

“Samruk-Energy” JSC management report on operating results for 2022

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1. Group review

On April 18, 2007, “Samruk-Energy” joint-stock company (the Company) was established by the resolution of the general meeting of founders with the aim of developing and implementing a long-term state policy for modernizing and commissioning new generating capacities. At the time of its establishment, the founders of the company were “Kazakhstan Holding for State Assets Management “Samruk” JSC and “KazTransGas” JSC. The company was registered in Almaty city on May 10, 2007.

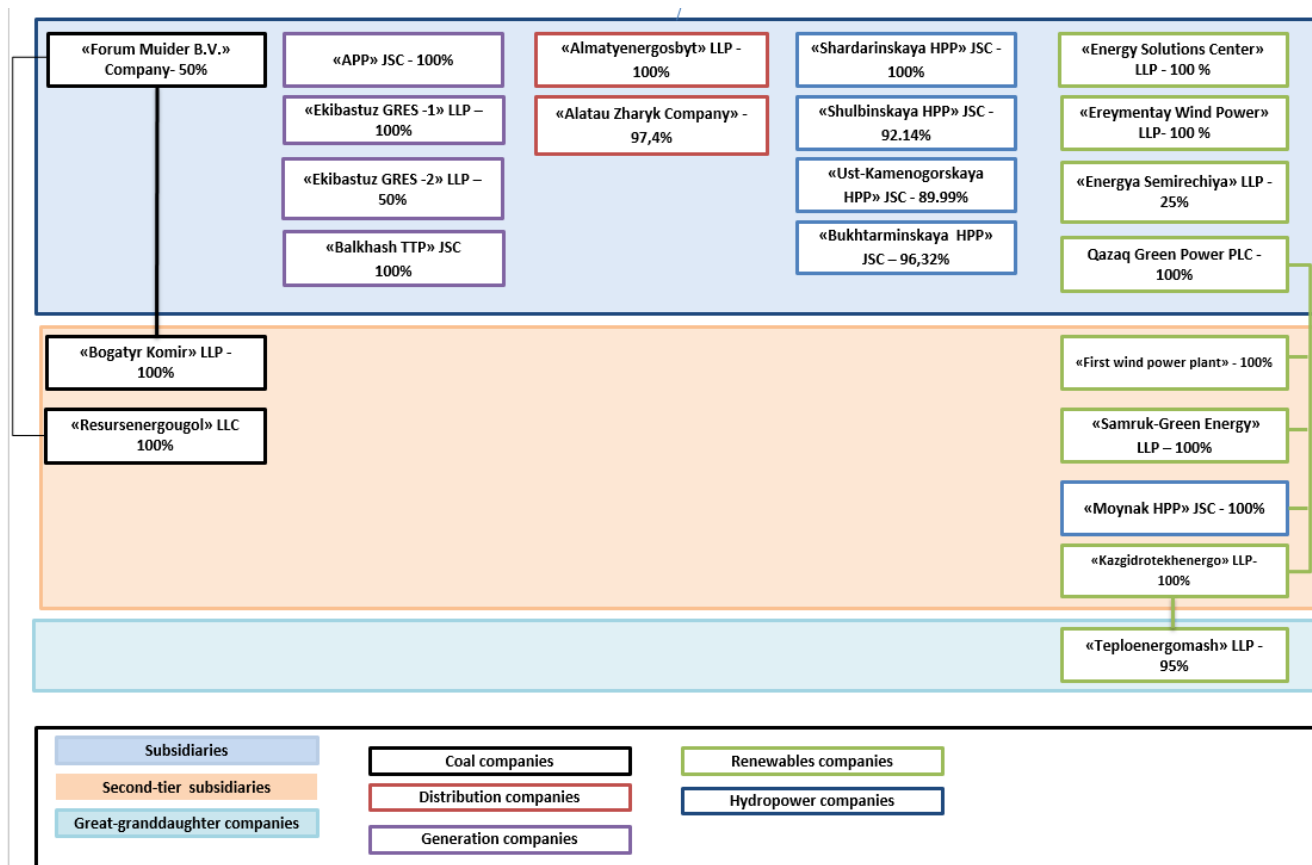
On November 3, 2008, the shareholder of the Company changed to "Sovereign Wealth Fund "Samruk-Kazyna" JSC, which succeeded "Kazakhstani holding for the management of state assets "Samruk" JSC, due to the reorganization resulting from the merger between "Kazakhstan Holding for State Assets Management "Samruk" JSC and "Kazyna" Sustainable Development Fund JSC.

Today, the Company is a leading diversified energy holding that has successfully integrated into the international energy balance, forming an efficient energy supply system while ensuring the sustainable development of all sectors of Kazakhstan.

The primary activities of the Company encompass the production of electricity, heat, and hot water through the utilization of coal, water resources, hydrocarbons, and their subsequent sale to both the population and industrial enterprises. Additionally, the Company is involved in the transportation and technical distribution of electricity through the grid, as well as the construction and operation of hydro power plants, thermal power plants, and renewable energy sources. The Company is also engaged in coal mining and leasing property complexes of hydroelectric power plants.

The assets of the company include the largest generating companies, including national-level stations such as Ekibastuz GRES-1 and GRES-2, as well as a station of regional importance that produces electricity and heat in the Almaty region. The company also owns the main hydroelectric power stations of the Republic, which are part of the Irtysh cascade HPP, as well as hydroelectric power stations of the southern regions of the country (Shardarinskayaaya HPP and Moynak HPP), regional distribution grids, a sales company of the Almaty region, and the largest coal mining enterprise in Kazakhstan “Bogatyr Komir” LLP. The company supplies coal to generating facilities of the Group and third parties located both in Kazakhstan and in the Russian Federation.

“Samruk-Energy” JSC current assets structure



2. Macroeconomic factors

Kazakhstan's economy faced the same difficulties as the world's economy as a whole in 2022, including record consumer inflation, a swift and broad tightening of monetary conditions (MP), decreased household consumption, a declining residential real estate market, and negative external factors. The fallout from the declaration of a state of emergency throughout the nation in January and the conflict that followed in Ukraine affected the economies of the nation's top trading partners and caused hiccups in the established supply chain between nations, which inadvertently accelerated consumer inflation in the republic to record levels since the 1990s.

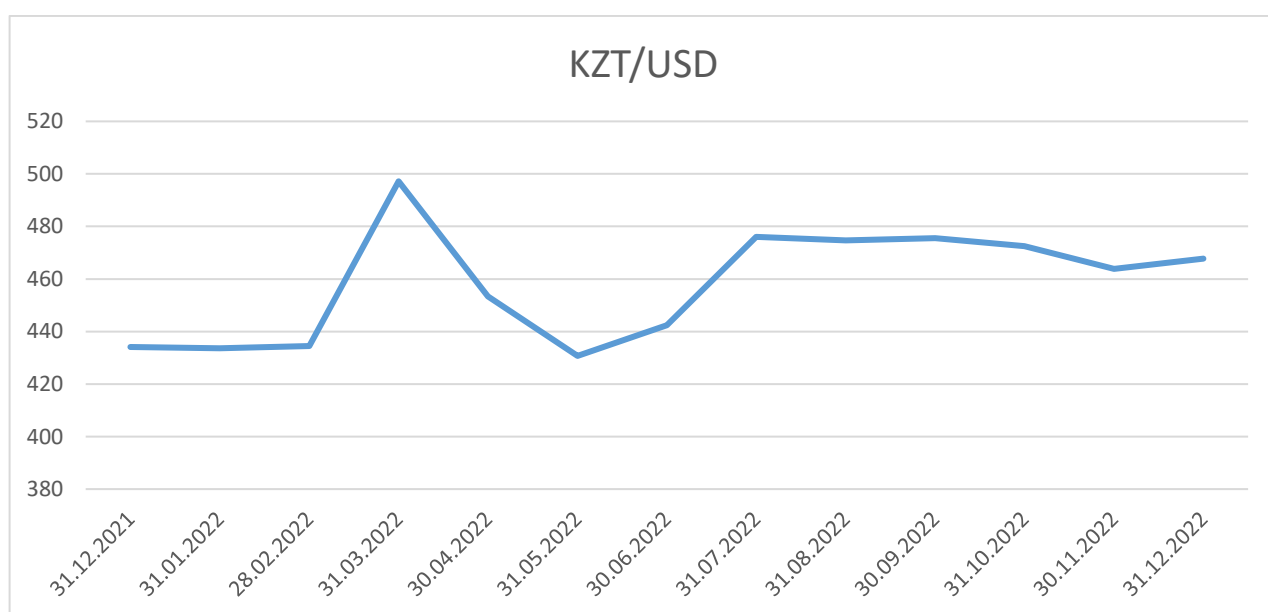
The oil sector, which experienced a decline in oil production due to repair work at three of the country's largest oil fields simultaneously, was the primary cause of the economy's "drawdown" from 4.3% yoy in 2021. Additionally, the OPEC + members opted to cut back on oil output in the autumn, which also had an impact on Kazakhstan's allotment.

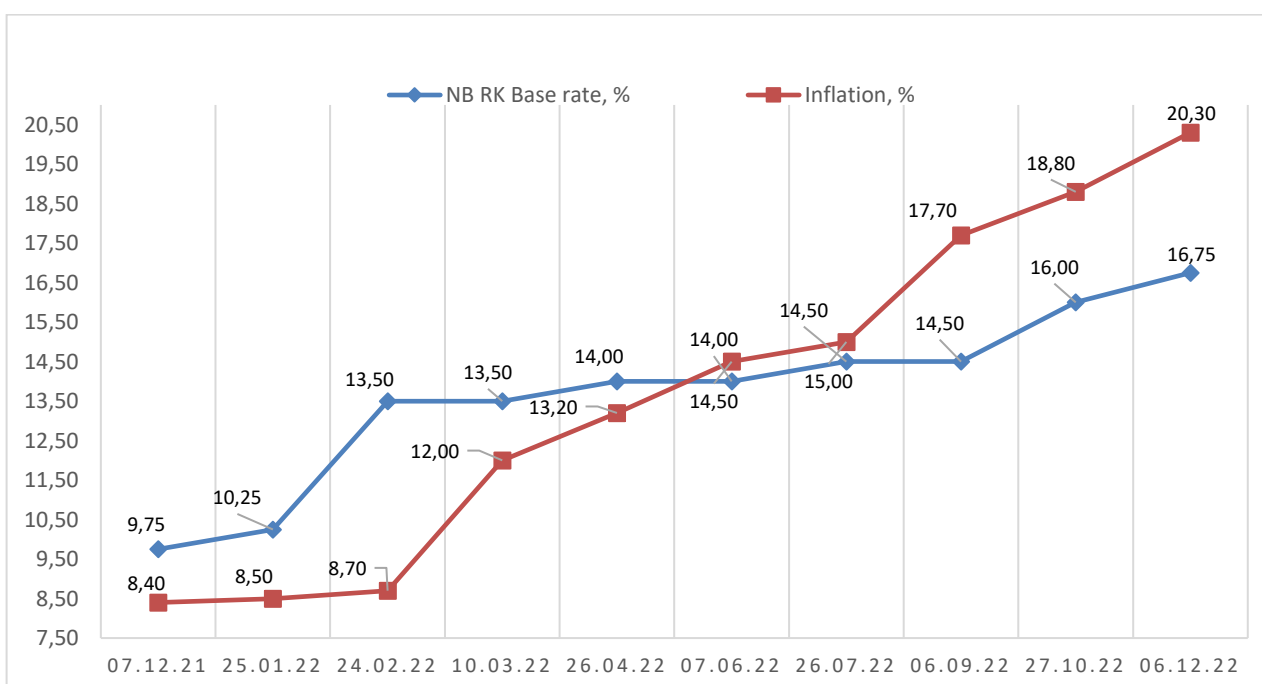
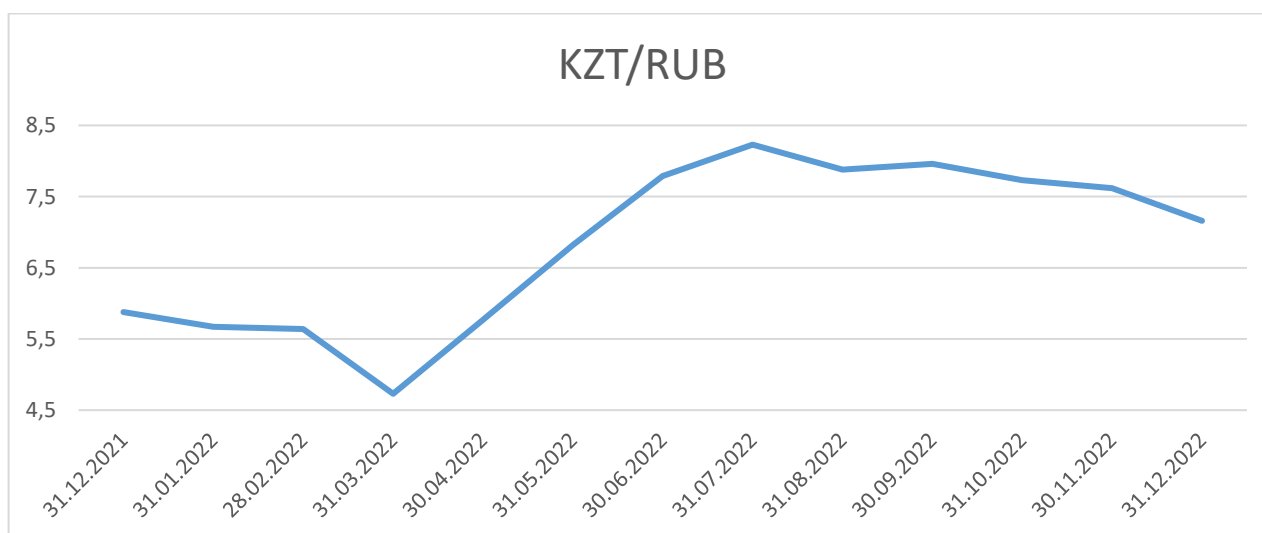
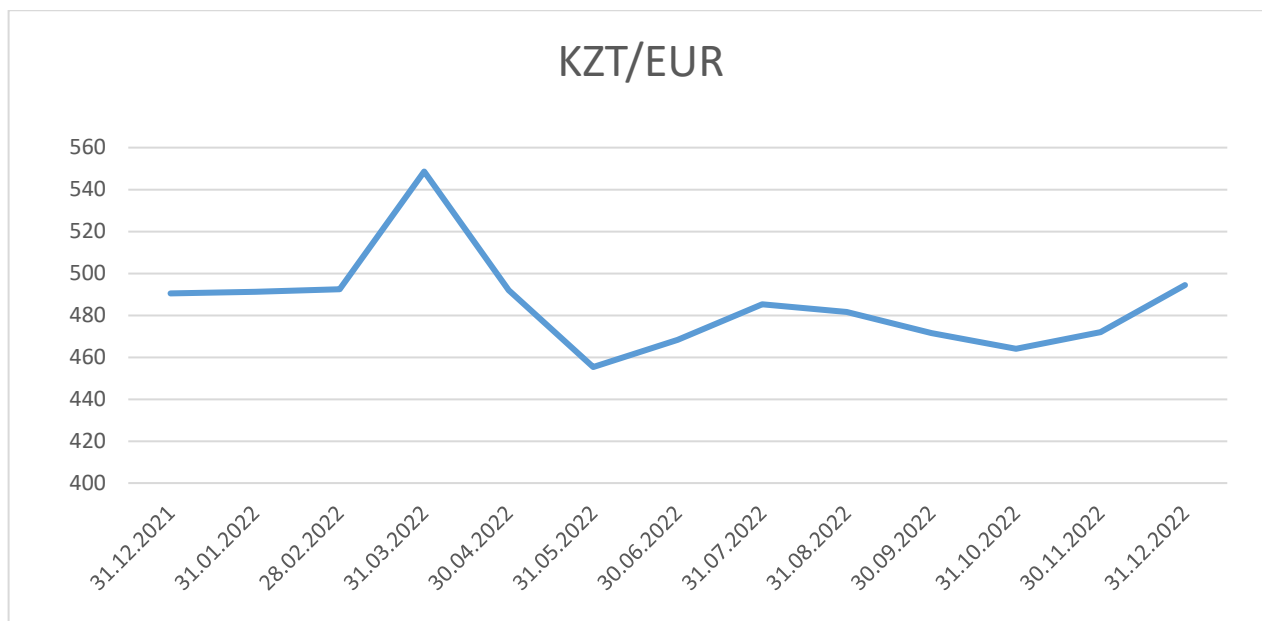
A further downturn in growth in 2022 was held back by a fiscal stimulus, external demand, high hydrocarbon prices, and a record grain harvest. Thanks to this, the economy recorded a growth of 3.2% in 2022. Against high inflation rates in October (18.8% y/y) and December (20.3% y/y) last year, the National Bank of the Republic of

Kazakhstan hiked the base rate first to 16.0%, and then to 16.75%. Given the continuance of pro-inflationary concerns, the National Bank of the Republic of Kazakhstan stressed the need to retain the base rate at the current level for a long time. In 2022, the inflation rate in Kazakhstan reached its highest level since 1996, with a growth rate of 20.3%. This continuous acceleration in consumer inflation has been observed since 2018 due to the pandemic, government support measures, and military confrontation in Ukraine, which led to a significant increase in prices. In 2022, state budget expenditures increased by 20%, almost doubling compared to 2018. This growth in public spending resulted in an increase in minimum and average wages across the republic and contributed to an increase in investment in housing construction, leading to a rise in housing prices. The budgetary impulse, along with extra-budgetary funds, exerted significant pro-inflationary pressure on the economy. In addition, the national currency weakened due to the negative external background, with the exchange rate against the US dollar depreciating by 8.1%. The tenge also depreciated against the Russian ruble by 20%, which further increased inflationary pressure due to the volume of imports from Russia. By the end of 2022, the tenge exchange rate changed from 431.8 tenge/US dollar at the beginning of the year to 462.65 tenge/US dollar (weakening by ~7%), reaching a peak of 512 tenge/US dollar during the period. Data is supplied in accordance with Halyk Finance's analytical information.

Dynamics of exchange rates:

	31.12.2021	31.12.2022	%
KZT/USD	434,12	467,74	108%
KZT/EUR	490,51	494,39	101%
KZT/RUB	5,88	7,16	122%

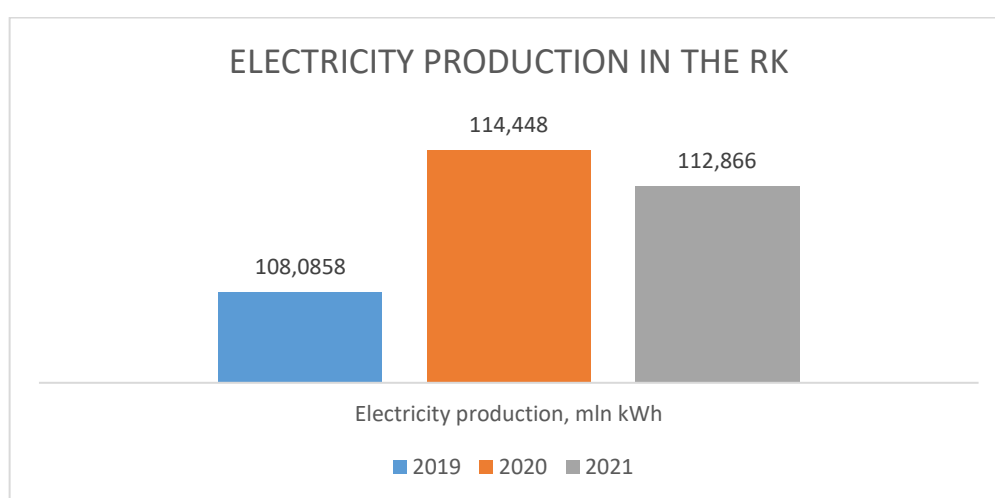




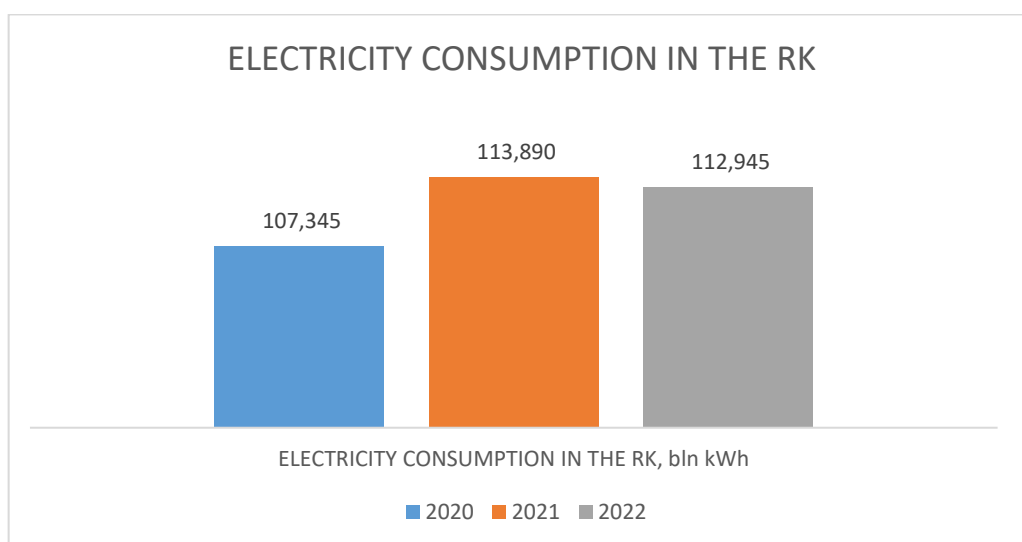
According to the System Operator, the power plants in the Republic of Kazakhstan produced 112,865.9 mln. kWh of electricity from January to December 2022, indicating a decrease of 1.4% or 1,582.0 mln. kWh compared to the same period in 2021. The Northern zone of the UES of Kazakhstan experienced a decline in electricity generation.

Electricity generation increased significantly in Atyrau, Zhambyl, Kostanay, Kyzylorda, and Turkestan regions during January-December 2022 compared to the same period in 2021. Zhambyl region saw a significant surge of 1,658.1 million kWh or 54.8% due to the inclusion of two additional units at Zhambyl GRES to cover electricity shortage in the Southern zone.

However, electricity generation reduced in Akmola, Aktobe, Almaty, East Kazakhstan, West Kazakhstan, Karaganda, Mangistau, Pavlodar, and North Kazakhstan regions.



According to the System Operator, there was a decrease in the dynamics of electricity consumption in the Republic in January-December 2022 compared to the same period in 2021 by 945.7 million kWh or 0.8%.



3. Tariff policy

The RK law "On power industry", "On natural monopolies", and the RK Entrepreneur Code govern the operations of the Group's subsidiaries and joint ventures, which are natural monopoly entities, entities of competitive markets, and entities of socially significant markets.

Depending on the nature of an energy company's activity, the Committee for the Regulation of Natural Monopolies and Protection of Competition under the Ministry of National Economy of the Republic of Kazakhstan (hereinafter referred to as the Committee) or line ministry, the Ministry of Energy (hereinafter referred to as the ME), is responsible for regulating tariffs.

The ceiling tariffs for plants that were approved in 2015 were used to set the electricity rates for energy-generating organizations (hence referred to as EGO) between 2016 and 2018.

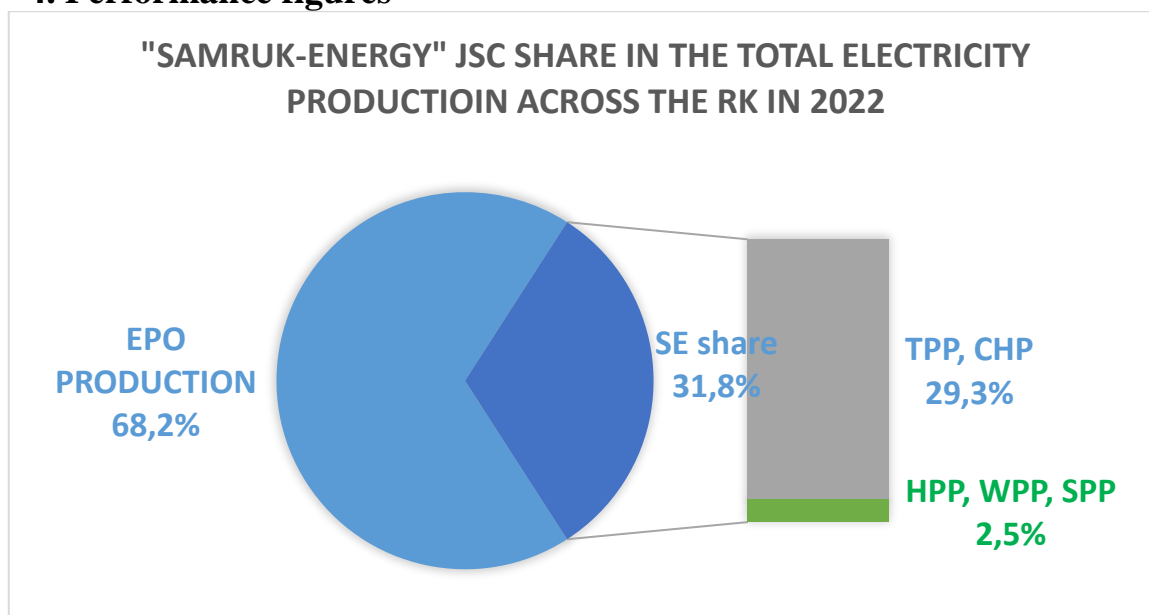
Since 2019, the Capacity Market has been implemented as an effective instrument for supplying the sector with a sufficient level of investment, which will have a positive impact on the market over the long term. This mechanism is based on the Concept for the Development of Kazakhstan's Fuel and Power Sector until 2030, which was adopted in 2014.

The following were established as of 2019 in light of the advent of the capacity market for organizations that produce energy:

- Ceiling tariffs for electricity, comprising the cost of electricity generation and the rate of return, as well as the expenses of investment projects and the repayment of primary debt (on credit funds attracted for the implementation of investment projects;

- ceiling electricity tariffs, which consider both the rate of return and the cost of producing electricity. Order No. 205 was issued in May 2020 to approve the methodology for establishing the rate of return for electricity and fixed profit for balancing, and it was amended in March 2021 by Order No. 76 of the Republic of Kazakhstan Minister of Energy. A pass-through charge mechanism was introduced into the EPO electricity sales tariff on July 1, 2021, to reimburse the costs of purchasing EPO electricity, in accordance with the Republic of Kazakhstan Law "On Supporting the Use of RES". The pass-through charge is calculated by "SFC for RES Support" LLP based on expenses for supporting RES in Kazakhstan and the volumes of electricity supplied by EPO. The introduction of the RES pass-through charge led to revisions in the tariffs for electricity of the country's energy-producing organizations. The Committee for the Regulation of Natural Monopolies and Protection of Competition under the Ministry of Economy regulates tariffs for the transmission and distribution of electricity for power transmission companies, heat production, and energy supply (ESO), following the laws and regulations. Tariff decisions are influenced by social and political issues, and economic, social and other policies of the Government of the Republic of Kazakhstan may significantly affect the Group's operations.

4. Performance figures



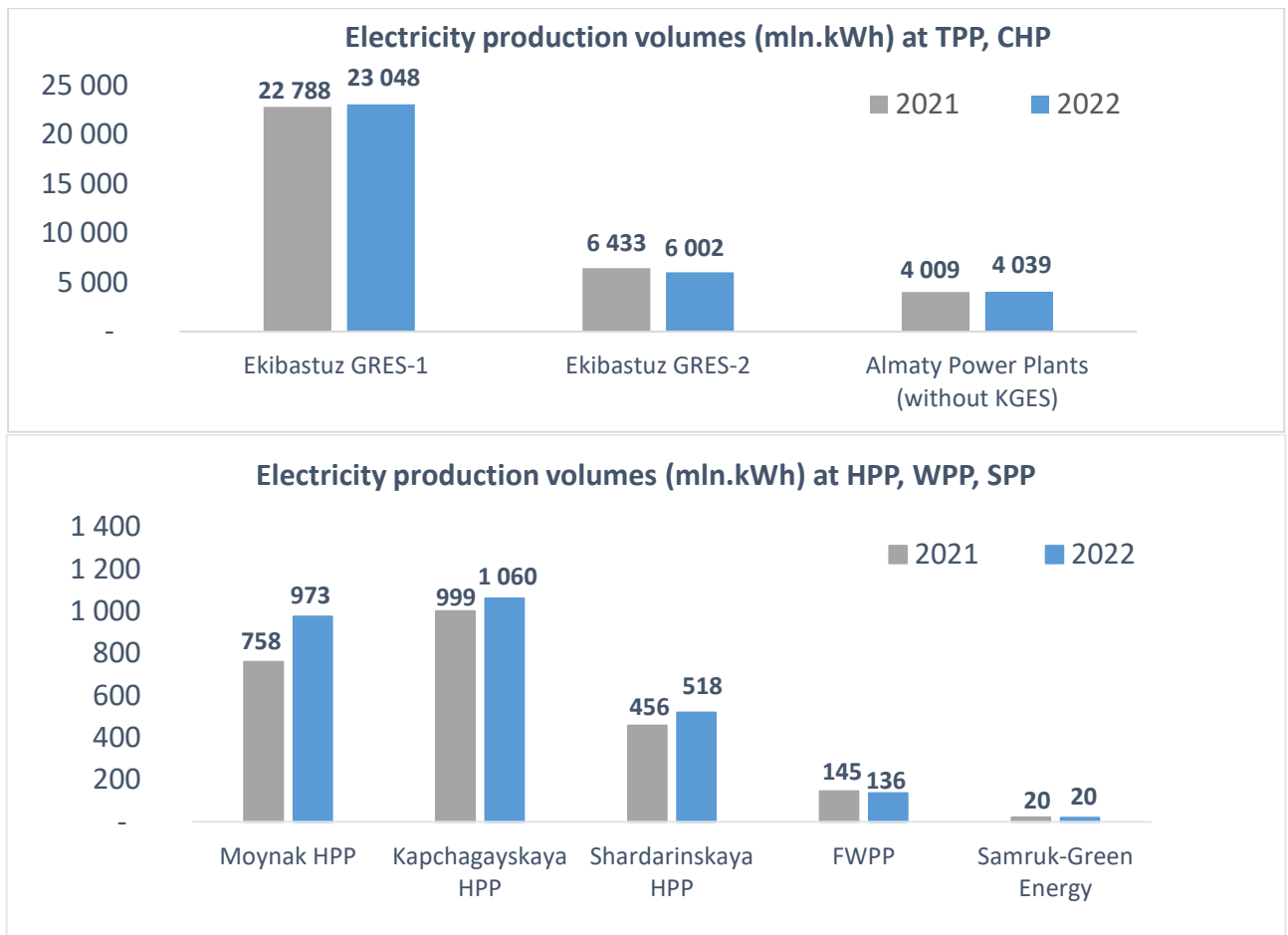
“Samruk-Energy” JSC contributed 31.8% of the Republic of Kazakhstan's overall energy production in 2022, an increase of 0.7% from 2021.

Operational KPI (broken down by producers)

The total amount of electricity produced in 2022 was 35,884 mln. kWh, showing an increase of 1% or 275 mln. kWh compared to the previous year. This growth can be attributed mainly to “Shardarinskaya HPP” JSC, which witnessed a 14% (62 mln. kWh) increase in volume due to heavy rainfall during the summer and autumn period in the Naryn-Syrdarya cascade area, leading to higher water inflow. Additionally, “Moynak HPP” JSC saw a 28% (215 mln. kWh) increase in volume due to water levels in the Bestyubinsk reservoir.

Subsidiary and affiliate name	2020 actual	2021 actual	2022 actual	% against 2021 actual	2023 Forecast	2024 Forecast
Electricity production volumes, mln.kWh						
“Ekibastuz GRES-1” LLP	19 466	22 788	23 048	101%	22 152	22 995
“Ekibastuz GRES-2” JSC	4 974	6 433	6 002,5	93%	6 100	6 100
“APP” JSC	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
"Ereymenau Wind Power" LLP	-	-	-		193,50	215,00
"Energia Semirechya" LLP-25% share	-	-	88,26		223,67	225,75
Total	31 385	35 609	35 884	101%	35 243	36 230

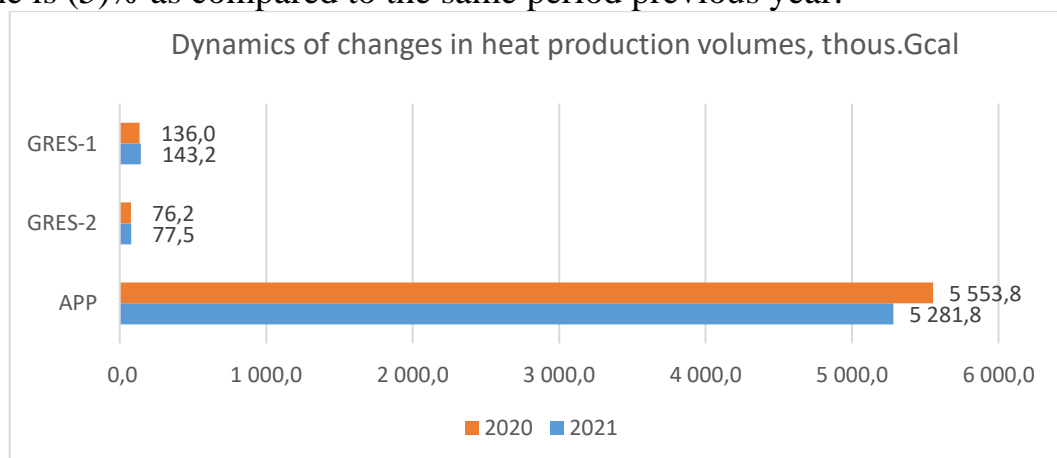
Subsidiary and affiliate name	2020 actual	2021 actual	2022 actual	% against 2021 actual	2023 Forecast	2024 Forecast
Electricity sales volumes, mln. kWh						
“Ekibastuz GRES-1” LLP	19 001	22 496	23 102	103%	22 303	23 382
Export	859	400	-		-	-
“Ekibastuz GRES-2” LLP	4 809	6 336	5 938	94%	6 102	6 162
Export	-	192	473	247%	-	-
“APP” JSC	4 689	4 425	4 591	104%	4 523	4 590
“Moynak HPP” JSC	944	781	1 014	130%	946	956
“Shardarinskaya HPP” JSC	521	468	540	115%	452	564
"Samruk-Green Energy" LLP	7,22	20,22	19,53	97%	19,92	19,89
“First Wind Power Plant” LLP	159	144,29	135,37	94%	162	183
"Ereymantau Wind Power" LLP	-	-	-		192	213
“Energia Semirechya” LLP - 25% share	-	-	86,40		217	219
Total	30 131	34 671	35 426	102%	34 918	36 289
Capacity sales volume, MW.						
“Ekibastuz GRES-1” LLP	1 556	1 565	2 024	129%	2 080	2 601
including capacity volume according to individual tariff						477
“Ekibastuz GRES-2” JSC	743	525	779	148%	896	896
“APP” JSC	872	806	859	107%	850	850
Including capacity volume according to individual tariff	70	70	70	100%	70	70
“Moynak HPP” JSC	286	292	289	99%	298	298
“Shardarinskaya HPP” JSC	48	61	61	100%	61	61
Total	3 505	3 248	4 013	124%	4 184	4 705
Heat production volumes, thous.Gcal						
“APP” JSC	5 596	5 554	5 282	95%	5 323	5 323
“Ekibastuz GRES-2” JSC	67	76	78	102%	76	76
“Ekibastuz GRES-1” LLP	155	136	143	105%	151	151
Total:	5 819	5 766	5 502	95%	5 549	5 549
Electricity transmission volumes, mln.kWh						
“AZhC” JSC	6 838	7 650	8 154	107%	8 261	8 347
Total	6 838	7 650	8 154	107%	8 261	8 347
Electricity sales volumes, mln.kWh						
“AlmatyEnergoSbyt” LLP	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 volumes, mln.tons	43,44	44,74	42,41	95%	44,30	45,21



Forecast for the future period:

In comparison to the actual 2022, **the volume of electricity output** in the forecast for 2023 is projected to gradually decline. 641 mln. kWh less electricity will be produced in 2023, mainly because “Ekibastuz GRES-1” LLP will produce less electricity as a result of having to make scheduled repairs to its power plants.

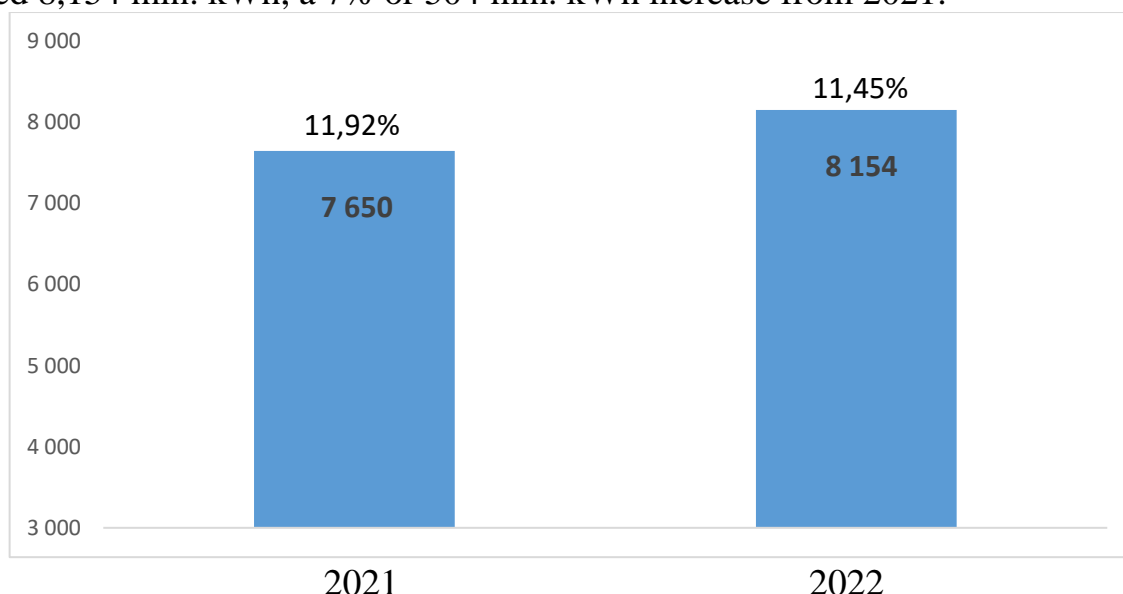
5 502 thousand Gcal worth of **heat was produced** in 2022. Due to the higher average monthly temperature during the heating season in the reporting period, the decline is (5)% as compared to the same period previous year.



Forecast for the future period:

The plan for 2023 predicts a 1% rise in **heat production** compared to 2022 actual, primarily due to an increase in heat production by “Almaty Power Plants” JSC.

In 2022, the **volume of electricity transmitted** through “AZhC” JSC's grids reached 8,154 mln. kWh, a 7% or 504 mln. kWh increase from 2021.



Forecast for the future period:

As regards **transmission and distribution of electricity** in 2023, an increase of 1% is expected compared to the fact of 2022.

Due to a rise in electricity consumption in the Partnership's service area, the energy supply organization's **total volume of electricity sales** for the reporting period totaled 6,847 mln.kWh, a 2% increase over the same time in 2021.

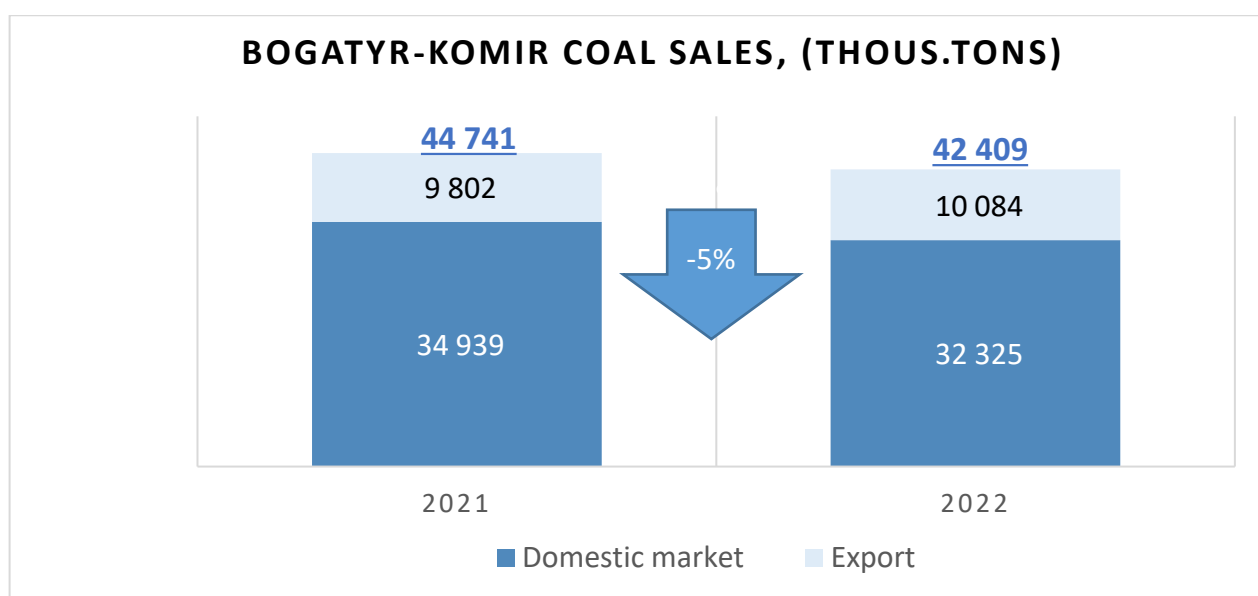
<u>Description</u>	<u>2021actual</u>	<u>2022 actual</u>	<u>Deviation</u>	<u>%</u>
<u>AlmatyEnergoSbyt</u>				
<u>Number of consumers, including:</u>	899 134	929 929	30 795	104%
<i><u>Population</u></i>	862 980	891 214	28 234	104%
<i><u>Corporate bodies</u></i>	36 154	38 715	2 561	106%
<u>Sales volume, mln.kWh</u>	6 724	6 847	123	102%

Forecast for the future period:

Electricity sales in the forecast for 2023 increases by 3% from 2022 actual.

At the end of 2022, the volume of **coal sales** amounted to 42 409 thous. tons, which is 5% or 2,331 thous. tons less than the same period (a decrease in coal sales in the domestic market by 2,614 thous. tons, or 7% and an increase in coal sales for export by 282 thous. tons or 3%).

The stripping rate for 2022 was 0,78 m³/t, up from 0.73 m³/t in the same period.



Forecast for the future period:

According to the forecast for 2023, the amount of coal sales in 2023 will rise by 1,891 thous. tons, or 4%, from the actual value in 2022.

5. Key events in the reporting period

Date	Event
27 January 2022	Samruk-Energy JSC made an early repayment of 15.2 billion tenge of principal debt to the Asian Development Bank to decrease interest payments.
1 February 2022	“MHPP” JSC bonds in the amount of 1 billion tenge were repurchased on the AIX platform.
14 February 2022	As part of the implementation of the Project "Modernization of Almaty CHP-2 with minimization of environmental impact", “Samruk-Energy” JSC, “APP” JSC and the European Bank for Reconstruction and Development signed a Mandate Letter.
26 April 2022	In an effort to lower interest payments, “Samruk-Energy” JSC made a partial early repayment of 8 billion tenge of principal debt to the European Bank for Reconstruction and Development.
16 May 2022	“GRES-1” LLP early repaid 2.6 bn tenge of principal debt to “Halyk Bank of Kazakhstan” JSC to reduce interest payments.
24 June 2022	Certain conditions for conducting auctions related to the construction of newly commissioned generating plants with a flexible generation mode have been revised and added to the order of the Acting Minister of Energy of the Republic of Kazakhstan, No. 161 which was issued on April 30, 2021.
30 June 2022	The President the state has approved the Law "On Amendments and Additions to Certain Legislative Acts of the Republic of Kazakhstan on the Issues of the Power Industry, Energy Conservation and Energy Efficiency, Subsoil Use, Local Government, the State Border, Housing and Utility Services and Science." The law includes revisions to the Republic of Kazakhstan's "Power Industry" law concerning the introduction of an individual capacity tariff for

Date	Event
	projects of power plant's conversion from coal to gas. These modifications will guarantee a return on investment for the Almaty CHP-2 project.
30 June 2022	The adjusted ceiling tariffs for electricity were approved by the order of the RK Minister of Energy No. 226 dated 30.06.2022, tariffs will enter into force from July 1, 2022 for APP JSC (from 10.23 tenge to 11.19 tenge/kWh or by 9%), MHPP (from 10.9 tenge/kWh to 11.71 tenge /kWh or by 7%) and SharHPP (from 8.77 tenge/kWh to 9.82 tenge/kWh or 12%).
21 July 2022	60 MW WPP "Shelek" was put into operation in the Enbekshikazakh district of Almaty region, "Energia Semirechya" LLP.
22 July 2022	"MHPP" JSC bonds in the amount of 5 bn. tenge were repurchased on the AIX platform.
26 July 2022	In order to reduce interest payments, "Samruk-Energy" JSC early repaid the principal in the amount of 15, 4 bn. KZT to the Asian Development Bank.
18 August 2022	The ceiling tariffs and tariff estimates for AZhC for 2022-2026, which will enter into force from 01/09/2022 - 6.69 tenge / kWh (without VAT), were approved by the order of DCRNM for Almaty city No. 89-OD dated 18.08.2022.
26 August 2022	The marginal price for Almatyenergosbyt LLP was approved by the DCRNM under the RK MNE for Almaty city, the price will enter into force from September 1, 2022 at the level of 21.16 tenge/kWh without VAT or 7.2% growth against the approved level.
27 August 2022	Due to the change in the cost of a strategic product - the retail price of sales of commercial gas for thermal power companies, the following levels of tariffs for regulated services of "APP" JSC for the production of heat were approved by joint order of the DCRNM under the RK MNE for Almaty city No. 97-OD dated August 26, 2022 and for Almaty region No. 92-OD dated August 27, 2022; these tariffs will be effective from September 1, 2022: from 01.09.2022 – 3,929.83 tenge/Gcal (excluding VAT); from 01.01.2023 – 4,003.36 tenge/Gcal (excluding VAT);
5 September 2022	Planned full redemption of "Samruk-Energy" JSC (SNRGb2) bonds in the amount of 3.1 billion tenge was effected on KASE.
7 September 2022	The Agency of the Republic of Kazakhstan for the regulation and development of the financial market registered the Company's second bond program in the amount of 120 billion tenge, necessary to finance its own participation in APP gasification projects.
26 September 2022	In order to avoid taxation, as part of classification of fixed assets, an industry opinion was received from the Ministry of Energy of the Republic of Kazakhstan, as well as a written opinion from the Prime Minister, according to which devices for generating electricity were classified as equipment.
30 September 2022	In order to reduce interest payments, "Samruk-Energy" JSC early repaid the principal debt in the amount of 16.8 bn tenge to "Halyk Bank of Kazakhstan"

Date	Event
	JSC.
7 October 2022	The Agency of the Republic of Kazakhstan for the regulation and development of the financial market has made the state registration of Samruk-Energy JSC's second bond program. The issue volume is 120 billion tenge.
27 October 2022	An open two-stage international tender has been announced in order to select an EPC contractor for the implementation of Almaty CHP-2 gasification project in accordance with the EBRD rules.
9 November 2022	The international rating agency Fitch Ratings upgraded the long-term credit rating of Samruk-Energy in foreign and national currencies to 'BB+', and upgraded Samruk-Energy's standalone credit rating from 'B+' to 'BB-' and the unsecured credit rating from 'BB' to 'BB+'. Forecast "Stable".
25 November 2022	"APP" JSC and the European Bank for Reconstruction and Development (EBRD) signed a loan agreement for 130 bn. tenge in order to implement the project for the gasification of Almaty CHP-2.
25 November 2022	The Development Bank of Kazakhstan and "APP" JSC signed an Agreement of intent to provide financing for an investment project for the gasification of Almaty CHP-2
28 November 2022	"NC QazaqGaz" JSC and "Samruk-Energy" JSC signed an AGREEMENT for the sale of "Samruk-Energy" JSC 100% stake in the authorized capital of "Tegis Munay" LLP, which includes "Mangyshlak-Munay" LLP.
30 November 2022	The Rules for considering investment programs for modernization, reconstruction and (or) expansion with the construction of generating plants using gas as an alternative type of fuel, conclusion of investment agreements for modernization, reconstruction and (or) expansion with the construction of generating plants using gas as an alternative type of fuel, the corresponding conclusion of contracts for the purchase of services to maintain the availability of capacity and setting of individual tariffs for these contracts for the service on maintaining the availability of capacity, volumes and terms for the purchase of services to maintain the availability of electric capacity were approved by the order of acting Minister of Energy of the Republic of Kazakhstan No. 389 dated November 30, 2022.
20 December 2022	The Fund has provided a sum of 2.5 bn.tenge to increase the authorized capital of Samruk-Energy. This contribution is intended to be transferred to the authorized capital of AZhC as part of the "Reconstruction of cable networks in Almaty city" project.
20 December 2022	A reverse buyback of MHPP JSC bonds for the amount of 2 billion tenge has been carried out on the AIX platform.
29 December 2022	The President has approved a new law that amends the Tax Code to exempt energy transmission companies from paying corporate income tax (CIT) when they receive electrical networks from owners who don't engage in electricity transmission activities.
December 2022	In accordance with the Chairman of the Board of "Samruk-Kazyna" JSC Satkaliev A.M.'s instructions on Fund reform dated July 19, 2022 (No. 37-r), "Samruk-Energy" JSC created a subsidiary called Qazaq Green Power PLC under the jurisdiction of the Astana International Financial Center in December 2022. This move is aimed at consolidating the Company's "green" assets under one umbrella.

Date	Event
30 December 2022	Amendments have been made to the Law "On Natural Monopolies" (No. 204-VI ZRK) dated December 27, 2018, which provide additional conditions for adjusting electricity transmission tariffs before the expiration of the 5-year approval period. These conditions include changes to the approved investment program due to the implementation of national projects, receipt of grids on the balance sheets or their placement in trust management, and changes in the average monthly nominal wage. The amendments will take effect from January 12, 2023.

6. Main directions of the company's development

The power industry represents the foundation of the economy's infrastructure, and its success is integral to the efficiency of the production complex, service sector, and overall quality of life for the citizens of the Republic of Kazakhstan. The Company recognizes its responsibility in creating a balanced development model that prioritizes a harmonious energy supply for both domestic consumption and exports, while ensuring high economic efficiency, innovative improvements, and advanced social responsibility standards. The Company has formulated a strategic mission that reflects this important task.

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

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

To achieve its mission and strategic goals while considering the challenges and opportunities at the global, national, and corporate levels, the Company has identified three key priorities: sustainable development, responsible investment, and effective and active portfolio management. The Company has also determined three strategic directions of activity in line with its mission:

- Transitioning to a green economy with the aim of reducing the net carbon footprint
- Ensuring reliable and competitive supplies of energy resources in the markets where the Company operates with the goal of increasing productivity
- Increasing the cost of equity capital to enhance the value of net assets To support these strategic goals, the Company has formed various initiatives and tasks.

The results of implementation of key strategic tasks

6.1. Environmental responsibility

- Installation of an automated system for monitoring emissions into the environment at GRES-1, GRES-2, APP stations. GRES-1 – a contract for the development of design and estimate documentation (DED) was concluded; GRES-2 - DED has been

developed, Equipment supply is currently in progress as part of a concluded contract, and construction and installation works have commenced. Almaty Power Plants (APP) is preparing for the installation of the equipment.

- Application of low-emission swirling pulverized coal burners at GRES-1. A contract for the development of design and estimate documentation was signed

6.2. R&D

- Carbon capture and storage (CCS) technologies, production of coal chemistry products (R&D). Technical specification has been approved, tender has been announced.

6.3. Green financing

— The Company utilized green finance tools by issuing green bonds, and published a report on the distribution of proceeds and the impact of "green" projects funded by these bonds. The report was made available on the AIX website as well as the Company's corporate website.

6.4. Resource saving

- Construction of a pumping station for the return of clarified water. GRES-2. A contract for the development of design and estimate documentation has been signed.

6.5. Decarbonization

- The sale of carbon units, or offsets, from renewable energy facilities has been completed. The project documentation and monitoring plan for this initiative were authorized by the relevant environmental protection agency. The offset units have been acquired and credited to the appropriate account.

6.6. Development of human capital

- Creation of an attractive work environment for its employees. The purchase of consulting services for the development of corporate culture has not been approved by the Fund. The Company conducted a corporate training on "Culture of recognition and gratitude,

- Retaining internal talent and attracting highly qualified personnel, a list of key positions in the new edition and a pool of talents have been approved by "Samruk -Energy" JSC Management Board.
- Social guarantees and stability are also ensured through annual indexation of wages across the group of companies.

6.7. Social responsibility

- Employees undergo training sessions and receive newsletters with the aim of educating them on ethical norms and principles and fostering zero tolerance towards corruption and bribery. So far, 32 training sessions/newsletters have been conducted. The Compliance Service reports to the Board of Directors of the Company on a quarterly basis on the measures taken in this area.

6.8. Increasing electricity sales in the domestic and foreign markets

- Sales of RES in 2022. The actual sales of RES for 2022 amounted to 414.57 mln. kWh.

- Ensuring the supply of electricity to consumers of the Fund's group of companies. As per the 12-month performance data of 2022, the consumers of the Fund's group of companies received a supply of 6,165.1 mln.kWh of electricity to meet their needs.

- Ensuring the supply of electricity to energy-intensive industries (data centers, industrial zones, etc.). According to the results of 2022, 1726 mln. kWh electricity was supplied for the power supply of energy-intensive industries (Aktogay Mining and Processing Plant, MPP and Bozshakol MPP).

6.9. Increasing coal sales in domestic and international markets

- Ensuring the export of raw coal to Russia. In 2022, the export of raw coal amounted to 10 084 thousand tons.

6.10 Enhancement of operational effectiveness of current facilities

The implementation of the energy conservation and efficiency improvement program until 2025 is underway. In 2022, 58 various activities were executed, which helped to save 486.8 thous. trf (tons of reference fuel) for 2.2 billion tenge within the group of companies of “Samruk-Energy” JSC.

- technological losses were reduced in “AZhC” JSC grids, which resulted in savings of 1 bn. 311 mln. tenge, equivalent to 11.45% of the level of losses in 2020 (12.6% actual).
- The ASCAPC system was introduced, and the materials and equipment have already been supplied.
- The implementation of the operational dispatch complex SCADA. Activities have not been carried out due to a change in the project (a modification in the volumes and locations of equipment installation under the project).
- The optimization of equipment repair cycle. The Ministry of Justice of the Republic of Kazakhstan returned the Draft Order to the Committee for Nuclear and Energy Supervision under the RK Ministry of Energy for revision.

6.11. Innovation development

- Implementation of a pilot industrial plant for dry preparation of the 3rd seam coal, with a calorific value of 4000 kcal/kg, at the Severny open pit. Stage 1. A package of documents for financing the project (development of design and estimate documentation, feasibility study) is currently undergoing an approval at UC Rusal. The development of the design and estimate documentation is scheduled for 2023, the start of construction and installation works is scheduled for 2024.

6.12. Digitization

- Analysis of commercial losses in grids using data analytics. The project is completed, project implementation report has been signed.

6.13. Business processes improvement.

- Electronic archive (EA). The deadline has been postponed to 2023 - 2024
- Robotization of routine business processes. The project has been implemented.

6.14. HSE best practices

- Automating the process of registering hazardous activities/conditions to minimize accidents. A project to implement this has been successfully completed and a report on the project's implementation was approved at the Project Steering Committee meeting.
- Collaboration with leading companies and signing memorandums of cooperation. In March 2022, a Memorandum of Cooperation was signed between “Samruk-Energy” JSC and “ArcelorMittalTemirtau” JSC as an example of such collaboration.

6.15. Improving financial stability

- In accordance with the Fund's and/or the Republic of Kazakhstan's guidance, creditors must adhere to the normative values of their financial covenants, which are fixed on a semi-annual and annual basis (with the exception of incurring debt and resulting interest costs in the event of a quarantine or blockout)). The creditors of the Company abide by all financial covenants.

6.16. Implementation of investment projects

- In order to achieve the desired level of return on equity, the company aims to implement the investment program properly. The most significant projects currently being implemented with medium-term implementation horizons are Expansion and reconstruction of “Ekibastuz GRES-2 with the installation of power unit No. 3”, "Expansion and reconstruction of the capacities of Ekibastuz GRES-1 (Restoration of unit No. 1)", "Modernization of Almaty CHP -2 including a reduction of negative effect on the environment", "Reconstruction of Almaty CHP-3 based on CCGT with capacity up to 450 MW", "Expansion of CHP-1 with construction of CCGT with capacity of 200-250 MW", "Reconstruction of cable networks in Almaty city and Almaty region", “Redirection of the Kensu River flow”, “Construction of the counter-regulating Kerbulak HPP on the Ili River”, “Construction of a 50 MW WPP in the vicinity of Yereymentau city”, “Implementation of the project for the transition to a cyclic-and-continuous method of mining, transportation, blending and loading of coal at "Bogatyr mine" (CCM)", "Construction of a combined WPP and HPP, with a capacity of 310 MW".
- With regard to the project "Construction of a 60 MW WPP in Shelek corridor with possible increase in capacity up to 300 MW", the certificate of putting the facility into operation was signed on July 21, 2022

6.17. Corporate governance

- Annual sustainability report creation in compliance with GRI. On May 27, 2022, the Board of Directors approved the Integrated Annual Report for 2021. Minutes No. 06/22).

- Development of medium-term plans to strengthen corporate governance and conducting an independent assessment of corporate governance by the Shareholder (within the timeline defined by the Shareholder). In the first quarter of 2022, the Plan for improving the corporate governance of the Company for 2022–2023 was approved by the Board of Directors. The Board of Directors decided to approve the report on the Corporate Governance Improvement Plan's execution through 2022.
- Regular assessment of the Boards of Directors (self-assessment, independent assessment) in accordance with the internal document on the assessment of the Board of Directors. The self-assessment of the Board of Directors' performance for 2022 will be conducted in the first quarter of 2023.
- Improvement of the image through the implementation of awareness-raising activities (annually). All activities to improve the image through the implementation of outreach activities are carried out.
- Obtaining an ESG rating. It is planned to obtain ESG rating in the second half of 2023.

7. Accounting policy principles

The Company's operations in power and coal industries in 2022 was performed in accordance with the approved plans.

For a unified approach, when compiling a report on the results of financial and economic activities, "Samruk-Energy" JSC group uses the equity method in consolidation. Furthermore, in accordance with the current accounting policy, the fixed and intangible assets are recognized at their original cost, that is, without revaluation. Subsidiaries are included in the consolidated financial statements using the acquisition method. Identifiable assets acquired and liabilities and contingent liabilities acquired in a business combination are measured at their fair value at the acquisition date, irrespective of the extent of any non-controlling interest.

Based on the above-mentioned, when using the equity method, the turnovers of such large companies as "Ekibastuz GRES-2 Plant" JSC, ForumMuider B.V. are excluded in the consolidated balance sheet, and "Samruk-Energy" JSC ownership share is 50%.

When forming the consolidated financial result of "Samruk-Energy" JSC, the share of profit from these companies is recognized in the item "share of profit / loss of organizations accounted for by the equity method and impairment of investments".

8. Financial and economic performance overview

№	Indicator, mln.tenge	2020 (actual)	2021 (actual)	2022 (actual)	2023 (forecast)	2024 (forecast)
1	Income from sales of goods and services delivered	283 010	332 537	381 465	429 842	507 436
1.1.	Electricity production	207 917	253 593	286 873	309 493	372 388
1.2.	Sale of electricity by energy supplying organizations	106 911	125 685	137 578	168 405	194 924
1.3.	Heat production	19 202	18 703	19 762	21 430	23 124
1.4.	Transmission and distribution of electricity	40 685	46 428	53 654	60 552	69 029

№	Indicator, mln.tenge	2020 (actual)	2021 (actual)	2022 (actual)	2023 (forecast)	2024 (forecast)
1.5.	Sale of chemically purified water	1 626	1 781	1 852	1 795	1 798
1.6.	Lease	4 041	3 930	4 188	7 847	11 501
1.7.	other	3 181	3 702	5 574	6 435	6 724
2	Cost of goods sold	(225 185)	(254 847)	(288 929)	(345 454)	(384 733)
2.1.	Cost of electricity production	(156 182)	(183 478)	(202 949)	(242 575)	(276 063)
2.2.	Cost of electricity sales by energy supplying organizations	(111 195)	(128 428)	(140 490)	(167 310)	(193 239)
2.3.	Cost of heat production	(18 804)	(19 306)	(22 168)	(22 473)	(24 769)
2.4.	Cost of electricity transmission	(54 365)	(39 358)	(47 040)	(54 609)	(57 910)
2.5.	Cost of sale of chemically purified water	(1 679)	(1 848)	(2 001)	(1 801)	(1 880)
2.6.	Cost of other types of core business	(946)	(767)	(1 140)	(1 436)	(1 501)
	Amortization of fixed and intangible assets	(57 331)	(55 168)	(59 764)	(65 132)	(77 127)
3	Gross profit	57 826	77 690	92 536	84 387	122 703
4	Financing income (1)	2 916	2 616	2 747	2 168	2 216
5	Other income (1) (2)	4 637	7 278	7 812	1 116	496
6	Expenses for sale of products and services	(10 202)	(9 029)	(9 110)	(9 047)	(9 787)
7	General administrative expenses	(15 826)	(14 793)	(18 852)	(17 839)	(15 922)
8	Operating profit	31 798	53 868	64 574	57 501	96 994
9	Earnings before amortization, interest and CIT (EBITDA)	99 728	123 447	141 382	135 925	202 303
10	Finance costs	(31 025)	(30 139)	(29 748)	(27 208)	(34 948)
11	Other expenses from non-core operations (3) (4) (5)	(4 061)	(23 354)	(14 337)	(102)	(118)
12	Share of profit / loss of organizations accounted for using the equity method and investments impairment	9 474	13 455	16 103	12 324	27 437
13	Profit (loss) from discontinued operations	0	0	(736)	0	0
	Profit (loss) from disposal of subsidiaries	0	0	0	0	0
14	Profit (loss) before tax	13 739	23 723	46 417	45 799	92 076
15	Corporate income tax expenses	(5 655)	(8 377)	(16 111)	(12 159)	(17 129)
16	Total profit before minority interest	8 083	15 347	30 306	33 640	74 946
17	Minority interest	76	300	175	232	345
18	Total profit attributable to the Group's Shareholders	8 008	15 046	30 132	33 408	74 602

(1) in the FS, foreign exchange gains in 2020 are shown in the “other income” section, income from the reversal of impairment losses on financial assets are shown in the item “Reversal of impairment losses on financial assets” in FS forex loss for 2020 were reported in "finance costs" section

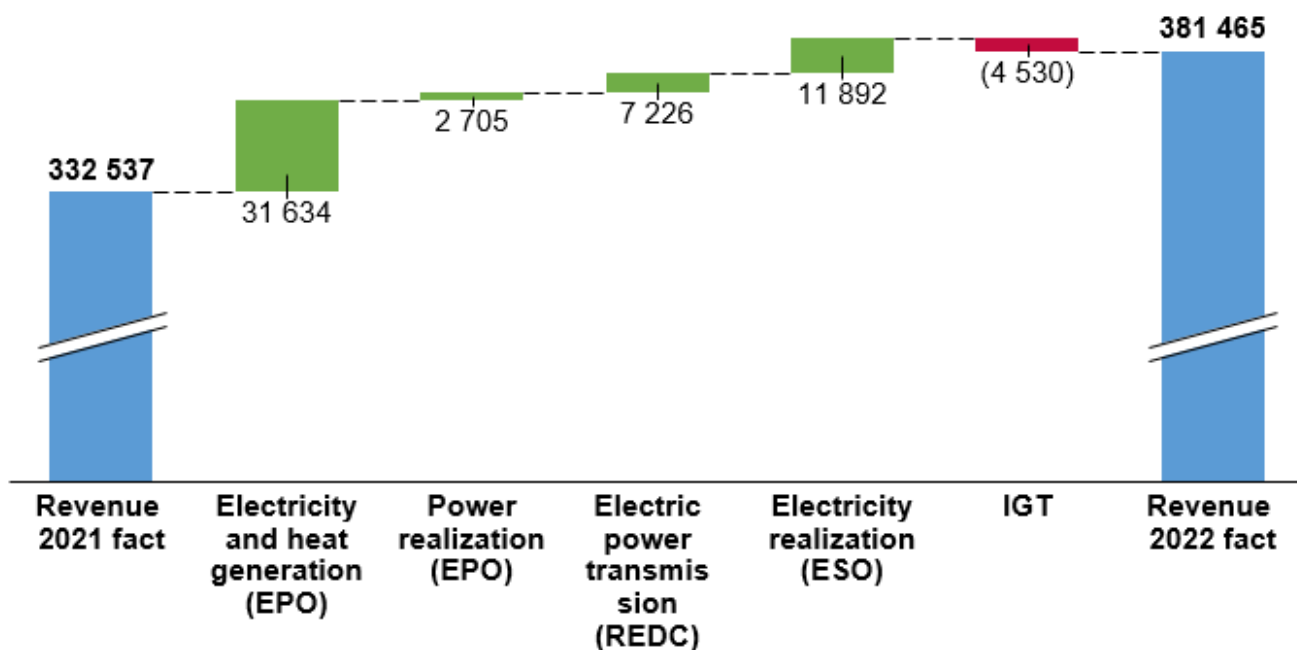
(2) in FS forex loss for 2021 was reported in “other costs” section

(3) in FS forex loss for 2021 was reported in “financial costs” section

(4) in FS impairment loss was recognized in “Loss from impairment of non-financial assets” item

Note: interpretation of income and costs was presented with a breakdown by types of activities (not by segments) and was mentioned without elimination.

Revenues from sales of products and services provided across “Samruk-Energy” JSC group of Companies in 2022 amounted to 381 465 mln.tenge.



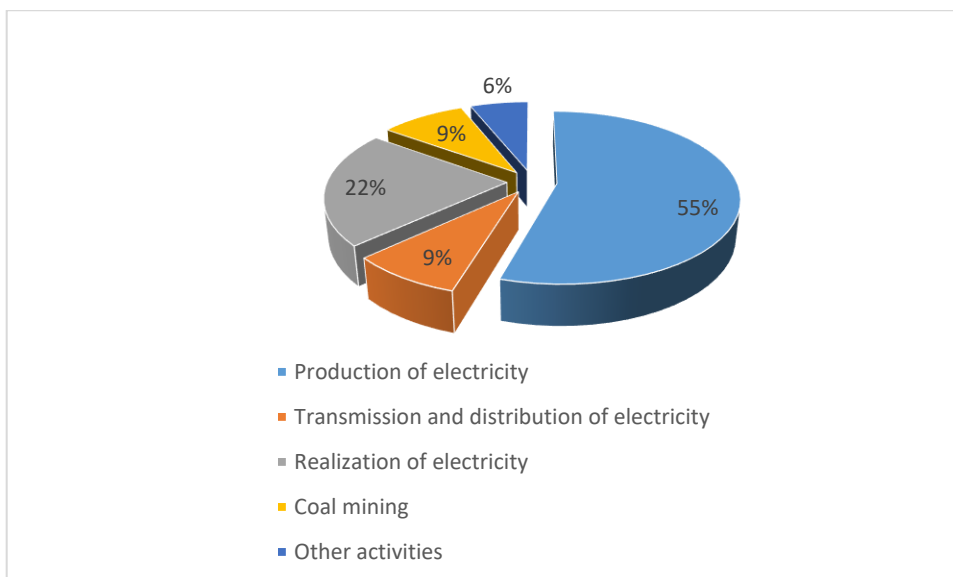
Consolidated revenue increased in the electricity generation segment because of the growth of electricity tariffs and sales volumes. The main growth is observed at “Ekibastuzs GRES-1” LLP due to an increase in the volume of electricity sales in the domestic market by 5% which resulted from an increase in demand for electricity in the domestic market, as well as an increase in the selling tariff (including because of increasing of pass-through charge).

An increase in electricity transmission revenue is because of an increase in electricity transmission volumes by 504 mln. kWh (7%) and the electricity transmission tariff of “Alatau Zharyk Company” JSC from 6,07 tenge/kWh to 6,58 tenge/kWh.

In the sales segment, the growth in revenue is associated with an increase in electricity sales by 123 mln. kWh (2%) and the tariff for the sale of electricity by “AlmatyEnergoSbyt” LLP from 18,69 tenge/kWh to 20,09 tenge/kWh.

Structure of income in 2022 broken down by core businesses:

The forecast for the future period:



Forecast for 2023 predicts an income from sales of 429 842 mln. tenge, representing a 13% increase or 48 377 mln. tenge more than the 2022 figure. The rise is primarily due to an increase in tariffs for electricity production and sale.

As for the forecast for 2024, there is an anticipated boost in income compared to 2023, largely thanks to an increase in revenue generated from electricity production. This uptick will result from various factors, including higher tariffs due to the inclusion of the profit rate in Ekibastuz GRES-1 LLP's ceiling tariff and the start of an individual tariff for Unit No. 1, which comes with the commencement of principal debt repayment related to the project's implementation. Additionally, an increase is because of growth in capacity tariff at centralized auctions, a corresponding rise in electricity sales tariffs, growth in the volume of electricity transmission and sales, capacity volume and an increase in electricity transmission tariffs.

Revenues from sales of products and services rendered detailed per producer

Indicator, mln.tenge	2020 (actual)	2021 (actual)	2022 (actual)	2023 (forecast)	2024 (forecast)
Income from sales of products and services rendered	283 010	332 537	381 465	429 842	507 436
“EGRES-1” LLP	123 478	166 366	189 266	197 180	245 621
“AlmatyEnergoSbyt” LLP	106 911	125 685	137 578	168 405	194 924
“Almaty Power Plants” JSC	74 481	78 654	86 220	97 717	110 022
“Alatau Zharyk Company” JSC	40 819	46 594	53 842	60 769	69 249
“Moynak HPP” JSC	20 520	19 003	22 804	22 474	23 333
“Shardarinskaya HPP” JSC	6 761	7 183	8 680	8 038	9 655
“First Wind Power Plant” LLP	5 031	4 881	4 987	6 935	7 785
“Bukhtarminsk HPP” JSC	4 040	3 927	4 181	7 842	11 500
“Ereymentau Wind Power” LLP			-	4 345	5 045
“Energy Solution center” LLP	1 287	1 128	1 515	1 736	1 817
“Samruk-Green Energy” LLP	236	399	409	516	538

Intercompany turnover (elimination)	-100 554	-121 285	-128 016	-146 115	-172 052
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"Ekibastuz GRES-1" LLP, "Almaty Power Plants" JSC, "Alatau Zharyk Company" JSC, and "AlmatyEnergoSbyt" LLP make up the majority of the Company's operating income. In addition, intra-group turnovers are not included in the total amount for calculating income, primarily for electricity generation and distribution companies.

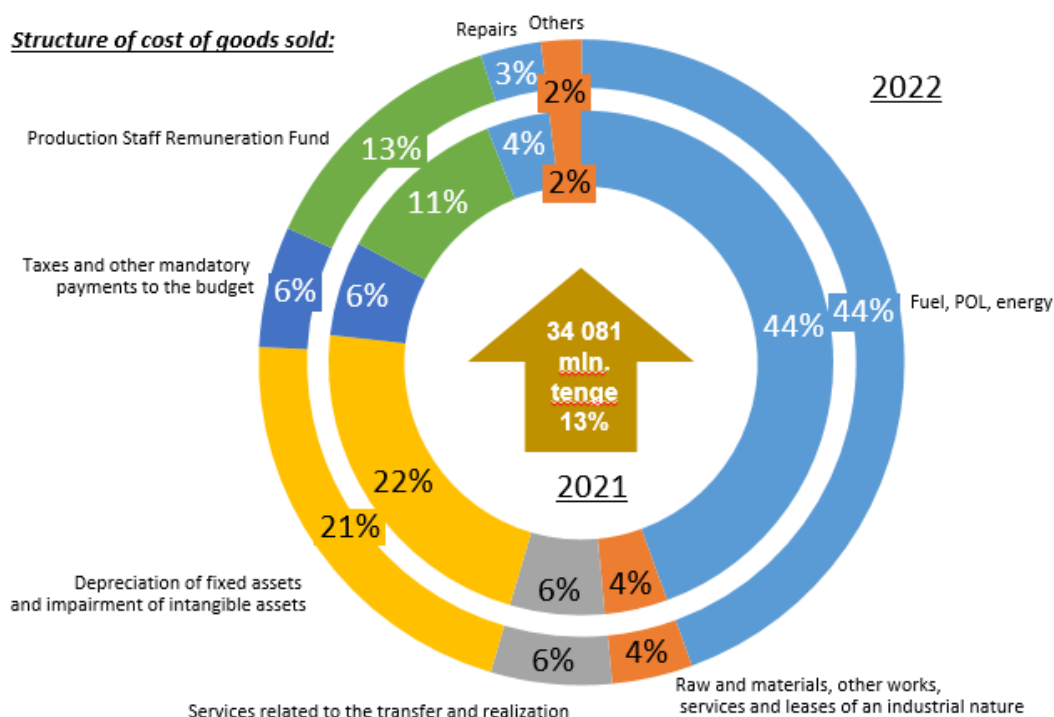
Cost of goods sold and services delivered

Indicator, mln.tenge	2020 (actual)	2021 (actual)	2022 (actual)	2023 (forecast)	2024 (forecast)
Fuel	59 109	60 320	68 247	82 892	89 251
Remuneration of labor 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
Maintaining the availability of electric capacity	10 094	8 718	8 819	12 435	15 069
Depreciation of property, plant and equipment and amortization of intangible assets	57 331	55 168	59 764	65 132	77 127
Maintenance & repair	8 520	9 901	9 950	14 326	15 852
Services for electricity transmission and other 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
Emission charges	4 616	7 802	7 664	10 518	10 961
Outsourced 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

According to results of 2022, **cost of goods sold** amounted to 288 929 mln.tenge, which is 13% higher than 2021 actual figure. Costs escalated mainly because of expenditures for energy purchased from “SFC RES” LLP. Other factors contributing to the increase in expenses include payroll costs, coal costs (due to an increase in coal prices, including transportation), and depreciation costs (see below). Due to the rise in the cost of products and services, other expenses have also increased.

Depreciation for 2022 totaled 59 764 mln. tenge, up 4 596 mln. tenge or 8% from the same period of last year. The largest rise in APP is caused by the adjustment of the terms of use of existing equipment (boiler units, turbine units, and ash dumps) as a result of the transition of CHP-2 in 2027 and CHP-3 in 2025 to gas.

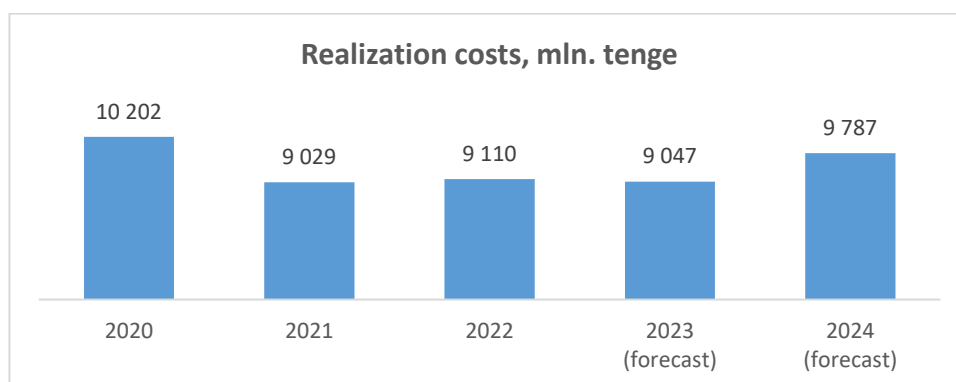
The structure of cost of goods sold by main types of activity



Forecast for the future period: in the forecast for 2023 and 2024, cost of goods sold increases due to an increase in prices for goods and services, as well as because of an increase in production volumes.

Distribution costs, mln.tenge

Distribution costs for 2022 increased by 81 mln. tenge (by 1%) compared to 2021 and amounted to 9 110 mln. tenge. This deviation is caused by an increase for “KEGOC” JSC services’ prices in 2022.

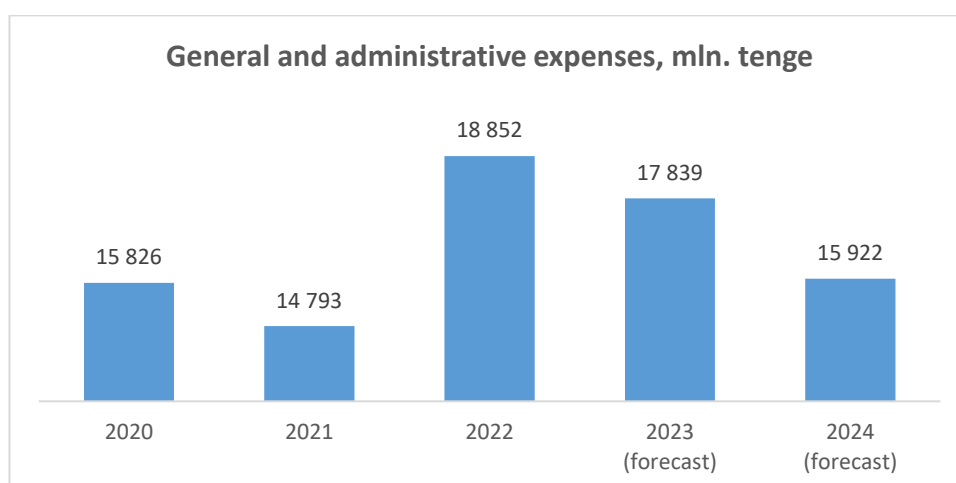


Forecast for the future period: In the forecast for 2023, **distribution costs** are planned in the amount of 9 047 mln. tenge, which is lower than the 2022 actual by 63 mln. tenge or

1%. The decrease is due to the exclusion of export volumes. In the forecast for 2024, increase in **distribution costs** is connected with the growth of busbar output.

Administrative expenses, mln. tenge

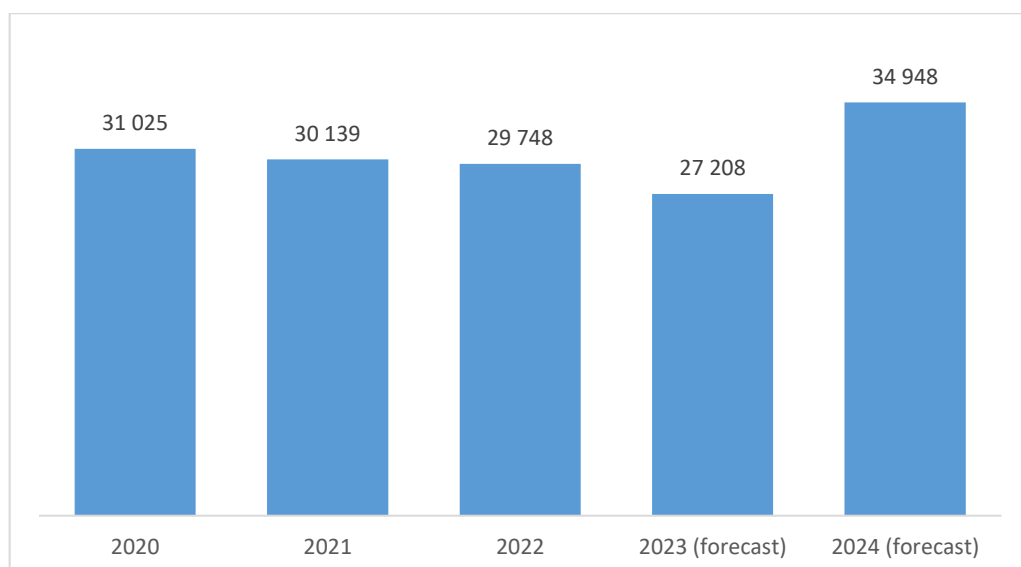
At the end of 2022, administrative expenses amounted to 18 852 mln. tenge, which is 4 059 mln. tenge more or 27% compared to the same period in 2021. “EGRES-1” LLP saw the main increase at “EGRES-1” LLP due to accrual of penalties on CIT connected with cancellation of tax preferences on outdoor switchgear 500 kV, with deductions on interest expenses and accrual of CIT, as well as with Head office’s fine according to the instruction of state audit dated 23.09.2022.



Forecast for the future: In the forecast for 2023, administrative expenses are below the 2022 level and amount to 17 839 mln. tenge. In the forecast for 2024, a decrease in administrative expenses is because it is planned to incur expenses associated with the support of Qazaq Green Power undertaking an IPO in 2023.

Financial expenses, million tenge

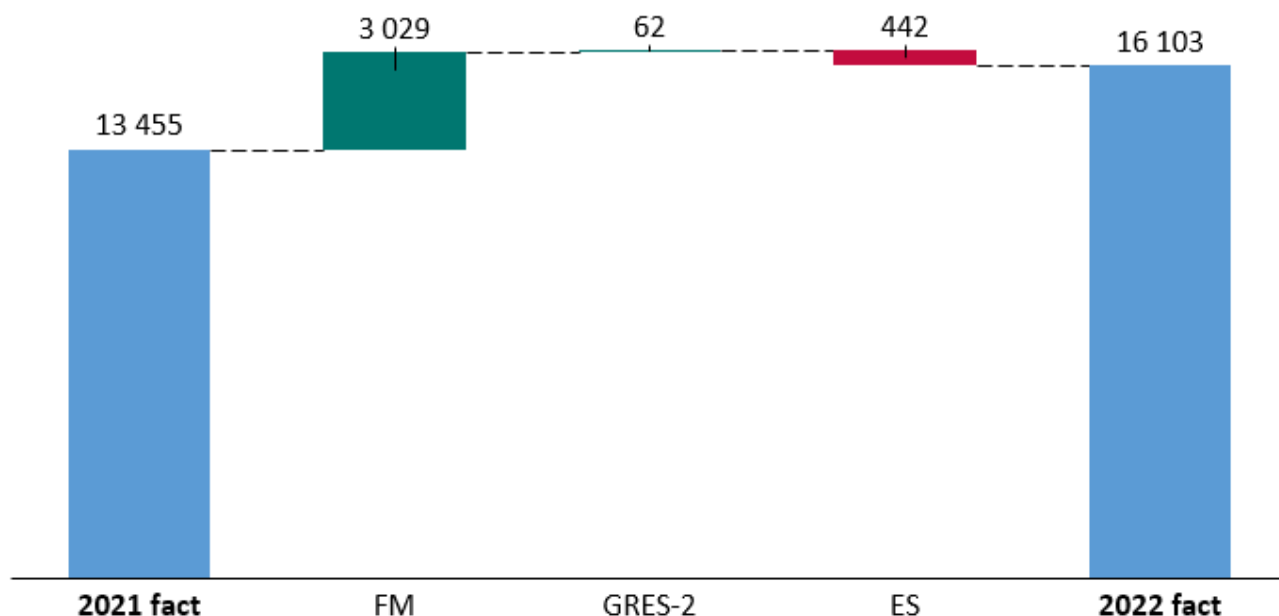
Financial expenses for 2022 amounted to 29 748 mln. tenge, which is 391 mln.tenge lower than the 2021 actual figure. The main decrease was mainly because of the early repayment of two tranches of the ADB loan at the Head Office, as well as a partial repayment of the EBRD loan.



Forecast for the future period: The finance expenses are predicted to be 27 208 mln. tenge in 2023. Due to the anticipated early repayment of the loan obtained from the ADB as well as a decrease in expenses at Ekibastuz GRES-1 LLP, the drop is primarily intended for the HO. An increase in the 2024 forecast as against 2023 is because Ekibastuz GRES-1 LLP included interest costs associated with the project on commissioning of Unit No. 1 in current expenses.

Share of profits of joint ventures and associates

Indicator, mln.tenge	2020 (actual)	2021 (actual)	2022 (actual)	2023 (forecast)	2024 (forecast)
Share of profits of joint ventures and associates	9 474	13 455	16 103	12 324	27 437



The profit from equity businesses for 2022 was 16 103 mln. tenge, an increase of 2 648 mln.tenge or 20% from the same time the previous year.

The primary modifications were observed at the following assets:

Forum Muider (50% ownership) - FM recorded a rise in profit by 3 029 mln.tenge in comparison to the corresponding duration of the previous year. The increase was primarily attributed to an upsurge of 1 260,2 mln.tenge in foreign exchange profit and a rise of 1 027,0 mln.tenge in operating profit due to a decrease in administrative expenditures (a claim on “Arman Kala” LLP amounting to 1 369,6 million tenge was recognized in 2021). Besides, distribution costs decreased due to a decline in the tariff for access road services.

The anticipated surge in equity companies' earnings in 2024 compared to 2023 is predominantly planned due to a rise at “Ekibastuz GRES-2 Plant” JSC profits, resulting from the capitalization of financial expenses and other expenses for Unit No. 3 project in connection with its resumption, as well as an increase in the tariff for electricity and capacity production.

9. Economic value generated and distributed

The economic performance of the Company's is shown in the table – economic value generated and distributed.

Generated economic value shows the main sources of the Company's income, namely the income from the production, transmission, and sale of electricity, as well as from the sale of coal and the remuneration received.

The generated value is distributed among suppliers and contractors, employees of the Company, shareholders and creditors, the state, as well as local communities.

Distributed economic value	
Payments to suppliers and contractors	Operating costs - cash payments to counterparties for payment for materials, product components, equipment and services, rent payments, etc.
Payments to employees	Payroll, social taxes and contributions, pension and insurance payments, medical expenses for employees and other employee support
Payments to capital providers	Dividends to all categories of shareholders and interest paid to creditors
Payments to the state	Tax deductions
Investments in local communities	Donations to charity and non-governmental organizations and research institutions, expenses for maintaining public infrastructure, as well as direct funding of social programs, cultural and educational events

By the end of 2022, there was 520 bn. tenge in created economic value, 408 bn. tenge in distributed economic value, and 113 bn. tenge in retained economic value. In accordance with the authorized Development Plan for 2023–2027, it is intended to improve the economic value created and dispersed in 2023 and 2024.

Mln.tenge

Indicator*	2020	2021	2022	2023	2024
	actual	actual	actual	forecast	forecast
Generated economic value	382 199	465 806	520 350	594 777	684 955
Sales proceeds	380 990	463 690	517 254	591 385	683 767
Remuneration 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
Operating costs	194 386	228 733	246 973	311 972	379 770
Salary and social contributions	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 the state	42 152	52 149	66 518	68 019	79 867
Retained economic value	69 305	101 862	112 656	120 093	116 040

* - indicators used to be calculated on an accrual basis. To exclude non-monetary transactions, including depreciation, current figures are calculated using the data of the cash flow statement.
The figures are taken considering the equity stakes in joint ventures.

10. Tariff state regulation of the company's types of activities

Average weighted tariffs for electricity generation

Name of a subsidiary	2020 Actual	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
“Ekibastuz GRES-1” LLP	6,44	7,31	8,06	8,68	10,35
Electricity tariff, tenge/kWh	5,86	6,82	7,44	8,02	9,54
RK tariff	5,65	6,76	7,44	8,02	9,54
Export tariff, tenge/kWh.	10,22	10,31	-	-	-
Tariff for capacity, thous.tenge/MW*month	590	590	590	590	900
Incl.individual tariff for capacity, thous.tenge/MW*month					1 199
“Ekibastuz GRES-2” JSC	9,64	10,38	11,39	11,78	13,81
Export tariff, tenge/kWh.		11,65	13,76		
Electricity tariff, tenge/kWh	8,55	9,74	10,17	10,74	12,24
Incl.tariff for capacity, thous.tenge/MW*month	590	590	590	590	900
“APP” JSC	11,41	13,12	14,05	16,44	18,51
Incl.tariff for electricity, tenge/kWh	9,45	11,16	12,27	14,64	16,23
Including tariff for electricity, tenge/kWh	875	899	796	799	1 029
Including average weighted tariff for capacity, thous.tenge/MW*month	590	590	590	590	900
Incl.individual tariff for capacity, thous.tenge/MW*month	4 169	4 169	3 139	3 139	2 479
“Moynak HPP” JSC	21,33	23,74	21,69	22,93	23,55
Electricity tariff, tenge/kWh	12,02	12,26	12,92	13,24	13,96

Name of a subsidiary	2020 Actual	2021 Actual	2022 Actual	2023 Forecast	2024 Forecast
Incl.individual tariff for capacity, thous.tenge/MW*month	2 564	2 564	2 564	2 564	2 564
“Shardarinskaya HPP” JSC	12,95	15,32	16,03	17,73	17,09
Including tariff for electricity, tenge/kWh	8,49	9,27	10,79	11,47	12,07
Including tariff for capacity, thous.tenge/MW*month	4 069	3 868	3 868	3 868	3 868
"Samruk-Green Energy" LLP, tenge/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" LLP	-	-	-	22,68	23,70
"Energia Semirechya" LLP- 25% share	-	-	22,68	24,17	26,23

Starting from January 1, 2019, the Republic of Kazakhstan initiated the implementation of the electric capacity market. The introduction of the capacity market caused an increase in the weighted average electricity tariffs for power plants in 2020. This increase was due to the adjustment of ceiling tariffs, which took effect from July 1, 2020, and the introduction of individual capacity tariffs. The Ministry of Energy of the Republic of Kazakhstan approved the deficit tariffs for stations, as per the Regulations, and EPO submitted applications to the Ministry of Energy of the Republic of Kazakhstan to adjust the ceiling tariffs for electricity. As a result, the Ministry of Energy of the Republic of Kazakhstan approved the ceiling tariffs for electricity from July 1, 2020, which remained valid until March 31, 2021.

After the approval of the Methodology for determining the rate of return by the Minister of Energy (Order No. 205 dated May 22, 2020, with amendments in Order No. 76 dated March 11, 2021), the maximum EPO tariffs included the rate of return effective April 1, 2021, as per the Order of the Minister of Energy dated March 30, 2021. Furthermore, in accordance with the Law of the Republic of Kazakhstan "On supporting the use of renewable energy," starting from July 1, 2021, EPO's electricity sales tariff includes a RES support allowance of 1.57 tenge/kWh. The “SFC for RES Support” LLP calculates this allowance based on the costs of supporting renewable energy sources in the Republic of Kazakhstan and the volume of electricity supplied by EPO to conditional consumers. The Minister of Energy approved EPO's new ceiling electricity tariffs considering the pass-through charge for RES by the Order No. 211 dated June 24, 2021. The pass-through charge for 2022 amounted to 1.58 tenge/kWh.

As a result, the following ceiling electricity tariffs were in force for EPO in 2022:

tenge/kWh					
EPO name	Approved tariff 01.01.2022- 30.06.2022	ME tariffs approved without charge from 01.07.2022	RES charge	Tariffs with RES charge	% of growth vs. approved tariff from 01.01.2022
“EGRES-1” LLP	5,90	5,90	1,58	7,48	-
“EGRES-2” JSC	8,59	8,59	1,58	10,17	-
“APP” JSC	10,23	11,19	1,58	12,77	9,4%
“MHPP” JSC	10,90	11,71	1,58	13,29	7,4%
“SharHPP” JSC	8,77	9,82	1,58	11,40	12,0%

As part of the draft Action Plan for the implementation of the Program of the Republic of Kazakhstan Government actions for 2022 aimed at addressing inflation, a proposal was considered to maintain the levels of ceiling tariffs of energy producing organizations for electricity production at year 2021 level for a period of 180 days. This resulted in a postponement of ceiling tariffs growth until 01.07.2022.

According to submitted applications for the increase in the tariff, the Ministry of Energy of the Republic of Kazakhstan by its Order No. 226 dated 30.06.2022 approved ceiling tariffs for “SharHPP” JSC by 12%, for “APP” JSC and “MHPP” JSC by 9.4% and 7.4% respectively.

The work on approval of investment tariffs for plants implementing large-scale investment projects – MHPP JSC, SharHPP JSC, APP JSC and EGRES-1 LLP has been conducted in conjunction with the Ministry of Energy of the Republic of Kazakhstan starting from 2020.

On 28.02.2021, EGRES-1 LLP concluded an investment agreement with the Ministry of Energy of the Republic of Kazakhstan for retrofit, reconstruction, expansion and renewal under the Power Unit No. 1 Rehabilitation Project with a tariff of 1 199 thous. tenge / MW * month for the period 2025-2031 with a view of services amount for 476.6 MW.

The parameters of the concluded investment agreements are given below.

Thous.tenge /MW*month			
EPO name	Volume	Individual tariff	Period
“APP” JSC	69,5 MW	4 168,60	2020-2024
“MHPP” JSC	298 MW	2 563,67	2020-2026
“SharHPP” JSC	61 MW	4 069,3	2020-2028
“EGRES-1” LLP	476,6 MW	1 199	2025-2031
“EGRES-2” JSC	576 MW	5 372	2027-2036

EGRES filed an application to the Market Council (KEA) on 26.01.2021 for approval of an individual tariff for the implementation of the project "Expansion and reconstruction of EGRES-2 with the installation of power unit No. 3". After receiving a positive recommendation from the Market Council on March 29, 2021, the application was submitted to the Ministry of Energy of the Republic of Kazakhstan.

On January 27, 2022, "EGRES-2" JSC resubmitted an application to the Market Council of the Republic of Kazakhstan for an individual capacity tariff to implement the project "Expansion and reconstruction of EGRES-2 with the installation of power unit No. 3" after the Ministry of Energy of the Republic of Kazakhstan did not make a decision in 2021. On March 30, 2022, the Presidium of the Market Council of the Republic of Kazakhstan held a meeting and recommended the investment program "Expansion and reconstruction of Ekibastuz EGRES-2 with the installation of power unit No. 3" to the authorized body (ME RK) for consideration. However, no decision was made on this application, and the list of EPOs that the Ministry of Energy of the Republic of Kazakhstan planned to conclude investment agreements with in 2022 was not published. It is expected that electricity and capacity tariffs will be subject to indexation starting from 2023.

Heat production tariffs

Name	tenge/Gcal				
	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
"Almaty Power Plants" JSC	3 441	3 392	3 782	4 031	4 350
"Ekibastuz GRES-2 Plant" JSC	697	772	812	873	906
"Ekibastuz GRES-1" LLP	367	233	221	233	233

As for a natural monopoly entity, the legislation provides for the approval of long-term (5+ years) ceiling tariff levels for organizations producing heat , with the inclusion of an investment component and annual indexation of costs. The ceiling tariffs are approved by the Committee for Regulation of Natural Monopolies and Protection of Competition. However, an increase in tariffs is made no more than once a year and there are risks of maintaining tariffs without an increase in cases of an increase in station costs for objective reasons.

Tariffs for regulated services on production of heat for 2022-2026 with entry into force from 01.01.2022, were approved for "APP" JSC by a joint order of the Departments of the Committee for the Regulation of Natural Monopolies (hereinafter DCRNM) under the RK Ministry of National Economy for Almaty city No. 141-OD and for Almaty region No. 267-OD dated November 29, 2021, where for 2022 an increase to the current tariff was 8,6%. On August 26 and 27, 2022, the DCRNM MNE RK issued a joint order, No. 97-OD and No. 92-OD, respectively, for Almaty city and Almaty region, regarding the retail price of sales of commercial gas for thermal power companies. Due to the change in the cost of this strategic product, the regulated services for the production of heat energy will see an increase in tariffs for the period of 2022-2026, effective from September 1, 2022. The increase in the tariff from January 1, 2022, amounts to 6.8%.

Tariffs for electricity transmission services

tenge/kWh

Name	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
“Alatau Zharyk Company” JSC	5,95	6,07	6,58	7,33	8,27

The ceiling tariff for 2021-2025 with its entry into force from 01.06.2021 was approved for “Alatau Zharyk Company” JSC, which is also a natural monopoly entity, by the Decree of the DCRNM dated May 17, 2021. The approved tariff for 2022 is 6,52 tenge/kWh with an increase of 7 % to the current tariff.

In connection with the changes in tariffs of "APP" JSC (a strategic product for "AZhC" JSC - electricity), "AZhC" JSC submitted an application to amend the tariff for electricity transmission for the years 2022-2026, by letter No. 14-4304 dated July 15, 2022. Following the review of the application, DCRNM for Almaty city issued order No. 89-OD on August 18, 2022, approving the ceiling tariff levels and tariff estimates for 2022-2026, with effect from September 1, 2022. The approved tariff as of September 1, 2022, is 6.69 tenge per kWh, representing a 2.6% increase compared to the tariff at the beginning of 2022.

ESO tariffs for electricity sale

tenge/kWh

Name	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
“AlmatyEnergoSbyt” LLP	17,66	18,69	20,09	23,77	26,71

"AlmatyEnergoSbyt" LLP is a market entity of great social importance that is regulated by the relevant governing body. The company's tariff calculation consists of operational, financial, and investment components. However, there are concerns that the Regulator may artificially limit tariff growth to maintain social stability in the regions. The company maintains differentiated consumption rates for individuals, while legal entities are supplied electricity at average selling tariffs.

Due to instructions from the President of the Republic of Kazakhstan to stabilize the socio-economic situation in the country and the implementation of a 180-day moratorium on increasing utility tariffs for the population until July 1, 2022, the submission of the tariff increase application for 2022 has been postponed to July 1, 2022. On August 26, 2022, the DCRNM provided a reasoned opinion on the proposed price increase, which amounts to 21.16 tenge/kWh or 7.2% higher than the current level, considering the tariff increase of energy sources from July 1, 2021.

Coal sales price

Tenge/tons

Name	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
“Bogatyr Komir” LLP	2 311	2 292	2 669	3 337	3 458

The price of coal sales by "Bogatyr-Komir" LLP is determined independently and approved through a price list for three groups of consumers in the Republic of Kazakhstan: energy sector at the KTZh junction station, energy sector at the coal collection station, and utility needs. The regulation is carried out in accordance with the Entrepreneurial Code of the CRNM and the PC under MNE.

11. Achievement of strategic KPI

No.	Name	2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
1	Net benefit, mln.tenge	8 008	15 046	30 132	33 408	74 602
2	Debt/EBITDA (ratio)	2,67	2,41	1,90	2,70	2,55
3	ROACE, %	3,60	4,23	5,90	5,21	8,95
4	Net asset value (NAV), mln.tenge	400 623	412 899	442 753	473 305	547 214
5	Corporate governance rating		BB	-	-	BBB
6	RK electricity market share	29,0%	31,1%	31,8%	30,0%	29,7%
7	LTIFR*	0,27	0,36	0,30	0,30	0,25
8	Reduction of net carbon footprint**	-	-	-	-	
9	Workforce productivity**, thous.tenge/person	-	10 154	13 273	13 376	17 854
10	ROI**	-	-	-12%	-	
11	Production of non-commodity goods and services **, bln. tenge.	-	-	381,5	-	

* Included in the list of Strategic KPIs since 2019.

** The Development Strategy of "Samruk-Energy" JSC for the period of 2022-2031 has been approved on October 29, 2021. The strategy outlines seven key performance indicators (KPIs).

The Company's Strategic Indicators are expected to improve between 2020 and 2024. The key drivers of this growth include increased sales of electricity and capacity in the domestic market, the acquisition of individual tariffs for capacity, reductions in fuel and water consumption for operational needs, cost savings from energy conservation efforts, and a reduction in the debt burden.

12. Analysis of capital expenditures according to the spending method

No.	SA	mln.tenge				
		2020 actual	2021 actual	2022 actual	2023 forecast	2024 forecast
	TOTAL	73 232	61 698	100 580	189 900	414 670
1	Investment projects, incl.:	40 718	25 206	58 372	135 078	360 722
1.1	Rehabilitation of Power unit#1 with installation of new ESP	1 890	10 930	32 681	102 208	-
1.2	Expansion and reconstruction of Ekibastuz GRES-2 with installation of power unit No. 3	8 322	104	10 209	6 087	49 484

No.	SA	2020	2021	2022	2023	2024
		actual	actual	actual	forecast	forecast
1.3	Transition to cyclical-and-continuous method of mining, transportation, blending and loading of coal at the "Bogatyr" open-pit coal mine of Ekibastuz coal deposit	25 504	9 693	7 896	4 257	-
1.4	Construction of SS "Kokozek"	20	2 000	354	-	-
1.5	Modernization of Shardarinskaya HPP	1 134	-	-	-	-
1.6	Modernization of CHP-2 with reducing adverse effect on the environment. Development of FS and undergoing an expert review.	-	313	560	8 850	125 510
1.7	Expansion of Almaty CHP-1 with the construction of 200-250 MW CCGT unit	-	-	271	424	31 304
1.8	Reconstruction of Almaty CHP-3 based on CCGT unit with an increase in the plant's capacity up to 450 MW.	-	-	334	5 897	142 242
1.9	Reconstruction of power grids	-	-	-	2 219	10 132
1.10	Construction of 5 MW WPP in Shelek rural area of Almaty region	2 254	-	-	-	-
1.11	Construction of a 60 MW wind power plant in Shelek corridor including a possible increase in capacity to 300 MW	11	23	4 944	484	-
1.12	Construction of 50 MW Yereymentau WPP	913	2 099	1 065	61	27
1.13	Construction of a gas turbine power plant based on Pridorozhnoe gas field	52	13	-	-	-
1.14	Reconstruction of the heat pipeline of Almaty CHP-2 -WHC.	35	-	-	-	-
1.15	Expanding the existing Ereymentau 1 wind power plant with a capacity of 45 MW to include two wind turbines with a capacity of 2.5 MW each.	42	-	1	2 509	-
1.16	Other projects	541	31	57	2 081	2 023
2	Maintenance of production assets	31 787	35 198	41 052	51 576	52 871
2.1	"Bogatyr Komir" LLP (50%)	5 547	4 243	7 995	6 570	6 046
2.2	"Station Ekibastuz GRES-2" JSC (50%)	1 050	1 616	1 985	4 196	5 637
2.3	"Ekibastuz GRES-1" LLP	6 187	8 886	9 859	17 668	13 178
2.4	"Alatau Zharyk Company" JSC	12 646	10 692	11 289	11 328	10 366
2.5	"Almaty Power Plants" JSC	5 616	9 042	9 563	9 673	13 963
2.6	"Moynak HPP" JSC	307	415	103	1 508	3 366
2.7	"Shardarinskaya HPP" JSC	6	10	54	27	20
2.8	"AlmatyEnergoSbyt" LLP	94	90	85	91	91
2.9	"Samruk-Green Energy" LLP	3	26	22	21	20
2.10	"First Wind Power Plant" LLP	332	180	96	491	148
2.11	"Ereymentau Wind Power" LLP	-	-	-	3	36
2.12	"Eenergy Solutions Center" LLP	-	-	-	-	-
3	Maintenance of administrative assets	690	1 267	1 157	2 931	1 077

No.	SA	2020	2021	2022	2023	2024
		actual	actual	actual	forecast	forecast
4	Other	38	26	0	315	0

Projects implemented in 2020

The works under the project "Retrofit of Shardarinskaya HPP" were completed. The plant's installed capacity has been increased to 126 MW.

Projects completed in 2021

There are no implemented projects in 2021.

Projects implemented in 2022:

On July 21, 2022, an acceptance certificate for the completed construction of a 60 MW wind farm in Shelek corridor with a perspective of expanding up to 300 MW was received from the Department of Construction, Architecture, and Urban Planning of Enbekshikazakh district. The project will enable the production of an estimated 226 million kWh of electricity annually using renewable energy sources.

Projects implemented in 2023

In 2023, it is planned to complete the work and put into operation the project "Construction of 110/10kV substation Kokozeq with connection to the outdoor switchgear-110kV of the 220kV substation Kaskelen of the Karasai district of Almaty region.

It is also planned to complete the construction of a flow technology for the delivery of coal by conveyor transport in the Bogatyr open pit mine. An increase in production capacity for coal mining will be up to 42 mln. tons / year.

It should be highlighted that one conveyor line underwent technical commissioning in December 2022.

In December 2023, it is planned to complete construction and installation works and put into operation the project "Restoration of power unit No. 1 at EGRES-1 with the installation of new electrostatic precipitators". The project will increase the plant's capacity to the design capacity of 4000 MW, thereby reducing the shortage of electricity in the energy system of the Republic of Kazakhstan.

The construction of a 50 MW wind power plant near Yereymentau city is currently underway, with the aim of producing over 215 million kWh of electricity annually. Additionally, there are plans to complete the project for the "Construction of a 60 MW wind farm in Shelek corridor, with a potential capacity increase of up to 300 MW."

Projects implemented in 2024

There are no projects completed in 2024

13. Liquidity and financial stability indicators

Enforcement of covenants from external creditors:

Covenant	Standard	2020 actual	2021 actual	2022 actual	Note
Debt/EBITDA (EBRD, ADB)	No more than 3,5	2,96	2,70	2,14	<i>Is complied</i>
EBITDA/Interest (EBRD, ADB)	No less than 3,0	3,76	5,00	5,92	<i>Is complied</i>

Debt/Equity (KDB)	No more than 2,0	0,54	0,59	0,50	<i>Is complied</i>
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Description	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual
Debt/EBITDA	3,18	3,31	2,96	2,41	2,17
Debt/Equity	0,65	0,56	0,54	0,59	0,50
Liquidity	1,04	0,70	0,75	0,53	0,57

At the end of 2022, “Samruk-Energy” JSC (the Company) complied with financial and non-financial covenants of creditors, which are fixed on a semi-annual basis.

At the end of 2022, “Samruk-Energy” JSC achieved target financial stability ratios set by the shareholder.

Debt load growth

According to the results 2022, the consolidated nominal debt of the Company amounted to 314,6 bn. tenge, the decrease of nominal debt for the reporting period compared to the results of 2021 (349,9 bn. tenge) amounted to 35.3 bn.tenge.

The reduction in nominal debt in 2022 can be attributed to the partial early repayment of the loan from the European Bank for Reconstruction and Development (EBRD) at the Head Office (HO), as well as the full early repayment of two tranches of the loan from the Asian Development Bank (ADB).

As part of mitigating currency and inflation risks, the Company has taken the following measures in 2021-2022:

To mitigate inflation risks, the Company conducted early repayment of the EBRD loan at Shardarinskaya HPP through the issuance of its first green bonds on the AIX platform. Additionally, in order to reduce interest payments, a partial early repayment of the EBRD loan at the HO in the amount of 8 bn. tenge and the full early repayment of two tranches of the loan to ADB in the amount of 30.6 bn. tenge were made.

Reduction of interest expenses

Reduction of interest expenses was possible owing to scheduled (56,6 bn. tenge) and early repayments of debt (76,8 bn. tenge), carrying out of activities aimed at reducing interest rates by changing the terms of financing and refinancing of existing loans of the Group from new alternative sources of financing.

Credit rating (Fitch Ratings)

On November 7, 2022, the international rating agency Fitch Ratings upgraded the long-term credit ratings of “Samruk-Energy” JSC in foreign and national currency to "BB+", and the outlook was changed to "Stable".

14. Contingencies, commitments and operating risks

Republic of Kazakhstan's political and economic climate

COVID-19. In March 2020, the World Health Organization announced an outbreak of a new type of coronavirus, COVID19, as a pandemic. In response to the pandemic, the Kazakhstani authorities implemented numerous measures attempting to contain the spreading and impact of COVID-19, such as travel bans and restrictions,

quarantines, shelter-in-place orders and limitations on business activity, including closures. Some of the above measures were subsequently relaxed. The majority of the measures mentioned earlier have been eased, however, until December 31, 2022, there is a chance that more limitations may be enforced by government organizations in response to potential new variations of the virus. While the quarantine period was in place, the Group continued their operations, and office staff worked from home. The Group's leadership believes that the virus outbreak did not significantly affect the Group's operations or consolidated financial statements.

The war between Russian and Ukraine. On 21 February 2022, the Russian President declared recognition of the Luhansk and Donetsk People's Republics, and subsequently deployed military troops to Ukraine. This led to the imposition of sanctions by the United States, the European Union, and other nations against Russia, which included severing ties between several Russian financial institutions and SWIFT. Russia is a critical trading partner for Kazakhstan, accounting for almost 40% of non-oil exports, and serving as a vital trade transit point through the Caspian Pipeline Consortium (CPC), enabling the export of up to 80% of Kazakhstani crude oil.

In March 2022, CPC operations were disrupted due to hurricane damage, but the impact on the budget was minimal due to an increase in oil prices. However, the prolonged closure of the CPC route for Kazakhstani crude oil by Russia will have significant consequences for the country's exports and economy. The Kazakh government is exploring alternative routes to the Caspian Sea via Azerbaijan, Georgia, and Turkey, but the replacement of the CPC route will require significant investment in additional infrastructure, and the process is likely to take several years.

The conflict between Russia and Ukraine and its aftermath have caused the tenge exchange rate to become more unstable, with inflation reaching nearly 20.3% by December 2022. The National Bank of the Republic of Kazakhstan has implemented various measures to sustain the country's financial system. Despite the general macroeconomic impacts and delays in importing equipment, the Group's management believes that this event related to the Russia-Ukraine conflict did not significantly affect the Group's operations or consolidated financial statements.

However, the long-term implications of the current economic climate are uncertain, and the Group's management recognizes that their current expectations and estimates may differ from actual results.

Operating environment

In general, the economy of the Republic of Kazakhstan continues to display characteristics of an emerging market. Its economy is particularly sensitive to prices on oil and gas and other commodities, which constitute major part of the country's export. These characteristics include, but are not limited to, the existence of national currency that is not freely convertible outside of the country and a low level of liquidity of debt and equity securities in the markets. The Republic of Kazakhstan's economy has been adversely affected by several factors, including high inflation, problems stemming from the internal unrest in January 2022, political tensions in the region, and fluctuations in exchange rates. These challenges have reduced liquidity and created challenges in

securing international financing and may continue to have a detrimental effect on the country's economy.

On 20 August 2015 the National Bank and the Government of the Republic of Kazakhstan decided on discontinuation of supporting the exchange rate of Tenge and implement of new monetary policy, which is based on inflation targeting regime, cancellation of exchange rate trading band and start a free-floating exchange rate. However, the National Bank's exchange rate policy allows it to intervene to prevent dramatic fluctuations of the Tenge exchange rate and to ensure financial stability.

As at the date of this report the official exchange rate of the National Bank of the Republic Kazakhstan was Tenge 445,98 per US Dollar 1 compared to Tenge 462,65 tenge per US Dollar 1 as at 31 December 2022 (31 December 2021: 431,67 tenge per 1 USD). Therefore, uncertainty remains in relation to the exchange rate of Tenge and future actions of National Bank and the Government of the Republic of Kazakhstan and the impact of these factors on the economy of the Republic of Kazakhstan.

In September 2021 S&P Global Ratings, international rating agency affirmed the sovereign credit rating of Kazakhstan of “BBB-”. The outlook on sovereign credit rating is stable. The stable outlook is supported by the government's strong balance sheet, built on past budgetary surpluses accumulated in the National Fund of the Republic of Kazakhstan, low government debt, total volume of which will not exceed the external liquid assets of the state within two years, as well as measures implemented by the Government of the Republic of Kazakhstan.

The Republic of Kazakhstan has faced several complex issues, including social tensions leading to internal unrest in early 2022 and the aftermath of the Russia-Ukraine conflict and sanctions. However, these difficulties are offset by the high prices of major exported commodities and the projected increase in oil production starting in 2024 with the expansion of the Tengiz oil field. Analysts predict an average economic growth rate of approximately 3.6% between 2022 and 2025.

The economic environment has a significant impact on the Group's operations and financial position. Management is taking necessary measures to ensure sustainability of the Group's operations. However, the future effects of the current economic situation are difficult to predict, and management's current expectations and estimates could differ from actual results.

Additionally, energy sector in the Republic of Kazakhstan is still impacted by political, legislative, fiscal, and regulatory developments. The prospects for future economic stability in the Republic of Kazakhstan are largely dependent upon the effectiveness of economic measures undertaken by the Government, together with legal, controlling, and political developments, which are beyond the Group's control.

For measurement of expected credit losses, the Group uses supportable forward-looking information, including forecasts of macroeconomic variables. As with any economic forecast, however, the projections and likelihoods of their occurrence are subject to a high degree of inherent uncertainty and therefore the actual outcomes may be significantly different from those projected.

Tax legislation

Kazakhstani tax legislation and practice is in a state of continuous development

and therefore is subject to varying interpretations and frequent changes, which may be retroactive. In some cases, to determine the taxable base, the tax law refers to the provisions of IFRS, and the interpretation of the relevant provisions of IFRS by Kazakhstani tax authorities may differ from the accounting policies, judgments and estimates applied by management in the preparation of these consolidated financial statements, which may lead to additional tax liabilities of the Group. Fiscal periods remain open to review by the authorities in respect of taxes for five years after the end of the fiscal year.

From July 2020, the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan (hereinafter - “SRC”) launched a pilot project to introduce horizontal monitoring, which will last until 31 December 2023. Between 2021 and 2022, the State Revenue Committee conducted a pilot project on horizontal monitoring, examining historical data from EGRES-1 and Samruk-Energy (Head Office) over a five-year period. Tax audits were conducted, and notifications of the results were issued, revealing violations such as improper interest deductions and understated CIT at the source of payment. The companies have disputed these findings and are taking legal action.

The Group's management maintains that their interpretation of relevant legislation is correct and that their tax position is reasonable. They do not anticipate significant losses beyond the provisions made in their consolidated financial statements (Note 23) due to current or potential tax claims.

Insurance

The insurance industry in the Republic of Kazakhstan is in a developing stage and many forms of insurance protection common in other parts of the world are not yet generally available in the Republic of Kazakhstan. The Group does not have full coverage for its plant facilities, losses caused by business interruptions or third-party liabilities in respect of property or environmental damage arising from accidents or the Group's activities. Until the Group obtains adequate insurance coverage, there is a risk that the loss or destruction of certain assets could have a material adverse effect on the Group's operations and financial position.

Environmental protection matters.

At present, the Republic of Kazakhstan is taking steps to strengthen its environmental legislation while also assessing the approach of its state bodies towards its implementation. The introduction of a new environmental code in 2021 provides a regulatory framework for the interaction between humans and nature, specifically addressing the impact of individual and corporate activities on the environment. Along with heightened responsibility for industrial entities' environmental impact, the code establishes a waste management hierarchy and mandates the remediation of any adverse effects resulting from such activities.

The provisions of this code obliges to obtain integrated environmental permits related to the use of the best available techniques (BAT), issued by the Committee for Environmental Regulation and Control of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan. Other provisions of the environmental code

applicable to certain Group entities include the installation of automated emission monitoring systems and waste management practices. Until a full assessment is made, it is not possible to assess the financial implications of the new requirements of Kazakhstan's new environmental code, but an increase in the cost of complying with environmental requirements is expected, either in the form of additional investments required for waste management and development of appropriate monitoring processes, or in the form of increased fees for waste generation.

As per the recently implemented environmental code, businesses are obligated to address the environmental impacts caused by their operations, with the specific requirements varying depending on the type of industrial or construction facility, level of impact, and business sector. The Group has been evaluating the additional standards for the Group's financial statements ever since the new criteria went into effect and continued doing so through 2022. The Group has recognized new responsibilities associated with remediating the effects of its operations as a result of these activities, as indicated in Notes 4 and 16.

As per the present Environmental Code regulations, the Group is required to provide financial assurance for the remediation of consequences of category I facilities by July 1, 2024. Financial assurance can be provided through guarantees, bank deposits, property pledges, or insurance. Operators of category I facilities may select one or a combination of these financial assurance types, with the share of collateral in the form of a bank deposit being no less than:

- 1) fifty percent of the total amount of financial assurance after ten years from the facility's commissioning date (for existing facilities as of July 1, 2021, until 2031);
- 2) one hundred percent of the total amount of financial assurance after twenty years from the facility's commissioning date (for existing facilities as of July 1, 2021, until 2041). The operator of the category I facility must ensure continuous availability of financial assurance until all obligations associated with the remediation of the facility's operations are fully satisfied.

The calculation of the financial assurance amount is based on the methodology approved by the environmental protection authority, considering the estimated cost of remedial work for category I facilities. The financial assurance amount is calculated every seven years.

The Group regularly reviews its environmental protection commitments, no less than once a year. Liabilities are swiftly reflected in the financial statements as they are discovered. Potential liabilities that might develop as a result of modifications to current laws and regulations, as well as a result of judicial practice, cannot be predicted with enough accuracy, even though they might be sizeable. The Group's management believes there are no significant environmental liability obligations beyond those acknowledged or stated in these financial statements under the current system of control over compliance with applicable environmental regulations.

The Group is required to buy additional greenhouse gas emission allowances in compliance with environmental regulations. The volume of carbon quotas allocated to the Group until 2025 is determined based on the planned electricity production and the

greenhouse gas emission factor per unit of output. The Group has experienced a quota shortage for greenhouse gas emissions in 2022 and 2021 due to an increase in EGRES-1's production volumes. The Group is currently applying for a greenhouse gas emission allowance deficit in accordance with the Environmental Code of the Republic of Kazakhstan. As of December 31, 2022, the provision reflects EGRES-1's obligations to purchase additional greenhouse gas emission allowances for 2022 and 2021 (December 31, 2021: for 2021) (Note 19).

Ash dump liquidation provision

In accordance with nature protection legislation, the Group is legally obliged to liquidate ash dump sites representing landfill sites for the Group's operating activities. As of 31 December 2022, the carrying amount of ash dump liquidation provision was Tenge 2,481,986 thousand (31 December 2021: Tenge 2,826,592 thousand). The assessment of the current ash dump liquidation provision is based on the Group's interpretation of the environmental legislation of RK in force, supported by feasibility study and engineering research in accordance with current norms of restoration methods and reclamation works. This assessment may change upon completion of subsequent nature protection research works and revision of existing reclamation and restoration programs.

Impact of environmental, social and corporate governance (ESG) issues - (ESG) – tracking climate change and related risks

The Group acknowledges global concerns about climate change and supports international efforts to reduce greenhouse gas emissions, promote energy efficiency, transition to renewable energy sources, and move away from carbon-based fuels. The strategic objective of “Samruk-Kazyna” JSC, the parent company of the Group, is to achieve a 10% reduction in its carbon footprint by 2032 compared to 2021, and ultimately aims for carbon neutrality by 2060. It should be noted that carbon neutrality does not imply zero greenhouse gas emissions; rather, it involves offsetting the emissions that cannot be reduced.

In light of the risks associated with climate change, the Group has conducted assessments of their impact on the recognition and derecognition of assets and liabilities, valuation of such assets and liabilities, and disclosure in the consolidated financial statements. The risks associated with climate change have predominantly affected the following areas:

a) The Group has initiated projects to construct new CCGT units at Almaty CHP-2 and CHP-3, with the aim of replacing existing pulverized coal equipment with modern and environmentally friendly CCGT (Note 4); and

b) The Group has recognized provisions for the decommissioning of facilities and restoration of environmental damage due to recently introduced regulatory requirements of the Environmental Code (Note 4).

Capital liabilities

The Group has examined its exposure to seasonal and other emerging business risks, but has not found any risks that could have an impact on the Group's financial

performance or standing as of December 31, 2022. The Group has the resources and financial means required to pay for capital obligations and supply working capital.

The Group had contractual liabilities as of December 31, 2022, totaling 65,331,177 thous.tenge (compared to 84,376,182 thous.tenge as of December 31, 2021).

Loan covenants

The Group has certain covenants under all bank loans, bonds, bank guarantees, as well as Samruk-Energy's loan from Samruk-Kazyna (Note 17). Failure to comply with these covenants may lead to unfavorable outcomes for the Group, including higher borrowing expenses and declaration of default. As of the end of 2022 and 2021, the Group complied with the stipulated values of loan covenants, and waivers were obtained to lower the thresholds in cases where violations were anticipated.

15. Comparative analysis (benchmarking)









Benchmarking serves as one of the essential elements of governance of “Samruk-Energy” JSC. The purpose of the benchmarking is to compare the operating and financial performance with foreign peer companies to identify the strengths and weaknesses of “Samruk-Energy” JSC. The Company used the following indicators for benchmarking:

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

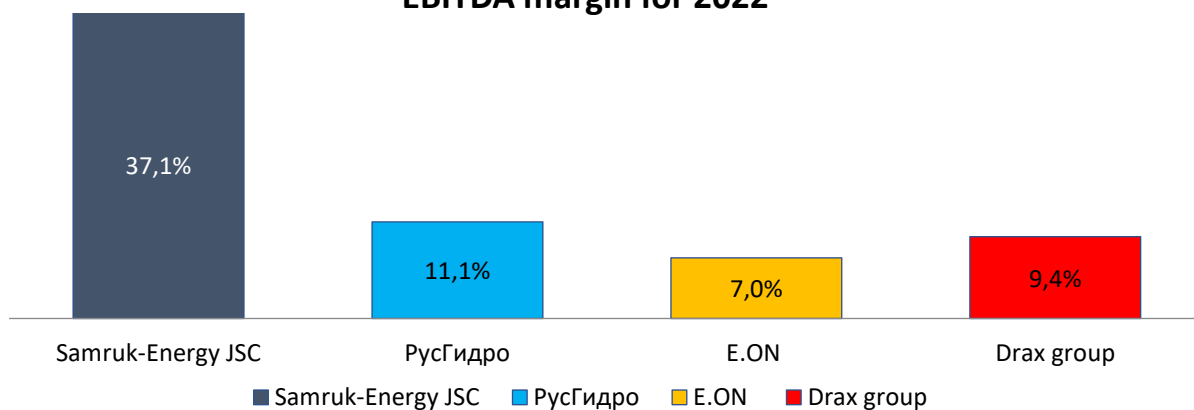
Data from the following peer companies were used for benchmarking:

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

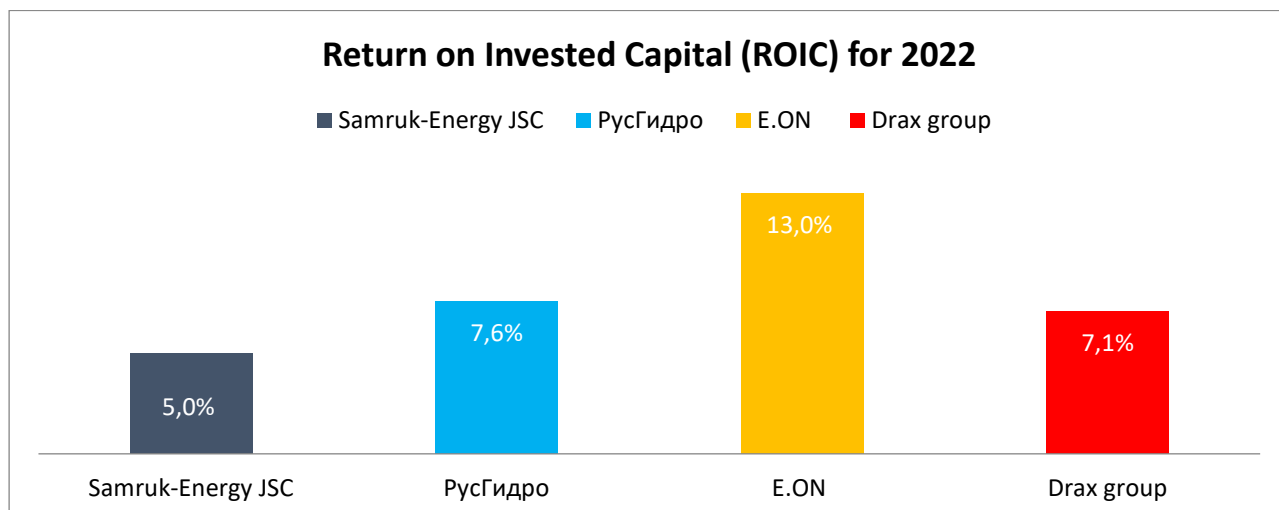
Benchmarking results:

Критерий	Мера	Статус	Min-----Бенчмаркинг-----Max
Маржа EBITDA	%		 <p>Chart showing EBITDA Margin for 2022. The scale ranges from Min to Max. Data points: E.ON (7), РусГидро (22), Drax Group (9), and C3 (37). The benchmark line is positioned between 9 and 22.</p>
Долг/EBITDA	коэффициент		 <p>Chart showing Debt/EBITDA ratio for 2022. The scale ranges from Min to Max. Data points: C3 (1,90), РусГидро (2,42), Drax Group (2,18), and E.ON (4,06). The benchmark line is positioned between 2,18 and 2,42.</p>
Долг/СК	коэффициент		 <p>Chart showing Debt/Equity ratio for 2022. The scale ranges from Min to Max. Data points: РусГидро (0,35), Drax Group (1,20), C3 (0,50), and E.ON (1,50). The benchmark line is positioned between 1,20 and 1,50.</p>
ROIC	%		 <p>Chart showing Return on Invested Capital (ROIC) for 2022. The scale ranges from Min to Max. Data points: C3 (5,0), РусГидро (7,6), Drax Group (7,1), and E.ON (13,0). The benchmark line is positioned between 7,6 and 13,0.</p>

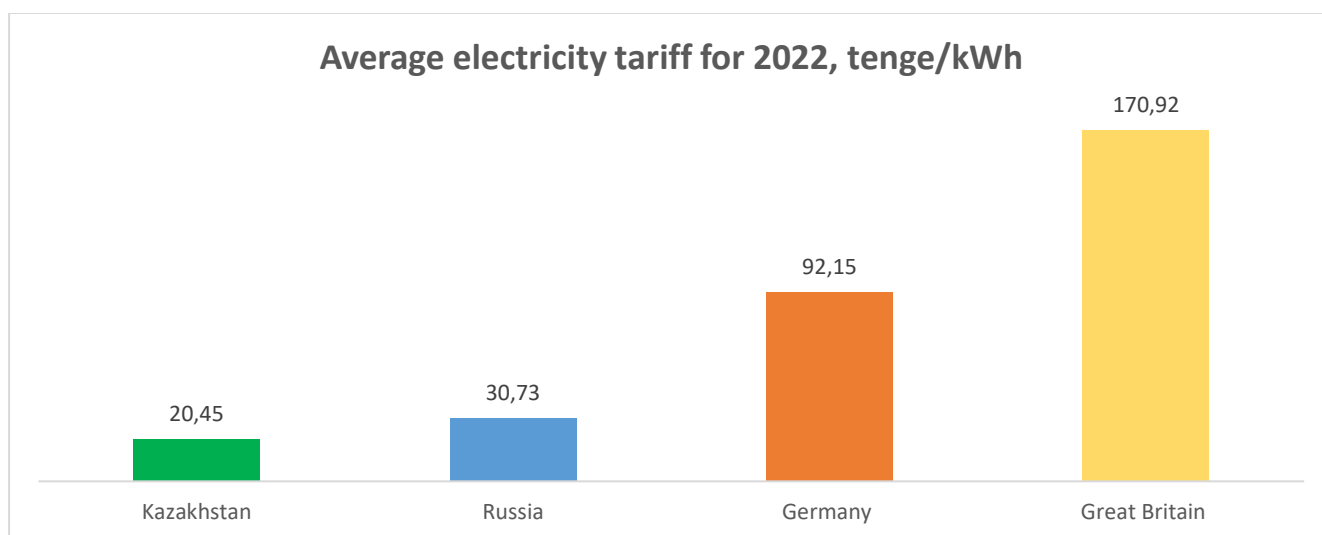
EBITDA margin for 2022



Return on Invested Capital (ROIC) for 2022



Currently, Samruk-Energy falls behind its foreign peers in some aspects. **Financial strength** measures validate that Samruk-Energy uses all available financial leverage. Nevertheless, in terms of **EBITDA margin and Debt/EBITDA**, Samruk-Energy outperforms its peers, indicating higher sales profitability. However, when it comes to **ROIC** (return on long-term invested capital), Samruk-Energy is inferior to its European peers. It is worth noting that, unlike public analogue companies, “Samruk-Energy” JSC is owned by the Government of the Republic of Kazakhstan and serves as an agent of state policy in the power industry. As a result of the high depreciation of the energy sector and in line with its role as an agent of state policy in the power industry, Samruk-Energy has implemented socially significant investment projects since 2009 aimed at ensuring the Republic of Kazakhstan's energy system operates reliably and steadily. These projects have led to a significant increase in invested capital, resulting in a decreased rate of return on investment. An additional factor affecting the profitability of investments is the low level of electricity tariffs in the Republic of Kazakhstan in comparison with the countries of peer companies.



Country	Average tariff per kWh	In tenge/kWh	Average rate for 2022
Kazakhstan	20,45 tenge	20,42 тенге/кВтч	
Russia	4,44 rouble	30,73 тенге/кВтч	6,92 tenge/rouble
Germany	0,19 euro	92,15 тенге/кВтч	485,28 tenge/euro
Great Britain	0,30 pounds	170,92 тенге/кВтч	569,73 tenge/pound

Source: *Eurostat, Rosstat*