development. ○ The Company has the Policy in the field of Green Financing, developed with the assistance of the Green Finance Centre at AIFC (Astana International Financial Center). The Policy defines the principles of green financing to ensure the transparency of attracting investments through the use of green financing instruments. ○ The Company also has a successful track record of raising debt finance through the placement of green bonds. In November 2021, in partnership with the Green Finance Centre at AIFC and underwriter Halyk Finance, the Company made a debut placement of "green" bonds on the AIFC stock exchange in the amount of KZT 18.4 billion.. ○ Samruk-Energy has 6 RES facilities. ○ In January-December 2022, electricity generation by Samruk-Energy RES facilities (solar plants, wind farms and small hydropower plants) amounted to 417.5 mln kWh. This is 34.6% higher compared to the same period in 2021 (325.3 mln kWh). ○ In January-December 2022, Samruk-Energy generated 8.3% of total electricity produced by RES facilities in Kazakhstan.

UN Sustainable Development Goals	Company's projects and programmes	Results
		○ In July 2022, a new 60 MW wind farm was commissioned in the Shelek Corridor of the Enbekshikazakh district of the Almaty region. This is a unique region for RES potential development. ○ Samruk-Energy also pays attention to the development of hydropower. It can be evidenced by completed projects of Moynak HPP construction and Shardarinskaya HPP modernisation. *Read more in Caring for the Planet and Fighting Climate Change sections.*
	Creating jobs Ensuring decent wages Developing regions of presence	○ Samruk-Energy creates jobs and provides decent working conditions for its employees. The Company also ensures competitive salaries, social services and guarantees for its employees. ○ Samruk-Energy is one of the largest employers in Kazakhstan. ○ As of 31 December 2022, the total headcount of Samruk-Energy was 17,650 people. ○ In 2022, the staff turnover rate was 13%. ○ In the reporting period, 100% of employees were full-time. ○ The ratio of the minimum wage for women and men is 100%. *Read more in Investments in Human Capital section.*
	Developing R&D and innovations, high-tech industries	○ Studying opportunities to apply carbon capture and storage technologies at coal-fired power plants. ○ Implementing a system of oil-free kindling of boilers (plasma fuel system). *Read more in Investments in Company's Strategy and Contributing to Socio-Economic Development sections.*
	Efficient and rational use of energy resources	○ Implementation of the Energy Saving and Energy Efficiency Improvement Programme at Samruk-Energy for 2015-2025. *Read more in Energy Efficiency section.*
	Adaptation to climate change and transition to a low-carbon economy	○ Implementation of the Energy Transition Programme of Samruk-Energy for 2022-2060. ○ Approval of the Energy Transition Programme of Samruk-Energy for 2022-2060. ○ The Programme sets the Company's directions, goals and objectives for transition to the use of efficient, resource-saving, environmentally friendly technologies, aiming to achieve carbon neutrality by 2060. ○ In the horizon until 2060, Samruk-Energy will strive to minimise its negative impact on the environment, achieve carbon neutrality and become a high-tech operating company with high social and environmental responsibility. ○ The expected result of the Programme is the reduction of the Company's net carbon footprint by 2060. ○ There are a lot of important factors impacting the reduction of the Company's carbon footprint. Among them, there is modernisation of existing facilities, reduction of own generation needs and losses in electricity and heat transmission, implementation of best available technologies (BAT), energy saving and energy efficiency measures. This will help reduce the specific fuel consumption and specific CO_2 emissions per unit of production. *Read more in Caring for the Planet, Fighting Climate Change sections and Investment Activity sections.*

UN Sustainable Development Goals	Company's projects and programmes	Results
	Stakeholder Engagement, Feedback	• The Company adheres to high standards of business ethics, transparency and legality, independent of business customs and other business conditions in a particular jurisdiction. • In 2022, the Management Board of Samruk-Kazyna approved the Corporate Compliance Standard in Portfolio Companies. • The Company has implemented an analysis of stakeholder engagement effectiveness to improve the stakeholder engagement management system and ensure the necessary conditions for creating long-term value, achieving strategic goals and building a positive reputation. *Read more in Corporate Governance and Stakeholder Engagement sections.*
	International cooperation	• Global Partnership and investment coordination. • The Company is a member of the following national and international organisations and associations/organisations: World Energy Council, UN Global Compact, CIS Electric Power Council, Kazakhstan Electric Power Association, KAZENERGY Association, National Chamber of Entrepreneurs of the Republic of Kazakhstan, Association of Kazakhstan Machinery Industry. *Read more in 2021 Integrated Annual Report.* Events in the reporting period: • On 24 July 2022, the Ministry of Energy of Kazakhstan and the Saudi company ACWA Powera signed a Memorandum of Understanding on bilateral cooperation in the development of power generation and renewable energy sources. As part of the cooperation, the Company plans to construct wind farms of 1 GW combined capacity in Kazakhstan together with ACWA Power. • On 12 September 2022, Samruk-Kazyna and PowerChina Resources Limited signed a Memorandum of Cooperation for joint implementation of the second phase of the project "Construction of 60 MW wind power plant in the Shelek corridor including a possible increase up to 300 MW", as part of a new project "Construction of hybrid wind and hydropower plant of 310 MW capacity in Almaty region". • On 26 September, 2022, Samruk-Kazyna and China Machinery Engineering Corporation signed a Memorandum of Understanding on cooperation within the framework of the project "Expansion and reconstruction of Ekibastuz GRES-2". • The Company and ECOJER Association signed a joint work plan covering the Company's environmental and sustainable development issues. • On 27 December 2022, the Company joined the National ESG Club. The ESG Club plans to develop expertise in implementing ESG standards and share the best global trends in sustainable development.

Stakeholder Engagement

GRI 2-29

Samruk-Energy places a strong focus on stakeholder engagement. Guided by the principle of transparency, we are open to meetings, discussions and dialogue and strive to build long–term cooperation with our stakeholders that is based on mutual interests, respect for rights and a balance between the interests of the Company and our stakeholders.

Samruk-Energy's Management Board manages stakeholder engagement to ensure compliance of the Company's operations with the strategy and development plan, as well as the decisions of the Sole Shareholder and the managing body.

The key goal of our stakeholder engagement is to make the right choice of strategic development and of ways to improve the Company's operations, assist in reaching a level of sustainable development that is beneficial to everyone: the Company, its stakeholders, and society.

Effective stakeholder engagement enables to:

- identify stakeholders that have a material impact on the Company and their degree of dependence on the Company;
- identify and analyse the needs, expectations and opinions of internal and external stakeholders;
- identify and analyse the challenges and prospects, as well as the most important concerns for internal and external stakeholders;
- create a materiality matrix, develop a Stakeholder Engagement Plan and/or a Stakeholder Communication Plan.

KEY PRINCIPLES OF STAKEHOLDER ENGAGEMENT:

respect and account for stakeholders' interests, opinions and preferences

timely and regular communication with stakeholders

responsible discharge of obligations

To build effective stakeholder engagement, the Company is guided by the best international practices for stakeholder engagement (the AA1000 standard, GRI) and uses a set of principles that take into account and respect the interests of all stakeholders at all levels of management of the Company's operations.

Thus, our stakeholder engagement builds on the principle of inclusion that is based on three engagement principles to help us build comprehensive, mutually beneficial and effective stakeholder engagement:

"materiality" – a correct assessment of the importance of issues for stakeholders and the organisation

"completeness" – understanding the materiality of the impact made by the Company's operations

"response" – offering an adequate response

We are ready to invest in the development and in the future of our customers, employees, partners, and suppliers. We are ready to ensure the sustainable development of our Company and local communities, and make social investments in the areas that are important for the territory of our presence. We are ready to engage with all stakeholders to give an adequate and flexible response to external and internal challenges.

In addition, we share the key aspects of the precautionary principle. Before we launch any new projects or facilities, we take a number of steps as part of the environmental impact assessment to inform the public about the planned activities and their potential impact to canvass public opinion and take it into account in the impact assessment process.

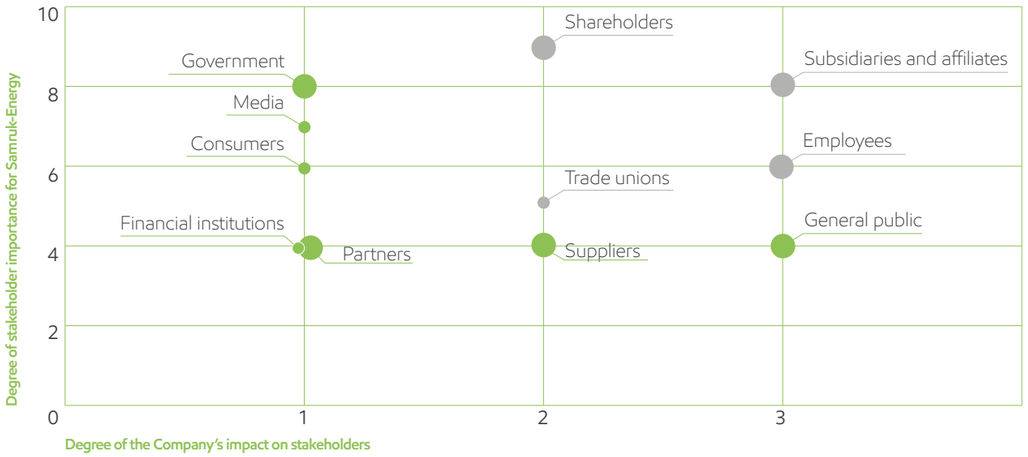
We take into consideration the principle of transparency as part of our stakeholder engagement work. After the publication of our annual reports, we check the balance and completeness of the information disclosed in the annual reports, and determine the topics and aspects that have a material impact on the operations of the Company and its stakeholders.

These activities are included in the Stakeholder Engagement Plan, which builds on Samruk-Energy's Stakeholder Map and stakeholder engagement practices. The Plan also outlines the Company's stakeholder engagement principles, stakeholder identification and analysis approach, stakeholder engagement requirements, grievance mechanisms, and stakeholder engagement activities. The Company monitors the implementation of the Plan, and the results are reported to the Board of Directors.

In 2022, all activities included in Samruk-Energy's Stakeholder Engagement Plan were carried out successfully. Following the Plan, Samruk-Energy's subsidiaries and affiliates monitored the approved Stakeholder Engagement Plans (SEPs) for the 2022 investment projects.

Samruk-Energy's strategy for 2022–2031 builds on the sustainable development principles enshrined in the UN Global Compact and includes, in particular, creating a stakeholder map and methods/channels for engagement.

SAMRUK-ENERGY'S STAKEHOLDER MAP



- external stakeholders that have an indirect impact on the decisions made
- internal stakeholders that have a direct and material impact on the decisions made and/or are impacted by these decisions

The size of the circle shows the extent of the Company's engagement with stakeholders. The smallest rectangle reflects the limited level of engagement. As the size of the rectangle increases, the degree of engagement grows.

ENGAGEMENT WITH KEY STAKEHOLDER GROUPS

Stakeholder interest in the Company	Engagement mechanisms
Internal	
Shareholder	
○ Economic profit / Consolidated net income / Economic performance ○ Available funds for development and dividends ○ Corporate governance rating ○ Market share / Market presence ○ Social and environmental responsibility, reducing environmental emissions, complying with the sustainable development principles, no complaints or fines for violating environmental laws	○ Participating in meetings regular reporting of Samruk-Kazyna on its performance within the reporting period; ○ Providing reports (financial, non–financial) in compliance with the laws of the Republic of Kazakhstan, internal regulations of the Sole Shareholder, and relevant requests; ○ Creating joint working groups, holding meetings, negotiations, and stakeholder meetings; ○ Creating a media plan/publishing information about the Company's operations; ○ Discussing the implementation of the Development Strategy, business plan, Transformation Programme, investment projects, sustainable development processes, etc.; ○ Meetings and correspondence on the Group's operations; ○ Conducting surveys, opinion polls, and testing; ○ Internal corporate communication channels; ○ The Company's annual report and Internet resource.
Subsidiaries and affiliates	
○ Employment and remuneration, staff-management relationships, non-discrimination, diversity and equal opportunities ○ Improving health and safety culture, training and education ○ Market share / Presence in product and service markets ○ Assisting government agencies, business interests	○ Decisions of the Company as a participant/shareholder of subsidiaries and affiliates ○ Verifying compliance with the laws of the Republic of Kazakhstan and the Group's internal documents ○ Verifying compliance with license and contract commitments by the Company's subsidiaries and affiliates ○ Visiting production sites of the Company's subsidiaries and affiliates by management ○ Developing proposals for making amendments and additions to the laws of the Republic of Kazakhstan ○ Providing information requested by government agencies regarding various areas of the Company's operations ○ Signing contracts, memorandums, and agreements on strategic cooperation ○ Orders and instructions, reporting to the Company by subsidiaries and affiliates' management ○ Information/reports on the implementation of business plan, production, investment and social plans/obligations, the achievement of key performance indicators and other relevant issues sent to the Company ○ Key performance indicators and requirements to be used to develop internal regulatory documents, etc. on a regular basis ○ Operational, staff, action and other meetings, holding public hearings as part of the implementation of investment projects ○ Health and safety briefings, training and education ○ Providing feedback in response to requests and complaints / hotline, social networks, internal corporate communication channels, the Company's annual report and Internet resource

ENGAGEMENT WITH KEY STAKEHOLDER GROUPS

Stakeholder interest in the Company	Engagement mechanisms
Management and staff	
○ Employment, staff-management relationships, non-discrimination, diversity and equal opportunities, employee satisfaction with working conditions and the Company's service departments ○ Training and education ○ Improving health and safety culture	○ Fair and transparent approach to staff remuneration, enhancing the professional development of employees, occupational safety ○ Human resource development ○ Health and safety briefings and implementing programmes to improve working conditions ○ Providing social support to employees and their families ○ Programmes for career enhancement, training and development of employees ○ Regular meetings with management, negotiations/ meetings with employees, representatives of subsidiaries and affiliates, the trade union, including at the year end ○ Briefing employees on the Company's operations and professional development opportunities via corporate websites and social networks ○ Conducting surveys, opinion polls, testing, annual monitoring of employee engagement indicators ○ Hotline, internal corporate communication channels, the Company's Internet resource
Trade unions	
○ Creating and maintaining jobs ○ Improving health and safety culture	○ Holding public hearings ○ Signing contracts, memorandums, and agreements on strategic cooperation ○ Regular meetings with management, negotiations/ meetings with employees, representatives of subsidiaries and affiliates, the year-end report ○ Concluding collective agreements to regulate employment relationship with the Company's employees ○ Staff remuneration in line with employment laws of the Republic of Kazakhstan, training and education, occupational safety ○ Briefings on the day-to-day operations of subsidiaries and affiliates ○ Receiving letters (requests) addressed to the Company ○ Hotline, social networks, internal corporate communication channels ○ The Company's annual report and Internet resource
External	
Government agencies	
○ Complying with requirements, business stability and sustainability, tax revenues, economic growth ○ Creating and maintaining jobs ○ Representing the country's economic interests in the international arena (economic, political and image benefits for the country) ○ Improving the energy and resource efficiency of production, preserving the environment to safeguard public health and biodiversity, reducing environmental emissions	○ Verifying compliance with license and contract commitments by the Company's subsidiaries and affiliates ○ Verifying compliance with the laws of the Republic of Kazakhstan, developing proposals for making amendments to the laws of the Republic of Kazakhstan ○ Approving subsoil use contracts and the state registration act for the subsoil use rights

Stakeholder interest in the Company	Engagement mechanisms
	○ Information/reporting (financial, non–financial) in compliance with the laws of the Republic of Kazakhstan to meet production targets as well as investment and social commitments and plans following requests ○ Negotiations, business correspondence, operational, staff, action and other meetings, opinion polls ○ Creating a media plan/publishing information about the Company's operations ○ Hotline ○ The Company's annual report and Internet resource
Consumers	
○ Market share / Market presence ○ Quality of products and services ○ Marketing communications	○ Consumer feedback system ○ Meetings, negotiations, opinion polls ○ Creating a media plan/publishing information about the Company's operations ○ Signing contracts, memorandums, and agreements on strategic cooperation ○ Hotline ○ The Company's annual report and Internet resource
Goods/ works/services suppliers	
○ Providing equal opportunities to participate in competitions ○ Investment and procurement practices /Benefits from procurement category strategies ○ Supply chain and value chain effectiveness ○ Supporting domestic producers	○ Requesting quotations ○ Holding regular analytical meetings, negotiations, business correspondence ○ Signing contracts, memorandums, agreements on strategic cooperation, licensing ○ Information/reporting on meeting production targets as well as investment and social commitments and plans sent to the Company ○ Reporting on the Company's financial and economic performance ○ Reviewing letters (requests) addressed to the Company ○ Conducting surveys, opinion polls, and testing ○ Hotline ○ The Company's annual report and Internet resource
Business communities (Associations, National Chamber of Entrepreneurs, ALE)	
○ Helping to improve and comply with industry–specific standards ○ Helping to improve the business environment ○ Support provided by government agencies through the mechanisms of interaction between business and government agencies, helping to promote the Company's legislative proposals	○ Developing proposals for making amendments and additions to the laws of the Republic of Kazakhstan ○ Signing contracts, memorandums, and agreements on strategic cooperation ○ Holding regular analytical meetings, negotiations, business correspondence ○ Creating working groups, holding meetings, negotiations, and opinion polls ○ The Company's annual report and Internet resource

ENGAGEMENT WITH KEY STAKEHOLDER GROUPS

Stakeholder interest in the Company	Engagement mechanisms
NGOs and local communities	
○ Improving health and safety culture ○ Improving the energy and resource efficiency of production ○ Reducing environmental emissions ○ Complying with legal requirements, sponsorship and other assistance ○ Employment opportunities, addressing social issues, transparency of the Company's operations, preserving the environment	○ Holding public hearings ○ Developing proposals for making amendments and additions to the laws of the Republic of Kazakhstan ○ Creating a media plan/publishing information about the Company's operations in media ○ Surveys, opinion polls, testing ○ Briefings on the day–to–day operations of the Company and its subsidiaries and affiliates ○ Reviewing letters (requests) addressed to the Company ○ Hotline, social networks ○ The Company's annual report and Internet resource
Partners	
○ Market share/Market presence ○ Joint implementation of projects ○ Transferring technologies, competencies, and innovations	○ Decisions of the Company as a participant/shareholder of subsidiaries and affiliates, joint advisory bodies ○ Creating joint working groups, conducting inspections ○ Meetings, negotiations, business correspondence, opinion polls ○ Reports on day-to-day operations ○ Corresponding on the operations carried out by subsidiaries and affiliates ○ The Company's annual report and Internet resource
Financial institutions	
○ Economic profit/Consolidated net income / Economic performance ○ Available funds for development and dividends	○ Providing reports/information about the Company in line with the current loan agreements ○ Providing reports (financial, non–financial) in compliance with the laws of the Republic of Kazakhstan, internal regulations of the Sole Shareholder, and relevant requests ○ Creating a media plan/publishing information about the Company's operations in media ○ The Company's annual report and Internet resource
International organisations	
○ The Company's participation in international agreements and initiatives	○ Conferences, forums, annual meetings ○ Signing contracts, memorandums, and agreements on strategic cooperation ○ Creating working groups, holding meetings, negotiations, and opinion polls ○ The Company's annual report and Internet resource
Creditors	
○ Economic profit/Consolidated net income / Economic performance ○ Available funds for development and dividends ○ Net asset value (NAV) ○ Investment and procurement practices / Benefits from procurement category strategies	○ Holding regular analytical meetings and negotiations, business correspondence, opinion polls ○ Creating a media plan/publishing information about the Company's operations in media ○ Hotline ○ The Company's annual report and Internet resource
Local authorities	
○ Complying with requirements, creating and maintaining jobs, sponsorship and other assistance ○ Occupational health and safety ○ Improving the energy and resource efficiency of production, reducing environmental emissions	○ Cooperating with local authorities to support and develop the social sector in the regions ○ Organising and running volunteer and charity events ○ Hotline, social networks ○ The Company's annual report and Internet resource
Media	
○ Complying with requirements, creating and maintaining jobs, health and safety culture ○ Economic profit and performance ○ Market share / Market presence ○ Improving the energy and resource efficiency of production ○ Reducing environmental emissions	○ Holding press conferences, submitting press releases ○ Creating a media plan/publishing information about the Company's operations ○ Hotline, social networks ○ The Company's annual report and Internet resource

International cooperation in sustainable development

GRI 2-28

SAMRUK-ENERGY'S PARTICIPATION IN NATIONAL AND INTERNATIONAL ORGANISATIONS/ ASSOCIATIONS

Organisation	Status and date of joining
World Energy Council (WEC)	Member since 2008
KAZENERGY Association	Member since 2009
Kazakhstan Electricity Association (KEA)	Member since 2011
UN Global Compact	Member since 2011
CIS Electric Power Council (CIS EPC)	Observer since 2012
National Chamber of Entrepreneurs of the Republic of Kazakhstan (NCE RK)	Member since 2013
ALE Union of Machine Builders of Kazakhstan	Member since 2021
ECOJER Association	Member since 2021
Kazakhstan Association of Digital Energy	Membership application submitted
National ESG Club	Member since 2022

Respect for Human Rights

GRI 2-23, 3-3

Samruk-Energy is one of the largest energy holding companies in Kazakhstan that has a strategic position in the national energy grid. Thus, we are well aware of our influence and undertake voluntary commitments to running our business responsibly, upholding human rights across the entire value chain, and taking a broader interest in the life of our employees, local communities in the regions of our presence, and the whole society. We integrate human rights principles and sustainable development goals into our strategy, corporate culture and day-to-day operations and keep a good balance between our stakeholders' interests and our strategic objectives.

Speaking of human rights protection, Samruk-Energy complies with applicable laws of the Republic of Kazakhstan and generally accepted principles and rules of international law – the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the UN guiding principles on business and human rights.

We comply with the Constitution of the Republic of Kazakhstan and we recognise, guarantee and ensure the protection of human rights and freedoms. We have a zero tolerance approach to any actions that violate human rights and/or any actions that may lead indirectly to such violations. The human rights principles and standards are enshrined in Samruk-Energy's Code of Conduct that establishes high professional and ethical standards for our employees, regardless of their position in the company. All our employees, members of the Board of Directors and the Management Board, as well as any third parties we work with must comply with the principles and provisions of the Code.

We have a zero tolerance approach to any restrictions on employees' labour rights and freedoms, and discrimination based on gender, race, nationality, language, origin, financial situation, relationship or social status, employment situation, age, place of residence, religion, beliefs, membership or non- membership in any NGOs or social groups, as well as any other circumstances not related to professional strengths of employees.

Key human rights requirements are part of the basic compliance training programme for employees. In addition, we use all internal communication channels to keep our employees informed of our position on human rights and of feedback opportunities to complain about human rights abuse.

We regularly analyse calls made to the hotline and check up on our enterprises if we hear of any alleged rights violations to assess the effectiveness of our approaches to human rights issues. The assessment results are reported to the Board of Directors.

No human rights violations against employees, contractors or local communities were reported in 2022.

We demand that the Group's suppliers and contractors comply with the laws and our corporate health and safety standards. Our Sustainable Development Guidelines devised to secure fundamental human rights and freedoms is one of the framework documents of the Company. The document outlines our position to support the internationally proclaimed human rights not only in our operations, but also in relation to the third parties Samruk-Energy works with.

For more about the Sustainable Development Guidelines, please go to our website.

We maintain high standards of ethical conduct and take responsibility for ensuring that none of our operations violate human rights directly or indirectly. We have developed the Supplier Guidelines to cement our relationships with Suppliers and ensure that corporate social responsibility is fundamental to long-term business success and must be part of our relationships and the actions we take in the market, at work and in local communities.

Samruk-Energy places a strong focus on stakeholder engagement. To build effective stakeholder engagement, we are guided by the best international practices and use a set of principles that take into account and respect the interests of all stakeholders at all levels of management of the Company's operations. In particular, we share the key aspects of the precautionary principle. All activities run by the Company as part of our stakeholder engagement are included in the Stakeholder Engagement Plan.

For more details, please read Stakeholder Engagement, for more details about Samruk-Energy Stakeholder Engagement Plan, please go to our website.

The Company has an Ombudsman Service in place to monitor the human rights situation and work with employees to explain the Code of Ethics and Conduct and the compliance policy.

The compliance team and trade unions monitor the implementation of human rights commitments and international human rights standards. In case of human rights violations employees can use all available feedback channels.

GRI 408-1, 409-1, GRI 12: Coal Sector: 12.16.2, 12.17.2

Samruk-Energy does not use child labour and has a zero tolerance approach to forced labour. These requirements apply to all the Group's subsidiaries and affiliates, suppliers and contractors.

No violations of these requirements or the applicable laws on forced and child labour were reported in 2022.

Investing in Human Capital

Staff is the greatest value and the main driver of success at the Samruk-Energy JSC Group of companies. We strive to constantly improve the efficiency of the HR management system. Our key objectives within social responsibility aim at creating attractive conditions for employees, retaining internal talents and attracting highly skilled personnel, ensuring social guarantees and social stability in the Company.

We respect the interests of stakeholders, strictly comply with the applicable labour legislation, the principles of corporate and professional ethics. An important part of our corporate culture is the provision of equal employment opportunities, non-discrimination, respect for human rights. Our approach is in line with the UN SDGs aimed to improve the quality of life and welfare of people of all ages, to provide inclusive and equal quality education and lifelong learning opportunities, and to achieve gender equality and decent working conditions for everyone without exception.

The HR policy is a fundamental document in the sphere of HR management, focused on the human potential development. The document aims at motivation of employees, achievement of high labour efficiency with due regard to their interests and capabilities, and stimulation of their active engagement in the Company's life as stipulated in the Strategy.

Samruk-Energy JSC has designed an effective HR management system aimed to creating attractive conditions for employees and becoming one of the key and most prestigious employers in the regions of presence.

The Company's HR policy is based on the principles of sustainable development: respect for the interests of stakeholders, respect for human rights, openness, accountability, transparency, legality, ethical behaviour, personal example, intolerance to corruption, inadmissibility of conflicts of interest, provision of equal employment opportunities, non-discrimination, non-admission sexual harassment and others.

The strategic role of the HR function is to plan labour resources for the future in quantitative and qualitative terms.

The Company evaluates the Group HR management efficiency and effectiveness based on monthly or quarterly reports. We contribute to the achievement of the UN Sustainable Development Goals by constantly improving the HR management system and developing new social programmes for employees and their families.

Creating attractive working environment

The Samruk-Energy JSC Group of companies is one of the largest employers in the Republic of Kazakhstan. As of 31 December 2022, the headcount made up 17,650 people. The average work experience is 13 years. The average age of our employees is 34 years. In 2022, the share of full-time employees was 100%.

GRI 2-7, 405-1, GRI 12: Coal Sector: 12.19.6

DYNAMICS OF THE WORKFORCE, PEOPLE

Average staff number

Total headcount

In 2022, Samruk-Energy JSC approved the organisational structure and its Corporate Centre headcount amounted to 150 employees[21].

Diversity and inclusion

GRI 3-3, 406-1, GRI 12: Coal Sector: 12.19.8

Ensuring equal opportunity and inclusion in the workplace is a fundamental element of respect for human rights. We strive to ensure the diversity of our employees and members of the Board of Directors and demonstrate zero tolerance for any form of discrimination. Diversity and inclusion are critical to our long-term success, helping to attract, engage and retain talents and ensure our people comfort and support to perform at their best. An inclusive and diverse workforce allows to more effectively adapt to changing societal expectations and respond comprehensively to market changes.

We strongly oppose any form of discrimination and strive to ensure respect to all employees and candidates. We work to create equal opportunities for everyone at every stage of promotion.

We ensure that candidates have equal opportunities when promoting inside the Company. As an equal opportunity employer, we follow the principle of equality when hiring employees, trying to expand the diversity of attracted talents. This allows us to benefit from the different perspectives, experiences and knowledge of people of different genders, ages and backgrounds while implementing innovative solutions for our business. We are proud to stand for diversity and strive to create a supportive work environment where every employee feels accepted, respected and heard. Our employees know that they can reach their full potential with us and feel safe when talking about problems.

We strive to increase diversity at all levels of the Samruk-Energy JSC Group of companies, including the Board of Directors, top and middle management. Merit, experience, knowledge and skills of a candidate is the basis for the appointments to the Board of Directors, as well as to senior and middle management positions. This helps secure balance and diversity of expert knowledge.

The combination of educational level and professional experience, as well as the personal qualities of directors and employees, provides diversity of opinions and a more extensive knowledge base.

In accordance with the Roadmap for improving the sustainable development management system[22], the Company implemented the Non-Discrimination Policy in the Q1'2023.

[21] Decree of the President of the Republic of Kazakhstan No. 633 On some issues of optimizing the staffing limits of state bodies and entities of the quasi- public sector of 28 July 2021, Order of the Fund of Samruk-Kazyna JSC No. 23-01-05.8 / 4701 of 20 August 2021, Decision of the Board of Samruk- Kazyna JSC Minutes No. 06/22 of 24 January 2022, Decision of the Board of Directors of Samruk-Energy JSC Minutes No. 02/22 of 25 February 2022.

[22] Decision of the Management Board of Samruk-Energy JSC Minutes No. 37 dated 10 October 2022.

Gender equality

There are more men than women among our employees due to the specifics of the industry and the characteristics of physical labour in the companies. However, our HR Policy adheres to the seven principles of gender equality developed through the UN Women partnership and the UN Global Compact as a key element of sustainable development to:

- build active support of measures for ensuring gender equality;
- treat women and men equitably – non-discrimination based on gender, equal treatment and access to training and development programmes, promotion and employment;
- respect and promote human rights, non-discrimination;
- ensure the health, safety and well-being of all employees;
- promote education, occupational development and professional growth of women in business, application of practices that contribute to the empowerment of women;
- promote equality at the level of local communities;
- evaluate results and inform the public about progress towards gender equality.

We have also developed an action plan and set the Key Performance Indicators in the Plan of Initiatives on sustainable development. This plan provides for an increase in the number of women in the staff and in the personnel reserve, the optimal number of women in leadership positions.

In August 2022, to strengthen the role, expand opportunities and develop initiatives for women, we created a Women's Club at the production site of Almaty Power Plants JSC, representing all departments of the Company.

In the reporting period, within the Gender Equality programme, employees of the Corporate Centre, Almaty Power Plants and ESC LLP completed modular training aimed at increasing the proportion of women in the Company's governing bodies. They also participated in a business meeting with representatives of the KAZENERGY Women's Energy Club and the delegation from Women Association in the Energy Industry of Kyrgyzstan.

GRI 2-7, 405-1, GRI 12: Coal Sector: 12.19.6

EMPLOYEES BY GENDER, PERSONS

GRI 405-1, GRI 12: Coal Sector: 12.19.6

COMPOSITION OF GOVERNING BODIES BY GENDER, PERSONS

Top managers

Leaders

Creating an inclusive environment

Samruk-Energy JSC complies with all legal requirements on providing jobs for people with disabilities. In 2022, the Company employed 211 persons with disabilities.

Recruitment and staff turnover

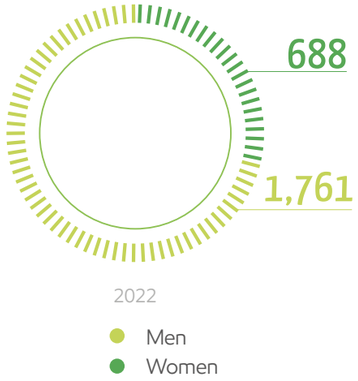
The priority of Samruk-Energy JSC when recruiting employees is the efficiency of their work. When selecting candidates, we pay special attention to their motivation and compliance with the Company's corporate values.

To ensure equal access to employment for all qualified candidates, Samruk-Energy JSC posts vacancies on its website and the Samruk Qyzmet Single Online Recruiting Platform www.qsamruk.kz in Russian and Kazakh. Based on the results of the competitive selection, the Company provides all candidates with feedback, and publishes the results on the Samruk Qyzmet platform. When conducting competitive procedures, internal candidates, including candidates from the Company's talent pool, have priority.

48% of the Company's vacancies were filled by internal candidates in 2020-2022.

GRI 401-1, GRI 12: Coal Sector: 12.15.2

We hired 2,449 people in 2022, of which 28% are women (9% more than in 2021).



Onboarding programmes for new employees

Samruk-Energy JSC is constantly improving the adaptation mechanisms for new employees to develop the Group's human resources potential. Thus, the Company has an onboarding programme for new employees, under which for three months a new employee, using a special digital platform, takes an electronic adaptation course, consisting of theoretical and practical parts.

The programme is designed to help employees quickly settle into a new place and create a basis for their professional growth.

The overall staff turnover in 2022 was 13%, which meets the industry average criteria. Compared to 2021, staff turnover increased due to changes in the methodology and approaches to calculations. In 2022, we included all dismissed employees regardless of the reasons (on their own initiative, by consent of the parties, due to retirement age, headcount optimisation, etc.).

GRI 401-1, GRI 12: Coal Sector: 12.15.2

STAFF TURNOVER, %

Total staff turnover

Salary

A decent level of remuneration is the main motivating tool for employees to work effectively. The Company, as a responsible employer, seeks to provide its employees with decent wages. In 2022, the average monthly salary of the Group's employees was KZT 402,990. The Company regularly indexes wages and introduces bonus systems.

Rules for remuneration and bonuses for employees of Samruk-Energy JSC is the main internal document of the Company, officially defining the main components of the packages for remuneration and incentives for employees.

SALARY FUND, '000 KZT

Salary fund

In 2022, we revised the salaries of administrative and production personnel of subsidiaries and affiliates and increased them from 10 to 32%. This covered more than 16 thousand employees, with special attention paid to low-paid workers.

Samruk-Energy JSC strives to provide its employees with remuneration at the level or upper the average market values.

GRI 202-1, GRI 12: Coal Sector: 12.19.2

THE RATIO OF THE AVERAGE SALARY IN THE COMPANY TO THE LEVEL IN THE COUNTRY, KZT

Minimum wage in the country

Average monthly salary of production personnel

In addition to the basic salary, in accordance with the Collective Bargaining Agreement, the Company provides for:

- payment for overtime work, work on holidays and weekends, at night;
- allowances and surcharges;
- remuneration of employees engaged in heavy work, work with harmful (especially harmful), dangerous working conditions;
- payment of additional annual leave;
- payment of compensation in the amount of three salaries upon termination of an employment contract, in connection with retirement.

The ratio of the minimum wage for women to the minimum wage for men is 100%. The wages of men and women are equal, while the wages of employees depend on the conditions and reward for work. Due to the industrial nature of the business, which often requires physical labour, men are charged an additional payment for harmful working conditions, for professional skills and other payments.

THE RATIO OF THE BASIC REMUNERATION OF WOMEN AND MEN, KZT

Indicator	2021		2022	
	Men	Women	Men	Women
Entry level employee salary	145,688	128,354	186,000	170,000

Motivation and involvement of staff

The current motivation system of Samruk-Energy JSC aims at opening the maximum potential of employees. To increase motivation and involvement, one-time bonus payments are provided for national holidays: on the Power Engineer's Day, on the Independence Day, on the Miner's Day, etc., non-material remuneration and benefits (awards, letters of thanks, diplomas).

Thus, employees who combine work with education are provided with additional vacations for the period of examination or installation sessions, preparation and defence of a graduation project, passing final exams.

In addition, the Company provides corporate awards and incentives to motivate employees. When celebrating the Day of the Republic of Kazakhstan and the Day of Energy, distinguished employees of the Company were awarded with state, departmental, industry and corporate rewards, as well as rewards from Samruk-Kazyna JSC. According to the results of 2022, 532 employees of the Samruk-Energy JSC Group of companies were nominated for state, industry and corporate awards.

In 2022, Samruk Business Academy conducted an engagement survey among employees of the Corporate Centre of Samruk-Energy JSC. To determine the level of well-being of employees we surveyed five elements of well-being: health, finance, social well-being, environment, professional well-being. The survey covered 104 employees. According to the results, the overall level of well- being of Samruk-Energy JSC amounted to 74%.

Based on the feedback received, the Company will make recommendations to improve the well-being of the staff.

Youth policy

To organise, improve and increase the activity of young professionals, the Company has a Youth Council Jas Energy. This helps to increase their activity in solving social and operational problems and participating in the corporate culture development.

Implementing the programme for the youth policy development in the Group of companies of Samruk- Kazyna JSC (hereinafter referred to as the Fund), in 2022, we selected 50 young specialists from the Fund's portfolio companies, their subsidiaries, affiliates and branches. They passed the challenge and the youth forum and will participate in the modular programme for the young leadership development Zheti Kadam.

As part of training of young specialists, the Fund formed a youth pool to develop their leadership potential, familiarise them with the techniques for introducing managerial competencies, develop communication skills, the ability to work in a team, and understand the principles of budget planning. Five employees of the JSC Samruk-Energy Group of companies take part in this programme.

For young unexperienced professionals, if necessary, a mentor is assigned from among the personnel of the structural unit. The mentor can be the immediate head of the structural unit or the supervising head, who can simultaneously train no more than two new employees. The mentor's role is to inform about possible difficulties, the most common mistakes. He acquaints with the procedure for interaction with the Company's structural divisions and third-parties depending on the functional area of activity. He also explains the norms of corporate ethics and rules of conduct, as well as provides practical assistance in work.

Youth Councils

To promote an active youth policy the Group created the Youth Councils. They aims at creating socio- economic, legal, organisational conditions and guarantees for the spiritual, cultural, educational, professional and physical development of young people, revealing their creative potential. Such youth councils are already functioning in Alatau Zharyk Company JSC – Alatay Jastary, in Bogatyr Komir LLP - the Council of Working Youth, uniting 1,658 people, Youth Active at Ekibastuz GRES-2.

Members of Youth Councils take an active part in all meetings with local communities (akimat, non- governmental organisations, social actions, etc.). Thus, in the reporting period, the Youth Active of Ekibastuz GRES-2 held a meeting with the deputies of the Majilis of the Parliament and the deputy akim of the Pavlodar region with the participation of the youth of the Solnechny village. They discussed issues related to the formation and implementation of youth policy, as well as state support for youth. They also met with the Vice Minister of the Ministry of Information and Social Development of the Republic of Kazakhstan on the development of corporate social responsibility practices and the realisation of the potential of youth.

Ensuring social guarantees and social stability

GRI 401-2, GRI 403-6, GRI 12: Coal Sector: 12.15.3, 12.14.7

We strive to ensure social security and create comfortable working conditions for our employees. The Company offers employees a wide range of programmes aimed at improving the welfare and security of employees and their families.

SOCIAL GUARANTEES AND BENEFITS OF SAMRUK-ENERGY JSC

- life insurance and voluntary medical insurance
- compensation for incapacity for work/disability, temporary disability allowance, maternity allowance
- maternity/paternity leave, parental leave up to three years
- provision of a pension (in accordance with the law)
- material assistance for the birth of a child, for the burial of close relatives, as well as material assistance to relatives for the burial of a Company's employee

Voluntary medical insurance programmes

The Company has voluntary medical insurance programmes for employees providing for:

- round-the-clock consulting and dispatching service;
- round-the-clock emergency medical service;
- outpatient care;
- hospital treatment;
- additional services such as dentistry and medicines, insurance of citizens traveling abroad, medical supervision for the entire period of pregnancy and childbirth, as well as free attachment of family members.

Support for pensioners and people with disabilities

To maintain social support for non-working pensioners and disabled persons, the Company implements the following activities:

- payment of a one-time allowance to a retired employee;
- provision of material assistance to non-working pensioners of the Company on the occasion of national and state holidays of the Republic of Kazakhstan and the Power Engineer's Day;
- invitation of non-working pensioners of the Company to celebrations held by the Company to provide moral and psychological support;
- payment, to the extent possible, of material assistance to disabled persons (who received a disability while working in the Company and left their employment) for treatment, additional food, purchase of medicines, training for another profession, if the disabled person needs these types of assistance and does not receive them free of charge.

GRI 401-3

All employees of our Company are entitled to parental leave in accordance with the law. The Company highlights family values and provides material support to employees who have a child.

In 2022, we conducted a social survey among the production personnel to analyse the level of social stability at Samruk-Energy, Samruk Research Services Methodology. According to the survey findings, the SRS integral indicator at Samruk-Energy reached 62%.

GRI 403-6

To improve the health of employees, the Company provides additional days to paid annual leave for long service. We work consistently to promote a healthy lifestyle, partially compensate the health improvement expenses in health resort and children's health centres for disabled children and orphans of the Company's employees. Thus, in 2022, more than 400 children of employees of the Samruk-Energy JSC Group of companies improved their health in the sports and recreation camp in the foothills of the Zailiysky Alatau at an altitude of 1,800 m above sea level. In addition, the Group's personnel underwent an annual health improvement programme at the Birch Grove recreation centre and in the best sanatoriums in Pavlodar, Kostanay and the South Kazakhstan region. Also, sanatorium and resort treatment was provided in various medical and recreational complexes of the Republic of Kazakhstan.

We support our employees' going in for sports. In the reporting period, the NGO Local Trade Union Seriktes held competitions in togyzkumalak, chess, arm wrestling, streetball, volleyball, billiards and tennis among the employees of Alatau Zharyk Kompanysy JSC.

AlmatyEnergoSbyt staff takes part in the VII Athletics Games

On 20-21 August 2022, we held the regional qualifying competitions of the VII Athletics Games in Almaty among employees of the Samruk-Kazyna JSC as part of the Jas Samruk Fund's project aimed at promoting a healthy lifestyle, supporting and developing the youth of Kazakhstan.

32 employees of AlmatyEnergoSbyt LLP took part in the Athletics Games in seven sports: mini- football, volleyball, streetball, arm wrestling, table tennis, chess, arcan tartu.

Collective Bargaining Agreement

GRI 2-30, 402-1, GRI 12: Coal Sector: 12.3.2, 12.15.5

The Collective Bargaining Agreement is key to protecting labour rights, economic and social guarantees of employees. The Agreement regulates labour relations and effective dialogue between the Company and personnel. An integral condition of the Collective Bargaining Agreement is to notify employees about significant changes in working conditions one month prior to the proposed changes.

95% of the Company's employees are covered by the collective bargaining agreements.

Labour relations of employees not covered by collective bargaining agreements (in the absence of a Collective Bargaining Agreement in subsidiaries and affiliates) are regulated by internal regulations on wages and social benefits in accordance with the labour legislation of the Republic of Kazakhstan. Social payments and benefits provided by the Collective Bargaining Agreements include:

- material assistance for health improvement for holidays, for the birth of a child, for a wedding, for a funeral (of an employee and close relatives), for the treatment of retired employees, for emergencies, etc.;
- financial assistance in connection with loss of income (parental leave, leave in connection with the adoption of a newborn child);
- voluntary medical insurance;
- spa treatment for employees and children;
- a one-time incentive in connection with the anniversary - 50, 60 and 70 years, expenses for holding festive, cultural and sports events, New Year gifts for children, etc.;
- repayment of loans;
- allowance for injury and loss of a breadwinner.

The Collective Bargaining Agreement of Ekibastuz GRES-1 LLP was recognised as the Best Collective Bargaining Agreement of 2022 by the Social Partners Forum and the Republican contest.

Employees who are not covered by collective agreements are subject to internal regulations on wages and social benefits.

Trade unions

Trade unions being the authorised representatives of employees in social partnership carry out regulation and protection of professional, economic and social labour rights and professional interests of employees.

15,000 employees of the Company are members of trade unions.

Samruk-Energy JSC recognises the right of employees to join associations to protect their interests. We also support the right of employees to choose their representatives and provide the necessary conditions for this in accordance with the laws and practices of the Republic of Kazakhstan.

Staff development and training

We consider the development and training of personnel as a holistic project. It not only provides the necessary level of professionalism and qualifications of employees to solve production problems, ensure economical, trouble-free and efficient operation of equipment. It also contributes to the development of the Company's corporate culture.

The Company's Rules of vocational training and adaptation of Samruk-Energy JSC employees determine the goals, objectives, main types of training, the procedure for interaction between structural divisions of Samruk-Energy JSC, the responsibility, powers and duties of employees, heads of structural divisions in arranging professional and internal training of the Company's employees.

EMPLOYEE TRAINING COSTS

Total costs for employee training, '000 KZT

2022 305,137

2021 306,428

Training costs per employee per year, KZT

2022 17,373

2021 22,088

The Rules also systematise actions and procedures in the field of professional development of employees and efficient use of the Company's budget funds.

The main directions of personnel development and training programmes are:

- operation of coal-fired boiler/steam turbines of thermal power plants;
- mentoring and training of internal trainers sessions;
- MBA and EMBA programmes;
- English language courses;
- seminars, trainings and conferences on the functional orientation of personnel activities;
- training and development of the Talent Pool.

The implementation of programmes is provided both with a break and on the job, with the issuance of a certificate or qualification certificate.

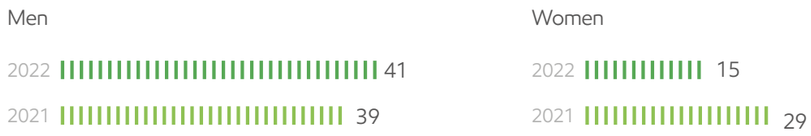
GRI 404-1, GRI 12: Coal Sector: 12.15.6

AVERAGE NUMBER OF HOURS OF TRAINING PER EMPLOYEE ON AVERAGE FOR THE COMPANY, PERSON/H

2021

2022

AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE BY GENDER, PERSONS/HOUR



AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE BY CATEGORY, PERSON/H

Indicator	2021	2022
Top Management	32.84	22.9
Administrative and management personnel	38.4	31.1
Production personnel	44.75	35.9
Service staff	1.4	1.2

Talent Pool

To maintain and develop competitiveness, proactively respond to external and internal challenges, build the potential of promising and highly professional employees, educate our own management personnel, the Company develops a system of succession and talent management.

In 2022, 630 employees were on the talent pool.

The Company forms a unified talent pool based on the principles of objectivity, transparency, fairness, voluntariness and efficiency and in accordance with the Talent Management Rules of Samruk-Energy JSC.

Samruk-Energy's Board of Directors and governing bodies pay increased attention to the formation and implementation of the succession plan for leadership positions.

The process of the personnel reserve formation and development is closely integrated with the annual assessment of the employees' performance, carried out in accordance with the Rules for assessing the performance of Samruk-Energy JSC employees, providing for:

- a comprehensive (final) assessment of goals and competencies, including self-assessment, review of skills and potential, evaluation and provision of directions for improving performance and development opportunities
- quarterly interim performance review, monitoring the degree of achievement of goals for the reporting period

Based on the results of the assessment, we build a Talent Map, personnel reserve, develop individual development plans (IDP) of reservists, involved mentoring, internship and succession programmes.

The results of the final assessment are also the basis for making appropriate decisions when changing the official salary, as well as paying annual bonuses. Altogether, 130 people had performance and career development assessments in 2022.

GRI 404-3

EVALUATION OF THE PERFORMANCE AND CAREER DEVELOPMENT OF THE COMPANY'S EMPLOYEES

Indicator	2020	2021	2022
Total number of employees who completed regular performance and career development reviews			
Men (total)	**93**	**80**	**69**
Leaders	27	19	13
Managers	66	61	56
Women (total)	**71**	**67**	**61**
Leaders	11	8	5
Managers	60	59	56
Percentage of total employees receiving regular performance and career development reviews			
Men (total)	**57%**	**54%**	**53%**
Leaders	29%	24%	19%
Managers	71%	76%	81%
Women (total)	**43%**	**46%**	**47%**
Leaders	15%	12%	8%
Managers	85%	88%	92%

Talent Pool

As part of creating necessary conditions for training and development of the personnel reserve, the Company implements the Talent Pool programme. Its main principle is the targeted training of management personnel to ensure the continuity of management, as well as provide employees with opportunities for the development and career growth in the Samruk-Energy JSC Group of companies. In 2022, in accordance with the individual development plan of the Talent Pool programme, nine employees passed training on the topic Effective communications through the prism of the generation theory. We also arranged a meeting of the Talent Pool with members of the Executive Body.

Cooperation with the education institution

To form a reliable personnel reserve, the Company actively cooperates with the leading higher educational institutions of Kazakhstan. We are involved in the development of dual education. In addition, we offer students and graduates of universities to undergo industrial and undergraduate practice at our enterprises with the possibility of subsequent employment. In 2022, 372 students completed internships at the Company, 172 students completed the practice and internships.

The Company cooperates with key educational institutions:

- Ekibastuz Mining and Technical College, State public utility company;
- Ekibastuz Polytechnic College, State public utility company;
- Satbayev Ekibastuz College of Engineering and Technology Institute NJSC Ekibastuz;
- College of Innovative Eurasian University;
- Gumarbek Daukeev Almaty University of Energy and Communications NJSC;
- Almaty State College of Energy and Electronic Technologies;
- Saken Seifullin Kazakh Agrotechnical University NJSC;
- Abylkas Saginov Karaganda Technical University NJSC;
- Toraigyrov University NJSC;
- Gumilyov Eurasian National University NJSC;
- Al-Farabi Kazakh National University NJSC;
- Nazarbayev University.

National Contest in Physics and Mathematics

In 2022, Almaty University of Energy and Communications held the Republican Contest in Physics and Mathematics with the support of Samruk-Energy JSC. More than 60 students from nine technical universities of the country, as well as future applicants, took part in the Contest. University students competed in two disciplines: electric power industry and thermal power engineering. Graduation students demonstrated their knowledge in physics and mathematics. Scholarships were paid to the winners of the Contest in accordance with the Regulations on the Republican Contest in Physics and Mathematics among future power engineers[23].

Corporate culture and internal communications

One of the Company's priorities is to introduce high ethical standards and build an effective corporate culture.

THE MAIN VALUES LYING AT THE CORE OF SAMRUK-ENERGY'S CORPORATE CULTURE

In 2022, we conducted a corporate training Culture of recognition and gratitude for both managers (CEO-1, CEO-2) and specialists (CEO-3) to strengthen the Company's corporate values.

This training helped the Company's employees master the techniques of gratitude and positive feedback (motivating, developing). They identified areas for development in terms of non-material motivation of employees through a culture of recognition and gratitude. They also developed common solutions and possible tools / techniques for building the culture of recognition and gratitude in the Company and in their teams.

MAIN COMMUNICATION CHANNELS:

The Company posts news on social networking pages, as well as information about projects and initiatives in the Group's social policy.

[23] Minutes of the Samruk-Energy Management Board No. 14 dd. 15 October 2015

Corporate volunteering

To increase employee engagement, moral satisfaction from doing good deeds, and strengthen the team, we actively develop and support various corporate volunteer programmes.

Key events within corporate volunteering in 2022:

- environmental campaign for garbage collection;
- assistance to the Ekibastuz residents in the emergency situation, when an accident took place at the thermal power plant. The Company's volunteers helped people not to freeze by providing them with heaters, hot food and warm clothes. Our energy specialists helped to eliminate the accident at the city thermal power plant;
- charity event Wish Tree for children with cancer;
- charity chess tournament;
- Jas Energy Youth Council arranged a Book Club and together with the Company's Ombudsman held the campaign Let's Get the Children to School.

Plans for 2023 and a medium term

Following the 2022-2031 Development Strategy, we aim at becoming the key and most attractive employer in the regions of operation. Our core priority areas in terms of social development as part of the ESG principles implementation will be:

- increasing the level of social responsibility and following the principles of the UN Global Compact;
- implementing high ethical standards, development of a value system and building a corporate culture based on trust, investment in human capital and professional development;
- implementing high ethical standards, development of a value system and building a corporate culture based on trust, investment in human capital and professional development);
- social security (prevention of discrimination, violations of human rights, observance of equal rights and opportunities);
- adhering to the principles of gender equality (increasing the number of women among employees and in the personnel reserve, ensuring the optimal number of women in management positions);
- controlling personnel turnover, retention of internal talents and attraction of highly professional personnel (talent management, development of internal competencies)
- developing HR-branding, including the introduction of EVP approach and approval of the Roadmap for the EVP formation at Samruk-Energy JSC;
- improving the occupational health and safety management system and increasing its effectiveness (transparency of reports on implemented incidents to prevent cases with more severe consequences – deaths, accidents), improving the safety culture and the effectiveness of monitoring the labour protection management system through the personnel involvement and using international standards.

Creating a Safe Working Environment

Health and Safety

GRI 2-25, 3-3

In its production activities, Samruk-Energy's main priority is strict compliance with rules and regulations of occupational safety and ensuring safe working conditions for personnel and contractors. We conduct our business in accordance with the requirements of the legislation of Kazakhstan and our voluntary commitments to ISO 45001.

Samruk-Energy strives to eliminate accidents and emergencies and consistently works to ensure safe working conditions, promote safety culture and healthy lifestyle principles, and introduce new advanced technologies.

Samruk-Energy goals in H&S area include:

- enhancing operational efficiency with continuous improvement of the corporate management system and its processes;
- complying with all applicable regulations and requirements for effective H&S management in accordance with legislation, international standards and global best practices;
- ensuring a safe and favourable working environment, eliminating hazards and reducing the risks of occupational hazards and harmful factors to the health of employees and stakeholders, preventing and eliminating any possible causes;
- using modern equipment, new machinery and technology, collective and personal protective gear;
- consulting with personnel and ensuring their involvement in H&S activities.

During the reporting period, the Company continued to implement its H&S strategy and objectives. It also identified the need to review its strategy/policy. The Company developed the HSE Management Plan for 2022-2023 as a motivational key performance indicator for the Company's executives.

In accordance to the Plan, all subsidiaries and affiliates conducted activities to achieve zero occupational injury, implement individual accountability system, and develop Mitigation Actions Roadmap and Action Plan. They also implemented different organisational and preventive measures. In 2022, the completion rate of all planned activities was 100%.

The focus areas of Samruk-Energy to reduce occupational injuries and improve working conditions are as follows:

H&S management system improvement and efficiency increase (transparency of reports on incidents to prevent more severe cases (fatalities, accidents)

safety culture improvement through employee engagement in the H&S management system and more efficient monitoring of the H&S management system using international standards

The principles and rules of the Samruk-Energy policy on the reduction of occupational injuries and improvement of working conditions are binding on all employees and contractors.

Health and Safety Management System

GRI 403-1, 403-3, 403-8, GRI 12: Coal Sector: 12.14.2, 12.14.4, 12.14.9

Samruk-Energy H&S management system covers 100% of employees of Samruk-Energy and its contractors. The system is based on the applicable legal requirements of Kazakhstan, the principles of Samruk-Energy in the field of occupational health and safety and some other corporate documents.

The main regulatory documents defining the Company's principles and rules in the field of occupational health and safety are:

- Samruk-Energy HSE Policy;
- Samruk-Energy Development Strategy for 2022–2031;
- Occupational Health and Safety Risk Assessment Standard;
- Motivation of Personnel for Safe Behaviour Standard;
- Rules for reporting accidents.

On 15 December 2022, the Company's Management Board approved a corporate standard on occupational safety management for Samruk-Kazyna. The document is reviewed by the Management Board of Samruk-Energy.

H&S management is in place at all levels of the Company.

SAMRUK-ENERGY OCCUPATIONAL SAFETY DATA

Indicator	Figures*
Number of employees in the production company central office/headquarters responsible for:	3
occupational health	3
occupational safety	-
fire safety	-
and other areas	-
Number of employees in subsidiaries and affiliates responsible for:	119
occupational health	78
occupational safety	18.5
fire safety	13.5
and other areas	11
Ratio of H&S employees to 1 Company employee	Total headcount – 16,802, number of occupational safety employees – 105. Ratio of H&S employees to 1 Company employee is 160.

* Note. Employees responsible for environmental health not included

The HSE Managing Director coordinates the overall improvement of the occupational safety system in the Company and its subsidiaries and affiliates. The HSE Managing Director reports directly to the Chairman of the Company's Management Board.

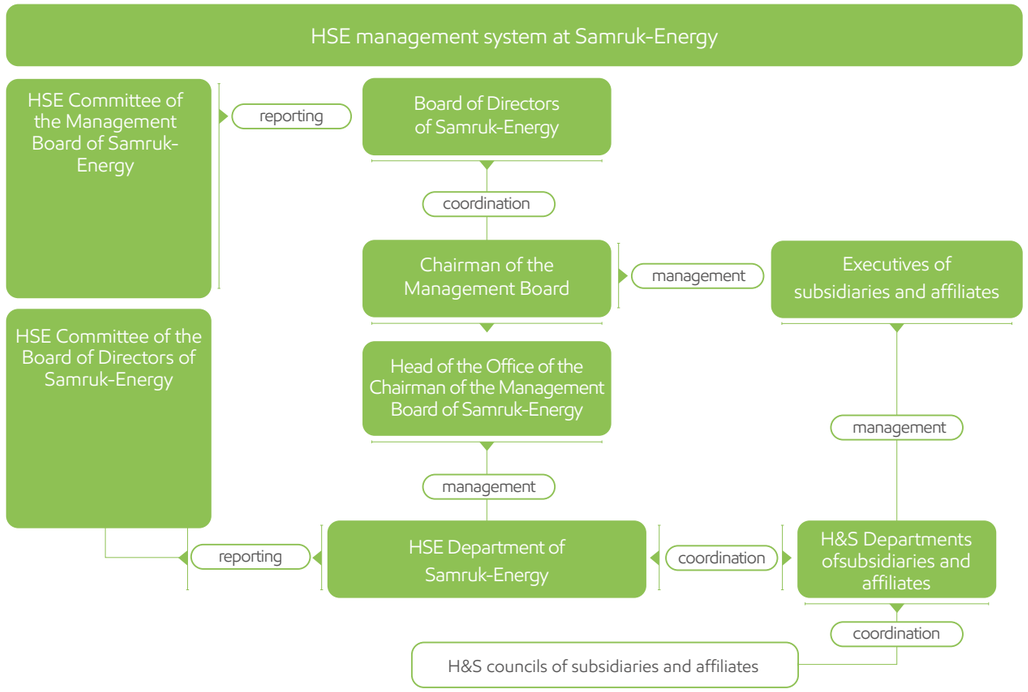
The HSE Department supervised by the HSE Managing Director is responsible for the prevention of HSE rules and regulations violations, incidents response, and occupational safety risk monitoring, analysis and control. H&S departments within subsidiaries and affiliates report to their executives. To maintain effectiveness and timely implementation of necessary changes to H&S management system, the Company continuously analyses the qualification structure of H&S departments within the Company's subsidiaries and affiliates.

Under the leadership of the Chairman of the Management Board, with the participation of CEOs and executives of subsidiaries, quarterly meetings are held to improve safety culture and prevent accidents and injuries.

The HSE committees ensure in-depth and qualitative elaboration of H&S issues and monitor the effectiveness of measures implementation. Based on data analysis the Board of Directors and the Management Board review and approve the Occupational Safety and Risk Management reports. The Committees are committed to respecting confidentiality.

During the reporting period, each of the Committees held four meetings. Among other things, they reviewed quarterly reports on H&S and occupational injuries.

All Samruk-Energy companies have established H&S councils. On a parity basis, they consist of employer and staff representatives, including engineering H&S inspectors. In 2022, the H&S councils held 104 meetings on occupational safety with the participation of staff representatives.



H&S risk assessment and performance

GRI 403-2, GRI 12: Coal Sector: 12.14.3

H&S risk management is one of the principles and an integral part of H&S management. It is also an integral part of the corporate risk management system. The Company has implemented the HSE Assessment Standard, which regulates the identification and assessment of risks and hazards to life and health of personnel.

Risk identification and assessment algorithm

1. Identifying sources of hazards
2. Selecting experts for risk identification and assessment commission
3. Approving sources of hazards and members of the commission
4. Identifying and assessing risks
5. Aligning the conducted risk assessment
6. Developing measures to reduce unacceptable risk levels and control acceptable risk levels
7. Aligning the developed measures
8. Approving the risk passport

Every employee of the Company is part of the incident identification process. Such events can be reported by employees through existing communication channels or directly to the line manager. All identified incidents are investigated and the required measures are taken.

Samruk-Energy develops its corporate culture and does its utmost to raise the level of risk management competencies of its employees. Our employees may suspend or stop work if the workplace does not comply with H&S regulations and/or a work situation arises which could lead to injury and/or health aggravation.

To motivate and engage staff in H&S programmes, the Company encourages the proactivity of employees to improve safety in the workplace. Samruk-Energy has implemented a monetary motivation/incentive programme based on the Motivation of Personnel for Safe Behaviour Standard. It gives employees an opportunity to report work-related hazards and dangerous situations. During the reporting period, 816 employees were rewarded.

To assess and prevent potential H&S risks, the Company has launched scheduled and unscheduled H&S compliance audits. In the reporting period, the production company central office/headquarters held 12 scheduled and 5 unscheduled H&S inspections at subsidiaries and affiliates/branches. The inspections identified 300 non-compliances. 252 non-compliances were eliminated. 1,338 internal audits took place in subsidiaries and affiliates for compliance with occupational safety requirements. 6,031 non-compliances were identified, of which 5,910 were eliminated. Public authorities held 39 occupational safety audits of the Company's facilities. The audits covered the areas of health, fire and occupational safety, and sanitary and epidemiological conditions. 463 non-compliances were identified, 387 were eliminated. Corrective action plans have been developed following the inspections.

Investigation of risk incidents

GRI 403-2, GRI 12: Coal Sector: 12.14.3

The above documents guide the procedures for investigating accidents and incidents at the Company's facilities. Samruk-Energy promptly provides information regarding each lost time accident in the workplace to the authorised government agency. In case of group accidents or accidents with a severe injury (fatality), the Company is obliged to conduct a special investigation with the involvement of a governmental H&S inspector as required by the laws of Kazakhstan.

The Company also conducts internal investigations of all accidents to reveal the root causes using the "Why Five" and "Why Tree" methods. The Chairman of the Board and executives of subsidiaries and affiliates quarterly review the results of internal investigations. All subsidiaries and affiliates are informed of the results of their investigations in the format of information bulletins, quarterly meetings and injury retrospectives. They detail the accidents that have occurred, their causes and the measures taken by the Company.

To investigate work-related incidents, including the processes for identifying hazards and assessing incident-related risks, determining corrective actions using a hierarchy of controls, and identifying improvements required in the Company's H&S management system, the Company has implemented the Incident Reporting and Investigation Standard.

Investing in health and safety

H&S improvement requires both a systematic approach and investment. The high level of investment in H&S area articulates our responsible attitude to safeguarding the lives and health of our employees.

In 2022, the Company spent KZT 3.789 billion on H&S activities.

FINANCING H&S ACTIVITIES, KZT BILLION

Indicator	2020	2021	2022
Funds spent to meet H&S requirements	3.126	4.336	3.789

Providing employees with protective equipment at workplace

The Company is working systematically to improve employee safety and to promote a safe working culture. Samruk-Energy provides personal protective equipment and workware to its employees.

In 2022, KZT 860 million is earmarked for the purchase of personal protective equipment.

H&S initiatives and projects

An important component of the Company's activities is the monitoring and implementation of H&S global best practices. This stems from our desire to protect our employees and maximise their safety. For example, in 2022, as part of the Concept for the Unified Automate Incident and Violation Recording System, the Safe Production and Visualisation of Performance Management pilot projects continued. The projects are aimed at reducing occupational injuries and improving the safety culture of employees, as well as raising awareness of H&S issues among senior managers.

The Company continued to implement the SKE 01.01 project "Introduction of a new integrated safety management model" aimed at improving the safety culture and employee involvement in H&S issues, as well as reducing the H&S hazards (LTIFR, LDR) by 30% within three years following project implementation. The new model based on HSE best practices is designed to improve organisation of management system efficiency in the field of injury prevention. It also aims to ensure transition to a risk-based approach and implementation of corporate standards. In 2022, the final stage was implemented at Ekibastuz GRES-1, Ekibastuz GRES-2, Mamakan HPP, Shulbinskaya HPP, First Wind Power Plant, Almaty Power Plants, Alatau Zharyk Company and SGE.

Activities carried out by the Company to improve the H&S efficiency:

- monitoring the employment of staff in hazardous working conditions (workplace assessments, industrial controls)
- monitoring the provision of personal and collective protective equipment
- providing methodological and information assistance to subsidiaries and affiliates
- monitoring the system of transparent recording of occupational accidents
- monitoring the individual responsibility system (safety vouchers)
- supervising leadership behavioural safety audits
- identifying hazards and assessment of risk significance
- developing incentive mechanisms for reporting potentially dangerous incidents
- conducting internal investigations of accidents to identify the root (systemic) causes
- recording and investigating potentially hazardous incidents that did not result in accidents;
- holding workshops at production sites with representatives of departments supervising H&S issues in the Company's subsidiaries and affiliates
- supervising the training of first line managers and H&S officers in IOSH, NEBOSH courses
- developing a Concept for a Unified Automated Incident and Violation Recording System
- holding H&S competitions for all subsidiaries and affiliates

2022 – Year of Occupational Health and Safety

For Samruk-Energy, 2022 was the year of occupational health and safety. All subsidiaries and affiliates held various activities to improve the efficiency of safe production and occupational safety, staff trainings and safe production promotional events.

On 24-25 November, Almaty Power Plants took part in the National Command and Staff Training "Kys-2022". The training was held at the operational centre of the Almaty Emergency Department and in the production departments of Orazbayev CHPP-1, CHPP-3, and ZTK. As part of the training, the Company's personnel practised the scenarios for possible emergencies: extinguishing a fire in a fuel oil tank and a workshop building, evacuating "injured" workers from an 80-metre chimney and an auxiliary building, restoring power lines and providing medical aid to "the injured", search and rescue work by dog handlers in the "collapsed" turbine workshop, emergency recovery work on a gas pipeline, emergency recovery work on a main pipeline.

Ekibastuz GRES-1 held H&S month with a motto "Joining efforts to build a positive culture of occupational health and safety".

Various competitions took place for World Day for Safety and Health at Work:

- Best site (workshop) in occupational health and safety
- Best video
- Best information board for project SKE.01.02.P Safe Production.

Occupational Injuries

GRI 403-2, 403-9, GRI 12: Coal Sector: 12.14.10

Samruk-Energy takes all measures to achieve zero injury goal. Employees report occupational hazards and potential hazardous incidents through the ASPANS platform-based Safe Production automated system using a mobile app or PC, which helps monitor the H&S system at the plant site. The Company has developed the Motivation of Personnel for Safe Behaviour Standard, which defines uniform requirements for the assessment and motivation system for safe behaviour of employees. It encourages employees to have a transparent system for reporting occupational hazards and potential hazardous incidents. The Initiative Reporting Line (Hotline) operates across Samruk-Energy. In accordance with international best practices and to protect the interests of whistleblowers, the Hotline is administered by an independent company. All complaints and appeals received by the Hotline are treated with due professional and confidential consideration. This service guarantees whistleblowers' protection according to the Company's acting Initiative Reporting Policy. Despite the implementation of preventive and corrective measures, the Company recorded 10 work-related accidents in 2022.

Unfortunately, there were fatalities among the Company's employees in 2022. The Company is genuinely saddened by the fact that despite Samruk-Energy's commitment to achieve zero fatalities, four employees died because of accidents. The Company offers its condolences to the families and friends of our colleagues and deeply regrets these irreparable losses.

FREQUENCY OF OCCUPATIONAL INJURIES AMONG SAMRUK-ENERGY PERSONNEL

Indicator	2020	2021	2022
Total number of fatalities	0	0	4
Fatality rate	0	0	0.13
Total number of high-consequence occupational injuries (excluding fatalities)	7	4	4
Frequency rate of high-consequence occupational injuries (excluding fatalities)	0.24	0.13	0.13
Total number of recorded occupational injuries	8	6	10
Occupational injury frequency rate	0.27	0.19	0.3355
Number of hours worked[24]	29,163,679	30,939,340	29,804,062

FREQUENCY RATE OF OCCUPATIONAL INJURIES AMONG NON-FULL-TIME SAMRUK-ENERGY PERSONNEL, BUT WHOSE WORK AND/OR WORKPLACE IS UNDER THE COMPANY'S CONTROL

Indicator	2020	2021	2022
Total number of fatalities	0	0	1
Total number of high-consequence occupational injuries (excluding fatalities)	0	0	2
Total number of recorded occupational injuries	0	0	3

All accidents were thoroughly investigated. Based on investigation results, the Company developed 59 corrective measures to prevent similar accidents in the future. These include, among other things, improving the reliability of equipment, working with personnel, and organisational measures.

Hazardous risks are identified in accordance with the requirements of the Company's HSE Assessment Standard. To have a work permit, authorised persons carry out a workplace safety and hazard analysis and fill in a special form. Annually, the Company establishes a risk register.

According to the risks identified, action plans are developed for the management of significant H&S risks and corrective actions.

[24] The multiplier of 200,000 is calculated as 50 working weeks of 40 hours each for 100 employees.

GRI 3-3, 2-27

INFORMATION ON HAZARD IDENTIFICATION, RISK ASSESSMENT AND ACCIDENT INVESTIGATION BY SAMRUK-ENERGY

Indicator	2021	2022
Number of shutdowns of unsafe works	40	92
Number of fire prevention drills conducted by internal teams	620	650
Number of fire prevention drills conducted with the involvement of public emergency services	7	9
Number of emergency response plan drills conducted	29	30
Number of emergency drills according to the emergency response plan	1,052	1,081
Number of behaviour-based safety observations held by management of the production company (CEO, CEO-1, CEO-2), subsidiaries and affiliates (CEO, Deputy CEO, Director of department/unit, head of business unit)	1,819	3,911
Number of behaviour-based safety observations held by other employees	1,838	3,047
Number of audits held by the headquarters/central office o the production company in subsidiaries and affiliates/branches for compliance with H&S requirements	14	15
Number of non-compliances identified during audits held by the headquarters/central office of the production company in subsidiaries and affiliates/branches for compliance with H&S requirements	225	300
Number of eliminated non-compliances that were identified during audits held by the headquarters/central office of the production company in subsidiaries and affiliates/ branches for compliance with H&S requirements	222	252
Number of internal audits in subsidiaries and affiliates/branches for compliance with H&S requirements	983	1,338
Number of non-compliances identified during internal audits in subsidiaries and affiliates/branches for compliance with H&S requirements	2,503	6,031
Number of inspections carried out by state occupational safety authorities	39	39
Occupational health	5	3
Fire safety	16	20
Occupational safety	4	6
Sanitary and epidemiological condition	14	8
Other	7	11
Number of eliminated non-compliances identified by state occupational safety authorities	784	387
Occupational health	33	19
Fire safety	429	252
Occupational safety	157	46
Sanitary and epidemiological condition	60	24
Other	61	42
Number and amount of paid penalties imposed on the production company by state occupational safety authorities	237,994.405	1,545,063.695
Occupational health	0	0
Fire safety	233,218.755	1,534,450.4
Occupational safety	656.325	765.75
Sanitary and epidemiological condition	3,098.375	9,847.545
Other (please specify)	1,020.95	0

We carefully analyse the structure and causes of occupational injuries. The most dangerous areas in terms of injuries in the Company's operations are the operating platforms and live parts. The causes of the accidents include insufficient hazard identification and risk assessment, falls from height, exposure to moving, flying, rotating objects and parts, personal negligence of the injured, poor work organisation, inadequate supervision of line personnel, and direct violation of H&S regulations.

GRI 403-9

TYPES OF INJURIES AMONG SAMRUK-ENERGY PERSONNEL

Injury	2020	2021	2022
Chemical burn, thermal burn	0	0	1
Bruise	1	2	2
Traumatic amputation	1	0	0
Electrical injuries (thermal burns)	1	0	1
Fractures	1	3	1
Complex injury (fracture, bruise, lacerations of internal organs)	4	1	3
Eye trauma	0	0	1
Traumatic brain injury, concussion of the brain	0	0	1
Total	8	6	10

To reduce the risk of injuries, the Company monitored the corrective action plan developed during the investigation of accidents, and improved the occupational safety system by raising the safety culture of personnel in 2022.

GRI 3-3

Measures to prevent occupational injuries:

- reporting the circumstances and causes of accidents to all employees
- conducting unscheduled briefings for all production personnel
- conducting unscheduled assessment of knowledge of H&S regulations, rules and instructions for employees in the units where the accident occurred
- holding Monthly Safety Days with the participation of senior managers and the development of remedial measures
- conducting comprehensive inspections of equipment, buildings, facilities and workplaces by H&S units, with development of action plans with deadlines and responsible parties
- training, coaching and testing of all operational personnel in accordance with the H&S Training Rules
- holding pre-maintenance seminars at all subsidiaries and affiliates for engineers and technicians from structural units, who are authorised to issue work permits, to be supervisors and operators with practical training on the correct admission of teams to work and the issuance of work permits
- certifying workplaces with regard to working conditions (at least once every five years)
- replacing equipment that has reached the end of its useful life and poses a serious danger to production personnel
- introducing leadership behavioural safety audits
- updating workplace risk map/risk registers, with additional training on hazard identification and risk assessment

Health care

GRI 403-6, 403-10, GRI 12: Coal Sector: 12.14.7, 12.14.11

The main hazards of occupational diseases in the Company's workplace are dust, noise and vibration. They are continuously measured in the workplace.

In 2022, no cases of occupational diseases have been recorded for the Company.

We have carried out laboratory research and workplace certification. We have identified workplaces with harmful and hazardous working conditions and carried out workplace monitoring.

The total number of permanent healthcare staff in the Company's subsidiaries and affiliates is 31. Healthcare staff are also employed by the Company under contracts. The Company's subsidiaries and affiliates and the headquarters annually hold tenders for contracts to insure employees against work-related accidents.

As required by law, expenditures on personnel health care and disease prevention measures are approved annually in the Company's development plan.

LIST OF INFORMATION ON HEALTH PROMOTION AND OCCUPATIONAL DISEASES AMONG SAMRUK-ENERGY EMPLOYEES

Indicator	2021	2022
Number of non-occupational, non-fatal occupational health impairments	13	18
Number of non-occupational fatalities due to ill health	3	1
Number of employees on the "D" register	2,021	2,060
Number of recorded occupational diseases	0	0
Number of employees subject to mandatory regular medical check-ups	14,497	14,679
Number of employees who have passed regular medical check-ups in accordance with the legislation of Kazakhstan	14,282	13,877
Number of employees with voluntary health insurance from the employer	308	310

The Company ensures regular medical check-ups to monitor the health of employees. During the reporting period, 13,877 employees passed a mandatory regular medical check-up. Following its results, employees with chronic diseases had timely treatment and rehabilitation. Employees with a need for restrictions on working conditions were restricted according to the recommendations of the medical panel. Personnel engaged in hazardous work were provided with a nourishing diet, including milk or equivalent foodstuffs. The Company's employees have access to corporate health improvement and spa treatment programmes.

The Company has a plan of recreational activities following regular medical check-up in place. It seeks to:

- arrange follow-up medical check-ups for employees suffering from chronic illnesses to ensure timely treatment and rehabilitation;
- arrange health resort treatment for employees suffering from chronic illnesses as advised by a medical panel;
- refer those who are not occupationally fit for further examinations to ensure restrictions on their working conditions as per the opinion of a medical panel.

In addition to regular medical check-ups, all employees involved in hazardous work, machinery and mechanisms undergo pre- and post-shift medical examinations.

To prevent and mitigate significant adverse work-related health effects, the Company continuously carries out preventive measures aimed at preserving the health of its employees. Samruk-Energy regularly vaccinates its employees. In 2022, the Company continued to implement measures to prevent the spread of COVID-19, among them thermometry and mask regime.

The Company monitors the condition of sick employees using the Ashyq App. To enter public places, employees scan a special QR-code via Ashyq and show it at the entrance. The risk rating indicated in the app shows the employee's revaccination status.

Assessing contractors' H&S systems

GRI 403-8, GRI 12: Coal Sector: 12.14.9

We realise that the involvement of contractors in H&S processes and H&S management system is important to ensure an overall high level of safety.

The main governing document is the Regulation on Contractors' Works on Site, which consolidates the basic requirements for contractors' H&S management systems. In accordance with this document, the Company carries out H&S audits of both potential and existing contractors to identify the main causes of accidents and incidents and poor workplace management.

The H&S management system covers 100% of the contractors' personnel involved in the Company's operations.

The Company has a system of penalties for H&S violations for all contractors. A list of penalties includes termination of cooperation. It is set out in a contractor agreement.

In the reporting period, 39 H&S audits of contractors were held, resulting in 449 non-compliances. The Company imposed 101 fines against contractors for violating H&S requirements for a total of KZT 2.2 million.

Employee informing and training

GRI 403-4, 403-5, GRI 12: Coal Sector: 12.14.5, 12.14.6

The main H&S processes include assessing occupational risks; conducting medical check-ups and examinations of employees; conducting employee training; providing employees with personal protective equipment, etc. Good working conditions are among the basic human rights and fundamental principles of decent work. One of the basic principles of H&S management is the assignment of appropriate responsibility to top and middle management. This implies the effective participation of all employees at all levels of the Company and the assignment of responsibilities to each of them. Employees exercise the right to participate in H&S management both directly and through trade unions.

Samruk-Energy improves the H&S knowledge and skills of its personnel. All categories of employees receive H&S training. All training programmes are designed in accordance with legal requirements, separately for each occupation. They are divided into group and individual programmes.

All the Company's production personnel receive H&S training. Samruk-Energy employees are trained in the following areas:

- occupational safety;
- occupational health;
- fire safety;
- first aid;
- safe driving;
- other professional programmes.

All Company personnel receive a compulsory H&S training for occupations and related professions, with a certificate issued by the training centre or by the Company's own training centre.

In 2022, 22,344 of the Company's employees received the H&S training.

The Company strives to raise employees' awareness of H&S issues on an ongoing basis. The Company utilises the tools such as specially designed briefings, information boards, works councils, safety memos and orders. All personnel are informed about occupational hazards and potential incidents through the Safe Production automated system via a mobile app or PC, allowing them to monitor the functioning of the H&S system on the premises.

H&S TRAINING OF EMPLOYEES

Training	2021	2022
Number of employees trained in occupational safety as required by laws of Kazakhstan	17,671	22,344
occupational health	5,502	7,523
occupational safety	10,341	12,291
fire safety	5,540	4,535
other	3,040	4,237
Number of employees trained in occupational safety outside the requirements of the laws of Kazakhstan	200	236
occupational health	11	82
occupational safety	0	0
fire safety	0	0
other	262	294
Number of employees trained to provide first aid (paramedic) at workplace	60	73
Number of employees trained under the NEBOSH programme	1	7
Number of employees trained under the IOSH programme	4	4
Number of employees trained in defensive driving	0	25

Fire safety

All Samruk-Energy companies have with primary fire extinguishing means: portable and mobile fire extinguishers, fire hydrants, boxes with fire powder (sand), as well as fire resistant fabrics (fire blankets, felt, etc.).

In 2022, there were no cases of significant fire at Samruk-Energy's enterprises.

During scheduled and unscheduled inspections, controlling state authorities, representatives of Samruk-Energy and H&S specialists of all the Company's enterprises monitor the availability of serviceable fire extinguishing equipment.

Samruk-Energy employees regularly receive training and participate in drills. In 2022, internal units conducted 650 fire prevention drills and 9 fire prevention drills involving public emergency services.

Plans for 2023 and a medium term

In 2023, the Company will continue to implement measures aimed at improving the H&S efficiency with continuous improvement of the corporate management system and its processes, including:

- Training on the culture of safety and international H&S standards for production personnel;
- Engagement of top managers into H&S matters through leadership behavioural safety audits;
- Digitalisation of H&S processes, etc.

Contributing to Social and Economic Development

GRI 3-3, GRI 12: Coal Sector: 12.8.1

Samruk-Energy has an important role to play in the country's infrastructure as it provides electricity to about 19 million consumers. We offer employment opportunities to locals by creating and maintaining more than 17,000 jobs across Kazakhstan. We also contribute to the economic development of the regions by entering into fair partnerships with our suppliers and contractors.

Our priority is to improve the quality of life for local residents and support social initiatives in all regions of our presence. The Company's social strategy is focused on creating the environment and conditions for locals to unleash their potential and play an active role in the economic and social growth. We invest in infrastructure and expertise to address current challenges and attract the required resources. Using cleaner energy from renewable sources, preserving biological diversity and reclaiming land help reduce the adverse environmental impact on the regions.

Samruk-Energy's Development Strategy for 2022-2031 lies at the core of our social policy where the consistent application of environmental, social and management principles is a key priority of our development.

The Department of Corporate Governance and Sustainable Development, the Department of Human Resources Management, and all structural units within their core activities are responsible for managing external social policy and engaging with local communities.

The key regulatory documents outlining the Company's social strategy include the Sustainable Development Guidelines, the Human Resources Policy, the Health and Safety Policy, the Corporate Governance Code, the Corporate Management System Policy and other corporate documents.

We build a constructive dialogue with our stakeholders at all stages of the Company's projects, take into account and respect the interests of all stakeholders at all levels of our operations, thus sharing the key aspects of the "precautionary" principle. Our Community Engagement Policy sets out our approaches to identifying stakeholders, providing feedback mechanisms, and disclosing information.

For more, please read Stakeholder Engagement section.

The main mechanisms for engagement with local communities include:

- Identifying and analysing stakeholders who are impacted (will be impacted) directly or indirectly or may be interested.
- Planning, with procedures determined at all stages of preparation and implementation, holding consultations.
- Disclosing information to accept and understand risks/impacts, benefits, as well as monitoring and reporting.
- Grievance mechanisms.

The nature and regularity of stakeholder engagement vary depending on the project's nature/scope, risks/potential negative consequences on the impacted communities, vulnerable environments, and the degree of public interest. We hold consultations in the form of public hearings with local residents regarding new projects, prepare corresponding materials in compliance with the laws, and cooperate with local authorities. Any disagreements are resolved in accordance with the law, and the overall project assessment takes account of the interests of local residents.

Social and economic contribution

In the reporting period, we regularly organised activities and events to ensure a long-term productive relationship with the regions of presence and strengthen our image as a socially responsible company.

We contribute significantly to the well-being as well as social and economic development of the regions of operations by:

- paying taxes and thus bringing significant revenues to the regional budgets;
- nvesting in local communities through donations to charity organisations, NGOs and research institutions, maintaining public infrastructure, direct funding of social programmes, cultural and educational events;
- providing jobs for local residents.

GRI 203-1, GRI 12: Coal Sector: 12.8.4

In 2022, the Company financed activities and projects to promote local social and economic development for a total of KZT 46 million.

Economic sustainability of regions

GRI 201-1, GRI 12: Coal Sector: 12.8.2

Samruk-Energy creates economic value for its employees and local communities and, as a socially responsible company, we support the well-being of the country by paying taxes, creating jobs and developing infrastructure.

At the end of 2022, the created economic value was KZT 519 billion, the distributed economic value made 419 billion tenge, and the undistributed economic value amounted to 102 billion tenge. According to the Development Plan for 2023-2027, we are going to increase the created and distributed economic value in 2023-2024.

CREATED AND DISTRIBUTED ECONOMIC VALUE, KZT MILLION

Indicator	2020 fact	2021 fact	2022 fact	2023 projection	2024 projection
Created economic value	**382,199**	**465,806**	**520,350**	**594,777**	**684,955**
Sales revenue	380,990	463,690	517,254	591,385	683,767
Remuneration (per cent)	1,209	2,116	3,096	3,391	1,188
Distributed economic value	**312,894**	**363,943**	**407,694**	**474,684**	**568,914**
Operating costs	194,386	228,733	246,973	311,972	379,770
Salary and social expenditure	43,700	50,327	63,625	66,683	70,584
Payments to capital providers	32,571	32,702	30,453	27,755	38,437
Payments to government	42,152	52,149	66,518	68,019	79,867
Undistributed economic value	**69,305**	**101,862**	**112,656**	**120,093**	**116,040**

Tax obligations

We contribute to the development of the country's regions as we are a big taxpayer that strictly complies with the applicable taxation laws of Kazakhstan.

In 2022, the Company paid KZT 54,681 million in taxes, including 27% paid to local budgets.

GRI 207-1, GRI 12: Coal Sector: 12.21.4

Samruk-Energy[25] has the Tax Accounting Policy in place to ensure compliance of tax accounting with the principles of commitment, transparency and consistency of the taxation system. The Policy builds on the Tax Code of the Republic of Kazakhstan and domestic taxation laws, and complies with the international financial reporting standards.

Samruk-Energy's tax policy is approved by the Management Board. The Management Board of the Company can make decisions to amend or supplement the Tax Policy. The senior representatives of structural units of the financial and economic departments can initiate changes. The Deputy Chairman of the Board for Finance and Economics monitors the implementation of the requirements. The Director of the Financial Accounting

[25] Samruk-Energy's Tax Accounting Policy came into effect on 1 January 2018 under the Law of the Republic of Kazakhstan On Enforcement of the Code of the Republic of Kazakhstan 'On Taxes and Other Obligatory Payments to the Budgets' No. 121-VI ZRK dd. 25 December 2017.

Department, Chief Accountant, is responsible for management and compliance with the requirements, as well as for conformity and reliability of the information.

Changes in the Company's Tax Policy can be initiated in the following cases: if changes made to the Tax Code affect changes in tax accounting, and if these changes lead to a more reliable presentation of events and business transactions in the Company's tax reporting.

The Company's tax policy is consistent with the overall business strategy and approaches to corporate governance and risk management.

Our approach to taxation is to fully comply with the applicable tax laws, agreements, regulations and other taxation instructions, and ensure the effective control of tax accounting and tax reporting.

The Company is focused on building a robust culture to support and manage risks across all business units. We regularly review risk management policies and procedures to take account of new developments and implement best practices.

The ongoing changes in international and national tax laws, as well as variable practical application of these laws in courts, may result in tax disputes and potential additional tax liabilities. Therefore, the Company continuously monitors and analyses national and international tax laws, case laws, guidelines and practices. We regularly assess our tax positions to ensure they are properly disclosed in the financial statements.

We maintain tax accounting records on the basis of accounting data provided by the Department of Financial and Tax Accounting in accordance with the following laws, regulations and internal documents:

- the Code of the Republic of Kazakhstan On Taxes and Other Obligatory Payments to the Budgets;
- the Law of the Republic of Kazakhstan On Accounting and Financial Reporting;
- International financial reporting standards;
- the standard chart of accounts approved by the order of the Minister of Finance of the Republic of Kazakhstan;
- Corporate accounting policy of the Company;
- Corporate chart of accounts of the Company;
- Guidelines, instructions, internal regulations and other documents on maintenance of accounting records.

Our tax policy has a low tolerance to tax risk – we strive to minimise the risk of disputes with the tax authorities by being open and transparent about our tax operations. We seek to reduce the level of tax risk arising from our operations as far as is reasonably practicable by ensuring that we pay particular attention to all processes that can materially affect our compliance with tax obligations.

Our approach is focused on managing tax risks and tax payments in accordance with applicable laws and the highest long-term expectations of shareholders, with consideration to operational, economic and reputational factors. Maintaining an open dialogue with the tax authorities at various levels is central to our Tax Policy, helping us avoid adverse tax consequences.

Stakeholder engagement on tax issues

GRI 207-3, GRI 12: Coal Sector: 12.21.6

The Company maintains a regular dialogue with stakeholders on tax-related issues. We stand for transparent engagement and open communication with the tax authorities, and provide the required reporting on time and in compliance with applicable laws.

We worked with the government authorities with regard to the tax risks that arose during Horizontal Monitoring project implemented by the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan.

We asked to clarify if it was correct to assign the equipment for generating and transforming electrical energy to the Equipment Group in accordance with the Classifier of Fixed Assets, and received a positive opinion.

In addition, we engage in discussions to amend the Tax Code on VAT and CIT to be withheld at the source of payment, and our proposals have been submitted for discussion and inclusion in the New Tax Code.

We do not use any tax avoidance schemes in our operations.

YOU CAN REPORT ANY ACTUAL AND/OR ALLEGED VIOLATION OF TAX LAWS BY CONTACTING THE

hotline	via email	WhatsApp	phone	use the feedback form on our website
24/7		**8 771 191 88 16**	**8 800 080 47 47**	

Tax incentives

Tax incentives are important in attracting investment to priority sectors and fostering economic growth. Therefore, Samruk-Energy regularly analyses if the tax incentives provided by the law can be applied to the investment projects that we and our subsidiaries and affiliates roll out.

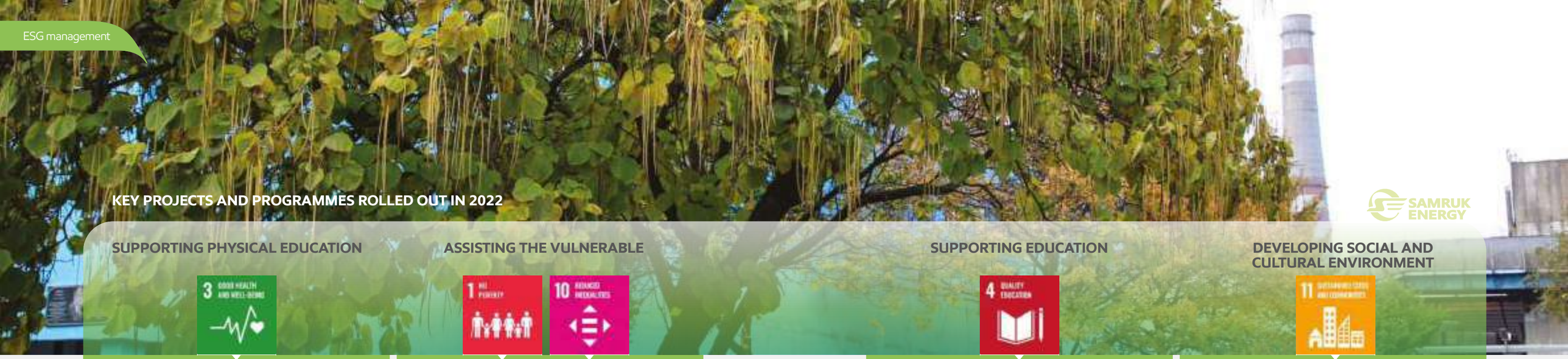
In 2012-2021, Moynak HPP had a preference for the exemption of corporate income tax in line with the investment agreement[26] and the Decree of the Government of the Republic of Kazakhstan[27].

Developing local communities

GRI 413-1, GRI 12: Coal Sector: 12.9.2

We help implement various projects and programmes to promote social and economic development of the regions of operations and engage local communities. We annually develop programmes and initiatives that lie at the core of our business. They take account of the needs and priorities of our stakeholders and disclose our goals in the reporting period, including the UN Sustainable Development Goals.

[26] Investment agreement No. 0622-12-2005 dated 31 December 2005.
[27] Decree of the Government of the Republic of Kazakhstan On Determining the Duration of Investment Tax Incentives No. 1239 dated 13 December 2005.



KEY PROJECTS AND PROGRAMMES ROLLED OUT IN 2022

SUPPORTING PHYSICAL EDUCATION

Developing physical education and supporting sports in the regions of our presence is one of the priorities of our social policy that we implement on a long-term basis. The sports and recreation centre based in Solnechny village in the premises of Ekibastuz GRES-2 Power Station operates on a permanent basis. The facility is open to the station employees and local residents. The centre has a swimming pool where coaches offer free swimming lessons for different age groups.

ASSISTING THE VULNERABLE

The Company is committed to supporting vulnerable social groups and developing the skills and talents of children and youth. In the reporting period, we provided financial assistance to retirees of GRES-2 residing at Solnechny village and Ekibastuz on the Day of Older Persons, and organised a special event for retired power engineers of GRES-2.

We held the We Are Together campaign to help pensioners clear snow from the yards, organise New Year celebrations and give presents to lonely pensioners and children from socially vulnerable families of Solnechny village.

In 2022, the Company held various entertainment and educational events for disabled children, children from large families, and orphans. In particular, kids benefited from cooking master classes, excursions, school plays, trips to the skating rink and bowling alley, free classes at an art school, etc. We also ran various sports competitions and a track and field race, held the State Symbols and Nicotine for Vitamin campaigns, and organised a charity fair and excursions to the Zhusup ata mausoleum.

Bogatyr Komir launched and implemented the Boxes of Goodness initiative – food and other assistance to low-income, disadvantaged and large families, pensioners, and people who found themselves left in the lurch. As part of our social initiatives, Almaty Power Plants and Energy Local Trade Union provided assistance to 280 large and low-income families.

The youth and Do Good initiative group supported by Amanat political party, Ekibastuz GRES-2 Power Station and the trade union organised concerts for nursing homes for the elderly and disabled in Pavlodar Region. Moreover, the Company joined efforts with the local veteran club's folk choir to run a month-long campaign for local amateurs to perform at concerts out in the villages of Ekibastuz District.

SUPPORTING EDUCATION

Supported by Ekibastuz GRES-2, we set up an IT room at Kainar educational centre to improve children's and adults' PC skills.

The Company arranged several field trips for students of Almaty State College of Energy and Electronic Technologies and students of the college at Almaty University of Power Engineering and Telecommunications.

Our employees were engaged in the Road to School campaign launched by the Foundation of Samruk-Kazyna in concert with the Committee for Children Rights Protection of the Ministry of Education of the Republic of Kazakhstan. The campaign sought to provide assistance to school children from low-income families. The full set of stationery was purchased to prepare 12,000 backpacks for first graders from ten regions of the country.

DEVELOPING SOCIAL AND CULTURAL ENVIRONMENT

The Company provides assistance with constructing, reconstructing, repairing and fitting out urban social infrastructure facilities as well as landscaping.

To comply with the Memorandum on Cooperation and Social Development signed by Bogatyr Komir and Ekibastuz local council, the Company allocated funds to buy materials for the construction of a hotel on the premises of Isabek Ishan Khazret mausoleum based at Kyldykol, Ekibastuz rural area. Also, the Company used in-house resources to produce and install ramps and handrails in Ekibastuz District to ensure comfortable travel for disabled people.

As part of the social partnership deal, Ekibastuz GRES-2 briefed the local council of Solnechny village on SK-Trust Corporate Foundation granting social assistance to NGOs. Then, it asked SK-Trust to consider providing sponsorship to keep on building a mosque in Ushterek village and look at the proposals to implement social projects. In addition, we joined efforts with the local council of Solnechny village to gather and clean garbage, improve and maintain the area of residential buildings, parks, squares, the mosque, and the orthodox church. Ekibastuz GRES-2 regularly helps the village council, providing vehicles and equipment to remove household waste, landscaping common areas, repairing fences and children's playgrounds.

Taking Care of Our Plant

Environmental management

As the largest diversified holding company committed to sustainable development principles, Samruk-Energy realises the importance of the environmental situation in its operating regions. The Company operates under the applicable laws of Kazakhstan, sustainable development concept, voluntary commitments to ISO 14001 and global best practices. We also strive to comply with international environmental regulations and commitments and consistently implement energy, material, and environmental protection measures.

The Company has several fundamental documents setting the Company's principles and rules in the field of environmental protection:

- Corporate Management System Policy
- Samruk-Energy HSE Policy
- Environmental Management Standard
- Environmental Emergency and Response Manual

COMPANY'S ESG PRIORITIES IN THE FIELD OF ENVIRONMENTAL PROTECTION:

Environmental sustainability, which includes the search for and implementation of environmentally and economically superior technologies

Improvements in bulky waste and consumption waste management

reduction of impact on fauna and flora by improving the activities under environmental impact assessment

Improvement of the environmental management system

Implementation of the energy saving and energy efficiency programme

Minimisation of impacts on water protection, including reduction of freshwater consumption, increase in the share of reused and recycled water, reduction of wastewater discharges and concentrations of harmful substances in waste water

Samruk-Energy economy decarbonisation, including increasing the share of electricity generation by RES and HPPs, implementing RES projects, boosting support for clean technologies, gasification of coal departments of the Almaty power complex

Samruk-Energy principles and rules in the field of environmental protection apply to all Company's employees, suppliers of goods, works and services, and contractors.

Environmental protection issues are managed at all Company levels. Samruk-Energy Operational Excellence Department coordinates environmental protection domain at the headquarters level. The Company's subsidiaries and affiliates have designated environmental management units, which also ensure that contractors are properly informed and comply with the Company's environmental requirements.

The Company's management constantly monitors the environmental situation. The Operational Excellence Department prepares a daily report on environmental management issues for the Chairman of the Management Board and the members of the Management Board, as part of staff and operational meetings. Quarterly environmental reports are submitted to the members of the HSE Committee and the Board of Directors of Samruk-Energy.

an environmental management system as an integral part of its corporate governance system and an essential part of its non-financial risk management system. The Environmental Emergency and Response Manual has been approved.

The environmental management system of Samruk-Energy is continuously assessed for compliance with the best international practices. Independent international consultants help with its step-by-step improvement. The Environmental Emergency and Response Manual is adjusted following disasters and emergencies at subsidiaries and affiliates or in the areas where they operate. Adjustments are also made in identifying more contemporary and effective emergency and response activities.

Selected employee projects and initiatives in the field of environmental protection

- In 2022, an annual tree planting was held. A total of 3,915 trees have been planted in the Kapshagay HPP and TPP-2 areas. As part of the greening programme for the sanitary protection zone of Bogatyr Komir for the period 2022-2026, 3,179 trees and bushes have been planted on an area of 110,000 ha. To minimise the negative impact on the Solnechny village, Ekibastuz GRES-2 planted 2,000 trees.
- As part of the project "Bring the Batteries — Save the Planet!" and "Save the Green Planet", Almaty Power Plants employees collected 51 kg of waste batteries and 11 tonnes of scrap paper. Bogatyr Komir staff collected 18,350 kg of scrap paper.
- As part of Astana Day celebration, the Group's staff took an active part in a nationwide campaign "No Litter in Nature" to clean up the foothills of the Zailiysky Alatau. The main message of the campaign was to draw public attention to the importance of growing an environmental culture and cultivating the responsible attitude to the environment.
- For the World Environment Day, the Company launched an environmental campaign "Plogging with GRES-2: Doing Sports and Caring for Nature".
- In support of the World Cleanup Day global campaign, the "Birge Taza Kazakhstan" and "TazaLike" projects for landscaping and rubbish collection were implemented. The global annual Earth Hour and Eco-Challenge campaign was held among Samruk-Kazyna Group of Companies.

Environmental protection costs

Aware of its responsibility towards present and future generations for the negative environmental impact of production activities by its subsidiaries and affiliates, the Company invests a lot in environmental protection activities.

Samruk-Energy invested KZT 7.1 billion in environmental protection in 2022.

According to Kazakh legislation, environmental inspections are mandatory to prevent damage to the environment.

In 2022, scheduled inspections of compliance with Kazakhstan environmental legislation were carried out at the Company's main power facilities — Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir.

The inspections identified the following violations:

- carrying out microsphere mining operations without a positive opinion from the state environmental impact assessment authority;
- incorrect data in the PEC report;
- dusting of ash dumps;
- exceeding permissible emission limits;
- no hydro-dusting system;
- mixing of hazardous and non-hazardous waste, no labelling of waste.

The detected violations were eliminated within the deadlines set by the environmental authorities. Repeated unscheduled inspections confirmed the elimination of violations.

The Company has also paid about KZT 7.5 billion in regulatory emission charges (tax).

Environmental compliance and reporting

The Environmental Code of Kazakhstan classifies the main production activities of Samruk-Energy subsidiaries and affiliates as special nature management regulated by relevant requirements and regulations. Each Company's subsidiary and affiliate is responsible for its environmental impact within the framework of the environmental permit obtained and other special nature management conditions.

The Company makes every effort to comply with all applicable environmental regulations and the expectations of its stakeholders. For example, before launching new projects and facilities, Samruk-Energy carries out a mandatory Environmental Impact Assessment (EIA). It includes a mandatory information campaign on planned activities and possible environmental impact to identify and consider opinions of all stakeholders. During the reporting period, the Company held 14 public hearings as part of the Environmental Impact Assessment for its projects.

Air emissions

GRI 3-3, GRI 12: Coal Sector: 12.1.1

The production activities of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants operating on fossil fuels and the mining company Bogatyr Komir lead to air emissions. Therefore, the reduction of air pollution is one of Samruk-Energy's main priorities in the field of environmental protection.

To minimise air emissions, the Company regularly checks the efficiency of its equipment and takes relevant measures, introduces new technological solutions.

As part of production monitoring, Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir continuously monitor technical and technological indicators of equipment that affect the volume of emissions, discharges, and waste generation.

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir have identified environmental aspects, assessed environmental risks and opportunities related to environmental aspects, developed Environmental Risk Maps and Environmental Risk Management Plans.

Analysis of actual technical and environmental performance in comparison with normative and similar periods of previous years and proofs of environmental risks are provided on a quarterly basis to the management of energy facilities and to senior management of the Company. This enables effective decision making and implementation of corrective measures.

In 2022, the Company carried out all scheduled environmental protection activities. Among them there were air, water, land, flora and fauna protection and biodiversity conservation activities. All activities had a positive impact. They enabled to reduce emissions of pollutants, greenhouse gases and waste, and increase the amount of water recycling, thereby reduce the burden on the environment.

There is also ongoing industrial environmental monitoring of compliance with maximum permissible emissions. The Company submits regular reports to the regulatory authority. Air quality is regularly monitored to ensure compliance with all applicable regulations in accordance with the Industrial Environmental Control Programme. Each facility has its own Programme.

The environmental regulations of Kazakhstan impose strict air emissions limits. The volumes of pollutants shall be in line with production processes as well as developed designs and standards agreed with authorised state bodies. These emissions shall be regulated by special permits.

To meet Kazakhstan's environmental laws and reduce environmental impact, the Company is looking for new, modern, and efficient technologies to reduce the impact on the natural environment and humans. In 2022, Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants examined modern technologies for their applicability to operating facilities. Following examination results, the selected technologies will be applied to subsidiaries and affiliates.

Emission monitoring includes watching emissions at the source to keep track of production losses, the amount and quality of emissions, and their changes.

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir are also responsible for measuring the emissions of harmful substances from flue gases, such as nitrogen oxides, sulphur dioxide, carbon monoxide, and dust. The measurements are made in accordance with the Production Monitoring Schedule of specialized accredited laboratories. A special software calculates the volume of major equipment emissions that go into air with flue gases. Based on the information, a Report on Air Protection is prepared (Form No. 2-ТП (Air). The Agency for Statistics in Kazakhstan establishes the frequency of the report.

When designing new facilities, the Company considers several factors to further reduce the Group's impact on air. In the case of the Ekibastuz plants of national importance, the proximity of the fuel source was ensured to minimise the negative impact from coal transportation. The appropriate height of the chimneys also ensured optimal dispersion conditions for pollutants given the topography, wind rose, and distance from residential areas.

The Company is undertaking modernisation measures on existing equipment, including initiatives to reduce pollutant emissions. In 2022, the Company converted to gas CHPP-1 and ZTK, which are located in the urban agglomeration. Gasification of CHPP-2 and CHPP-3 is at the design stage.

The maximum permissible air emissions at Samruk-Energy reached 358,080 tonnes in 2022.

There were no significant changes in the structure of emissions compared to the previous reporting period.

GRI 305-7, GRI 12: Coal Sector: 12.4.2

The main sources of pollutants in the Company are boiler units, oil and fuel oil farms, and ash dumps located within fuel stations and boiler plants (Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir). The key pollutants (markers) typical of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir are formed during fuel combustion and include:

- nitrogen oxides (a gaseous substances from coal, gas and fuel oil combustion, auxiliary sources and vehicles);
- sulphur dioxide (a gaseous substance from coal and fuel oil combustion, auxiliary sources and vehicles);
- fuel oil ash (a solid substance from oil fuel combustion);
- ash/dust (solid substances from coal and fuel oil combustion, auxiliary sources and vehicles, ash dumps);
- carbon monoxide (a gaseous substance from coal, gas and fuel oil combustion, auxiliary sources and vehicles);
- VOCs — volatile organic compounds (chemical compounds emitted as gases from solid or liquid substances and generated by auxiliary sources);
- POCs — persistent organic compounds are not emitted by Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir.

Measures taken to reduce greenhouse gas emissions in the atmosphere in 2022:

- repairs and adjustments for main and auxiliary equipment;
- fuel saving;
- operational and technical measures to improve energy efficiency;
- reduced energy consumption for own needs.

Regular monitoring of gaseous and particulate emissions, production data such as fuel consumption, dry gas volume, concentration of hazardous substances in flue gases is used to calculate emissions of marker pollutants according to the following approved methodologies:

- Methodology for Determining Air Pollutant Emissions for Thermal Power Plants and Boilers (Annex 3 to the Order).
- Methodology for Calculating Emissions of Air Pollutants from Cement Production Plants (Annex 6 to the Order).
- Methodology for Calculating Air Pollutant Emissions from Category 4 Facilities (Annex 7 to the Order).
- Methodology for Calculating Emission Standards from Non-Organised Sources (Annex 8 to the Order) and other national methodologies available on the official website of the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan. www.gov.kz/memleket/entities/ecogeo

For monitoring purposes, Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir apply laboratory and calculation methods. These methods are based on reporting data on fuel consumption records, laboratory analysis of fuel chemical composition and pollutant concentrations in flue gases. Pollutant volumes are calculated using approved methodologies. The monitoring of pollutants is conducted as part of industrial monitoring conducted by a subsidiary or affiliate, and industrial environmental control is conducted by a third-party accredited organisation. Industrial monitoring takes place on monthly basis. Industrial environmental control takes place on quarterly basis.

On monthly and quarterly basis, Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir report data on pollutant volumes compared to the normative values, with an analysis of increase/decrease factors. Once a year Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir submit reports according to 2-TP Air Form.

In 2022, the Company launched projects to install automated monitoring systems at emission sources. These systems will allow for real-time monitoring of key indicators and quick response to any deviations or corrective actions. From 2022, the Company will report heavy metal emissions from coal combustion. These emissions are calculated in accordance with the new methodologies approved in 2022. The data will be provided to the Pollutant Release and Transfer Register (PRTR) maintained by the designated environmental authority.

To meet its commitment to minimise ash emissions, the Company uses ash-collecting technologies. Ekibastuz GRES-1 and Ekibastuz GRES-2 use electrostatic precipitators. Almaty TPPs use new generation emulsifiers. Low-emission burners are used to suppress nitrogen oxide formation. Modes are chosen with the help of high-pressure heaters and turbine feed pumps powered by the 4th turbine steam extraction.

On industrial sites and the boundaries of sanitary protection zones, Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir ensure quarterly industrial environmental control over compliance with maximum permissible emissions standards. Regular e-reports are available on the Unified Environmental Portal developed by regulatory authorities.

To ensure effective decisions and take corrective measures, the management of energy facilities and the top management of the Company receive quarterly reports on actual environmental performance and the results of industrial environmental control.

Environmental performance analysis showed that specific pollutant emissions from Ekibastuz GRES- 1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir decreased by 2% in 2022 (9.68 g/kWh in 2021 vs. 9.48 g/kWh in 2022). The implementation of environmental protection plans with regard to air protection and the energy efficiency programme with regard to the reduction of specific natural fuel consumption contributed to this decrease. The 2022 consolidation perimeter of pollutant emissions includes the following subsidiaries and affiliates: Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir.

AIR EMISSIONS PER UNIT OF OUTPUT, G/KWH

Responsible water management

GRI 303-1, 3-3, GRI 12: Coal Sector: 12.7.1, 12.7.2, 12.7.6

Like any other company in the energy sector Samruk-Energy cannot operate without water resources. The water management issue therefore is a priority. Despite that Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardariskaya HPP, and Alatau Zharyk Company do not consume water in water-scarce regions, the Company strives to ensure a responsible approach to water management. To reduce freshwater consumption and thoroughly treat discharged water, we assess water-related risks and manage water consumption and disposal.

Effective water management is an essential part of the Company's environmental policy, which promotes better interaction with local communities, the state, and investors.

The intake of water from both surface and groundwater sources is done in accordance with the acting legislation (based on water use agreements and water use permits) and does not have any significant environmental impact. Our primary objective is to reduce freshwater consumption and increase the proportion of water that is reused and recycled.

The Company's water resources are managed in accordance with the guidelines set forth in the Water Code of Kazakhstan and water protection permits.

The Corporate Management System Policy and the Environmental Management Standard articulate the Company's commitments and principles regarding water management, including but not limited to:

- responsible water management, sustainable water balance;
- assessment and documenting of the original sources of water intake, whether it is taken directly or purchased from intermediaries;
- continuous improvement and adaptation of the Company's water management plans and actions;
- minimisation of potable water use for industrial purposes;
- annual inventory of water and wastewater metering devices at water intake sites and wastewater receivers to check their availability, serviceability, timely calibration, and sealing by an authorised body;
- refusal to conduct the Company's activities in water-scarce areas.

The Company works closely with local communities and authorities to ensure that clean water is available. We also welcome inquiries from people and address their concerns about the Company's impact on local water bodies.

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP and Alatau Zharyk Company continuously monitor the quality of surface and ground water, sources of utility and potable water supply and waste water. As part of industrial environmental control, accredited laboratories perform analyses to determine the content of harmful substances in waste water, surface and groundwater sources. Following these analyses, studies are launched to generate a dataset. This dataset allows to make conclusions about the nature, quantity, and extent of the Company's effect on the aquatic environment. The information received allows to develop corrective measures for water management.

In 2022, the Company reduced the specific volume of ash and slag waste. The result was a 1.6% reduction in water consumption for waste transportation and in wastewater discharge. In the reporting period, we continued to save water by using recirculated water supply systems with an offstream reservoir cooler and through-flow hydraulic ash removal systems at Ekibastuz TPPs and recirculating cooling systems with cooling towers and reuse of waste water from ash dumps at Almaty TPPs.

PERCENTAGE AND TOTAL VOLUME OF RECYCLED AND REUSED WATER, MEGALITRES

Recycled or reused water and circulating water

Percentage of recycled and reused water

PRODUCTION WATER EFFICIENCY, M³/KWH

Water taken per unit of output

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP, and Alatau Zharyk Company intake water for their production needs in accordance with designed projects and standards agreed with authorised state bodies. We also develop Water Stewardship Plans. The Plans define measures to reduce the use of fresh water, discharge of normative purified water, water losses during transportation and implementation of wastewater reuse systems.

The Company's main water resources are: Bestiubinskoye Reservoir (Moynak HPP), Shardarinskoye Reservoir (Shardarinskaya HPP), Kanysh Satpayev Canal (Ekibastuz GRES-1 named after Bulat Nurzhanov, Ekibastuz GRES-2), Shidertinskoye water reservoir (Ekibastuz GRES-2), Big Almaty Lake, and Big Almatynka River Basin (Cascade HPP), Kapchagay Reservoir (Kapchagay HPP).

GRI 303-2, GRI 12: Coal Sector: 12.7.3

We adhere to strict wastewater management standards to minimise the impact on water resources. The Company strives to comply with the established limits for wastewater discharges as well as the limits for permissible impacts on water bodies. The Company has no significant impact on the biodiversity of water bodies and associated habitats.

In 2022, accredited specialised laboratories conducted regular monitoring of water bodies in accordance with the Industrial Environmental Control Programme. The monitoring covered determination of the chemical composition and quality of surface water, groundwater, and waste water. In the reporting period, there were no registered cases of exceeding the maximum permissible concentrations of pollutants in wastewater discharges by Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP and Alatau Zharyk Company.

The water discharge to surface water bodies and storage ponds forms from storm water from the site area, domestic effluents, and normative purified water that is not utilized in technological process.

Industrial effluents used for ash and slag waste disposal are discharged to an ash dump. No discharge into natural bodies is allowed.

Except for water-transported ash waste effluents, all discharges are treated to meet approved sanitary and hygienic standards in accordance with the Methodology for Measuring Environmental Emission Standards. Legal standards are established for the content and volume of pollutants in waste water, based on draft standards for maximum permissible discharges and the conclusion of sanitary- epidemiological and ecological expertise.

GRI 303-4, GRI 12: Coal Sector: 12.7.5

Production and business operations of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP, and Alatau Zharyk Company generate two types of waste water:

- waste water from the hydraulic ash removal system and standard pure water generated after the cooling of hydroelectric units and transformers, as well as after commissioning of HPP generators (more than 99% of the Company's waste water);
- domestic waste water from the administration building, canteen and other auxiliary units (less than 1% of the Company's waste water).

Before being discharged into a water body, domestic wastewater is treated at Stok biological treatment plant, consisting of two parallel lines (1 operating, 1 standby), with a design capacity of 15 m3/day each. The treatment facilities include the following units: biological treatment unit; sewage post- treatment filter; and disinfection unit.

Two groups of indicators are used to assess surface water pollution: general and specific. General indicators are comprehensive indicators of water quality, i.e., mineralisation, pH value, hardness, etc. Specific indicators include COD, BOD, petroleum products, ammonium salts, nitrates, nitrites, phosphates, surfactants, total iron, fluorides, suspended solids, copper.

In 2022, Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP and Alatau Zharyk Company discharged 22,277,709.1 megalitres of wastewater. The increase in the volume of water discharge is due to disclosure of water discharge from the Company's HPPs. At the same time, the volume of water intake of Samruk-Energy increased 2.4 times compared to 2021, up to 22,366,918 megalitres. This is a result of increased electricity generation at the Company's enterprises and disclosure of water intake by Cascade HPP and Kapchagay HPP, as well as water scarcity in 2021.

In the reporting period, no cases of exceeding the maximum permissible concentrations of pollutants in domestic wastewater discharges were recorded at Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP and Alatau Zharyk Company.

GRI 303-3, 303-5 GRI 12: Coal Sector: 12.7.4, 12.7.6

In 2022, the volume of water intake by Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP and Alatau Zharyk Company for production and domestic drinking was 22,415,179 megalitres. Ninety-nine per cent of the water taken is used to drive the HPPs generators to generate electricity. The volume of water consumption by Ekibastuz GRES- 1, Ekibastuz GRES-2, Almaty Power Plants, Bogatyr Komir, Moynak HPP, Shardarinskaya HPP and Alatau Zharyk Company amounted to 137,470.8 megalitres.

The Company's process of data collection for monitoring water consumption and intake is as follows:

Enterprise	Data collection process
Samruk-Energy	Annual request sent to subsidiaries and affiliates in accordance with the reporting form and if water use information is required.
Almaty Power Plants	Water intake/consumption data is collected daily via e-mail. The data includes the amount of makeup water transferred to Teplovye Seti water discharge from Almaty and Talgar water intakes for the needs of CHPP-1 and CHPP-2, and water releases according to the BABI faxgram instructions for Kapchagay HPP and Cascade HPP. All data is available in the daily report — Daily Report for Almaty Power Plants. Monthly reporting data on water intake/consumption/discharge balance is collected via e-mail from each enteprise.
Ekibastuz GRES-1 and Ekibastuz GRES-2	Metering devices in the automated system are used for primary (daily) water metering, that includes water taken from Kanysh Satpayev Canal via water treatment pipelines for domestic drinking need; water transferred to secondary water users, for ash hydro removal, for auxiliary needs (industrial and fire-fighting water supply). To record and monitor consumption, data is recorded in an Excel sheet and in a primary water metering log.
Moynak HPP and Shardarinskaya HPP	The plant's operations staff monitors and records water flow through the plant's turbines 24 hours a day. The operator of the main water intake pumping station monitors the consumption of water for domestic drinking needs.
Bogatyr Komir	According to the Order on the Maintenance of Energy Supply Facilities, parties responsible for water meters monthly submit readings from installed metering devices for subsequent reconciliation and preparation of a report on water meter readings with the Municipal Water Company. The wastewater metering devices installed at specific facilities have a monthly printout of the archived data according to the contract concluded with the contractor. To monitor water consumption, withdrawal and discharge, water metering data on drainage water discharge is daily recorded and entered in the water metering log according to the template in Annex 1 to the Primary Water Metering Regulations.

Waste management

GRI 306-1, 306-2, GRI 12: Coal Sector: 12.6.2, 12.6.3

We are committed to resource efficiency and strive to reduce the amount of waste we generate and our environmental footprint at all stages — from power generation to maintenance of our facilities. We conduct regular analyses to identify sources of waste generation and develop mitigation measures.

Production and consumption waste management is in line with:

- Corporate Environmental Management Standard
- Waste management programmes
- Waste Management Action Plan

Our priority is to minimise risks associated with waste generation. Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir implement different waste management activities.

All types of waste generated by Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir have been identified based on waste generation source inventory. Each identified waste type has a specific accumulation method. The accumulation method is assigned based on the assessment of its hazard class and toxicity, aggregate state, solubility, volatility, hazard characteristics and other parameters that have environmental impact. According to the assessment criteria given in the Waste Classifier approved by the environmental regulator, all wastes of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir are divided into two categories, hazardous and non-hazardous.

Due to the distinct characteristics of the operations of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir, the primary component of the total volume of waste is comprised of large-tonnage waste, including ash and slag waste, as well as overburden rock from coal mines of Bogatyr Komir, which are classified as non-hazardous.

To minimise the negative impact of Bogatyr Komir on adjacent areas, the Company reduces the volume of overburden rocks in external dumps by developing projects to use the internal developed space of Severny and Bogatyr open pits as internal dumps. Inert rock insulation of dumps and sealing of the dumps roof prevent oxidation processes and spontaneous ignition of the coal-bearing rock deposited in dumps.

Ash and slag waste from Ekibastuz GRES-1, Ekibastuz GRES-2 and Almaty Power Plants is buried in ash dumps. Ekibastuz GRES-1 and Ekibastuz GRES-2apply dust suppression measures when burying wastes under water's edge. Almaty Power Plants apply a unique combined technology of coating with a layer of soil and planting of perennial grasses and shrubs. We carry out annual reclamation of spent areas of ash dumps. Ash and slag are also recycled for use in road construction and production of building materials.

The development of HPPs and RES facilities of Samruk-Energy also contributes to the reduction of ash and slag waste generated per unit of output. Non-hazardous waste also includes office supplies, packaging, furniture, tools that have lost their useful properties, sweepings from cleaning, food waste, etc. This waste is classified as consumption waste. It requires separate collection, recycling, or disposal. There are limits for their disposal volumes.

Hazardous waste includes industrial and production waste (batteries, waste mercury-containing lamps, waste oils and technical fluids, fuels and lubricants, dyes, resins, varnishes, paints, etc.).

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir collect waste batteries. Waste batteries contain lead (accumulates in the body and affects kidneys, nervous system and bones), cadmium (damages lungs and kidneys), mercury (affects brain and nervous system), nickel and zinc (causes dermatitis), alkalis (burns mucous membranes and skin) and other hazardous substances. Batteries discarded with household waste end up in municipal landfill sites. They contain harmful substances which find their way into the soil and groundwater. To prevent this, the Company collects and ensures recycling of batteries. Batteries are not discarded with other household waste. During 2020-2022, the Company collected and handed over for recycling 140 kg of waste batteries.

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir do not generate radioactive waste. Quarterly radiation monitoring is carried out within Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir production sites and on the border of their sanitary protection zones. Monitoring results showed no deviations from the permissible level of 2.5 mSv/h.

The category of waste defines the collection method. Separate collection points and special temporary storage areas are equipped with containers/metal containers marked with identification signs.

The Company has identified types of waste that are not acceptable for landfill disposal but allowed for reuse and recycling with subsequent transfer to legal entities and people.

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir distinguish the following waste of such type: scrap paper, cardboard, paper waste, plastic, mercury-containing lamps, non-ferrous and ferrous metal scrap, electronic and electrical equipment, batteries, tyres and their fragments and other waste.

Control and monitoring in the waste management system includes logging of waste quantities and movements based on actual mass measurements. All waste quantity values are represented by the mass of waste in tonnes.

Waste disposal sites are constantly monitored. Regular and timely waste removal and disposal is ensured. The Company complies with acting regulations and procedures and disposes of waste or recycles in accordance with legislation.

Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir monitor contractors' waste management activities. During the procurement phase, the participants have to provide their waste management licence as per each type of waste. They also have to confirm the availability of waste management facilities. Contractors sign contracts and undertake to comply with environmental legislation of Kazakhstan. The environmental services conduct regular inspections of contractors' waste management activities.

Samruk-Energy maintains an ongoing dialogue with stakeholders. Anyone can express concern about the environmental aspects of the Company's activities through special feedback channels. All reports are recorded and processed.

GRI 306-3, GRI 12: Coal Sector: 12.6.4

WASTE GENERATED BY SAMRUK-ENERGY'S COMPANIES, TONNES

Indicator	2020	2021	2022
Total waste generated, incl	**98,722,479.7**	**88,839,712.0**	**89,929,908.3**
hazardous	4,885,513.7	5,586,889.2	646.9
non-hazardous	93,836,966.0	83,252,822.0	89,928,280.5
incl. main types specific to production	**96,128,226.8**	**87,472,541.0**	**89,912,724.9**
ash and slag waste	6,151,178.8	7,226,582.0	7,129,158.2
overburden	89,977,048.0	80,245,959.0	82,783,566.7

Late 2021 brought changes to requirements for waste classification. Five hazard classes of waste were replaced by two categories — hazardous and non-hazardous. In 2022, due to changes in waste segregation methodology, waste previously classified as hazard class 3 was moved to hazardous waste.

Conservation of biodiversity

GRI 3-3, 304-1, GRI 12: Coal Sector: 12.5.2

Samruk-Energy is aware of the importance of biodiversity conservation. We consider possible risks and seek to protect and conserve biodiversity at all stages of our operations, including construction of new facilities, modernisation of existing facilities, energy generation activities, decommissioning and dismantling of generation facilities. To achieve the goal, the Company implements wildlife conservation measures, cooperates with academic institutions and government agencies, and complies with internal regulations.

The Company's environmental management standard sets out its commitment to implement measures to prevent and/or minimise the impacts of the Company's operations on wildlife, biodiversity conservation plans, risk management and environmental aspects affecting biodiversity.

Guided by acting legislation and our voluntary commitments, we invest in risk analysis at all stages and periods of HPP, RES and REC operations. All our construction and renovation projects undergo an environmental impact assessment. If deemed necessary, the Company develops flora and fauna conservation plan.

GRI 304-4, GRI 12: Coal Sector: 12.5.5

Samruk-Energy does not operate in the areas of UNESCO World Heritage Sites, habitats of globally and nationally important flora and fauna species included in international, national and regional red lists, as well as in specially protected natural areas, e.g., by UNESCO and Ramsar Convention.

No rare, endangered species of animals, plants or fungi have been identified in or adjacent to the production sites.

GRI 304-2, 304-3, GRI 12: Coal Sector: 12.5.3, 12.5.4

We also make sure that flora and fauna are safe. We hold different activities that reflect the Company's contribution to the UN Sustainable Development Goals 14, 15.

INVESTMENTS IN BIODIVERSITY CONSERVATION, KZT MILLION

Key Company's biodiversity conservation activities:

- Use of contemporary technologies to minimise the impact of production activities on the environment
- Development and implementation of biodiversity conservation programmes
- Continuous environmental monitoring

To prevent fish mortality, all hydro turbines at HPPs are equipped with fish protection devices. The Kazakh Research Institute of Fishery recommended to implement a fish protection measure near the intake in front of water conduits. At night, water surface is illuminated with floodlights to scare away fish.

To prevent mortality of birds that use overhead power line poles as perch, we upgrade the poles with insulated wires.

To reduce the impact on aquatic and terrestrial (coastal) ecosystems, HPP operation modes are agreed with the Committee on Water Resources of the Ministry of Ecology, Geology and Natural Resources, with akimats and administration of specially protected natural areas (as in case of Moynak HPP). Authorised bodies have to approve water releases for water supply and agricultural purposes (irrigation).

The pre-design and design phases of windmills account for the need to mitigate their environmental impact. To minimise the impact of light pollution on the biorhythms of living beings and to conserve and replenish biodiversity, we are minimising the lighting of wind turbines to perimeter lights only.

Subsidiaries and affiliates develop annual biodiversity conservation programmes. The programmes provide for comprehensive land reclamation at the end of operations of subsidiaries and affiliates to compensate for possible environmental damage. The works are carried out as part of post-utilisation of construction facilities of subsidiaries and affiliates, mitigation of subsoil use consequences[28], liquidation and conservation of water wells, closure of landfills and other waste storage and disposal sites, including radioactive ones. In 2022, the Company did not decommission facilities.

Continuous environmental monitoring found no significant direct or indirect impacts on sensitive ecosystems and biodiversity from operations of subsidiaries and affiliates during the reporting period.

The Company does not have facilities near or in specially protected natural areas. The Company complies with all requirements of the Republic of Kazakhstan regarding environmental protection.

[28] The Company mitigates the consequences of subsoil use in accordance with the Code of Kazakhstan on Subsoil and Subsoil Use and the subsoil use consequences mitigation project. The project received positive expert opinions.

Plans for 2023 and a medium term

After the new Environmental Code of the Republic of Kazakhstan comes into effect, Samruk-Energy will have to ensure the reduction of its environmental impact (reduction of harmful greenhouse gas emissions) in the regions where it operates.

The Company plans to:

- implement the best available techniques (BATs). The National Handbook (hereinafter — the Handbook) determines the list of BATs and projected emission thresholds. The Handbook was developed by the International Green Technologies and Investments Centre.

To reduce emissions in flue gases, it is proposed to:

- minimise dust emissions (coal ash) by modernising ash collectors, installing modern electrostatic precipitators, bag filters, scrubbers, with a 99.9% purity rate;
- purify flue gases from sulphur emissions by applying desulphurisation techniques, to clean coal by means of gasification or limestone, ammonia feeding into the boiler furnace, etc.;
- minimise emissions of nitrogen oxides by means of reconstruction of burner units or selective catalytic and non-catalytic reduction methods.

The Company plans to invest KZT 450 billion to implement BATs.

BATs also include the reconstruction of energy facilities with the conversion of the main equipment to natural gas combustion or the construction of new gas-fired energy sources (e.g., gas turbine unit, combined cycle gas turbine unit). The Company plans to invest KZT 600 billion to construct new gas- fired energy sources.

- To establish a liquidation fund in charge of further arrangements after the physical liquidation of the Company's energy facilities.

Upon decommissioning of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir, which belong to Category I facilities and have a negative environmental impact, the Company will ensure elimination of their operational consequences in accordance with the laws of Kazakhstan.

The Company will conduct works to bring land plots to a condition that ensures the safety of life and the protection of the environment.

In 2022, the Company commenced work to assess the physical volume and planned cost of dismantling or re-profiling of buildings and structures located at Ekibastuz GRES-1, Ekibastuz GRES- 2, Almaty Power Plants and Bogatyr Komir, considering the evaluation of alternatives.

Completion is planned for 2023. By the end of 2024, after evaluation, liquidation funds will be established to ensure liquidation of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir, land reclamation, considering evaluation of reclamation alternatives, continuous monitoring of environmental impact and pollution control after its closure.

The liquidation fund will be funded from annual contributions. They will be determined in direct proportion to the total estimated cost of the liquidation for the period after which the enterprises are to be liquidated.

Fighting Climate Change

Our approach

Samruk-Energy is aware of its role in the global carbon footprint. The Company is continuously working to reduce both direct greenhouse gas emissions from energy production, and indirect emissions from energy consumption. The Company attempts to reduce the carbon intensity of production processes and products in accordance with its Development Strategy, Environmental Policy, and the Energy Transition Programme of Samruk-Energy.

Samruk-Energy supports the government's efforts to achieve carbon neutrality and sees its objective as preserving the share of conventional generation, modernising existing plants and improving equipment efficiency, as well as implementing RES projects and developing alternative energy.

Climate Agenda Management

GRI 201-2, GRI 12: Coal Sector: 12.2.2

The global climate agenda is a big challenge for the country's energy industry and for Samruk-Energy, where traditional energy sources play an important role in the country's energy system.

Today, coal accounts for about 70% of Kazakhstan's electricity generation and meets the fuel needs of the population and domestic households. The energy sector is the largest source of emissions. It produces about 80% of all greenhouse gas emissions.

Samruk-Energy includes three major coal-fired power generating entities, Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and one of the world's largest open-pit coal mining entities, Bogatyr Komir. Given the prevailing share of conventional generation in the Company's assets and the importance of the climate agenda as well as the risks posed by coal-based generation activities, Samruk-Energy will strive to minimise its negative environmental impact by achieving carbon neutrality by 2060.

The 2022-2060 Energy Transition Programme, which sets out intentions and concrete steps towards the decarbonisation of the Company's coal-fired generation activities, contributes to this objective.

Under this programme, the Company envisages a systematic change in the structure of generation. It plans to gradually increase the share of RES generation, apply the best available technologies, research and utilize carbon capture and storage technologies at the Company's coal-fired power plants, and implement energy efficiency and energy saving measures.

Climate risk management

Climate risk identification and risk management

The Company pays attention to climate risk management to guarantee its strategic objectives in the context of adverse impacts.

Samruk-Energy implements different measures to manage climate risks and identify opportunities. The climate change risk assessment plays an important role in determining conditions to develop the Company's strategy, evaluate investment projects, and formulate annual and mid-term plans. The corporate risk management system is a key component of the corporate governance system. It is aimed at the timely identification, assessment, monitoring and mitigation of potential risk events that may adversely affect the strategic objectives. A quarterly risk report is submitted to the Audit Committee of the Board of Directors.

Samruk-Energy has identified climate risks, which are classified as strategic risks. The Company has identified consequences related to climate risks such as physical damage to production assets; disruptions in electricity and coal supply chain; higher costs and longer lead times for investment projects; and disruptions in production.

The financial consequences of the risks before action are penalties for violations of legal restrictions and increased tax rates for greenhouse gas emissions.

Factors that may affect climate risks

Samruk-Energy is aware of the increasing responsibility for climate impact and sees an increasing importance of the following factors that may further affect climate risks:

Tightening international climate change policy	International carbon regulation and introduction of Carbon Border Adjustment Mechanism (CBAM) in the EU under the European Green Deal. The mechanism provides for levies on carbon-intensive goods imported into the EU on a prescribed list starting from 2026. These global initiatives will put pressure on the exporting industries. These industries will look for opportunities to reduce their energy intensity, become more environmentally friendly and consume electricity from renewable energy sources. The relevant demands of the economy will potentially be extrapolated to the entire energy sector, where there will be increasing demand for energy sources with a low carbon footprint.
Tightening environmental legislation	Under the Paris Agreement, Kazakhstan aims to reduce greenhouse gas emissions by 15% by December 2030 compared to 1990. In this regard, the Environmental Code of Kazakhstan has strengthened the requirements for the reduction of greenhouse gas emissions. There are also requirements to implement the best available technologies (BAT) and a phased increase in tax rates for environmental emissions in 2, 4 and 8 times in case of non-application of BAT. Businesses unable to implement BAT immediately will have an opportunity to do this step-by-step as part of an environmental efficiency programme. Businesses are also exempt from paying for emissions into the environment. In addition, category 1 enterprises have to install an automated environmental emission monitoring system at their main stationary emission sources to transmit data online to the Ministry of Ecology, Geology and Natural Resources of Kazakhstan. Samruk-Energy plans to implement BAT.
Social stability in the mothballing of conventional TPPs	Compliance with decarbonisation requirements may require mothballing of conventional TPPs and reduction in coal production, which would inevitably affect the well-being of employees and the infrastructure around the city-forming facilities. To increase social stability, it is necessary to implement measures to retrain employees. This will allow employing them at new facilities. The Company needs to cooperate with local authorities to jointly design a development programme for the region.
Threats to national energy security	The Company's current conventional fuel assets form the backbone of the national energy system, as it provides the economy and population with stable, reliable, affordable electricity. Tougher requirements for reducing CO2 emissions and increasing the RES share in the country's generation mix prioritises the issue of energy system stabilisation. Given RES instability and difficult climatic conditions in the country, RES development and full transition to RES is not possible without baseload generation. Given the high priority of energy security and the need to develop basic generation to support RES, the Company will continue to implement projects for the construction of coal-fired generation facilities in the coming years.

The Company continuously keeps track of the costs of actions taken to manage climate risks and opportunities. The Company assesses greenhouse gas emissions (Scope 1) and implements energy and fuel conservation measures to reduce not only direct emissions but also indirect emissions (Scope 2). In 2022, the cost of risk management actions amounted to about KZT 11 million.

Opportunities

Resource efficiency

The Company sees an opportunity in implementing energy efficiency and energy conservation measures, and is committed to the efficient use of resources, including fuel and water.

The main measure to improve energy saving and energy efficiency is the rational use of fuel and energy resources with the help of innovative technologies and equipment modernisation and technical upgrade.

The implementation of the planned energy saving and energy efficiency measures will reduce the specific fuel consumption per unit of output. This will reduce the specific CO_2 emissions per unit of output.

Use of new technologies

Investigation and subsequent implementation of new advanced technologies for carbon capture, use and storage is a key factor in achieving climate goals and meeting society's energy needs to reduce anthropogenic CO_2 emissions and reduce the carbon intensity of products.

In future reporting periods, we aim to have a more profound disclosure of the climate change impact on the Company, risks and opportunities in accordance with the TCFD international methodology (Task Force on Climate-related Financial Disclosures).

Energy Transition Programme of Samruk-Energy for 2022-2060

In 2022, the Company developed Samruk-Energy Energy Transition Programme 2022-2060 in accordance with the approved Samruk-Energy Development Strategy 2022-2031. In October 2022, the Company updated its Energy Transition Programme.

The Programme sets out the directions, goals and objectives for the Company's transition to efficient, resource-saving, environmentally friendly technologies, aiming to achieve carbon neutrality by 2060. The goal of the Programme is to reduce the Company's net carbon footprint by 2060. The Programme applies to all subsidiaries of Samruk-Energy. When modelling the scenarios, the Company analysed external and internal factors influencing the objective achievement and identified risks, including socio-economic risks. Given the importance of global trends in limiting climate change and the risks arising from traditional generation, Samruk-Energy will strive to minimise its negative impact on the environment in the horizon until 2060. It also aims to achieve carbon neutrality and become a high- tech operating company bearing high social and environmental responsibility.

When developing its Energy Transition Programme, the Company sought to strike a balance between achieving its goal of reducing carbon footprint, ensuring reliable supply of affordable electricity to consumers, and preserving jobs in the regions where it operates.

PROGRAMME'S GOAL:

REDUCING NET CARBON FOOTPRINT BY 2060

The Company identified five areas of focus to reach the goal

1

Alternative energy

This area includes the implementation of renewable energy projects, comprehensive research into the development of alternative energy (nuclear, hydrogen, geothermal), opportunities for the application of eco-technologies in transport, etc.

2

Conventional energy

Reduction in CO_2 emissions through TPP gasification in Almaty city.

3

Network infrastructure and regulation

This area includes measures to modernise networks and introduce Smart Grid, energy storage and accumulation systems, development of shunting generation. These measures will significantly improve the reliability and quality of energy supply, and reduce production costs and environmental impact.

4

Emissions management

Includes measures to introduce innovative technologies at the Company's existing conventional generation facilities to reduce CO_2 emissions, such as carbon capture, utilisation and storage (CCUS), measures to improve energy efficiency and energy saving, as well as implementation of a forest-climate project.

5

Supportive measures

This area combines a set of measures necessary to enable the implementation of measures to reduce the carbon footprint, compliance with international standards and the requirements of the Kazakh environmental legislation. These activities will include implementation of ESG principles, digitalisation, study and development of proposals to improve the regulatory framework of Kazakhstan, as well as the use of green financing tools to attract additional sources of funding in the development of RES projects.

Greenhouse gas emissions

GRI 305-1, GRI 12: Coal Sector: 12.1.5

To combat climate change, the nations signed the Paris Agreement in Paris in 2015 to replace the former Kyoto Protocol. Kazakhstan joined the Paris Agreement in December 2016, which set a target of reducing greenhouse gas emissions by at least 15% of the 1990 level by 31 December 2030.

There is also a legally binding requirement for all Kazakh entities that are subject to quotas to have an inventory of greenhouse gas emissions, including certification by an independent accredited body. Among the Company's subsidiaries and affiliates, quota apply to Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir.

Greenhouse gas emissions from Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir operations mainly focus on production of electricity and heat from fuel (coal/oil/gas) combustion and coal mining.

This is the second year when the Company has calculated its carbon footprint. In its annual report in 2021, Samruk-Energy published data on greenhouse gas emissions for Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir. Emissions of carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O) are included. According to the report, direct carbon dioxide emissions in 2021 amounted to 40.3 million tonnes.

Direct emissions by Ekibastuz GRES-1, Ekibastuz GRES-2, and Almaty Power Plants result from fuel combustion in stationary devices (boiler units) designed to generate electricity and heat and from coal mining at Bogatyr Komir. Data are collected from primary sources, i.e., official technical data reports and laboratory logs. After data processing according to national methodologies, greenhouse gas emission coefficients and volumes is calculated as per emission source and in total for Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir.

The data is calculated using the approach outlined in GHG Protocol. Data on direct greenhouse gas emissions is calculated according to the methodology for calculating greenhouse gas emissions from boilers of thermal power plants, cogeneration plants and boiler houses and the methodology for calculating greenhouse gas emissions from open and closed coal mining, approved by the Ministry of Ecology and Natural Resources of Kazakhstan. Methodologies are available on the official website of the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan. www.gov.kz/memleket/entities/ecogeo

Data on direct greenhouse gas emissions requires confirmation by independent accredited bodies for each subsidiary and affiliate.

The existing procedure for measuring the main parameters of feedstock consumption played a major role in assessing greenhouse gas emissions from Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants and Bogatyr Komir. Basic indicators considered for greenhouse gas monitoring include the volume of fuel combusted, its net calorific value, basic characteristics of fuel composition (ash content per working condition, moisture, sulphur), measurements at boilers (heat losses from mechanical underburning.

In 2022, the Company conducted an inventory of greenhouse gases including Scope 1 emissions.

DIRECT GREENHOUSE GAS EMISSIONS*, 2020-2022 (SCOPE 1)[29,30]

Greenhouse gas emissions by type	Units	2020	2021[31]	2022
CO_2	tonnes of CO_2	33,413,976	32,951,527	31,978,242
CH_4	tonnes of CO2eq.	7,173,667	7,266,445	940,989
N_2O	tonnes of CO2eq.	91,744	76,298	74,182

* Note: Direct greenhouse gas emissions for Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir.

[29] The Company does not calculate biogenic greenhouse gas emissions.
[30] The Company has chosen a control-based consolidation method. The Company considers 100% of emissions from consolidated facilities controlled by the Company when determining the total amount of greenhouse gases.
[31] 2021 is a reference year for calculations. The Company began calculating its carbon footprint in 2021.

Direct greenhouse gas emissions contain 98% of total greenhouse gas emissions of Samruk-Energy Group. The calculation of direct emissions includes the own energy needs of Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, and Bogatyr Komir.

In 2022, greenhouse gas emissions from the Company's operations amounted to 31.98 million tonnes of CO_2 and 32.99 million tonnes of CO_2eq. There is an average 4% decrease in greenhouse gas emissions in 2022 compared to 2020 and 2021. It is due to an increase in the share of electricity generation from RES and a change in the approach to calculating methane emissions resulting from changes in the emission factors in the national methodological guidelines for calculating greenhouse gas emissions. Conversion of methane and nitrous oxide values into tonnes of CO2eq. is based on current global emission factors (methane — 25, nitrous oxide — 298) adopted in accordance with Annex III to Conference of the Parties Decision 24/CP.19 of 10 November 2013. The Ministry of Environment and Natural Resources sent the Decision to the Company as a formal letter.

GRI 305-2

The Company adheres to the principle of disclosure consistency and comparability. It continually works to improve its disclosure completeness and expand the scope of reporting to Tier 2 indirect emissions (Scope 2). 2022 was the first year to calculate the indicator and will be considered as the baseline.

In 2022, Tier 2 indirect emissions amounted to 0.013 million tonnes of CO_2. They include consumption of electricity and heat from indirect sources purchased from third-party suppliers not owned or controlled by Samruk-Energy. Indirect emissions are calculated according to the methodology specified in the GHG Protocol Scope 2 Guidance. Specific greenhouse gas emission factors refer to the List of Benchmarks in Regulated Sectors of the Economy, approved by the Order of the Vice Minister of Ecology, Geology and Natural Resources of Kazakhstan. The Company did not calculate gross market indirect emissions.

The Company has chosen a consolidation method based on operational control. The Company considers 100% of emissions from consolidated facilities controlled by the Company when determining the amount of greenhouse gases.

INDIRECT GREENHOUSE GAS EMISSIONS (SCOPE 2), TONNES OF CO_{2EQ}[32]

Greenhouse gas emissions by type	2022
Gross indirect greenhouse gas emissions by location (Scope 2) in metric tonnes of CO_2eq.	13,333.6861
Gases included in the calculation CO_2	CO_2

Energy efficiency

Samruk-Energy is a leading producer of electricity, which plays an important role in the country's energy system. Reducing the environmental impact of operations is an ongoing commitment that extends along the entire value chain. It is set out in the efficiency programme covering various areas of activity.

[32] The perimeter includes data on external purchased energy of Bogatyr Komir.

Sustainable model of economic development in Kazakhstan is impossible without energy efficiency and energy saving. Efficient and rational energy consumption policy should lead to curbing the growth of energy consumption and substantially reducing the environmental impact.

Activities in this area will contribute to rational consumption of energy resources and energy efficiency of the management facility. They include development and implementation of energy saving and energy efficiency policies, action plans, procedures and methodologies for monitoring, evaluation of energy consumption as well as other actions aimed at improving energy efficiency.

The key document defining the Company's principles in this area is the Samruk-Energy Energy Saving and Energy Efficiency Improvement Programme for 2015-2025 (hereinafter — the Programme). It accounts for the main directions of public policy in the field of energy saving and energy efficiency improvement and sets out goals and objectives.

The responsible Programme implementer and co-implementers ensure Programme implementation management and control. The Department of Production Efficiency of Samruk-Energy is a responsible implementer of the Programme. Co-implementers of the Programme are Samruk-Energy employees responsible for energy efficiency in subsidiaries and affiliates.

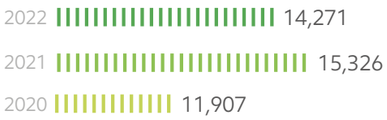
Target Programme instruments:

- definition of targets and indicators for energy saving and energy efficiency improvements for subsidiaries and affiliates;
- continuous monitoring and control of the achievement of the targets through energy and economic analysis in accordance with the developed methodology for calculating key energy efficiency indicators;
- implementation of organisational and technical measures for energy saving and energy efficiency improvements in accordance with the approved action plans for energy saving and energy efficiency improvements of subsidiaries and affiliates.

KEY ENERGY INDICATORS, '000 GJ

Total energy consumption

Volume of energy savings



Implementation of typical electricity and heat saving measures has made it possible to significantly reduce energy consumption, which has a better effect on economic and technical performance.

As part of activities on energy and resource saving and improvement of energy efficiency, 58 measures aimed at reduction of fuel and energy consumption were implemented in 2022. As a result, Samruk-Energy saved 487 kilotonnes of conventional fuel.

Total energy consumption in 2022 decreased by 3.2% compared to the previous year. In 2022, electricity consumption decreased by 2% and heat consumption decreased by 7% compared to the previous year.

For more information, please see Annex. Resource consumption and energy efficiency.

As part of the Programme, energy-intensive subsidiaries and affiliates had an initial assessment of the energy management system.

Diagnostics of the existing energy management system in Samruk-Energy was performed using the main elements applied in establishing energy management system in accordance with ISO 50001.

The role of the energy management system is to systematically analyse, configure energy management, improve production processes, measure production performance, monitor and evaluate efficiency, seek and analyse information on energy efficiency, develop future plans of energy supply to customers and current mitigation action plans.

Having the systems and processes necessary to improve energy parameters, including energy efficiency and intensity, leads to a reduction of financial costs, greenhouse gas emissions and other environmental impacts through systematic energy management.

Environmental Benchmarking

Environmental benchmarking is a new way to assess and manage the environmental performance of Samruk-Energy. It implies comparison of the Company's activities with the best companies in the market and industry, which allows studying the practices of competitors and introducing the best practices in the Company. The 2022 environmental indicators of the companies are not yet available, so the analysis rests on 2021 data.

The benchmarking relies on two indicators:

- Use of freshwater for technological and domestic purposes;
- Direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions.

To identify the environmental trend, the largest energy companies in Kazakhstan and globally were analysed:

PRODUCTION INDICATORS, 2021

Electricity generation, billion kWh

Samruk-Energy	35.6
ERG	19.9
Enel	222.6
RusHydro	143.8

Installed capacity, GW

Samruk-Energy	6.215
ERG	2.475
Enel	87.1
RusHydro	38.2

GREENHOUSE GAS EMISSIONS (SCOPE 1, SCOPE 2), 2021

Direct GHG emissions, million tonnes CO_2eq. (Scope 1)

Samruk-Energy	40.308
ERG	25.001
Enel	51.6
RusHydro	30.58

Indirect GHG emissions, million tonnes CO_2eq. (Scope 2)

Samruk-Energy	0.015
ERG	0.1256
Enel	11.4
RusHydro	-*

FRESHWATER INTAKE, 2021, MILLION M^3

Samruk-Energy	211.38
ERG	2,069.0
Enel	55.60
RusHydro	672.96

SPECIFIC INDICATORS, 2021

m^3/'000 kWh

Samruk-Energy	5.94
ERG	103.97
Enel	0.25
RusHydro	4.68

tonnes of CO_2eq./'000 kWh

Samruk-Energy	1.13
ERG	1.26
Enel	0.28
RusHydro	0.21

Given the fact that the compared companies differ in capacity and volumes of electricity generated, the Company decided to compare the specific indicators for greenhouse gas emissions and freshwater intake. Benchmarked against other energy companies, Samruk-Energy was:

- 81% behind RusHydro and 75% behind Enel, and 12% ahead of ERG in greenhouse gas emissions;
- 21% ahead of RusHydro, significantly behind ERG and ahead of Enel in freshwater intake.

Following the analysis of the sustainable development approaches of the peers, we may conclude that Samruk-Energy needs to continue striving to reduce its carbon footprint, focus on cutting-edge technologies and methods to reduce greenhouse gas emissions, and keep on upgrading both main and auxiliary equipment to reduce water intake for industrial needs.

* RusHydro does not disclose Scope 2.

SAMRUK ENERGY

05

Integrated annual report
2022

Corporate governance

Corporate Governance System

Samruk-Energy JSC has built an effective corporate governance system in accordance with the requirements of the laws of the Republic of Kazakhstan, the principles and provisions of the Corporate Governance Code of Samruk-Kazyna JSC, as well as taking into account the world's leading practices. The Company considers improving the efficiency of corporate governance as a key factor in ensuring sustainable business development and making balanced management and investment decisions.

The corporate governance system of Samruk-Energy JSC ensures a clear separation of powers and responsibilities between management bodies, officials and personnel, compliance with the hierarchy of the procedure for considering issues and making decisions, as well as compliance with the legislation and internal documents.

Corporate governance principles of Samruk-Energy JSC

- Respect the rights of shareholders, investors and other stakeholders
- Segregate powers and responsibilities between the Company's bodies and divisions
- Improve the efficiency of the Board of Directors/Committees, as well as the Executive Body/Committees
- Avoid corporate conflicts and conflicts of interest
- Improve the management reporting system
- Apply the best global corporate governance practices by implementing the principles and provisions of the Corporate Governance Code
- Adhere to the information transparency principles for shareholders and stakeholders (formalised and transparent policy and procedure for remuneration of directors and managers, transparent dividend policy, publication of the Annual Report in accordance with GRI and IFRS standards, etc.)
- Ensure the existence of effective planning processes, internal control systems, compliance and internal audit, risk management systems, sustainable development management systems

The Company's fundamental internal documents on corporate governance are the Samruk-Kazyna Corporate Governance Code, and Samruk-Energy Corporate Governance Improvement Action Plan 2022-2023.

SAMRUK-ENERGY'S KEY CORPORATE GOVERNANCE POLICIES

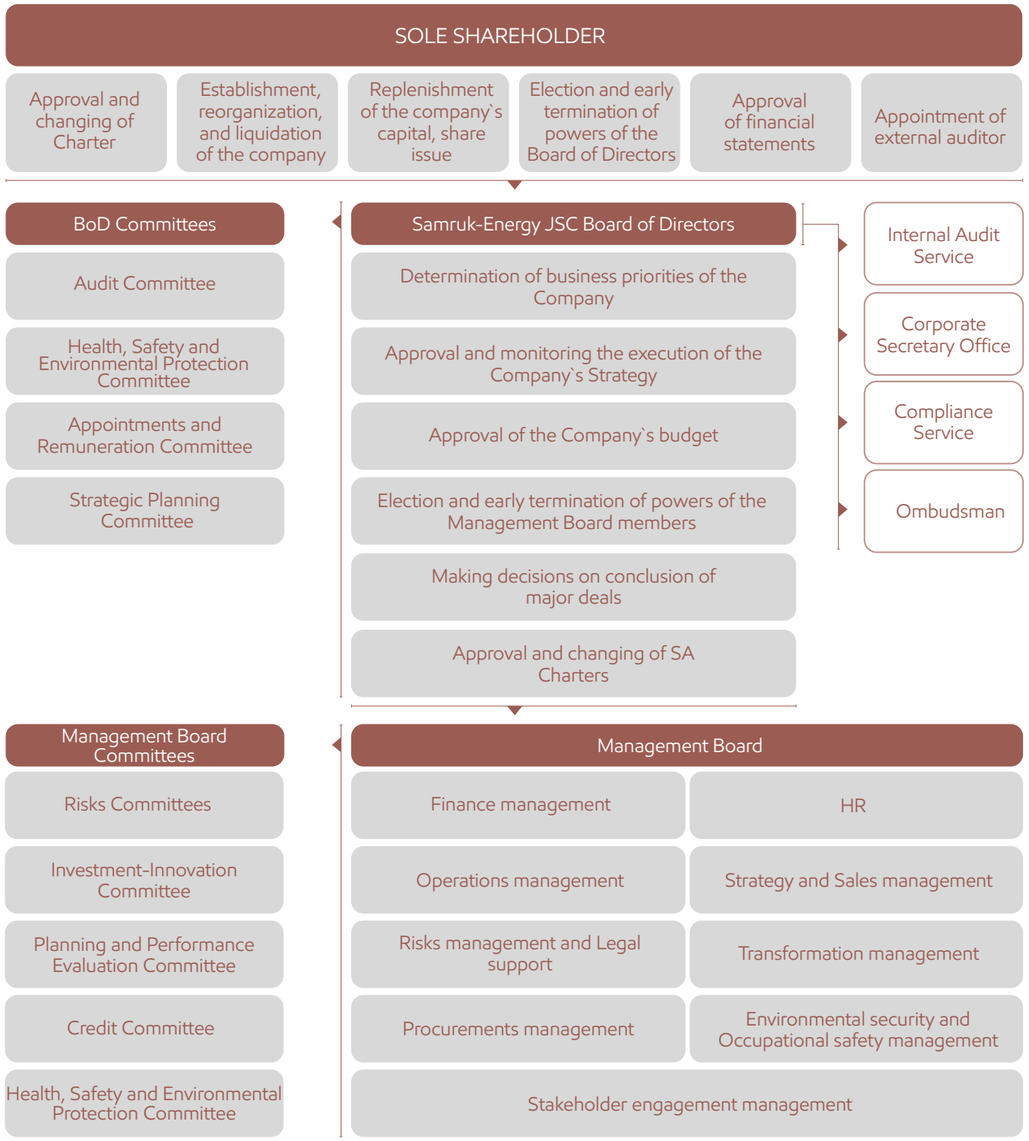
Document	Effective Date of the Latest Version
Charter of Samruk-Energy JSC	26 January 2023
Corporate Governance Code	27 May 2015
Code of Conduct	22 May 2019
Regulations on the Board of Directors	24 February 2020
Regulations on the Strategic Planning Committee of the Board of Directors	14 July 2022
Regulations on the Audit Committee of the Board of Directors	25 May 2018
Regulations on the Nomination and Remuneration Committee of the Board of Directors	25 May 2018
Regulations on the Committee for Occupational Health and Safety and Environmental Protection of the Board of Directors	14 July 2022
Policy on advanced training and engagement of external experts by members of the Board of Directors	24 March 2011
Regulations on the Corporate Secretary	27 December 2021
Regulations on the Management Board	10 June 2022
Regulations on the Risk Committee	16 July 2018
Regulations on the Committee for Occupational Health and Safety and Environmental Protection of the Management Board	25 June 2018
Regulations on the Planning and Evaluation Committee	19 June 2014
Regulations on the Credit Committee	13 August 2018
Risk management policy	26 May 2014
Corporate Management System Policy	18 October 2021
Anti-Fraud and Anti-Corruption Policy	08 April 2022

The Company guarantees the effectiveness of its operations by properly structured corporate governance processes at each levels, ensuring transparency, control and separation of powers, and timely response to risks.

Using the best world practices, we strive to improve continuously the corporate governance system to ensure a reliable system of internal control, effective risk management, easier access to external capital and improvement of our reputation.

GRI 2-9

To increase transparency, control and powers separation, Samruk-Energy JSC introduced a three-level management system.



Approved by the resolution of the Samruk-Energy JSC Board of Directors dated February 25, 2022 (Minutes No. 02/22)

ORGANIZATIONAL STRUCTURE OF SAMRUK-ENERGY

BOARD OF DIRECTORS

CHAIRMAN OF THE BOARD

- **COMPLIANCE SERVICE**
- **OMBUDSMAN**
- **CORPORATE SECRETARY OFFICE**
- **INTERNAL AUDIT SERVICE**
- **LABOR SAFETY DEPARTMENT**
- **HUMAN RESOURCES DEPARTMENT**
- **OFFICE OF THE CHAIRMAN OF THE BOARD**
- **SECURITY DEPARTMENT**
- **ADMINISTRATIVE DEPARTMENT**

MANAGING DIRECTOR FOR ECONOMY AND FINANCE

- Strategy and Economic Analysis Department
- Accounting and Tax Accounting Department
- Treasury and Corporate Finance Department
- Assets Reorganization and Sales Department

MANAGING DIRECTOR FOR PRODUCTION AND ASSET MANAGEMENT

- Generation and Fuel Department
- RES and Distribution Department
- Production Efficiency Department

MANAGING DIRECTOR FOR DEVELOPMENT, SALES AND CHANGES

- Market Developmet and Sales Department
- Project Portfolio Management Department
- Energy Transition and Digitalization Department

MANAGING DIRECTOR FOR LEGAL SUPPORT, PROCUREMENT AND RISKS

- Risk Management and Internal Control Department
- Legal Support Department
- Corporate Governance and Sustainable Development Department
- Procurement Management Department

GRI 2-6

In 2022, Samruk Energy made the following changes to its organisational structure:

1. The Company reduced the total staffing of the employees (167 units) by 17 units, i.e., by 10%.

2. The Company reduced the following executive and managerial positions:

- Deputy Chairman of the Board;
- Managing Director for Business Transformation;
- Managing Director for Procurement;
- Co-Managing Director for Economy and Finance.

3. The Company renamed the following positions:

- Managing Director for Development and Sales into Managing Director for Development, Sales and Change;
- Managing Director for Risks and Legal Affairs into Managing Director for Legal Support, Procurement and Risks.

4. The Company renamed the following structural subdivisions:

- Department of Strategic Planning and Economic Analysis into the Department of Strategy and Economic Analysis;
- Department of Health and Safety and Environmental Protection into the Department of Health and Safety;
- Project Portfolio Management Office into the Project Portfolio Management Department.

5. The Company merged and transformed the following structural divisions:

- Department of Market Development and the Trading House to the Department of Market Development and Sales;
- Department of Purchase and Inventory Management and Department of Price Monitoring and Category Management to the Department of Purchase Management;
- Office of Digital Transformation and Department of Information Technologies to the Department of Energy Transition and Digitalisation.

6. The following structural subdivisions of the Company were abolished:

- Department of Investment Analysis;
- Department of Management of Capital Construction and Repairs.

7. The number of structural divisions was reduced from 27 to 22 units by the above merger (transformation) and the abolition of structural divisions.

8. The number of functional units was reduced from 7 to 5: Production Block, Financial and Economic Block, Block of the Chairman of the Board, Block for legal support, security and risks, Block for development, sales and changes.

Corporate Governance Rating

In 2021, Samruk-Kazyna JSC engaged an independent consultant, PWC LLP, to conduct a corporate governance assessment to rate the corporate governance system at entities 50+ percent owned or managed, directly or indirectly, by Samruk-Kazyna JSC. Based on the Corporate Governance Assessment Methodology, they examined the main aspects of corporate governance at Samruk- Energy: the efficiency of the Board of Directors and the executive body, risk management, internal control and audit, sustainable development, shareholder rights and transparency.

In 2022, implementation of the Corporate Governance System targets were reached 84.5%

Following the assessment, the Company's corporate governance was assigned a BB rating (the level of maturity is "medium"). In accordance with the independent consultant's recommendations, the Company developed and approved a 2022-2023 Action Plan to improve the corporate governance of Samruk-Energy JSC (hereinafter referred to as the Corporate Governance System Plan)[33].

The Corporate Governance System Plan provides for 85 activities aimed at the development of both the areas requiring improvement and corporate governance practices in general.

Corporate management system of Samruk-Energy JSC

To manage efficiently and transparently, Samruk-Energy JSC introduced a corporate management system centres around ESG: sustainable development, quality management, H&S, environmental protection, energy efficiency, anti-corruption and anti-fraud.

The key document of Samruk-Energy JSC in this area is the Corporate Governance Policy (for more details, go to Samruk-Energy's website at:

www.samruk-energy.kz/ru/corporategovernance /corporate-documents#6

To objectively assess the corporate management system as well as to increase the interaction level, ensure the audit principles implementation and the formation of the necessary knowledge base, the Company uses the cross-functional audit approach involving audits within the Samruk-Energy's group of companies both by specialists of subsidiaries and affiliates and the head office.

In December 2022, Samruk-Energy JSC successfully confirmed the compliance of the corporate management system with the requirements of international standards: ISO 9001 Quality Management System, ISO 14001 Environmental Management System, ISO 45001 Occupational Health and Safety Management System, ISO 50001 Energy Management System, ISO 37001 Anti-Corruption Management System.

[33] Decision of the Board of Directors, Minutes No. 03/22 dated 01 April 2022.

The Company carries out the certification on the basis of MS Certification Services procedures, engaging the auditors of international class. The certification covered the following assets of the Company: Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Moynak HPP, Samruk Green Energy, Alatau Zharyk Company JSC, AlmatyEnergoSbyt, Shardarinskaya HPP, First Wind Power Plant, as well as the head office of Samruk-Energy JSC.

The certification audit findings showed positive aspects of the development and functioning of the Company's corporate management system, in particular:

- high degree of leadership orientation towards achieving the company's goals;
- arrangement and performance of cross-functional corporate audits of the management system in subsidiaries and affiliates;
- a good level of electronic exchange of documented information in the company's operation;
- application of information systems for planning and managing processes;
- support for the development of the corporate management system at subsidiaries and affiliates;
- amendments to the applicable legislation to establish requirements aimed at protecting the interests of all participants in the energy market.

Compliance with the Corporate Governance Code

The results of the self-assessment show that in 2022 the Company ensured compliance with the basic principles and provisions of the Code. Of the 64 provisions of the Code, 60 provisions fully complied with the Code and four provisions partially complied. Partial inconsistencies are recorded in the sections The Government as a Fund shareholder and Efficiency of the Board of Directors and the Executive Body.

According to the Code, entities should seek to simplify their asset structures and organisational and legal forms as much as possible. In November 2022, Samruk-Energy JSC partially eliminated the inconsistencies with the provisions of the Code in the section The Government as a Fund shareholder.

The Company created a subsidiary Qazaq Green Power PLC within the jurisdiction of the Astana International Financial Centre to consolidate the perimeter of its "green" assets. In December 2022, the assets of Samruk-Green Energy, First Wind Power Plant, and Moynak HPP were transferred udner management of Qazaq Green Power PLC.

According to the Code, it is necessary to ensure diversity in the composition of the Board of Directors in terms of experience, personal characteristics and gender composition. As part of the elimination of partial inconsistencies with the provisions of the Code in the section Efficiency of the Board of Directors and the Executive Body, the Board of Directors approved the induction programme for newly elected members of the Board of Directors and the professional development programme for each member of the Board of Directors. The Corporate Secretary provides the implementation of these programmes.

In the reporting period, the Company implemented the procedure for inducting newly elected members of the Board of Directors into office. Due to optimisation of costs for maintaining the Board of Directors in 2022, we did not approve the professional development programme for each member of the Board of Directors[34].

[34] Paragraph 9 of the Roadmap in pursuance of the instructions of the President of the Republic of Kazakhstan on the Fund reforming issues as approved by the decision of the Fund Board Minutes No. 13/22 of 24 February 2022.

Company plans to improve the corporate governance system

The key priorities for the corporate governance development of Samruk-Energy JSC in 2023 and in the short term:

- Application of the best corporate governance practices through further implementation of the principles and provisions of the Corporate Governance Code.
- Efficient risk management and internal controls to improve reputation.
- Development of an integrated business continuity system.
- Observance of the rights of shareholders, investors and other stakeholders.
- Separation of powers and responsibilities between bodies and departments.
- Improvement of the efficiency of the Board of Directors/Committees, as well as the Executive Body/ Committees, management bodies of subsidiaries and affiliates.
- Prevention of corporate conflicts and conflicts of interest.
- Counteraction to all types of corruption and compliance with business ethics.
- Improvement of the management reporting system, including in the field of sustainable development at different levels of management.
- Efficient interaction with shareholders and other stakeholders, improving the principles of information transparency.
- Assurance of effective processes and systems for planning, internal control, compliance and internal audit, risk management, sustainable development management.
- Implementation of the sustainable development principles and 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 spheres (involuntary resettlement, biodiversity, cultural heritage, etc.) in accordance with the Guidelines for Company's sustainable development.
- Growth of financial sustainability Promotion of responsible procurement based on the principles of fair and free competition, mutual benefit, transparency and full responsibility for the obligations assumed, as well as introduction of a requirement for suppliers to comply with ethical standards and guiding principles for the Company's suppliers, fixed in the Guidelines for Company's sustainable development.
- Execution of the assessment and implementation of best ESG practices, including:
  - analysis and updating of documents/policies for compliance with ESG criteria (Environmental Policy, Occupational Health and Safety Policy, documents on social responsibility, interaction with stakeholders, Policy on quality and safety of products/services, human rights, etc.), development of non-financial reporting;
  - assessment of the Company's risks associated with climate change;
  - determination of requirements for suppliers using ESG criteria;
  - monitoring the compliance of the Company's activities with the requirements of PRI (UN Principles for Responsible Investment) to attract investments;
  - assessment of the current development of ESG management practices and improvement of the Company's positions by participating in ESG ratings;
  - definition of ESG criteria along with standard financial analysis - assessment of both ESG risks and opportunities;
  - development of a system of motivation and remuneration of personnel related to indicators of ESG criteria.

Governing Bodies

Shareholder

Samruk-Energy JSC is wholly owned by the Sole Shareholder, Samruk-Kazyna www.www.sk.kz

Integrity, accountability, responsibility and transparency lie at the heart of the relationship of Samruk- Energy JSC with the Sole Shareholder, with the Company striving to protect and respect its rights and legitimate interests.

The Sole Shareholder governs the Company by setting priority objectives and strategic directions of operation. The Charter regulates activities, exclusive competencies, rights and obligations of the Sole Shareholder. The Company aims to comply with the interests of the Sole Shareholder, ensuring the long-term value growth and sustainable development.

The Company carries out implementation of the Sole Shareholder's rights in accordance with the Law of the Republic of Kazakhstan On Joint Stock Companies and the Charter of Samruk-Energy JSC. Shareholder's rights include, but are not limited to:

- timely receipt of information sufficient to make a decision, as set by the laws of the Republic of Kazakhstan, the Company's Charter and internal documents on the information disclosure;
- voting on issues within their competence;
- participation in determination of the number of members, the term of office for the Board of Directors, the election of its members and the termination of their powers, as well as determination of the amount and the terms and conditions of remuneration payment;
- receipt of dividends based on a clear and transparent dividend policy.

In the reporting period, the Sole Shareholder considered key issues:

- 28 April 2022 – approval of the annual financial statements of Samruk-Energy JSC for 2021; the procedure for distribution of the net income of Samruk-Energy JSC for 2021 and the amount of dividends per one ordinary share of Samruk-Energy JSC; the information on the appeals of the Sole Shareholder of Samruk-Energy JSC on the actions of Samruk-Energy JSC and its officials and the results of their consideration for 2021;
- 30 June 2022 – approval of the corporate standard for the Compliance function in portfolio companies of Samruk-Kazyna JSC.

Board of Directors of Samruk-Energy JSC

GRI 2-9

The Board of Directors ensures strategic management of the Company and long-term performance by making informed decisions, taking into account the interests of all stakeholders based on the sustainable development principles.

In 2022, Nikolay Kazutin, a Shareholder's representative, was appointed the Chairman of the Board of Directors and Valeriy Ogay was appointed a senior independent director.

In the reporting period, Alexey Repin and Yernar Zharkeshov were elected to the Board of Directors, being Shareholder's representatives with deep knowledge in energy, strategic planning.

In 2022, the Board of Directors of the Company consisted of seven members. Three independent directors – Arman Kashkinbekov, Armanbay Jubaev, Valeriy Ogay – are significantly experienced in finance, accounting, auditing, engineering, strategic management, energy, including the development of green energy, ESG.

The current composition of the Company's Board of Directors is well-balanced in terms of industry experience, skills, international relations and independence, but does not provide diversity in terms of the gender component.

Members of the Board of Directors do not own the Company's shares (stakes in the Company), affiliated companies, and do not own shares of the Company's suppliers and competitors.

Selection and re-election policy

GRI 2-9, 2-10

The procedure for the activities and competence of the Board of Directors, the rights and obligations of its members are determined by the Company's Charter and the Regulations on the Board of Directors. The Company carries out formation, search and selection of candidates until the expiration of the entire Board of Directors' term of office and the individual members' authority.

The General Meeting of Shareholders elects members of the Board of Directors, following clear and transparent procedures, taking into account competencies, skills, achievements, business reputation, professional experience of candidates, characteristics and gender composition. When re-electing individual members of the Board of Directors or its entire composition for a new term, Samruk-Energy takes into account their contribution to the effectiveness of the Board of Directors' activities.

When selecting Board member candidates, Samruk-Energy takes the following criteria into account:

- experience in senior roles, including as a member of the Board of Directors;
- length of service;
- educational background, specialty, availability of international certificates and competencies in the focus areas of the Company's operations;
- business reputation;
- assessment of direct or potential conflicts of interest.

The Sole Shareholder or the Nomination and Remuneration Committee may initiate the issue of electing the entire Board of Directors or its individual members.

Members of the Board of Directors are elected from among:

- individual shareholders;
- persons nominated/recommended for election as shareholder representatives;
- individuals who are not the Sole Shareholder of the Company and are not nominated/recommended for election to be elected as a representative of the Sole Shareholder.

Independent directors should constitute at least one third of the Board of Directors. An independent director is a person who has sufficient professionalism and independence to make independent and objective decisions, free from the influence of individual shareholders, the executive body and other interested parties. Independent directors are elected as chairpersons of key committees of the Board of Directors – on matters of audit, nomination and remuneration, and in other committees. In addition, an independent director should monitor the possible loss of independence status and inform the Chairman of the Board of Directors in advance of such a situation. In the event of circumstances affecting the independence of a member of the Board of Directors, the Chairman of the Board of Directors immediately brings this information to the attention of the Sole Shareholder to make an appropriate decision. By the end of 2022, the Company's Independent Directors fully met the independence criteria.

In the companies owned and managed by Samruk-Kazyna Fund, election of members of the Board of Directors follows specific rules:

- the Chairman of the Board of Directors is elected by the Sole Shareholder;
- if the Chairman of the Board of Directors is elected from among the representatives of the Fund, the Board of Directors elects a senior independent director from among the independent directors;
- the Fund together with the Chairman of the Board of Directors and the Chairman of the Nomination and Remuneration Committee of the Company's Board of Directors carries out the process of recruiting and selecting candidates for the Board of Directors .

Members of the Government of the Republic of Kazakhstan, officials of government authorities may not be appointed to the Board of Directors.

Members of the Board of Directors are elected for a three year term.

In the future, subject to satisfactory performance, they may be re-elected for another term of up to three years. Any term of election to the Board of Directors for a period of more than six consecutive years (two three-year terms) is subject to special consideration, taking into account the need for a qualitative renewal of the Board of Directors. The term of office for members of the Board of Directors coincides with the term of office for the entire Board of Directors and expires at the time the Shareholders General Meeting makes a decision to elect a new composition of the Board of Directors.

An independent director cannot be elected to the Board of Directors for more than nine consecutive years. In exceptional cases, election for a term of more than nine years is allowed. The election of an independent director to the Board of Directors takes place annually with a detailed explanation of the need to elect this member of the Board of Directors and the impact of this factor on the independence of decision-making.

No person participates in making decisions on his own appointment, election and re-election.

Role of the Board of Directors in promoting the ESG principles

GRI 2-12

The Board of Directors implements the sustainable development policy and reviews the key ESG documents. The Board of Directors approved the Guidelines for sustainable development, being the key document in this area aimed at systematising the sustainable development processes in Samruk- Energy JSC group. The Board of Directors approved the Plan of Initiatives in the sphere of sustainable development for the medium-term period 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. The Company considers the initiatives annually at a special strategic session with the participation of the Management Board members.

Evaluation of Board of Directors' performance

GRI 2-18

The performance of the Board of Directors, Committees and members of the Board of Directors is evaluated on an annual basis through a structured process approved by the Board of Directors. Evaluation methods are the self-evaluation or the engagement of an independent consultant to improve the evaluation quality. At the same time, an external independent evaluation takes place at least once every three years.

In 2021, as part of an independent assessment of the Company's corporate governance, an independent consultant assessed the performance of the Board of Directors, Committees and members of the Board of Directors. The overall performance of the Board of Directors rated BB, which is up from the 2018 rating (B). The activities of the Company's Board of Directors in all material respects meet most of the established criteria.

Based on the results of the Board of Directors performance evaluation, the Company formed the Action Plan for 2022 to improve corporate governance.

In accordance with the best international corporate governance practice, the Company conducted a self-assessment of the Board of Directors performance in 2022. The self-assessment is based on the Methodology for Assessment of Performance of the Board of Directors and its Committees in accordance with the Corporate Governance Evaluation Methodology, as well as the best corporate governance practices.

According to the methodology, the evaluation technology included a survey of all members of the Board of Directors and Committees of the Board of Directors. The results of the Board of Directors performance evaluation showed directions for further development of the corporate governance practice. Based on the assessment results, the Company formed an Action Plan aimed at elimination of weaknesses to improve the Board of Directors level and the Company's corporate governance as a whole.

GRI 2-16

The procedure for escalating critical financial and non-financial issues to the Board of Directors is regulated by the applicable law and internal regulations. According to the results of 2022, these were no such cases.

Training and development of members of the Boards of Directors

GRI 2-17

To improve awareness of the senior management about sustainable development and corporate governance, we held the following events in the reporting period:

- PWC held a training session on ESG corporate reporting system;
- the Company held an advanced training, as well as a corporate training for members of the Board of Directors, members of the Management Board and managers on the implementation of ESG principles across Samruk-Energy Group as part of updating the Samruk-Energy Development Strategy;
- the Corporate Governance and Sustainable Development Department arranged an online meeting with portfolio companies and held a special session on sustainable development for members of the Management Board and heads of the Company's structural divisions;
- PWC held a training session on pressing ESG issues for the executives of the Company;
- the Company held an annual special session engaging the Company's Management Board with for critical assessment and discussion of the Company's sustainable development.

Composition of the Company's Board of Directors as of 31 December 2022

GRI 2-9, 405-1, GRI 12: Coal Sector: 12.19.6

Total number of the Board of Directors' members	7	30-50	57%	Men	100%
Independent Directors	3	50 +	43%		

Nikolay Kazutin

Chairman of the Board of Directors of Samruk- Energy,

Shareholder's representative

Managing Director for Legal Support, Security and Risks of Samruk-Kazyna JSC. Expert in strategic and corporate management, economics, finance, law and audit.

Citizenship: Republic of Kazakhstan

Date of birth: 28 November 1982

Date of first election: 18 February 2022

Term of office: 23 June 2025

Educational background: Ryskulov Kazakh Economic University, majoring in accounting and audit.

Professional experience: in 2022 – Managing Director for Legal Support, Procurement and Risks of Samruk-Kazyna JSC

2020 – Deputy Chairman of the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan

2018-2019 – Head of the Internal Audit Service of East Kazakhstan Regional Energy Company JSC, Ust-Kamenogorsk

2016-2018 – Advisor to the Chairman of the Board of Kokshetau Mineral Waters JSC

2016-2006 – Senior Manager of the Department of PricewaterhouseCoopers Tax & Advisory LLP, Almaty

2005-2006 – Financial Analyst of Kazinterpolis Insurance Broker LLP, Almaty

2003-2005 – Financial Analyst of Insurance Company Amanat Insurance JSC, Almaty

2001-2003 – specialist in insurance and accounting of the branches of Industrial Insurance Group JSC, Almaty

Serik Tutebayev

Member of the Board of Directors, Chairman of the Management Board

Expert in energy, strategic planning, corporate governance, finance, market development and law. Does not own shares of the Company, suppliers or competitors.

Citizenship: Republic of Kazakhstan

Date of birth: 27 May 1958

Date of first election: 6 October 2022

Term of office: 23 June 2025

Educational background: Almaty Energy Institute, specialty – a thermal power engineer and economics and management at fuel and energy enterprises.

Professional experience: in 2022 – acting Chairman of the Management Board, Chairman of the Management Board.

2016-2022 – Managing Director for Production and Asset Management of the Company

2014-2016 – Manager of the Generation division

2013-2014 – Deputy Chairman of the Management Board for Production of SEVKAZENERGO JSC

2011-2013 – Head of the Department of Energy and Public Utilities of Almaty

2010-2011 – Deputy Chairman of the Board of Almaty Power Plants JSC

2007-2010 – Managing Director of Almaty Power Plants JSC, coal-powered heat and power plant No. 2

1984-1998 – supervisor for turbine equipment of the turbine shop, senior driver of the turbine department of the turbine shop, shift supervisor of the turbine shop, head of the turbine shop of ACHPP-2, chief engineer, Managing Director of Almaty Power Consolidated JSC

1983-1984 – Engineer of the HSE Department of Almaty Energy University

1981-1983 – Assistant to the master of starting-up and adjustment department at SredneAzEnergoMontazh

Yernar Zharkeshov

Member of the Board of Directors, Representative of the Sole Shareholder

Expert in strategic planning, corporate governance, finance, IT.

Participation in committees: Member of the Strategic Planning Committee, Member of the HSE Committee

Citizenship: Republic of Kazakhstan

Date of birth: 24 October 1986

Date of first election: 27 May 2022 Term of office: 23 June 2025

Educational background: Lee Kuan Yew School of Public Policy, National University of Singapore, Master in Public Policy (under the Lee Kuan Yew Graduate Scholarship).

University of Birmingham, UK. Bachelor of Science in Public Policy, Government and Management.

Kazakh University of Economics, Finance and International Trade, majoring in finance.

Professional experience: In 2022 and up to date – Partner and Director in AQ Group, International Energy and IT Holding, Kazakhstan / USA

2021-2022 – General Director at Lemberg Energy Holdings, an international energy holding with engineering in oil and gas processing and chemistry (methanol, hydrogen, ammonia, gas-to-power), Ukraine

2019-2021 – Director for Eurasia, Dubai, UAE/Nur-Sultan, Kazakhstan at Whiteshield Partners

2017-2019 – Executive Director, General Director and Managing Partner of Centre for Strategic Initiatives LLP Astana, Kazakhstan 2014-2017 – Project Manager, Head of the Research Centre, Project Portfolio Manager, Team Leader of the UN Development Programme, the project of the Government of the Republic of Kazakhstan and UNDP Regional hub in the field of civil service in Astana

2012-2014 – Deputy Director, Director of the Research Institute of the Academy of Public Administration under the President of the Republic of Kazakhstan Astana, Kazakhstan

2011-2012 – Chief Expert of Kazakhstan Centre for Public-Private Partnership JSC, Ministry of Economic Development and Trade of the Republic of Kazakhstan, Astana, Kazakhstan

2010-2011 – Researcher at the Lee Kuan Yew School of Public Policy, Singapore

2009 – Researcher-trainee of the research centre Ipsos-MORI, UK

Alexey Repin

Member of the Board of Directors, Representative of the Sole Shareholder

Head of the Energy and Mining Assets Sector of the Department of Oil and Gas, Mining and Energy Assets of Samruk-Kazyna JSC. Expert in corporate governance, strategy, commercial management, investments, mergers and acquisitions.

Participation in committees: Member of the Nomination and Remuneration Committee

Citizenship: Republic of Kazakhstan

Date of birth: 11 April 1961

Date of election: 18 February 2022

Term of office: 23 June 2025

Educational background: Chelyabinsk Polytechnic Institute, Faculty of Power Engineering, majoring in electrical engineering.

All-Russian Financial and Economic Institute, majoring in economy, finance and credit.

Russian Academy of National Economy and Public Administration under the President of the Russian Federation, MBA programme Top Manager, specialisation management.

Professional experience: 2012-2022 – Head of the Directorate of Electric Power Industry, Samruk-Kazyna JSC

2011-2012 – Director at KazResourceConsulting Housing and Public Utilities LLP

2010-2011 – Managing Director, Deputy Chairman of the Management Board at Kazakhstan Centre for Modernisation and Development of Housing and Communal Services JSC

2007-2010 – Head of the Energy Department, Director of the Investments Department of NC SEC Tobol JSC

2006-2007 – Deputy Chairman of the Management Board of Astanaenergoservice JSC

2004-2006 – Director of Energokontrakt LLP

2001-2004 – Deputy General Director, General Director of Kostanay REC JSC (Public Utility Kostanay Electric Grid Company, Kostanay Energy Centre LLP)

Valery Ogay

Senior Independent, Director of the Board of, Directors of Samruk-Energy JSC

Expert in energy, strategic planning, corporate governance, finance, generation and engineering.

Participation in committees: Chairman of the Nomination and Remuneration Committee, Chairman of the HSE Committee, Member of the Audit Committee

Citizenship: Republic of Kazakhstan

Date of birth: 1 March 1949

Date of election: 27 May 2022

Term of office: 23 June 2025

Educational background: Kazakh Polytechnic Institute, Energy Faculty, thermal power plants, majoring in engineer-thermal power engineering.

Professional experience: in 2008-2018 – Deputy Director of the Directorate, Chief Expert of Samruk-Kazyna JSC

2001-2008 – Head of the laboratory "Energy Monitoring and Expertise"

1975-2008 – Senior Lecturer, Associate Professor of the Department of Thermal Power Plants (TPP) of the Almaty University of Energy and Communications

Participation in the Boards of Directors:

2007-2008 – Independent Director of the Board of Directors of Almaty Power Plants JSC

2008 – Independent Director of the Board of Directors of KazKuat JSC

2010-2012 – Member of the Supervisory Board of Ekibastuz District Power Station -1 LLP

2010-2011 – Representative of Samruk-Kazyna JSC in the Board of Directors of Kazakh Research Institute of Energy

Arman Kashkinbekov

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

Expert in business management and economics, energy, strategic planning.

Participation in committees: Chairman of the Strategic Planning Committee Member of the Audit Committee

Citizenship: Republic of Kazakhstan

Date of birth: 25 March 1977

Date of election: 27 May 2022

Term of office: 23 June 2025

Educational background: Kazakh-Japanese Development Centre, Strategic Management Programme.

Norwegian Petroleum Directorate, majoring in Petroleum Policy and Management.

VANDERBILT University USA, Master of Economics.

Bolashak Programme of the President of the Republic of Kazakhstan.

Karaganda State University.

Professional experience: in 2022 and up to date – President of National Centre for State Scientific and Technical Expertise JSC, member of the National Kurultai under the President of the Republic of Kazakhstan

2021-2022 – Director of the International Snow Leopard Foundation

2020-2021 – Head of Sustainable Development of the United Nations Development Programme

2019-2020 – Deputy Chairman of the Management Board of the Science Foundation

2018-2019 – Deputy Chairman of the Management Board of the International Centre for Green Technologies and Investment Projects

2016-2017 – Vice President of Enzen

2015 and up to date – Honorary General Director and Member of the Board of Directors of the Renewable Energy Association of Kazakhstan

2012-2014 – CEO of Rolls-Royce Energy Kazakhstan

2009-2012 – Member of the Management Board, Director for Government Relations and Public Relations ARSELORMITTAL TEMIRTAU

2008-2009 – Director for International Cooperation of the Samruk-Kazyna National Welfare Fund

2007-2008 – Executive Director of KAZENERGY

2006-2007 – President of Kazinvest

2005-2006 – Director of Business Development, Government and Public Relations of CONOCOPHILLIPS

2004-2005 – Director of the Council of Foreign Investors under the President of the Republic of Kazakhstan

2000-2004 – Chief Manager of NC Kazmunaigas / Kazakhoil

1999-2000 – Media Analyst, OWEN Business School, VANDERBILT University

1998-1999 – Research assistant, Institute for Public Policy, VANDERBILT University

Participation in the Boards of Directors:

Member of the National Council of Public Trust under the President of the Republic of Kazakhstan

Member of the National Scientific Council for Energy and Mechanical Engineering

Member of the Energy Committee of the National Chamber of Entrepreneurs ATAMEKEN

2021 and up to date – independent member of the Board of Directors of Civic Initiatives Support Centre NJSC

2017 and up to date – independent member of the Board of Directors of Shymkent coal-powered heat and power plant -3/ERG JSC

2014-2018 – Independent member of the Board of Directors of Baiterek Venture Fund

2019-2020 – independent member of the Board of Directors of NIT JSC

Armanbay Jubaev

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

Expert in strategic planning, corporate governance, finance and audit.

Participation in committees: Chairman of the Audit Committee, Member of the Nomination and Remuneration Committee, Member of the Strategic Planning Committee

Citizenship: Republic of Kazakhstan

Date of birth: 28 January 1977

Date of election: 6 October 2022

Term of office: 23 June 2025

Educational background: Duquesne University, Pittsburgh, USA, majoring in Business Administration (BSBA).
University of Oxford, UK, MSc Comparative Social Policy.
The University of California, Berkeley, USA, MBA degree.
Certified Financial Analyst, CFA.

Professional experience: in 2020 and up to date - the founder of the consulting company StrategyLab LLP
2006-2008 – Marketing Specialist, SAP, USA
2009-2010 – Consultant McKinsey Company, Russian Federation
2010-2012 – Polymetal company, Kazakhstan
2012-2013 – Senior Manager, KPMG, Kazakhstan
2013-2020 – Senior Manager, Director of PwC, Kazakhstan

Participation in the Boards of Directors:
2022 and up to date – Independent Director of Kazakhtelecom JSC

Activities of the Board of Directors

The Board of Directors meets in accordance with the working plan as approved before the calendar year and including the list of issues under consideration and a schedule of meetings. The Board of Directors considers and decides on issues of an important and strategic nature only at meetings in person. Materials for meetings of the Board of Directors are provided for in advance – at least seven calendar days prior to the meeting, and on more important issues not less than 15 working days prior to their consideration.

In 2022, the Company's Board of Directors held 17 meetings, of which 11 were held in person, and 6 in absentia. The attendance of meetings by members of the Board of Directors was 100%.

MEETINGS ATTENDANCE BY MEMBERS OF THE BOARD OF DIRECTORS IN 2022

Name	2022
Nikolay Kazutin	100%
Alexey Repin	100%
Yernar Zharkeshov	100%
Valery Ogay	100%
Arman Kashkinbekov	100%
Armanbay Jubaev	100%
Serik Tutebayev	100%

At their meetings, the Board of Directors considered 194 issues, including:

- on the internal rate of return;
- on the strategy of information technology and digitalisation;
- Regulations on the IT architecture;
- on the Company's dividend policy in relation to subsidiaries;
- on entering amendments to the Regulations on the Management Board;
- on the approval the Company's Energy Transition Programme for 2022-2060;
- on the approval of the talent pool and succession programmes for Samruk-Energy JSC key positions of CEO-1 (non-members of the Management Board) and CEO-2;
- on the approval of the Roadmap for improving the sustainable development management system.

As part of the quarterly reporting in 2022, the Board of Directors considered the following reports:

- on the investment development and investment projects;
- on the Action plan for corporate governance improvement;
- on health and safety, industrial injuries and environmental protection;
- on the Development Strategy Action Plan implementation;
- on risk management (with a description and analysis of key risks, information on plans and programmes for risk minimisation).

The Board of Directors also considered the following reports:

- on interaction with stakeholders and feedback mechanism for 2021;
- on the Action Plan implementation to eliminate H&S violations as identified by the Company's Internal Audit Service;
- on compliance/non-compliance with the Corporate Governance Code principles and provisions;
- on the Plan for sustainable development initiatives;
- on the information security (cybersecurity), as well as on the analysis and assessment of the Company's internal control sufficiency in terms of protecting and maintaining IT systems and infrastructures.

In 2023, the Board of Directors will focus on strategic issues, in particular on the reduction of corporate issues of an administrative and operational nature.

In accordance with the Regulations on the Board of Directors, the Chairman of the Board of Directors is responsible for the overall management of the Board of Directors, ensures full and effective functioning of the Board of Directors and creates a constructive dialogue between the members of the Board of Directors, the Shareholder and the Management Board.

The role and functions of the Chairman of the Board of Directors and the head of the executive body are clearly separated by the Company's Charter, the Regulations on the Board of Directors and the Regulations on the Management Board.

THE BOARD OF DIRECTORS' COMPETENCE MATRIX

Required knowledge	Valery Ogay	Arman Kashkinbekov	Armanbay Jubaev	Yernar Zharkeshov	Alexey Repin	Nikolay Kazutin	Serik Tutebaye v
Professional skills							
Strategic planning		+			+	+	+
Audit, risk management, internal audit, control	+		+			+	
Environmental, Social, and Corporate Governance, ESG				+			+
Finance and Economy			+			+	+
HR management and remuneration				+			
Project management		+					
Occupational health and industrial safety	+				+	+	+
Energy/Renewable Energy	+				+		+
Experience							
Applicable industry experience (energy)	+				+		
Experience in senior roles (CEO, CEO-1)		+	+				+
Experience in the focus areas		+	+	+			+
Experience as a Board of Directors member	+	+	+	+	+	+	+
Educational background							
PhD/MBA/other master's degree	+	+		+	+	+	+
CFA/CPA/other equivalent degree		+					
CIA/other equivalent degree		+					

Committees of Samruk-Energy Board of Directors

GRI 2-9

The Board of Directors delegates powers to its Committees for fulfilling certain tasks, efficient functioning and due attention to in-depth examination and high-quality study of issues and decisions made. The Committees act in accordance with the Regulations on the Committee.

The current Committees under the Board of Directors are responsible for preparing recommendations in the economic, environmental and social areas:

- Production Safety (HSE) Committee.
- Audit Committee.
- Nomination and Remuneration Committee.
- Strategic Planning Committee.

The Board of Directors decides on these aspects, taking into account the sustainable development principles and based on an in-depth study of the recommendations developed by the Committees.

In the reporting period, there were no changes in the functions of the existing Committees under the Board of Directors or the Management Board, and no new Committees were created.

The Audit Committee

The Committee aims its activity to assist the Board of Directors in profound study of issues on effective system of control over the Company's financial and economic operation. This includes the control over the completeness and reliability of financial statements, the reliability and efficiency of internal control and risk management systems, execution of corporate governance documents, independence of external and internal audit, as well as compliance with the laws of the Republic of Kazakhstan.

COMPOSITION OF THE COMMITTEE:

Armanbay Jubaev
Independent Director, Chairman of the Committee

Arman Kashkinbekov
Independent Director, member of the Committee

Valery Ogay
Independent Director, member of the Committee

In 2022, the Committee held eight meetings in person and considered **55** issues

Among the main ones: the work of the Internal Audit Service, the Compliance Service and the Risk Management and Internal Control Department. The voting Committee members' attendance made up 100%.

Also in the reporting period, the Committee held meetings with external auditors and the executive body on the financial statements preparation.

Nomination and Remuneration Committee

The Nomination and Remuneration Committee is a consultative and advisory body of the Board of Directors providing recommendations on the appointment and remuneration of members of the Board of Directors, the Management Board, the Corporate Secretary, as well as other employees in accordance with the Company's internal regulatory documents.

COMPOSITION OF THE COMMITTEE:

Valery Ogay
Senior Independent Director, Chairman of the Committee

Armanbay Jubaev
Independent Director, member of the Committee

Alexey Repin
member of the Committee, Representative of the Sole Shareholder

In 2022, the Committee held nine meetings in person and considered **57** issues

Among the main ones:

- recommendations to the Board of Directors on the issues of electing members of the Supervisory Boards/ Boards of Directors for Samruk-Energy JSC group of companies;
- recommendations on the approval of individual development plans for the Chairman and members of the Company's Management Board for 2022;
- Report on the Ombudsman's activities for 2021;
- the approval of job descriptions for the Managing Director on Production and Asset Management, Managing Director on Economy and Finance, Managing Director on Development, Sales and Changes, Managing Director on Legal Support, Procurement and Risks;
- Report on the Company's HR policy implementation for 2021;

- approval of the Company's organisational structure in a new wording;
- actual values of key performance indicators of the Management Board members, the Head of the Internal Audit Service and the Corporate Secretary of Samruk-Energy JSC, the motivational KPIs of the Management Board members, the Head of the Internal Audit Service and the Corporate Secretary of Samruk-Energy JSC.

The voting Committee members' attendance made up 100%

Strategic Planning Committee

The purpose of the Committee's activity is to prepare recommendations on the development of priority activities (development), the Company's strategic goals (development strategy), the introduction of a sustainable development management system. This includes HSE issues, investment projects implementation, a master plan and measures contributing to improvement of the efficiency of the Company's long-term operation.

COMPOSITION OF THE COMMITTEE:

Arman Kashkinbekov
Independent Director, Chairman of the Committee

Armanbay Jubaev
Independent Director, member of the Committee

Yernar Zharkeshov
member of the Committee, Representative of the Sole Shareholder

In 2022, the Committee held seven meetings in person and considered **38** issues

Among the main ones are quarterly Reports:

- on preliminary consideration of the Development Strategy for 2022-2031;
- on implementation of the Corporate Governance Action Plan and the Corporate Governance Code of Samruk-Energy JSC;
- on consideration of the Company's Development Strategy Action Plan for 2018-2028;
- on implementation of the Company's Development Plan;
- on the development of investments and investment projects ;

The voting Committee members' attendance made up 100%.

Production Safety (HSE) Committee

The Committee aims at the growth of the Company's efficiency through the preparation of recommendations, assessment, analysis and effective work on occupational health and safety and environmental protection.

COMPOSITION OF THE COMMITTEE:

Valery Ogay
Independent Director, Chairman of the Committee

Arman Kashkinbekov
Independent Director, member of the Committee

Yernar Zharkeshov
member of the Committee, Representative of the Sole Shareholder

In 2022, the Committee held four meetings in person to consider **9** issues

. Among the main ones are quarterly reports on:

- health and safety and occupational injuries;
- 2022 Action Plan for the elimination of H&S violations as identified by the Company's Internal Audit at Almaty Power Plants JSC and Alatau Zharyk Company JSC for Q4'2021;
- 2022 Action Plan for the HSE management in the Company;
- 2023 Action Plan to achieve zero injuries;
- 2023 Action Plan for the environmental protection management.

The voting Committee members' attendance made up 100%.

Management Board

The Management Board, a collegial executive body, manages the current Company's operation, cooperates with the Board of Directors and interacts with all stakeholders. The Management Board ensures the compliance of the Company's operation with the development strategy, development plan and the decisions taken by the Sole Shareholder and the Managing Body.

The Charter of Samruk-Energy JSC and the Regulations on the Management Board determine the procedure on the Management Board formation, the rights, duties and responsibilities of its members, as well as the rules of its activities.

In accordance with the Charter, the Board of Directors determines the number of members, the term of office of the Management Board, elects members of the Management Board, terminates their powers ahead of schedule (except to the Chairman of the Management Board). At the same time, the issue of appointment (election) and early termination of powers of the Chairman of the Company's Management Board relates to the Sole Shareholder's competence.

The Chairman and members of the executive body have sufficient knowledge, skills and experience required for performing their functions, as well as an impeccable business and personal reputation

The key role of the Management Board is to ensure the prompt and effective solution of the Company's daily tasks, as well as the implementation of both the strategy and the development plan. The Board ensures:

- operations in compliance with the law requirements, the Company's Charter and internal documents, decisions of the Sole Shareholder and the Board of Directors;
- proper risk management and internal control;
- allocation of resources for the implementation of decisions of the Sole Shareholder and the Board of Directors;
- occupational health and safety;
- creation of an atmosphere of interest and loyalty of employees, development of corporate culture.

Management Board composition

The Management Board saw changes in the reporting period. Arman Adylkerimov[35], Yelena Ivchenko[36], Ruslan Turgambayev[37] were elected to the Management Board of Samruk-Energy JSC.

GRI 2-9, 405-1, GRI 12: Coal Sector: 12.19.6

The Management Board of Samruk-Energy JSC includes five members.
In 2022, the share of senior executives hired from among the local community was 100%.

AGE OF MEMBERS


30-50 — 80%


50 + — 20%

GENDER DIVERSITY


Men — 80%


Women — 20%

[35] Decision of the Board of Directors of 27 May 2022, Minutes No. 06/22.
[36] Decision of the Board of Directors of 27 May 2022, Minutes No.06/22.
[37] Decision of the Board of Directors of 14 December 2022, Minutes No. 16/22.

The Management Board as of 31 December 2022

For a full summary of each Board member, please go to the website: www.samruk-energy.kz

SERIK TUTEBAYEV

Citizenship:

Republic of Kazakhstan

Date of birth:

27 May 1958

Position

Chairman of the Management Board, CEO, carrying out general management of the Company's executive body

Responsibilities

In accordance with the current legislation of the Republic of Kazakhstan and the internal documents of Samruk-Energy JSC, for the purpose of effectively implementing the mission and strategic goals of the Company, it takes responsibility for the ongoing operational activities of the Company, timely formation and implementation of the Company's Development Strategy, ensuring the production of energy resources, increasing shareholder equity value, efficient and active project portfolio management, enhancing productivity, and fostering human capital development and social responsibility.

RUSLAN TURGAMBAYEV

Citizenship:

Republic of Kazakhstan

Date of birth:

30 April 1974

Position

Management Board member

Managing Director for Production and Asset Management

Responsibilities

To achieve the declared business indicators of the Company in production sphere, he is responsible for the implementation of development plans and objectives in the Company's supervised divisions and the Group. He controls the production plan formation, capital construction in terms of production assets maintaining and equipment repairing. To implement investment programmes related to maintenance and solution of complex issues within the production programmes, performance management of the Group of Companies, he monitors the investment programme implementation and evaluates the capital investments effectiveness. He supervises the process of work on energy saving, energy efficiency and environmental protection in the Company.

AIDAR RYSKULOV

Citizenship:

Republic of Kazakhstan

Date of birth:

20 September 1981

Position

Management Board member

Managing Director for Economy and Finance

Responsibilities

Within the framework of strategic priorities, he provides medium-term and operational planning, manages financial stability by implementing economic and tariff policies for the Group of companies. Provides financing and implementation of factor analysis, timely provision of reliable financial and management reporting to stakeholders. Ensures the effectiveness of the Group of companies' investment activities and the adoption of effective investment decisions. He carries out developing, executing and monitoring of the Development Strategy implementation, as well as the measures to achieve the goals of the Company's asset structure.

ARMAN ADYLKERIMOV

Citizenship:

Republic of Kazakhstan

Date of birth:

24 September 1980

Position

Management Board member

Managing Director for Legal Support, Procurement and Risks

Responsibilities

Provides legal support for the Group of companies operation, efficient functioning and permanent improvement of risk management, internal control and business continuity systems. To increase the management and internal control rating, as well as the efficiency of business continuity and corporate governance rating, he ensures improvement of corporate governance and sustainable development processes. He carries out management and control over the procurement and marketing processes for the Group of companies in accordance with the law, the Charter and the development strategy for efficient use of funds and increase of the Company's profitability.

YELENA IVCHENKO

Citizenship:

Republic of Kazakhstan

Date of birth:

9 April 1975

Position

Management Board member

Managing Director for Development, Sales and Changes

Responsibilities

Following the approved strategic priorities, she controls the sale of the planned volumes/prices of electricity and coal, taking into account strategic initiatives on entering new markets. She develops the proposals to improve the Kazakhstan electricity market model. Following the Fund's investment strategy, she drafts and implements a balanced investment policy and controls the investment projects implementation. Controls implementation of the Transformation Programme and execution of the Transformation Programme Roadmap. She ensures the process of automation and introduction of new information technologies, monitors innovative development, the principles of lean manufacturing for strategic coordination of goals and business benefits, creation and development of a business automated system and enhancement of digitalisation in the Group of companies.

The Management Board performance

In the reporting period, the Management Board limited holding its meetings in absentia.

They held 46 meetings in person and considered 376 issues. In particular, the issues on the Development Strategy implementation and operational activities, the Sole Shareholder's and the Board of Directors' decisions.

The Management Board paid special attention to issues on occupational health and safety (instructions for using the Safe Production information system), information security (cyber security). They also analysed and assessed the sufficiency of the Company's internal controls in terms of protecting and maintaining IT systems and infrastructures - Regulations for the architecture of information technologies of the Company. The Board preliminary considered the Company's Energy Transition Programme for 2022-2060, the Rules for modelling business processes in the Group of companies of Samruk-Energy JSC and the Roadmap for improving the sustainable development management system.

In addition, the Board approved internal regulatory documents of subsidiaries and affiliates, the total number of personnel, organisational structure, staff list and salary schemes of the Group of companies. They considered the issues related to investment projects of subsidiaries and affiliates, on changes in their authorised capitals and amendments to their charters. The Board makes voting instructions by representatives of Samruk-Energy in the bodies of subsidiaries and affiliates.

Management Board committees

GRI 2-9

The Board has four Committees and a Council of the Board - consultative and advisory expert bodies created to assist the Board members in solving the most difficult objectives. All Committees are accountable to the Company's Management Board and operate within the competence granted to them by the Management Board in accordance with the Regulations on the Committees.

Risk Committee

The Committee assists the Management Board in making decisions on the risk management and internal control of the Company. They prepare recommendations and proposals on the effective risk management and internal control system, ensuring their functioning and development of processes to identify, measure, monitor and control risks. The Committee also prepares proposals for monitoring coordination of activities in these areas.

Composition of the Committee:

- Chairman of the Committee – Managing Director for Legal Support, Procurement and Risks
- Members of the Committee – Managing Director for Development, Sales and Changes, Managing Director for Economy and Finance, Managing Director for Production and Asset Management, Director of the Risk Management and Internal Control Department, Head of the Internal Audit Service (non-voting), a Compliance Officer (non-voting)

In 2022, the Committee held four meetings in person and considered seven issues. Among the main ones are the Reports on:

- preliminary approval of the Risk Management Report (containing description and analysis of key risks, as well as information on the implementation of plans and programmes to minimise the risks of Samruk-Energy JSC) for Q4'2021, Q1'2022, Q2'2022, and Q3'2022);
- preliminary approval of the consolidated Risk Register, the consolidated Risk Map, the Key Risk Management Action Plan with the determination of tolerance levels for each key risk, the Passports of key risk indicators of Samruk-Energy JSC for 2023;
- consideration of the Report on the implementation of the Department's Working Plan for 2022;
- consideration of the Report on the implementation of the Risk Committee Working Plan for 2022 and approval of the Risk Committee Working Plan for 2023;
- approval of the Department's Working Plan for 2023.

The Committee members' attendance was 90%.

Planning and Evaluation Committee

The Committee aims at the improvement of the operation efficiency of the Samruk-Energy JSC Group of companies, including assets and costs structure optimisation, efficiency monitoring, consideration of their Development Plans, financial reporting.

Composition of the Committee:

- Chairman of the Committee - Managing Director for Economy and Finance
- Deputy Chairman of the Committee - Managing Director for Development and Sales
- Members of the Committee - Managing Director for Production and Asset Management, Managing Director for Development, Sales and Changes, Managing Director for Legal Support, Procurement and Risks, Head of the Procurement Management Department, Chief Auditor of the Internal Audit Service (non-voting)

In 2022, the Committee held 53 meetings in person and considered 106 issues. They agreed the revised budget of the Head office and subsidiaries and affiliates within the approved annual budget indicators for the first calendar year. They also considered reports on the implementation of the Development Plan for subsidiaries and affiliates for the first half of 2022 and the draft Development Plan for subsidiaries and affiliates for 2022-2026.

The Committee members' attendance was 100%.

Investment and Innovation Council

The Council contributes to improving the efficiency of investment and innovation activities in the Samruk-Energy JSC Group of companies. They develop recommendations on investment and innovation, on the implementation of certain stages of the pre-investment and investment project, and on the next stage transition. The Council carries out the acquisition and alienation of shares (participation interests) of other legal entities by the Company, including priority acquisition of the right to subsoil use of an object associated with the right to subsoil use. The Council accompanies the processes of merging of the Samruk-Energy JSC Group of companies with third-party legal entities and the creation of legal entities within the investment projects.

Composition of the Council:

- Chairman of the Council – Chairman of the Management Board
- Deputy Chairman of the Council – Managing Director for Production and Asset Management
- Members of the Council – Managing Director for Development and Sales, Managing Director for Economy and Finance, Managing Director for Legal Support, Procurement and Risks, Director of the Project Portfolio Management Department, Head of the Compliance Service (non-voting), Chief Auditor of the Internal Audit Services of Samruk-Energy JSC (non-voting)

In 2022, the Council held nine meetings in person and considered 16 issues. They approved the development of a feasibility study for the project of Construction of CHPP-3 in Semey. They also approved the revised design estimates for the project of Restoration of power unit No. 1 with the installation of new electrostatic precipitators.

The Council members' attendance was 80%.

Credit Committee

The Credit Committee ensures timely and high-quality decision-making on issues related to attracting, providing loans, financial assistance and issuing guarantees, minimising risks. They develop recommendations for the effective management of the Samruk-Energy JSC asset and liability structure.

Composition of the Committee:

- Chairman of the Committee – Managing Director for Economy and Finance
- members of the Committee – Managing Director for Production and Asset Management, Managing Director for Legal Support, Procurement and Risks, Director of the Treasury and Corporate Finance Department, Director of the Risk Management and Internal Control Department, Director of the Project Portfolio Management Department
- Independent expert – Head of the Compliance Service

In 2022, the Committee held 14 meetings in person and considered 16 issues. Among them are the issues on attracting / providing loans and financial assistance, placement of free cash funds of Samruk- Energy JSC on deposits in second-tier banks.

The Committee members' attendance was 86%.

Committee for occupational health and safety and environmental protection (HSE)

The Committee aims at effective solution of HSE issues by providing appropriate recommendations on the effectiveness of policies and systems for identifying and managing risks related to occupational health and safety and environmental protection. The Committee analyses all fatal and serious incidents and the actions taken as a result of such accidents and incidents. They examine the results of independent HSE audits, review strategies and action plans developed in response to the issues raised and make recommendations to the Board of Directors in relation to these issues.

Composition of the Committee:

- Chairman of the Committee – Chairman of the Management Board
- Deputy Chairman of the Committee – Director of the H&S Department
- Members of the Committee – Director of the Generation and Fuel Department, Director of the RES and Distribution Department, Director of the Corporate Governance and Sustainable Development Department, Chief Manager of the H&S Department

In 2022, the Committee held four meetings in person and considered five issues including the Reports on occupational health and safety and industrial injuries and on the environmental protection activities. They also considered the annual report on the Committee performance.

The Committee members' attendance was 95%.

Conflict of interests

GRI 2-15

The Company takes measures to create an effective system for managing conflict of interest, as well as to determine the rules of the employees' conduct. Compliance with the requirements minimises the risks of making decisions influenced by personal interests and relationships.

Samruk-Energy JSC implemented a Policy on settlement of corporate conflicts and conflicts of interest, according to which executives and heads of structural divisions fill out a declaration of the absence of a conflict of interest.

Nominees for vacant positions in Samruk-Energy JSC and senior positions in subsidiaries and affiliates (according to the list of positions) are checked both for compliance with qualification requirements and affiliation with officials of the Samruk-Kazyna JSC Group of companies.

Following the Policy on settlement of corporate conflicts and conflicts of interest, the members of the Board of Directors had no conflict of interest in 2022. There were no situations when the personal interest of the Board of Directors' members could affect the proper performance of their duties. The Company recorded no situations of a conflict of interest affecting and/or those that could potentially affect the impartial decision-making. The members of the Board of Directors did not discuss and make such decisions.

Internal and external audit

Samruk-Energy Internal Audit Service provides independent advice and objective audit guarantees to the Board of Directors aimed at improving the risk management, internal control and corporate governance systems to achieve the Company's strategic goals and objectives. (More details about the work of the Internal Audit Service of Samruk-Energy JSC.

www.samruk-energy.kz/ru/corporate-governance/internal-audit

In 2022, the Service performed 28 audits, including unscheduled audits and audits in accordance with the Annual Audit Plan. As part of the audit reports, the Service provided 106 recommendations: 55 of A category, 40 of B category and 11 of C category.

The highest risk processes as well as requests for audit from the Sole Shareholder and the Board of Directors of Samruk-Energy JSC are the priority of audit tasks.

Within the reporting period the Audit Service made:

- assessment of HSE processes;
- assessment of the management efficiency;
- audit of financial and economic activities;
- assessment of the risk management and internal control systems efficiency;
- assessment of current and major repairs and investments;
- evaluation of procurement processes.

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

At the end of 2022, the Board of Directors rated the Internal Audit Service performance to be efficient.

External Audit

Since 2012, the Company's external auditor has been the global network of firms PricewaterhouseCoopers (hereinafter referred to as PwC).

THE COST OF AUDIT SERVICES PROVIDED BY THE EXTERNAL AUDITOR OF PWC IN 2022 (VAT EXCL.)

	2022
Group of Companies of Samruk-Energy JSC	KZT 150,090,000
Including the Head Office of Samruk-Energy JSC	KZT 35,420,000

THE FEE PAID TO THE AUDIT FIRM IN 2022 FOR AUDIT SERVICES (VAT INCL.)

	2022
Group of Companies of Samruk-Energy JSC	KZT 150,920,000
Including the Head Office of Samruk-Energy JSC	KZT 39,670,000

In 2022, PWC did not provide non-financial audit services.

Remuneration

GRI 2-19

According to the Company's Charter, the Sole Shareholder's decision determines the amount and procedure for paying remuneration to members of the Board of Directors. The amount, procedure and conditions for paying remuneration to the Chairman and members of the Management Board are determined in accordance with the Rules for assessing the performance and remuneration of executive and managerial employees of Samruk-Energy JSC.

Remuneration to members of the Board of Directors

The independent directors receive an annual fixed remuneration for performing the duties of the Samruk-Energy JSC Board of Directors' members.

The Company indemnifies independent directors for expenses (travel, accommodation, daily allowance) associated with their attending meetings of the Samruk-Energy JSC Board of Directors and its Committees held outside their permanent residence.

Remuneration to Independent Directors for 2022 amounted to KZT 48,737,000. As of 31 December 2022, there are four independent directors in the Board of Directors. They were two as of 31 December 2021. There are no other payments.

Remuneration to members of the Management Board

The Company pays remuneration to the Management Board on the terms and in accordance with the Rules for assessing the performance and remuneration of executive and managerial employees of Samruk-Energy JSC.

The principles for evaluation are based on:

- interrelation of remuneration and execution of tasks that meets the interests of the Company and its Shareholder
- simplicity and transparency of the principles for determining the remuneration amount
- dependence of the remuneration amount on the performance of the Company and its employees

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

Remuneration of the top management consists of salaries, bonuses and other short-term benefits.

In 2022, the remuneration to the top management amounted to KZT 295,528. As of 31 December 2022, the Company has five top managers.

Securities

Share capital

Based on the results of the Company's performance, as of 31 December 2022, the number of announced securities is 8,602,187, which makes 5,632,537 of the placed ones.

The nominal value of one ordinary share as of 31 December 2022 was KZT 10,000.

Basic earnings per share is calculated as the ratio of profit due to the shareholders of Samruk-Energy JSC Group of companies to the weighted average number of ordinary shares outstanding during the year.

The Samruk-Energy JSC Group of Companies does not have dilutive potential ordinary shares, therefore, diluted earnings per share are the same as basic earnings per share.

SHARE CAPITAL OF SAMRUK-ENERGY JSC

Index	2020	2021	2022
Annual profit due to the shareholders of the Samruk- Energy JSC Group of companies, '000 KZT	8,007,623	15,046,311	30,131,677
Weighted average number of ordinary shares in circula-tion, pieces	5,601,812	5,601,812	5,602,741
Earnings per share due to the shareholders of the Samruk-Energy JSC Group of companies (rounded to the nearest KZT)	1,429	2,686	5,378

As per a decision made by the Exchange Council of Kazakhstan Stock Exchange JSC (KSE) on 4 October 2010, the consolidated financial statements should contain data on the book value of one share (ordinary and preference) as of the reporting date, calculated in accordance with the rules approved by the KSE.

As of 31 December 2022, the book value of one share (ordinary and preference), calculated by the management of Samruk-Energy JSC Group of companies based on the consolidated financial statements, amounted to KZT 93,987 (KZT 88,985 as of 31 December 2021).

BOOK VALUE PER SHARE, '000 KZT

Index	2020	2021	2022
All assets	**885,705,149**	**939,820,011**	**965,846,026**
Minus: intangible assets	(3,570,398)	(4,165,145)	(3,726,203)
Minus: all liabilities	(395,129,513)	(437,179,560)	(432,732,405)
Net Assets for Ordinary Shares	487,005,238	498,475,306	529,387,418
Number of ordinary shares as of 31 Decem-ber	5,601,812	5,601,812	5,632,537
Book value per share, KZT	**86,937**	**88,985**	**93,987**

Dividend policy

The Samruk-Energy dividend policy is based on the principles of observing the Sole Shareholder's interests, increasing the long-term value, transparency of the mechanism for determining dividend amount and ensuring the Company's financial stability.

Samruk-Energy calculates dividend amount on the basis of the Company's net income reflected in the annual audited financial statements prepared in accordance with the requirements of the laws of the Republic of Kazakhstan on accounting and financial reporting, as well as international financial reporting standards.

To make a decision on the dividend payment the Board of Directors submits for the Sole Shareholder's consideration their proposals on the distribution of the Company's net income for the past financial year and the dividend amount for the year per one ordinary share.

The Company pays dividends within the period set by the Sole Shareholder's decision.

DIVIDEND PAYMENT, BILLION KZT

Period	Amount
2022 (according to the results of 2021)	2,041
2021 (according to the results of 2020)	3,142
2020 (according to the results of 2019)	3,066

Risk Management and Internal Control

The effective risk management and internal control system is one of the most important objectives of the Company in the near future. It aims at achieving the strategic and operational goals of the Samruk- Energy JSC Group of companies. Compliance with the norms and principles of corporate governance allows us to effectively control functioning of the company's management bodies, reduces risks in their activities.

The Company's risk management system aims at accurate and timely risk identification, assessment, monitoring and response. This allows the management makes decisions on the basis of a comprehensive vision and taking into account the risks in the medium and long term.

The Company adheres to the COSO standard, using the model of Three Lines of Defense.

RISK MANAGEMENT AND INTERNAL CONTROL SYSTEM

SHAREHOLDER			EXTERNAL REGULATORS
Board of Directors	Compliance Service	Internal Audit Service	
Management Board of the Company/Chairman of the Management Board	**Second Line of Defence** ○ Risk Management ○ Internal Control ○ Compliance/Business/ Ethics/Integrity/ Sustainability ○ Regulatory Compliance	**Third Line of Defence** ○ Internal audit	
First Line of Defence ○ Top management/ Management Board			
○ Assesses, regulates and ensures risk ○ Ensures the effective functioning of the internal control system minimization	○ Ensure and monitor the implementation of effective risk management and internal control practices, compliance with laws and administrative rules/internal regulations, and fraud investigations	○ Confirms to the Board of Directors and the Company`s top management on how effectively the Company assesses and manages its risks, including the effectiveness of the First and Second Lines of Defence	

We regularly analyse key trends and risks in the context of the three pillars of sustainable development: economic, environmental and social. We also study the experience of countries related to the low-carbon economy transition and regularly hold meetings engaging energy and ecology experts.

Our risk management system allows the Management Board and the Board of Directors to effectively manage and allocate resources in priority areas. This ensures a risk level acceptable for the Company and gets the most return on such investments by identifying, assessing, managing and monitoring risks.

The internal control system provides for a quick respond to risks and control over the main and auxiliary business processes and daily operations of the Company. This system ensures immediately informing the management on any significant shortcomings and improvements.

The Board of Directors has set the Company's risk appetite in quantitative and qualitative terms, including restrictions on core activities. The Company monitors the risk appetite compliance on a quarterly basis.

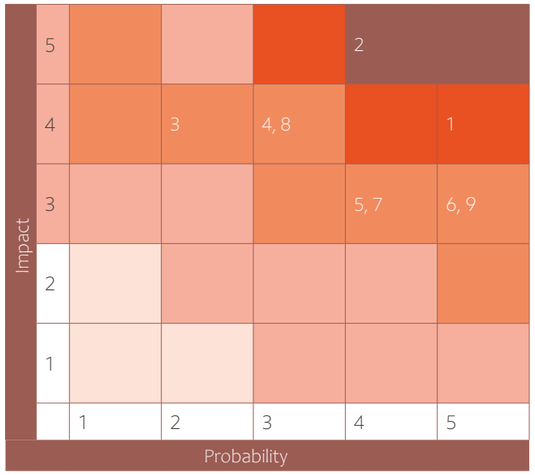
The owners of key business processes regularly update the risk and control matrices, including those for the financial reporting process, and submit them for consideration and approval to the Board of Directors.

We annually form and submit for consideration and approval to the Board of Directors the Risk Register, the Risk Map, Key Risk Indicators (KRI) and the Key Risk Management Action Plan.

Based on the results of the risks identification of the Samruk-Energy JSC Group of companies in 2022, the Company identified and assessed 34 risks inherent in its activities, updated the KPI thresholds. The risk owners updated the risk factors and measures to reduce them.

According to the reassessment results, nine risks fell into the key zone of the Risk Map of Samruk- Energy JSC companies for 2022 (in 2021, there were 10 key risks).

SAMRUK-ENERGY JSC RISK MAP 2022



№	Name of risk
1	Risk of damage to workers' health and life while performing their duties, accidents at work
2	Risks of ongoing/promising investment projects and investment programmes of subsidiaries and affiliates
3	Risk of accidents and disasters at work
4	Risk associated with the transformation programme implementation
5	Asset impairment risk
6	Interest risk
7	Credit risk
8	Environmental risk
9	Risk of external creditors' covenants and listing requirements violation

MAIN CHANGES IN 2022 (KEY RISKS MITIGATION)

Risk	Major changes	Implemented risk management measures
Environmental risk	no changes	○ Taking annual measures to reduce specific greenhouse gas emissions.
Risks of ongoing/ promising invest- ment projects and investment programmes of subsidiaries and affili- ates	no changes	○ Postponing the planned costs' development to a later period.
Risk of occupational accidents that caused damage to health and life of personnel while performing their duties	increase in influence	○ Recording 10 work-related accidents since the beginning of 2022. ○ Taking measures in accordance with the H&S Department's Work Plan
Credit risk	no changes	○ Unstable situation in second-tier banks. ○ Monitoring compliance with limits on counterparty banks, as well as regular assessment of the stability of second- tier banks.
Risk of external creditors' covenants and listing requirements violation	no changes	○ Monitoring compliance with covenants, as well as financial stability ratios, measures to reduce the level of debt burden and interest payments.
Asset impairment risk	no changes	○ Performing an impairment test (subject to impairment signs). ○ Centralised control over the formation and adjustment of an investment programme of subsidiaries and affiliates.
Risk associated with the transfor- mation programme implementation	decrease in influence	○ Monitoring the Roadmap implementation.
Risk of accidents and disasters at work	no changes	○ Performing major and current repairs. Periodic surveys of the technical condition of the equipment. ○ Conducting briefings and emergency response training for operational personnel of companies.
Interest risk	no changes	○ Increase in interest expenses due to rising inflation. ○ Refinancing of loans at a floating rate.

New risk management model

In 2022, the Company continued a project to introduce a new risk management model to improve the risk management system.

Last year, the subsidiaries updated the previously developed internal regulatory documents – the Rules for the Organisation and Implementation of Internal Control, the Rules for Business Continuity. The subsidiaries and affiliates also revised Business Continuity Plans and the Business Continuity Recovery Plans.

As part of the project implementation, Samruk-Energy JSC developed and applies the method for testing the internal control system based on the current Rules for the organisation and implementation of internal control for key subsidiaries and affiliates. The Company developed and applies the method for testing the business continuity management system based on the current Rules for business continuity for key subsidiaries and affiliates.

In 2022, the business continuity management system was tested at all key subsidiaries and affiliates: Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Moynak HPP, Alatau Zharyk Company, Shardarinskaya HPP, and AlmatyEnergoSbyt.

Business Ethics and Anti-Corruption

We seek to become an efficient operating energy holding of Eurasian significance, the market leader in Kazakhstan. To achieve our strategic goals, we maintain and improve confidence of all our stakeholders, including the Sole Shareholder, employees and business partners. The Company protects its reputation and the interests of all stakeholders by implementing high ethical standards and corporate culture based on zero tolerance for corruption.

Corporate ethics and concern for reputation

The Code of Ethics[38] and the Code of Conduct[39] are underlying documents that enshrine high professional and ethical standards. All employees of Samruk-Energy JSC should adhere thereto regardless of their position.

The Board of Directors ensures the implementation of ethical standards and their observance. All employees of the Company peruse the Code of Ethics and the Code of Conduct and sign an appropriate statement, as well as regularly confirm their knowledge of the Codes.

The Company carries out regular personnel training to understand the standards of the Codes, the role of the ombudsman and the availability of the system for reporting alleged violations.

[38] The Code of Business Ethics of Samruk-Energy JSC was approved by the Samruk-Energy JSC Board of Directors' decision of 31 March 2017.
[39] The Code of Behaviour of Samruk-Energy JSC was approved by the Samruk-Energy JSC Board of Directors' decision of 29 June 2018.

GRI 2-26

For clarification of the requirements of the Codes and/or ethical issues, for violations of requirements, corruption and other illegal actions, the Company's officials and personnel, business partners and stakeholders have the right to contact:

- to the immediate supervisor
- to the ombudsman
- to the Internal Audit Service
- to the Corporate Secretary Service
- by telephone or e-mail of trust, as published on the website and in the office of Samruk-Energy JSC
- through a mailbox for receiving complaints, reports and suggestions as installed in the office of Samruk-Energy JSC

The Board of Directors considers facts of the doing business principles violation. Upon the results of 2022, the Company did not record any violation of the Code of Business Ethics and the Code of Conduct by the members of the Samruk-Energy JSC Board of Directors and the executive body.

Compliance policy

Compliance is one of the principles of Samruk-Energy JSC operation. The main task is to identify, assess, prevent and control compliance risks in the activities of the Samruk-Energy JSC Group of companies. We form a zero-tolerance policy for corruption and bribery as well as develop the anti- corruption culture.

Basic principles of our compliance approach:

- involvement and support from the management in terms of the compliance system development - the Board of Directors considers reports on the compliance programme implementation;
- regular identification and updating corruption risks;
- development and implementation of anti-corruption procedures corresponding to the level and nature of the identified risks, improvement and updating of internal policies and procedures;
- implementation and support of training programmes for employees regarding the principles and standards of compliance with anti-corruption laws;
- monitoring the effectiveness of the procedures implemented to prevent corruption.

The Compliance Service of Samruk-Energy JSC, being an independent structural unit, reports to the Board of Directors. The Service reports on a quarterly basis. The Board of Directors evaluates the Service's performance. As part of anti-corruption activities, the organisational structures of the Group's subsidiaries and affiliates contain the positions of compliance officers reporting to the Board of Directors / Supervisory Board of subsidiaries and affiliates.

In the reporting period, the Management Board of Samruk-Kazyna JSC approved the Corporate Compliance Standard in portfolio companies. Samruk-Energy JSC and its subsidiaries and affiliates adhere thereto.

In December 2022, the Company successfully passed certification, confirming compliance with the requirements of ISO 37001 Anti-Corruption Management Systems. Requirements and recommendations for use.

To minimise the risk of the Company's involvement in corrupt activities, we have developed and implemented due diligence procedures for both counterparties and individuals. One of the key tools of our compliance programme is due diligence of third parties, partners and contractors entering into cooperation with us.

According to the decision of Samruk-Energy JSC Board of Directors[40], the Company carried out internal analysis of corruption risks of the Market Development and Sales Department on electricity sales in the reporting period. According to the results of the analysis we identified no violation.

There were no facts of unlawful interference in the Company's operations or other impact in violation of the requirements of the Agreement between the Government of the Republic of Kazakhstan and Samruk-Kazyna JSC.

GRI 205-3

In 2022, Samruk-Energy Group had not a single case of corruption.

[40] Minutes No.14/22 of 31 October 2022.

The Company's compliance service verifies reliability of third parties to eliminate corruption risks as well as risks of business reputation loss. To extend the provisions of the Code of Conduct to business partners, suppliers and other third parties cooperating with the Company, standard business contracts include the Anti-Corruption Clauses.

Training and informing employees

To form anti-corruption culture and zero tolerance for any form of bribery and corruption, we conduct regular compliance and anti-corruption training sessions for personnel to explain the requirements, adopted compliance policies and anti-corruption laws.

In 2022, as part of the implementation of anti-corruption activities, the Company carried out training sessions to form the anti-corruption culture among employees of the Company and subsidiaries and affiliates. We held meetings with authorized employees to explain current changes in anti-corruption legislation.

GRI 205-2, GRI 12: Coal Sector: 12.20.3

100% of the Company's employees successfully passed the test for knowledge of anti-corruption policies.

TRAINING AND INFORMING EMPLOYEES, 2022

Region	Employees
North	9,518
South	7,856
Centre	258
East	10

In the reporting period, all subsidiaries and affiliates carries out more than 34 training sessions to explain changes in anti-corruption legislation, tax declarations and the hotline operating procedure.

100% of the Samruk-Energy JSC personnel perused the requirements of the Anti-Fraud and Anti-Corruption Policy.

INFORMING ABOUT THE SAMRUK-ENERGY JSC ANTI-CORRUPTION POLICY

Index	2020		2021		2022	
	persons	%	persons	%	persons	%
Board of Directors and Management Board	9	100%	10	100%	12	100%
Personnel	17,783	100%	17,645	100%	17,650	100%
Business partners	-	100%	-	100%	159	100%

NUMBER OF EMPLOYEES TRAINED IN ANTI-CORRUPTION

Index	2020		2021		2022	
	persons	%	persons	%	persons	%
The Board of Directors and the Management Board	9	100%	10	100%	12	100%
Personnel	17,783	100%	17,645	100%	17,650	100%

Hotline

GRI 2-26

As part of the compliance programme, all stakeholders can report actual and alleged violations of the law, regulatory requirements, and internal documents on ethics and compliance issues to the Initiative Information Line (whistleblowing hotline).

COMPLIANCE SERVICE

hotline
8 800 080 47 47

Postal address:
mail@sk-hotline.kz

According to the best international practices and to protect the interests of whistleblowers, an independent company administers the hotline. The Compliance Service ensures professional and confidential consideration of all complaints and reports duly registered and transferred. Anonymous reports are subject to respond to the independent company to be forwarded to the applicant.

STATISTICS OF REPORTS AND COMPLAINTS

Source	2020	2021	2022
Hotline (Compliance Service)	46	70	91
Reports, incl. offices of subsidiaries and affiliates	72	76	101
Security Service	2	0 (11[41])	4
Feedback form on the website	6	1	6
Ombudsmen and trade unions	65	73	90
Courts and supervisory authorities	10	5	4
Written reports to the head (including the blog of the head of the Company)	2	18	12
Conciliation commissions	-	10	36
Total	**203**	**253**	**344**

In 2022, the Compliance Service received 91 reports. The Hotline received 78 messages, the office of the Company received 9 ones, the head of the Compliance Service – 4 personal reports.

All the reports were answered in proper time. The Company took appropriate measures regarding the confirmed facts of non-compliance / violations. We guaranteed confidentiality and anonymity of calls.

We consider the growth of incoming reports and complaints within the reporting period as the increased confidence both to the Compliance Service and compliance officers at all subsidiaries and affiliates. They hold explanatory meetings with personnel and monitor incoming reports, as well as promote feedback channels.

Ombudsman

To protect the rights of employees, the Company has the position of the Ombudsman, designed to prevent / settle corporate conflicts, conflicts of interest and reports of illegal actions. The Ombudsman promotes the establishment and development of corporate values and culture, high standards of professional behaviour and business ethics in the Company. The Ombudsman is a high-level independent manager reporting only to the Board of Directors.

[41] Appeals and complaints considered by the Security Service came from various sources of feedback. In (brackets) the number of appeals and complaints considered by the Security Department is indicated.

On 30 March 2021, the Board of Directors of Samruk-Energy JSC appointed Nariman Akylov as the Company's Ombudsman as from 1 April 2021.

The major priorities of the Ombudsman:

- assistance in resolving labour disputes, conflicts, problematic issues of a social and labour nature control of compliance with the principles of business ethics by the personnel;
- assistance in improving the rating and image of the supervised Company;
- prevention and settlement of disputes and conflicts;
- informal communications between officials and employees of the Company for timely identification of problems and areas for improvement;
- proposals to improve the policies and procedures of the Company;
- information of the Board of Directors about the identified problematic issues of systemic nature and requiring the appropriate comprehensive measures, submission of constructive proposals for their solution.

The Ombudsman's basic principles are:

- independence, transparency and impartiality;
- objectivity, honesty and conscientiousness;
- informality and confidentiality.

In accordance with the Regulations on the Ombudsman (clause 15), the Ombudsman should ensure the anonymity of the employee or official who reported for violation of the provisions of the Code of Business Ethics, the laws of the Republic of Kazakhstan and the Company's internal documents.

GRI 2-26

EVERYONE CAN REPORT THE FACTS OF ILLEGAL ACTIONS OF OFFICIALS AND OTHER EMPLOYEES OF THE COMPANY BY

+7 (7172) 55-30-15
+7 (7017) 88-84-16

akylov@samruk-energy.kz
ombudsman@samruk-energy.kz

In the reporting period, the Ombudsman received more than 165 reports, 65 of which were received through official channels for filing complaints and reports (office, e-mail, hotline, personal reception). More than 100 reports were registered via helplines and the WhatsApp mobile application. Most of the reports relates to consultations on labour legislation and the provisions of the Code of Conduct. The requests also concerned the issues on social and labour relationship, dissatisfaction with wages and bonuses, social status (positions), etc.

The Ombudsman conducted consultations on all reports, gave comprehensive answers and recommendations, held personal meetings (conversations) with the personnel and the heads of subsidiaries and affiliates. According to the results of 2022, the registered reports and responses to them do not have a negative impact on the social stability of the Company as a whole.

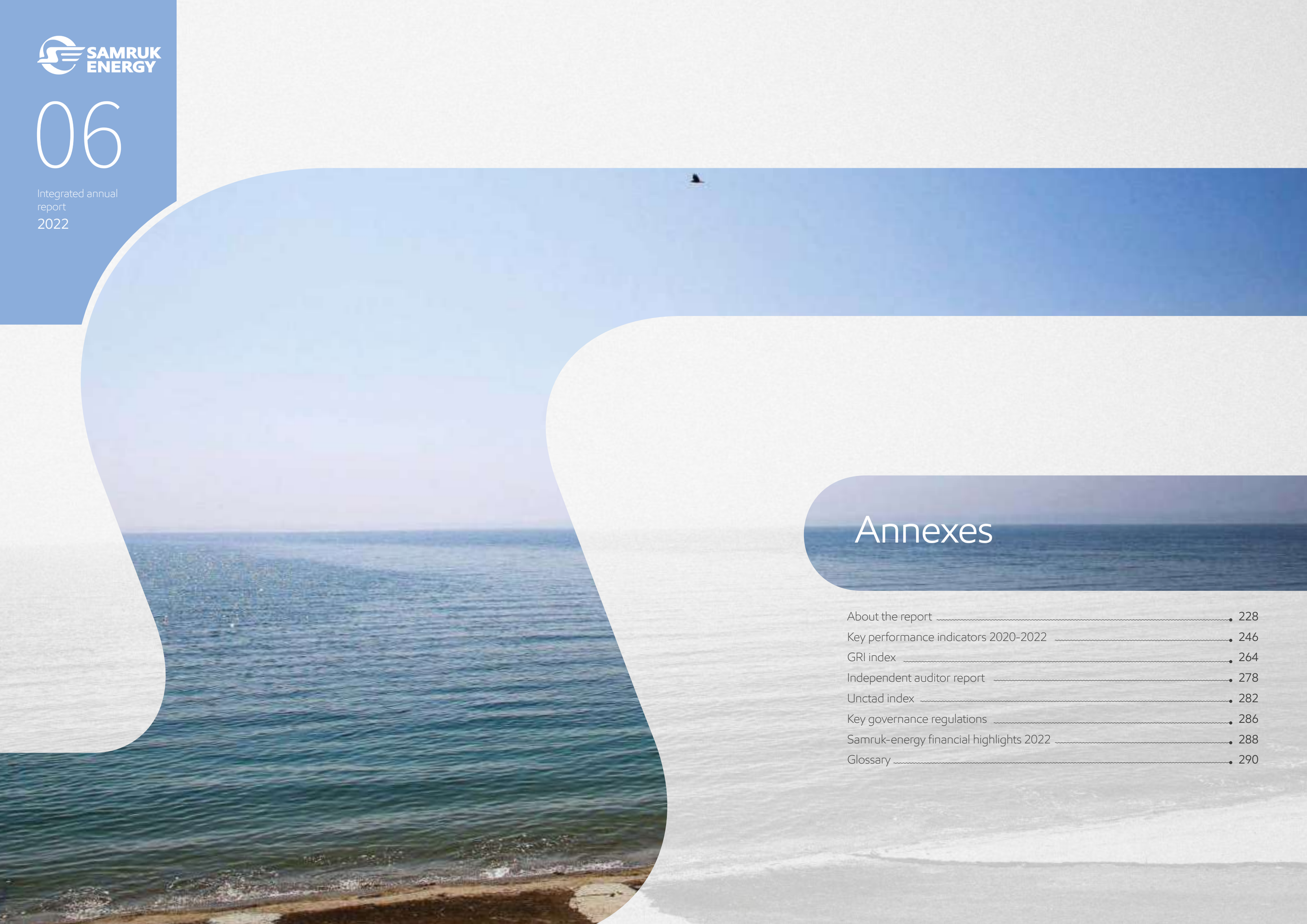
GRI 406-1, GRI 12: Coal Sector: 12.19.8

The Company did not record a single case of discrimination on racial, religious, national, gender, age, political and other grounds either.

SAMRUK ENERGY

06

Integrated annual report
2022



Annexes

About the Report

General information

This Integrated Annual Report 2022 of Samruk-Energy JSC (hereinafter referred to as the Report) is the 16th paper disclosing information on financial and economic performance and operations, as well as the Company's sustainability achievements. The Report is addressed to a wide range of stakeholders.

Developed in line with GRI Standards, the Report showcases the financial and non-financial performance of Samruk-Energy JSC in projects implemented both in and outside Kazakhstan. The non-financial elements of the disclosure are shown predominantly for subsidiaries and associates owned 50% or more by the Company, i.e. across the Group.

GRI 2-4

Compared to the Company's Integrated Annual Report 2021, there have been changes in the Report with respect to certain indicators, as well as in the disclosure of additional indicators. Detailed explanations are given in the body of the Report.

The financial indicators are denominated in the national currency of Kazakhstan, KZT (tenge) and correspond to the IFRS audited consolidated financial statements.

The Report comprehensively discloses:

- Implementation of the Samruk-Energy Development Strategy;
- Management's approach to corporate governance;
- Significant financial, economic and production targets and performance in core operations;
- HSE performance;
- contribution to the local development, implementation of social policy and other sustainability aspects.

To designate Samruk-Energy Group (Samruk-Energy JSC and its subsidiaries), the Report uses the names: “Samruk-Energy”, “Company”, “Group”, and "we".

Statutory Requirements

The Report discloses key data as required by the laws of the Republic of Kazakhstan, internal requirements and regulations of the Company, and international corporate governance practices. The Report relies on the following papers:

- Law No. 415-II of the Republic of Kazakhstan dated 13 May 2003 On Joint Stock Companies
- Rules for information disclosure by the issuer, Requirements for the content of information to be disclosed by the issuer, and the terms for information disclosure by the issuer on the Internet resource of the Depository of financial statements as approved by the Resolution No. 189 adopted by the Board of the National Bank of the Republic of Kazakhstan on 27 August 2018
- Regulatory requirements of Kazakhstan Stock Exchange (KASE), and Astana International Exchange (AIX)
- International integrated reporting standard (<IR> International Framework)
- International standard for sustainable development reporting, Global Reporting Initiative, including GRI 12: Coal Sector
- AA1000SES Stakeholder Engagement Standard
- Ten principles of UN Global Compact
- UN Sustainable Development Goals 2030
- ISO 26000:2010 Social Responsibility Guidance Standard
- Recommendations of the TCFD (The Task Force on Climate-related Financial Disclosures) Working Group of the Financial Stability Board (partial disclosure)

We strive to develop our reporting in terms of applicable standards, disclosing GRI industry indicators and taking into account TCFD recommendations. We consider interactivity and cross navigation as key features of this Report. It offers links not only to corporate documents, but also to our website, where we have outlined our key governance practices.

Scope of the Report

GRI 2-3

The scope of the Report corresponds to the annual reporting cycle of the Company. The previous Report was published in July 2022. Electronic copies of the reports for the previous years are available on the official website of the Company. The current Report discloses the operations and performance of Samruk-Energy JSC for the period from 1 January 2022 to 31 December 2022.

For the purpose of internal control and risk management in financial reporting, the Samruk-Energy Management Board adopted Matrices of Risks and Controls in Accounting and Financial Reporting of Samruk-Energy JSC on 16 March 2020 (Minutes No. 5)

The matrix shows a map of accounting and financial reporting processes at all levels of the Group (subsidiaries, affiliates, joint ventures, and the Fund) and includes five stages:

1. Formalisation of the financial reporting process

2. Reconciliation of intra-group and related-party transactions

3. Data collection for the consolidated financial statements

4. Preparation of consolidated financial statements

5. Approval of consolidated financial statements.

In general, the document includes matrices on the following processes:

1. Preparation of financial statements

2. Procurements and settlements with creditors

3. Fixed and intangible assets accounting

4. Treasury accounting

5. Dividend accounting

6. Financial aid accounting

7. Tax accounting

8. Employee remuneration accounting

9. Accounting of business trip expenses

10. Investments

11. Borrowings

12. Inventories

The Financial Reporting Preparation process adjusts for key risks and controls, from formalisation of financial reporting, period closure, preparation of separate financial statements, and preparation of consolidated financial statements to the preparation of financial disclosures. The matrix features 50 control procedures to minimise key five risks in preparations of consolidated financial statements.

The Company's high-risk culture based on three lines of defence and a focus on continuous improvements ensure that the risk matrix and checkpoints of the financial reporting process are observed and up-to-date.

The Report includes important facts that fall beyond the reporting period but are directly related to it, as well as the medium-term plans of the Group. The Report discloses information on the most significant results of the operations of Samruk-Energy JSC, its subsidiaries and associates. During data collection, all data of quantitative and qualitative nature across the entire Group, which can have a significant impact on making an informed decision on a significant issue, event or decision, is taken into account and disclosed. We are consistently developing a system of work with sustainable development indicators and aims to align the disclosure perimeter with the financial data disclosure to the full amount in the near future.

.

GRI 2-2

Indicator	Disclosure* ** Colours indicate subsidiaries and affiliates in the disclosure perimeter*	Samruk-Energy	Alatau Zharyk Company	Almaty Power Plants	AlmatyEnergoSbyt	Shardarinskaya HPP	Moynak HPP	Ekibastuz GRES-1	Ekibastuz GRES-2	Samruk-Green Energy	First Wind Power Plant	Bukhtarminsk HPP	Bogatyr Komir	Ereymentau Wind Power	Energy Solutions Center	Forum Muider B.V.	ResursEnergoUgol	Balkhash TPP	Shulbinskaya HPP	Ust-Kamenogorsk HPP	Energia Semirechya	KazHydroTechEnergo
GRI 2: General Disclosures 2021																						
Organization and its reporting practices																						
2-1	Organizational details																					
2-2	Entities included in th organization's sustainability reporting																					
2-3	Reporting period, frequency and contact point																					
2-4	Restatements of information																					
2-5	External assurance																					
Activities and workers																						
2-6	Activities, value chain and other business relationships																					
2-7	Employees																					
2-8	Workers who are not employees																					
Governance																						
2-9	Governance structure and composition																					
2-10	Nomination and selection of the highest governance body																					
2-11	Chair of the highest governance body																					
2-12	Role of the highest governance body in overseeing the management of impacts																					
2-13	Delegation of responsibility for managing impacts																					
2-14	Role of the highest governance body in sustainability reporting																					
2-15	Conflicts of interest																					
2-16	Communication of critical concerns																					
2-17	Collective knowledge of the highest governance body																					
2-18	Evaluation of the performance of the highest governance body																					
2-19	Remuneration policies																					
2-20	Process to determine remuner-ation																					
2-21	Annual total compensation ratio																					

Indicator	Disclosure*	Samruk-Energy	Alatau Zharyk Company	Almaty Power Plants	AlmatyEnergoSbyt	Shardarinskaya HPP	Moynak HPP
Strategy, policies and practices							
2-22	Statement on sustainable development strategy						
2-23	Policy commitments						
2-24	Embedding policy commitments						
2-25	Processes to remediate negative impacts						
2-26	Mechanisms for seeking advice and raising concerns						
2-27	Compliance with laws and regulations						
2-28	Membership associations						
2-29	Approach to stakeholder engagement						
2-30	Collective bargaining agreements						
GRI 3: Material Topics							
3-1	Process to determine material topics						
3-2	List of material topics						
Economic performance							
GRI 201: Economic performance							
201-1	Direct economic value generated and distributed						
201-2	Financial implications and other risks and opportunities due to climate change						
201-4	Financial assistance received from government						
GRI 202: Market Presence							
202-1	Ratios of standard entry level wage by gender compared to local minimum wage						
202-2	Proportion of senior management hired from the local community						
GRI 203: Indirect Economic Impacts							
3-3	Management of material topics						
203-1	Infrastructure investments an services supported						
203-2	Significant indirect economi impacts						

Ekibastuz GRES-1	Ekibastuz GRES-2	Samruk-Green Energy	First Wind Power Plant	Bukhtarminsk HPP	Bogatyr Komir	Ereymentau Wind Power	Energy Solutions Center	Forum Muider B.V.	ResursEnergoUgol	Balkhash TPP	Shulbinskaya HPP	Ust-Kamenogorsk HPP	Energia Semirechya	KazHydroTechEnergo

Indicator	Disclosure*	Samruk-Energy	Alatau Zharyk Company	Almaty Power Plants	AlmatyEnergoSbyt	Shardarinskaya HPP	Moynak HPP	Ekibastuz GRES-1	Ekibastuz GRES-2	Samruk-Green Energy	First Wind Power Plant	Bukhtarminsk HPP	Bogatyr Komir	Ereymentau Wind Power	Energy Solutions Center	Forum Muider B.V.	ResursEnergoUgol	Balkhash TPP	Shulbinskaya HPP	Ust-Kamenogorsk HPP	Energia Semirechya	KazHydroTechEnergo
GRI 204: Procurement Practices																						
204-1	Proportion of spending oflocal suppliers																					
GRI 205: Anti-corruption																						
205-1	Operations assessed for risks related to corruption																					
205-2	Communication and training about anti-corruption policies and procedures																					
205-3	Confirmed incidents of corruption and actions taken																					
GRI 206: Anti-competitive Behaviour																						
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices																					
GRI 207: Tax																						
207-1	Approach to tax																					
207-3	Stakeholder engagement and management of concerns related to tax																					
Environmental performance																						
GRI 302: Energy																						
302-1	Energy consumption within the organisation																					
GRI 303: Water																						
3-3	Management of material topics																					
303-1	Interactions with water as a shared resource																					
303-2	Management of water discharge-related impacts																					
303-3	Water withdrawal																					
303-4	Water discharge																					
303-5	Water consumption																					
GRI 304: Biological diversity																						
3-3	Management of material topics																					
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas																					

Indicator	Disclosure*	Samruk-Energy	Alatau Zharyk Company	Almaty Power Plants	AlmatyEnergoSbyt	Shardarinskaya HPP	Moynak HPP	Ekibastuz GRES-1	Ekibastuz GRES-2	Samruk-Green Energy	First Wind Power Plant	Bukhtarminsk HPP	Bogatyr Komir	Ereymentau Wind Power	Energy Solutions Center	Forum Muider B.V.	ResursEnergoUgol	Balkhash TPP	Shulbinskaya HPP	Ust-Kamenogorsk HPP	Energia Semirechya	KazHydroTechEnergo
304-2	Significant impacts of activities, products, and services on biodiversity																					
304-3	Habitats protected or restored																					
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations																					
GRI 305: Emissions																						
3-3	Management of material topics																					
305-1	Direct (Scope 1) GHG emis-sions																					
305-2	Energy indirect (Scope 2) GHG emissions																					
305-6	Reduction of GHG emissions																					
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions																					
GRI 306: Waste																						
306-1	Waste generation and significant waste-related impacts																					
306-2	Management of significant waste-related impacts																					
306-3	Waste generated																					
306-4	Waste diverted from disposal																					
306-5	Waste directed to disposal																					
Social performance																						
GRI 401: Employment																						
3-3	Management of material topics																					
401-1	New employee hires and employee turnover																					
401-2	Benefits provided to full-time employees that are not pro-vided to temporary or parttime employees																					
401-3	Total number of employees that returned to work in the reporting period after parental leave ended																					
GRI 402: Labour/Management relations																						
402-1	Minimum notice periods regarding operational changes																					

Indicator	Disclosure*	Samruk-Energy	Alatau Zharyk Company	Almaty Power Plants	AlmatyEnergoSbyt	Shardarinskaya HPP	Moynak HPP
GRI 403: Occupational Health and Safety							
3-3	Management of material topics						
403-1	Occupational health and safety management system						
403-2	Hazard identification, risk assessment, and incident investigation						
403-3	Occupational health services						
403-4	Worker participation, consultation, and communication on occupational health and safety						
403-5	Worker training on occupational health and safety						
403-6	Promotion of worker health						
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships						
403-8	Workers covered by an occupational health and safety management system						
403-9	Work-related injuries						
403-10	Work-related ill health						
GRI 404: Training and Education							
404-1	Average hours of training per year per employee						
404-2	Programs for upgrading employee skills and transition assistance programs						
GRI 405: Diversity and Equal Opportunity							
405-1	Diversity of governance bodies and employees						
405-2	Ratioof basic salary and remuneration of women to men						
GRI 406: Non-discrimination							
3-3	Management of material topics						
406-1	Incidentsof discrimination and corrective actions taken						

Ekibastuz GRES-1	Ekibastuz GRES-2	Samruk-Green Energy	First Wind Power Plant	Bukhtarminsk HPP	Bogatyr Komir	Ereymentau Wind Power	Energy Solutions Center	Forum Muider B.V.	ResursEnergoUgol	Balkhash TPP	Shulbinskaya HPP	Ust-Kamenogorsk HPP	Energia Semirechya	KazHydroTechEnergo

Indicator	Disclosure*	Samruk-Energy	Alatau Zharyk Company	Almaty Power Plants	AlmatyEnergoSbyt	Shardarinskaya HPP	Moynak HPP
GRI 408: Child Labour							
3-3	Management of material topics						
408-1	Operations and suppliers at significant risk for incidents of child labour						
GRI 409: Forced or Compulsory Labour							
3-3	Management of material topics						
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour						
GRI 411: Rights of Indigenous Peoples							
411-1	Incidents of violations involving rights of indigenous peoples						
GRI 413: Local Communities							
413-1	Operations with local community engagement, impact assessments, and development programs						
413-2	Operations with significant actual and potential negative impacts on local communities						
GRI 415: Public Policy							
415-1	Political contributions						

Ekibastuz GRES-1	Ekibastuz GRES-2	Samruk-Green Energy	First Wind Power Plant	Bukhtarminsk HPP	Bogatyr Komir	Ereymentau Wind Power	Energy Solutions Center	Forum Muider B.V.	ResursEnergoUgol	Balkhash TPP	Shulbinskaya HPP	Ust-Kamenogorsk HPP	Energia Semirechya	KazHydroTechEnergo

To ensure a holistic approach to financial reporting, Samruk-Energy applies the equity method of consolidatic Furthermore, the current accounting policy establishes that fixed and intangible assets are carried at historic cost, i.e. without revaluation. Subsidiaries are included in the consolidated financial statements using the acquisition method of accounting. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured at their fair values at the acquisition date, irrespective of the size of any non-controlling stake.

Considering the above, the equity method excludes the turnover of large companies such as Ekibastuz GRES-2 and Forum Muider B.V. in which Samruk-Energy JSC holds a 50% stake from the consolidated balance sheet. For the consolidated financial results of Samruk-Energy JSC, the share of profit of these companies is presented as the profit/loss of equity-accounted entities and impairment of equity method investment.

For independently assured indicators, data were consolidated using the operational control approach (GRI 302-1, 303-3, 303-4, 303-5, 305-1, 305-2, 305-7, 401-1, 401-3, 404-1, and 403-9).

Principles for Defining Report Quality

The following key GRI principles ensure the quality of the Report:

Principles	Description
Sustainability context	The Report provides information on the Company's economic, environmental and social contributions. The Report discloses Samruk-Energy's contribution to the achievement of the 17 Sus-tainable Development Goals as of the end of 2022.
Balance	The Report discloses both positive and negative performance of the Company.
Completeness	The indicators and scope of the Report are sufficient to show the Company's material economic, environmental and social impacts.
Comparability	The information in the Report covers changed over several years, allowing stakeholders to evaluate the Company's operations and performance over time.
Clarity	The Report is written in language understandable to a wide audience and contains a glossary.
Reliability	All data in the Report are provided by the relevant divisions of the Group and verified for accuracy. The text provides links to data sources.
Accuracy	Information on all material topics is detailed and allows stakehold-ers to evaluate the Group's performance. All data are officially recognised by Samruk-Energy JSC and confirmed by internal and public documents.
Timeliness	The Report presents information for the 2022 calendar year and is published in 2023.

Feedback

Samruk-Energy JSC invites to share feedback to further improve the Integrated Annual Report and disclosures to stakeholders. The Company would appreciate it if you completed an online questionnaire posted on the website of Samruk-Energy JSC in the interactive version of this Report.

GRI 2-3

You can share your views on the 2022 Report and ask questions about the Report by contacting us, using the contact details below.

MADINA AYSARIEVA

Director for Corporate Governance and Sustainable Development

+7 (7172) 55-30-20

m.aisarieva@samruk-energy.kz

External assurance

GRI 2-5

We ensure transparency and independent assurance of disclosed information. We have therefore received external assurance from PricewaterhouseCoopers on the financial information included in the 2022 Integrated Annual Report and on selected non-financial information.

PricewaterhouseCoopers audited the financial statements prepared in accordance with applicable law and International Financial Reporting Standards (IFRS) as adopted by the UK and issued by the IASB.

In addition, PwC assured selected non-financial information published in line with GRI Standards.

Forward-looking statements

This Report should be read in its entirety, taking into account all the sections, notes and explanations contained herein, including the information set out in this section.

This Report has been prepared on the basis of information available to Samruk-Energy JSC as of 31 December 2022, unless otherwise follows from the meaning or content of such information.

Forward-looking statements are not based on current circumstances and include all statements concerning the Company's intentions, opinions or current expectations with regard to its performance and the implementation of its development strategy. By their very nature, forward-looking statements involve risks and uncertainties because they relate to future events and circumstances that may or may not occur.

To describe the future, the terminology is used that includes words such as "believes", "evaluates", "expects", "forecasts", "intends", "plans", "assesses", "will" or "may", or in each case, comparable words and terms, as well as negating statements or references to projects are designed to identify statements regarding the future. These assumptions involve risks and uncertainties that are either foreseeable or not foreseeable by the Company. Therefore, future performance may differ from current expectations and recipients of the information in the Report should not base their assumptions solely on it.

Samruk-Energy gives no assurance that the actual results, scope or performance of its business or the industry in which the Company operates will match the results, scope or performance expressed or implied by any forward-looking statements contained in this Report or elsewhere.

Samruk-Energy shall not be liable for any losses that may be incurred by any person due to such person's reliance on forward-looking statements. Except where expressly required by the applicable laws, the Company assumes no obligation to distribute or publish any updates or changes to forward-looking statements to reflect any changes in expectations or new information, or subsequent events, conditions or circumstances.

Key Performance Indicators 2020-2022

Social performance

GRI 2-7, 405-1, GRI 12: Coal Sector: 12.19.6

HEADCOUNT

Indicator	2020	2021	2022
Average headcount	**17,783**	**17,645**	**17,650**
Total headcount	**17,783**	**17,849**	**18,834**
men	13,184	13,061	13,053
women	4,599	4,584	4,597

TOTAL WORKFORCE BY ROLE AND GENDER, EMPLOYEES

Indicator	2021		2022	
	men	women	men	women
Senior managers	41	4	40	5
Managers	242	82	239	84
Specialists	734	271	718	269
Workers	12,055	4,227	12,056	4,239

TOTAL WORKFORCE BY AGE AND GENDER

Indicator	2021		2022	
	men	women	men	women
Under 30 years old	1,947	685	1,912	672
30 to 50	7,186	2,525	7,236	2,542
Over 50	3,923	1,378	3,905	1,383

TOTAL WORKFORCE BY GENDER AND REGION

Indicator	2021		2022	
	M	W	M	W
South	5,928	2,031	5,871	1,985
Centre	167	108	156	110
East	4	6	4	6
North	6,962	2,439	7,022	2,496

REGULAR AND TEMPORARY EMPLOYEES BROKEN DOWN BY GENDER AND REGION[42]

Indicator	2021		2022	
	men	women	men	women
Centre				
Regular employees	159	84	151	100
Temporary employees	8	12	5	10
East				
Regular employees	4	6	4	6
Temporary employees	-	-	-	-
North				
Regular employees	6,868	2,145	6,889	2,215
Temporary employees	94	294	138	283
South				
Regular employees	5,877	1,946	5,834	1,867
Temporary employees	51	85	30	118

[42] The following subsidiaries and affiliates were within the consolidation perimeter in 2022: Bogatyr Komir LLP, Ekibastuz GRES-1 LLP, First Wind Power Plant LLP, Samruk Green Energy LLP, Almaty Power Plants JSC, Alatau Zharyk Company JSC, Moynak HPP JSC, Ekibastuz GRES-2 JSC, AlmatyEnergoSbyt LLP, Shardarinskaya HPP JSC, Ereymentau Wind Power LLP, Energy Solutions Center LLP, and Energia Semirechya LLP. Bukhtarma HPP JSC and Tegis Munay LLP were not taken into the perimeter due to a small number of employees (<10).

GRI 401-1, GRI 12: Coal Sector: 12.15.2

NEW EMPLOYEE HIRES BY GENDER, AGE, AND REGION[43]

Region	2022					
	Under 30 years old		30 to 50		50+	
	Men	Women	Men	Women	Men	Women
Almaty	288	69	269	110	85	28
Astana	5	7	45	16	3	1
North Kazakhstan	381	130	555	227	122	99
South Kazakhstan	5	0	3	0	0	1
East Kazakhstan	0	0	0	0	0	0
Central Kazakhstan	0	0	0	0	0	0
West Kazakhstan	0	0	0	0	0	0
TOTAL	**679**	**206**	**872**	**353**	**210**	**129**

DISMISSED EMPLOYEES BY GENDER, AGE, AND REGIONY[43]

Region	2022					
	Under 30 years old		30 to 50		50+	
	Men	Women	Men	Women	Men	Women
Almaty	187	49	275	110	214	58
Astana	11	0	45	16	5	1
North Kazakhstan	259	85	455	185	285	128
South Kazakhstan	0	0	2	1	1	0
East Kazakhstan	0	0	0	0	0	0
Central Kazakhstan	0	0	0	0	0	0
West Kazakhstan	0	0	0	0	0	0
TOTAL	**457**	**134**	**777**	**312**	**505**	**187**

GRI 401-3, GRI 12: Coal Sector: 12.15.4, 12.19.4

KEY PARENTAL LEAVE INDICATORS, EMPLOYEES[44]

Indicator	2020	2021	2022
Total number of employees entitled to parental leave	**17,783**	**17,645**	**17,650**
Men	13,184	13,061	13,053
Women	4,599	4,584	4,597
Total number of employees who took parental leave	**345**	**310**	**329**
Men	23	20	29
Women	322	290	300
Employees who returned to work after parental leave in the reporting period	**153**	**146**	**144**
Men	8	9	10
Women	145	137	134
Employees who returned to work after parental leave in the previous reporting period in 2021	199	187	203
Men	12	9	12
Women	187	178	191
Employees who returned to work after parental leave in 2021 and were still employed after 12 months of return	190	183	189
Men	11	8	11
Women	179	175	178
Return to work rate, %	44	47	44
Men	35	45	34
Women	45	47	45
Retention rate, %	95	97	93
Men	92	89	92
Women	96	98	93

GRI 404-1

AVERAGE HOURS OF TRAINING OF PER EMPLOYEE PER YEAR BY GENDER AND EMPLOYEE CATEGORY, 2022[45]

Indicator	Senior management		Administrative staff and managers		Production staff		Maintenance staff	
	Men	Women	Men	Women	Men	Women	Men	Women
Hours of staff training per year, by employee category and gender	906.700	171.300	25,591.920	21,490.920	504,641.290	40,584.580	21.310	187.870
Employees in every category, by gender (average headcount)	39.000	8.000	730.000	785.000	12,009.000	3,194.000	33.000	147.000
Average hours of training per year per employee in every category, by gender	23.249	21.413	35.057	27.377	42.022	12.707	0.646	1.278

[43] The following subsidiaries and affiliates were within the consolidation perimeter in 2022: Bogatyr Komir LLP, Ekibastuz GRES-1 LLP, First Wind Power Plant LLP, Samruk Green Energy LLP, Almaty Power Plants JSC, Alatau Zharyk Company JSC, Moynak HPP JSC, Ekibastuz GRES-2 JSC, AlmatyEnergoSbyt LLP, Shardarinskaya HPP JSC, Ereymentau Wind Power LLP, Energy Solutions Center LLP, and Energia Semirechya LLP.

[44] The following subsidiaries and affiliates were within the consolidation perimeter in 2022: Bogatyr Komir LLP, Ekibastuz GRES-1 LLP, First Wind Power Plant LLP, Samruk Green Energy LLP, Almaty Power Plants JSC, Alatau Zharyk Company JSC, Moynak HPP JSC, Ekibastuz GRES-2 JSC, AlmatyEnergoSbyt LLP, Shardarinskaya HPP JSC, Ereymentau Wind Power LLP, Energy Solutions Center LLP, and Energia Semirechya LLP. Bukhtarma HPP JSC and Tegis Munay LLP were not taken into the perimeter due to a small number of employees (<10, no employees on parental leave).

[45] The following subsidiaries and affiliates were within the consolidation perimeter in 2022: Bogatyr Komir LLP, Ekibastuz GRES-1 LLP, First Wind Power Plant LLP, Samruk Green Energy LLP, Almaty Power Plants JSC, Alatau Zharyk Company JSC, Moynak HPP JSC, Ekibastuz GRES-2 JSC, AlmatyEnergoSbyt LLP, Shardarinskaya HPP JSC, Ereymentau Wind Power LLP, Energy Solutions Center LLP, and Energia Semirechya LLP. Bukhtarma HPP JSC and Tegis Munay LLP were not taken into the perimeter due to a small number of employees (<10).

GRI 2-21

RATIO OF HIGHEST PAID TO THE REST

Indicator		2020	2021	2022
Increase in the average annual pay of employees	%	5%	5% to 32%	10%
Ratio of the total annual pay of the highest-paid employee to the average annual pay of other employees	ratio	270%	270%	285%

GRI 202-1, GRI 12: Coal Sector: 12.19.2

RATIOS OF STANDARD ENTRY LEVEL WAGE COMPARED TO LOCAL MINIMUM WAGE

Indicator		2020	2021	2022
men	ratio	329%	343%	310%
women			296%	283%

GRI 405-1, GRI 12: Coal Sector: 12.19.6

DIVERSITY OF GOVERNANCE BODIES BY GENDER, 2022[46]

Categories	Men	Women
People on top	**40**	**5**
Under 30 years old	0	0
30-50	30	5
50+	10	0
Managers	**239**	**84**
Under 30 years old	42	26
30-50	189	52
50+	8	6

Occupational health & safety

GRI 403-9

KEY H&S INDICATORS

Indicator	2020	2021	2022
Work-related injuries	8	6	10
Workers injured in work-related accidents	8	6	10
Number of work-related fatalities	0	0	4
High-consequence work-related injuries (excluding fatalities)	6	4	4
Contractor workers injured in work-related ac-cidents	2	0	3
High-consequence work-related injuries of contract workers (excluding fatalities)	2	0	2
Contractor fatalities as a result of work- related injury	0	0	1
Rate of high-consequence work-related injuries (excluding fatalities)	0.19	0.13	0.13
Fatal occupational injury rate	0	0	0,13
Lost time injury rate	0.27	0.19	0.3355
Number of man-hours worked	29,163,679	30,939,340	29,804,062

HEALTH AND SAFETY EXPENDITURES, '000 KZT

Types of expenditures	2020	2021	2022
Money allocated to ensure compliance with H&S standards, including:	4,109,112	5,179,481	4,822,169
Occupational health & safety	1,764,570	2,029,462	2,109,105
Fire safety	832,285	947,816	570,483.0
Occupational safety	671,003.7	1,399,049.5	1,115,322.9
Training	221,247	229,571	137,993
Other (specify)	218,838.7	274,820.1	537,909.7
Money spent to ensure compliance with H&S standards, including:	3,125,723	4,335,822	3,788,509
Occupational health & safety	1,301,866	1,530,886	1,673,061
Fire safety	688,967	917,675	464,992
Occupational safety	644,077.8	1,370,120.7	1,074,124.2
Training	144,816	167,031	163,437
Other (specify)	130,329.7	133,748.1	161,760.2

Environmental indicators

ENVIRONMENTAL INVESTMENTS, BILLION KZT

Expenditure	2020	2021	2022
Waste management and remediation of environmental damage	4.439	7.182	5.220
Protection and rehabilitation of land, surface and ground water, and waste water treatment	0.333	0.810	0.452
Air protection and climate action	1.238	0.981	1.365
Landscaping and improving territories	0.020	0.095	0.058
Staff training and upskilling	0.002	0.002	0.002
Drafting documents	0.011	0.011	0.011
Other environmental activities (water and air analysis)	0.008	0.007	0.008
Total	**6.051**	**9.088**	**7.117**

[46] The following subsidiaries and affiliates were within the consolidation perimeter in 2022: Bogatyr Komir LLP, Ekibastuz GRES-1 LLP, First Wind Power Plant LLP, Samruk Green Energy LLP, Almaty Power Plants JSC, Alatau Zharyk Company JSC, Moynak HPP JSC, Ekibastuz GRES-2 JSC, AlmatyEnergoSbyt LLP, Shardarinskaya HPP JSC, Ereymentau Wind Power LLP, Energy Solutions Center LLP, Energia Semirechya LLP, and Bukhtarma HPP JSC. Tegis Munay LLP was not taken into the perimeter.

EMISSIONS PAYMENTS (TAXES) AND OBLIGATORY ENVIRONMENTAL PAYMENTS, BILLION KZT

Payments	2020	2021	2022
Air emissions payments	5.160	5.963	6.197
Water use payment (water tax)	0.122	0.112	0.127
Pollution discharge fee	0.009	0.010	0.010
Charges for waste disposal in the natural environment	1.129	1.461	1.265
Total	**6.420**	**7.546**	**7.599**

GRI 305-7, GRI 12: Coal Sector: 12.4.2

POLLUTION DISCHARGES, TONNES

Pollutants	2022
NOx	80,147.35
SOx	223,331.13
Solid substances	48,063.65
CO	6,217.23
Volatile organic compounds (VOCs)	313.382
Hazardous air pollutants (HAPs)	358,079.07
Persistent organic pollutants (POPs)	0
Total	**358,079.07**

GRI 303-3, GRI 12: Coal Sector: 12.7.4, 12.7.6

TOTAL WATER WITHDRAWAL BY SAMRUK-ENERGY, MEGALITRES

Total water withdrawal by source	2020	2021	2022[47]	Areas with water scarcity
in surface water bodies (total)	**22,696,004**	**19,836,705**	**22,366,918.7**	**no**
Fresh water (≤1,000 mg/l of total dis-solved solids)	22,696,004	19,836,705	22,366,918.7	no
Other water (>1,000 mg/l of total dis-solved solids)	0	0	0	no
in underground sources (total)	**8,815**	**7,082**	**8,892.7**	**no**
Fresh water (≤1,000 mg/l of total dis-solved solids)	0	0	0	no
Other water (>1,000 mg/l of total dis-solved solids)	8,815	7,082	8,892.7	no
sea water ()	**0**	**0**	**0**	**no**
Fresh water (≤1,000 mg/l of total dis-solved solids)	0	0	0	no
Other water (>1,000 mg/l of total dis-solved solids)	0	0	0	no
formation water (total)	**0**	**0**	**0**	**no**
Fresh water (≤1,000 mg/l of total dis-solved solids)	0	0	0	no
Other water (>1,000 mg/l of total dis-solved solids)	0	0	0	no
in municipal water supply systems	**35,712**	**39,897**	**39,368.5**	**no**
Fresh water (≤1,000 mg/l of total dis-solved solids)	35,712	39,897	39,368.5	no
Other water (>1,000 mg/l of total dis-solved solids)	0	0	0	no
Total water withdrawal	**22,740,531**	**19,883,684**	**22,415,179.9**	**no**
Fossil fuel generation, coal mining and distribution companies	192,594	211,380	211,247	no
HPPs	22,547,937	19,672,304	22,203,932.9	no

GRI 303-5

TOTAL WATER CONSUMPTION BY SAMRUK-ENERGY, MEGALITRES[48]

Indicator	2020	2021[49]	2022[50]
Water consumption	124,790	136,836	137,470.8

GRI 303-4, GRI 12: Coal Sector: 12.7.5

TOTAL WATER DISCHARGE BY SAMRUK-ENERGY, MEGALITRES

Indicator	2020	2021	2022	Areas with water scarcity
Effluents by type:				
Surface:	22,519,267	19,639,534	22,137,788	no
Fresh water (≤1,000 mg/l of total dissolved solids)	22,519,267	19,639,534	22,137,788	
Other water (>1,000 mg/l of total dissolved solids)	0	0	0	
Underground:	0	0	0	no
Fresh water (≤1,000 mg/l of total dissolved solids)	0	0	0	no
Other water (>1,000 mg/l of total dissolved solids)	0	0	0	no
Sea water	0	0	0	no
Formation water	0	0	0	no
Municipal and other water sup-ply systems total):	96,474	107,314	139,921	no
Fresh water (≤1,000 mg/l of total dissolved solids)	96,474	107,314	139,921	no
Other water (>1,000 mg/l of total dissolved solids)	0	0	0	no
Waste water outsourced for use to other organisations	0	0	0	no
Fresh water (≤1,000 mg/l of total dissolved solids)	0	0	0	no
Other water (>1,000 mg/l of total dissolved solids)	0	0	0	no
Total water discharge	22,615,741	19,746,848	22,277,709	no
Fossil fuel generation, coal mining and distribution companies	67,850	74,587	73,818	no
HPPs	22,547,891	19,672,261	22,203,891	no

[47] When disclosing information, the Company strives to expand the scope of the disclosed information and reporting areas to rank higher in the ESG rankings, so Samruk-Energy JSC discloses water intake by HPP Cascade and Kapshagay HP in its annual reports from 2022, and the figures for 2020 and 2021 were also recalculated taking into account these HPPs.

[48] Water consumption disclosure methodology changed in 2022 in line with GRI 303-5, whereby the Company has recalculated water consumption figures for 2020 and 2021.

[49] In 2021, water consumption was established as the total water withdrawal by the subsidiaries and affiliates, excluding HPPs.

[50] The decrease in water consumption is due to a change in disclosure methodology, so water consumption was calculated according to GRI 305-5 in 2022, as the difference between water withdrawal and water discharge of the Company.

GRI 306-4, GRI 12: Coal Sector: 12.6.5

WASTE GENERATED BY SAMRUK-ENERGY AND SENT FOR RECOVERY, TONNES

Indicator	2020		2021		2022	
	in-house	outsourced	in-house	outsourced	in-house	outsourced
Total waste recovered	**5,131.12**	**26,939.54**	**11,468.48**	**29,514.44**	**12,856.78**	**22,951.87**
Total hazardous waste recovered, incl.	**5,131.08**	**14,821.22**	**11,468.44**	**9,530.27**	**87.58**	**211.53**
reused	5,131.08	-	11,468.44	-	87.58	-
recycled	-	3,345.62	-	4,452.83	-	14.96
disposed	-	-	-	-	-	4.87
otherwise treated	-	11,475.61	-	5,077.45	-	191.69
Total non-hazardous waste recovered, incl.	**0.04**	**12,118.32**	**0.04**	**19,984.17**	**12,769.19**	**22,740.34**
reused	0.04	-	0.04	-	12,769.19	-
recycled	-	12,098.32	-	19,940.17	-	14,057.29
disposed	-	20.0	-	44.0	-	4,770.63
otherwise treated	-	-	-	-	-	3,912.42

GRI 306-5, GRI 12: Coal Sector: 12.6.6

WASTE GENERATED BY SAMRUK-ENERGY AND SENT FOR DISPOSAL, TONNES

Indicator	2020		2021		2022	
	in-house	out-sourced	in-house	out-sourced	in-house	out-sourced
Total waste sent for disposal burial	**97,139,175.94**	**2,732.40**	**86,807,807.58**	**2,124.05**	**90,267,674.78**	**2,223.91**
Total hazardous waste sent for destruction	**0.13**	**1,482.95**	**-**	**988.0**	**-**	**60.54**
combustion (with energy recovery)	-	-	-	-	-	-
combustion (w/o energy recovery)	0.13	180.53	-	95.60	-	43.15
otherwise treated	-	1,302.43	-	892.40	-	17.39
Total non- hazardous waste sent for destruction, incl.	**-**	**17,246.04**	**-**	**16,836.18**	**-**	**3,632.6**
combustion (with energy recovery)	-	-	-	-	-	-
combustion (w/o energy recovery)	-	-	-	-	-	1.74
otherwise treated	-	17,246.04	-	16,836.18		3,630.86

GRI 302-1

RESOURCE CONSUMPTION AND ENERGY EFFICIENCY, '000 GJ51[51,52,53]

Indicator	2020	2021	2022
Resource consumption	306,324	346,258	340,079
Total energy consumption, incl.	13,930	15,654	15,153
Electricity, incl.	11,535	12,608	12,331
HPPs	35	24	38
Total electricity and thermal energy purchased	7,408	9,738	10,900
Purchased electricity, incl.	7,290	9,623	10,782
RES	2,594	4,802	5,826
HPPs (RES)	145	186	295
In-house electricity generation, incl.	112,992	128,193	129,183
Electricity generation by energy-intense subsidiaries and affiliates	111,791	127,022	127,681
RES	1,201	1,171	1,503
Total electricity supply, incl.	108,470	124,815	127,534
Total heat energy consumption, incl.	2,394	3,046	2,823
Purchased heat energy	118	116	118
In-house heat energy production	24,363	24,142	23,039
Heat energy sales	24,117	23,805	22,632
Coal	291,784	333,003	326,562
Gas, incl.	12,055	10,886	11,024
natural gas	12,054	10,885	11,023
LNG (LPG)	0.5	0.9	0.7
Liquid fuels, incl.	1,633	1,585	1,530
petrol	160	162	156
diesel	1,200	1,423	1,374
Boiler fuel, incl.	852	784	963
residual oil	852	784	963

[51] The methodology for calculating Key Energy Efficiency Indicators (KEIs) is designed for energy-saving analysis of operations of industrial producers, regardless of their legal status, form of ownership and type of products or services they make. The methodology also makes it possible to develop an energy strategy for industrial enterprises and their development plans and programmes for boosting energy efficiency in the long term. ISO 50001.

[52] The coefficients used are in line with the Methodology for the Fuel and Energy Balance and the Calculation of Selected Statistical Indicators Typical for the Energy Sector.

[53] The following subsidiaries and affiliates were within the consolidation perimeter in 2022: purchased electricity including green energy: Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Moynak HPP JSC, and Shardarinskaya HPP: purchased electricity: Alatau Zharyk Company JSC and Bogatyr Komir LLP. Purchased heat energy: Alatau Zharyk Company and Bogatyr Komir. Coal: Ekibastuz GRES-1, Ekibastuz GRES-2, and Almaty Power Plants. Petrol: Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Moynak HPP, Shardarinskaya HPP, Alatau Zharyk Company, and Bogatyr Komir. Diesel: Ekibastuz GRES-1, Ekibastuz GRES-2, Almaty Power Plants, Moynak HPP, Shardarinskaya HPP, Alatau Zharyk Company, and Bogatyr Komir. Residual oil: Ekibastuz GRES-1, Ekibastuz GRES-2, and Almaty Power Plants. Natural gas: Almaty Power Plants

Investment performance

IMPLEMENTATION OF SAMRUK-ENERGY INVESTMENT PROGRAMME IN 2022, UTILISATION RATE, KZT MILLION (EXCL. VAT)

Allocation of funds	Actual			Utilisation, projection	
	2020	2021	2022	2023	2024
CAPEX, incl.:	**73,232**	**61,698**	**100,580**	**189,900**	**414,670**
equity funds	35,129	59,336	70,742	89,964	65,797
borrowings	35,122	1,993	29,404	82,971	283,092
funding from the national budget	2,982	368	434	16,966	65,781
Investment projects, incl.:	**40,718**	**25,206**	**58,372**	**135,078**	**360,722**
Rebuilding Unit 1 with installation of new electrostatic precipitators	1,890	10,930	32,681	102,208	0
Extending and upgrading Ekibastuz GRES-2 with installation of Unit 3 (50%)	8,322	104	10,209	6,087	49,484
Transition to in-pit crushing and conveying (IPCC) for coal extraction, transportation, averaging and loading at Bogatyr mines, Ekibastuz coal field (50%)	25,504	9,693	7,896	4,257	0
Construction of Kokozek substation	20	2,000	354	0	0
Construction of Turksib substation	0	19	0	1,380	0
Upgrade of cable networks in Almaty	0	0	0	2,219	10,132
Extending CHPP-1 with construction of 200-250 MW combined cycle gas turbine (CCGT)	0	0	271	424	31,304
Upgrade of Almaty CHPP-2 with low environmental impact	0	314	560	8,850	125,510
Upgrade of Almaty CHPP-3 operating a CCGT and the capacity boost to 450 MW	0	0	334	5,897	142,242
Construction of a 60 MW wind power plant in Shelek Corridor, with the potential expansion to 300 MW (25%)	11	23	4,944	484	0
Construction of a 50 MW wind power plant in Ereymentau	913	2,099	1,065	61	27
Other projects	4,058	24	58	3,210	2,023
Maintaining production assets:	**31,787**	**35,198**	**41,052**	**51,576**	**52,871**
Bogatyr Komir (50%)	5,547	4,243	7,995	6,570	6,046
Ekibastuz GRES-2 (50%)	1,050	1,616	1,985	4,196	5,637
Ekibastuz GRES-1	6,187	8,886	9,859	17,668	13,178
Alatau Zharyk Company	12,646	10,692	11,289	11,328	10,366
Almaty Power Plants	5,616	9,042	9,563	9,673	13,963
Moynak HPP	307	415	103	1,508	3,366
Shardarinskaya HPP	6	10	54	27	20
AlmatyEnergoSbyt LLP	94	90	85	91	91
Samruk-Green Energy	3	24	22	21	20
First Wind Power Plant	332	180	96	491	148
Ereymentau Wind Power	0	0	0	3	36
Energia Semirechya (25%)	0	0	0	0	0
ESC	0	0	0	0	0
Maintaining administrative assets	**690**	**1,267**	**1,157**	**2,931**	**1,077**
Other investments	**38**	**26**	**0**	**315**	**0**

Financial and business performance

GRI 201-1

GENERATED AND DISTRIBUTED ECONOMIC VALUE OF SAMRUK-ENERGY JSC (INCLUDING STAKES IN JOINT VENTURES), KZT MILLION

Indicator	2020	2021	2022[54]	2023	2024
	actual	actual	actual	projection	projection
Economic value generated	**382,199**	**465,806**	**520,350**	**594,777**	**684,955**
Sales revenue	380,990	463,690	517,254	591,385	683,767
Proceeds received (interest)	1,209	2,116	3,096	3,391	1,188
Distributed economic value	**312,894**	**363,943**	**407,694**	**474,684**	**568,914**
Operational expenditures	194,386	228,733	246,973	311,972	79,770
Payroll and social deductions	43,700	50,327	63,625	66,683	70,584
Payments to capital sources and providers	32,571	32,702	30,453	27,755	38,437
Payments to the national budget	42,152	52,149	66,518	68,019	79,867
Retained economic value	**69,305**	**101,862**	**112,656**	**120,093**	**116,040**

[54] The figures were previously calculated on an accrual basis. To exclude non-cash transactions, including depreciation, the current figures are calculated on the basis of the cash flow statement.

GRI 201-1

KEY FINANCIAL AND ECONOMIC INDICATORS, KZT MILLION

Indicator[55]	2020 actual	2021 actual	2022 actual	2023 projection	2024 projection
Income from sales of products and services	**283,010**	**332,537**	**381,465**	**429,842**	**507,436**
Electricity production	207,917	253,593	286,873	309,493	372,388
Supply of electricity to load serving entities	106,911	125,685	137,578	168,405	194,924
Heat energy production	19,202	18,703	19,762	21,430	23,124
Electricity transmission and distribution	40,685	46,428	53,654	60,552	69,029
Sales of chemically treated water	1,626	1,781	1,852	1,795	1,798
Lease	4,041	3,930	4,188	7,847	11,501
Other	3,181	3,702	5,574	6,435	6,724
Cost of products and services sold	**(225,185)**	**(254,847)**	**(288,929)**	**(345,454)**	**(384,733)**
Cost of electricity production	(156,182)	(183,478)	(202,949)	(242,575)	(276,063)
Cost of electricity supply to load serving entities	(111,195)	(128,428)	(140,490)	(167,310)	(193,239)
Cost of heat energy production	(18,804)	(19,306)	(22,168)	(22,473)	(24,769)
Cost of electricity transmission	(54,365)	(39,358)	(47,040)	(54,609)	(57,910)
Cost of sales of chemically treated water	(1,679)	(1,848)	(2,001)	(1,801)	(1,880)
Cost of other core operations	(946)	(767)	(1,140)	(1,436)	(1,501)
Depreciation of fixed assets and amortisation of intangible assets	(57,331)	(55,168)	(59,764)	(65,132)	(77,127)
Gross profit	**57,826**	**77,690**	**92,536**	**84,387**	**122,703**
Income from financing	2,916	2,616	2,747	2,168	2,216
Other incomes[56]	4,637	7,278	7,812	1,116	496
Expenditure on sales of products and services	(10,202)	(9,029)	(9,110)	(9,047)	(9,787)
General and administrative expenses	(15,826)	(14,793)	(18,852)	(17,839)	(15,922)
Operating profit	**31,798**	**53,868**	**64,574**	**57,501**	**96,994**
Earnings before interest, de-preciation and amortisation (EBITDA)	**99,728**	**123,447**	**141,382**	**135,925**	**202,303**
Expenses on financing[57]	(31,025)	(30,139)	(29,748)	(27,208)	(34,948)
Other non-core operations ex-penditure[58][59][60]	(4,061)	(23,354)	(14,337)	(102)	(118)
Share of profit/loss of entities accounted for using the equity method and impairment of investments	9,474	13,455	16,103	12,324	27,437
Pre-tax profit (loss)	**13,739**	**24,055**	**47,153**	**45,799**	**92,076**
Gain(loss) from discontinuation of operations	0	0	(736)	0	0
Gain(loss) on disposal of subsidiaries	0	0	0	0	0
Corporate profit tax expenses	**(5,655)**	**(8,377)**	**(16,111)**	**(12,159)**	**(17,129)**
Total profit (loss) before minority interest	8,083	15,347	30,306	33,640	74,946
Minority interest	**76**	**300**	**175**	**232**	**345**
Total profit attributable to the Group's Shareholders	**8,008**	**15,046**	**30,132**	**33,408**	**74,602**

[55] Revenues and production cost are broken down by area of activity (not by segment), net of elimination.

[56] In the Financial Report, the 2020 foreign exchange gains are recognised under "other income", gains from the reversal of impairment losses on financial assets are recognised under "Reversal of impairment losses on financial assets".

[57] BIn the Financial Report, the 2020 foreign exchange loss is recognised under "Financial expenses".

[58] In the Financial Report, the 2021 foreign exchange loss is recognised under "Other expenses".

[59] In the Financial Report, the 2021 foreign exchange loss is recognised under "Financial expenses".

[60] In the Financial Report, the impairment loss is recognised under "Impairment losses on non-financial assets".

PROFIT AND EXPENSES, KZT MILLION

Indicator	2020 actual	2021 actual	2022 actual	2023 projection	2024 projection
Gross profit	**57,826**	**77,690**	**92,536**	**84,387**	**122,703**
Financing income	2,916	2,616	2,747	2,168	2,216
Other incomes[61]	4,637	7,278	7,812	1,116	496
Expenses for sales of products and services	(10,202)	(9,029)	(9,110)	(9,047)	(9,787)
General and administrative expenses	(15,826)	(14,793)	(18,852)	(17,839)	(15,922)
Operating profit	**31,798**	**53,868**	**64,574**	**57,501**	**96,994**
Earnings before interest, de-preciation and amortization (EBITDA)	**99,728**	**123,447**	**141,382**	**135,925**	**202,303**
Expenses on financing[62]	(31,025)	(30,139)	(29,748)	(27,208)	(34,948)
Other non-core operations expenditure[63]	(4,061)	(23,354)	(14,337)	(102)	(118)
Share of profit/loss of entities accounted for using the equity method and impairment of investments	9,474	13,455	16,103	12,324	27,437
Gain(loss) from discontinuation of operations	0	0	(736)	0	0
Gain(loss) on disposal of subsidiaries	0	0	0	0	0
Pre-tax profit (loss)	**13,739**	**24,055**	**47,153**	**45,799**	**92,076**
Corporate profit tax expenses	(5,655)	(8,377)	(16,111)	(12,159)	(17,129)
Total profit (loss) before minority interest	**8,083**	**15,347**	**30,306**	**33,640**	**74,946**
Minority interest	76	300	175	232	345
Total profit attributable to the Group's Shareholders	**8,008**	**15,046**	**30,132**	**33,408**	**74,602**

[61] In the Financial Report, the 2020 foreign exchange gains are recognised under "other income", gains from the reversal of impairment losses on financial assets are recognised under "Reversal of impairment losses on financial assets"

[62] In the Financial Report, the 2020 foreign exchange loss is recognised under "Financial expenses"

[63] In the Financial Report, the 2021 foreign exchange loss is recognised under "Other expenses"; in the Financial Report, the 2021 foreign exchange loss is recognised under "Financial expenses"; in the Financial, the impairment loss is recognised under "Loss from impairment of non-financial assets"

Operations performance

PRODUCTION INDICATORS (BY PRODUCER)

Name of subsidiaries and affiliates	2020 Actual	2021 Actual	2022 Actual	2021 actual to projection ratio, %	2023 Projection	2024 Projection
Electricity output, million kWh						
Ekibastuz GRES-1	19,466	22,788	23,048	101%	22,152	22,995
Ekibastuz GRES-2	4,974	6,433	6,002.5	93%	6,100	6,100
Almaty Power Plants	5,335	5,008	5,099	102%	5,046	5,046
Moynak HPP JSC	930	758	973	128%	906	906
Shardarinskaya HPP JSC	513	456	518	114%	437	537
Samruk-Green Energy LLP	7.37	20.45	19.78	97%	20.70	20.67
First Wind Power Plant LLP	159.37	144.59	135.72	94%	164.59	184.04
Ereymentau Wind Power LLP	-	-	-		193.50	215.00
Energia Semirechya (25% stake)	-	-	88.26		223.67	225.75
Total	**31,385**	**35,609**	**35,884**	**101%**	**35,243**	**36,230**
Electricity supply, million kWh						
Ekibastuz GRES-1	19,001	22,496	23,102	103%	22,303	23,382
export	859	400	-		-	-
Ekibastuz GRES-2	4,809	6,336	5,938	94%	6,102	6,162
export	-	192	473	247%	-	-
Almaty Power Plants	4,689	4,425	4,591	104%	4,523	4,590
Moynak HPP	944	781	1,014	130%	946	956
Shardarinskaya HPP	521	468	540	115%	452	564
Samruk-Green Energy	7.22	20.22	19.53	97%	19.92	19.89
First Wind Power Plant	159	144.29	135.37	94%	162	183
Ereymentau Wind Power	-	-	-		192	213
Energia Semirechya (25% stake)	-	-	86.40		217	219
Total	**30,131**	**34,671**	**35,426**	**102%**	**34,918**	**36,289**
Capacity sales, MW						
Ekibastuz GRES-1	1,556	1,565	2,024	129%	2,080	2,601
including electricity supplied at individual tariffs						477
Ekibastuz GRES-2	743	525	779	148%	896	896
Almaty Power Plants	872	806	859	107%	850	850
including electricity supplied at individual tariffs	70	70	70	100%	70	70

PRODUCTION INDICATORS (BY PRODUCER)

Name of subsidiaries and affiliates	2020	2021	2022	2021 actual to projection ratio, %	2023	2024
	Actual	Actual	Actual		Projection	Projection
Moynak HPP	286	292	289	99%	298	298
Shardarinskaya HPP	48	61	61	100%	61	61
Total	**3,505**	**3,248**	**4,013**	**124%**	**4,184**	**4,705**
Heat energy production, '000 Gcal						
Almaty Power Plants	5,596	5,554	5,282	95%	5,323	5,323
Ekibastuz GRES-2	67	76	78	102%	76	76
Ekibastuz GRES-1	155	136	143	105%	151	151
Total	**5,819**	**5,766**	**5,502**	**95%**	**5,549**	**5,549**
Electricity transmission, million kWh						
Alatau Zharyk Company	6,838	7,650	8,154	107%	8,261	8,347
Total	**6,838**	**7,650**	**8,154**	**107%**	**8,261**	**8,347**
Electricity supply, million kWh						
AlmatyEnergoSbyt	6,055	6,724	6,847	102%	7,084	7,297
Total	**6,055**	**6,724**	**6,847**	**102%**	**7,084**	**7,297**
Coal sales, million tonnes	**43.44**	**44.74**	**42.41**	**95%**	**44.30**	**45.21**

WEIGHTED AVERAGE TARIFFS FOR ELECTRICITY GENERATION

Name of subsidiaries and affiliates	2020	2021	2022	2023	2024
	Actual	Actual	Actual	Projection	Projection
Ekibastuz GRES-1	**6.44**	**7.31**	**8.06**	**8.68**	**10.35**
electricity tariff, KZT/kWh	5.86	6.82	7.44	8.02	9.54
Tariff in Kazakhstan	5.65	6.76	7.44	8.02	9.54
Export tariff, KZT/kWh	10.22	10.31	-	-	-
capacity tariff, KZT/MWh*month	590	590	590	590	900
incl. individual capacity tariff, '000 KZT/MWh*month	-	-	-	-	1,199
Ekibastuz GRES-2	**9.64**	**10.38**	**11.39**	**11.78**	**13.81**
Export tariff, KZT/kWh		11.65	13.76		
incl. electricity tariff, KZT/kWh	8.55	9.74	10.17	10.74	12.24
incl. capacity tariff, '000 KZT/MWh*month	590	590	590	590	900
Almaty Power Plants	**11.41**	**13.12**	**14.05**	**16.44**	**18.51**
incl. electricity tariff, KZT/kWh	9.45	11.16	12.27	14.64	16.23
Including. Average weighted ca-pacity tariff, KZT/MWh*month	875	899	796	799	1,029
incl. capacity tariff, '000 KZT/MWh*month	590	590	590	590	900
incl. individual capacity tariff, '000 KZT/MWh*month	4,169	4,169	3,139	3,139	2,479
Moynak HPP JSC	**21.33**	**23.74**	**21.69**	**22.93**	**23.55**
incl. electricity tariff, KZT/kWh	12.02	12.26	12.92	13.24	13.96
incl. capacity tariff, '000 KZT/MWh*month	2,564	2,564	2,564	2,564	2,564
Shardarinskaya HPP JSC	**12.95**	**15.32**	**16.03**	**17.73**	**17.09**
incl. electricity tariff, KZT/kWh	8.49	9.27	10.79	11.47	12.07
incl. capacity tariff, '000 KZT/MWh*month	4,069	3,868	3,868	3,868	3,868
Samruk-Green Energy, KZT/kWh	**32.73**	**19.74**	**20.94**	**25.90**	**27.08**
electricity tariff 2 MW	50.39	53.91	58.70	63.98	67.18
electricity tariff 0.5 MW	70.00	70.74	71.51	72.29	73.05
electricity tariff 1 MW	-	10.96	11.80	17.20	18.06
electricity tariff 5 MW	9.49	10.96	11.80	17.20	18.06
First Wind Power Plant LLP	**31.62**	**33.83**	**36.84**	**42.73**	**42.51**
Ereymentau Wind Power	**-**	**-**	**-**	**22.68**	**23.70**
Energia Semirechya (25% stake)	**-**	**-**	**22.68**	**24.17**	**26.23**

GRI Index

Statement of use	Samruk-Energy JSC has reported in accordance with the GRI Standards for the period from 1 January 2022 to 31 December 2022
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	GRI 12: Coal Sector

			Reasons for non-disclosure		
Indicator	Disclosure	Report sections/ Comments	Not disclosed	Reason	Explanation
GRI 2: Organization and its reporting practices					
2-1	Organisational details	SECTION 1. SAMRUK-ENERGY TODAY 1.1. Our Profile 1.4. Geography of Assets			
2-2	Entities included in the organisation's sustainability reporting	ANNEXES 6.1 About the Report			
2-3	Reporting period, frequency and contact point	ANNEXES 6.1 About the Report			
2-4	Restatements of information	In the case of revisions of previous years' figures or other reporting changes, relevant comments are made throughout the Report.			
2-5	External assurance	ANNEXES 6.1 About the Report			
GRI 2: Activities and workers					
2-6	Activities, value chain and other business relationships	SECTION 1. SAMRUK-ENERGY TODAY 1.1. Our Profile 1.3. Samruk-Energy Group Structure» SECTION 3. BUSINESS PERFORMANCE 3.3. Procurement Management SECTION 5 CORPORATE GOVERNANCE 5.1. Corporate Governance System			

			Reasons for non-disclosure		
Indicator	Disclosure	Report sections/ Comments	Not disclosed	Reason	Explanation
GRI 2: Activities and workers					
2-7	Employees	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022			
2-8	Workers who are not employees		2-8a.	Not available/incomplete	The Company does not collect data on the total number of employees who are not employees and whose work is controlled by the Company. No data on the types of works performed by these workers was collected in the current reporting period either.
			2-8b, 2-8c.	Not applicable	
GRI 2: Governance					
2-9	Governance structure and composition	SECTION 5 CORPORATE GOVERNANCE 5.1.Corporate Governance System 5.2.Governing bodies			
2-10	Nomination and selection of the highest governance body	SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
GRI 2: Governance					
2-11	Chair of the highest governance body	Chair of the highest governance body is not an executive director.			
2-12	Role of the highest governance body in overseeing the management of impacts	SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies			
2-13	Delegation of responsibility for managing impacts	The Company has committees under the Board of Directors and the Management Board that have been set up to scrutinise issues in depth and develop recommendations on environmental, economic, social and governance matters (more information in the Corporate Governance section) According to the organisational structure, there are positions responsible for the management of the three sustainability components. A structural unit, Corporate Governance and Sustainability Department, is in place.			
2-14	Role of the highest governance body in sustainability reporting	The Board of Directors approves the Company's sustainability reports. Selected sustainability matters are addressed by the BoD committees in the ordinary course of business			
2-15	Conflicts of interest	SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies			
2-16	Communication of critical concerns	SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies			
2-17	Collective knowledge of the highest governance body	SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies			
2-18	Evaluation of the performance of the highest governance body	SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies			
2-19	Remuneration policies	SECTION 5 CORPORATE GOVERNANCE 5.3. Remuneration			
2-20	Process to determine remuneration		Not applicable	The Sole Shareholder decides on the size of remuneration.	
2-21	Annual total compensation ratio	ANNEXES 6.2. Key Performance Indicators 2020-2022			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
GRI 2: Strategy, policies and practices					
2-22	Statement on sustainable development strategy	MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS			
2-23	Policy commitments	SECTION 4. ESG MANAGEMENT 4.4. Respect for human rights			
2-24	Embedding policy commitments	SECTION 4. ESG MANAGEMENT 4.1. Sustainable development management system			
2-25	Processes to remediate negative impacts	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
2-26	Mechanisms for seeking advice and raising concerns	SECTION 5 CORPORATE GOVERNANCE 5.6. Business Ethics and Anti-Corruption			
2-27	Compliance with laws and regulations	The total number of acts of non-compliance with laws and regulations is 41. In all cases, fines totalling KZT 913.2 million were imposed. There were no cases in which non- monetary sanctions were imposed. Significant acts of non-compliance included: 1) in the area of environmental protection: ash particles from the ash dumps (dusting); no wet dedusting system; no labelling on hazardous waste packages; littering of the area with dead wood and scrap metal; lack of separate waste collection; overruns (deviations) from the design documentation in the Maximum Allowable Emissions Project and the State Environmental Expertise Opinion on the annual gas consumption by the boilers; incorrect data in the 2021 Industrial Environmental Control Report; violations of environmental impact permits. 2) in H&S: failure to comply with earlier regulations; violation of fire safety rules; an electrical short circuit without subsequent combustion; equipment malfunctions 3) employer-employee relations: late payment of salaries and wages. 4) taxation: Additional CIT accrual due to the abolished preference for ORU-500 for the period 2016-2020 and deductions applied to depreciation of Group 1 fixed assets. This resulted in an additional CIT accrual and a discrepancy of more than 20% between the previously submitted CIT advance payment forms and the actual CIT. 5) other: breach of the Law of Kazakhstan No. 234 On Accounting and Financial Reporting dd. 28 February 2007, the Accounting Policy, and Fixed Assets Accounting Guidelines; misappropriation of a loan issued under a state guarantee; violation of the sanitary and epidemiological well-being of the population.			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
		To disclose this indicator, the materiality threshold is set at the level of KZT 100,000 to identify the most significant violations in the operations of Samruk-Energy JSC Group of Companies. SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
GRI 3: Material Topics					
3-1	Process to determine material topics	SECTION 4. ESG MANAGEMENT 4.1. Sustainable development management system			
3-2	List of material topics	SECTION 4. ESG MANAGEMENT 4.1. Sustainable development management system			
GRI 201: Economic performance					
201-1	Direct economic value generated and distributed	3. PERFORMANCE INDICATORS 3.1.Key Financial Indicators in SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development ANNEXES 6.2. Key Performance Indicators 2020-2022			
201-2	Financial implications and other risks and opportunities due to climate change	SECTION 4. ESG MANAGEMENT 4.9. Contribute to the fight against climate change			
201-4	Financial assistance received from government	In the reporting period, the Company did not receive any financial assistance from the government.			
GRI 202: Market Presence					
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022			
202-2	Proportion of senior management hired from the local community	All top managers (100%) hired in core areas of operations were from among the local community representatives in 2022.			
GRI 203: Indirect Economic Impacts					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development			
203-1	Investment in infrastructure	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development			
203-2	Indirect significant economic impacts	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
GRI 204: Procurement Practices					
204-1	Proportion of spending on local suppliers	3. PERFORMANCE INDICATORS 3.3. Procurement Management			
GRI 205: Anti-corruption					
205-2	Communication and training about anti-corruption policies and procedures	SECTION 5 CORPORATE GOVERNANCE 5.6. Business Ethics and Anti-Corruption			
205-3	Confirmed incidents of corruption and actions taken	SECTION 5 CORPORATE GOVERNANCE 5.6. Business Ethics and Anti-Corruption			
GRI 206: Anti-competitive Behaviour					
206-1	Legal actions for anti- competitive behaviour, anti- trust, and monopoly practices	In the reporting period, the Company faced no legal actions for anti-competitive behaviour, anti-trust, and monopoly practices.			
GRI 207: Tax					
207-1	Approach to tax	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development			
207-3	Stakeholder engagement and management of concerns related to tax	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development			
GRI 302: Energy					
302-1	Direct energy consumption by primary energy source	ANNEXES 6.2. Key Performance Indicators 2020-2022 Samruk-Energy's generating companies produce both electricity and heat. Steam is used to propel steam turbines as a driving force. A steam turbine is a piece of equipment used to generate electricity, i.e. it generates steam in its boilers to generate electricity, a commodity that is sold/supplied. Samruk-Energy's generating companies sell steam energy to third-party consumers in the form of heated water for heating and hot water supply. To avoid double metering of energy consumption, steam energy is measured once in coal consumption and is not accounted in energy consumption. In addition, cooling energy is part of the process chain at Samruk-Energy JSC's generation plants. The Company does not consume or sell cooling energy to third parties.			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
GRI 303: Water					
302-1	Management of material topics	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
303-1	Interactions with water as a shared resource	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
303-2	Management of water discharge-related impacts	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
303-3	Water withdrawal	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet ANNEXES 6.2. Key Performance Indicators 2020-2022			
303-4	Water discharge	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet ANNEXES 6.2. Key Performance Indicators 2020-2022			
303-5	Water consumption	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet The Company does not keep records of water reserves.			
GRI 304: Biological diversity					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
304-2	Significant impacts of activities, products, and services on biodiversity	According to available data, the Company's current operations have no significant impact on the biodiversity of the regions where the Group's operates. SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
304-3	Habitats protected or restored	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
GRI 305: Emissions					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
305-1	Direct (Scope 1) GHG emissions	SECTION 4. ESG MANAGEMENT 4.9. Fighting Climate Change The data are calculated using the approach outlined in the GHG Protocol Guidance. Direct greenhouse gas emissions rely on the methodology for calculation of greenhouse gas emissions from boilers of thermal power plants, CHPPs, and boiler houses and the methodology for calculation of greenhouse gas emissions from open-cut and underground coal mining, both approved by the Ministry of Ecology and Natural Resources of Kazakhstan (the methodologies are available on the official website of the Ministry at https://www.gov.kz/memleket/entities/ecogeo)			
305-2	Energy indirect (Scope 2) GHG emissions	SECTION 4. ESG MANAGEMENT 4.9. Contribute to the fight against climate change			
305-6	Reduction of GHG emissions	ANNEXES 6.2. Key Performance Indicators 2020-2022			
305-7	NOx, SOx, and other significant air emissions	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet ANNEXES 6.2. Key Performance Indicators 2020-2022			
GRI 306: Waste					
306-1	Waste generation and significant waste-related impacts	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
306-2	Management of significant waste-related impacts	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
306-3	Waste generated	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet			
306-4	Waste diverted from disposal	ANNEXES 6.2. Key Performance Indicators 2020-2022			
306-5	Waste directed to disposal	ANNEXES 6.2. Key Performance Indicators 2020-2022			
GRI 401: Employment					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital			
401-1	New employee hires and employee turnover, by age, gender and region	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022			
401-2	Benefits provided to fulltime employees that are not provided to temporary or parttime employees	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital The Company strives to provide social security for its employees; contractors do not have the same benefits as company employees.			
401-3	Total number of employees that returned to work in the reporting period after parental leave ended	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022			
GRI 402: Labour/Management Relations					
402-1	Minimum notice periods regarding operational changes and indication of this in the collective bargaining agreement	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
GRI 403: Occupational Health and Safety					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
403-1	Occupational health and safety management system	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
403-2	Hazard identification, risk assessment, and incident investigation	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
403-3	Occupational health services	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
403-4	Worker participation, consultation, and communication on occupational health and safety	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
403-5	Worker training on occupational health and safety	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
403-6	Promotion of worker health	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital 4.6. Creating a Safe Working Environment			
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	The organisation's approach to preventing or mitigating significant negative occupational health and safety impacts that are directly linked to its operations and products are regulated by the Integrated Management System.			
403-8	Workers covered by an occupational health and safety management system	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
403-9	Work-related injuries	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment ANNEXES 6.2. Key Performance Indicators 2020-2022 Data on man-hours, LTIFR, occupational fatalities, and occupational injuries with severe consequences (excluding fatalities) are not recorded not maintained for contractors.			
403-10	Work-related ill health	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment			
GRI 404: Training and Education					
404-1	Average hours of training per year per employee	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022			
404-3	Programs for upgrading employee skills and transition assistance programs	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
GRI 405: Diversity and Equal Opportunity					
405-1	Composition of governance bodies and breakdown of employees per key category according to gender and age group	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies ANNEXES 6.2. Key Performance Indicators 2020-2022			
405-2	Ratio of basic salary and remuneration of women to men by employee category and core region of operations	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital			
GRI 406: Non-discrimination					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital			
406-1	Incidents of discrimination and corrective actions taken	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital SECTION 5 CORPORATE GOVERNANCE 5.6. Business Ethics and Anti-Corruption			
GRI 408: Child Labour					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights			
408-1	Operations and suppliers at significant risk for incidents of child labour	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights			
GRI 409: Forced or Compulsory Labour					
3-3	Management of material topics	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights			
GRI 411: Rights of Indigenous Peoples					
411-1	Incidents of violations involving rights of indigenous peoples	Samruk-Energy JSC respects the rights of indigenous peoples. In the reporting period, no incidents of violations of the rights of indigenous peoples or minorities were reported, nor were there any complaints about human rights violations from these groups			
GRI 413: Local Communities					
413-1	Operations with local community engagement, impact assessments, and development programs	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development			
413-2	Operations with significant actual and potential negative impacts on local communities	No operations with significant actual and potential negative impacts on local communities in the reporting period			

Indicator	Disclosure	Report sections/ Comments	Reasons for non-disclosure		
			Not disclosed	Reason	Explanation
GRI 415: Public Policy					
415-1	Political contributions	Samruk-Energy does not finance political parties, their candidates or representatives in the Republic of Kazakhstan or abroad, nor does it sponsor events or celebrations held solely for the purpose of political propaganda. The Company refrains from putting direct or indirect pressure on politicians.			

GRI 12: Coal Sector	#	Indicator	Section
Topic 12.1 GHG emissions	12.1.1	3-3 Material topics management	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.1.2	302-1 Direct energy consumption by primary energy source	ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.1.5	305-1 Direct (Scope 1) GHG emissions	SECTION 4. ESG MANAGEMENT 4.9. Contribute to the fight against climate change
	12.1.6	305-2 Energy indirect (Scope 2) GHG emissions	SECTION 4. ESG MANAGEMENT 4.9. Contribute to the fight against climate change
Topic 12.2 Climate adaptation, resilience, and transition	12.2.2	201-2 Financial implications and other risks and opportunities due to climate change	SECTION 4. ESG MANAGEMENT 4.9. Contribute to the fight against climate change
Topic 12.3 Closure and rehabilitation	12.3.2	402-1 Minimum notice periods regarding operational changes and indication of this in the collective bargaining agreement	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital
Topic 12.4 Air emissions	12.4.1	3-3 Material topics management	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.4.2	305-7 NOx, SOx, and other significant air emissions	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet ANNEXES 6.2. Key Performance Indicators 2020-2022
Topic 12.5 Biodiversity	12.5.1	3-3 Material topics management	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.5.2	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.5.3	304-2 Significant impacts of activities, products, and services on biodiversity	According to available data, the Company's current operations have no significant impact on the biodiversity of the regions where the Group's operates. SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.5.4	304-3 Habitats protected or restored	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.5.5	304-4 IUCN Red List species and national conserva-tion list species with habitats in areas affected by oper-ations	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
Topic 12.6 Waste	12.6.2	306-1 Waste generation and significant waste-related impacts	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.6.3	306-2 Management of significant waste-related impacts	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.6.4	306-3 Waste generated	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.6.5	306-4 Waste diverted from disposal	ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.6.6	306-5 Waste directed to disposal	ANNEXES 6.2. Key Performance Indicators 2020-2022
Topic 12.7 Water and effluents	12.7.1	3-3 Material topics management	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.7.2	303-1 Interactions with water as a shared resource	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.7.3	303-2 Management of water discharge-related impacts	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet
	12.7.4	303-3 Water withdrawal	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.7.5	303-4 Water discharge	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.7.6	303-5 Water consumption	SECTION 4. ESG MANAGEMENT 4.8. Taking Care of Our Planet ANNEXES 6.2. Key Performance Indicators 2020-2022
Topic 12.8 Economic impacts	12.8.2	201-1 Direct economic value generated and distributed	3. PERFORMANCE INDICATORS 3.1. Key Financial Indicators SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.8.4	203-1 Infrastructure investments and services supported	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development
	12.8.5	203-2 Significant indirect economic impacts	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development
	12.8.6	204-1 Proportion of spending on local suppliers	3. PERFORMANCE 3.3. Procurement Management
Topic 12.9 Local communities	12.9.2	413-1 Operations with local community engagement, impact assessments, and development programmes	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development
	12.9.3	413-2 Operations with significant actual and potential negative impacts on local communities	No operations with significant actual and potential negative impacts on local communities in the reporting period
Topic 12.11 Rights of indigenous peoples	12.11.2	411-1 Incidents of violations involving rights of indigenous peoples	Samruk-Energy JSC respects the rights of indigenous peoples. In the reporting period, no incidents of violations of the rights of indigenous peoples or minorities were reported, nor were there any complaints about human rights violations from these groups.
Topic 12.14 Occupational health and safety	12.14.1	3-3 Material topics management	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment
	12.14.2	403-1 Occupational health and safety management system	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment
	12.14.3	403-2 Hazard identification, risk assessment, and incident investigation	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment
	12.14.4	403-3 Occupational health services	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment
	12.14.5	403-4 Worker participation, consultation, and communication on occupational health and safety	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment

GRI 12: Coal Sector	#	Indicator	Section
	12.14.6	403-5 Worker training on occupational health and safety	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment
	12.14.7	403-6 Promotion of worker health	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital 4.6. Creating a Safe Working Environment
	12.14.8	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	The organisation's approach to preventing or mitigating significant negative occupational health and safety impacts that are directly linked to its operations and products are regulated by the Integrated Management System.
	12.14.9	403-8 Workers covered by an occupational health and safety management system	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment
	12.14.10	403-9 Work-related injuries	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.14.11	403-10 Work-related ill health	SECTION 4. ESG MANAGEMENT 4.6. Creating a Safe Working Environment
Topic 12.15 Employment practices	12.15.2	401-1 New employee hires and employee turnover, by age, gender and region	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.15.3	401-2 Benefits provided to full-time employees	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital
	12.15.4	401-3 Total number of employees that returned to work in the reporting period after parental leave ended	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.15.5	402-1 Minimum notice periods regarding operational changes and indication of this in the collective bargaining agreement	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital
	12.15.6	404-1 Average hours of training per year per employee	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.15.9	414-2 Negative social impacts in the supply chain and actions taken	The Company did not identify any suppliers that have significant actual and potential negative social impacts.
Topic 12.16 Child labour	12.16.1	3-3 Material topics management	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights
	12.16.2	408-1 Operations and suppliers at significant risk for incidents of child labour and actions taken	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights
Topic 12.17 Forced labour and modern slavery	12.17.1	3-3 Material topics management	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights
	12.17.2	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	SECTION 4. ESG MANAGEMENT 4.4 Respect for Human Rights
Topic 12.18 Freedom of association and collective bargaining	12.18.2	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	In the reporting period, the Company identified no suppliers in which the right to freedom of association and collective bargaining may be at risk.
Topic 12.19 Non-discrimination and equal opportunity	12.19.2	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.19.4	401-3 Total number of employees that returned to work in the reporting period after parental leave ended	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.19.5	404-1 Average hours of training per year per employee	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.19.6	405-1 Composition of governance bodies and breakdown of employees per category according to gender and age group	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital SECTION 5 CORPORATE GOVERNANCE 5.2. Governing bodies ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.19.7	405-2 Ratio of basic salary and remuneration of women to men by employee category and core region of operations	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital
	12.19.8	406-1 Incidents of discrimination and corrective actions taken	SECTION 4. ESG MANAGEMENT 4.5. Investing in Human Capital SECTION 5 CORPORATE GOVERNANCE 5.6. Business Ethics and Anti-Corruption
Topic 12.20 Anti-corruption	12.20.3	205-2 Communication and training about anti- corruption policies and procedures	SECTION 5 CORPORATE GOVERNANCE 5.6. Business Ethics and Anti-Corruption
	12.20.4	205-3 Confirmed incidents of corruption and actions taken	SECTION 5 CORPORATE GOVERNANCE 5.6. Business Ethics and Anti-Corruption
Topic 12.21 Payments to governments	12.21.2	201-1 Direct economic value generated and distributed	3. PERFORMANCE INDICATORS 3.1. Key Financial Indicators in SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development ANNEXES 6.2. Key Performance Indicators 2020-2022
	12.21.3	201-4 Financial assistance received from government	In the reporting period, the Company did not receive any financial assistance from the government.
	12.21.4	207-1 Approach to tax	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development
	12.21.6	207-3 Stakeholder engagement and management of concerns related to tax	SECTION 4. ESG MANAGEMENT 4.7. Contributing to Social and Economic Development
Topic 12.22 Public policy	12.22.2	415-1 Political contributions	Samruk-Energy does not finance political parties, their candidates or representatives in the Republic of Kazakhstan or abroad, nor does it sponsor events or celebrations held solely for the purpose of political propaganda. The Company refrains from putting direct or indirect pressure on politicians.

Independent Auditor Report

pwc

Independent Limited Assurance Report

To the Board of Directors of joint stock company "Samruk-Energy":

Introduction

We have been engaged by the Management of joint stock company "Samruk-Energy" (hereinafter – the "Company") to provide limited assurance on the selected information described below and included in the Integrated Annual Report of the Company for the year ended 31 December 2022 (hereinafter – the "Annual Report").

Description of the subject matter and applicable criteria

We assessed the qualitative and quantitative information specified in the Appendix 1 to this report, that is disclosed in the Annual Report and referred to or disclosed in the Appendix 6.3 "Table of GRI Indicators" of the Annual Report (hereinafter – the "Selected Information"). The Selected Information has been prepared in accordance with GRI Sustainability Reporting Standards published by the Global Reporting Initiative (GRI) (hereinafter – the "GRI Standards").

The Selected Information represents information related to the Company and its selected subsidiaries as indicated in the Appendix 6.1.2 "Information perimeter" of the Annual Report.

The scope of our assurance procedures was limited to the Selected Information for the year ended 31 December 2022 only. We have not performed any procedures with respect to earlier periods or any other items included in the Annual Report and, therefore, do not express any conclusion thereon.

We assessed the Selected Information using reporting requirements in the GRI Standards and methodology and guidelines developed by the Company and disclosed in the Annual Report (hereinafter – the "Reporting Criteria"). We believe that the Reporting Criteria are appropriate given the purpose of our limited assurance engagement.

Responsibilities of the management of the Company

The management of the Company is responsible for:

- designing, implementing and maintaining internal control relevant to the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- establishing internal methodology and guidelines for preparing and reporting the Selected Information in accordance with the Reporting Criteria;
- preparing, measuring and reporting of the Selected Information in accordance with the Reporting Criteria; and
- the accuracy, completeness and presentation of the Selected Information.

PricewaterhouseCoopers LLP
34 Al-Farabi Ave., Building A, 4th floor, Almaty, Kazakhstan, A25D5F6
T: +7 (727) 330 32 00, F: +7 (727) 244 69 68, www.pwc.kz

pwc

Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected Information is free from material misstatement, whether due to fraud or error;
- forming an independent limited assurance conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the Board of Directors of the Company.

We performed the limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements other than Audits and Reviews of Historical Financial Information" issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements, and to plan and perform procedures to obtain limited assurance that the Selected Information for the year ended 31 December 2022 has been prepared, in all material respects, in accordance with the Reporting Criteria.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our independence and quality management

We comply with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (the IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Work done

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information. In doing so, we:

- made enquiries of the management of the Company, including those with responsibility for sustainability management and reporting;
- conducted interviews of personnel responsible for the preparation of the Annual Report and collection of underlying data;
- performed analysis of the relevant internal methodology and guidelines, gaining an understanding of the design of the key structures, systems, processes and controls for managing, recording, preparing and reporting the Selected Information; and
- performed limited substantive testing on a selective basis of the Selected Information to check

that data had been appropriately measured, recorded, collated and reported.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Reporting and measurement methodologies

Under the Reporting Criteria there is a range of different, but acceptable, measurement and reporting techniques. The techniques can result in materially different reporting outcomes that may affect comparability with other organisations. The Selected Information should therefore be read in conjunction with the methodology used by Management as described in the Annual Report, and for which the Company is solely responsible.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 December 2022 has not been prepared, in all material respects, in accordance with the Reporting Criteria.

Restrictions of use and distribution

This report, including our conclusion, has been prepared solely for the Board of Directors of the Company in accordance with the agreement between us, to assist the Management of the Company in reporting on the Company's and its selected subsidiaries' sustainability performance and activities.

We permit this report to be disclosed in the Annual Report, which will be published on the Company's website[1], to assist the Management of the Company in responding to their governance responsibilities by obtaining an independent limited assurance report in connection with the Selected Information. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors of the Company and the Company for our work or this report except where the respective terms are expressly agreed in writing and our prior consent in writing is obtained.

PricewaterhouseCoopers LLP

23 May 2023
Almaty, Kazakhstan

[1] The maintenance and integrity of the Company's website is the responsibility of management; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Selected Information or Reporting Criteria when presented on the Company's website.

Appendix 1 to the Independent Limited Assurance Report dated 23 May 2023

The Selected Information for the year ended 31 December 2022 disclosed on pages 138-199 of the Annual Report and prepared in accordance with the GRI Standards and the methodology and guidelines developed by joint stock company "Samruk-Energy" (hereinafter – the "Company") and subject to limited assurance procedures are set out below:

GRI Standard	Reported Performance (Selected Information)
302-1	Energy consumption within the organisation
303-3	Water withdrawal
303-4	Water discharge
303-5	Total water consumption
305-1	Direct (Scope 1) GHG emissions
305-2	Energy indirect (Scope 2) GHG emissions
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions
401-1	New employee hires and employee turnover
401-3	Parental leave
403-9	The number and rate of fatalities as a result of work-related injury for all employees and the number of fatalities as a result of work-related injury for all workers who are not employees but whose work and/or workplace is controlled by the organisation
403-9	The number and rate of high-consequence work-related injuries (excluding fatalities) for all employees and the number of high-consequence work-related injuries (excluding fatalities) for all workers who are not employees but whose work and/or workplace is controlled by the organisation
403-9	The number and rate of recordable work-related injuries for all employees and the number of recordable work-related injuries for all workers who are not employees but whose work and/or workplace is controlled by the organisation
403-9	The main types of work-related injury for all employees and for all workers who are not employees but whose work and/or workplace is controlled by the organisation
403-9	The number of hours worked for all employees
403-9	Any actions taken or underway to eliminate other work-related hazards and minimise risks using the hierarchy of controls
404-1	Average hours of training per year per employee

UNCTAD Index

	Area	Indicators	Performance indicators
A	**Economic area**		
A.1	Revenue and/or (net) value added	A.1.1: revenues	KZT 381,465 million
		A.1.2: Value added	KZT 112,656 million
		A.1.3: Net value added	KZT 30,132 million
A.2	Payments to the Government	A.2.1 Taxes and other payments to the Government	KZT 36,907 million
A.3	New investment/ expenditures	A.3.1: Green investment	KZT 7.1 billion
		A.3.2: Community investment	KZT 46 million
		A.3.3: Total expenditures on research and development	-
A.4	Total cost of local supplier/purchasing programmes	A.4.1: Percentage of local procurement	98.17%
B	**Environmental area**		
B.1	Sustainable use of water resources	B.1.1: Water recycling and reuse	3,534,516 megalitres
		B.1.2: Water use efficiency	Total water withdrawal was 22,415,180 megalitres
		B.1.3: Water stress	Water withdrawal 2022: • ground water - 8,892.7 megalitres • surface water - 22,366,918.7 megalitres • municipal and other water supply systems - 39,368.5 megalitres
B.2	Waste management	B.2.1: Reduction of waste generation	In 2022, the Company generated 89,929,908.3 tonnes of waste
		B.2.2: Waste reused, remanufactured and recycled	Total waste recovered In-house - 12,856.78 Outsourced - 22,951.87
		B.2.3: Hazardous waste	646.9 tonnes
	Green house gas emissions	B.3.1: GHG emissions (Scope 1)	32.99 million tonnes CO_2-eq.
		B.3.2: GHG emissions (Scope 2)	13,333.6861 million tonnes CO_2-eq.
B.4	Chemicals, including pesticides and ozone- depleting substances	B.4.1: Chemicals, including pesticides and ozone- depleting substances	NOx – 80,147.348 tonnes SOx - 223,331.13 tonnes Solid substances - 48,063.653 CO - 6,217.23 tonnes Volatile organic compound emissions (VOCs) - 313.382 tonnes Hazardous air pollutants (HAPs) - 358,079.069 Persistent organic pollutants (POPs) - 0
B.5	Energy consumption	B.5.1: Renewable energy	In 2022, the installed capacity of renewable energy facilities operated nationwide exceeded 2,388 MW. Electricity production by Samruk- Energy's RES facilities rose by 28.3% in 2022 to reach 8.3% of the total green electricity generated in Kazakhstan.
		B.5.2: Energy efficiency	Total resource consumption - 340,079,000 GJ
C	**Social area**		
C.1	Gender equality	C.1.1: Proportion of women in managerial positions	Number of female managers was 84 in 2022. Women accounted for 20% of Samruk-Energy's Management Board.
C.2	Human capital	C.2.1: Average hours of training per year per employee	Average number of hours spent on training of one employee was 35 man-hours.
		C.2.2: Expenditure on employee training per year per employee	KZT 17,373,000
		C.2.3: Employee wages and benefits as a proportion of revenue, with breakdown by employment type and gender	Salary of entry-level employee across the Group: Men - KZT 186,000 Women - 170,000

	Area	Indicators	Performance indicators
C.3	Employee health and safety	C.3.1: Expenditures on employee health and safety as a proportion of revenue	Money spent to ensure compliance with H&S standards made KZT 3.789 billion in 2022.
		C.3.2: Frequency/incident rates of occupational injuries	Work-related accidents: 10.
C.4	Coverage by collective agreements	C.4.1 Percentage of employees covered by collective agreements	The collective bargaining agreements cover 95% of employees of the Company
D	**Institutional area**		
D.1	Corporate governance disclosure	D.1.1 Number of board meetings and attendance rate	In 2022, the Board of Directors met 17 times (11 in-person meetings and 6 meet-ings in absentia. The attendance of meetings by Board members was 100%.
		D.1.2 Number and percentage of women board members	0%
		D.1.3 Board members by age range	30-50 – 57% 50+ - 43%
		D.1.4 Number of meetings of audit committees and attendance rate	In 2022, the Committee met eight times in person to consider 55 matters. The key matters covered the work of Internal Audit, Compliance, and the Risk Management and Internal Control Department. The attendance rate of voting members was 100%.
		D.1.5 Total compensation and compensation per member of the board of directors and management	Remuneration of Independent Directors amounted to KZT 48.737 million in 2022. Key management personnel remuneration amounted to KZT 295,528,000 in 2022.
D.2	Anti-corruption practices	D.2.1 Amount of fines paid or payable in accordance with the convictions	The total number of acts of non-compliance with laws and regulations is 41. In all cases, fines totalling KZT 913.2 million were imposed. There were no cases in which non-monetary sanctions were imposed
		D.2.2: Average hours of training on anti-corruption issues per year per employee	In the reporting period, Samruk-Energy held 34 training events across the Group, with the average number of training hours per employee being 0.002 hours in 2022.

Key Governance Regulations

Material topic	Key Regulations	Links
Climate change and the environment		
Sustainability	Samruk-Energy JSC Sustainability Guidelines	https://www.samruk-energy.kz/images/board-of-directors/1.pdf
Energy transition to sustainable sources	Samruk-Energy Energy Transition Programme 2022-2060	https://www.samruk-energy.kz/ru/company/low-carbon-development
Water management Air quality Sustainable waste management	Corporate Management System of Samruk-Energy Group of Companies (covering good governance, health and safety, environmental protection, energy efficiency, information security, anti-corruption, and anti-fraud)	https://www.samruk-energy.kz/images/Corporate_documents/Politika_KSM.pdf
Caring for people		
HR management, development and motivation	Samruk-Energy HR Policy 2018-2028	https://www.samruk-energy.kz/images/board-of-directors/kadr_pol.pdf
Health and safety at work	1. SE-ST-02/01 company standard Motivating staff to behave safely 2. The Golden Rules of Safety company standard 3. SE-ST-04-02 Assessment of the HSE management system 4. Health and Safety Guidelines for Samruk-Energy JSC employees 5. HSE Risk Assessment company standard 6. SE-ST-06-02 Incident Reporting and Investigation 7. Guidelines for using the Safe Production Information System 8. Conducting a Behavioural Safety Leadership Audit company standard	Available on the internal platforms
Diversity, equality and inclusion	Samruk-Energy JSC Communication on Progress 2022	https://www.samruk-energy.kz/ru/navigation-and-support/sustainable-development#tab13
Good governance and integrity		
Contribution to economic performance	Green finance policy	https://www.samruk-energy.kz/ru/corporate-governance/corporate-documents#6
	Samruk-Energy Development Strategy 2022- 2031	https://www.samruk-energy.kz/ru/company/development-strategy
	Samruk-Energy JSC Management Report for 2022 (M&A Report)	https://www.samruk-energy.kz/ru/shareholders-and-investors/other-reporting
	Internal Control System Regulations	https://www.samruk-energy.kz/images/corp.documents/docs5/3.pdf
	Risk Identification and Assessment at Samruk-Energy JSC	https://www.samruk-energy.kz/images/corp.documents/docs5/2.pdf
	Samruk-Energy Risk Management Policy	https://www.samruk-energy.kz/images/corp.documents/docs5/1.pdf
Sustainable supply chain	Procurement Procedures adopted by Sovereign Wealth Fund Samruk-Kazyna JSC and legal entities, which are 50+ percent directly or indirectly owned by Samruk-Kazyna JSC, either beneficially or upon trust	www.zakup.sk.kz
Compliance and anti-corruption practices	Samruk-Energy Anti-fraud and Anti-corruption Policy	https://www.samruk-energy.kz/ru/corporate-governance/corporate-documents#6
	Samruk-Energy Compliance Risk Management Policy	Available on the internal platforms
	Samruk-Energy Policy on Corporate Conflicts and Conflicts of Interest	Available on the internal platforms
	Samruk-Energy Whistleblowing Policy	https://www.samruk-energy.kz/images/documents/politika_inform.pdf
	Samruk-Energy Code of Conduct	https://www.samruk-energy.kz/images/corp.documents/kodeks/2.pdf
	Corporate Governance Code	https://www.samruk-energy.kz/images/corp.documents/kodeks/1.pdf
	Corporate Management System of Samruk-Energy Group of Companies (covering good governance, health and safety, environmental protection, energy efficiency, information security, anti-corruption, and anti-fraud)	https://www.samruk-energy.kz/images/Corporate_documents/Politika_KSM.pdf

Samruk-Energy Financial Highlights 2022

Date	News
27 January 2022	Early repayment of KZT 15.2 billion in the principal to the Asian Development Bank
1 February 2022	MHPP JSC KZT 1 bn bonds are bought back on the AIX
14 February 2022	A Mandate Letter is signed by and between Samruk-Energy JSC, Almaty Power Plants JSC, and the European Bank for Reconstruction and Development as part of a project to upgrade Almaty CHPP-2 with low environmental impact
26 April 2022	Early repayment of KZT 8 billion in the principal to the Asian Development Bank
16 May 2022	Early repayment of the principal (KZT 2.6 billion) by Ekibastuz GRES-1 to Halyk Bank of Kazakhstan
24 June 2022	Changes are made to some auction bidding terms and conditions[65]
30 June 2022	Return on investment in the Almaty CHPP-2 project [66]
30 June 2022	Adjusted electricity ceiling tariffs are approved for Almaty Power Plants, Moynak HPP, and Shardarinskaya HPP with effect from 1 July 2022[67]
21 July 2022	The 60 MW Shelek Wind Farm is commissioned in Enbekshikazakh District, Almaty Province. Energia Semirechya LLP
22 July 2022	MHPP JSC KZT 5 bn bonds are bought back on the AIX
26 July 2022	Early repayment of KZT 15.4 billion in the principal to the Asian Development Bank
18 August 2022	Tariff ceilings and tariff estimates 2022-2026 are approved for Alatau Zharyk Company with effect from 1 September 2022[68]
26 August 2022	Price caps are approved for AlmatyEnergoSbyt with effect from 1 September 2022
27 August 2022	New tariffs are set for regulated heat production services of Almaty Power Plants[69]
5 September 2022	Samruk-Energy fully redeems SNRGb2 bonds for KZT3.1bn at KASE as scheduled
7 September 2022	The Company's second bond programme worth KZT 120bn is registered to finance Almaty Power Plants gasification projects
26 September 2022	Samruk-Energy obtains an opinion from the Ministry of Energy of Kazakhstan and a written opinion from the Prime Minister that power generation facilities are considered to be equipment

[65] Order No. 161 of the Acting Minister of Energy of the Republic of Kazakhstan On Approval of the Rules for Organising and Holding Auction Bidding for Construction of Newly Commissioned Load-Following Generation Plants dd. 30 April 2021.

[66] Law On Amendments and Additions to Certain Regulatory Acts of the Republic of Kazakhstan on Electricity, Energy Saving and Energy Efficiency, Subsoil Use, Local Public Administration, State Border, Housing and Utilities and Science, which includes amendments to the Law On Electricity regarding the individual capacity tariff awarded to projects for the conversion of power plants from coal to gas.

[67] Order No. 226 of the Minister of Energy dd. 30 June 2022.

[68] Order No. 89 of the Department for Regulation of Natural Monopolies dd. 18 August 2022.

[69] Joint Orders of Department for Regulation of Natural Monopolies and the Ministry of Energy of Kazakhstan: No. 97-OD dd. 26 August 2022 for Almaty city and No. 92-OD dd 27 August 2022 for Almaty Province, to be effective from 1 September 2022.

Date	News
30 September 2022	Early repayment of the principal of KZT 16.8 billion to Halyk Bank of Kazakhstan
7 October 2022	Samruk-Energy's second bond programme for KZT 120bn is registered
27 October 2022	Open two-stage international tender starts to select an EPC contractor for the implementation of the Almaty CHPP-2 gasification project under EBRD rules
4 November 2022	Qazaq Green Power PLC a subsidiary under the jurisdiction of the Astana International Financial Centre is established within the Company to con-solidate the Company's green assets under its umbrella[70]
9 November 2022	Fitch Ratings upgrades Samruk-Energy JSC's long-term credit ratings by from "BB" to "BB+", outlook stable, the standalone credit profile from "b+" to "bb-", and its unsecured debt from "BB" to "BB+"
25 November 2022	KZT 130 bn loan agreement is made between Almaty Power Plants and EBRD as part of Almaty CHPP-2 gasification project
25 November 2022	A letter of intent to provide financing for the Almaty CHPP-2 gasification project is signed between the Development Bank of Kazakhstan and Almaty Power Plants
28 November 2022	QazaqGaz and Samruk-Energy sign a contract for the sale of Samruk-Energy's 100% stake in Tegis Munay LLP, which includes Mangyshlak Munay LLP
30 November 2022	Rules are approved for consideration of investment programmes of mod-ernisation, reconstruction and (or) expansion with construction of generating plants using gas as an alternative fuel, conclusion of investment agreements for modernisation, reconstruction and (or) expansion with construction of generating plants using gas as an alternative fuel, conclusion of contracts for purchasing capacity availability management services and setting individual tariffs under these contracts, the scope and timing of the purchase of capacity availability management services[71]
20 January 2022	The Fund contributed KZT 2.5 billion to the statutory capital of Samruk- Energy. The contribution would be transferred to the statutory capital of Alatau Zharyk Company under the project for reconstruction of cable networks in Almaty
20 January 2022	MHPP JSC KZT 2 bn bonds are bought back on the AIX
29 January 2022	Kazakhstan amends the Tax Code, including the exemption of power transmission entities from CIT charged when taking over power grids from owners not engaged in power transmission
30 January 2022	Kazakhstan amends the Law On Natural Monopolies to introduce additional conditions for the adjustment of electricity transmission tariffs approved for five years before expiry (change in the approved investment programme due to the implementation of national projects, putting the networks on the books and/or under trust management, change in the average monthly nominal wage), with amendments coming in effect on 12 January 2023

[70] Decree No. 37-r of 19 July 2022 issued by the Chairman of the Samruk-Kazyna Management Board Almasadam Satkaliyev on reforms of the Fund

[71] Order No. 389 of 30 November 2022 issued by the acting Minister of Energy of Kazakhstan

Glossary

AIX – Astana International Exchange, a stock exchange for investment in Kazakhstan and Central Asia, established under Astana International Financial Centre. AIX's mission is to develop sound and liquid capital markets in Central Asia and beyond by offering innovative products and services to businesses and investors.

CAPEX – Capital expenditure.

Samruk-Kazyna Sovereign Wealth Fund – a Kazakh investment holding company founded in 2008 to promote Kazakhstan's national welfare and modernise the national economy. The Government of Kazakhstan is the sole shareholder of the company.

ADCS – automated dispatch control system designed to monitor and control the operation of the equipment.

Electricity balance of a grid – a system of indicators to show the match between electricity consumption in the grid, auxiliary consumption, and losses in networks against electricity supply, taking into account power flows.

Benchmarking – a process to identify, understand, and adapt current good practices to improve organisation's performance. Analysis involves two processes: evaluation and comparison. Usually the best products and marketing process used by direct competitors and firms in other similar fields are taken as a baseline to see how the organisation can improve its products and practices.

RES – renewable energy sources where relatively constant or cyclical energy flows derived from natural sources are replenished at a rate that exceeds the rate of consumption. RES include solar (SES), wind power plants (WPP), small hydropower plants, and biogas plants.

The World Bank – an international financial institution established to provide financial and technical assistance to developing countries.

WPP – a wind farm with one or more wind turbines assembled in one or more locations and interconnected into a grid. Large wind farms can have 100+ wind turbines. WPPs are sometimes called wind parks.

GRES – a state district power plant/condensing power plant, a thermal power plant producing mainly electricity using local energy resources (peat, lignite, etc.) and supplying power primarily to a specific district.

HPP – a hydroelectric power plant that uses the movement of water in watercourses and tidal movements as a source of energy.

Monetary environment/monetary policy (MP) – a public policy, a set of measures aimed at managing aggregate demand through money market (short-term interest rate, nominal exchange rate or current liquidity level of the banking sector) to achieve a combination of ultimate objectives, which may include price stability, stable exchange rate, financial stability, and boosting balanced economic growth.

Subsidiaries and affiliates – subsidiaries and affiliates of Samruk-Energy Group of Companies.

EDB – the Eurasian Development Bank, an international financial institution which invests in the Eurasian region and promotes the strengthening and expansion of economic ties, as well as the comprehensive development of its member states: Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russia, and Tajikistan. The authorised capital of the EDB is $7 billion. Projects with integration effects in transport infrastructure, digital systems, green energy, agriculture, industry and mechanical engineering account for the biggest share of the EDB's portfolio. The Bank operates in line with the UN Sustainable Development Goals and ESG principles.

EBRD – the European Bank for Reconstruction and Development, an investment vehicle set up to support market economies, private and entrepreneurial sector and democracy in 34 countries, from Central Europe to Central Asia.

UEPS of Kazakhstan – the Unified Electric Power System of Kazakhstan with power plants, transmission lines, and substations that provide reliable and quality power supply to consumers in Kazakhstan.

KASE – Kazakhstan Stock Exchange, a stock exchange headquartered in Almaty, which ranks second among CIS exchanges in terms of equity market capitalisation.

Quota-based installation – an installation with a greenhouse gas emission allowance exceeding 20,000 tonnes of carbon dioxide per year in regulated sectors of the economy.

AIFC – Astana International Financial Centre established on the initiative of the First President of the Republic of Kazakhstan, Yelbas Nursultan Nazarbayev. AIFC's mission is build a leading international financial services centre to promote and attract investment in the national economy, create an enabling environment for investment in financial services, develop the securities market in Kazakhstan and ensure its integration with international capital markets.

Heating period – autumn and winter heating season. The start and end dates of the heating period are set by the relevant regulations of the local governments.

Busbar output – a technical term describing the technological process of transmitting energy in series: from the energy generating (load serving) entity to the energy distributor and then to the end consumer.

Available capacity – the installed capacity of a generating unit (power plant) minus its capacity constraints.

ROI (return on investment) – a strategic efficiency/return on investment/performance indicator that demonstrates the effectiveness of an investment both when the budget is large and when the expenditure is small, meant to cover current needs.

Capacity market – a market where capacity is a special commodity. When purchasing it, a wholesale market player is entitled to demand from capacity sellers to keep generating equipment ready to generate electricity.

Net power flow – the algebraic sum of the flows over all interconnections of a given grid with other power systems.

Synchronous zone – a combination of all power systems operating in parallel that share a common frequency of electric current.

OHSMS – the occupational health and safety management system of the organisation, which ensures the safety and health of all employees and prevents occupational accidents and diseases at work.

SPP – a solar power plant that converts solar radiation into electrical energy. The ways in which solar energy is converted vary and depend on the design of the power plant.

Feasibility study – a paper that provides information on the feasibility/non-feasibility of a product or service, as well as a cost-benefit analysis of the project.

Installed capacity – the total nominal electrical power of the electric machines of the same type. The term is used to estimate the generated or consumed capacity of electricity systems, both of individual organisations and enterprises, and of industries and geographical regions as a whole. The nominal capacity can be either the rated active power expressed in watts, or the rated apparent power expressed in volt-amperes. In the energy sector, the installed capacity of an electrical installation is also referred to as the highest active electrical power at which the installation can operate continuously without overload, as specified in the technical specifications of the equipment.

IPCC – in-pit coal crushing and conveying where production is a single process flow in a mining company, with some processes carried out in cycles and others, in continuous modes.

The Shelek Corridor – a geographical area in the Enbekshikazakh District of Almaty Province near the border with China, considered to be an ideal place to install wind turbines as the wind always blows there. Experts call the area unique as the average annual wind speed at an altitude of 50 m is 7.8 metres per second and the flux density is 310 W/m².

Contact Information

Tasbulatov Rinat Yermekovich

Press Secretary

Phone: +7 (7172) 55-30-62

e-mail: r.tasbulatov@samruk-energy.kz

Aisarieva Madina Bekaidarovna

Director of the Corporate Governance and Sustainable Development Department

Phone: +7 (7172) 55-30-20

e-mail: m.aisarieva@samruk-energy.kz

Samruk-Energy Group of Companies Headquarters

010000, Astana

15A Kabanbay Batyr Avenue

"Q" Business Center, Block B

Phone: + 7 (7172) 55-30-00, + 7 (7172) 55-30-21

Fax: +7 (7172) 55-30-30

e-mail: info@samruk-energy.kz

Auditor of Samruk-Energy JSC

PriceWaterhouseCoopers LLP

Almaty city, Republic of Kazakhstan, A25D5F6

34 Al-Farabi Avenue, Building «A,» 4th floor

Phone: +7 727 330 32 00

Registrar of Samruk-Energy JSC

Central Securities Depository Joint Stock Company

050040/A15P5B5, Almaty city, Republic of Kazakhstan

+7 (727) 262 08 46, 355 47 60

csd@kacd.kz, web@kacd.kz

SAMRUK ENERGY

Integrated annual report 2022

samruk-energy.kz