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# LETTER OF THE CHAIRMAN OF THE BOARD OF DIRECTORS





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This is the annual report of SEVKAZENERGO JSC stating the key events of the Company in 2018.

In the reporting year, the Company accomplished its objectives to ensure the comprehensive development of the energy complex. These objectives are to increase the reliability of the generating facility at Petropavlovsk CHP-2 of SEVKAZENERGO JSC as well as to improve the quality of power supply to the people of North Kazakhstan region.

Today, the installed capacity of Petropavlovsk CHP-2 of SEVKAZENERGO JSC is 541 MW. The achievement of high performance indicators became possible thanks to the investment program for renovation and modernization of generating facilities being implemented since 2009. The state program of limiting rates, the attraction of borrowed funds from the European Bank for Reconstruction and Development and the Company's own funds made an important contribution to the renovation of the combined heat and power plant.

During the year, three turbine units and one boiler unit were completely replaced at the plant, two turbines and three boiler units were renovated. After ten-year work, the Company increased the installed capacity of the plant by 161 MW, power generation - by 974.13 mln kWh, steam capacity of boiler units - by 420 tons per hour, as well as reduced wear and tear of the plant equipment by 27.86% from 89.47% to 61.61%.

Along with the growth of performance indicators of SEVKAZENERGO JSC, the environmental performance is also growing: in 2018, the Company became the winner of the republican Paryz competition in the Contribution to the Environment nomination. Since 2009, the Company has implemented a number of environmental measures, as a result of which the total annual ash emissions reduced by 71%, and the total emissions of atmospheric pollutants - by 12%.

Another priority activity of the Company is to invest in the development of energy infrastructure. Power transmission enterprises continued to implement large-scale



## Dyussenbay Turganov

Chairman of the Board of Directors, SEVKAZENERGO JSC



automation projects and introduce advanced energy-saving technologies to reduce energy losses and increase the service life of equipment. Since 2011, North-Kazakhstan Regional Electric Distribution Company JSC has been actively using an automated system for commercial accounting of electricity (ASCAE). Today, the system includes 28,334 electricity metering points. In 2018, Petropavlovsk Heat Networks LLP continued the modernization of networks and heat insulation with the use of urethane-foamed pipes and polyurethane insulation using the funds of the European Bank for Reconstruction and Development and budget subsidies from the Ministry of National Economy of the Republic of Kazakhstan.

The correctness of the chosen development strategy of SEVKAZENERGO JSC is evidenced by the performance results achieved in the reporting year. In any activity, an indicator of high professionalism and quality of services provided is the level of customer satisfaction. SEVKAZENERGO JSC makes every effort to provide its consumers with the best-quality energy and services. This is the main purpose of the Company's activities in the future.

## lgor Tatarov

"

General Director, SEVKAZENERGO JSC



### Dear shareholders and partners!

We present you the annual report on the Company's activities in 2018.

Today, SEVKAZENERGO JSC is a company that includes all power supply links of the city of Petropavlovsk and eight districts of North Kazakhstan region. The energy sector is an important component of the economic and social life of North Kazakhstan region, therefore, the priority activity of the Company is to create favorable conditions for the economic development of the region and to improve the living standards of the population.

In 2018, Petropavlovsk CHP-2 produced 3.211 bln kWh of electricity and 1.893 mln Gcal of heat. Electricity output from bus bars amounted to 2.841 bln kWh and heat output from the plant collectors - 1.893 mln Gcal. These indicators were achieved thanks to many years of hard work aimed at upgrading, supporting, renovating and modernizing the existing assets of the combined heat and power plant.

In 2018, the plant implemented three major projects: modernization of 110 kV outdoor switchgear, replacement of 7A automatic transformer to ensure reliable operation of the turbine no. 7, as well as renovation of the heat generation scheme. To date, the plant has developed a renovation program until 2025, which stipulates the replacement of boiler units no. 1 and no. 2 with the installation of an automated process control system, as well as automation of turbines no. 3, 6, 7, replacement of a low-pressure cylinder of the turbine no. 2 and a high-pressure cylinder of the turbine no. 6. Thanks to the planned activities, by 2021, electricity generation at Petropavlovsk CHP-2 will reach 3,591,600 thous. kWh, the output from the plant bus bars will amount to 3,164,918 thous. kWh, and the output of heat energy from collectors will be 1,650 thous. Gcal.

Alongside with the implementation of projects for modernization and renovation of equipment at Petropavlovsk CHP-2, the Company continued to improve the state of its electricity and heat supply networks.

As part of the investment program for 2018, North-Kazakhstan Regional Electric Distribution Company JSC renovated 63.6 km of 0.4-10 kV power transmission lines, of which 49.505 km were renovated using aerial bundled conductor lines. In 2018, the Company continued to implement the project of an automated system for commercial accounting of electricity (ASCAE): it installed 1,375 REM ASCAE devices and 25 WEM ASCAE devices. By the end of the year, electricity losses in the Company's networks reduced to 8.36%. The Company continues to implement a large-scale pipeline renovation project for Petropavlovsk Heat Networks LLP. In 2018, the Company carried out scheduled repair of main and distribution networks and replaced a total of 13.883 km of pipelines. As part of the investment program, with the use of own funds, a loan from the European Bank for Reconstruction and Development and budget subsidies from the Ministry of National Economy of the Republic of Kazakhstan the Company renovated 0.26 km of the pipeline and restored thermal insulation at 13.3 km section of the pipeline.





SEVKAZENERGO

In 2019, SEVKAZENERGO JSC will continue to pursue its goals, the main of which is to ensure reliable, high-quality and uninterrupted power supply to the public. I am sure that the implementation of the Company's investment and social programs will contribute to the development of the energy sector both in the region of operations and in the Republic of Kazakhstan as a whole.

# **KEY INFORMATION**

### **BUSINESS PROFILE**

SEVKAZENERGO Joint-Stock Company is a vertically integrated company composed of electricity and heat generation, transmission and sales enterprises in the North-Kazakhstan region. The Company actively introduces international best practices and carries out its activities in accordance with international standards in the field of production, environmental protection, occupational health and social responsibility.

### **KEY RESOURCES**



SEVKAZENERGO etronavlovsk CHP-2

# **SEVKAZENERGO**



### COMPANY RATING

Fitch Ratings International Rating Agency | B+ Outlook: Stable

### **COMPLETE LIST OF RATINGS ACTIONS:**

- Short-term IDR in national currency affirmed at "B+" level with "Stable" outlook;
- National long-term rating at "BBB(kaz)"; with "Stable" outlook;
- Senior unsecured rating in national currency affirmed at "B+/recovery rating "RR4".





2018

### **BASIC OPERATING INDICATORS**

Heat networks length - 233.5 km Number of substations by type

Substation type	Number, unit
220 kV	-
110 kV	37
35 kV	121
6-10 kV	2,234
Total	2,392

Total length of power transmission lines, km

PTL type	Length, km
220 kV	84.84
110 kV	1,327.14
35 kV	2,849.43
6-10 kV	4,489.92
0.4 kV	4,470.49
Total	13,221.82

EBITDA

EBITER	
Year	EBITDA (KZT bln)
2016	12.6
2017	11.8
2018	11.8*

\*- excluding exchange rate difference

#### Power generation

Year	Electricity (mln kWh)	Heat (thous. Gcal)
2016	3,208	1,905
2017	3,226	1,697
2018	3,211	1,893

#### Number of consumers

Electricity	Heat	
163,795	73,629	



### Energy supplied to consumers (sales)

Item	2015	2016	2017	2018
Electricity sales, mln kWh	2,307	2,692	2,731	2,709
Heat sales, thous. Gcal	1,316	1,288	1,224	1,352.7

#### Assets

Year	Current assets, KZT bln	Non-current assets, KZT bln
2016	7	99
2017	7	102
2018	7	100

#### Investments

Year	KZT bln
2016	11.1
2017	9.6
2018	4.9



### **KEY PERFORMANCE INDICATORS**

Sales	
Year	Sales (KZT bln)
2016	30.9
2017	31.7
2018	33.3

Net income	
Year	Net income (KZT bln)
2016	4.9
2017	3.4
2018	1.7



#### EBITDA margin

Year	EBITDA margin %
2016	40.7
2017	37.0
2018	35.4*

\*- excluding exchange rate difference

# **KEY EVENTS FOR THE REPORTING PERIOD**

# **SEVKAZENERGO**



SEVKAZENERGO JSC paid dividends on ordinary shares for 2017.



JULY

SEPTEMBER

NOVEMBER

DECEMBER

As part of PROFENERGY project, SEVKAZENERGO JSC awarded the winner of the competition of scientific projects - a student of Petropavlovsk Railway College.

Fitch Ratings international rating agency confirmed the long-term IDR of SEVKAZENERGO JSC in foreign and local currencies at B+ level with Stable outlook and the national long-term rating at BBBkaz level with Stable outlook.

On September 26, 2018, international experts from the World Bank visited North-Kazakhstan Regional Electric Distribution Company JSC to collect information on Connecting to the Power Supply System indicator of the subnational Doing Business rating. The meeting was attended by heads of the Territorial Department of the Atomic and Energy Supervision and Control Committee of the Ministry of Energy of the Republic of Kazakhstan of North Kazakhstan region and the Department of Energy and Housing and Public Utilities of North Kazakhstan Administration.

On November 28, shareholders of SEVKAZENERGO JSC decided to change the composition of the Board of Directors.

Following the results of 2018, SEVKAZENERGO JSC was ranked 33rd among the 50 largest companies of Kazakhstan according to Forbes Kazakhstan magazine, which was four positions higher compared to 2017.

The results of Paryz 2018 competition of socially responsible businesses were summed up in the city of Nur-Sultan. SEVKAZENERGO JSC became a winner in the Contribution to the Environment nomination.

#### December 22

Two enterprises of SEVKAZENERGO JSC group of companies also celebrated their anniversaries: North-Kazakhstan EDC JSC - the 55th anniversary and Sevkazenergosbyt LLP - the 10th anniversary. At the solemn meeting devoted to the Power Engineers' Day, employees of these companies were congratulated on their professional holiday, and employees having excellent year-end results were awarded corporate medals and titles of honor.



SEVKAZENERGO













# **COMPANY OVERVIEW**

### **HISTORY**



## **O** MISSION

**SEVKAZENERGO** 

The Company's mission is to improve the living standards for the public and create conditions for the economic development of North Kazakhstan region. To this end, the Company ensures high-quality supply of energy to households, industrial companies, public and private sector organizations in North Kazakhstan region and in the city of Petropavlovsk.

The quality of services provided implies reliable and uninterrupted energy supply in compliance with all technical requirements, as well as a high level of customer service.

The performance efficiency of the Company is based on its employees. Their high professionalism, ability to work as a team and focus on results make it possible to move forward successfully.



and obligations of Access Energo PCHP-2

LLP.

### VISION

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SEVKAZENERGO JSC is an energy supplying company located in North Kazakhstan region and providing the entire cycle of heat and electricity production: from generation to transmission and sales. SEVKAZENERGO JSC is a subsidiary of a vertically integrated energy holding - Central-Asian Electric Power Corporation JSC.

The principles of respect and mutual responsibility are the basis of the Company's relations with its partners, clients and vendors. Employees of SEVKAZENERGO JSC are a team of like-minded people whose high professionalism, teamwork skills and focus on the same goals allow the Company to move forward successfully.

### **GEOGRAPHY OF OPERATIONS**



### **BUSINESS MODEL**

### CAPITAL

### **FINANCIAL CAPITAL**

Authorized capital - KZT 16,291,512 thous.

PRODUCTION CAPITAL Three CHF Heat networks: 233,544 km and

221.82 km of electricity networks Sales company

#### NATURAL CAPITAL

Coal - 2,735,499 thous. tons Oil fuel - 2,339 thous. tons Water consumption – 153,974.4 m<sup>3</sup>

#### HUMAN CAPITAL

61 employees2 employees with a college degree8 people – talent pool staff turnover PROFENERGY program

#### INTELLECTUAL CAPITAL Ellipse, Mobility, ASCAE, ASCAHE, Thesis process automated control system

SOCIAL CAPITAL 9 stakeholder groups Social policy



#### **CORE ACTIVITIES**

Heat and electricity generation - combined heat and electricity production at Petropavlovsk CHP of the Company.

Heat and electricity transmission and distribution - energy transmission from generating facilities to consumers is carried out through electrical grids, which include power converters, power transmission lines and switchgears.

Sales of heat and electricity - activities aimed to sell electricity and heat to consumers.

#### **INVESTMENT ACTIVITIES**

**Renovation of power equipment** Reconstruction of heat and power networks **Process automation** 











2018

SEVKAZENERGO JSC is a vertically integrated company composed of generation, transmission and distribution enterprises in North-Kazakhstan region.

### SEVKAZENERGO JSC consists of:

- Petropavlovsk CHP-2;
- North-Kazakhstan Regional Electric Distribution Company JSC (electric networks of North-Kazakhstan
- region and the city of Petropavlovsk);
- Petropavlovsk Heat Networks LLP;
- Sevkazenergosbyt LLP.

#### Petropavlovsk CHP-2

The main activity of Petropavlovsk CHP-2 is the production of heat and electricity. The plant's installed capacity at the end of 2018 was 541 MW of electricity and 713 Gcal/h of heat.

The plant consists of the following shops: fuel and transport, boiler, turbine, electric and chemical. Auxiliary shops: thermal automatics and measurements, maintenance, oxygen station, repairs and construction. SEVKAZENERGO JSC uses KSN-300 Ekibastuz coal as its primary fuel. It also uses M-100 fuel oil for boiler start up.

### North-Kazakhstan Regional Electric Distribution Company JSC

North-Kazakhstan Regional Electric Distribution Company JSC is an energy-transmitting company operating in the field of natural monopolies by providing regulated services for transmission and distribution of electrical energy through electrical networks. The area of operations is 45,000 sq. km with 399 settlements and 4 cities.

The Company serves 0.4/220 kV electric power networks located in the northern part of North Kazakhstan region, which are included in the Company's balance.

The structure of North-Kazakhstan Regional Electric Distribution Company JSC includes 8 grid areas, the southern section of main networks and substations and the Department of urban electrical networks, which corresponds to the number of rural districts serviced by the Company.

North-Kazakhstan Regional Electric Distribution Company JSC transmits and distributes electricity from Petropavlovsk CHP-2 of SEVKAZENERGO JSC to consumers in North Kazakhstan region, South-Ural railways and the Russian Federation.

The majority of enterprises in North Kazakhstan region, where 6,094 enterprises of various forms of ownership are located, are connected to the power grids of North-Kazakhstan EDC JSC, and the number of the Company's consumers is 162,639 people. To improve the availability of services to consumers, in September 2012 North-Kazakhstan EDC JSC opened a consumer service center to provide the following services:

- arrangement of land plots and easements;
- issue of specifications for connection to electricity and heat supply networks;
- connection to/disconnection from power supply networks;
- sealing of metering devices;
- other advisory and operational services.

### Petropavlovsk Heat Networks LLP

The main activity of Petropavlovsk Heat Networks LLP is the transmission and distribution of heat energy to consumers from CHP-2 of SEVKAZENERGO JSC, maintenance of heat networks and uninterrupted heat supply to the city of Petropavlovsk. In addition, the Company is upgrading the city's transmission and distribution networks, constantly searching and introducing new energy-efficient technologies capable of meeting modern standards for heat supply.

The total length of heat networks included in the balance sheet of Petropavlovsk Heat Networks LLP is 233.544 km, including 148.227 km of distribution pipelines and 85.317 km of main pipelines.

As of January 1, 2019, the wear and tear rate of heat network's equipment was 69.86%, with a 75.92% rate for main pipelines and a 59.53% rate for distribution pipelines.

The Company's balance has 51 pumping stations, including 5 main and 46 auxiliary ones.

The total installed (rated) capacity of pumping stations, including heat supply stations, is 11,736 kWh.

To ensure transmission and distribution of electricity and heat, Petropavlovsk Heat Networks LLP has operation and maintenance, occupational health and safety departments.

#### Sevkazenergosbyt LLP

Sevkazenergosbyt LLP is a company that supplies electricity and heat to consumers in the city of Petropavlovsk and North Kazakhstan region on a contractual basis.



Average rates (KZT included VAT/ Gcal)										
		from 01.07.14	from 01.07.15	from 01.01.16	from 05.10.16	from 01.01.17	from 10.07.17	from 01.01.18	from 01.07.18	from 01.11.18
	Heat	3,364.13	3,374.54	3,890.56	3,907.18	4,284.06	4,308.05	4,542.97	4,605.17	4,579.15

#### (KZT included VAT/ KWh)

	from						
	01.01.14	01.01.15	01.04.15	01.07.15	01.01.16	01.01.18	01.11.18
Electricity	12.557	13.824	13.779	13.858	14.625	15.326	15.19



It focuses on ensuring reliable and uninterrupted supply of energy in amounts that meet the populations' needs. As of December 31, 2018 the total number of electric energy consumers of Sevkazenergosbyt LLP amounted to 163,795 people and the number of heat energy consumers reached 73,629 people. In 2016, the Corporation approved the implementation of its long-term Strategy for 2016-2020, which is the logical continuation of the implemented Strategy for 2010-2015 and determines the main areas of business development, management projects and technologies.

The strategic goal of SEVKAZENERGO JSC is to build an advanced energy company that ensures a balanced and sustainable development of the energy system of North Kazakhstan region to promote economic growth. In its activities, the Company strives to meet international standards in the field of production, environmental protection, occupational health and social responsibility.

### MAIN STRATEGIC DIRECTIONS

To achieve its strategic goal, the Company is implementing projects in the following areas:

1. Modernization of equipment to improve production capability, reduce the risks of accidents and minimize downtime

### Implementation of the planned activities:

- building up fencing dams of section No. 3 of the ash dump No. 2;

- reconstruction of cable tunnels at CHP-2;

- replacement of the main building frame within B-E axes (columns, beams, slabs) - modernization of the fuel supply system;

- renovation of 110 kV outdoor switchgear;

- purchase, installation and commissioning of fire-fighting automation systems at cable tunnels No. 7, 7A, 8, B/n2;

- overhaul of a boiler unit at the plant No. 10 to increase the value.

#### Plans for 2019:

- building up fencing dams of section No. 3 of the ash dump No. 2;

- reconstruction of cable tunnels at Petropavlovsk CHP-2;

-project for reconstruction of the boiler unit at the plant no. 2;

- development of design and estimate documentation for the construction of the ash dump No. 4;

- development of the project for the reconstruction of 220 kV outdoor switchgear;

- modernization of the fuel supply system;

- replacement of heating surfaces at boiler units No. 1,2,5,9,11;

- overhaul of a boiler unit at the plant No. 10 to increase the value;

- overhaul of the main equipment to increase the value of fixed assets;

- technical inspection of the condition of the bearing and enclosing reinforced concrete structures of the main building (boiler room and turbine room);

- overhaul of the boiler units no. 1,2,6,4,9 and turbine units no. 1,7 to increase the value.

2. Introduction of energy-saving and energy-efficient technologies in energy production and transmission. **Implementation of the planned activities:** 

- purchase of 7AT automatic transformer.

#### Plans for 2019:

- purchase, delivery and installation of 6AT automatic transformer complete with auxiliary equipment;

- reconstruction of a defrosting device;

- bottom cleaning work at White Lake.

3. Minimization of per-unit generation costs for heat and electricity.

#### Plans for 2019:

- renovation of the heat generation scheme.

4. Achieving compliance with international, national and industry-specific laws and regulations in the field of environmental protection.

#### Implementation of the planned activities:

- conducting the first supervisory audit to verify compliance with the international ISO 14001 standard and confirm the validity of the previously issued certificate for the Environmental Management System; - development of design and regulatory environmental protection documentation, including permits for environmental emissions;

- obtaining permits for special water use;

- timely submission of statistical environmental reporting, reporting on emission of greenhouse gases and polychlorinated biophenyls, Pollutant Release and Transfer Registers, etc;

- conducting an independent environmental audit to assess the best available technologies at Petropavlovsk CHP-2;

- implementation of the adopted Environmental Action Plan and the Industrial Environmental Monitoring Program in full;

- compulsory environmental insurance;

- identifying environmental risks and opportunities, environmental aspects; development of measures to prevent them; - introducing a separate collection of waste that is not allowed to be disposed of at solid waste landfills. **Plans for 2019:** 

- conducting the second supervisory audit to verify compliance of the Environmental Management System with the international ISO 14001 standard;

maintaining a system of separate collection of waste that is not allowed to be disposed of at waste landfills;
timely submission of reports and ensuring the availability of design permits.

5. Adopting stricter occupational health and safety requirements and injury reduction.

#### Implementation of the planned activities:

- full transition to the use of safety harnesses with five fixation points;

- employees, who, according to the results of medical examinations, need to control pressure and other physiological parameters, undergo a pre-shift medical examination on a daily basis.

### PROSPECTS OF THE 2020 INVESTMENT PROGRAM

The main activities under the Investment Program were completed in the period of 2009-2015. Thanks to implementing modernization projects, capacities were introduced and upgraded in the volume of 174 MW, the installed capacity increased by 26%, electricity and heat production grew by 18.2% and 5%, respectively, while ash emissions decreased by 75%.

Pursuant to the 2016-2020 Strategy, SEVKAZENERGO JSC will continue to implement the Investment Program for equipment modernization to increase energy generation, reduce transmission losses of electricity and heat and to improve environmental performance. In addition, the Company will continue working to improve the corporate governance system and the human resources policy, and to introduce an automated enterprise management system.

SEVKAZENERGO JSC will continue to implement a number of measures to reduce electricity and heat losses during transmission and to improve the reliability of heat and electricity supply to consumers. In 2016-2020, the Company expects to reduce heat losses in the networks by 12.3% with complete elimination of above-standard losses.

SEVKAZENERGO

#### Plans for 2019:

- introduction of equipment locking and tagging, or LOTO (Lock out/Tag out) procedures and occupational health and safety standard "Isolation of Energy Sources";

- creation of introductory instructions in the video format;

 implementation of the Regulations on the use of preventive OHS cards across SEVKAZENERGO JSC;
 transition to the new version of 45001:2018 standard.

6. Continuous training to enhance employee professionalism.

#### Plans for 2019:

introduction of an automated enterprise management system.

7. Implementation of the planned activities.

#### Plans for 2019:

- renovation of the heat generation scheme at Petropavlovsk CHP-2.

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# MARKET ANALYSIS

## ECONOMIC OVERVIEW

In 2018, the economy of Kazakhstan was growing against the background of the favorable economic environment. The growth was positively affected by trends in oil prices, which increased by 31% from USD 54 in 2017 to USD 71 dollars per barrel (average spot price according to US EIA data). Other positive factors included the growth in demand and the conclusion of an agreement for oil production quotas by the largest oil exporters within OPEC+. The accelerated growth of the Russian Federation's economy (2.3%), keeping high growth rates in China (6.6%) and a stable moderate growth in the euro zone (1.6%), which are the key foreign trade partners of the Republic of Kazakhstan - promoted an increase in Kazakhstan's exports in terms of value and volume.

## GDP dynamics of certain economies in 2018, %

Source: SC MNE RK, Federal State Statistics Service, World Bank





KT34









These factors contributed to 4.1% GDP growth in Kazakhstan in 2018. The growth was evenly distributed across all key economic sectors. The growth was driven by the 4.1% industry growth. The agricultural output increased by 3.4%, construction volumes also showed an increase by 4.1%. The service sectors grew by 4.0%. The growth dynamics of fixed capital expenditures reached the peak value over the past five years - 17% after 5.5% in 2017. At the same time, the annual inflation rate decreased from 7.1% to 5.3%.

A 26% increase in Kazakhstan exports (up to USD 60 bln) caused a further improvement in the trade balance and a reduction in the current account deficit from -5.1 bln US dollars to -52 mln US dollars. Instability in emerging markets, declining confidence in currencies of developing countries and sanctions against the Russian Federation were among negative macroeconomic factors. Despite the favorable external economic conditions, the exchange rate of tenge raised from an average of 326 KZT/USD in 2017 to 345 KZT/USD in 2018.

### Base NB RK rate and business loan rates in RK, %

Source: NB RK



### Monetary policy

In 2018, the monetary policy of the National Bank of the Republic of Kazakhstan (NB RK) remained within the boundaries of the inflation targeting regime. The NB RK reached the inflation target for 2018, which was within the range of 5-7%, and three times reduced the base rate - from 10.25% to 9.00%. However, in the face of the growing instability in foreign markets, in October 2018 the rate was increased to 9.25%. During the year, interest rates on short-term corporate loans decreased by about 3 percentage points (p.p.) from 15% to 12%, for long-term loans - by 5 p.p. from 17 to 12%.

Two trends remained unchanged in the banking sector - reorganization and concentration: pursuant to the decision of the NB RK, three banks were liquidated. The takeover of Kazkommertsbank JSC by Halyk Bank of Kazakhstan JSC was completed, which resulted in appearance of a market player concentrating more than a third of all bank assets.

### **INDUSTRY**

The accelerated industry growth was affected by three factors. A 4.8% growth in oil production (increase in oil production at Kashagan field from 8.4 to 13.2 mln tons) caused a general growth acceleration in the mining complex up to 4.6% per year. The manufacturing sector grew by 4.0% per year due to the completion of major investment projects and the output to the planned capacity of petrochemical and non-ferrous industry enterprises.

The growth dynamics in the energy sector (electricity and heat, as well as gas distribution) was caused by an overall economic output growth and high rates in the industry: electric power industry demonstrated a 4.1% increase, heat power grew by 1.5%, and the gas sector output declined by 1.3%. In the water supply and sewage sector, a slight decline (-1%) was noted.

# Production and energy sector dynamics, %

Source: SC MNE RK



### 2019 OUTLOOK

In 2019, despite the steadily growing investment, the Ministry of National Economy of the Republic of Kazakhstan expects economic slowdown from 4.1 to 3.8%. International financial institutions and rating agencies forecast a growth in the range of 3.0-3.5%. According to the Ministry of Energy of the Republic of Kazakhstan, oil production in 2019 will decrease from 90 mln tons to 89 mln tons with reducing oil prices. The World Bank expects oil prices to fall by an average of 3% while the International Energy Agency does not exclude that prices could fall by 14%. The rate of fixed capital expenditures may decline compared to the 2018 level. High rates in the economy will restrict private sector investment in the SME segment. The consumer sector will be negatively affected by the external inflation background.



### **ENERGY SECTOR OVERVIEW**

In 2018, the electric power sector of Kazakhstan kept growing having upgraded the capacities of electricity generation and consumption due to investments previously made by market participants. The production using renewable energy sources also continued to grow.

At the end of 2018, the regulatory authority decided to adjust the rate policy: starting from 2019 a seven-year period of fixed rates will commence for energy-producing enterprises. The market structure becomes more sophisticated: the rate mechanism with an investment component is replaced by the capacity market. Starting from July 2019, the common electricity market will be introduced in Kazakhstan to expand the export potential of domestic power industry.

#### **Production and consumption**

In 2018, the energy sector of Kazakhstan continued to grow: according to the national power system operator KEGOC JSC, electricity production at all 138 power plants of Kazakhstan increased by 4.3% and reached the level of 106.8 bln kWh. The generation structure by sources practically did not change: approximately 8 out of 10 kilowatts of energy are produced at coal-fired power plants while the share of renewable energy sources (RES) is growing but it is still insignificant in the energy balance.

#### Electricity production by source, mln kWh

	2017	2018	Change, %	2018 ratio, %
ТРР	82.420	86.795	5%	81.3%
GTPP	7.410	9.119	23%	8.5%
НЕРР	11.610	10.343	-11%	9.7%
RES	428	540	26%	0.5%

Sources: KEGOC, KOREM

Over 96% of all electricity produced is consumed domestically. Kazakhstan is a net exporter: in 2018, the negative balance flow (net exports) to the Russian Federation amounted to 3.6 bln kWh (-21% against the level of 2017), to the Central Asian countries - 2.8 mln kWh (in 2017, imports exceeded export by 1.2 mln kWh).

Historically, the power system of Kazakhstan includes three zones: North, South and West. North zone includes regions with energy-intensive industry; it produces and consumes 2/3 of total electricity volume (66%) and has a surplus of electricity. South and West (21% and 13% of consumption, respectively) zones experience shortage of electricity and receive the missing volumes through trunk PTLs (North - South, North - East - South, North - West), or from neighboring countries: Russia (West) and Uzbekistan (Central Asia).

In 2018, the consumption grew by 5.3% (up to 103.0 bln kWh) in all three zones. Consumption in the North zone increased by 4.6% due to the growth in demand among major consumers: Aksu Ferroalloy Plant, Kazakhstan Electrolysis Plant, SSGPO JSC, Ust-Kamenogorsk Titanium-Magnesium Plant and Kazzinc enterprises. In the South zone, consumption grew by 6.2% due to demand from Kazphosphate. The increase in output of Aktobe Ferroalloy Plant, Atyrau Refinery and other large enterprises promoted a 7.6% consumption growth in the West zone.

As of January 1, 2019, the total installed capacity of power plants in Kazakhstan amounted to 21,902 MW with the available capacity of 18,895 MW. With the annual maximum fixed in 2018 at 14,823 MW (a 4.4% increase to 2017), the Republic of Kazakhstan still has a 22% surplus of available capacity. The electricity generation segment consists of one major player owned by the government and several private companies. Samruk-Energy JSC (Ekibastuz GRES-1 and 2, ALES JSC, Moinak HEPP, etc.) produces up to 30% of total electricity generated in Kazakhstan. ERG-owned plants control at least 16%, CAEPCO JSC - almost 7%, and Kazakhstan Utility Systems - 4%.

As for individual power plants, two largest enterprises increased generation during the year: Ekibastuz GRES-1 by 30%, EEC - by 3%. High growth rates of Ekibastuz GRES-1 were achieved due to the fact that the plant met the growing demand in Pavlodar region and exported electricity to the Russian Federation, but also sold electricity to the south regions of the country - Almaty and Zhambyl regions, where the total consumption increased by 1.5 bln kWh.

### Electricity production in RK and net power flow to UES of Kazakhstan, bln kWh

Source: KEGOC









Source: KOREM



### Electricity production at individual power plants of RK, bln kWh

Source: calculations based on KOREM data



### **PRICING POLICY**

In 2018, retail consumer prices for electricity rose by 1.1%, and prices for heat - by 2.6%, which is one of the lowest values in the entire history of independent Kazakhstan. This became possible due to measures taken by the government of the Republic of Kazakhstan in the end of 2018. According to the comprehensive analysis results, rates for heat and electricity were reduced depending on the region from 3 to 37% and from 2 to 22%, respectively.

As a result, the Ministry of Energy of the Republic of Kazakhstan decided to fix limiting rates for each group of power plants for a seven-year period at the level of 2019. The Ministry of National Economy of the Republic of Kazakhstan announced the transition to a "stimulating rate setting policy": the rate and the profit of the entity will depend on the quality, reliability and efficiency indicators set by the monopolist.

### **INDUSTRY INVESTMENT**

In 2018, the fixed capital expenditures in the energy sector decreased by 13%. The completion of major investment programs, keeping a surplus of generating capacities, a disincentive effect of the reduction or freezing of rates - all these factors caused a decrease in overall capital expenditures. Foreign investment in the sector sharply increased (more than 8 times to 2017).

The increase in the industry investment was affected by several factors: launch of the capacity market and enhancement of the operational efficiency at existing facilities.

### **MARKET OUTLOOK**

The forecast balance until 2025 implies a 40% growth in electricity output in the seven-year term relative to the actual figures of 2018 (including a 11% increase in 2019) with a 31% growth in consumption (9% in 2019). The RES ratio in the energy balance will continue to increase and by 2025 it will reach 5%. Renewable energy sources will account for about 25% in the structure of the total newly introduced capacity.

The maximum electrical load in the forecast period will increase from 17,093 to 20,262 MW (+18.5%), while a surplus of capacity (taking into account the reserve) will decrease from 1,229 MW in 2019 to 391 MW in 2023, and by 2025 it will amount to 934 MW.

### Growth dynamics of retail electricity and heat rates in Kazakhstan. % Source: SC MNE RK



### **Dynamics of fixed capital** expenditures in RK, % Source: SC MNE RK



### **Forecast of electricity** market balance for 2019-2025, bln kWh

Source: Ministry of Energy of RK





### Limiting electricity rates for individual energy-producing enterprises, KZT/kWh

Source: Ministry of Energy of RK





2018

# PERFORMANCE AND DEVELOPMENT PROSPECTS OVERVIEW

**SEVKAZENERGO** 

The investment program implemented by SEVKAZENERGO Group of enterprises in 2018 allowed the Company to increase heat and electricity generation, significantly reduce electricity transmission losses, and to improve environmental performance of the Company. In 2018, the total amount allocated to implement the Investment Program was equal to KZT 4.9 bln.

## **ELECTRICITY GENERATION**

In 2018, electricity production amounted to 3.211 mln kWh. The commissioning of new equipment in previous years allowed the Company to significantly increase its capabilities to meet the growing needs for heat and electricity in the region and contributed to the progressive development of business projects and industry in North Kazakhstan region.

Name	2015	2016	2017	2018
Installed electricity generation capacity as of the year end, MW	455	541	541	541
Electricity generated, mln kWh	2,809	3,208	3,226	3,211
Share in total electricity generation in Kazakhstan, %	2.8%	2.9%	3.1%	3.4%
Electricity transmitted, mln kWh	1,187	1,208	1,235	1,276
Electricity sold, mln kWh	2,308	2,692	2,731	2,709
Installed heat generation capacity as of the year end, Gcal	717.65	713	713	713
Heat generated, thous. Gcal	1,861	1,905	1,697	1,893
Heat transmitted, thous. Gcal	1,329.586	1,301.206	1,236.670	1,364.314
Heat sold, thous. Gcal	1,316	1,288	1,224	1,352.7





#### **Results of the Investment Program for 2008-2018**

2012 - modernization of boilers no. 6 and 7 and increase in the plant steam capacity by 100 tons of steam per hour.

Sector Sector

2013 - completion of the project for reconstruction and modernization of a turbine unit no. 4 with an increase in the turbine capacity by 30 MW; renovation of a turbine unit no. 6 with an increase in electric capacity by 24 MW. Thanks to the implementation of two projects, the Company increased the installed electric capacity by 54 MW.

2014 - a new boiler no. 8 was installed due to which the steam capacity increased by 270 tons per hour. 2015 - a turbine unit no. 1 was put into operation thanks to which the installed electric capacity increased by 21 MW. A turbine unit no. 7 was renovated, which provided a possibility to increase its installed and available capacity by 24 MW.

2016 - a new turbine unit no. 5 was put into operation, as a result of which electric capacity increased by 62 MW. An upgraded boiler no. 12 was put into operation thanks to which the steam capacity increased by 50 tons per hour.

#### These activities allowed the Company to:

- increase the installed capacity of the plant by 161 MW (from 380 MW to 541 MW);
- reduce a gap between the installed and available capacity by 39.99 MW (2008 a gap of 44 MW, 2018 -4.01 MW);
- increase electricity generation by 43.55% compared to 2008 (2008 2,236,980.46 thous. kWh, 2018 -3,211,108.216 thous. kWh);
- reduce the electric energy consumption for the plant's own needs by 2.9% (2008 14.43%, 2018 11.53%); • reduce the specific consumption of fuel equivalent for electricity supply from bus bars by 19.16 g of fuel equivalent/kWh (2008 - 423.00 g of fuel equivalent/kWh, 2018 - 403.84 g of fuel equivalent/kWh and for heat supply by 2.42 kg of fuel equivalent/Gcal (2008 - 200.34 kg of fuel equivalent/Gcal, 2018 - 197.92 kg of fuel equivalent/Gcal);
- increase steam capacity for boilers by 420 tons/hour;
- reduce a physical wear and tear rate for the main equipment by 27.86% (2008 89.47%, 2018 61.61%);
- increase the installed capacity utilization rate for the plant by 0.74% (2008 67.02%, 2018 67.76%).



Petropavlovsk CHP-2 with

the installed electric capacity of 541 MW is a major energy generating asset of SEVKAZENERGO JSC. Petropavlovsk CHP-2 supplies electricity to industrial enterprises, local service facilities and households of the city. The plant is one of the most modern in Kazakhstan: since 2009, its energy generating facilities have been upgraded by 49.7%. Modernization of the plant will continue until 2020.

2018 TF-110-2U3 type to Akmola Inter-District Electrical Networks. load-bearing structures of the main building were restored. conveyor no. 13 were completely replaced. replaced.

heat loads and enhance reliability of the main equipment as well as to enhance reliability of the main equipment. to the boiler equipment in case of unstable lighting-up operation. monitor technological parameters of the main equipment. the gas flue to the chimney no. 3.

control system. replace the equipment with expired economic life. with expired economic life.

system in the boiler room

the double economic life of 220 kV outdoor switchgear in 2018. protection system in renovated tunnels. equipment.

accordance with the production plan.

- 1. Building up fencing dams of section no. 3 of the ash dump no. 2. This measure is required to increase the capacity of section no. 3 of the ash dump no. 2 in order to avoid an emergency shutdown of Petropavlovsk CHP-2 due to impossibility of ash storage. In 2018, fencing dams were built up to the level of 139.00.
- 2. Renovation of dispatch communication and remote control channels at Petropavlovsk CHP-2 and the ACC of Akmola Inter-District Electrical Networks. This measure was implemented in line with the specifications no. Γ/3 dated January 6, 2016 for the design of power supply and for data transmission from the turbine set no. 5 of
- 3. Renovation of cable tunnels at Petropavlovsk CHP-2. This measure is required to reduce the tear of wear rate of equipment and ensure trouble-free operation with increasing equipment reliability, as well as to eliminate the risk of fire and, as a consequence, emergency shutdown of boiler units no. 9, 10, 11 and turbines no. 6, 7. In 2018, as part of this measure, an automatic fire extinguishing system was installed and fire partitions were restored.
- 4. Replacement of the main building frame within B-E axes (columns, beams, slabs) as part of reconstruction of Petropavlovsk CHP-2. This measure is aimed at reducing the physical wear and tear of buildings and structures of Petropavlovsk CHP-2 to ensure trouble-free operation of equipment. In 2018, as part of this measure, the
- 5. Modernization of the fuel supply system. This measure is aimed at reducing the wear and tear rate of equipment to ensure trouble-free operation, enhance reliability of equipment, as well as to ensure uninterrupted supply of fuel in the required volumes at maximum loads. In 2018, as part of this measure, metal structures of the belt
- 6. Purchase of equipment. In 2018, as part of this measure, the electric motor 2ADO-400/250-6000-6/8U1 DV was purchased. This will reduce the wear and tear rate of equipment and maintain trouble-free operation with increased reliability, as well as will ensure uninterrupted operation of the boiler unit no. 9 during peak loads.
- 7. Modernization of 110 kV outdoor switchgear. This measure is aimed at reducing the wear and tear rate of equipment to ensure trouble-free operation, enhance reliability, as well as to supply electricity with required parameters. In 2018, the suspended insulation and bus bar wires of 110 kV outdoor switchgear were completely
- 8. Purchase of 7AT automatic transformer. This measure was implemented for the plant to carry electrical and
- 9. Replacement of the automatic turbine shutter at the plant no. 6. This measure is aimed at reducing the physical wear and tear of the turbine no. 6 to ensure trouble-free operation and enhance reliability of equipme
- 10. Modernization of section no. 4 of the transfer steam pipeline. This measure will reduce the wear and tear rate of equipment and maintain trouble-free operation with enhanced reliability of equipment
- 11. Advance payment for delivery of 6AT automatic transformer. This measure was included in the 35% advance payment in 2018 to purchase an automatic transformer necessary for the plant to carry electrical and heat loads
- 12. Development of the project for installation of a lighting-up pressure-reducing cooling device. Implementation of this project will ensure optimization of the boiler lighting-up operation and minimization of the risk of damage
- 13. Development of design and estimate documentation for the modernization of the perimeter video surveillance system at Petropavlovsk CHP-2. This measure is required to install modern video surveillance equipment and
- 14. Development of the project for renovation of the gas flue to the chimney no. 3. The implementation of this measure will enhance reliability and improve performance of smoke-extracting equipment.
- 15. Construction of the gas flue foundation at the chimney no. 3. The first phase of the project for renovation of
- 16. Modernization of the air conditioning system at boiler units no. 6,7. This measure will allow maintaining the microclimate and humidity within acceptable limits to ensure the stable operation of the automated process
- 17. Installation of process pipelines at the turbine site no. 5. This measure is necessary to supply the heating-system water from the turbine no. 5 to the urban heat network and to provide heating to the end user. 18. Development of the project of the feed pump of the on-shore pumping station. This measure is required to
- 19. Modernization of the air separation unit of K-025 type by replacing AK3352.000-01 heat exchanger. This measure was implemented to stabilize the operation of the oxygen plant in view of the replacement of equipment
- 20. Purchase of fourteen COM-16L dust meters for boilers no. 1-3, 5, 9-11. The measure is necessary to comply with the environmental law in view of the replacement of equipment with expired economic life.
- 21. Modernization of the lighting system in the boiler room at Petropavlovsk CHP-2. This measure was implemented to meet the requirements for insulation and energy saving due to the poor state of the lighting
- 22. Renovation of the coal milling equipment (gear shaft and low-speed gear C-800, BVSh, MPSh). Expenses for implementation of this measure amounted to KZT 23,088.55. This equipment purchased in 2018 will be installed in 2019. This measure is required to replace the equipment with expired economic life.
- 23. Renovation of heating surfaces at boiler units no. 1, 2, 5, 9, 11. This measure is necessary to increase the economic life and enhance reliability of the heating surfaces due to the detection of defects in heating surfaces exceeding the permissible rate. Installation of heating surfaces will be completed in 2019.
- 24. Development of the project for renovation of 220 kV outdoor switchgear. This measure is required because the existing equipment does not meet the requirements for reliability and trouble-free operation due to expiration of
- 25. Purchase, installation and commissioning of fire-fighting automation systems at cable tunnels no. 7, 7A, 8, B/n2; This measure was carried out as part of a project for renovation of cable tunnels to automate the fire
- 26. Purchase of Chromatek-Crystal 5000 gas chromatograph. This measure was included in the 50% advance payment in 2018 to purchase equipment necessary to monitor and control the upgraded outdoor switchgear
- 27. Purchase of VTM-MK transformer oil moisture meter. This measure was included in the 50% advance payment in 2018 to purchase equipment necessary to monitor and control the upgraded outdoor switchgear equipment 28. Installation of optic fibre mains at Petropavlovsk CHP-2. This measure is aimed at installing internal and external communication channels (telephone, internet, data transmission).
- 29. Overhaul of a boiler unit at the plant no. 10 to increase the value. This measure is aimed at extending the service life of the boiler unit with expired economic life, which will allow bearing the heat and electrical loads in

## TRANSMISSION OF ELECTRICITY

In 2018, as part of the Investment Program, North-Kazakhstan Regional Electric Distribution Company JSC performed the following work for construction, renovation and re-equipment of its electric power networks:

- renovation of 63.6 km of 0.4-10 kV power transmission lines, including 49.505 km of aerial bundled conductor lines;

- replacement of 42 km of wire at 110 kV OHL Sovetskaya-Poltavka;

- replacement of ground wire: 34 km at 110 kV Siberia-Troitskaya OHL and 49 km at 110 kV Presnovka-Troitskaya OHL;

- replacement of 1,592 porcelain insulators at 35 kV OHL Petropavlovsk CHP-2 - Tyagovaya substation and 5,625 porcelain insulators at 110 kV Vozvyshenka-Kiyaly substation;

- overhaul of TDTN-10000/110 kVA transformer at 110/35/10 kV Vozvyshenka substation with replacement of oil-filled bushings with RIP ones;
- replacement of three 10/0.4 kV outdoor packaged transformer substations;
- replacement of twenty two 10/0.4 kV transformers;
- replacement of 25,000 kVA power transformer at 110/10 kV substation no. 6;
- renovation of two RGA and administrative buildings;
   replacement of an obsolete SCADA-based sensor panel board in the central control room;
- renovation of the central control room;
- installation of 1,375 REM ASCAE devices and 25 WEM ASCAE devices;
- renovation of nine 10-110 kV substations.
- In 2018, North-Kazakhstan Regional Electric Distribution Company JSC reduced its losses from 8.4% to 8.36%.





### **TRANSMISSION OF HEAT**

The main activities taken to reduce heat losses are aimed at restoration and renovation of central heating pipelines. This project is implemented as part of the 2016-2020 Investment Program, which is funded from own funds of the Company as well as at the cost of a new investment loan from the EBRD and government subsidies from the Ministry of National Economy of the Republic of Kazakhstan under Nurly Zhol program.

The aim of the project is to improve reliability of heat supply and energy efficiency, reduce losses and enhance environmental performance (reduction of CO2 emissions by burning less coal thanks to reduced heat losses during the network transmission).

Petropavlovsk Heat Networks LLP uses automatic heat flow regulators, industrial controllers and modems to connect their mechanisms and instrumentation with the dispatch service. All equipment at heat distribution facilities is integrated into a single network, which allows dispatchers to carry out real-time monitoring of water pressure and temperature and to make prompt decisions in case of accidents or emergencies.



Furthermore, the Company uses advanced technology to detect the causes of heat losses such as thermal imaging devices for pipeline monitoring and diagnostics and ultrasonic flaw detectors.

In 2018, in the Overhaul and Current Repairs direction, the Company carried out a scheduled repair of main and distribution networks, including the replacement of pipes with a total length of 13.883 km (5.072 km of main pipelines and 8.811 km of distribution pipelines). The Company also repaired and restored the damaged heat insulation and bare pipe sections using glass wool boards with a total length of 9.779 km.

In 2018, Petropavlovsk Heat Networks LLP, as part of the investment program, allocated funds to renovate 0.26 km of distribution pipelines along Ulyanov Street.

The purpose of the investment project is to improve the efficiency of heat energy use by reducing transportation losses, increase environmental performance and enhance reliability and quality of customer service.

2018

### PLANS FOR EQUIPMENT RENOVATION AND MODERNIZATION FOR 2019

In 2019, as part of the investment program, the Company will continue to implement a number of equipment modernization projects to increase generation, reduce transmission losses for electricity and heat, as well as to improve environmental performance.

In 2019, the Company intends to allocate KZT 21.8 bln for the Investment Program.

In 2019, as part of investment programs, SEVKAZENERGO JSC will continue to implement large-scale equipment modernization projects to increase generation, reduce electricity and heat losses during transmission as well as to improve environmental performance.

The following work is planned at Petropavlovsk CHP-2: **1. Building up fencing dams of section no. 3 of the ash dump no. 2.** Due to this measure, the Company will increase a useful capacity of the ash dump and extend its service life till 2024.

2. Renovation of cable tunnels no. 2, 3, 4, 5 at Petropavlovsk CHP-2. This measure will reduce the tear and wear rate of cable tunnels by 9% and ensure trouble-free operation with increased reliability.

**3.** Purchase of a gear box C-800 for the ball drum mill at the plant no. 2. This measure will ensure the smooth operation of the boiler unit at the plant no. 2

**4. Renovation of the gas flue to the chimney no. 3.** Due to this measures, a boiler unit no. 9 will be installed in the chimney no. 3, which will improve the aerodynamic characteristics of chimneys no. 2 and 3 and provide the possibility to repair the chimney no. 2.

**5.** Project for renovation of the boiler unit at the plant **no. 2.** As of October 1,2018, the operating time of the boiler drum no. 2 was 346,105 hours out of 362,114 hours of the permitted economic life. The extension of the economic life is impossible. In this connection, the project will be developed in 2019 and implemented in 2020. Also, renovation will involve an increase in the steam generating capacity up to 250 tons/hour with an additional yield of 354,947.443 thous. KZT/year.

6. Development of design and estimate documentation for the construction of the ash dump no. 4. Implementation of this measure will allow the Company to store ash and slag waste till 2034.

**7. Development of the project for the reconstruction of 220 kV outdoor switchgear.** This measure will reduce the tear and wear rate and increase the reliability of equipment of the 220 kV outdoor switchgear.

**8. Modernization of the fuel supply system.** This measure will allows the Company to replace the physically worn and outdated equipment to ensure the required performance and trouble-free operation.

**9. Replacement of heating surfaces at boiler units no. 2, 5, 9, 10, 11.** This measure is necessary to increase the economic life and improve reliability of the heating surfaces due to the detection of defects in heating surfaces exceeding the permissible rate.

**10. Modernization of measuring equipment.** This equipment is necessary to measure the water flow during discharge and injection from the Ishim river into Beloye Lake.

**11.** Modernization of the reinforced concrete chimney **no. 2 with the replacement of the lining.** This measure is aimed at reducing the tear and wear rate of the chimney. The work performed will ensure trouble-free operation of the chimney and the connected equipment for at least 5 years.

**12.** Renovation of the coal milling equipment (gear shaft and low-speed gear C-800, BVSh, MPSh). This measure is required to replace the equipment with expired economic life.

**13.** Completion of work to renovate the roof of the main building (anti-corrosion treatment of the roof). This measure will ensure the use of the roof on the main building for at least 20 years.

**14.** Purchase of Chromatek-Crystal **5000** gas chromatograph. This equipment is necessary to monitor and control the upgraded equipment of the outdoor switchgear.

**15. Purchase of VTM-MK transformer oil moisture meter.** This equipment is necessary to monitor and control the upgraded equipment of the outdoor switchgear.



**16.** Purchase, delivery and installation of 6AT automatic transformer complete with auxiliary equipment. This measure is required for the plant to carry electrical and heat loads and enhance reliability of the main equipment.

**17. Overhaul of the boiler unit no. 10.** This measure is aimed at extending the service life of the boiler unit with expired economic life, which will allow bearing the heat and electrical loads in accordance with the production plan.

**18. Overhaul of the main equipment to increase the value of fixed assets.** This measure is aimed at extending the service life of components with expired economic life to ensure bearing the heat and electrical loads in 2019 in accordance with the production plan.

**19. Technical inspection of the condition of the bearing and enclosing reinforced concrete structures of the main building (boiler room and turbine room).** This measure is required to prevent the decommissioning of buildings and structures of the main production workshops.

**20. Overhaul of boiler units no. 1, 2, 6 and turbine no. 7 to increase the value.** This measure is required to avoid decommissioning of boilers and turbines due to excessive operating time of boiler drums and the turbine high-pressure hose. Production losses will amount to KZT 9 bn/year.

**21. Renovation of the defrosting device.** To ensure the renovation of the defrosting device, a complex delivery of the packaged transformer substation is required, including the installation of instrumentation and automation equipment and electric parts.

**22.** Bottom cleaning work at Beloye Lake. This measure is required to avoid limiting the electrical loads in the summer period due to a raise in the cooling water temperature. Underproduction will amount to KZT 55 mln in the summer period.

**23. Overhaul of the boiler unit no. 11 to increase the value.** This measure is aimed at extending the service life of the boiler unit with expired economic life, which will allow bearing the heat and electrical loads in accordance with the production plan.

**24. Renovation of the heat generation scheme at Petropavlovsk CHP-2.** This measure is aimed at increasing heat generating capacity and reducing the wear and tear rate.

**25.** Replacement of the steam superheater of the the down taking duct of the boiler unit no. 6. Replacement of side panels of the down taking duct. Numerous damages in 32\*4 pipes on the steam superheater panels at the plant no. 20. As a result, production of electricity will reduce by 18.599 thous. kWh.

**26.** Replacement of the 2nd stage gearbox of the boiler unit no. 5. Replacement of the 1st stage gearbox (middle units). Numerous damages in coil pipes. As a result, production of electricity reduced by 18.056 thous. kWh.







**27.** Purchase of a burner throat no. 225125 for the boiler unit at the plant no. 11 (individual project). There are numerous damages; units are not maintainable, complete unit replacement is required. If a boiler unit at the plant no. 11 is stopped for a month, underproduction of electricity will amount to 32.712 thous. kWh.

**28. Overhaul of boiler drums at the plants no. 1, 4 to increase the value of fixed assets.** This measure is aimed at extending the useful life of equipment.

**29. Renovation of cable tunnels no. 9-14, 16.** This measure will provide trouble-free operation of the main equipment (boiler and turbine rooms). In case of a fire in one of the cable tunnels and liquidation of consequences during a month, the undersupply of electricity will amount to 44,640 thous. kW.

**30. Renovation of power centers no. 1, 2, 3, 4, 9, 10. T**he main power regulators of boiler units no. 3, 9, 10 do not control properly the feed water flow due to the depletion of resources and repeated remedial repairs. As a result of shutdown of one boiler, a monthly underproduction of electricity due to the lack of boiler steam will amount to 32,712 thous. kWh.

**31. Renovation of mill fans no. 6, 7, 8, 12.** Abrasive wear of the coal-pulverization system causes an emergency shutdown of boilers. To arrange repairs, additional consumption of fuel oil is required. Due to a decrease in steam load of one boiler unit, a monthly production of electricity will reduce by 22.822 thous. kWh.

**32. Renovation of electrical equipment at boiler units no. 1, 3, 11.** Due to frequent failures of electrical equipment resulting from long-term operation, the steam load decreases from 30% to 50%. Due to a decrease in steam load of one boiler unit, a monthly production of electricity will reduce by 22,822 thous. kWh.

The following activities are planned for 2019 as part of investment projects:

 construction, renovation and technical re-equipment of 46 km of 0.4-10 kV power transmission lines, including 31 km of aerial bundled conductor lines;
 construction and renovation of 51 km of 35-110 kV

- overhead lines;
- reconstruction of one 35 kV substation;
   reconstruction of five 10 kV substations.
- reconstruction of five 10 kV substations.

In 2019, Petropavlovsk Heat Networks LLP will allocate funds to replace 12.361 km of pipelines, including 7.981 km of distribution networks and 4.380 km of main networks. In 2019, as part of the investment program, the Company expects to allocate funds to renovate heat networks using pre-insulated pipelines with a total length of 1.524 km, as well as to restore 1.245 km of polyurethane insulation.







### **PROCESS AUTOMATION**

To increase productivity, transparency and cost-effectiveness, in 2018 SEVKAZENERGO JSC continued to implement integrated projects for the comprehensive modernization and automation of production, monitoring and related information systems.

### SCADA

North-Kazakhstan Regional Electric Distribution Company JSC supports the development of automated systems to control production facilities and assets and automated information systems for remote workplaces by process participants and moves to a new level of communications to ensure effective use of its data by connecting to its network and intelligent assistants with the simultaneous use of programs by all participants in the process of electricity transmission and distribution. As part of the project aimed at creating an automated SCADA-based dispatching control structure, the obsolete power grid was replaced with a new one (video wall), which will make it possible to build a structure of dispatching control, communication channels, control, telemetry, remote signalling, remote control and communication channels reservation for each control level, including:

- long-term and short-term operational planning;

- operational control of normal operation modes of electrical grids, power plants, power units and substations;

- control of power plant loads and power consumption;
   retrospective analysis of emergencies;
- retrospective analysis of emergencies;
- storing the retrospective and discrete information about the operation mode of the controlled object and its printing upon the dispatcher's request;
- monitoring of operational switching;
- automatic maintenance of operational documentation.



#### Ellipse

SEVKAZENERGO JSC has introduced an automated control system for production infrastructure based on Ellipse 8 (Ellipse enterprise resource planning system). The uniform Ellipse system allows planning and conducting maintenance and repair work, including:

- automation of processes for failure recovery and emergency works;

- reduction in the number of failures and emergency work through the optimal forecasting of work completion and routine maintenance;

- ensuring shorter period of repair and emergency work due to rapid personnel response.

#### Mobility

In 2018, the Company started the development and implementation of Mobility mobile application fully integrated with Ellipse system, which allows a user to remotely issue work assignments, manage inventory and equipment monitoring and to provide quick access to historical and regulatory data and work assignments. As part of Mobility project, a mobile application was designed for workers involved in status monitoring in order to carry out field maintenance and repair of infrastructure facilities.

#### ASCAE

In 2018, the Company continued to implement the project of automatic system for commercial accounting of electricity (ASCAE). This system can automatically detect points of energy losses and promptly eliminate them. ASCAE allows the Company to significantly reduce electricity losses.

In 2018, North-Kazakhstan EDC JSC installed 1,375 ASCAE devices in households.

Thanks to this technology, there is no need to collect and transfer data from each transformer substation. There is only one base station for the entire settlement, and all metering devices equipped with a radio module with a built-in battery transfer readings to this base station once every 24 hours. From the base station, the data is uploaded to a server where it is stored. Customers can log-in to their accounts on the server using their user names and passwords and get readings for the required period.

#### THESIS grid-connection monitoring system

In November 2017, the Company started test operation of an automated system to monitor connection to the electricity grid for new customers. The purpose of the system is to make a process of applying for specifications for connection to the grid more transparent.

A great advantage of the system is the intermediate control that makes it possible to see at what stage and who of the process participants has the documents. The system will effectively support enterprise operation by introducing accountability and control in such processes as issue of specifications, approval of design and estimate documentation and preparation of documents for consumers. Thanks to the implementation of this system, the Company is able to reduce timing for connecting consumers as well as to simplify and optimize the entire process of connecting new customers to infrastructure facilities.

#### ASCAHE

In 2018, the Corporation continued to implement the project of automatic system for commercial accounting of heat energy (ASCAHE). Installation of metering devices improves the accuracy and reliability of data and settlements between suppliers and consumers based on the existing and prospective rate systems, and also reveals the actual state of heat consumption in households.

ASCAHE devices improve the efficiency of heat data collection to monitor consumption of heat and reduce overdue payments by customers. Thanks to this system losses can be detected quickly, and appropriate measures can be taken to prevent such losses and save heat in households.

### **PROJECT IMPLEMENTATION BY THE SALES COMPANY**

#### Measures to provide better customer service

• To provide better customer service, General Director of SEVKAZENERGO JSC initiated the creation of an interdepartmental commission, which included representatives of SEVKAZENERGO JSC group of companies, government bodies and public associations of the city of Petropavlovsk. The commission held its first meeting in December 2018, at which it addressed issues of interaction between energy service suppliers and consumers, simplification of procedures for energy supply to the public, as well as improvement of efficiency and availability of services provided by the energy company. Meetings of the interdepartmental commission will be held on a regular basis.

• Sevkazenergosbyt LLP opened an utility payment center in the City Mall shopping center, which reduced the burden on the existing service centers and made it possible to cover remote areas of the city with services.

• The service center of Sevkazenergosbyt LLP is provided with buttons to assess customer service quality. Also, an electronic queue management system was implemented.

• In 2018, the united information-computing center (UICC) included 8 utilities of the city of Petropavlovsk, 4 utilities of North Kazakhstan region and 105 organizations serving condominium facilities. The main UICC functions include charging, forming, printing and delivering invoices, acceptance of payments, provision of advise on debts and accruals.

#### Increased consumer motivation

• The sales company actively cooperates with the media by posting information on working with debtors, rates and announcements for consumers.

• All offices of the sales company constantly update information on the terms of payment for electricity and heat according to the terms of Model Contracts, as well as on liability for late payment and possible ways of making payments.

### PLANS FOR 2019

Further expansion of the Unified Settlement Center:
Sevkazenergosbyt LLP will continue to work with Kazakhtelecom JSC by including energy charges in a single payment document for communication services for consumers who live in remote areas of the region, as well as with other municipal services of the city and districts of the region (disposal of solid household waste, house intercom systems, cable television elevator maintenance).
Sevkazenergosbyt LLP will commence commercial operation of a new 1C Billing software to unify and automate the metering of electricity and heat.

An additional utility payment window will be opened in the service center of Sevkazenergosbyt LLP as part of execution of proposals made at meetings of the interdepartmental commission.

Energy-supplying organization	2016		2017		2018	
Energy-supplying organization	Electricity	Heat	Electricity	Heat	Electricity	Heat
Sevkazenergosbyt LLP	162,029	71,230	163,340	72,621	163,795	73,629
legal entities	6,185	2,263	6,262	2,266	6,201	2,300
individuals	155,844	68,967	157,078	70,355	157,594	71,329

### PLANS FOR PROCESSES AUTOMATION IN 2019

In 2019, the Company expects to complete transition to a uniform billing system. This will allow the Company to automate and standardize the accounting of heat and electricity consumption, as well as to provide better customer services through prompt calculations of the actual cost of electricity and heat consumed, plus customers will be able to log in to their accounts and check consumption data at any time.



• The Company performs work to raise public awareness. Consumers who have debts for electricity and heat are proposed to draw up a schedule for debt repayment in installments. Debt control for each consumer was established'.

• The automated database for calculations by type of energy is improved on a systematic basis.

• The operational analysis of payments receipt was organized;

• In 2018, the Company continued to implement quality standards: Sevkazenergosbyt LLP switched to the new version of ISO 9001:2015 standard and completed re-certification audit to verify compliance of its quality management system with said standard.



### PRIORITIES IN PROCUREMENT FOR 2019 ARE:

- Enhancement of the transparency of procurement activities;
- Improving financial performance and introducing the KPI evaluation system;
- Implementation of an effective procurement planning system;
- Introducing procedures for assessment and pre-qualification of vendors;
- Automation of procurement processes and introducing e-procurement system.
- Introducing an effective internal and external reporting system for procurement activities; • increasing the efficiency of reporting systems for internal customers;
- improving the efficiency of inventory accounting, storage and release processes;
- storing goods and materials at storage facilities.

2,718.367

131,405

2.491,046

1,150,891

802,366

54,636,203

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## **PROCUREMENT AND SUPPLY**

Building effective procurement activities remains one of the important goals of the Company with a view to improving operational efficiency. The key priorities of SEVKAZENERGO JSC Group of companies in the field of procurement include ensuring transparency during tenders, attracting more vendors for better business efficiency and reduced costs.

TERM ASSETS

In 2017, the Procurement Department started transformation processes to improve the efficiency and transparency of procurement activities. During the year, projects were developed to automate procurement processes, improve the procurement planning system, develop category strategies, optimize the inventory accounting, storage and release processes, as well as to adopt KPIs and other aspects.

85,242,272

55,050

832.261

86,134,583

5,000

3,219,115

### IN 2018, THE FOLLOWING OBJECTIVES WERE ACCOMPLISHED:

• A procurement planning system in the form of the annual procurement plan was developed and implemented;

sition of fixed assets

- A weekly reporting system based on a number of KPIs was developed and implemented;
- An updated organizational structure was approved;
- Approach to procurement centralization was revised;
- Procurement policies and procedures were revised.

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- equipping warehouses with up-to-date weight measurement and control means, modernizing equipment for



### FINANCIAL AND ECONOMIC INDICATORS

The consolidated financial statements of the Company for 2018 were prepared in accordance with the International Financial Reporting Standards. Principles of the accounting policies are the equal for all enterprises of the Company. The key financial and economic indicators of the Company demonstrate the effectiveness and efficiency of operational and financial activities, as well as achievement of the Corporation's strategic development targets.

Key financial and economic indicators for 2014-2016, KZT mln

INDICATORS	2016	2017	2018
Income from core activities	30,905	31,702	33,303
Prime cost including period expenses	(23,026)	(24,737)	(27,376)
Profit from operating activities	7,879	6,965	5,927
Total EBITDA for the year*	12,573	11,741	11,795
Total EBITDA for the year, margin in %	40.7	37.0	35.4
Income tax expenses	(1,484)	(1,230)	(871)
Net profit for the year	4,886	3,363	1,749
Assets	105,633	109,793	107,766
Equity	56,004	56,923	56,188
Capital expenditures for fixed assets	10,962	8,432	3,604

\* Total EBITDA excludes exchange rate difference

### **INCOME FROM SALE OF PRODUCTS/SERVICES**

In 2018, the Company produced electricity and heat, including transmission and sale of purchased energy, for a total amount of KZT 33,303 mln, which is 5.1% more compared to 2017 due to increased sales of heat and growth in rates for electricity and heat.

The main factors affecting the income from sales in 2018 compared to the previous period are as follows: • Revenue from electricity sales increased by KZT 598 mln or 2.7% compared to 2017 due to increase in selling rates.

· Revenues from electricity transmission increased by KZT 257 mln or 5.5% due to increase in transmission rates by 2.5% and in the volume of transmission by 41.5 mln kW (3.5%).

· Revenues from heat transmission increased by KZT 481 mln or 20.6% due to increase in transmission rates by 9.1% and in the volume of transmission by 129 thous. Gcal (10.5%).

• Revenue from heat sales, including the sales margin, increased by KZT 266 mln or 10.0% due to increase in the sales volume by 10.5%.

### COST OF GOODS/SERVICES SOLD

The cost of electricity and heat sold in 2018 amounted to KZT 24,803 mln, which is KZT 2,535 mln or 11.4% more compared to 2017. This increase is due to higher operating expenses under such items as "Fuel", "Emissions", "Depreciation and Amortisation", "Remuneration", "Purchased energy" and "Third-Party Services".

The cost structure of the Company is dominated (41%) by the cost of fuel.

In 2018, these costs increased by KZT 1,293 mln, or 14.6%, due to increase in fuel consumption by 3.6% or KZT 945 mln as a result of the price increase, including transportation expenses, by 10.7%.

Due to increase in coal consumption for production needs, the costs of environmental emissions increased by KZT 58 mln. Depreciation costs increased by KZT 269 mln or 5.9% due to the introduction of new fixed assets in 2018 totaling to KZT 2,972 mln.

Remuneration expenses increased by KZT 260 mln, or 10.3%, due to increase in wages from January 1, 2018. Expenses for purchase of electricity from renewable energy sources increased by KZT 143 mln, or 27.0% due to increase in the purchase volume by 5.3 mln kWh, or 27%.

### **DYNAMICS OF TOTAL EBITDA\***

In 2018, EBITDA amounted to 11,795 mln, which is KZT 54 mln or 0.5% more compared to 2017. The main factors of increased operating efficiency include an increase in sales of heat by 128.6 thous. Gcal or 10.5%.

### Total EBITDA for the year, KZT mln



**OPERATING EBITDA BY SEGMENT** 

Operating EBITDA was chosen as the main indicator for evaluation of the Company's operational efficiency. This performance indicator does account for other income, revenue from financing, non-monetary component of exchange rate difference-related liabilities, depreciation, amortization and non-recurrent or erratic cost items that do not affect the core operations of the Company.

Financial and economic indicators by segment for 2018, KZT mln

Indicators	Heat and electricity	Electricity transmission	Heat transmission	Sales of electricity	Other	total
Indicators	production	and distribution	and distribution	anu neat	Other	lolal
Income from core activities	24,134	4,907	2,822	1,425	15	33,303
Prime cost	(17,845)	(4,110)	(2,588)	(197)	(63)	(24,803)
Gross profit	6,289	797	234	1,228	(48)	8,500
Period expenses	(859)	(587)	(676)	(451)	-	(2,573)
Income from operating activities	5,430	210	(442)	777	(48)	5,927
Financial expenses, net	(2,111)	(147)	(337)	1	-	(2,594)
Other income	188	54	173	115		530
Loss from exchange rate difference	(807)	(352)	(85)	1		(1,243)
Income tax expenses	(616)	29	(98)	(186)		(871)
Net profit for the year	2,084	(206)	(789)	708	(48)	1,749
Operating EBITDA by segment	9,076	1,031	137	797	(48)	10,993



Expenses for production services increased by KZT 550 mln, or 10.3%, due to increase in the cost of KEGOC's technical dispatch and balancing services, as well as increased expenses for equipment repair and maintenance.

In 2018, the Company's operating EBITDA amounted to KZT 10,993 mln, which is KZT 790 mln or 6.7% less compared to 2017. The main (high-priority) margin segment in the operating EBITDA structure is the production of electricity and heat (KZT 9,076 mln). In 2018, there was a decline by KZT 1,226 mln or 11.9% due to increase in fuel costs by KZT 1,293 mln and costs for purchase of electricity by KZT 143 mln.

### **CHANGES IN NET INCOME/LOSS**

Income from operating activities in 2018 amounted to KZT 5,927 mln (17.8% margin to income from sales). Income decreased by KZT 1,037 mln due to increase in fuel costs, purchase of electricity and accrual of bad debt provisions.

Net financial expenses increased by KZT 333 mln or 14.7% due to capitalization. Income tax expenses decreased by KZT 359 mln.

### **ASSETS AND LIABILITIES**

As of December 31, 2018, total assets of the Company amounted to KZT 107,766 mln, which is 1.8% less compared to 2017

### ASSETS, KZT MLN



As of December 31, 2018, the value of fixed assets was KZT 100,120 mln, or 92.9% of the value of all assets. As a part of the large-scale investment program, the amount of KZT 3,581 mln was spent in 2018 on unfinished construction and acquisition of fixed assets. The amount allocated for commissioning of new and upgraded facilities of the current period and from previous years was equal to KZT 2,972 mln.

Other financial assets include deposits with flexible conditions of partial replenishment and withdrawal in the amount of KZT 383,470 mln. Deposits consist of funds accumulated by the Company for loan service, investment program financing and maintenance of the current assets.

### Liabilities, KZT mln



The authorized capital of the Company is composed of 143.9 mln ordinary shares. As of December 31, 2018, the value of completely paid ordinary shares was KZT 16,292 mln.

Long-term loans mainly include loans issued by the EBRD to finance the long-term investment program for reconstruction and modernisation of the Company's assets.

As of the end of the reporting year, total financial debt amounted to KZT 25,844 mln, while the Company maintains its financial stability.

## **CASH FLOW**

In 2018, there was a trend of increasing cash flows from operating activities due to increase in sales of heat and higher rates for electricity and heat. Net inflow from operating activities, taking into account the impact of exchange rate fluctuations on cash balances in foreign

### Cash flow, KZT mln



At the year-end, cash and deposits amounted to KZT 455 mln. A sufficient cash reserve allows the Company to maintain the required level of its internal resources for debt servicing.

### **PROSPECTS OF THE 2020 INVESTMENT PROGRAM**

SEVKAZENERGO JSC implements one of the most large-scale investment programs among the power industry enterprises of Kazakhstan in terms of the volume of capital expenditures for renovation and reconstruction of production facilities. The investment program is implemented in three focus areas:







currency, amounted to KZT 8,063 mln. Changes in the working capital are associated with increase in trade receivables. Decrease in payables related mainly to the implementation of the investment program, resulted in reduction in the working capital.

- increase in generation;
- energy saving, including reduction of electricity and heat transmission losses;
- improvement of environmental performance during the production.

# **CORPORATE GOVERNANCE**

SEVKAZENERGO JSC has an effective and transparent corporate governance system that meets the national and international standards. Corporate governance promotes transparency of activities, growth of assets and maintaining the financial stability of the Company.

## **GENERAL MEETING OF SHAREHOLDERS**

The General Meeting of Shareholders is a supreme management body of the Company. Shareholders of the Company may make suggestions to the agenda of the annual General Meeting, nominate candidates to the Board of Directors and its Committees, and convene meetings of the Board of Directors.



## **RESULTS OF THE GENERAL MEETING OF SHAREHOLDERS**

Decisions pertaining to the competence of the General Meeting of Shareholders of SEVKAZENERGO JSC were adopted by the General Meeting of Shareholders of CAEPCO JSC in 2018 on the following issues:

**SEVKAZENERGO** 

- On increase in the number of members of the Board of Directors of SEVKAZENERGO JSC, election of new members of the Board of Directors of SEVKAZENERGO JSC, determining the term of office, amount and terms of remuneration for newly elected members of the Board of Directors of SEVKAZENERGO JSC;



- On approval of the annual consolidated financial statements and the procedure for distribution of the net income of SEVKAZENERGO JSC for the 2017 fiscal year; - On determining an audit organization to audit the financial statements for 2018;

- On conclusion of a major related-party transaction between SEVKAZENERGO JSC and the Eurasian Development Bank;

- On early termination of powers of a member of the Board of Directors and election of a new member to the Board of Directors of SEVKAZENERGO JSC.



### **EQUITY STRUCTURE**

As of December 31, 2018, according to the financial statements, the authorized capital of the Company was equal to KZT 16,291,512. The sole shareholder owning 100% stake is Central-Asian Electric Power Corporation JSC.

Helder neme	Ordinary shares		Preferred	Total shares	
	number	share	shares	number	share
Central-Asian Electric Power Corporation JSC	143,863,799	100%	-	143,863,799	100%

100.45

2,718,547

131,805

115,262,772

55,050

832,261

5,000 86,134,583

> 3.219,115 1.397,037 600,482 038,303 80,005

### DIVIDENDS

The Company's policy regarding distribution, announcement, size, form and terms of dividend payment is set out in the Charter.

The basic principles of the Company's dividend policy include:

• balance between the interests of the Company and its shareholders in determining dividend payouts;

 increasing investment attractiveness, financial sustainability, capitalization and liquidity of the Company;

ensuring the market return on invested capital;

• respect for and strict observance of the rights of shareholders and promoting their prosperity.

The Company intends to allocate a certain portion of its net income for dividend payouts in the amount that would allow the Company to keep enough funds for its further development.



SSETS



A decision on payment of annual dividends is made by the General Meeting of Shareholders of CAEPCO JSC based on the recommendation from the Board of Directors of the Company. In case of any unforeseen circumstances having a negative effect on the Company, the Board of Directors should recommend the General Meeting of Shareholders to refrain from dividend payout (announcement).

In 2018, the annual General Meeting of Shareholders of CAEPCO JSC decided to pay dividends to SEVKAZENERGO JSC's shareholders for the 2017 fiscal year in amount of KZT 1,008,859,277.

### **EXECUTIVE BODY**

General Director is the sole executive body of SEVKAZENERGO JSC. General Director manages the day-to-day operations of the Company, executes decisions of the Board of Directors and the General Meeting of Shareholders.

Remuneration for the executive body is determined by the decision of the Board of Directors of SEVKAZENERGO JSC.

General Director of SEVKAZENERGO JSC is Igor Tatarov, who has no shares in the equity capital of the joint stock company, subsidiaries or affiliated organizations.

Name, legal organizational form	Sole executive body	Position	Date of election expiry of powers
SEVKAZENERGO JSC	Igor Tatarov	General Director	23.10.2018 - 22.10.2020
North-Kazakhstan Regional Electric Distribution Company JSC	Anatoly Kazanovsky	General Director	16.10.2017 - 15.10.2019
Petropavlovsk Heat Networks LLP	Andrey Kalinichev	General Director	28.12.2018 - 27.12.2020
Sevkazenergosbyt LLP	Magauiya Sagandykov	Acting General Director	Since 12.06.2016

## lgor **Tatarov**

General Director, SEVKAZENERGO JSC





### **BRIEF BIOGRAPHY**

Igor Tatarov was born on September 26, 1965 in the city of Temirtau, Karaganda region. In 1990 he graduated from Karaganda State University majoring in "Law". From 1985 to 2002 he held various positions at enterprises of Karaganda region. 2002-2007 -Vice-President, First Vice-President, President of Energy Center JSC in the city of Pavlodar. 2007-2008 - General Director of AccessEnergo LLP. 2008-2009 - General Director of North-Kazakhstan Energy Center LLP. 2009-2013 - Chairman of the Management Board of Sevkazenergo JSC. 2013-2014 - Chairman of the Management Board of Pavlodarenergo JSC. From 2015 to October 22, 2018 - General Director of Stepnogorsk Mining and Chemical Combine LLP. Since October 23,

2018 - General Director of SEVKAZENERGO JSC, a group of companies including Petropavlovsk CHP-2, North-Kazakhstan Regional Electric Distribution Company JSC, Petropavlovsk Heat Networks LLP and Sevkazenergosbyt LLP. Igor Tatarov was awarded the following state awards: Erenenbegiushin medal, anniversary medals "20 Years of Independence of the Republic of Kazakhstan", "25 Years of Independence of the Republic of Kazakhstan". In 2012, for his contribution to the development of the electric energy industry of the CIS member states, Igor Tatarov was awarded the title "Honored Power Engineer of the CIS". The sole executive bodies of the Company's subsidiaries have their own general directors.

### **BOARD OF DIRECTORS**

The Board of Directors of SEVKAZENERGO JSC is responsible for overall management of the Company's activities, except for issues attributed to the exclusive competence of the General Meeting of Shareholders in accordance with the Charter and the Joint-Stock Companies Act.

The Board of Directors forms and supervises the executive body of the Company. To achieve the performance goals, the Board of Directors is guided by the following principles:

• making decisions based on a collegial and thorough discussion of issues using reliable and complete information on the Company's activities in line with the highest standards of doing business;

• non-admission of restrictions on the legitimate interests and rights of shareholders to participate in the management of the Company, receive dividends, reports and information about the Company:





Also, the Board of Directors of SEVKAZENERGO JSC makes decisions on matters pertaining to the competence of the General Meeting of Shareholders (participants) of the following legal entities: North-Kazakhstan Regional Electric Distribution Company JSC, Sevkazenergosbyt LLP, Petropavlovsk Heat Networks LLP, in which 100% of shares (participatory interest in the authorized capital) belong to SEVKAZENERGO JSC. The Board of Directors of North-Kazakhstan Regional Electric Distribution Company JSC (a subsidiary of SEVKAZENERGO JSC) is also responsible for the management of the power distribution company. Remuneration for members of the Board of Directors is determined by the decision of the General Meeting of Shareholders of the Company.

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Chairman of the Board of Directors

First Deputy General Director of CAEPCO JSC, Chairman of the Board of Directors of PAVLODARENERGO JSC and Akmola EDC JSC

#### (born in 1959) 15.11.2017 First Vice-President of CAEPCO JSC 01.02.2012 - First Deputy Akim of Pavlodar region Chairman of the Board of Directors: 2010-2011 - Park of Nuclear Technologies JSC 2011-2012 - Balkhash TPP JSC; Shardarinsk HEPP JSC 2012-2017 - National Company Pavlodar Social Entrepreneurship Corporation JSC 2012-2015 – Pavlodar SEZ Managing Company JSC

<b>gor Tatarov</b> Member of the Board of Directors, General Director of the Company	(born in 1965) 01.07.2015 – General Director of Stepnogorsk Mining and Chemical Combine LLP 2013 – Chairman of the Management Board of PAVI ODARENERGO JSC.
Aember of the Board of Directors of North-Kazakhstan EDC JSC	11.11.2009 – Chairman of the Management Board of SEVKAZENERGO JSC 01.01.2009 – General Director of SevKazEnergo Petropavlovsk LLP

#### Andrey Karyagin

Member of the Board of Directors of the Company

Member of the Board of Directors of PAVLODARENERGO JSC and Akmola EDC JSC

#### (born in 1967) 25.12.2017 - Chairman of the Board of Directors of Astana Invest Investment House JSC 06.12.2017 - Vice-President for Economy and Finance, Central-Asian Electric Power Corporation JSC 2016 - President of Astana Investment Corporation 2014 - Chairman of the Management Board of Astana Invest Investment House JSC 01.08.2017 - Vice-President for Economy and Finance, Central-Asian Electric Power Corporation JSC

**Alexander Nigai** 

Member of the Board of Directors of the Company

Deputy General Director of CAEPCO JSC for Commerce. member of the Board of Directors of PAVLODARENERGO JSC and Akmola EDC JSC.

01.08.2017 - Vice-President for Commerce, Central-Asian Electric Power Corporation JSC 03.05.2012 - Director of Strategic Development of ComTradeProduct LLP

#### Eldar Tabanov

Independent Director of SEVKAZENERGO JSC

Independent Director of the Board of Directors of CAEPCO JSC, PAVLODARENERGO JSC and Akmola EDC JSC

29.09.2017 - Director of CityBox LLP 17.11.2016 - Advisor to Chairman of the Management Board of Astana Community Entrepreneurship Corporation NC JSC 09.09.2015 - Deputy Chairman of the Management Board of Astana Community Entrepreneurship Corporation NC JSC 03.10.2013 - President of Vodokanal Project JSC

#### **Gennady Andreyev**

Independent Director of SEVKAZENERGO JSC

Independent Director of the Board of Directors of PAVLODARENERGO JSC, Akmola EDC JSC and North-Kazakhstan EDC JSC

#### (born in 1943)

2016 - Member of the Board of Directors (Independent Director) of Central-Asian Electric Power Corporation JSC 02.07.2015 - Honorary President of KazNIPIEnergoprom Institute JSC 23.07.2011 – Member of the Board of Directors of KazNIPIEnergoprom JSC 01.10.1970 - President of KazNIPIEnergoprom JSC

#### MEMBERS OF THE BOARD OF DIRECTORS

Name, legal organizational form	Members of the Board of Directors	Position	Date of election expiry of powers
	Dyussenbay Turganov	Chairman of the Board of Directors	15.01.2018 - 14.01.2020
	Igor Tatarov	Member of the Board of Directors	05.11.2018 - 14.01.2020
SEVKAZENERGO JSC	Andrey Karyagin	Member of the Board of Directors	15.01.2018 - 14.01.2020
	Alexander Nigai	Member of the Board of Directors	15.01.2018 - 14.01.2020
	Gennady Andreyev	Independent Director	15.01.2018 - 14.01.2020
	Eldar Tabanov	Independent Director	15.01.2018 - 14.01.2020
North-Kazakhstan Regional	Bagdat Oral	Chairman of the Board of Directors	23.10.2018 - 22.10.2020
Electric Distribution Company JSC	Igor Tatarov	Member of the Board of Directors	23.10.2018 - 22.10.2020
	Gennady Andreyev	Member of the Board of Directors	23.10.2018 - 22.10.2020



### PERFORMANCE OVERVIEW OF THE BOARD OF DIRECTORS

In 2018, the Board of Directors held 13 meetings.

- The Board of Directors focused on the following key issues: • Election of Chairman of the Board of Directors of SEVKAZENERGO JSC;
- terms of office:
- Conclusion of related-party transactions of SEVKAZENERGO JSC;
- Creation of the Supervisory Board in Sevkazenergosbyt LLP;

- and distribution of net income;
- Election of General Director of SEVKAZENERGO JSC and determining his/her term of office:



• Election of members of the Committees of the Board of Directors of SEVKAZENERGO JSC and determining their

• Preliminary approval of the annual consolidated financial statements of SEVKAZENERGO JSC for the year 2017; • Approval of internal policies and procedures of business units reporting to the Board of Directors; • Approval of the financial statements of North-Kazakhstan Regional Electric Distribution Company JSC for 2017

• Election of General Director of Petropavlovsk Heat Networks LLP and determining his/her term of office; • Early termination of powers of the Board of Directors, election of new members to the Board of Directors of North-Kazakhstan Regional Electric Distribution Company JSC, determination of the term of office.

### PERFORMANCE OVERVIEW OF COMMITTEES OF THE BOARD OF DIRECTORS

Name	Tasks	Members	Performance results	
Strategic Planning Committee	-provision of consulting assistance and recommendations to the Board of Directors of the Company for determining the priority directions of the Company's activity, its development strategy; developing the Company's budget; planning the Company's financial and economic activities; - identification of existing problems in the field of planning and budgeting of the Company's activities;	Gennady Andreyev - <b>Chairman</b> <b>Members:</b> Dyussenbay Turganov Igor Tatarov	In 2018, the Committee had no meetings.	
Audit and Risk Manage- ment Committee	<ul> <li>development and provision of recommendations to the Board of Directors for making management decisions;</li> <li>introduction of modern methods to improve risk-based internal audit, RMS and ICS;</li> <li>implementation of effective programs for testing the efficiency of the RMS and ICS;</li> <li>monitoring of timely and full implementation of corrective action plans and action plans to improve the RMS and ICS.</li> </ul>	Eldar Tabanov - <b>Chairman</b> <b>Members:</b> Andrey Karyagin Igor Tatarov Zhanar Rakhimberlinova Ayzhan Stanbayeva	In 2018, the Committee held 2 meetings, at which the following issues were addressed: - performance results of the Internal Audit Department and the Risk Management Department for the reporting period; - work plans of the Internal Audit Department and the Risk Management Department for the upcoming period; - approval of internal regulations that govern the activities of the Internal Audit Department and the Risk Management Department.	
Nomination, Remunera- tion and Social Affairs Committee	<ul> <li>provision of consulting assistance and recommendations to the Board of Directors of the Company relating to human resources and social issues;</li> <li>development of mechanisms of interac- tion between the Board of Directors and business units of the Company.</li> </ul>	Gennady Andreyev - <b>Chairman</b> <b>Members:</b> Alexander Nigai Igor Tatarov Natalya Konstantinova	In 2018, the Committee held 2 meetings, at which the following issues were addressed: - performance results of the Nomination, Remuneration and Social Affairs Committee for the reporting period; - expenses for the implementation of measures as part of the program to support young professionals.	

The Audit and Risk Management Committee is a standing working body of the Board of Directors. Its competence includes issues related to improvement and strengthening of the risk management and internal control system, development of recommendations to the Board of Directors and the Executive Body. In 2018, the Committee held two meetings.

The Nomination, Remuneration and Social Affairs Committee is a standing working body of the Board of Directors. Its competence includes issues of

electing/appointing candidates as members of the executive body, the Internal Audit Department, the Risk Management Department, the Corporate Secretary, as well as members of other bodies and business units of the Company, determination and payment of remuneration, HR policy and its implementation, the policy of providing social support to employees of the Company and solving social issues.

In 2018, the Committee held two meetings.

## SELECTION AND APPOINTMENT

Members of the Board of Directors of SEVKAZENERGO JSC are elected by the decision of the General Meeting of Shareholders of CAEPCO JSC. The number of members of the Board of Directors of SEVKAZENERGO JSC should not be less than three people, provided that at least thirty percent of members of the Board of Directors should be independent directors. A member of the Board of Directors of SEVKAZENERGO JSC may be an individual, who is elected from among shareholders individuals or persons proposed (recommended) to be elected to the Board of Directors as representatives of shareholder's interests. A member of the Board of Directors may also be an individual, who is not a shareholder of the Company and who is not proposed (or recommended) to be elected to the Board of Directors as a representative of shareholder's interests. The number of such persons should not exceed fifty percent of members of the Board of Directors.

General Director of SEVKAZENERGO JSC may also be elected as a member of the Board of Directors, however, may not act as the Chairman of the Board of Directors. The Chairman of the Board of Directors of SEVKAZENERGO JSC is elected from among its members by a majority vote of the total number of members of the Board of Directors by show of hands.

The term of office of members of the Board of Directors is determined by the General Meeting of Shareholders. The term of office of the Board of Directors expires on the date of the General Meeting of Shareholders, at which a new Board of Directors is elected. Persons elected to the Board of Directors may be re-elected any number of times.

### **CONFLICT OF INTEREST**

Conflict of interest is regulated by the Code of Corporate Ethics adopted for the staff of SEVKAZENERGO JSC group of enterprises (Section 14). This document provides for responsibilities of employees, abuse of official position, activities of employees inside and outside the Company.

The principle of minimization of conflict of interest is among the fundamental anti-fraud and corruption guidelines of the Fraud and Corruption Prevention Policy. Pursuant to this principle, the Company reduces a conflict of interest through effective distribution of

powers and responsibilities by building a transparent organizational structure.



A person who meets the independence criteria in accordance with the requirements of the Law of the Republic of Kazakhstan "On Joint Stock Companies" may be elected as an independent director, namely:

- a person who has not been an employee of the Company or a member of the executive body of the Company during the last 5 years;

- a person who does not receive remuneration from the Company or a related party, except for performing the functions as a member of the Board of Directors;

- a person who holds not more than ten percent of the Company's shares and who is not a member of the executive body or board of directors of another company owning more than ten percent of the Company's stake, unless such companies and the Company are members of the same group of companies.

Activities of members of the Board of Directors are governed by the relevant Regulations. Pursuant to clause 6.2.3 of the Regulations, members of the Board of Directors are obliged to monitor and, if possible, eliminate potential conflicts of interest at the level of officials and shareholders, including the illegal use of the Company's property and abuse of powers in making related-party transactions.



### **CORPORATE ETHICS**

The Company has a Code of Corporate Ethics adopted for the staff of SEVKAZENERGO JSC group of enterprises in 2011 (hereinafter - the Code). The Code describes the basic rules of interaction between managers and employees, rules of conduct, requirements for employees from the Company's point of view. These rules are a set of corporate standards that confirm the Company's commitment to ethical and legitimate principles and rules that allow it to conduct a successful business.

Corporate values of the Company are:

- customer relationship: the Company is committed to the highest standards of customer service;

- shareholder relationship: in relations with shareholders, the Company strictly adheres to an open

policy and the principles of corporate governance;staff relationship: employees of the Company are is a key element of its success;

- relations with state authorities: the Company adheres to the principle of neutrality in relations with financial and industrial groups, political parties and associations and operates in the best interests of its consumers and shareholders.

Compliance with business ethics across the Company is monitored by executive officers through the organization of activities in accordance with prescribed ethical principles and standards.

All employees of the Company adhere to standards and provisions of the Code.

### **ANTI-CORRUPTION**

The Company has an Anti-Corruption and Anti-Fraud Policy (hereinafter the Policy) approved by the decision of the Board of Directors of SEVKAZENERGO JSC on January 29, 2017. Anti-corruption and anti-fraud activities are carried out by the Company in accordance with the following principles:

- maintaining a high level of corporate governance;
- intolerance to corruption and fraud;
- proper assessment of corruption and fraud risks;
  minimization of a conflict of interests.

The main anti-corruption goals and objectives of the Company include: creation and implementation of an effective anti-corruption and anti-fraud strategy; formation of an appropriate culture of behavior and a negative attitude towards all corrupt and fraud practices among employees and bodies of the Company; mitigation of the risk of involving the Company and its employees in corruption and fraudulent activities; prompt response to emerging events of corruption and fraudulent nature.







### REMUNERATION POLICY

Remuneration for members of the Board of Directors is determined by the decision of the General Meeting of Shareholders of the Company. Remuneration to members of the Board of Directors may consist of two components:

- fixed remuneration;

- additional remuneration payable depending on the Company's performance and assessment of contribution of each member of the Board of Directors to the achievement of high performance results, as well as for participation in the work of Committees of the Board of Directors.

The total amount of remuneration paid to members of the Board of Directors of the Company in 2018 is KZT 84,097 thous.

Remuneration to the executive body is determined by the decision of the Board of Directors of SEVKAZENERGO JSC.

### CORPORATE GOVERNANCE



To improve business processes and enhance the effectiveness of decisions made, the Company has established internal control mechanisms. To ensure independence and objectivity of its activities, the Internal Audit Office (IAO) reports directly to the Board of Directors of the Corporation and is supervised by the Audit and Risk Management Committee, which monitors decisions made and processes to ensure the reliability of financial reporting and to coordinate internal control and risk management systems.

The IAO operates in accordance with an annual work plan approved by the Board of Directors. The IAO submits its annual report as well as progress reports for nine months to the Board of Directors and the Audit and Risk Management Committee.

In 2018, the IAO conducted audits across SEVKAZENERGO JSC and its subsidiaries on the following topics:

1) Evaluation of effectiveness of the ICS business process "Investment Management".

2) Evaluation of effectiveness of the ICS business process "Tax Accounting".

3) Selective audit of fixed assets and inventories.

4) Monitoring of corrective actions based on recommendations provided by the IAO.

5) Evaluation of effectiveness of the ICS business process "Accounting of Fixed and Intangible Assets".

6) Evaluation of effectiveness of the ICS business process "Management of Procurement, Contracts and Payables".

7) Monitoring of corrective actions to implement the external auditor's recommendations based on the results of auditing the consolidated financial statements as of December 31, 2016.

The IAD operates in accordance with the International Standards on Auditing (ISA) developed by the Institute of Internal Auditors, as well as in line with the current laws and regulations of the Republic of Kazakhstan and the Code of Ethics of internal auditors of SEVKAZENERGO JSC. Internal auditors adhere to the following principles in the course of their activities: integrity, objectivity, confidentiality and professionalism.

The IAO acts in accordance with the requirements of the Internal Audit Department of CAEPCO JSC and complies with the audit methodology and practices.

Since 2018, the Company has been using a functional system of internal controls, which provides reasonable assurance of effectiveness at all levels of control, including financial and operational control, compliance with laws and regulations.







### **CORPORATE GOVERNANCE CODE COMPLIANCE REPORT**

The Company's corporate governance practices in 2018 were fully consistent with the provisions of the Corporate Governance Code.

The corporate governance system of SEVKAZENERGO JSC regulates the process of interaction between the management bodies, the Company's internal control body, shareholders and other stakeholders, and ensures a balance between the interests of all the above listed parties.

The corporate governance system is regulated by the Company 's internal by-laws and is summarized in the Corporate Governance Code. The Code is in full compliance with the Law on Joint-Stock Companies of the Republic of Kazakhstan: the document is based on the current international practices in the field of

corporate governance and recommendations on application of corporate governance principles by Kazakhstan's joint stock companies.

Adherence to the principles of the Corporate Governance Code are aimed at formulating and implementing in the Corporation's day-to-day operations the standards and traditions of corporate behavior that meet international standards and contribute to creating a positive image of the Company in the eyes of its shareholders, customers and employees to achieve the fullest realization of the rights of shareholders and improve their awareness about the Company's activity, as well as to control and reduce the risks, maintain sustainable improvement of the Company's financial performance and successful pursuit of its statutory goals.

#### Responsibility

Responsibility of the Company to its shareholders, employees, customers and partners, close cooperation with them aimed at growing the assets of the Company and improving its stability and reliability. This principle determines the ethical standards for the Company's shareholders and employees, as well as outlines the responsibility of the Company's officials for their illegal, wrongful actions (willful or negligent) or inaction, as provided for by the current law.

#### Transparency

Timely disclosure of accurate information about all material facts relating to the Company's activities, including its financial position, performance, ownership and management structure, in the volume prescribed by the legislation and internal regulations, as well as provision of free access for all interested parties to such information through its publishing in publicly available sources in the manner stipulated by the legislation and the Company's internal regulations.

#### Environmental protection and social responsibility The Company treats the environment responsibly and rationally and operates in a socially responsible manner.

#### Effectiveness

General Director and the Board of Directors of the Company should ensure that the Company is managed in a sensible and responsible manner promoting a steady growth of the Company's financial performance and shareholder wealth, as well as effective human resources policy, employee training and development, motivation and social security.

#### Control

Control over financial and business activities of the Company to protect the rights and legitimate interests of its shareholders, supervision of senior managers over junior managers in accordance with the policies and procedures approved by the Board of Directors of the Company, as well as efficient engagement of internal and external auditors along with the establishment of an effective risk-based internal control system.

### **COMPLIANCE WITH KEY PRINCIPLES OF THE CORPORATE GOVERNANCE CODE IN 2018**

Key principles of the Corporate Governance Code	Adherence to the principles	Comments
<b>Justice</b> Equal treatment of all shareholders, regardless of their capital contribution and location, and providing opportuni- ties for the effective protection of their rights.	Respected	Corporate governance in SEVKAZENERGO JSC is based on the principle of protection and respect for the rights and legitimate interests of the Company's shareholders and promotes the growth of assets and maintaining the Company's financial stability and profitability.
Accountability The Board of Directors of the Company reports to shareholders, executive bodies report to the Board of Directors of the Company, and employees report to executive officials (General Director of the Company). This principle ensures accountability and delineation of powers between the Company's management bodies, as well as full accountability of the Company to its shareholders, which is achieved through the provision to shareholders, in a timely manner, of accurate and complete information about the current financial position of the Company, its financial and business results and the management structure.	Respected	This principle of the Corporate Governance Code is followed through the introduction of the Company's organizational structure in accordance with the Charter and the Law of the Republic of Kazakhstan "On Joint-Stock Companies". Furthermore, the principle of accountability is reflected in the statutes of all management bodies/business units, which allows delineating the powers between the Company's management bodies and ensures full accountability of the Company to its sharehold- ers.





Respected	In 2011, the Company adopted the Code of Business Conduct comprising business relationship standards in the following four areas: • Business and professional ethics • Organizational ethics • Corporate governance • Social responsibility of the Company. The Code of Business Conduct is a set of guidelines and principles followed by the Company's employees when applying the principles of business ethics in their work. The Company has also developed and adopted a Stakeholder Engagement Plan based on which the Company prepares annual progress reports.
Respected	The main objectives of the Company with respect to implementation of the principle of transparency include: • Timely provision of information about all significant matters related to the Company; • Ensuring availability of public information about the Company for all stakeholders; • Improving openness and trust between the Company and stakeholders; • Improving the Company's corporate governance; • Creating a positive corporate image of the Company.
Respected	SEVKAZENERGO JSC has developed and adopted a plan of environmental and social initiatives, which governs the Company's policy in the field of environmental protection and social responsibility.
Respected	The principle of effectiveness is regulated by the Regulations on General Director General Director is the sole executive body of the Company responsible for managing its day-to-day operations and implementing the strategy determined by the Board of Directors and Shareholders. The goals of the Board of Directors are to ensure the availability of a well-thought-out and long-term strategy, growth of the Company's assets, operational efficiency, enforce the rights and legitimate interests of shareholders, as well as to supervise the executive body's activities.
Respected	Control over financial and business activity of the Company is the responsibility of General Director of SEVKAZENERGO JSC in accordance with the provisions set forth in the Company's internal regulations. In addition, the Company has an Audit and Risk Management Committee which is an advisory body of the Board of Directors of SEVKAZENERGO JSC, whose goal is to assist the Board of Directors in monitoring the decisions and processes, ensure the reliability of financial statements and availability of proper internal control and risk management systems.

# **RISK MANAGEMENT**



The main goals of SEVKAZENERGO JSC in the field of risk management to reduce a negative impact of events occurring in the course of activities of the Group, as well as to implement opportunities.

**Corporate risk management system** To accomplish this goal, the Group has a corporate risk management system (RMS) aimed at identification, assessment and monitoring of all significant risks. Risk management is carried out at all levels: industrial enterprises, business units and at the level of the Group of companies companies.



### • RISK MANAGEMENT

Strategic risks	Financial risks
Regulatory risks	Interest risks
Investment risks	Liquidity risks
Project risks	Credit risks
Reputation risks	Price risks
Market risks	Foreign exchange risks
Management risks	Management risks
Credit risks	

Operational risks
Technology risks
procurement and supplies
IT and information security
Emergencies
Human resources risks
Environmental risks
Interaction with contractors
Commercial risks
Professional risks
Fuel risks
Reputation risks
Social risks
Property risks
Management risks

Violation of law
Corruption and fraud risks
Corruption and fraud risks
Collection risks
Regulatory risks
Environmental risks
Human resources risks
Tax risks

# ANALYSIS OF RISKS THAT HAVE SIGNIFICANT INFLUENCE ON PERFORMANCE

Seventy-nine risks affecting the Group's performance were identified in 2018 in the corporate Risk Register and the Risk Map updated in accordance with the approved Risk Management Policy.

No	Risk	Potential factors	Risk level	Change	Description of the risk change	Risk minimization measures
Stra	ategic risks					
1.	Introduction of the electrical capacity market and the balancing electricity market	<ol> <li>Imperfection of laws in terms of the electrical capacity market and the balancing electricity market</li> <li>Lack of a full ASCAE system recording the actual consumption rate.</li> <li>Lack of statistics on consumer load profiles.</li> </ol>			Taking into account the introduction of the electrical capacity market from 2019 and existing unresolved issues, the risk migrated to the major risk zone, i.e. crucial attention is required.	Numerous measures are taken to manage this risk: - Cooperation with the Ministry of Energy and the Committee for Regulation of Natural Monopolies Protection of Competition and Consumer Rights of the Ministry of National Economy of the Republic of Kazakhstan on making proposals and comments to regulations governing the operation of the electrical capacity market and the balancing electricity market. - Development ASCAE system of wholesale consumers. - Introduction of the software to work on the electrical capacity market and the balancing electricity market. - Working with consumers in terms of providing daily schedules. - Monitoring of actual consumption via ASCAE system.
2.	Reducing the rate by a competent authority.	1. Imperfection of legislation. 2. Late communication of changes in legislation to responsible executives of the Corporation.		<	In 2018, pursuant to the order of the authorized body, rates for heat and electricity transmission and distribution were reduced, as a result of which sales rates were reduced as a whole.	<ol> <li>Promoting and defending the interests of the Group through associations and communities (Kazakhstan Electricity Association, Atameken National Chamber of Entrepreneurs of Kazakhstan, etc.).</li> <li>Participation in the development of industry-specific laws and regulations by submitting proposals.</li> </ol>
Оре	rational risks					
1.	Injuries/ incidents	<ol> <li>Employees' violations of process requirements stipulated by OHS rules and regulations during the performance of work</li> <li>Poor knowledge of OHS instructions and requirements of individual employees.</li> <li>Unsatisfactory organization of work practices</li> <li>Equipment failures, accidents at work</li> </ol>		$\langle \rangle$	In 2018, a severe industrial injury was reported in Petropavlovsk Heat Networks LLP – electric shock	To manage this risk, the Group implements on an ongoing basis a set of measures to reduce injuries at work: - strict monitoring of the technical condition of equipment, buildings, structures and vehicles; - permanent occupational safety control; 100% provision of employees with special clothing and personal protective equipment; - employee training and knowledge assessment in the field of occupational health and safety; - investigation and in-depth analysis of accidents to prevent their re-occurrence in the future. An internal regulatory document is developed to interact with contractors in the field of occupational health and safety during the performance of work at facilities of the Group.

#### Risks are identified, evaluated and monitored.

#### Organization of the RMS activities

Risk identification	Risk analysis and assessment	Risk management	Risk monitoring
Detection of risks and their inclusion in the Company's Corporate Risk Register for further assessment and management.	Determining the seriousness of <b>/</b> risk impact on production, financial and economic performance of the Company.	Identification, evaluation and selection of the most effective method for achieving goals by maximizing the positive and minimizing the negative events that have an impact on the activities of the Company.	Ensuring that risk management plans are implemented regularly, promptly and properly.

### **INTERNAL CONTROL STANDARDS**

The Company has an Internal Control System (ICS) which is a set of policies, processes, procedures and standards of behaviour and actions combined into a single continuous process, which is part of the Group's management process exercised by the Board of Directors, as well as all executive and supervisory bodies and employees to ensure a reasonable confidence in achieving the operational goals of the Group and minimization of risks.

The Company has a three-level Internal Control System:

Operational	Financial	Compliance
Applies to the core business objectives of the organization, including productivity, profitability and preservation of resources.	Refers to the preparation of reliable financial statements to be published, including the interim, condensed financial statements, as well as any data derived from	Focuses on compliance with laws and regulations governing the operations of the organization.
	reports (for example, income data), which is publicly available.	



### RISK MANAGEMENT



3. Growth of 1. Low level of payment overdue discipline among customers.  $\checkmark$ 2. Decline in basic macroeco receivables nomic indicators. Legal risks 1. Damage to the Creation of external and internal Company due to threats to the Group's interests as a result of illegal actions of fraud actions of employees and/or third parties employees or third parties in relation to the Group's assets, infliction of damage as a result of inappropriate and inefficient use of resources. 

 > risk impact remained unchanged

 - risk probability decreased

 > risk probability increased

 - risk probability remained unchanged
 - risk impact decreased risk impact increased - major risk - critical risk - significant risk

Board of Directors of SEVKAZENERGO JSC. The Department operates in accordance with an annual work plan approved by the Board of Directors.

	Work performed in 2018
	Updating the Risk Register and Risk Map of the Group.
	Training in the field of risk management for key employees of business units and managers of the Group.
_	Updating the list of business processes exposed to the risk of corruption and fraud.
	Analysis and testing of the effectiveness of the ICS in business processes: – Control of distribution and metering of electricity consumption, energy monitoring; – Control of distribution and metering of heat consumption, energy monitoring; – Human resources management; – Payroll accounting.

In 2018, there was a positive trend in payment for energy consumed. Thus, during the year, the ratio of overdue receivables (over 3 months) in the total volume of receivables to Sevkazenergosbyt LLP increased. However, this risk remains significant for the Company.	To manage this risk, the Company constantly implements the following effective measures: - schedules for debt repayment in installments are prepared; - claim-related work is performed; - non-payers are visited together with enforcement agents to carry out property inventory and exempt home appliances and vehicles; - information on employees' overdue debt for utilities is sent to enterprises; - debtor's property is arrested; - debtor's travel abroad is restricted; - debtor's travel abroad is restricted; - debt is recovered from debtor's financing sources (deduction from wages and pension contributions); - change in the debt recovery method based on which debtor's property (housing or vehicle) is evaluated to sale by tender
In 2018, numerous facts of property damage caused by third parties were reported across the Group (theft of spare parts, materials and electric equipment in electric power networks).	<ol> <li>To manage this risk, the Company constantly implements the following activities:         <ul> <li>development of measures to prevent and suppress possible threats to the Group's economic security;</li> <li>identification of illegal actions of employees and third parties by collecting, analyzing and evaluating operational information in the course of special (official) investigations of abuse (fraud) and infliction of damage.</li> <li>To create and implement an effective anti-fraud and anti-corruption strategy and to form an appropriate culture of behavior and a negative attitude to such actions among the employees and management bodies, the Group implements the Anti-Corruption and Anti-Fraud Policies approved by the Board of Directors.</li> </ul> </li> </ol>

SEVKAZENERGO

## Risk management activities across the Group are carried out by the Risk Management Department, which reports to the

#### Work planned for 2019

Updating the Risk Register and Risk Map of the Group.

Training in the field of risk management and internal control system for key employees of business units and managers of the Group.

#### Updating the list of business processes exposed to the risk of corruption and fraud.

Analysis and testing of the effectiveness of the ICS in business processes:

Investing activity;

- Warehouse management;

- Maintenance and repair management.

# SUSTAINABLE DEVELOPMENT

**SEVKAZENERGO** 

The strategic goal of SEVKAZENERGO JSC is to build a leading private energy company in strict compliance with generally applicable principles of sustainable development such as provision of high-quality services to customers, compliance with the international industrial and environmental standards, improvement of corporate governance, implementation of anti-corruption activities.

### **STAKEHOLDER ENGAGEMENT**

Stakeholder engagement is an important element of the sustainable development system. Principles of stakeholders identification and selection are governed by a regional aspect. Ensuring sustainable development and pursuing strategic goals of the Company is achieved through observance of interests and responsible conduct in respect of all stakeholders. In 2018, the Company prepared a report on SEP (Stakeholder Engagement Plan) implementation. During preparation of the Report, top managers of SEVKAZENERGO JSC

The Company communicates with stakeholders in the following areas:

Social responsibility	Environmental protection	Occupational health and safety	Economic security
Employees	Non-governmental organizations (NGOs)	Employees	Shareholders
Government agencies and supervisory authorities	Government agencies and supervisory authorities	Vendors, contractors	Local communities
Local communities	Local communities	Trade union	
Educational institutions			



were snap polled and based on results of the poll the Company prepared and analyzed a stakeholders ranking map. Primarily cooperation is established with those stakeholders who significantly affect the Company's operations, and also with those who could have a significant influence in the mid-term during the implementation of the Company's strategic initiatives. In addition, the impact of the Company's activity on stakeholders was taken into consideration.

2018

#### Stakeholder engagement process

KEY STAKEHOLDERS	ENGAGEMENT PROCESS	ISSUES ADDRESSED
Employees	By means of corporate newsletters and websites. There are e-mail boxes and phone hotline for employees' appeals. Meetings are held between the company management and employees. Labor disputes are resolved by grievance committees with the participation of representatives of both the employer and the employee.	<ul> <li>Ensuring occupational health and safety;</li> <li>Informing employees about the Company's activities;</li> <li>Promoting professional development;</li> <li>Social assistance and support;</li> <li>Execution of a collective agreement.</li> </ul>
Local communities, consumers	The Corporation has systemized its communications with customers and arranged feedback via web-sites and e-mail. Public hearings, round-table discussions and other events are held.	<ul> <li>Consideration of applications and adoption of rates for monopoly-controlled services;</li> <li>Implementation of the investment program;</li> <li>Ensuring quality of rendered services, monitoring of compliance with customers' requirements</li> </ul>
Government agencies and supervisory authorities	Requests from government and regulatory authorities are processed: some are answered, others are used for notification purposes only. Employees of the Company participate in specialized and general meetings. Visits of official delegations are arranged.	<ul> <li>Mitigation of a negative impact of industrial facilities on the city and region;</li> <li>Ensuring readiness for the heating season;</li> <li>Fulfilment of investment commitments;</li> <li>Compliance with the law, including environmental and nature protection regulations.</li> </ul>
Vendors, contrac- tors, customers	Tenders and meetings with contractors and customers are arranged and held. Corporate web-site has a special feedback section.	<ul> <li>Creating a mutually beneficial partnership;</li> <li>Ensuring a transparent tendering process</li> </ul>
Educational institutions	Meetings with representatives of higher educational institutions are held in regions of operations. Employees of the Corporation participate in activities of examination boards and certification commissions, as well as in accreditation of educational programs.	<ul> <li>Staff recruitment for enterprises;</li> <li>Provision of internship and employment of graduates.</li> </ul>
Mass media	Every year, enterprises of the Corporation conduct press tours, media briefings, press conferences, issue press releases, and promptly respond to information requests.	<ul> <li>Promoting cooperation;</li> <li>Provision of information on the status of the investment program aimed at modernization and renovation of assets;</li> <li>Compliance with environmental standards;</li> <li>Implementation of social projects.</li> </ul>
Non-governmental organizations (NGOs)	Representatives of NGOs are regularly invited to participate in press tours and public hearings held during the year. Employees of the Corporation participate in public meetings with representatives of small and medium businesses. Meetings are held with leaders who support socially vulnerable people as well as with representatives of the consumer protection society.	• Assistance in addressing environmental and social issues.
Trade union	Interaction with trade unions is carried out through arrangement of meetings and handling of requests in the course of activities.	<ul> <li>Implementation of the collective labor agreement;</li> <li>Assistance in arranging leisure and recreation for employees.</li> </ul>
Shareholders	Interaction is carried out during meetings of shareholders	<ul> <li>Economy efficiency and financial results</li> <li>Adherence to the principles of sustainable development in operations of the Group of companies.</li> </ul>

### **INFORMATION POLICY**

Information policy of SEVKAZENERGO JSC is a complex of actions, measures and regulations that assist in managing dissemination of corporate information and creating a consistent image of the Company among its target audience.

The Policy covers internal and external communications. External communication means informing the public about the Company's activities by publishing reports, messages, providing documents and other materials. Internal communications are aimed at informing all employees about the current situation, promoting corporate loyalty, regulating access of various employees and units to corporate information.

The main goals of information disclosure are as follows: - timely provision of information on all substantive matters pertaining to the Company in order to respect legitimate rights of shareholders, investors and other stakeholders, providing them with appropriate information to make informed decisions or take any other actions that could affect the financial and business activities of the Company, as well as any other information promoting better understanding of the Company's activities;

- provision of publicly available information about the Company to all stakeholders;

- improving openness and trust between the Company and its shareholders, potential investors, market participants, state authorities and other stakeholders;

- improving corporate governance in the Company;

- creating a positive corporate image of the Company.

### PLANS FOR 2018:

As part of the Information Policy, further work will be carried out to ensure timely and regular disclosure of information on

- all substantial aspects of the Company's activities. This work includes:
- Awareness-raising campaigns for customers on popular topics; • Further improvement of communication channels within the Group of companies;
- Further improvement of external communication channels;
- Improving in-house training/exchange of experience.

In 2018, SEVKAZENERGO JSC regularly provided information on its activities to stakeholders by updating the Company's web-site, placing information in mass media and social networks, responding to requests, as well as by arranging public hearings, press tours, round tables and other events.

In 2018, the Company implemented activities under the Stakeholder Engagement Plan (SEP) in accordance with the policy of the European Bank for Reconstruction and Development. In 2018, a total of 1,874 materials on the Company's activities were published in the media and social networks: 45 events were held, including 27 events with the participation of mass media, 34 corporate publications were released.

In the reporting year, the public relations department of SEVKAZENERGO JSC participated in the preparation, conducting and information support of sports, sponsorship, commemorative, celebratory and urban events; developed and released pamphlets, booklets and booths for enterprises of the Group.

### **ENVIRONMENTAL IMPACT MANAGEMENT**

Environmental protection and consistent improvement of nature protection performance and energy efficiency are the key strategic priorities of SEVKAZENERGO JSC and an integral part of the sustainable development process.

Indicators	of	2018:
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Electricity production (mln KWh)	Heat production, Gcal	Coal consumption, tons	Fuel oil consumption, tons
3,211.108	1,892.814	2,735,499	2,339

To minimize environmental impact, SEVKAZENERGO JSC consistently implements the environmental policy provided for by the Company's Development Strategy in order to comply with the requirements of the environmental law and to use the latest achievements in science and technology.

The priority areas of SEVKAZENERGO JSC's environmental activities are based on the key environmental impacts. These impacts include: - emissions of pollutants into the atmosphere;

- greenhouse gas (CO<sub>2</sub>) emissions into the atmosphere;
- impact on water bodies due to water consumption;
- disposal of industrial waste.

Significant environmental aspects are managed through regular monitoring of environmental performance, assessment of compliance with the regulatory and corporate requirements. Responsibility for monitoring, accounting and analysis of above listed environmental impacts of SEVKAZENERGO JSC is assigned to officials in charge of environmental protection.

Information on environmental protection is provided by publishing the Environmental Policy and regulations, sustainable development, environmental and social responsibility reports on the website of the Company. The Company informs its contractors about the applicable legislative and normative requirements by including such requirements in agreements, specifications and requirements for contractors.

SEVKAZENERGO JSC intends to make every effort to prevent a negative environmental impact and implement operating methods complying with the requirements of ISO 14001 international standard in all spheres of its activity.

Starting from 2009, SEVKAZENERGO JSC has been implementing the Environmental and Social Action Plan (ESAP) as part of its Investment Program and in accordance with the Environmental Protection Policy of the European Bank for Reconstruction and Development which applies to EBRD-financed projects.





4 685 4 995 4.973 ------ power generation, bln kWh 

### Per-unit emissions of pollutants into the atmosphere in 2012-2018, mg/MWh



### **ATMOSPHERIC AIR PROTECTION**

Atmospheric emissions are one of the main environmental impacts. Renovation of obsolete generating facilities having low energy and environmental efficiency and their replacement with new facilities complying with current environmental protection requirements has the highest impact on reduction of emissions in SEVKAZENERGO JSC. To improve its environmental performance, as part of the investment program, in 2009-2014 SEVKAZENERGO JSC modernized its fly ash collectors by installing 2nd

generation battery emulsifiers on all boiler units of the plant, which increased the degree of combustion gas purification and reduced costs of the enterprise. The actual combustion gas purification rate after the installation of emulsifiers increased from 95.9% to 99.5%. This measure allowed reducing the total annual coal ash emissions from 19,336 tons in 2009 to 5,546 tons in 2018. From the end of 2008 till 2018, total emissions of pollutants from enterprises of SEVKAZENERGO JSC reduced by 12%.

Due to increased production and, consequently, increased consumption of coal, gross and per-unit emissions of solids (coal ash) and sulfur oxide (SOx) associated with the production of heat and electricity slightly increased in 2018 compared to 2017, namely: gross emissions: coal ash by 5.8%, SOx – by 7.4% (t/year), per-unit emissions: ash by 1.95%, SOx – by 3.61%.









### MITIGATION OF ENVIRONMENTAL IMPACT, ENVIRONMENTAL PROTECTION MEASURES

## In 2018, the Company implemented the following main measures to mitigate environmental impact:

- ensuring the real time operation of automated stations for industrial environmental monitoring;

- restoration of heating surfaces of boiler units to ensure effective cleaning, utilization, neutralization, suppression and decontamination of pollutants in gases discharged from emission sources;

- repair of worn out elements of ash collecting plants, air and gas ducts;

- modernization of the hydraulic ash removal system, industrial circulating water supply systems and water recycling system preventing contamination and depletion of water resources; reclamation of the waste ash dump no. 3 to ensure timely return of the land into the economic turnover;
building up separating dams of section no. 3 of the ash dump no. 2;

- dust reduction at the existing ash dump under windy weather conditions;

- arrangement of storage sites for waste generated during the enterprise operations, timely removal of the generated waste to the solid waste landfill.

## **GREENHOUSE GAS (CO<sub>2</sub>) EMISSIONS**

After the Kyoto Protocol entered into force for the Republic of Kazakhstan in 2009, the Company arranged work to prepare for carrying out the inventory of greenhouse gas emissions and consumption of ozone-depleting substances. To monitor greenhouse gas emissions, the Company uses a calculation method, which provides accounting of emissions from normal (regular) production activities, special processes (commissioning, shutdown, repair and maintenance) and emergencies. Greenhouse gas emissions are measured in accordance with normative documents.

In 2016, a tripartite agreement was signed between the European Bank for Reconstruction and Development (EBRD), the Ministry of National Economy of the Republic of Kazakhstan and the Central-Asian Electric Power Corporation JSC to implement projects for



modernization of the district heating system of Petropavlovsk within the framework of Nurly Zhol state program. Under this Agreement, a total of KZT 12.01 bln will be invested in renovating the heating system of Petropavlovsk. Projects for modernization are aimed at improving energy efficiency, loss reduction and improvement of environmental performance (reduction of  $CO_2$  emissions by decreasing the coal consumption due to reduced transmission losses in heat networks.

Gross greenhouse gas emissions increased in 2018 compared to 2017 (6%) and amounted to 4,275,438 tons of  $CO_2$  (this information has not been verified) due to increased amount of burnt coal and increase in the output. Specific indicators of greenhouse gas emissions associated with generation of heat and electricity also showed a slight decrease in 2018.

### ENVIRONMENTAL POLICY

Gross  $CO_2$  emissions in 2012-2018, thous. tons



CO₂ emissions per unit of produced energy in 2012-2018, ton/MWh





### ENVIRONMENTAL EXPENDITURES

To improve efficiency of environmental protection activities, SEVKAZENERGO JSC allocates funds for nature protection. In 2018, total environmental expenditures amounted to KZT 871,760.518. For all new construction and reconstruction projects the Environmental Impact Assessment (EIA) is prepared; its information is communicated to local communities and stakeholders through public hearings. To confirm compliance with the environmental standards of the Republic of Kazakhstan, all projects are subject to state environmental examination in the local environmental regulatory authority.

#### Environmental protection expenditures in 2018

Expanditura itam	Amount of expenditures, KZT mln						
Expenditure item	2013	2014	2015	2016	2017	2018	
SEVKAZENERGO JSC							
Investment expenditures	2,999.9	2,911.7	3,000.0	4,348.9	434.4	366.7	
Expenses for capital repair of fixed assets intended for nature protection purposes	259.5	212.9	131.5	27.6	152.1	200.6	
Current expenses	29.9	237.7	292.9	189.9	182.8	214.5	

#### Structure of environmental protection expenditures in 2018:

- For atmospheric air protection KZT 253,158.703;
- For water resources protection KZT 32,680.711;
- For protection and rational use of land KZT 467,607.681;
- For waste management KZT 10,378.272;
- Other expenditures KZT 17,935.151.

#### TOTAL - KZT 781,760.518.

A common component of the Company's activities is compliance with the law in the field of environmental protection and power generation. In 2018, 3 (three) inspections (one scheduled and two unscheduled/thematic) were carried out in SEVKAZENERGO JSC by the Ecology Department of North-Kazakhstan region. Following the results of inspections for compliance with the environmental law, administrative penalties were imposed for a total amount of KZT 2,324.554.

# WATER MANAGEMENT AND WATER RESOURCES CONSERVATION

Use of water resources is an essential element of the production processes at enterprises and an important function in the equipment cooling process. The main water bodies affected by operations of SEVKAZENERGO JSC are the Ishim River and Bolshoe Beloe Lake in North Kazakhstan region (Petropavlovsk city).

To minimize environmental harm and to ensure simultaneously smooth operation of the enterprise, the laboratory of SEVKAZENERGO JSC has arranged a production monitoring of hydrochemical parameters of water and water bodies. Control of relevant water pollutants depends on peculiarities of hydrochemical parameters, changes in their trend by seasons and during the year for water bodies of the Ishim River, Big White Lake, as well as the character and peculiarities of formation of qualitative and quantitative indicators under

Total water consumption by source, thous. m<sup>3</sup>

Indicator	2013	2014	2015	2016	2017	2018
Total water used, including:	13,403.858	11,690.468	11,158.997	13,591.0	157,598.8	153,974.4
from surface water bodies	14,308.827	11,561.703	11,032.316	13,462.6	157,469.7	153,828.5
from third-party suppliers	116.061	128.765	126.681	128.4	129.1	145.9
from closed-circuit water systems	-	-	-	-	-	-
from circulating water supply systems	0	0	0	0	19,606.9	20,331.6
from water recycling systems	0	0	0	2,418.6	146,695.4	145,381.6

#### Waste water discharged, thous. m<sup>3</sup>

Indicator	2013	2014	2015	2016	2017	2018
Total waste water generated	116.061	128.765	126.681	128.4	129.1	151.2
Discharged to third parties	116.061	128.765	126.681	128.4	129.1	145.9

In 2018, the most important environmental initiatives related to water use and water discharge include the following:

- upgrading the industrial closed-circuit water systems, recycled water systems, and the system that prevents contamination and depletion of water resources (cleaning of grids of oil tanks No. 1-7; cleaning and repair of filters of oil-cleaning units at turbo generators No. 2, 3, 6, 7; cleaning of oil coolers 5D, 2G, 4V, 2B, 5E, 3A, 6B, maintenance of oil cleaning units at turbo generators No 1-7;

- repairs of rotary screens No. 2, 3, 4 at the central pumping station, routine repairs of borehole pumps No. 1, 2 and drainage pumps No. 1, 2, 3 of the on-shore pumping station, pumps No. 2, 4 of the central pumping station; maintenance of the feed pump No. 2, circulating pumps No. 1, 2, 3, 4, 5, overhaul of the circulating pump No. 5, cleaning of the outlet channel;

inspection of the underwater section of intake chambers No. 3 and 5 of the central pumping station, the underwater section of the intake hopper of the purge pipeline at Big White Lake, and the purge valve well DN 600 mm at the on-shore pumping station of SEVKAZENERGO JSC;
 monitoring of quantitative and qualitative water characteristics (water analysis was conducted in accordance with the approved schedule);

- arrangement of activities to improve the qualitative composition of discharges water, improvement of efficiency of effluent treatment facilities (cleaning of the installed Rubezh 45 floating booms).

conditions of a landlocked body of water (cooling pond). The key goal of water use management is to use water more efficiently to ensure the reduction of a negative environmental impact. The enterprise has drinking water supply systems, storm and domestic sewerage systems. Water for domestic, drinking and fire-fighting needs is supplied and discharged in a centralized manner through the city water supply and sewage networks on a contractual basis. The production water supply system is of closed-circuit type.

In 2018, SEVKAZENERGO consumed a total of 153,974.4 thous.m<sup>3</sup> of water for water supply purposes. The whole amount of water used for production needs is fresh water. The Company does not use sensitive water sources.

### **EFFICIENT HANDLING AND DISPOSAL OF PRODUCTION WASTE**

The main type of waste generated by SEVKAZENERGO JSC is coal combustion residuals, which represent 99% of the total amount of wastes; they are stored in specially equipped hydraulic engineering facilities of plane type - ash dumps. Compliance with the environmental regulations of the Republic of Kazakhstan during creation of new ash dump sites prevents environment contamination by ash production waste and ensures stable CHP operation. Other wastes generated during production activities of the Company are transferred for further processing, recycling or final disposal to specialized organizations operating in the territory of the country. The most significant activity related to soil protection from production and consumption wastes is compliance with the rules for temporary waste storage and disposal methods.

The total volume of waste generation at the enterprise in 2018 amounted to 1,144,445.482 tons, including 1,142,932.713 tons of coal combustion residuals,

1.512.769 tons of industrial and domestic wastes. Increase in waste generation by 43,563.61 tons compared to 2017 was due to increase in the share of coal combustion residuals included in the "green" hazard list in the general structure of wastes. In turn, it is caused by increased coal consumption in the fuel balance of SEVKAZENERGO JSC.

In 2018, the most significant waste management measures aimed at improvement of industrial and environmental safety of ash dump sites and other waste disposal facilities included:

- reclamation of ash dump No. 3 (SEVKAZENERGO JSC); - building-up dams of section No. 3 of the ash dump No. 2;

- arrangement of sites for storing waste from renovation and construction of energy generating facilities (preparation of sites, installation of containers).

## PUBLIC ASSESSMENT **OF ENVIRONMENTAL ACTIVITIES**

In 2018, the Company did not conduct public hearings on environmental projects.



### PLANS FOR 2018

In 2019, SEVKAZENERGO JSC will continue to implement measures to reduce its environmental impact. The investment program stipulates further upgrade of generating facilities, implementation of environmental activities and confirmation of compliance with international environmental standards. The Environmental Protection Plan provides for 13 environmental protection activities for 2019 for a total amount of KZT 1,041,121, namely:

- Ensuring the real time operation of automated stations for industrial environmental monitoring:
- suppression and decontamination of pollutants in gases discharged from emission sources; Repair of worn out elements of ash collecting plants, air and gas ducts;
- systems and water recycling system preventing contamination and depletion of water resources; • Reclamation of the waste ash dump site to ensure timely return of the land into the economic turnover;
- Building up fencing dams of the ash dump no. 2;
- Gardening and landscaping of the administrative territory; Arrangement of storage sites for waste generated during the enterprise activities, timely removal of the generated waste to the solid waste landfill.
- · Development of environmental projects;
- Monitoring of quantitative and qualitative indicators of the enterprise operation: monitoring of compliance with each operating boiler unit using the instrumental method by a specialized laboratory;
- Informing the public about the environmental impact of the enterprise; Subscription to periodic environmental publications of the Republic of Kazakhstan.

Total weight of generated waste, tons

5 5	-					
Indicator	2013	2014	2015	2016	2017	2018
Coal combustion residuals	1,024,094.401	1,022,074.027	1,028,964.208	1,134,195.800	1,094,293.674	1,142,932.713
Other types of waste	2,828.060	2,941.842	6,685.315	1,255.292	6,588.198	1,512.769

Waste by hazard level, tons

Indicator	2013	2014	2015	2016	2017	2018
Waste generated	1,026,922.461	1,025,015.869	1,035,649.523	1,135,451.092	1,100,881.872	1,144,445.482
Green list	1,026,910.116	1,025,005.363	1,035,635.746	1,135,415.684	1,100,841.028	1,144,406.423
Amber list	12.345	10.506	13.777	35.408	40.844	39.058
Red list	-	-	-	-	0	0

### **ENVIRONMENTAL MANAGEMENT SYSTEM**

SEVKAZENERGO JSC was among the first enterprises in North Kazakhstan region that obtained a certificate of compliance with ISO 14001 international environmental management standard.

Availability of the environmental management system that is developed, well-functioning and certified for compliance with ISO 14001 standard is the most important indicator of a systematic efficient work in the field of environmental protection that promotes the Company's competitive capacity and creating a positive image in relations with external stakeholders.

In the reporting period, TÜV Rheinland InterCert (leader in the independent examination and certification industry) conducted the first supervisory audit of SEVKAZENERGO JSC to verify compliance with ISO 14001:2015 international standard (Environmental Management System), ISO 9001 (Quality management system) and OHSAS 18001 (Occupational health and safety management system). As a result, the efficiency and effectiveness of the integrated management system (IMS) were confirmed and the validity of certificates was extended till 2020.



Restoration of heating surfaces of boiler units to ensure effective cleaning, utilization, neutralization,

Organization of work to reduce dusting at the existing ash dump under windy weather conditions;

• Modernization of the water supply systems: hydraulic ash removal system, industrial circulating water supply

MPE standards at main pollution sources with the highest station load twice a year from October through March, at









Headcount distribution within SEVKAZENERGO JSC Group of enterprises in 2018

Company name	Number of employees
SEVKAZENERGO JSC	843
North-Kazakhstan Regional Electric Distribution Company JSC	1,207
Petropavlovsk Heat Networks LLP	281
Sevkazenergosbyt LLP	230
Total:	2,561

### **EMPLOYEE STRUCTURE BY CATEGORY AND GENDER**

Due to the nature of activities, the Company's employee structure is dominated by men with a share of 64.2%. The production personnel are mostly blue-collar workers with a share of men amounting to 74.1%.

In 2018, the share of managers was 14.3% of the total headcount, which is an optimal indicator.

	Total		Including:			
Employee category			men		women	
	persons	%	persons	%	persons	%
Headcount	2,571	100.0	1,663	64.7	908	35.3
managers	370	14.4	268	72.4	102	27.6
white-collar workers	718	27.9	326	45.4	392	54.6
blue-collar workers	1,483	57.7	1,069	72.1	414	27.9

### **EMPLOYEE STRUCTURE BY AGE**

The Company's employee age structure is characterized by a high proportion of employees at the most productive age - under 40 years old – 57.4% of the total headcount. The share of employees over 60 years old was 4.9%.

To maintain an optimal balance between young and highly qualified employees, as a part of the Human Resources Management Policy the Company implements activities aimed at high-quality planning, attraction and retention of skilled employees of various levels, provision of continuous professional training and development for employees, and ensuring opportunities for professional growth of initiative young employees.

## **Employee age structure**



## **EMPLOYEE EDUCATION STRUCTURE**

In 2018, the overall ratio of the Company's employees with secondary, higher, technical and professional education remained unchanged compared to 2017.

In 2018, a total of 16 employees obtained a college degree by correspondence training, including 10 employees majoring in energy-related disciplines. Twenty-six employees obtained technical/professional education by correspondence training, including 21 employees who majored in professionally relevant disciplines. Seventeen employees, who completed their studies with an average score of no less than 4.0, received a bonus for the successful graduation.

A total of 91 emplotees continue their studies in energy-related disciplines at higher education institutions and technical and vocational training institutions.

## **EMPLOYEE TRAINING AND DEVELOPMENT**

Employee training and development system of the Company covers the following areas:

- compulsory, normative training;
- development of leadership skills;

development of professional competencies.

To improve the effectiveness of activities and create safe working conditions, the Company carries out training in the corporate format based on individual development plans.



In 2018, 2,144 employees (83.7% of the total headcount) completed training, including compulsory training in the occupational, industrial and fire safety – 1,604 employees, or 62.6% of the total headcount.

In 2018, in order to enhance the professional profile of the Company's employees and to prepare them for combinational (related) occupations, 448 employees were trained.

### Turnover rate



### **EMPLOYEE TURNOVER**

In 2018, the turnover rate across the Company amounted to 11.6% and increased by 1.8% compared to 2017 and by 5.1% compared to 2016. The main reasons for staff turnover include:

- relocation outside Kazakhstan (Russian Federation);
- relocation within Kazakhstan (city/rural settlements);
- dissatisfaction with a salary rate;
- health reason.

### **TALENT POOL**

In 2018, to ensure the availability of the required personnel reserve to fill managerial positions at various levels, SEVKAZENERGO JSC Group of enterprises created a talent pool of 158 senior, middle and junior level managers. Succession planning is based on individual programs of professional and management

### ATTRACTING YOUNG SPECIALISTS

In 2018, in the framework of PROFENERGY initiative, the Company continued implementation of the Program aimed at supporting young specialists and improving their professional level to support young employees and encourage training. The following activities were carried out as part of the Program:

1. A contest of scientific works was organized and held by SEVKAZENERGO JSC to award the nominal corporate scholarships, the winner of which became a student of Petropavlovsk Railway College, majoring in Power Supply.

2. 12 students were employed during summer.

3. 151 students were admitted for internship, of whom 9 students received payment and signed employment contracts effective after graduation.

### Employment rate, %

• Training, advanced training and corporate training funded by the Company;

• Promotion of mentoring and incentives for young specialists;

• Financial and non-financial incentives for workers.

To reduce the turnover rate, the following activities are implemented by the Company:



In the dynamics for 2016-2018, an increase in the hiring rate is observed across the Company. At the same time, the number of dismissed employees exceeds the number of employed persons due to an increase in employee turnover rate.

### AVERAGE PAY INCREASE RATE IN SUBSIDIARIES **OF SEVKAZENERGO JSC**



### **EMPLOYEE MOTIVATION AND REMUNERATION**

The aim of the employee motivation and remuneration system is to attract, retain and motivate employees to ensure the Company can accomplish its mission and achieve business goals at optimal cost.

In 2018, the average salary in enterprises of the SEVKAZENERGO JSC increased by 10.4% compared to 2017 and by 13.5% compared to 2016.

training, skills improvement, internships, mentoring, performing management functions and temporary employee relocation. During 2018, 9 persons from the talent pool were appointed to management positions. The Company also creates an external talent pool by attracting graduates of educational institutions.

4. Employees of the Company took part in examination and state attestation boards responsible for conducting graduation exams and assessment of graduation projects.

Jointly with the Chamber of Entrepreneurs of North-Kazakhstan region, the Company held advanced training courses for 51 mentors of SEVKAZENERGO JSC Group of enterprises on the topic "Training Pedagogy at Workplace".

In 2018, the Company held 18 visits to the Company's production facilities.

In 2018, the Company employed 79 young professionals, including 30 graduates of colleges and universities.

### **NON-FINANCIAL INCENTIVES**

To increase motivation for achievement high and efficient performance, every year the Company undertakes employee recognition initiatives and grants awards, certificates of merit and honorary titles for achieving high production results; relevant information is published in corporate information sources. In 2018, 64 employees and veterans of SEVKAZENERGO JSC Group of enterprises received awards for performance efficiency: 37 employees received corporate awards, 13 employees received awards from CAEPCO JSC, 6 employees and veterans received state awards, 2 employees received awards from the CIS Electric Power Council, and 6 employees received awards from the Kazakhstan Energy Association.

## SOCIAL SUPPORT, GUARANTEES AND COMPENSATION

The social policy of SEVKAZENERGO JSC Group of enterprises is determined jointly with employees and their representatives - trade unions - and is provided from budgets of enterprises.

Goals	Social package
Personnel motivation for long-term employment	Additional professional pension of Bonus payment for professional of Rewards to celebrate anniversarie
Effective compensation and benefits policy	Compensation of utilities costs, pr Transportation of employees to/fr Selling coal at cost to employees l Subsidizing camp tours for childre New Year gifts to children.
Support of employee work efficiency and health	Insurance against occupational ac Compulsory health insurance; Periodic medical examinations; Financial aid for medical treatmer
Social support of employees	Financial aid in case of childbirth Financial aid for funeral services; Financial aid to families with man Social paid leave; Funding the Council of Veterans; Cash reward upon retirement; Support program for retirees and v
Sports and recreational activities	Reimbursement of food expenses t Allocation of funds for healthcare



### INTERACTION WITH TRADE UNIONS

SEVKAZENERGO JSC Group of Companies has signed a Uniform Collective Agreement for 2018-2020, the main objectives of which are to improve the work efficiency at enterprises, strengthen social responsibility of the parties for the results of productive and economic activities, and to increase motivation and employee productivity due to the provision of social guarantees, compensation and benefits stipulated by the agreement.



Trade unions of SEVKAZENERGO JSC Group of Companies jointly with the Employer implement measures to improve the efficiency of companies, strengthen the labor and production discipline, and to maintain the prestige of work performed and a sense of professional pride among the employees.

Head of the trade union assists the Employer in holding cultural and sport events and providing summer vacations for employees' children, as well as in implementing health improvement activities; the trade union also provides social and material aid to employees, their families and retired persons; ensures control over the targeted use of funds allocated to labor protection, health improvement for workers and their family members; participates in the investigation of work-related accidents and making decisions to establish the degree of guilt of the victims, etc.

Year	2016	2017	2018
Number of employees in trade unions, person	1,829	1,773	1,725
Percentage of total headcount, %	70.9	68.8	67.4



contributions at the rate of 5%; competitions; es and holidays.

rovision of benefits for dormitories and rental housing; rom work; living in houses with furnace heating; en under 15 years old;

cidents and diseases;

nt of severe diseases.

;

y children and low-income families;

war, labor and enterprise veterans.

to participants of sports competitions; and team activities.

### SOCIAL SUPPORT IN CASE OF MATERNITY **OR PATERNITY**

Company name	Number of employees who took maternity/child care leave during the year			Number of employees who were on maternity/child care leave as of the end	Number of employees who returned from maternity/child care leave during
	women	men	total	of the year	the year
SEVKAZENERGO JSC	15	0	15	26	5
North-Kazakhstan Regional Electric Distribution Company JSC	16	0	16	33	13
Petropavlovsk Heat Networks LLP	18	0	18	15	2
Sevkazenergosbyt LLP	5	0	5	12	6
Total:	54	0	54	86	26



### SPORTS AND RECREATIONAL EVENTS

To promote healthy lifestyle, the Group of SEVKAZENERGO companies conducts the following activities:

- organization of active leisure;
- development of collective traditions;
- organization of annual sports competitions and professional contests;
- conduct of sport trainings (basketball, volleyball, mini-football).

In 2018, a team consisting of 35 employees of SEVKAZENERGO JSC took part in the city sports day Kyzylzhar and came 3d out of 18 teams of the city of Petropavlovsk.

In June 2018, in anticipation of the Trade Union Day, trade union committees of North-Kazakhstan EDC JSC and SEVKAZENERGO JSC organized a paintball contest where about 130 employees of the enterprises took part. A traditional annual sports day was held among the subsidiaries of the Company. A total of 276 employees took part in the internal contests in 2018. According to the annual results, the team of North-Kazakhstan Regional Electric Distribution Company JSC became the champion for the sixth consecutive year. Athletes of the company became the best in volleyball and mini football, as well as in table tennis, darts, athletics, chess, bowling, and skating.

Winners and participants of all types of competitions are traditionally awarded with diplomas and memorable gifts.

### **CORPORATE EVENTS**

In April 2018, within the framework of a monthly campaign dedicated to the World Safety Day, a number of events were held across the group of enterprises of SEVKAZENERGO JSC. A children creativity competition "Labor Protection through the Eyes of a Child" was held and 13 children of workers were awarded gifts. The Family Day of Occupational Health and Safety was held with awarding the best OHS employees and the following events were arranged for employees' children: presentation of video clips on the topics "Electrical Safety at Home" and "Fire Safety at Home", a tour to the museum of Petropavlovsk CHP-2 of SEVKAZENERGO JSC and tea drinking.

The OHS Service of SEVKAZENERGO JSC took the 1st place in the competition for the best OHS service across CAEPCO JSC. Young professional of the Company took part in the "Safety First" competition in the format of the Club of the Funny and Inventive and won an encouraging nomination.

In anticipation of the 73d anniversary of Victory in the Great Patriotic War, a concert was organized for the veterans of the Company.

### MAIN PLANS FOR 2019

In 2019, the Company will continue to implement HR policies aimed at employee retention and professional development. As part of these policies, measures will be taken to support young professionals and to implement projects for introduction of key performance indicators and automated processes. This includes:

- 1. Further implementation of PROFENERGY project in the following areas:
- Mentoring promotion;
- Program for key personnel development.
- 2. Further implementation of programs to improve the living conditions of the Company's employees.
- documents regulating HR-management processes.
- areas of North Kazakhstan region).
- for 2018-2020.

In July of 2018, on the occasion of the 55th anniversary of North-Kazakhstan EDC JSC and the 10th anniversary of Sevkazenergosbyt LLP, a family event - Energy of Generations - was held among employees and their children. A total of 155 people, including 56 children, took part in sports and creativity competitions.

On the occasion of the Power Engineers' Day, a verse contest "Energetic Rhymes" was organized and held among 23 employees' children. All children were rewarded with prizes. The enterprises held solemn events and awarded power engineers, and a concert program was prepared by workers.

The Company took part in Paryz competition for socially responsible businesses, which has been held since 2008 by the Ministry of Labor and Social Protection of the Republic of Kazakhstan jointly with the Ministry of Energy of the Republic of Kazakhstan, Atameken National Chamber of Entrepreneurs and the Federation of Trade Unions of the Republic of Kazakhstan. SEVKAZENERGO JSC took the third place in the Contribution to the Environment nomination among large business entities.

- Systematic measures to support young employees and promote employee training and education;

3. Development and implementation of automated processes for HR records management and labor economics, functional improvement of 1C 8 Enterprise Management software in accordance with the requirements of

4. Team building activities (organizing the concerts dedicated to 9 May, sports events, collective visits to recreation

5. Improving the system of social support for the employees, further execution of the Unified collective agreement

### STRATEGIC GOALS AND IMPLEMENTED MEASURES IN THE FIELD OF OCCUPATIONAL HEALTH AND SAFETY

Health and safety of employees is one of the most important priority tasks under the Company's Strategic Development Program. Prevention of occupational injuries and diseases has priority importance when making any operational decision relating to electrical and heat energy production.

In 2018, pursuant to the approved OHS Action Plan of CAEPCO JSC for 2018-2019, SEVKAZENERGO JSC implemented the following activities:

 Transition to special clothing made of thermal protective fabrics for electrotechnical personnel.
 Purchase of safety harnesses.

3) A number of events dedicated to the World Safety Day were held:

- A children drawing contest on the theme "Labor Protection Through the Eyes of a Child" was held.

- All participants of the contest were awarded memorable prizes and souvenirs.

4) The practice of conducting peer OSH audits (conducted in October 2018) was in progress.

5) The Company purchased an automatic external defibrillators designed to provide timely and effective first aid to injured persons in case of a sudden cardiac arrest before the ambulance crew arrives.

6) The work was done to promote OHS issues by developing leaflets for visitors and guests of the enterprise and placing corporate OHS posters.

7) Enterprises conducted peer OHS audits aimed at preventing injuries, accidents and incidents during the operation of power and process equipment. The use of best practices identified in the course of peer audits has improved the overall OHS environment and indicators.

8) Repair works were carried out in the mechanical repair shop no. 2 and in the carpentry shop.

9) A video surveillance camera was installed at the first aid station to monitor the pre-shift and post-shift medical examination of employees.

10) In furtherance of the OHS standard "Safety requirements for vehicles/pedestrians interaction at production sites and facilities", a pedestrian and transport traffic scheme was developed.

11) The following documents were Implemented and are applied:

• Regulations on the signal sheet (all received signal sheets are processed by heads of workshops to develop follow up measures);

• Regulations on additional safety signs (the doors of all electrical rooms, electrical cabinets and electrical equipment are provided with safety signs, additional safety signs - combined, prohibiting, warning, fire safety signs, informative and mandatory signs, evacuation signs as well as signs for medical and sanitary purposes);  Safety Regulations for interaction of vehicles and pedestrians in the territory of Petropavlovsk CHP-2 of SEVKAZENERGO JSC;

• Regulations for organizing activities of working groups for workplace certification in production departments at Petropavlovsk CHP-2 of SEVKAZENERGO JSC;

Regulations on preparing the annual plan of work with personnel in the field of occupational health and safety;
Safety Regulations for work at heights in the territory of Petropavlovsk CHP-2 of SEVKAZENERGO JSC (these Regulations also apply to contractors);

• Regulations on the application and testing of protective equipment, tools, devices and instruments used to operate and repair electrical installations;

• OHS Action Plan of Central-Asian Electric Power Corporation JSC for 2018-2019.

12) Informational bulletins "Lessons learned from the results of accident investigations" were reviewed together with employees against the signature.

13) Analysis of occupational injuries for 2017 compared to 2016 was carried out together with employees.

14) During the year, production tests of PPE samples (special clothing and safety footwear) were carried out and relevant documents (acts, protocols) were drawn up based on the results of such tests.

15) Following the results of the scheduled inspection of North-Kazakhstan Regional Electric Distribution Company JSC, measures were elaborated and implemented to eliminate the revealed non-compliances, as well as responsible persons and elimination deadlines were appointed.

16) The methods of organizing the activities of working groups for workplace certification "Quick Victories" were implemented. During the year, 104 workplaces were certified.

17) On May 17, 2018, at the end of a school year, North-Kazakhstan EDC JSC held a large-scale event aimed at promoting security measures among schoolchildren and students to protect them against voltage injuries at the existing electrical installations. During the event, presentations, slides and video clips were demonstrated. The event was attended by 286 representatives of educational institutions (directors and deputy directors of schools and colleges) and organizations (North-Kazakhstan EDC JSC, state labor inspectorate). During the event, all attendees were given OHS material on CDs.

18) Electrical safety cards were developed for visitors of the Company.

19) Business units performed work to improve labor conditions at workplaces, create safe working conditions, as well as to bring equipment into compliance with the requirements of occupational safety standards, sanitary norms and regulations.

The newly recruited employees, seconded personnel, as well as the interns get their first idea about the Company and organization of work processes in the Company at the induction training, which takes place in the security and labor safety offices with the use of technical training means. The results of the induction training are recorded in a relevant log.

Employees also undergo an initial workplace briefing, which is conducted by the OHS engineer together with head of a business unit or his/her deputy by demonstrating safe work practices and methods. Records of the initial workplace briefing are kept in the appropriate log.

At least once a quarter, an immediate supervisor conducts a refresher briefing to maintain the required level and expand the scope of employees' knowledge of legal acts, as well as to improve the methods of equipment operation and repair and to organize safe labor practices. Keeping records of refresher briefings in the appropriate OHS log.

Enterprises of the Company organize a monthly Safety Day to identify violations of the requirements of the applicable rules, regulations and instructions. The Safety Day is followed by discussions on the revealed violations accompanied by acts, which stipulate activities to address the identified observations. Carrying out Safety Days makes it possible to check compliance with normative requirements deeper and in more details.



SEVKAZENERGO

Qualification knowledge checks in the field of health and safety, power plant and networks operation, provision of first care to injured persons, fire safety, and special rules are carried out in two stages – testing and interview. Its introduction allows to deeper check knowledge of normative requirements in the field of health and safety, power plants and networks operation, providing first medical care to injured persons, fire safety, and special rules for the employees.

The enterprises implement permanent and periodic controls: reviews, technical inspection of the technical condition of equipment, buildings and structures; responsible persons are assigned to monitor their condition and safe operation, as well as to ensure the technical and technological supervision. The following documents are developed: job descriptions for all categories of specialists and workers, as well as instructions on safety and health for the working specialties and types of works, operational instructions and other regulatory documentation for the plant staff.

The Company has developed a list of hazards for each work place in the unit, which includes dangerous and hazardous industrial factors affecting each work place, conditions of their appearance, object of impact, undesirable events, risk evaluation and control measures.

### **OCCUPATIONAL SAFETY AND HEALTH COUNCIL**

SEVKAZENERGO JSC has created the Occupational Safety and Health Council. A chairperson of the Council is elected from among employees of the Company. The council consists of representatives of the employer and the trade union, including technical labor inspectors. The Occupational Safety and Health Council performs

the following functions: - examines the causes of occupational injuries and

diseases, analyzes the effectiveness of occupational safety measures, reviews information and analytical materials about the actual state of occupational safety in the organization;

- analyzes the results of employee workplace certification; participates in the preparation of business units and the organization as a whole for brining permanent work places at production facilities to compliance with occupational safety regulations;

- reviews proposals for elimination of the revealed violations in the field of occupational health and safety and creation of safe working conditions in the organization, elaboration of programs, recommendations, decisions, etc., to preserve workers' lives and health in the course of employment;

- assists in carrying out timely and guality employee training on occupational health and safety, conducting occupational health and safety tests, regular training of employees and trade union activists on relevant occupational safety regulations;

- makes proposals for the introduction of improved technology and equipment in order to create safe working conditions and eliminate hard physical labor;

- informs employees of the organization on activities aimed at creating better working conditions, prevention of occupational accidents and diseases, explaining

regulations regarding special clothing, footwear and personal protective equipment and correct methods of using them:

- participates in the review of issues relating to occupational safety budgets, compulsory social insurance against occupational accidents and diseases; and monitors disbursement of funds to improve occupational safety practices.

Each subsidiary has technical occupational health and safety inspectors, who interact with heads of departments, the occupational health and safety service, operation inspectors, industrial safety supervision inspectors, as well as with state labor inspectors, state supervision and control authorities.

The main responsibilities of technical occupational health and safety inspectors include:

- protection of employees' rights and interests;

- participation in the development and submission of proposals to the Occupational Safety section of the collective agreement, as well as to integrated programs and plans of priority measures to improve occupational safety practices developed by authorities;

- monitoring of compliance with occupational safety quidelines at workplaces;

- representing trade unions in government agencies, NGOs, courts of various instances when dealing with labor disputes where the Occupational Safety section of the Labor Code applies.

## **TYPES AND INCIDENCE OF OCCUPATIONAL INJURIES**

In 2018, Petropavlovsk Heat Networks LLP registered one incident with a serious injury.

Classification of the incident by type in 2018 – electric shock. The causes of the incident included unsatisfactory work organization and gross negligence of the injured person.

Occupatio	nal injury rates
-	
Headcount	
Number of i	injury cases
Number of i	injured persons/including wome
Number of	fatalities

#### TIFR - Total Incident Frequency Rate per 1,000 employees



Total injury frequency rate (TIFR) per 1,000 employees was calculated using the following formula:

n× 1,000 Fr= -----, where Ν

n – total number of occupational injuries during the reporting period; N – average headcount.



Total injury frequency rate (TIFR) per 1,000 employees was 0.89.

Fatality incident frequency rate (FIFR) per 1,000 employees was 0.

The incident recording, reporting and notification system of Petropavlovsk Heat Networks LLP with the



2017	2018
1,117	11,119
0	0
0	1/0
0	0





Fatality incident frequency rate (FIFR) per 1,000 employees was calculated using the following formula:

n1 × 1,000 Fr1 = -----, where Ν

n1 – total number of occupational fatalities during the reporting period; N – average headcount.

laws and regulations of the Republic of Kazakhstan and the International Labor Organization.

To prevent occupational injuries and ensure monitoring and recording of violations of occupational health and safety requirements. Petropaylovsk Heat Networks LLP carries out the following work:

- investigation of micro-injuries, incidents and highly

### OCCUPATIONAL HEALTH AND SAFETY

potential accidents being a basis for more serious injuries and damage:

- informing about accidents involving employees of the enterprise by distributing bulletins to communicate the causes and prevent the recurrence of similar cases in the future:

- personnel training in OHS and electrical safety, as well as knowledge assessment;

- implementing corporate OHS standards:
- carrying out scheduled and random OHS audits;
- holding OHS Days;
- holding OHS meetings;

- equipping workplaces in accordance with OHS requirements;

- placing information posters and safety signs at workplaces;

- holding professional competitions;
- arranging demonstrative work permit events, etc.

The activities of contracting organizations involved at production facilities of are controlled as follows: experts of subsidiaries conduct inspections and briefings for personnel.

In 2018, the Company spent more than KZT 54,138.97 on occupational health and safety activities and improvement of working conditions. Funds are invested to provide workers with necessary personal protective equipment, including electrical protection means, special food, medicines, personnel training, purchase fire extinguishing means, as well as to implement measures for additional lighting of workplaces, repair of ventilation and air conditioning systems, buildings, structures, etc.

All employees of the Company are insured against accidents pursuant to the Compulsory Workplace Insurance Act of the Republic of Kazakhstan.

### **EMPLOYEES** OF THE COMPANY EXPOSED **TO HIGH INJURY RISK**

Works related to maintenance and repair of power equipment bears high risks. To ensure safety during the performance of work at electrical installations, the Company provides training for its staff, carries out organizational and technical measures and monitors their implementation. Employees are provided with all required personal protective equipment, electric safety devices, etc.

In 2018, a number of additional measures were implemented to ensure security at enterprises:

- provision of employees of Petropavlovsk CHP-2 of SEVKAZENERGO JSC with special clothes and personal equipment for protection against electric arc;

- provision of electrical personnel of Petropavlovsk CHP-2 of SEVKAZENERGO JSC with individual voltage signaling devices (as additional protection means to warn operating personnel at electrical installations) attached to the worker's protective helmet;

- training in the field of occupational safety and health; - fire safety training within the scope of fire safety basics;

- purchase of clothing, footwear, personal protective equipment, electrical protective equipment, mechanisms and devices;

- conclusion of a contract of employee compulsory insurance against accidents at workplaces;

- conclusion of a contract to supply milk for employees. Milk is provided to all employees of business units.

As a consequence, in 2018, there were no reported cases of electric shock or electric arc burns when servicing electrical installations.

### PLANS FOR 2019

- The following measures are planned for 2019:
- Sources" at PCHP-2:
- 2. Purchase of special clothing for electrical personnel;
- 3. Complete transition to safety harnesses;
- 4. Conduct of the World Labor Day;
- 5. Conduct of competitions in professional skills among business units;

- (availability control), OHS training;
- 7. Updating the introductory instructions.

### CUSTOMER SAFETY AWARENESS-RAISING CAMPAIGNS

Top managers of each electrical distribution unit of the Company jointly with occupational health and safety specialists conduct awareness campaigns among the public about safety precautions near powered electrical installations and electrical power lines.

At the beginning and at the end of a school year, campaigns are conducted to prevent electrical injuries among children, during which specialists of electrical distribution companies visit schools to explain how to avoid electric injuries.

## **CUSTOMER HEALTH AND SAFETY IN SALES ENTERPRISES**

The following measures were taken in the sales company to enhance customer safety and health: - to prevent injuries, entrances to service centers are

provided with anti-slip rubber mats;

- for people with disabilities, service centers are equipped with ramps or buttons to call personnel for assistance;

- building of service centers are equipped with video surveillance systems;

- all service centers have first aid kits with all the necessary medicines;

- service centers are equipped with air-conditioning systems;

- as required by fire safety regulations, service centers have fire alarms and basic fire extinguishing equipment; - evacuation plans are placed where people can spot them easily, emergency doors allow free exit.





1. Commencement of the phased introduction of the occupational health and safety standard "Isolation of Energy

6. Implementation of a comprehensive automation system for all aspects of labor protection, which allows consolidating and automating OHS activities in the following areas: incident management, audits, OHS risks, PPE

> To warn the public and personnel about danger, safety signs and inscriptions are placed on all electrical installations operated in subsidiaries, all equipment is protected against unauthorized access by providing appropriate fences, locks and blocking mechanisms.

> Regional and district media publish articles aimed to prevent injuries, including among children, and protect public health.





### SOCIAL PARTNERSHIP

SEVKAZENERGO JSC is an active participant in social projects aimed at supporting the population of North-Kazakhstan region.

Alakai kindergarten for 320 places opened in 2015 within the framework of the public-private partnership between the Company and the Akimat of North Kazakhstan region continues to function.

A 90-apartment dormitory opened in 2016 provides accommodation for employees of the Company and vulnerable populations of Petropavlovsk.

Implementation of the project became possible due to the public-private partnership between SEVKAZENERGO JSC and the Akimat of North Kazakhstan region. The availability of the dormitory attracts young and prospective employees to work for the enterprises of power industry.

For many years, SEVKAZENERGO JSC provides sponsor support to children of Zhuldyzdar Orphanage by making memory gifts to pupils and graduates of the school on holiday and organizing their leisure time during vacations.

information on activities of SEVKAZENERGO JSC and its subsidiaries. The document includes a Sustainable Development Report, which was prepared in accordance with the GRI G4 guidelines. The main type of information disclosure and GRI guidelines adjusted to the electric power industry were used in the preparation of the Report.

No substantial changes to the content of the report have been made, while the Company now follows the GRI Standards for information disclosure. Section "GRI Element Index" contains a table explaining where to find standard reporting elements and performance data. No external assurance review of the Report was performed.





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### **MATERIAL ASPECTS AND BOUNDARIES**

In accordance with the Principles for defining the report content as per the GRI Standards, the assessment of materiality of topics disclosed in the Report was carried out. The materiality assessment procedure includes the following main steps:

Step 1. Identification of the widest range of potentially important topics related to sustainable development based on the GRI Standards.

Step 2. Analysis of the extent of impact of the listed topics within and outside the Company. Selection of topics for further disclosure taking stakeholder engagement into consideration. Furthermore, priority analysis of topics in terms of their impact on the Company's activities and development strategy. Step 3. In accordance with stakeholders' opinion and strategic plans of the Company, key topics were ranked to determine priorities and develop the Materiality Map. An average score was attributed to each aspect of activity depending on its impact on the Corporation (horizontal axis) and its stakeholders (vertical axis). The highest priority was determined for aspects within the dark blue zone; they were given priority during preparation of the Report. Also, the report partially discloses aspects of the blue zone.

#### LIST OF TOPICS AND MATERIALITY MAP



No	Aspects	No	Aspects
1.	Economic performance	18.	Training and education
2.	Market presence	19.	Diversity and equal opportunities
3.	Indirect economic impacts	20.	Non-discrimination
4.	Procurement practices	21.	Freedom of association and collective bargaining
5.	Anti-corruption	22.	Child labor
6.	Anti-competitive behavior	23.	Forced or compulsory labor
7.	Materials	24.	Safety practices
8.	Power	25.	Rights of indigenous people and minorities
9.	Water	26.	Respect for human rights
10.	Biodiversity	27.	Local communities
11.	Emissions	28.	Assessment of vendor compliance with social criteria
12.	Effluents and wastes	29.	Public policy
13.	Assessment of vendor compliance with environmental standards	30.	Customer health and safety
14.	Compliance with environmental requirements	31.	Products and services labeling
15.	Employment	32.	Consumer privacy
16.	Relations between employees and management	33.	Violations of social and economic legislation
17.	Occupational health and safety		

GRI STANDARD AND YEAR	INDICATOR
OF ITS PUBLICATION	
GRI 101: Reporting principle	s (2016)
GRI 102: GENERAL	Organization profile
	102-1 Name of organization
	102-2 Areas of business
	102-3 Head office location
	102-4 Geography of operations
	102-5 Form of ownership
	102-6 Sales markets
	102-7 Company scale
	102-8 Personnel information
	102-9 Supply chain
	102-10 Significant changes
	in the Company's operations
	102-11 Precautionary principles
	102-12 Support for external initiatives
	102-13 Support for external initiatives
	Strategy
	102-14 Management statement
	Ethics and Integrity
	102-16 Values, principles,
	standards and rules of conduct
	Corporate governance
	102-18 Management structure
	Stakeholder engagement
	102-40 List of stakeholders
	102-41 Collective bargaining agreements
	102-42 Identification and selection of stakeholders



PAGE NUMBER, SECTION AND/OR URL	EXCEPTIONS / COMMENTS
Section "Business profile", p. 7	
Section "Business profile", p. 7 and section "Business model", p. 14	
Section "Contacts", p. 108	
Section "Geography of operations", p. 15	
Section "Corporate structure", p. 7	
Section "Geography of operations", p. 15 Section "Subsidiaries", p. 16	
Section "Key performance indicators", p. 8	
Section "Human resources and social policy", p. 80	
Section "Business model", p. 14	
Section "Organizational structure", p. 48 Section "Share capital structure", p. 48	No changes
Section "Environmental protection expenditures", p. 76	
Section "Environmental impact management", p. 72 Section "Greenhouse gas emissions", p. 75 Section "Environmental management system", p. 78	The Company
	is a member of Kazakhstan Electricity Association (KEA)
	1
Section "Letter of the Chairman of the Board of Directors ", p. 3 Section "Letter of the General director", p. 4	
Section "Corporate Governance Code Compliance Report", p. 60	
Section "Organizational structure", p. 48 Section "Performance overview of the committees of the Board of Directors", p. 53	
Section "Stakeholder engagement", p. 69	
Section "Interaction with trade unions", p. 86	
Section "Stakeholder engagement", p. 69	

### • GRI ELEMENT INDEX

GRI STANDARD AND YEAR OF ITS PUBLICATION	INDICATOR	PAGE NUMBER, SECTION AND/OR URL	EXCEPTIONS / COMMENTS					
GRI 102: GENERAL INFORMATION (2016)	102-43 Approaches to engagement	Section "Stakeholder engagement", p. 69						
	102-44 Key topics and concerns raised	Section "Stakeholder engagement", p. 69						
	About the report							
	102-45 Consolidation basis	Section "About the Report", p. 97						
	102-46 Determining the content of the report and boundaries	Section "List of topics and Materiality Map", p. 98						
	102-47 List of material topics	Section "List of topics and Materiality Map", p. 98						
	102-48 Recalculation of data from past periods	-	Indicators were not changed and are comparable with the data provided in previous annual reports of the Company					
	102-49 Changes in the report content	-	No changes					
	102-50 Reporting period	Section "About the Report", p. 97						
	102-51 Last publication date	Section "About the Report", p. 97						
	102-52 Reporting cycle	Section "About the Report", p. 97						
	102-53 Contact information for questions about the report content	Section "Contacts", p. 108						
	102-54 GRI compliance level	Section "About the Report", p. 97						
	102-55 GRI content index	Section "GRI Element Index", p. 99						
	102-56 External assurance	Section "About the Report", p. 97						

### SIGNIFICANT TOPICS

ECONOMICS			
GRI 103: MANAGEMENT APPROACH (2016)	103-1 Materials and boundaries	Section: "List of topics and Materiality Map", p. 83	
	103-2 Management approach	Section "Financial and economic indicators", p. 39	Comprehensive economic policy covers all major topics in this area
	103-3 Management assessment	-	Not conducted
GRI 203: INDIRECT ECONOMIC IMPACTS (2016)	203-1 Infrastructure support	Section "Corporate events", p. 90	
	203-2 Significant indirect economic impacts	Section "Attracting young specialists", p. 81	
ENVIRONMENT			
GRI 103: MANAGEMENT APPROACH (2016)	103-1 Materiality and boundaries	Section "List of topics and Materiality Map", p. 98	
	103-2 Management approach	Section "Environmental impact management", p. 72	Comprehensive environmental impact management policy covers all major topics in this area
	103-3 Management assessment	_	Not conducted
Materials			
301-1 MATERIALS USED BY WEIGHT OR VOLUME	301-1 Materials used by weight or volume	301-1 Materials used by weight or volume, p. 72	

GRI STANDARD AND YEAR OF ITS PUBLICATION	( INDICATOR	PA
Water	1	
GRI 303: WATER AND DISCHARGE (2018)	303-3 Water intake	Se an
	303-1 Use of water resources	Se an
	303-4 Water discharge	Se an
Emissions		
GRI 305: EMISSIONS (2016)	305-1 Direct greenhouse gas emissions	Se p.
	305-4 Intensity of greenhouse gas emissions	Se p.
	305-5 Reduction of greenhouse gas emissions (COR2R)	Se p.
	305-7 NOx, SOx and other significant harmful emissions	Se p.
Waste		
GRI 306: EFFLUENTS AND WASTE (2016)	306-2 Total waste mass by type of disposal	Sec and p. 7
Compliance		
GRI 307: COMPLIANCE (2016)	307-1 Information on non-compliance with environmental laws and regulations	Gre
SOCIAL CATEGORY	and regulations	
GRI 103: MANAGEMENT APPROACH (2016)	103-1 Materiality and boundaries	Se
	103-2 Management approach	Se
Employment	103-3 Management assessment	-
401-1 HEADCOUNT AND STAFF TURNOVER	401-1 Headcount and staff turnover	40
Employee/management re	lations	
GRI 402: EMPLOYEES AND MANAGEMENT BELATIONS (2016)	402-1 Minimum period of notice regarding significant changes in organization activities	Se an
Health and safety		
GRI 403: HEALTH AND SAFETY (2016)	403-1 Representation of employees in official joint health and safety committees with the participation of representatives of management and employees	Se of an
	403-2 Types and frequency of workplace injuries, occupational diseases, lost work day rate, absenteeism rate in the workplace, total number of work-related fatalities	Se
	403-3 Employees with high injury rates and high risk of occupational diseases	Se exj



AGE NUMBER, SECTION AND/OR URL	EXCEPTIONS / COMMENTS
ection "Water management Id water resources conservation", p. 77	
ection "Water management Id water resources conservation", p. 77	
ection "Efficient management Id disposal of production wastes", p. 77	
ection "Greenhouse gas emissions", 75	
ection "Greenhouse gas emissions", 75	
ection "Greenhouse gas emissions", 75	
ection "Atmospheric air protection", 72	
ction "Efficient management d disposal of production wastes", 78	
reenhouse gas emissions (CO <sub>2</sub> ), p. 75	
ection "List of topics and Materiality Map", 98	
ection "Human resources policy", p. 80	Comprehensive HR policy covers all major topics in this area
	Not conducted
11-1 Headcount and staff turnover, p. 84	
ection "Human resources	
d social policy", p. 80	
ection "Strategic goals in the field occupational health and safety Id measures", p. 90	
ection "Types and incidence occupational injuries", p. 93	
ction "Employees of the Corporation posed to high injury risk", p. 90	
	2018

GRI STANDARD AND YEAR OF ITS PUBLICATION	INDICATOR	PAGE NUMBER, SECTION AND/OR URL	EXCEPTIONS / COMMENTS				
Training	Training						
GRI 404: TRAINING AND EDUCATION (2016)	404-2 Professional development programs	Section "Personnel training and development", p. 83					
Diversity and equal opportu	Inities						
GRI 405: DIVERSITY AND EQUAL OPPORTUNITIES (2016)	405-1 Composition of governing bodies	Section "Personnel structure", p. 82					
Local communities							
GRI 103: MANAGEMENT APPROACH (2016)	103-1 Materiality and boundaries	Section "List of topics and Materiality Map", p. 98					
	103-2 Management approach	Section "Stakeholder engagement", p. 69					
	103-3 Management assessment	_	Not conducted				
GRI 413: LOCAL COMMUNITIES (2016)	413-1 Programs aimed at local community engagement, local community impact assessment and local community development	Section "Stakeholder engagement", p. 69					
Customer health and safety	1						
GRI 103: MANAGEMENT APPROACH (2016)	103-1 Materiality and boundaries	Section "List of topics and Materiality Map", p. 98					
	103-2 Management approach	Section "Customer safety", p. 90					
	103-3 Management assessment	_	Not conducted				
GRI 416: CUSTOMER HEALTH AND SAFETY (2016)	416-1 Evaluation of product safety for the consumer	Section "Customer safety", p. 90					
Additional information		·					
POWER INDUSTRY PROTOCOL GRI G4	G4-EU1 Installed capacity	Section "About the Corporation", p. 8					
	G4-EU2 Power generation	Section "Key performance indicators", p. 8					
	G4-EU3 Number of household, industrial, institutional and commercial customer accounts	Section "Geography of operations", p. 15					
	Length of aboveground and underground power transmission and distribution lines by control mode	Section "Basic operating indicators", p. 8					
	Allocation of COR2R or equivalent emissions allowances	Section "Greenhouse gas emissions", p. 75					

### **FINANCIAL STATEMENTS**

#### SEVKAZENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES

#### CONSOLIDATED STATEMENT OF FINANCIAL POSITION (in thousands of Tenge)

#### ASSETS

NON-CURRENT ASSETS: Property, plant and equipment Advances paid Deferred tax asset Intangible assets Other non-current assets Other financial assets

#### Total non-current assets

CURRENT ASSETS: Inventories Trade accounts receivable Advances paid Income tax prepaid Other current assets Other financial assets Cash

#### Total current assets

#### TOTAL ASSETS

#### EQUITY AND LIABILITIES

EQUITY: Share capital Additional paid-in capital Property, plant and equipment revaluation reserve Retained earnings

#### **Total equity**

NON-CURRENT LIABILITIES: Bands issued Loans Deferred tax liabilities Deferred revenue Asset retirement obligation Employee benefit obligations Finance lease obligations Olvidends payable

Total non-current liabilities



Notes	31 December 2018	31 December 2017
6 9	100,119,870 293,247	101,534,714 243,469
19	23,353 187,750	168,225 206,140
18 11	302,495 2,090	302,495
	100,928,805	102,459,558
7	2,132,305	2,198,380
8	2,510,220	3,366,122
	46,343	69,564
10	701,321	891,315
11	383,470	454,608
12	454,400	70,705
	6,837,603	7,333,686
	107,766,408	109,793,244
13	16,291,512	16,291,512
15	277,168	277,168
	19,310,757	20,274,349
	20,308,992	20,080,465
	50,188,429	20/3531434
16	5,542,187	8,251,896
17	10-000002	13,720,381
19	15,701,429	15,241,831
20	2,052,275	3,103,058
-	50,708	59,085
18	196,546	284,258
		2,127,865
	24,789,528	44,138,572

#### SEVKAZENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES

### CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

(In thousands of Tenge)

	Notes	31 December 2018	31 December 2017
CURRENT LIABILITIES:			
Current-portion of the bonds issued	15	324,339	472,015
Trade accounts payable	21	2,092,488	3,114,220
Short-term loans and current portion of long-term loans	17	20,301,687	3,733,303
Advances received	22	490,737	585,613
Current portion of assets restoration obligation	4	61,665	87,693
Current portion of deferred income	20	136,784	
Current portion of employee beaefit obligations		6,062	5,081
Finance lease obligations	18	63,155	33,156
Other liabilities and accrued expenses	53	3,311,534	699,897
Total current liabilities		26,788,451	8,731,178
TOTAL EQUITY AND LIABILITIES		107,766,408	109,793,244

On behalf of the Management of the Group: Tatarov I.V. Alexeevene T.V. 20 June 2019 The notes on pages 13-62 form on integral part of these subsolidated financial statements. General Director

#### SEVKAZENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES

#### CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME (in thousands of Tenge)

REVENUE

COST OF SALES

GROSS PROFIT

Selling expenses General and administrative expenses Finance costs Finance income Foreign exchange (loss)/gain, net Other income/(expense), net

PROFIT BEFORE INCOME TAX

INCOME TAX EXPENSE

Net profit and total comprehensive income for the ye

EARNINGS PER SHARE Earnings for the year per share, basic and diluted, in Tenge

### On behalf of the Management of the Group



	Notes	2018	2017
	24	33,302,903	31,701,948
	25	(24,802,579)	(22,267,150)
		8,500.324	9,434,798
	26 27 28 29 30 31	(325,551) (2,247,413) (2,865,464) 271,740 (1,242,943) 529,808	(303,167) (2,167,073) (2,379,735) 119,045 49,963 (161,097)
		2,620,501	4,592,734
	19	(671, 342)	(1,229,690)
ear		1,749,159	3,352,844

14

12.16

23.38

Alexeeverie T.V. Chief Accountant

2018

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#### SEVKAZENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(in thousands of Tenge)

	Share capital	Additional paid-in capitai	Property, plant and equipment revaluation reserve	Retained earnings	Total equity
At 1 January 2017	16,291,512	277,168	21,480,749	17,954,086	56,003,515
Net profit and total comprehensive income for the year Property, plant and eoulpment	. 63		163	3,362,844	3,362,844
revaluation reserve Dividends declared (Note 13)			(1,206,400)	1,206,400 (2,442,865)	(2,442,865)
At 31 December 2017	16,291,512	277,168	20,274,349	20,080,465	56,923,494
Adoption of IFRS 9: - remeasurement of expected credit losses (Note 3)	t			(445,524)	(445,524)
At 1 January 2018	16,291,512	277,158	20,274,349	19,634,941	56,477,970
Not profit and total comprehensive income for the year Property, plant and equipment				1,749,159	1,749,159
Financial guarantees issued Dividends declared (Note 13)	-		(963,592)	963,597 (1,029,841) (1,005,859)	(1,029,841) (1,008,859)
At 31 December 2018	16,291,512	277,168	19,310,757	20,308,992	56,188,429

WAT MER IN On behalf of the Management of the Group? CEBKA39 Cimer Accountant Tatarov I.V. **General Director** ANUNDASPOTA ADTAINS Runant Ja June 2019 20 June 2019

The notes on pages 13-62 form an integral part of these consolidated financial statements.

#### SEVKAZENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS (in thousands of Tenge)

	Notes	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:			
Profit before income tax		2,620,501	4,592,734
Adjustments for:			
Depreciation and amortisation		5,065,781	4,818,414
Finance costs	28	2,865,464	2,379,735
(Recovery)/accrual of allowance for expected credit losses		(19,151)	51,769
Accrual/(recovery) of provision for obsolete inventories		16,990	(32,775)
Loss on disposal of property, plant and equipment and intangible			
assets		105,377	252,230
Employee benefit (income)/expense		(965)	452
Accrual/(recovery) of unused vacation reserve		136,090	(2,517)
Foreign exchange loss/(gain), net		1,242,943	(49,963)
Income on the write-off of a government grant		(116,812)	(35,995)
Finance Income		(271,740)	(119,045)
Other adjustments for non-monetary items	<u>_</u>	(30,463)	
Cash flow before working capital changes		11,614,015	11,855,039
Change in inventories		49,555	(221,524)
Change in trade accounts receivable		360,324	(129,977)
Change in advances paid for acquisition of current assets		(325,552)	(35,084)
Change in other current assets		210,254	(542,274)
Change in trade accounts payable		(599,605)	(541,264)
Change in advances received		(95,076)	212,805
Change in other liabilities and accrued expenses		223,237	(242,488)
Change in employee benefit obligations		(3,481)	2,053
Cash flows from operating activities		11,432,671	10,357,286
Income tax paid		(887,460)	(20,515)
Interest paid		(2,481,922)	(2,380,670)
Net cash from operating activities		8,063,289	7,956,101



#### SEVKAZENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

(in thousands of Tenge)

	Notes	2018	2017
CASH FLOWS FROM INVESTING ACTIVITIES: Purchase of property, plant and equipment Purchase of intangible assets		(3,986,586) (17,745)	(8,600,505) (42,160)
Proceeds from disposal of property, plant and equipment		29,521	173,755
Net cash used in investing activities		(3,859,329)	(8,589,812)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from loans	17	6,050,000	5,042,046
Repayment of loans	17	(4,576,748)	(5.317.678)
Placement of bonds	16	11110E30E3013(1999)	100,777
Dividends paid	13	(2,527,865)	(684,783)
Repurchase of bonds	16	(2,725,186)	(500,100)
Proceeds from government grants	17	21,335	1,912,490
Repayment of principal on financial leasing	18	(61,794)	(21,381)
Net cash (used in)/from financing activities		(3,820,258)	531,371
NET INCREASE /(DECREASE) IN CASH		383,702	(102,340)
CASH at the beginning of the year	12	70,705	173,045
Effect of changes in foreign exchange rates on cash balances in a foreign currency	-	(7)	
CASH at the end of the year	12	454,400	70,705



The notes on pages 13-62 form an integral part of these consolidated financial statements.

### GLOSSARY, ABBREVIATIONS

**Overhead power line** is an electric line for transmission of electric power through the wires located in the open air and attached by means of insulators and fittings to supports or brackets.

Overhead transmission lines are meant for transmission of electric power over a distance by wires.

Gigacalorie is a unit of measurement of thermal energy used for assessment in the heat power industry, heating systems and the utilities sector.

**Gigacalorie per hour** is a derived unit used to specify the amount of heat produced or used by some equipment per a unit of time.

**Cooling tower** is a structure shaped like an exhaust tower providing stack effect.

Goodwill is the difference between the price of a company and the fair value of all its assets.

**Ash** is an incombustible residue (in the form of dust) which consists of mineral impurities left after combustion of fuel.

Ash dump site is a place for collection and disposal of waste ash and slag generated during combustion of solid fuel at combined heat and power plants.

Calorie (cal) is an off-system unit for measuring the amount of heat.

**Boiler** is a device for generating pressurized steam or hot water through fuel combustion, use of electric power, heat of exhaust gas or technological process.

**Power transmission line (PTL)** is a structure consisting of wires (cables) and auxiliary devices for transmission of electric power from power plants to consumers.

**Megawatt** is a unit of power measurement in electricity production.

**Pavlodar HNs –** Pavlodar heat networks

Substation is an electric installation used for conversion and distribution of electric power and consisting of transformers or other power converters, switchgear, control devices and auxiliary facilities.

Available capacity of a unit (plant) is installed capacity of a generating unit (plant) minus its capacity limitations.

**Combined heat and power plant** (CHPP, cogeneration heating plant) is a thermal power plant generating not only electric power, but also heat supplied to consumers in the form of steam and hot water.

**Transformer** (from Latin transformare – to transform, to convert) is a device for converting any significant properties of energy (e.g., electric transformer, torque converter) or objects (e.g., photo transformer).

**Turbine generator** is a combination of a steam turbine, electricity generator and exciter united by one shaft train; it converts potential energy of steam into electric power.

**Installed capacity** is an effective value of the turbine generators' rated capacity.

Installed heat capacity of the plant is the sum of all rated heating capacities for all the equipment commissioned under the act and designed for supplying heat to external consumers and steam and hot water for internal needs.

Installed electrical capacity of the energy system is total effective capacity of all turbo and hydropower generators of power plants in the energy system in accordance with their passports or specifications.

Wet scrubber is a device for wet ash and dust removal operating in the phase inversion mode.

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### **ABBREVIATIONS**

**CTF** – Clean Technology Fund. **EBITDA** – an analytical indicator, which means earnings before interest, taxation, depreciation and amortization. ESAP - Environmental and Social Action Plan **ISO –** International Organization for Standardization KEGOC - Kazakhstan Electricity Grid Operating Company JSC OHSAS - International occupational health and safety management system JSC – Joint-stock company AEDC, Akmola EDC – Akmola Electrical Distribution Company JSC **ASCAHE –** Automatic system for commercial accounting of heat energy ASCAE - Automatic system for commercial accounting of electricity GDP - Gross domestic product **OHL** – Overhead lines **OTL –** Overhead transmission lines WPP - Wind power plant Gcal – Gigacalorie Gcal/h – Gigacalories per hour SPAIID - State Program for Accelerated Industrial and Innovative Development GRES - State district power plant GTPP - Gas turbine power plant HEPP – Hydroelectric power plant EBRD - European Bank for Reconstruction and Development

FARD – Fly ash removal device

kWh - kilowatt per hour SC MNE RK - Statistic Committee of the Ministry of National Economy of the Republic of Kazakhstan MW - Megawatt MNE RK - Ministry of National Economy of the Republic of Kazakhstan NGO - Non-governmental organization **EP** – Environment protection PCHP-2 - Petropavlovsk combined heat and power plant No.2 **PE –** PAVLODARENERGO JSC RK - Republic of Kazakhstan **PGA –** Power grid area ICS – Internal control system BoD - Board of Directors ABC - Aerial bundled conductor NK EDC - North Kazakhstan Regional Electric **Distribution Company JSC SKE –** SEVKAZENERGO JSC MM - Mass Media RMS – Risk management system **SPP –** Solar power plant **INR –** Inventories LLP - Limited liability partnership TPP - thermal power plant ECHP - Ekibastuz CHP CHP - Combined heat and power plant. **PP** – Power plant.

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Person in charge of the Annual report	-
Andrey Ageyev	

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REGISTRAR

Integrated Securities Registrar JSC (state registration certificate No. 1678–1910–02-AO issued on January 11,2012 by the Department of Justice of Almaty city).





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