



ANNUAL
REPORT



CAEPCO

Central-Asian
Electric Power Corporation

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ABOUT THE REPORT

This report was prepared by Central-Asian Electric Power Corporation JSC (CAEPCO JSC) on the basis of activities in 2017. The report provides information on the activities of CAEPCO JSC and its subsidiaries.

The document includes the Sustainable Development Report prepared accordance with the GRI Standards: “The main scenario of conformity”. The report is prepared on an annual basis. The previous Annual Report, which included 2016 Sustainable Development Report, was published in July 2017.

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

LETTER FROM CHAIRMAN OF THE BOARD OF DIRECTORS



ALEXANDER KLEBANOV,

CHAIRMAN OF THE BOARD OF DIRECTORS, CAEPCO JSC

DEAR SHAREHOLDERS AND PARTNERS,

This report outlines the results of the year 2017 filled with events which determined the next stage in the Corporation's activities.

Subsidiaries of CAEPCO JSC met strategic goals set by the Board of directors and described in the Development Strategy. The Corporation is among the leaders of Kazakhstan's energy sector in terms of infrastructure modernization. In 2017, CAEPCO JSC continued implementation of large-scale projects aimed at upgrading turbo generators, reduction of transmission losses for electricity and heat, as well as improvement of environmental performance of enterprises in the Group of companies.

Well-balanced investment and financial policy of the leadership ensures greater liquidity, rigorous control over costs and a stable financial position of the Corporation. Profits for the report year reached 10.639 KZT bln.

Being a public company, CAEPCO JSC is committed to the highest standards of corporate governance, which contributes to the long-term sustainable development and protection of the interests of all stakeholders. In 2017, Sergey Kan was elected by the Board of directors as President of CAEPCO JSC. This appointment occurred in line with planned rotation of top management and is consistent with the long-term development plans of CAEPCO JSC. With new members elected during the fiscal year, the Board of directors will continue to oversee the implementation of plans set out in the Development Strategy.

The Corporation is constantly working to increase transparency. To this end, in 2017 the Board of directors adopted a Fraud and Corruption Prevention Policy, whose main principles include maintaining high standards of corporate governance, intolerance to corruption and fraud, proper evaluation of risks, minimization of conflict of interest based on the efficient allocation of duties and responsibilities by building a transparent organizational structure.

In regard to sustainable development, it is important to point out the activities of subsidiaries in the regions. At the end of the fiscal year, SEVKAZENERGO JSC was named one of the most socially responsible enterprises among large companies in Paryz national annual competition. In December of the fiscal year, thanks to support from shareholder Central-Asian Power Energy Company JSC and PAVLODARENERGO JSC, Pavlodar Installation School opened a new dormitory for energy majors with a total housing capacity of 200 students. This community project was carried out within the framework of the memorandum of joint community projects signed with the Governor's office (Akimat) of Pavlodar region.

The results achieved by the Corporation in 2017 attest to the efficiency of the Development Strategy, as well as significance of the set goals, and herald further sustainable development.

LETTER OF THE PRESIDENT



SERGEY KAN,

PRESIDENT OF CAEPCO JSC

DEAR COLLEAGUES AND PARTNERS,

Before you is the 2017 Annual Report of CAEPCO JSC which chronicles the results of continuous implementation of projects aimed at sustainable development of the Corporation.

Being one of the largest private electric and heat power utilities, CAEPCO JSC plays an important role in the transformation of the industry. Specifically, within the framework of Nurdy Zhol initiative, we are implementing a number of projects under the program "Modernization of the Central Heating System in Petropavlovsk, Pavlodar and Ekibastuz." The preliminary outcome was a 24% reduction in system disturbances in 2017 compared to the previous year. Modernization of the heating system will continue until 2020.

During the fiscal year, entities of CAEPCO JSC have made inroads in the introduction of some elements of the smart energy system such as SCADA, ASCAE, ASCAHE, ASU PTP, installed and test launched automatic meter reading (AMR) system for households using wireless LPWAN technology.

In 2017, power plants in Pavlodar and Petropavlovsk continued to be the focus of the investment program aimed at upgrading the generating infrastructure. Pavlodar CHP-3 completed introduction of the automated process control system (APCS) for boiler no. 4, upgraded turbo generator no. 6 upping the installed electrical and heat power capacity by 15 MW and 28 GCal/h respectively. Petropavlovsk CHP-2 completed installation of APCS for turbo generator no. 2, so now four of the plant's seven turbo generators are automatically controlled.

Electricity output in 2017 was 7,300 mln kWh. Importantly, CAEPCO Group of companies has reduced consumption of electricity for its own needs by 0.7%

thanks to lower consumption at PAVLODARENERGO's three power plants and SEVKAZENERGO's Petropavlovsk CHP-2. These achievements are a perfect demonstration of the Corporation's successful policy in the field of modernization and upgrading of the power plant infrastructure. It is expected that by 2020 the Corporation will have upgraded 65% of its generating capacities compared to today's 54.9%.

In addition to projects focused on generation, we kept working to significantly reduce harmful emissions to the environment. In 2017, our environmental activities initiatives were aimed at maintaining the achieved performance and prevention of air pollution, which included overhauls of wet scrubbers and routine checks of boiler furnaces. Additionally, the Group's power plants are building new and reclaiming abandoned fly ash dump sites.

One of the key priorities for the Corporation is to implement an occupational health and safety policy, and to this end best practices and international standards are being introduced. In 2017, the management of CAEPCO JSC subsidiaries received IOSH health and safety certification after completing a training course.

The activities of all entities of CAEPCO JSC throughout the country promote economic stability, continuous operation of industrial enterprises, utilities and community-based services. CAEPCO JSC Group of companies is fully aware of its responsibility and will continue its infrastructure modernization program to ensure uninterrupted operation of the electric and heat utility industry and improve the standards of living of its customers.

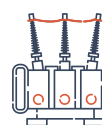
KEY RESOURCES

BUSINESS PROFILE

Central-Asian Electric Power Corporation JSC is the largest vertically integrated private holding among Kazakhstan's electricity and heat utility companies. In the markets where it operates, CAEPCO JSC Group of companies is a monopoly provider of heat (generation and distribution) and electricity (distribution) with its market share ranging from 80% to 100%.



More than
10,603
employees



7.1 %
share in
Kazakhstan's total
electricity output
in 2017



More than
2 MLN
customers
(including family
members)



1,203 MW
installed electricity capacity



2,953 GCAL/H
Installed heat capacity



ORGANIZATIONAL STRUCTURE

Central-Asian Power-Energy Company JSC	European Bank for Reconstruction and Development	Kaz Holdings Cooperatief U.A.	KIF ENERGY S.A.R.L.	Baiterek Venture Fund JSC	CKIF ENERGY S.A.R.L.
59.65 %	22.61 %	10.49 %	4.35 %	1.45 %	1.45 %



PAVLODARENERGO JSC	SEVKAZENERGO JSC	Akmola EDC JSC	Astanaenergoby LLP
100 %	100 %	100 %	100 %

RATING

FITCH RATINGS INTERNATIONAL RATING
AGENCY

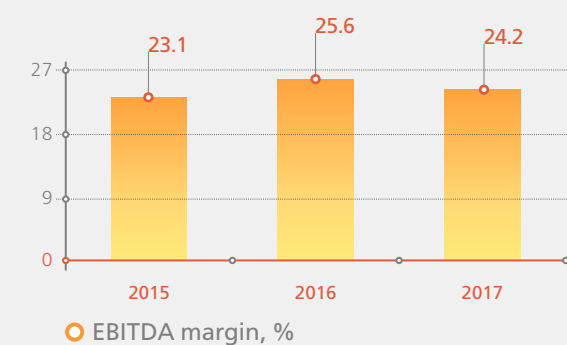
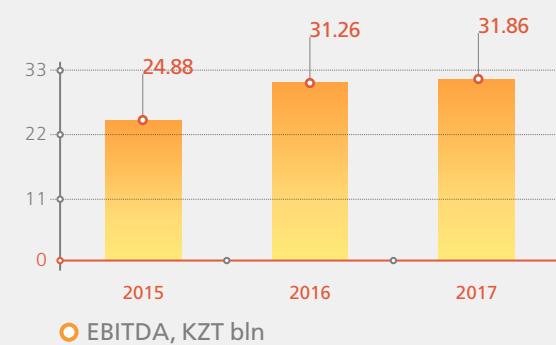
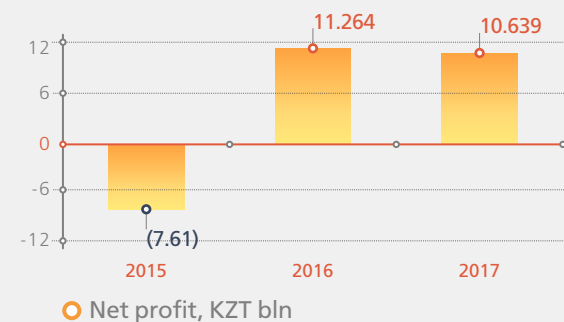
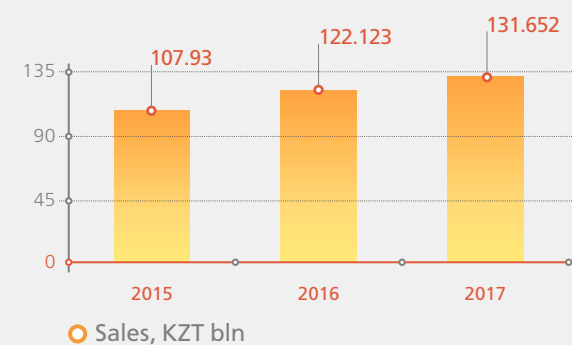
**Fitch
Ratings**

- B+
- Outlook: Stable

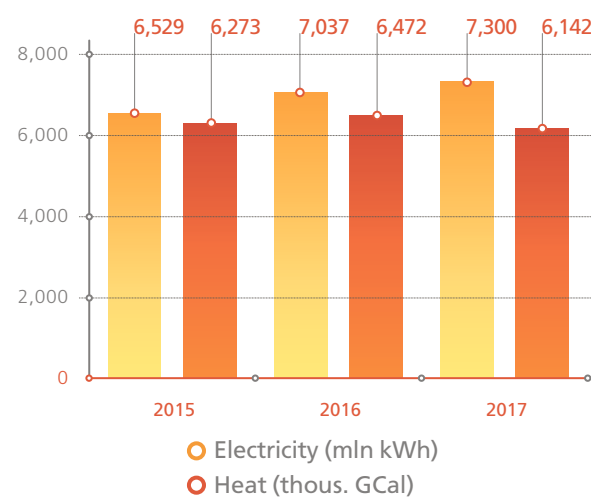
COMPLETE LIST OF RATING ACTIONS

- Long-term IDR in foreign and national currency rated at "B+", outlook "Stable"
- National long-term rating affirmed at "BBB(kaz)", outlook "Stable"
- Short-term foreign currency IDR at "B"
- Senior unsecured rating in national currency affirmed at "B"/recovery rating "RR5"
- National senior unsecured rating affirmed at "BB+(kaz)"

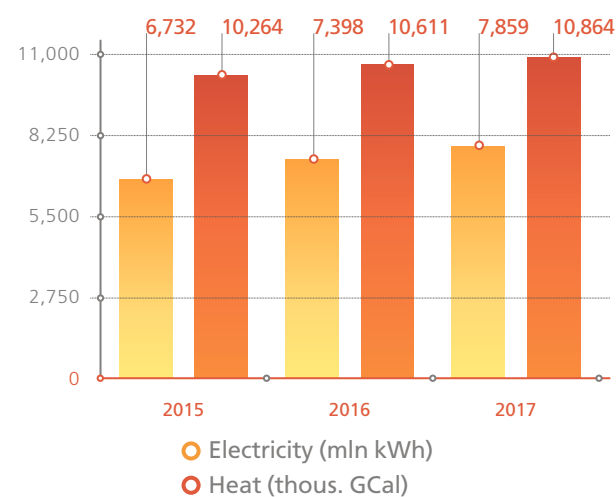
OPERATIONAL HIGHLIGHTS



Energy production



Energy provided to consumers (sales)



PERFORMANCE HIGHLIGHTS

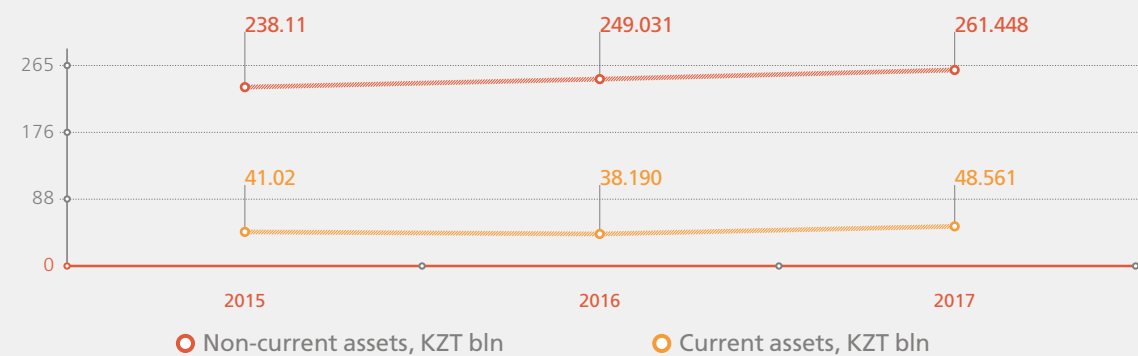
Total power network length, km

TYPES OF ELECTRICAL POWER LINES	TOTAL, km
220 kV	99.2
110 kV	6,631.9
35 kV	10,415.0
6–10 kV	17,985.9
0,4 kV	14,956.4
Total	50,088.4

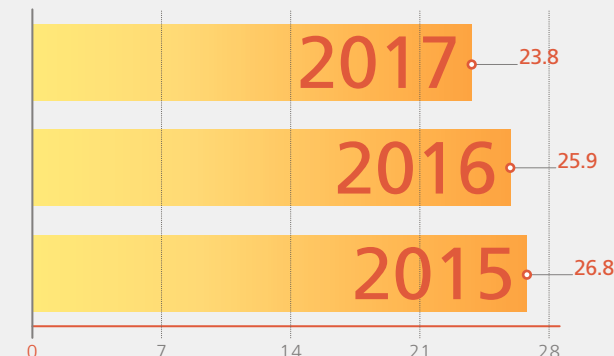
Quantity of substations by type

SUBSTATION TYPES	TOTAL
220 kV	6
110 kV	161
35 kV	416
6–10 kV	9,237
Total	9,820

Assets



Investments, KZT bln



Total heat network length, km

CITY	TOTAL, km
Pavlodar	419.9
Ekibastuz	342.3
Petropavlovsk	233.5
Total	995.7

KEY EVENTS FOR THE REPORTING PERIOD

JANUARY

As part of PROFENERGY program, subsidiaries of CAEPCO JSC in Pavlodar and Petropavlovsk opened competitions for energy major undergraduates from local colleges where winners got corporate scholarships from the top executives of PAVLODARENERGO JSC and SEVKAZENERGO JSC. The competitions were held during the first six months of 2017.



APRIL

Supported by trade unions, occupational health and safety teams in subsidiaries of CAEPCO JSC arranged events to celebrate the World Day for Safety and Health at Work.



JULY

In the days of Expo-2017 in Astana, a memorandum of understanding was signed between Korea Electric Power Corporation (KEPCO) and CAEPCO JSC. The parties agreed to consider cooperation in the field of alternative energy sources and new energy technologies.



AUGUST

- Fitch international rating agency affirmed CAEPCO JSC at "B+", outlook Stable. Subsidiaries PAVLODARENERGO JSC and SEVKAZENERGO JSC were rated similarly.
- A training was conducted to streamline procurement processes in CAEPCO JSC Group of companies. Employees discussed the current situation and learned the best practices which are to be introduced in the holding.
- Members of the Board of directors of CAEPCO JSC visited generating facilities of the Corporation in the regions. During the visit, the executives were acquainted with the progress of the Investment Program focusing on modernization and repairs of the generating infrastructure.



SEPTEMBER

- A corporate training on occupational health and safety practices (international IOSH health and safety certification) was conducted for the senior management of CAEPCO JSC, division heads in subsidiaries and their health and safety officers. At the end of the training, all participants passed the IOSH test and received their certification.
- On September 9, 2017 in Almaty, a memorandum of understanding was signed between the Arctic Green Energy (Iceland) and CAEPCO JSC. The parties agreed to cooperate in the field of renewable energy.
- A Lean Manufacturing training was conducted to improve operational and organizational efficiency through the implementation of lean manufacturing principles. The training was attended by the management of subsidiaries of CAEPCO JSC.
- In Pavlodar, the facilities of Pavlodar REDC held mutual technical audits to exchange experience in modernization, reconstruction and repairs. It was the first time subsidiaries of CAEPCO JSC cooperated in such way.
- The first corporate mini-football tournament was held in Astana within the framework of the anniversary events of CAPEC JCS in which the teams of CAEPCO JSC, PAVLODARENERGO JSC, SEVKAZENERGO JSC, AEDC JSC, CAUSTIC JSC, ID Astana-Invest took part.



OCTOBER

- Appointment of the new executive body of CAEPCO JSC.
- SEVKAZENERGO JSC became a runner-up in the nomination "The Most Socially Responsible Enterprise" (among large enterprises) in Paryz national annual competition.



NOVEMBER

CAEPCO JSC announced changes in the composition of the Board of directors.

DECEMBER

A new dormitory opened in Pavlodar for energy majors of the Pavlodar Installation School with the housing capacity of 200 students. The project was carried out within the framework of the memorandum of joint community projects signed between the Governor's office of Pavlodar region and Central-Asian Power Energy Company JSC, one of the shareholders of CAEPCO JSC.



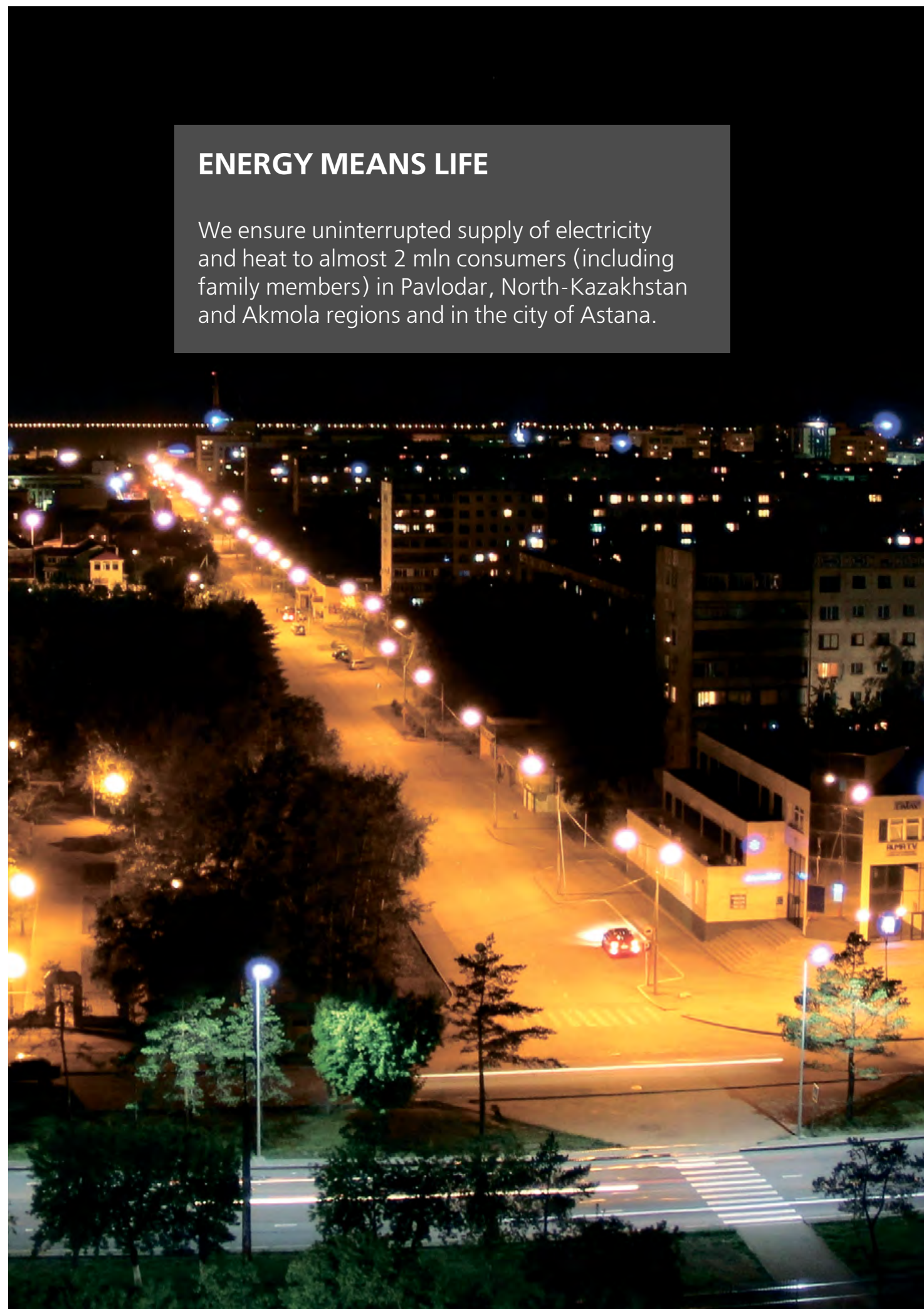


CAEPCO
Central-Asian
Electric Power Corporation

ABOUT
CORPORATION

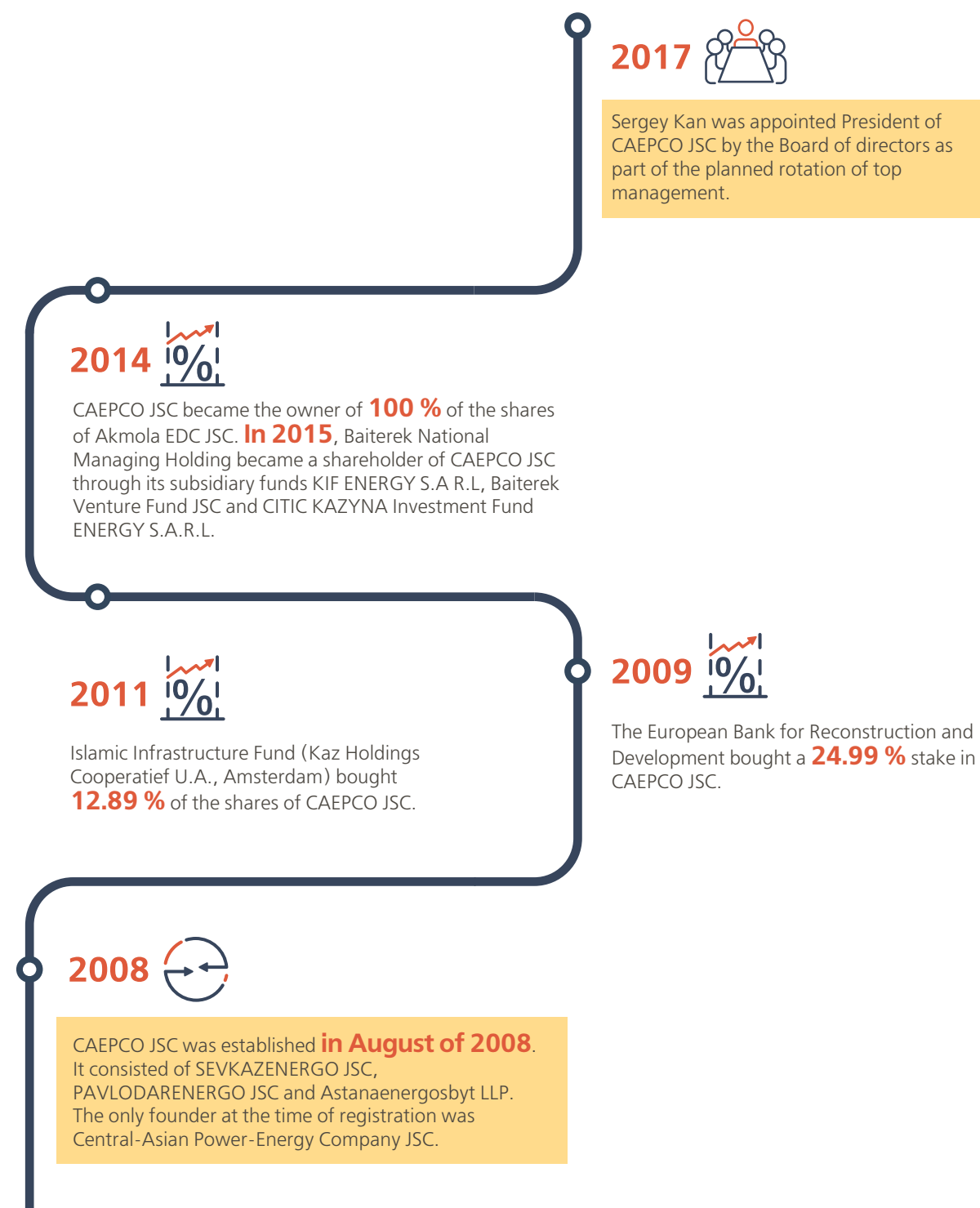
ENERGY MEANS LIFE

We ensure uninterrupted supply of electricity and heat to almost 2 mln consumers (including family members) in Pavlodar, North-Kazakhstan and Akmola regions and in the city of Astana.



ABOUT CORPORATION

HISTORY



MISSION

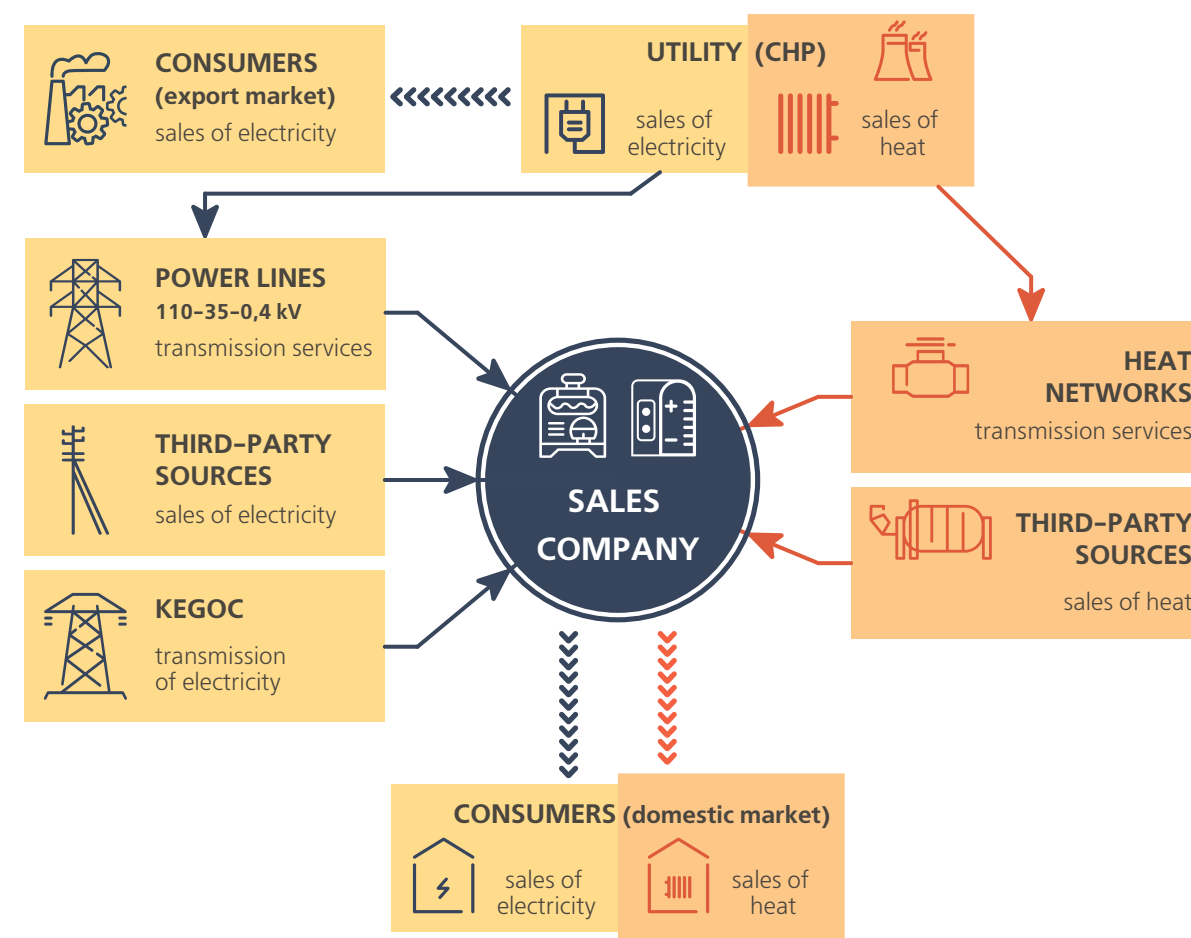
Improving the living standards for customers and promoting economic growth in the markets where we operate by providing first-class energy supply services for households, industries and public sector. We are working to accomplish this mission by operating in accordance with international manufacturing, environmental, occupational safety and social responsibility standards. Employees are key to the Corporation's effectiveness, and their value lies in their high professionalism, ability to work in a team with a focus on results.

VISION

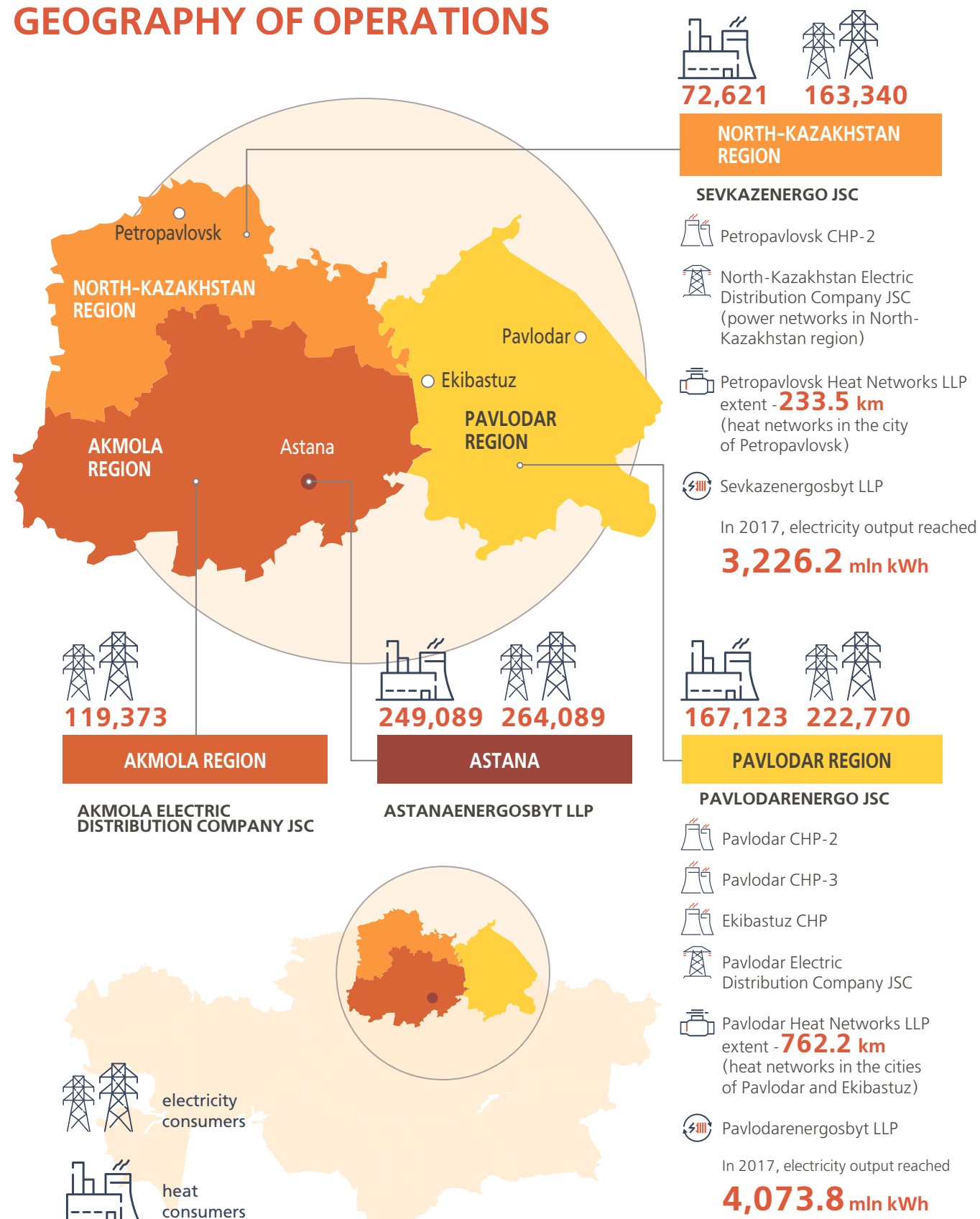
Central-Asian Electric Power Corporation JSC is a leader among private energy companies in Kazakhstan. We operate in the most challenging climate conditions in the North of the country. We successfully leverage the advantages of the holding structure, combining dynamism and flexibility of its elements (companies within the Group) with stability and reliability of centralized management on the Group level.

Our employees are a team of professionals constantly reaching for higher goals. Our relations with customers and suppliers are based on the principles of respect and mutual responsibility.

BUSINESS MODEL



GEOGRAPHY OF OPERATIONS



CHP	INSTALLED POWER GENERATING CAPACITY, MW	INSTALLED HEAT GENERATING CAPACITY, GCal/h	RENOVATION OF EQUIPMENT SINCE 2009, %	YEAR OF FOUNDATION
Pavlodar CHP-3	540	1126	70.4	1972
Pavlodar CHP-2	110	332	-	1961
Ekibastuz CHP	12	782	100	1956
Petropavlovsk CHP-2	541	713	49.7	1961

SUBSIDIARIES

PAVLODARENERGO JSC

PAVLODARENERGO Joint-Stock Company is a vertically integrated company consisting of generation, transmission and distribution facilities in the city of Pavlodar and Pavlodar region.

Electricity produced by PAVLODARENERGO JSC is supplied to customers in Pavlodar, Karaganda, Akmol and East-Kazakhstan regions.

In 2017, Fitch Ratings international rating agency affirmed the long-term issuer default rating (IDR) of PAVLODARENERGO JSC in foreign currency at "B+". National long-term rating was affirmed at "BBBkaz", outlook Stable.

AEDC JSC

Akmola EDC JSC is an electric utility focusing on transmission and distribution of electricity to customers in Akmol region and the city of Astana. Akmol EDC JSC (aka AEDC JSC) has a subsidiary called AEDC-Energosbyt LLP which buys electricity and supplies it to customers in Akmol region.

Akmola EDC JSC consists of a managing company, three branches of inter-district power networks (IDPNs) and 14 district power networks (DPNs).

Akmola EDC JSC operates 0.4-110 kV power networks across 14 districts of Akmol region. Its main energy supplier is Ekibastuz CHP-1 LLP.

SEVKAZENERGO JSC

SEVKAZENERGO Joint-Stock Company is a vertically integrated company consisting of generation, transmission and sales facilities in the city of Petropavlovsk and North-Kazakhstan region.

Electricity produced by SEVKAZENERGO JSC is supplied to customers in the northern, central, eastern and southern regions of Kazakhstan with plans to export electricity to Russia, specifically Kurgan and Omsk regions.

In 2017, Fitch Ratings international rating agency affirmed the long-term issuer default rating (IDR) of SEVKAZENERGO JSC in foreign currency at "B+". National long-term rating was affirmed at "BBBkaz", outlook Stable.

ASTANAENERGOSBYT LLP

Astanaenergosbyt LLP main area of business is supplying electricity and heat to customers in the city of Astana. The company's main energy supplier is Astana-Energiya JSC (CHP-1 and CHP-2 in Astana).

Electricity purchased by Astanaenergosbyt LLP is delivered to customers using the networks of transmission companies such as KEGOC JSC, Akmol EDC JSC and Astana-EDC JSC, while heat is delivered using the networks of Astana-Teplotransit JSC.

For the convenience of its customers, Astanaenergosbyt LLP has 8 locations for payment processing as well as a call center which processes data from electricity and hot water meters and provides information on matters related to energy supply.

Number of substations by type

Substation types	PAVLODAR EDC JSC	NORTH-KAZAKHSTAN EDC JSC	AKMOLA EDC JSC
220 kV	4	-	2
110 kV	74	37	50
35 kV	102	121	193
6-10 kV	3,608	2,253	3,376

Total power network length, km

Types of electrical power lines	PAVLODAR EDC JSC	NORTH-KAZAKHSTAN EDC JSC	AKMOLA EDC JSC
220 kV	14.3	84.9	-
110 kV	2,798.0	1,327.1	2,506.8
35 kV	2,401.3	2,849.4	5,164.3
6-10 kV	6,070.1	4,512.7	7,403.1
0.4 kV	4,613.3	4,526.0	5,817.1

2016–2020 DEVELOPMENT STRATEGY

The strategy determines the main directions for business growth, management initiatives and technology. CAEPCO JSC's strategic goal is to build a vertically integrated private energy company providing customers with consistent and reliable services through the synergy of energy generation, distribution, transmission and guaranteed sales of both electricity and heat.

Main strategic directions

The strategy specifies actions in four strategic areas:

- minimization of per-unit generation costs for heat and electricity;
- reduction of transmission losses above the normal level for heat and electricity;
- introduction of energy-saving and energy-efficient technologies in energy production and transmission;
- building effective environmental risk management system.

Introduction of promising projects through cautious innovation development; promoting "green" technologies

Introduction of best management practices through continuous employee training on new efficient technologies in operations and enterprise management:

- creating customer service centers sharing a common IT-platform;
- transition to a uniform billing system;
- maintaining relevant certification for compliance with international environmental, occupational health and safety standards;
- taking measures to reduce work-related injuries;
- continuous employee training to enhance professional skills.

PROSPECTS OF THE INVESTMENT PROGRAM IMPLEMENTATION UNTIL 2020

CAEPCO JSC is Kazakhstan's third biggest investor in upgrading and renovation of production facilities. The Corporation plans to invest a total of 192 KZT bln during the period between 2009 and 2020.

The investment program has three focus areas:

- increase in output;
- energy efficiency, including reduction of electricity and heat losses during transmission;
- better environmental performance.

By 2020, thanks to the investment program, equipment wear rate at generation facilities will drop from 80% to 56%, with fully renovated production assets making up 65% of all equipment and harmful emissions dropping by 31%.

The upgrading and replacement of the main equipment will drive growth in the following areas:

- installed capacity (electricity) – 288 MW or 31%;
- installed capacity (heat) – 210 GCal/h or 7.6%;
- electricity generation – over 2,000 mln kWh or 38.2%;
- electricity distribution – over 700,000 GCal or 12%.

CAEPCO JSC constantly takes measures to reduce heat and electricity losses during transmission and improve the reliability of supply to consumers.

During 2009-2020, transmission losses are expected to be reduced as follows:

- by 3.6% for electricity, while losses above the normal level were completely eliminated in 2014;
- by 7.2% for heat with full elimination of losses above the normal level by 2020.





CAEPCO
Central-Asian
Electric Power Corporation

MARKET OVERVIEW



ENERGY MEANS FUTURE

We promote growth of Kazakhstan's energy industry, the priority sector of the economy.

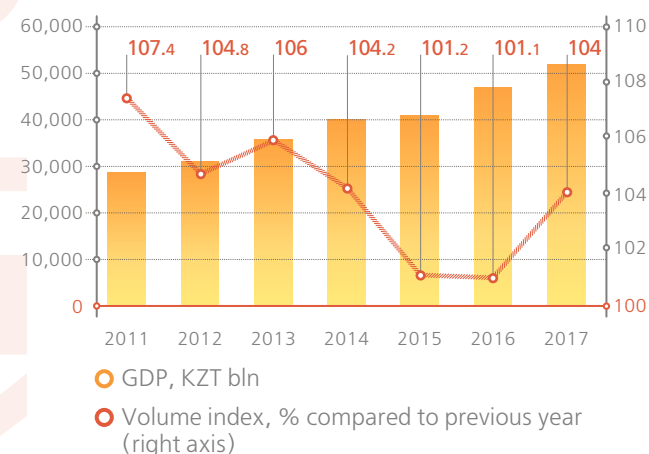
MARKET OVERVIEW

KAZAKHSTAN ECONOMIC OVERVIEW

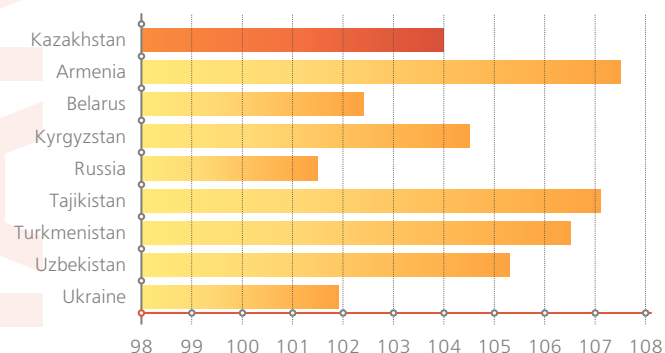
In 2017, the Kazakhstan's economy demonstrated faster growth thanks to increased output of export-oriented industries, more investments and stronger domestic demand. The growth in output occurred in many industries and in virtually all regions, conducting to growth in the energy sector. The Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan reported a 4 % GDP growth in 2017 totaling 51.6 KZT trln. Goods and services accounted for 36.5 % and 57 % of GDP respectively. While industrial production as the largest economic sector made up 26 % of GDP in 2017. Increased net exports were the biggest driver of GDP growth thanks to higher global commodity prices. A major drag on the Kazakhstan's economy came from weak household spending.

Macroeconomic factors

GDP dynamics
Source: Statistics Committee of the MNE RK



YoY GDP change in 2017 in % for selected CIS countries
Source: Statistics Committee of the MNE RK



Manufacturing

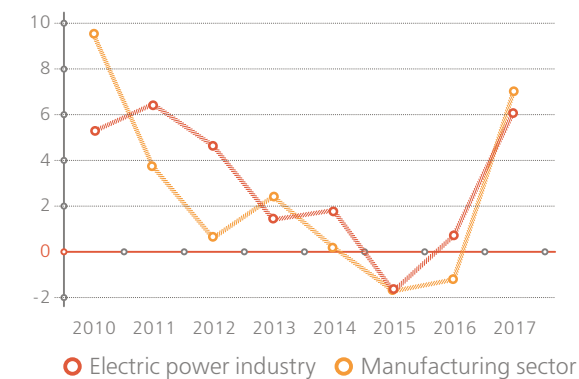
While in decline during 2015–2016, the manufacturing sector showed a 7.1 % growth in 2017. The increase in the industrial production occurred in 14 regions of Kazakhstan, with only Kyzylorda region reporting a slide of 4.3 %. The largest increase was in Atyrau region (20.8 %) thanks to increased production of crude oil.

In Astana industrial output grew by 7.8 %, while West-Kazakhstan region increased production of gas condensate, thus achieving a 5.5 % growth. In 2017, Pavlodar region had the fourth fastest growing industrial sector, showing a 5.1% rise in total output thanks to increased production of coal, gasoline, copper concentrate, raw aluminum and ferrochrome silicon. North-Kazakhstan region produced more food products (milk, butter), as well as PVC pipes, achieving a 4.5 % increase in industrial output.

In 2017, Kazakhstan produced **6.2 %** more electricity compared to the previous year. The situation in the industry is similar to Kazakhstan's manufacturing sector in general.

Output in manufacturing sector and electric power industry, %

Source: Statistics Committee of the MNE RK

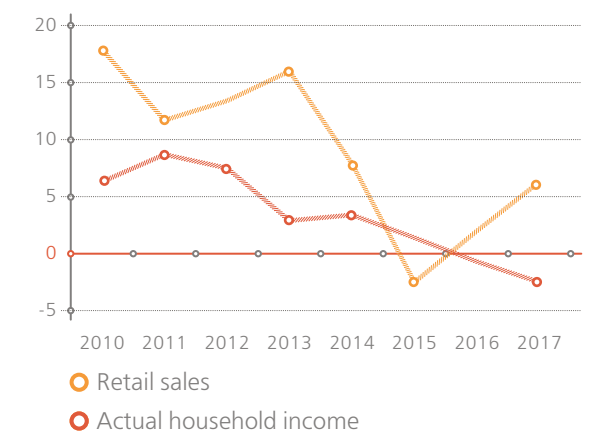


Consumer goods

Once in decline during 2015-2016 due to foreign exchange rate fluctuations and inflation, household spending was on the rise during 2017. According to the Statistics Committee of the MNE RK, retail sales in

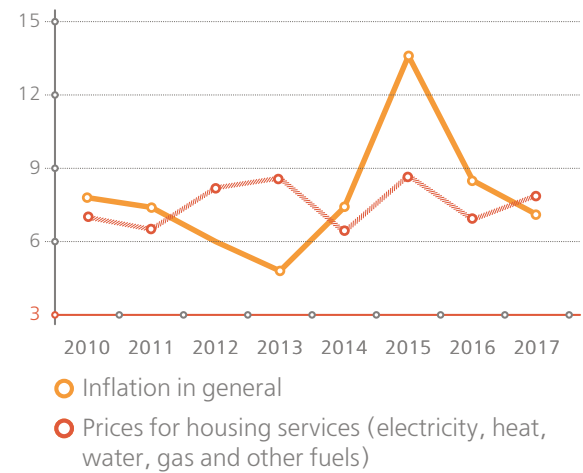
2017 grew by 6.3 % year-on-year, which is considerably higher than in 2016 (2 %), but still behind the pre-2015 period when annual growth rate exceeded 10 % during several years. Unfortunately, household income continued a negative trend, falling 2.5 % in 2017 year-on-year up from 0.7 % in 2016.

Changes in retail sales and household income, %
Source: Statistics Committee of the MNE RK



Inflation in 2017 was 7.1% compared with 8.5% in 2016. According to the National Bank of the Republic of Kazakhstan, inflation slowed down thanks to reduced external inflationary pressure, stabilization on the foreign exchange market and appreciation of tenge thanks to favorable trends on commodity markets.

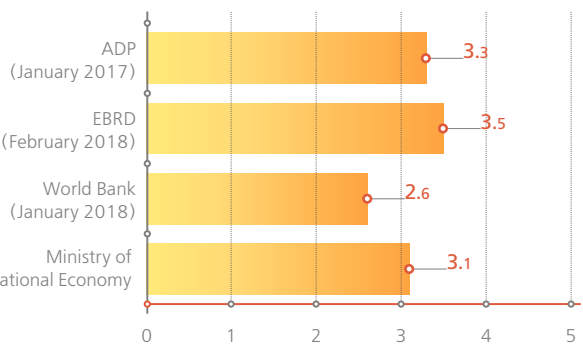
Inflation in Kazakhstan, %
Source: Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan



2018 Outlook

In 2018, experts expect economic slowdown compared to 2017, pointing out relatively favorable external economic conditions, in particular the growth of major world economies and strong chances of oil prices staying above the 60 US dollars per barrel mark. Exports and investments are expected to keep growing, along with household spending.

Kazakhstan economic outlook for 2018, %
Source: Ministry of the National Economy of the Republic of Kazakhstan and international financial institutions



KAZAKHSTAN'S ENERGY
SECTOR OVERVIEW

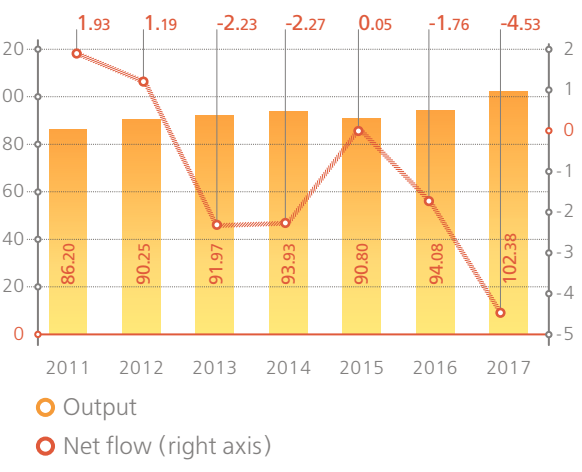
The energy sector continued to grow rapidly thanks to generous investment of major players in modernization of fixed assets and expansion of generating capacities. The fiscal year was record breaking in terms of both production and consumption of electricity.

Production

According to system operator KEGOC, as of January 1, 2018 Kazakhstan had a total of 128 power plants with the total installed capacity of 21,672.9 MW and available capacity of 18,791.4 MW.

In 2017, electricity production increased almost 9%, and output reached 102.38 bln kWh.

Electricity generation in Kazakhstan, bln kWh
Source: KEGOC



In 2017, heat power plants accounted for 80% of generated electricity achieving a 10% increase in total output. Gas turbine and hydropower plants accounted for 8% and 11% respectively.

In 2017, renewable energy infrastructure continued to expand. First and foremost, this includes wind and solar power stations, as well as small hydropower plants. In 2017, renewable energy sources accounted for a total of 1.1 bln kWh, showing a 19% year-on-year growth.

PRODUCTION OF ELECTRICITY BY TYPE OF
GENERATION, BLN kWh

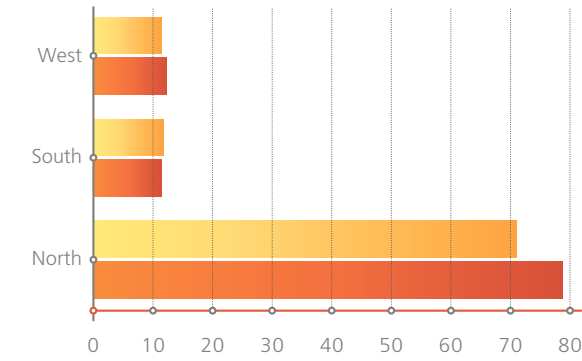
TYPE OF GENERATION	THERMAL POWER PLANTS	GAS TURBINE POWER PLANTS	HYDROPOWER PLANTS	WIND POWER STATIONS	SOLAR POWER STATIONS
2016	74.70	7.41	11.61	0.27	0.09
2017	82.42	8.37	11.16	0.34	0.09
CHANGE	10 %	13 %	-4 %	24 %	4 %

Kazakhstan national electrical grid includes three zones:

- North (Akmola, Aktobe, Atyrau, Pavlodar, North-Kazakhstan, East-Kazakhstan and Karaganda regions);
- South (Almaty, Zhambyl, Kyzylorda and South-Kazakhstan regions);
- West (Atyrau, West-Kazakhstan and Mangystau regions).

West and South have to import electricity. However, supply almost equals demand in the West, while in the South demand exceeds supply by as much as 80%.

Production of electricity by zone, bln kWh
Source: KEGOC



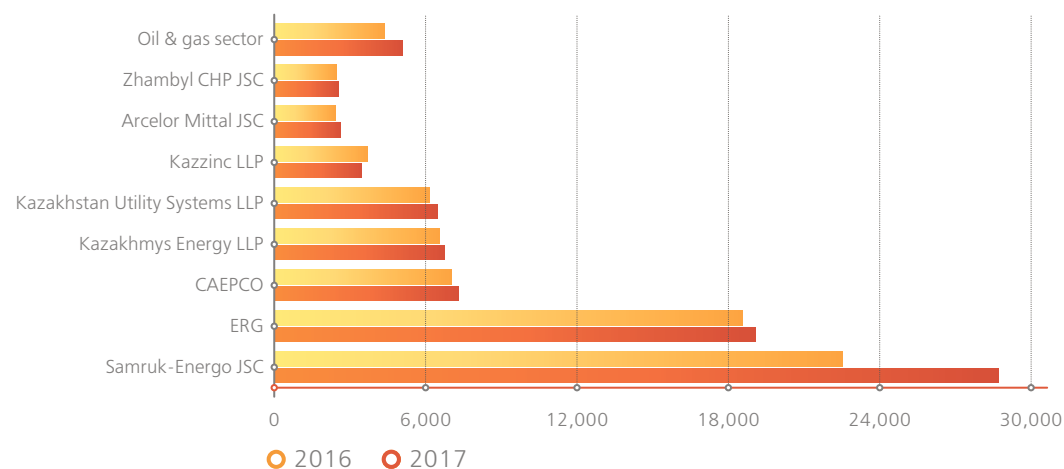
In 2017, North accounted for 77% of electricity produced in Kazakhstan: the country's major power plants are located in the north to benefit from proximity to coal deposits. Eighty-four percent of electricity produced is consumed by customers with many of them being large industrial enterprises. The surplus electricity is exported to other regions of Kazakhstan and Russia.



Companies in the state-owned holding Samruk-Energo accounted for 28% of electricity produced in Kazakhstan in 2017, with the increase in production reaching 27.5%.

CAEPCO JSC is the third biggest energy producer in Kazakhstan accounting for 7.1% of total output.

Kazakhstan's biggest energy producers, mln kWh
Source: Samruk-Energo JSC

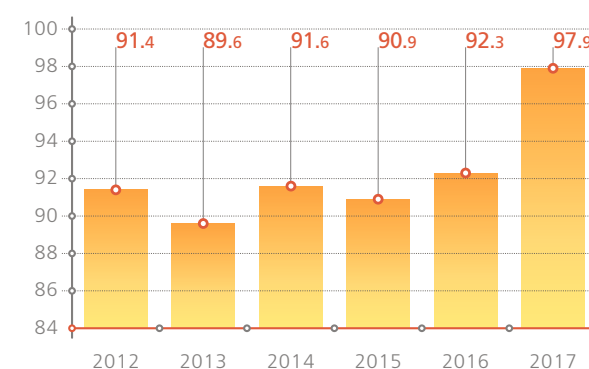


Consumption

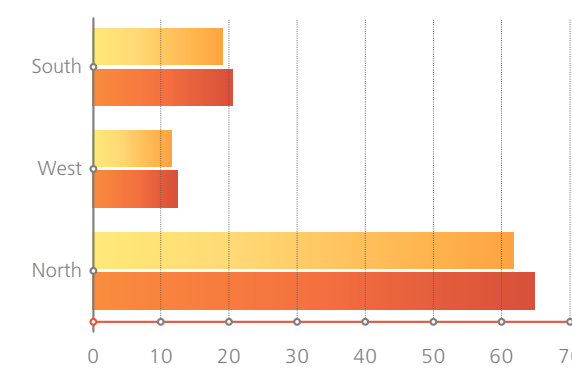
In 2017, Kazakhstan consumed **97.9 bln kWh** of electricity which is **6 %** more than in 2016. This is the country's all-time high over the years of independence.

Virtually all large consumers showed increased consumption. For example, Kazakhstan Aluminum Smelter JSC, the third biggest consumer, showed a YoY growth of 7%, Arcelor Mittal Temirtau – 4% and Kazchrome – 32%.

Electricity consumption in Kazakhstan, bln kWh
Source: KEGOC



Electricity consumption by zone, bln kWh
Source: KEGOC

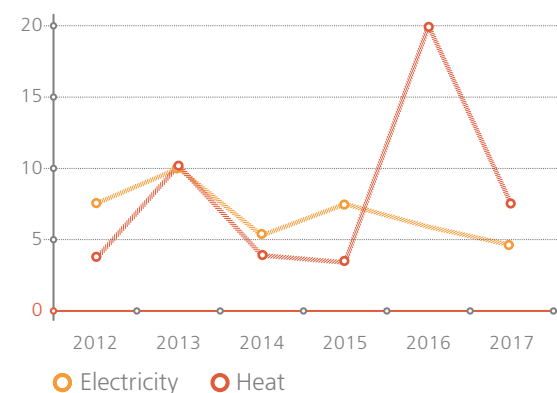


Rates

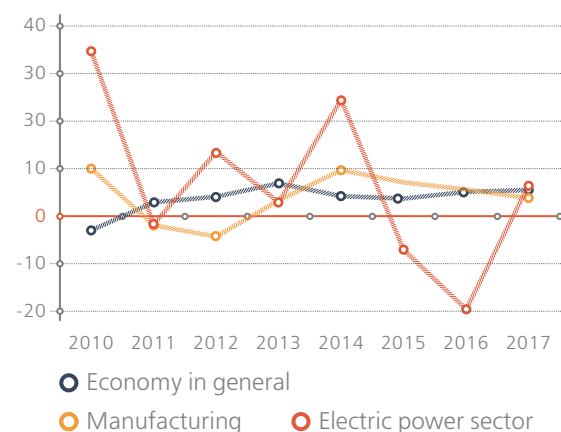
According to the Statistics Committee of the MNE RK, in 2017 electricity rates rose just **4.6 %** compared to the previous year, a record low over the last several years. Heating rates increased **7.4 %**.

The country's pricing regulator insists that investments are included in prices to stimulate modernization of fixed assets in the industry. Started in 2009, the rate limiting program for electricity generating companies ended in 2015 but was immediately extended until January 1, 2019. As of 2016, power transmission and heating supply organizations in Kazakhstan switched to 5-year limited rates which can be adjusted.

Changes in electricity and heating rates in Kazakhstan, %
Source: Statistics Committee of the MNE RK



Investments in fixed capital, %
Source: Statistics Committee of the MNE RK



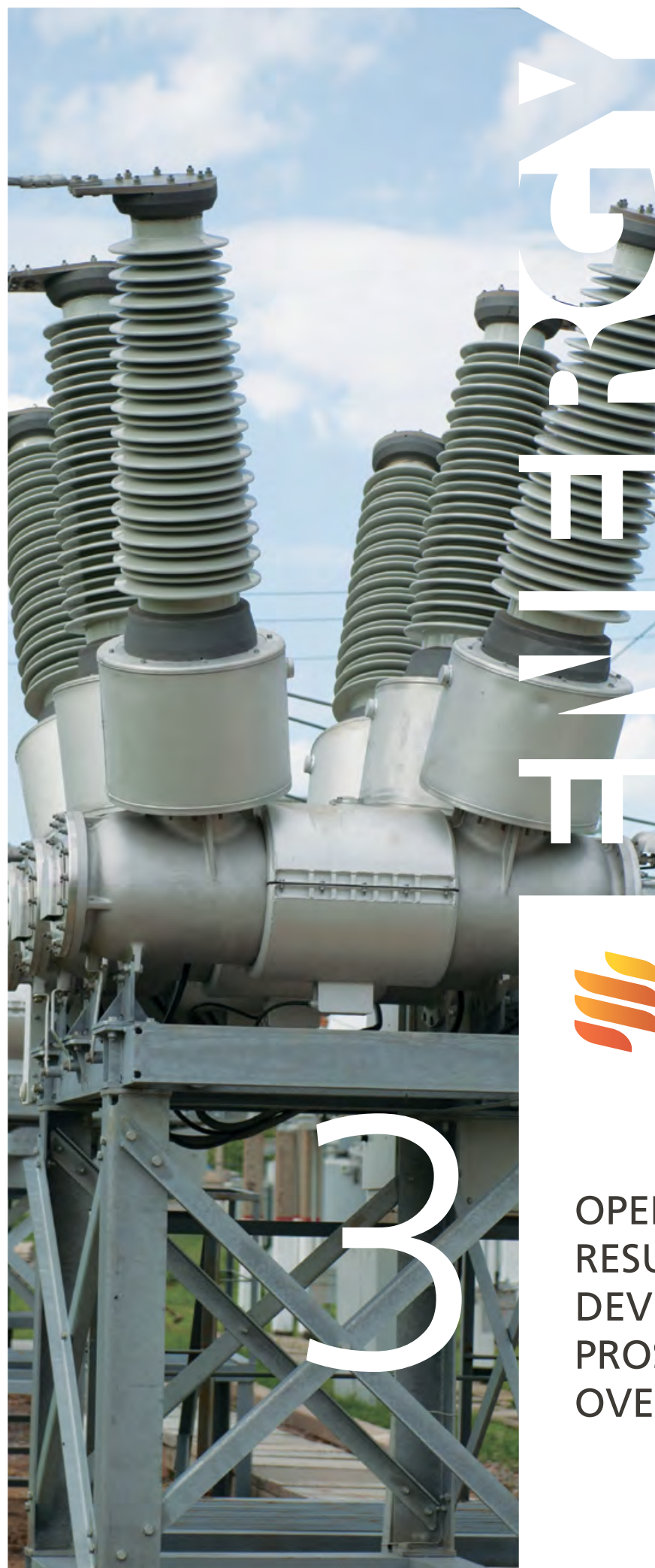
Market outlook

According to the Energy Ministry, in 2018 Kazakhstan will produce 114.5 bln kWh of electricity, including a surplus of 14.3 bln kWh. Renewable energy will account for 2%. By 2024, Kazakhstan will be producing

128bln kWh per year with a surplus of 18.8 bln kWh and 32 bln kWh generated by new power plants that are yet to be built.

KAZAKHSTAN'S NATIONAL ELECTRICAL GRID OUTLOOK, BLN KWH

ITEM	2018	2019	2020	2021	2022	2023	2024
ELECTRICITY CONSUMPTION	100.1	102.6	105.1	106.1	107.2	108.2	109.2
ELECTRICITY PRODUCTION	114.5	115	115.6	118	119.9	124.2	128
EXISTING POWER PLANTS	105.5	103.3	100.8	100.9	97.3	96.2	96
PLANNED POWER PLANTS	9	11.7	14.8	17.2	22.6	28	32
RENEWABLE ENERGY SOURCES	1.4	2.2	2.9	3.8	4.6	5.4	6.3
SURPLUS	14.3	12.4	10.5	11.9	12.7	16	18.8



CAEPCO
Central-Asian
Electric Power Corporation

OPERATIONAL
RESULTS AND
DEVELOPMENT
PROSPECTS
OVERVIEW

ENERGY MEANS DEVELOPMENT

We support economic stability in the regions where we operate, i.e. continuous work of industrial enterprises, utilities and social infrastructure.



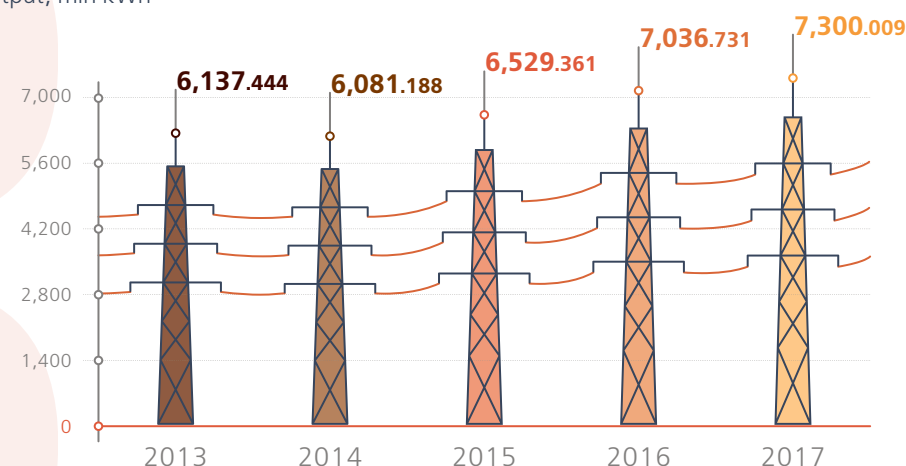
OPERATIONAL RESULTS AND DEVELOPMENT PROSPECTS OVERVIEW

As a part of the investment program, 2017 witnessed a number of earlier started large-scale equipment modernization projects to increase generation, lower transmission losses for electricity and heat, as well as improve environmental performance. In 2017, the Corporation spent a total of 23.8 KZT bln on investment projects.

INCREASED GENERATION

In 2017, the Corporation expected to increase power generation by 7 % compared to 2016 to 7,526.1 mln kWh, as well as increase heat supply by 0.1 % compared to 2016 to 6,477.4 mln GCal, which is due to a planned increase in supplying heat to customers of PAVLODARENERGO JSC.

Electricity output, mln kWh



In reality the Corporation increased production by 3.7 % vs. 2016 to 7,300 mln kWh. Heat supply dropped 5.1 % vs. 2016 to 6,142.4 thous. GCal due to higher average temperatures during the heating season of 2017 compared to 2016 (-5.5oC and -6.1oC, respectively) resulting in a 10.9 % drop in consumption of heat by customers of SEVKAZENERGO JSC.

In 2017, the Corporation expected to spend 26.3 KZT bln on investment projects. In reality investment spending totaled 23.8 KZT bln as completion of multiple projects at power plants and heating networks was delayed until 2018.

RESULTS OF THE INVESTMENT PROGRAM IN GENERATION DURING 2009–2017

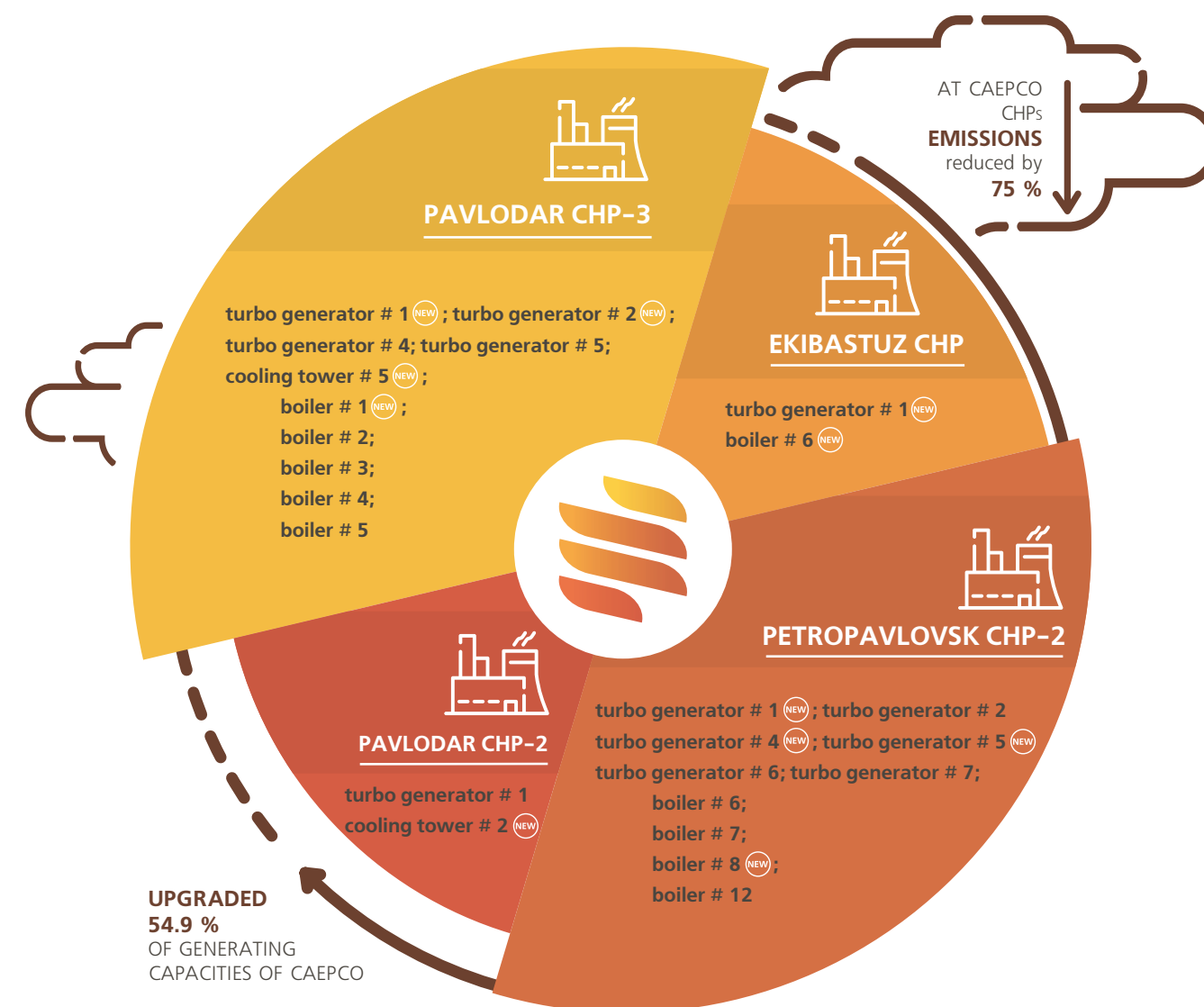
An important goal of the investment is to reduce environmental footprint usually associated with energy production.

In the period from 2009 to 2017, the Corporation reduced concentration of fly ash emissions by 75 %. At the end of 2008 before the start of the investment program, the concentration of fly ash, nitrogen oxides and sulfur in emissions from CAEPCO JSC facilities was 1,093, 678 and 1,425 mg/Nm³, respectively. By the end of 2017 these number fell to 269, 417 and 1,310 mg/Nm³, respectively.

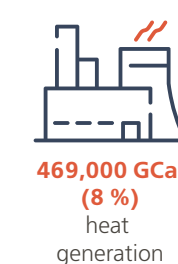
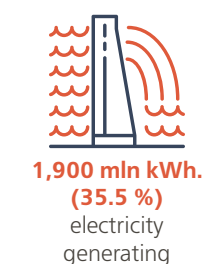
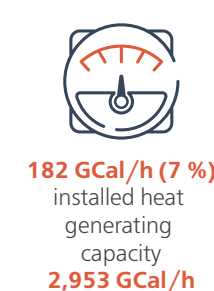
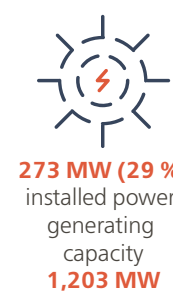
During 2009–2014, power plants of PAVLODARENERGO JSC and CHP-2 of SEVKAZENERGO JSC installed 2nd generation titanium wet scrubbers. All these measures helped to improve flue gas filtration and reduce the plants' environmental costs.

In order to ensure continuous operation of the power plant, new ash dump sites are constructed with capacity enough for up to 25 years of use. The ash dumps will use state-of-the-art Canadian poly-synthetic geomembrane to prevent soil pollution.





MODERNIZATION AND RENOVATION IN "GENERATION" SEGMENT





GROWTH DYNAMICS



PROJECTS COMPLETED IN 2017

PAVLODAR CHP-3 OF PAVLODARENERGO JSC	
<p>Pavlodar CHP-3 of PAVLODARENERGO JSC is the biggest generating facility of CAEPCO JSC.</p> <p>This power plant is one of the most modern in Kazakhstan. Modernization of the power plant will continue until 2020.</p> <div>  <p>Installed electricity generating capacity – 540 MW</p> </div> <div>  <p>70.4 % of generating equipment has been upgraded</p> </div>	<p>Modernization of turbo generator no. 6 will continue to increase installed electrical capacity from 15 MW to 125 MW. Network, booster and circulation pumps with fluid drives were installed; assembly of the foundation steel frame was started. All the works are scheduled for completion in 2018.</p> <p>In 2017, boiler no. 4 was fitted with an automated process control system (APCS) to enable a cost-effective and secure mode of operation and automatically maintain the set parameters.</p> <p>The second stage of construction of CHP-3's ash dump was completed. This is one of the measures to ensure continuous operation of the power plant and to create an ash dump site enough for up to 25 years of use.</p> <p>The third stage of the ash dump construction was started.</p>
PAVLODAR CHP-2 OF PAVLODARENERGO JSC	
<p>Pavlodar CHP-2 of PAVLODARENERGO JSC is the third biggest generating facility of CAEPCO JSC supplying electricity to the city's enterprises, local businesses, as well as households. It has the highest use ratio of installed electricity generating capacity during the heating season of nearly 93 %.</p> <div>  <p>Installed electricity generating capacity – 110 MW</p> </div>	<p>The second stage of construction of CHP-2's ash dump was completed.</p>
EKIBASTUZ CHP OF PAVLODARENERGO JSC	
<p>Ekibastuz CHP of PAVLODARENERGO JSC is the fourth biggest electricity generating facility of CAEPCO JSC. Ekibastuz CHP is the only supplier of heat in Ekibastuz. This power plant is the oldest among CAEPCO JSC's facilities.</p> <div>  <p>Installed electricity generating capacity – 12 MW</p> </div>	<p>Ekibastuz CHP continued the 2nd stage of construction of an ash dump in the bed of Lake Tuz.</p>

PETROPAVLOVSK CHP-2 OF SEVKAZENERGO JSC	
<p>Petropavlovsk CHP-2 of SEVKAZENERGO JSC is the biggest generating facilities of CAEPCO JSC. Petropavlovsk CHP-2 supplies electricity to the city's enterprises, local businesses, as well as households. This power plant is one of the most modern in Kazakhstan: since 2009, 49.7% of its generating equipment was upgraded. Modernization of the power plant will continue until 2020.</p> <div>  <p>Installed electricity generating capacity – 541 MW</p> </div> <div>  <p>49.7 % of generating equipment has been upgraded</p> </div>	<p>Modernization of turbo generator no. 2 with APCS was completed, bringing the number of such turbo generators to 4 out of 7.</p> <p>In the fiscal year, the plant started building a warm-up device which will significantly speed up unloading of rail cars with coal in winter, as well as cut costs since diesel fuel will no longer be needed.</p> <p>Reconstruction of the ORU-110 kV switchgear was completed, thereby improving the reliability of the plant's power distribution diagram.</p>



ELECTRIC POWER TRANSMISSION

In 2017, as part of investment programs, a total of 212.785 km of 0.4-10 kV power lines underwent construction, reconstruction and re-fitting:

North Kazakhstan EDC JSC – 101.143 km including 83.667 km of aerial bundled conductor wires;

Akmola EDC JSC – 75.042 km including 59.268 km of aerial bundled conductor wires;

Pavlodar EDC JSC – 45 km including 22.06 km of aerial bundled conductor wires;

A total of 423.78 km of 35-110 kV overhead power lines underwent construction or renovation (Akmola EDC JSC); twelve 10-220 kV substations were renovated, of which 3 and 9 are part of North-Kazakhstan EDC JSC and Akmola EDC JSC respectively; renovation of another 3 substation will be completed in 2018.

AKMOLA EDC JSC	PAVLODAR EDC JSC	NORTH-KAZAKHSTAN EDC JSC
<p>54.16 km of 35-110 kV overhead power lines built;</p> <p>369.62 km of 110 kV overhead power lines renovated with 16,892 porcelain bushings replaced;</p> <p>75.042 km of 0.4-10 kV overhead power lines renovated, including 59.268 km of bare wire replaced with aerial bundled conductor lines and 33 KTPN 10/0.4 kV transformer substations replaced with new ones;</p> <p>2,310 induction meters replaced with electronic ones connected to automatic system for commercial accounting of electricity (ASCAE) network;</p> <p>nine 35-220 kV substations renovated;</p> <p>with renovation of another three to be completed in 2018.</p>	<p>17.2 km and 14 km of high voltage 110 kV overhead power lines built and renovated respectively;</p> <p>45.0 km of 0.4-10 kV overhead power lines renovated, including 22.06 km of bare wire replaced with aerial bundled conductor lines;</p> <p>2,444 ASCAE devices installed.</p>	<p>101.143 km of 0.4-10 kV overhead power lines renovated, including 83.667 km replaced with aerial bundled conductor lines;</p> <p>TDTN-10 000/110 kVA at 110/35/10 kV Nikolayevka substation completely overhauled with oil-filled bushings replaced with RIP ones;</p> <p>six KTPN 10/0.4 kV transformer substations replaced;</p> <p>three maintenance and administration buildings renovated;</p> <p>a plan developed to replace an obsolete panel board with a SCADA solution in the central control room of North Kazakhstan EDC JSC;</p> <p>2,014 ASCAE devices installed;</p> <p>renovation of three 10-110 kV substations completed.</p>

CAEPCO JSC has completed a number of projects to reduce electricity transmission and distribution losses, as well as to improve the reliability of supply to consumers.

In 2017, subsidiaries of the Corporation reduced technical losses as follows:
Pavlodar EDC JSC – from **8.5 %** to **8.0 %**;
North-Kazakhstan EDC JSC – from **9.1 %** to **8.4 %**;
Akmola EDC – **5.1 %**.

Among the major projects realized by Akmola EDC JSC was the completion of the 1st stage of construction of a 110 kV overhead power line “ACHP-2-Astana” funded by a loan from the Asian Development Bank. The 3.376 km long power line connecting Astana CHP-2 and Promzona substation uses composite core aluminum

conductor (ACCC) and a ground wire with fiber optic cable. The 2nd stage includes construction of power lines from Promzona substation to Gorodskaya substation. The design specifies the use of ACCC wire with increased throughput. This is a state-of-the-art technology using a composite core for increased throughput and efficiency of overhead lines. The aluminum conductor with composite core (ACCC) uses a hybrid composite material with high strength carbon fibers. This is a low-sag conductor having low thermal expansion ratio and lower weight compared with steel core conductors. The lighter core allows greater cross sectional area for the same weight, meaning reduced transmission losses and increased throughput. Overhead 110 kV high-voltage power lines use ground wire with fiber optic cable, which will ensure reliable communication and data transfer from the substations to Akmola EDC JSC and Akmola IDPNs after completion of the second launch facility.

HEAT TRANSMISSION

The main efforts to reduce heat losses include restoration and upgrading of district heating networks in Pavlodar, Ekibastuz and Petropavlovsk.

This project is part of CAEPCO JSC’s 2016-2020 investment program which will be funded with the company’s own funds, as well as the investment loan from the EBRD and government subsidies from the Ministry of National Economy under Nurly Zhol program.

The program has a total budget of 25.95 KZT bln with 9.3 KZT bln coming from the loan granted by the European Bank for Reconstruction and Development, another 9.3 KZT bln in government subsidies under Nurly Zhol program, plus 7.35 KZT bln of the company’s own funds.

The goal 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 transmission losses).

The company uses pre-insulated pipes which have better insulation characteristics, improved reliability and a useful life of 25 years. As a result, the program with help to save 109,000 tons of fuel and reduce CO₂ emissions by 168,000 tons per year.

In 2017, a total of **19.66 km** of heat networks were built or renovated using pre-insulated pipes:
Pavlodar city – **1.45 km**,
Ekibastuz city – **10.26 km**,
Petropavlovsk city – **7.95 km**.

In 2017, **4.38 km** of pipelines were fitted with polyurethane insulation:
Pavlodar city – **4.17 km**,
Ekibastuz city – **0.21 km**.

The high level of wear of heating networks in Petropavlovsk leads to a large number of technical failures. However, the use of polyurethane insulation helped to reduce the number of failures from 274 cases in 2016 to 197 in 2017. Modernization of heating networks in Petropavlovsk is expected to reduce transmission losses by up to 11,663.36 Gcal/year due to the use of new pre-insulated pipes and by up to 1,138.19 Gcal/year thanks to the addition of polyurethane insulation on renovated pipes; the wear rate of such pipelines is expected to be zero.

Modernization of heating networks in Pavlodar and Ekibastuz is expected to reduce transmission losses by up to 24,429.81 Gcal/year due to the use of new pre-insulated pipes and by up to 4,844.35 Gcal/year thanks to the addition of polyurethane insulation on renovated pipes; the wear rate of such pipelines is expected to be zero. The number of technical incidents dropped from 1,067 failures in 2016 to 819 failures in 2017.

The Corporation’s heat transmission facilities are equipped with automatic flow rate sensors, industrial controllers and modems for connecting mechanisms and instruments with the dispatch service. All equipment at heat distribution facilities is connected into a single network, which allows real-time monitoring of water pressure and temperature by dispatchers and faster decision making in case of an accident or emergency.

Furthermore, the Corporation uses advanced technology to detect the causes of heat losses, such as thermal imaging devices for pipeline monitoring and diagnostics and ultrasonic flaw detectors. Thanks to the above measures, heat transmission losses in 2020 will have been reduced by 9.1 % compared to 2015.

RECONSTRUCTION AND MODERNIZATION OF EQUIPMENT IN 2018

As a part of the investment program, 2018 will see a number of equipment modernization projects to increase generation, lower transmission losses for electricity and heat, as well as improve environmental performance.

In 2018, the Corporation plans to spend 25.6 KZT bln on investment projects.

Due to planned volume of heat energy for the consumers the reduction of power generation by 8 % related to 2017 up to 7,244.5 million kWh and increase delivery of heat energy of 2.7 % related to 2017 up to 6,306.4 thousand Gcal are planned.

PAVLODARENERGO's CHP-3 will continue reconstruction of turbo generator no. 6 with installed capacity increased to 125 MW up from 110 MW. It is expected that the project should be completed in 2018, which will include commissioning of the turbo generator.

In 2018, Pavlodar CHP-3 plans to begin construction of chimney no. 2 to provide better draft to boilers.

In 2018, Pavlodar CHP-3 will continue the 3rd construction stage of the ash dump which is expected to be completed in 2020-2021.

The ash dump construction at Ekibastuz CHP will continue with completion scheduled for 2018.

Petropavlovsk CHP-2 of SEVKAZENERGO JSC expects to complete renovation of ORU-110 kV switchgear. Furthermore, the construction of dam no. 3 of ash dump no. 2 will begin in 2018. In 2018, it is planned to purchase and install the 7AT autotransformer.

A total of 24.74 km of heat networks using pre-insulated pipes should be built in 2018, including 0.95 km in Pavlodar, 18.49 km in Ekibastuz and 5.3 km in Petropavlovsk, plus, polyurethane insulation will be added to heat pipes with length totaling 16.81 km, including 4.38 km in Pavlodar, 1.33 km in Ekibastuz and in 11.1 km in Petropavlovsk.

In 2018, investment projects will include the following:

- construction, renovation and upgrading of 0.4-10 kV power lines with a total length of 185.9 km, including 71 km of North-Kazakhstan EDC JSC (of which 56 km will be aerial bundled conductor lines), 72.24 km of ABC lines of Akmola EDC JSC and 42.665 km of Pavlodar EDC JSC (including 27.32 km of ABC lines);

- construction and renovation of 35-110 kV overhead power lines with a total length of 270.04 km, split between Pavlodar, Akmola and North-Kazakhstan EDCs (23.3 km, 198.74 and 48 km respectively).

- renovation of twelve 35 kV substations (Pavlodar EDC – 4, North-Kazakhstan EDC – 1, Akmola EDC – 7 with renovation already started in 2017 at 3 of these).

PROCESS AUTOMATION

In order to increase productivity, transparency and cost-effectiveness, in 2017 CAEPCO JSC continued to implement integrated projects for the modernization and automation of production, monitoring and related information systems.

Ellipse

CAEPCO JSC's subsidiaries PAVLODARENERGO JSC, SEVKAZENERGO JSC and Akmola EDC JSC introduced an automated control system for managing production infrastructure based on Ellipse 8 (Eclipse enterprise resource planning system). The uniform Ellipse system allows planning and conducting maintenance and repair work, including:

- automation of failure recovery and emergency work;
- reduction of the number of failures and emergency works through the optimal forecasting of work completion and routine maintenance;
- ensuring shorter repair and emergency work time due to rapid personnel response.

Mobility

In April 2017, the company began development and implementation of Mobility mobile suite fully integrated with Ellipse ERP system, where you can remotely issue work assignments, manage inventory and equipment monitoring, provide quick access to historical and regulatory data. Part of the Mobility project is a mobile app for workers involved in status monitoring in order to implement the operational maintenance and repair infrastructure in the field.

Automatic system for commercial accounting of electricity (ASCAE)

CAEPCO JSC is implementing several projects to introduce "smart management" of houses and infrastructure. Modernization of the instruments allows remote customer management, e.g. obtaining meter data, cutting off electricity in case of energy debt.

In 2017, the company continued implementation of the ASCAE initiative, specifically, modernization and full automation of on-site metering devices to automatically collect and transfer online various energy transmission and consumption data.

At the end of the reporting period, 69,000 consumers had ASCAE devices, i.e. 13% of all customers.

This system can automatically detect points of energy losses facilitating timely response. ASCAE devices allow to reduce electricity losses considerably.

Automatic system for commercial accounting of electricity (ASCAE) system for households using wireless LPWAN technology. As part of the pilot project, Akmola, Pavlodar and North-Kazakhstan EDCs installed 140, 108 and 409 ASCAE devices respectively.

With ASCAE technology, you no longer need to collect and transfer data from each and every transformer substation. There is only one base station for the entire locality, and all meters equipped with a radio module with built-in battery wirelessly 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. Customer can log in to their account on the server using their username and password and get readings for the required period. This project is scheduled to be launched in 2018.

Automatic system for commercial accounting of heat energy (ASCAHE)

In 2017, the company continued implementation of ASCAHE aimed at modernization and automation metering equipment. New meters will improve accuracy and authenticity of data and transactions between suppliers and customers on existing and future rate plans, as well as help to monitor actual heat consumption by households.

ASCAHE devices for heat improve the efficiency of 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 by households.

SITUATION AS OF JANUARY 2018:

ASCAE AT SUBSIDIARIES OF CAEPCO JSC – **69,133**
ASCAHE AT SEVKAZENERGO JSC AND PAVLODARENERGO JSC – **8,306**

SITUATION AS OF JANUARY 2016:

ASCAE AT SUBSIDIARIES OF CAEPCO JSC – **30,722**
ASCAHE AT SEVKAZENERGO JSC AND PAVLODARENERGO JSC – **6,037**

SITUATION AS OF JANUARY 2014:

ASCAE AT SUBSIDIARIES OF CAEPCO JSC – **24,493**
ASCAHE AT SEVKAZENERGO JSC AND PAVLODARENERGO JSC – **4,163**

THE SIS grid-connection monitoring system

In November 2017, CAEPCO JSC's electrical distributions companies in Pavlodar, Petropavlovsk and Akmola introduced an automated system to monitor connection to the electricity grid by new customers. The purpose of the system is to make applying for specifications to connect to the grid more transparent.

The great advantage of the system is the intermediate control where you can see at what stage and who of the participants in the process has the documents. The system will support enterprise operation by introducing accountability and control in such processes as issuing of specifications, approval of engineering documentation and preparation of documents for the consumer.

The project helped new customers connect to the electricity grid faster and made the whole process more transparent and streamlined.

PLANS FOR AUTOMATING PROCESSES IN 2018

ASCAE/ASCAHE devices

In 2018, the company plans to merge its ASCAE/ASCAHE projects for electricity and heat in order to implement a common management approach and improve organizational and technical activities to achieve better project performance.

The experience gained from the practical operation of dozens different types of meters and ASCAE/ASCAHE devices will help to develop a uniform vision of the device's full life cycle, from installation to commissioning to maintenance and support under warranty.

To improve availability and reliability of the ASCAE/ASCAHE platform for households, measures are being taken to consolidate server capacity into a single data center in Pavlodar.

BILLING

In 2018, the company expects to complete transition to a uniform billing system across in Astana and Pavlodar. This will not only help to automate and standardize recording of heat and electricity consumption data, but also to improve communication with consumers as billing will be based on the actual amount of electricity and heat consumed; plus customers will be able to log in to their account and check consumption data at any time.

CONNECTION TO UTILITIES (ELECTRICITY & HEAT)

Based on successful testing results, in June 2018 the company plans to introduce the system for automatic processing of applications from new customers in electricity distribution subsidiaries including Akmol EDC JSC, North-Kazakhstan EDC JSC and Pavlodar EDC JSC. In order to ensure complete and transparent services, by the end of 2018 the company expects to introduce features where customers will be able to log in to their accounts and check their application status in real time.

Mobility

In 2018, the company plans to complete the development and implementation of Mobility mobile application fully integrated with Ellipse ERP system. In March 2018, Akmol EDC JSC will begin testing Mobility with its further

introduction in industrial operations in June 2018. North-Kazakhstan EDC JSC and Pavlodar EDC JSC are expected to start using Mobility before the end of 2019.

PROJECTS IN SALES COMPANIES

In order to improve the quality of customer service, CAEPCO JSC's sales companies conducted a number of measures to introduce a "one stop shopping" principle, such as:

- continuous improvement of the automated billing database by type of energy;
- introduction of per-customer electricity consumption monitoring;
- introduction of payment monitoring;
- implementation of per-customer overdue payments monitoring;
- customer services centers now accept applications from customers for technical specifications;
- renovation of payment processing centers.

To provide better customer service, the company continued implementation of ISO 9001 quality management system.

In 2017, Astanaenergosbyt LLP completed development and introduction of a new modern billing software based on 1C suite. The introduction of this software brought the following benefits:

- reduced transaction costs thanks to simplified and automating business processes;
- much higher accuracy of the information (and reduced risk of errors) due to automation of billing and reduced human participation, introduction of automatic data verification processes;
- (for individuals and legal entities) with the ability to remotely manage any and all processes related to energy services;

In December 2017, in order to reduce household debt, the company conducted a motivational ad campaign "New Year without Unpaid Bills" for customers of Astanaenergosbyt LLP and Pavlodarenergosbyt LLP. The company agreed to forgo late payment fees, provided that customers paid off their entire debt in December.

More than 40,000 customers of Astanaenergosbyt LLP took the offer: 15,281 customers paid off their debt for hot water, over 10,000 people finally paid for heating and more than 15,000 people paid for electricity. In case with Pavlodarenergosbyt LLP, more than 60,000 people responded: 30,906 in Pavlodar, 3,773 people in Aksu and 8,238 people in Ekibastuz. In districts of the region as many as 16,213 people fully paid off their debt for energy and services.

PLANS OF SALES COMPANIES FOR 2018

More measures will be taken to improve customer service. Before the end of 2018, Pavlodarenergosbyt LLP and Sevkazenergosbyt LLP expect to introduce 1C-based Billing software solution.

PROCUREMENT AND SUPPLY

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

In 2017, the Group of companies started transformation processes to improve the efficiency and transparency of the procurement process. During the year, projects were developed to introduce process automation, improve

procurement planning, develop category strategies, adopt KPIs, among other things. At the end of the reporting period, the following goals were achieved:

- procurement planning system in the form of the Annual Procurement Plan was developed and implemented;
- a weekly reporting system based on a number of KPIs was developed and implemented;
- updated organizational structure was approved;
- approach to procurement centralization was revised;
- procurement policies and procedures were revised.

PROCUREMENT PLANS FOR 2018:

- Enhance the transparency of the procurement process;
- Improve financial performance and introduce KPIs;
- Introduce an effective procurement planning system;
- Introduce procedures for assessment and pre-qualification of vendors;
- Automate procurement processes and introduce e-procurement.



FINANCIAL AND BUSINESS INDICATORS

The consolidated financial statements of the Corporation for 2017 have been prepared in accordance with the International Financial Reporting Standards and include

the financial statements of subsidiaries from the date of their acquisition. Principles of accounting are the same for all enterprises of the Corporation. The financial and business performance demonstrates effectiveness and efficiency of the operational and financial activities, as well as achievement of the Corporation's strategic development targets.

KEY FINANCIAL AND BUSINESS INDICATORS FOR 2015–2017, KZT MLN

ITEM	2015	2016	2017
Income from core activities	107,932	122,123	131,652
Prime cost, including expenses of the period	(84,144)	(93,198)	(100,295)
Gross profit	23,788	28,925	31,357
Expenses of the period	(9,672)	(9,932)	(11,178)
Profit from operating activities	14,116	18,993	20,178
Total EBITDA for the year*	24,885	31,263	31,865
Total EBITDA for the year, margin in %	23.1 %	25.6 %	24.2 %
Goodwill impairment			(737)
Income tax expenses	727	(3,547)	(3,613)
Net profit for the year	(7,614)	11,264	10,639
Assets	279,131	287,221	310,023
Equity	129,622	140,835	149,785
Capital expenditures on fixed assets	32,441	22,620	22,685

* Total EBITDA excludes exchange rate differences

INCOME FROM SALE OF PRODUCTS/ SERVICES

In 2017, the Corporation produced electricity and heat, including transmission and sale of purchased energy, for a total amount of 131,652 KZT mln, which is 9,529 KZT mln or 7.8 % more compared to 2016. This is due to increased supply of electricity generated by the Corporation's own power plants to wholesale customers, as well as a 6.7 % growth in consumption by households. The main factors which affected revenues in 2017 compared to the previous year are as follows:

- Revenue from electricity sales increased by 6,568 KZT mln or 9.3 % compared to 2016, as the Corporation generated 263,3 mln kWh (3.7 %) more electricity thanks to newly commissioned generating facilities that were part of the investment program, as well as stronger demand (as a result of expanded sales geography);
- Revenue from electricity transmission was similar to the previous year (although there was a minor drop of 273 KZT mln or 1.3 %);
- Revenues from heat transmission increased by 1,098 KZT mln, or 16.5 %, due to higher transmission rates, specifically Pavlodar Heat Networks LLP (Pavlodar at 16 % and Ekibastuz

at 32%) and Petropavlovsk Heat Networks LLP (Petropavlovsk at 15%).

- Revenues from heat sales, including the sales margin) increased by 2,132 KZT mln or 9.1 % due to higher generation rates and higher selling rates of sales companies by 8%, plus increased supply of heat to customers by 252.9 thous. GCal, or 2.4 %.

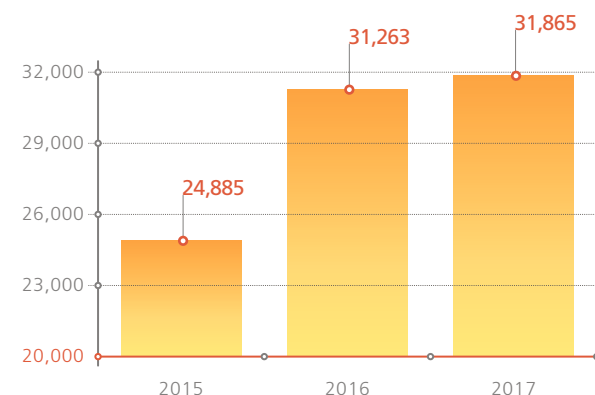
COST OF GOODS SOLD

In 2017, the cost of sold electricity and heat was 100,295 KZT mln, which is 7,097 KZT mln or 7.6 % more compared to 2016. This is due to increased expenses under such cost items as "Purchased Energy incl. Transmission", "Fuel", "Wear and Depreciation", "Remuneration of labor", etc. The cost structure of the Corporation is dominated (42 %) by the cost of purchased energy including services related to its further distribution to consumers. In 2017, these costs increased by 2,423 KZT mln, or 6 %, as in-house supply of electricity dropped 22%, while transmission costs for purchased energy increased. The fact that production of electricity increased by 263,3 mln kWh or 3.7 % resulted in higher natural coal consumption by 29 thous. tons or 1 %; costs under "Fuel" rose by 1,875 KZT mln or 11.2 % mainly due to the increase in the average coal price (cost of shipping by rail included) by 278 KZT per ton or 10.9 %. Spending on production-related services grew by 1,364 KZT mln or 7.7 % due to higher labor costs which increased by 698 KZT mln or 6.7 %, as well as due to yearly adjustment of salaries and increased employee head count. Depreciation costs increased by 737 KZT mln due to the introduction of new fixed assets in 2017 valued at 22,508 KZT mln.

DYNAMICS OF TOTAL EBITDA

In 2017, EBITDA excluding exchange rate differences was 31,865 KZT mln, which is 603 KZT mln or 2 % more compared with 2016. The main reasons of increased operating efficiency include increase of heat rates,

Total EBITDA for the year, KZT mln

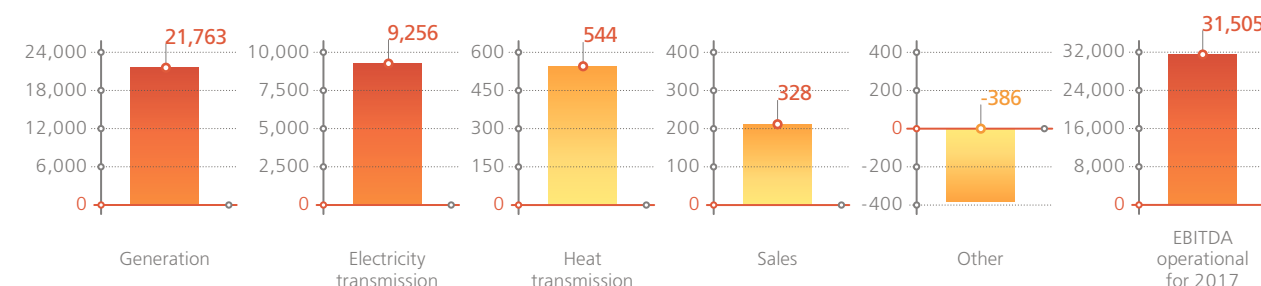


* Total EBITDA excludes exchange rate differences

including for generation, by 12 % and 7 % (Pavlodar and Petropavlovsk respectively), increased transmission by 16 % and 15 % (Pavlodar and Petropavlovsk respectively), increased sales by 6 %, 11 % and 13 % (Pavlodar, Petropavlovsk and Astana, respectively) and increased sales of the Corporation's own electricity thanks to a 6.7 % increase in demand from households and commissioning of new generating capacities.

The operating EBITDA was chosen as the main indicator of the Corporation's operational efficiency. This indicator does not account for other income, revenue from financing, non-monetary part of exchange rate difference-related liabilities, depreciation and nonrecurring or erratic cost items that have no impact on the core operations of the Corporation. In 2017, operating EBITDA was 31,505 KZT mln, which is 2,097 KZT mln or 7 % more compared with 2016. The main margin segment in the structure of operating EBITDA is the production of electricity and heat (21,763 KZT mln), a decline of 9.5 % compared to 2016 due to a drop in heat generation of 330 thous. GCal or 5.1% caused by higher average ambient temperature during the 20017 heating season (-5.5 °C and -6.1 °C respectively), early ending of the heating season compared with the same period last year and effective measures aimed at reduction of transmission losses in heat networks.

Operating EBITDA by segment, KZT mln



CHANGES IN NET INCOME/LOSS

Profit from operating activities in 2017 was 20,178 KZT mln (15.3 % margin to the income from sales), profit increased by 1,185 KZT mln thanks to an increase in

sale income of 9,529 KZT mln to 7.8 %. Net financial expenses remained unchanged compared to the previous year (a minor slide of 29 KZT mln or 1 %). Net profit for 2017 reached 10,639 KZT mln, which is 625 KZT mln or 5.5 % less than in 2016.

FINANCIAL AND BUSINESS INDICATORS BY SEGMENT FOR 2017, KZT MLN

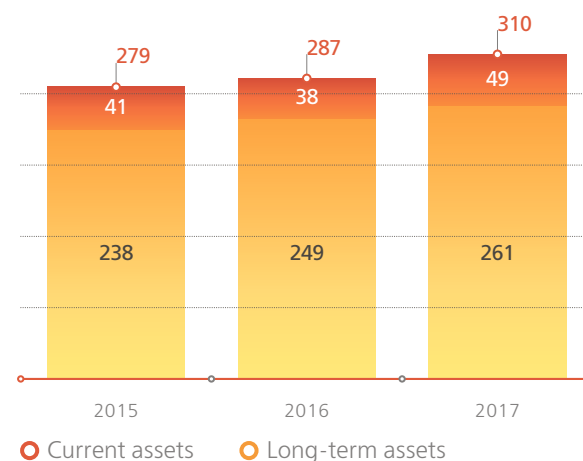
Indicator	Production of electricity and heat	Transmission and distribution of electricity	Transmission and distribution of heat	Sales of electricity and heat	Other	Total
Income from core activities	46,143	21,271	7,758	56,464	16	131,652
Prime cost	(29,276)	(12,063)	(6,360)	(52,535)	(61)	(100,295)
Gross profit	16,867	9,208	1,398	3,929	(45)	31,357
Expenses of the period	(2,402)	(2,709)	(1,861)	(3,726)	(480)	(11,178)
Profit from operating activities	14,465	6,499	(463)	203	(525)	20,179
Financial expenses, net	(3,948)	(408)	(478)	(367)	(157)	(5,356)
Income from exchange rate difference	176	55	5	(76)	21	181
Other income	(716)	265	352	331	(247)	(14)
Goodwill impairment					(737)	(737)
Income tax expenses	(2,466)	(1,044)	(56)	(36)	(11)	(3,613)
Net profit for the year	7,513	5,366	(639)	(682)	(919)	10,639
Operating EBITDA by segment	21,763	9,256	544	328	(386)	31,505

ASSETS AND LIABILITIES

As of December 31, 2017, total assets of the Corporation were 310,023 KZT mln, which is 8 % more than in 2016. As of December 31, 2017, the value of fixed assets was 251,342 KZT mln, or 81 % of the value of all assets. As a part of the large-scale investment program, 22,685 KZT mln was spent in 2017 on unfinished construction and acquisition of fixed assets; plus a total of 22,508 KZT mln worth of new and upgraded facilities were commissioned from the current period and from the previous years.

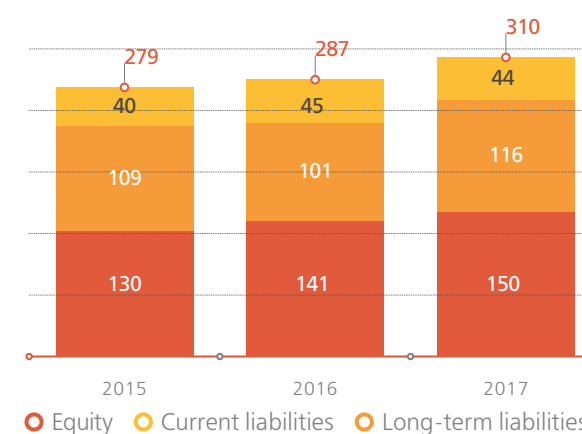
In particular, this is due to the completion of the 2nd stage of ash dumps of Pavlodar CHP-2 and Pavlodar

Assets, KZT bln



CHP-3, completed renovation of boiler no. 4 at Pavlodar CHP-3 and modernization of turbo generator no. 2 at Petropavlovsk CHP-2 including the introduction of an automated process control system. Also, underway are the construction of the 2nd stage of the ash dump at Ekibastuz CHP and renovation of turbo generator no. 6 at Pavlodar CHP-3.

Liabilities, KZT bln



The issued share capital of the Corporation is 50 mln ordinary shares. As of December 31, 2017, the value of completely paid ordinary shares was 46,043 KZT mln.

The Corporation has issued coupon commercial bonds worth 5,652 KZT bln, including PAVLODARENERGO JSC totaling 100 KZT mln with indexed interest rate of 13%, maturing December 11, 2017, SEVKAZENERGO JSC to the amount of 100 million tenge with indexed interest rate of 13 % with a maturity of November 20, 2017 as well as bonds of CAEPCO JSC for a total of 5,451 KZT bln with indexed interest rate of 6% (1st

issue bonds for 3,160.1 KZT bln to be paid off by 2023 and 2nd bond issue for 2,290.4 KZT bln to be paid off before 2025). These funds were used to finance the investment program and development projects in line with the Corporation's strategy. Long-term loans mainly include loans from the EBRD, Asian Development Bank, Sberbank of Russia are ear-marked for financing of the long-term investment program for reconstruction and modernization of the Company's infrastructure.

Total financial debt as of the end of the reporting year was 89,075 KZT mln, while the Corporation maintains financial stability.

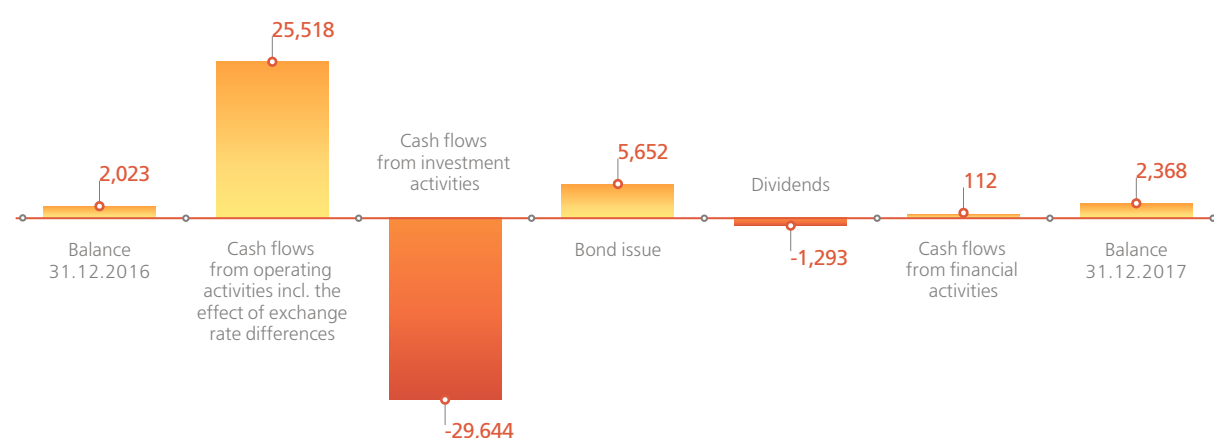
CASH FLOW

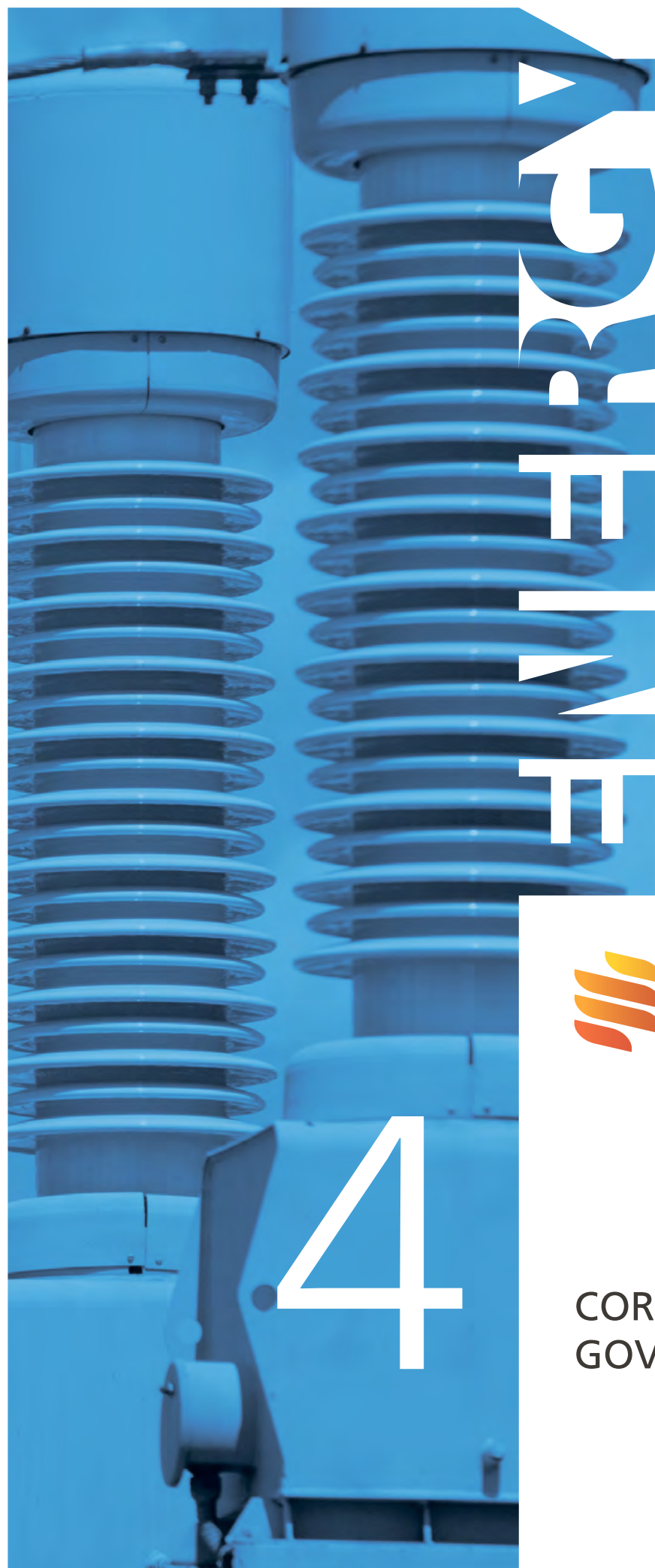
In 2017, there was a trend of cash flow growth from operating activities as a result of increased sales and higher rates for generation, transmission and sale of heat and transmission of electricity. Net inflow from operating activities, considering the impact of changes in exchange rate on foreign exchange assets, was 25,518 KZT mln. Change in working capital was caused by reduced receivables.

Increase in payables mainly related to large purchases under the investment program, lead to the increase of the working capital.

The most significant cash outflows from investing activities for a total of 23,237 KZT mln were caused by the investment program of the current period, as well as payment of the debt objects completed in 2016; as a result, total net cash stood at 29,644 KZT mln.

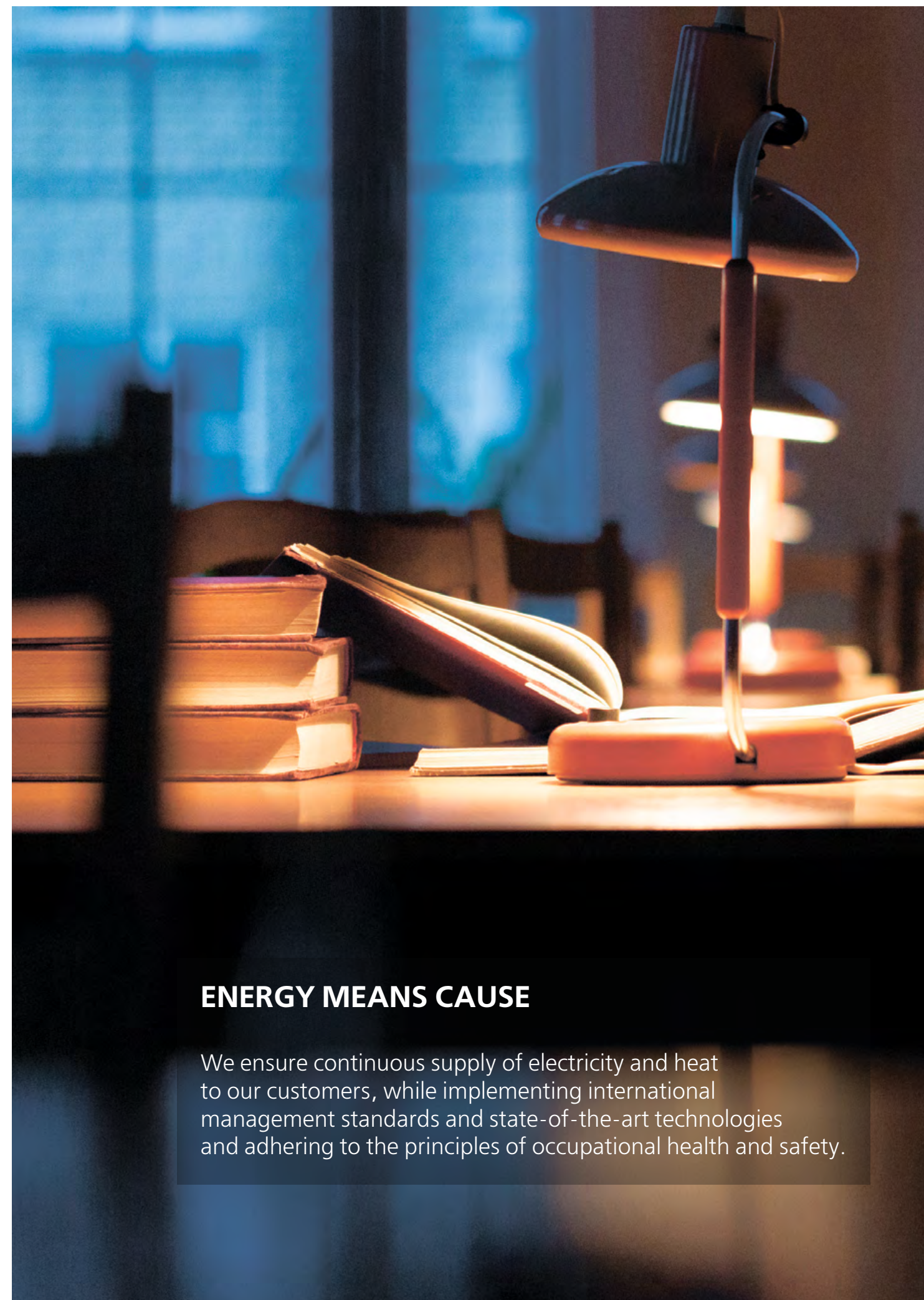
Cash Flow, KZT mln





CAEPCO
Central-Asian
Electric Power Corporation

CORPORATE GOVERNANCE



ENERGY MEANS CAUSE

We ensure continuous supply of electricity and heat to our customers, while implementing international management standards and state-of-the-art technologies and adhering to the principles of occupational health and safety.

CORPORATE GOVERNANCE

CAEPCO JSC has a corporate governance system which is a requisite for attracting investments, ensuring the Corporation’s stronger competitive capacity and increasing shareholder value. CAEPCO’s corporate governance system regulates interaction between its management bodies, internal controls, shareholders and other stakeholders, ensuring a balance between the interests of all the above parties.

The Board of directors includes independent directors to ensure effectiveness and transparency of corporate governance. The Corporation complies with all applicable codes and standards and strives to follow the principles of business ethics to ensure sustainable development.

GENERAL MEETING OF SHAREHOLDERS

The General Meeting of Shareholders is the supreme management body of the Corporation. Participation in annual general meetings of shareholders, as well as in extraordinary meetings announced by the Board of directors or the executive body, is the shareholders’ primary way to exercise their rights, as reflected in the Charter of the Corporation.

The shareholders of the Corporation may make suggestions to the agenda of the annual General Meeting, nominate candidates to the Board of directors and Committees, and convene meetings of the Board of directors.

RESULTS OF THE GENERAL MEETING OF SHAREHOLDERS

In 2017, there were one annual and three extraordinary general meetings of shareholders which addressed the following key issues:

1. Approval of the annual consolidated financial statements of PAVLODARENERGO JSC for fiscal year 2016;
2. Determining the procedure for distribution of net income of PAVLODARENERGO JSC for fiscal year 2016 and calculating the dividend per one common share of the Corporation;
3. Review of applications from shareholders regarding the actions of PAVLODARENERGO JSC and its officers, the results of this review;

4. Approval of the annual consolidated financial statements of SEVKAZENERGO JSC for fiscal year 2016;
5. Determining the procedure for distribution of net income of SEVKAZENERGO JSC for fiscal year 2016 and calculating the dividend per one common share of the Corporation;
6. Review of applications from shareholders regarding the actions of SEVKAZENERGO JS and its officers, the results of this review;
7. Approval of the annual consolidated financial statements of Akmola Electrical Distribution Company JSC for fiscal year 2016;
8. Determining the procedure for distribution of net income of Akmola Electrical Distribution Company JSC for fiscal year 2016 and calculating the dividend per one common share of the Corporation;
9. Review of applications from shareholders regarding the actions of Akmola Electrical Distribution Company JSC and its officers, the results of this review;
10. Approval of the annual financial statements of Astanaenergoby LLP for 2016;
11. Approval of the annual consolidated financial statements of CAEPCO JSC for 2016;
12. Determining the procedure for distribution of net income of CAEPCO JSC for fiscal year 2016 and calculating the dividend per one common share of the Corporation;

13. Review of applications from shareholders regarding the actions of CAEPCO JSC and its officers, the results of this review;
14. Choosing an audit firm for auditing the financial statements of CAEPCO JSC and its subsidiaries for 2016;
15. Election of new members of the Board of directors of CAEPCO JSC;
16. Determining the amount and terms of remuneration for newly elected members of the Board of directors of CAEPCO JSC;
17. Determining the number of members of the Board of directors of CAEPCO JSC;
18. Election of new members of the Board of directors of PAVLODARENERGO JSC;
19. Determining the amount and terms of remuneration for newly elected members of the Board of directors of PAVLODARENERGO JSC;
20. Election of new members of the Board of directors of SEVKAZENERGO JSC;
21. Determining the amount and terms of remuneration for newly elected members of the Board of directors of SEVKAZENERGO JSC;
22. Election of a new member of the Board of directors of Akmola Electrical Distribution Company JSC.

DIVIDENDS

The Corporation’s policy regarding distribution, announcement, size, form and timing of dividend payments is set out in the Corporation’s Charter and CAEPCO JSC’s Dividend Policy.

The main principles of the Corporation’s Dividend Policy include:

- Balance between the interests of the Corporation and its shareholders in determining dividend payouts;
- Improving investment attractiveness, financial sustainability, capitalization and liquidity of the Corporation;
- Ensuring market returns on invested capital;
- Respect for and strict observance of the rights of shareholders and promoting their prosperity.

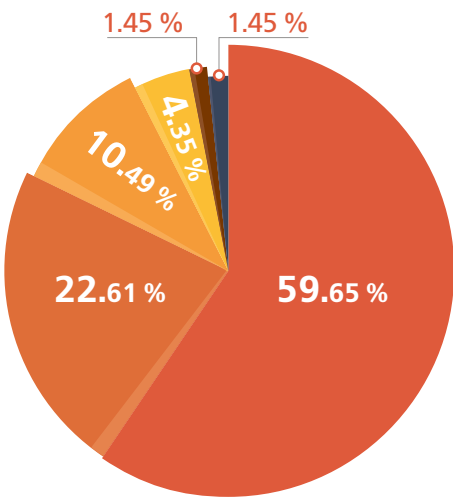
The Corporation intends to allocate a certain part of its net income for dividend payouts in the amount that would allow the Corporation to keep enough funds for its further development. The decision on dividend payout is made by the annual General Meeting of Shareholders based on the recommendation of the Board of directors. In case of any unforeseen negative circumstances affecting the Corporation, the Board of directors should discourage the General Meeting of Shareholders from dividend payout (announcement).

In 2017, the annual General Meeting of Shareholders decided to pay dividends to the shareholders of CAEPCO JSC for fiscal year 2016 in the amount of KZT 1,689.6 KZT mln.

As of December 31, 2017, the share capital of CAEPCO JSC was **46,043,272 KZT thous.**

SHARE CAPITAL STRUCTURE

- Central-Asian Power Energy Company JSC
- European Bank for Reconstruction and Development
- Kaz Holdings Cooperatief U.A.
- KIF ENERGY S.A.R.L.
- «Baiterek Venture Fund» JSC
- CKIF ENERGY S.A.R.L.



BOARD OF DIRECTORS

The Board of directors of the Corporation determines strategic goals and maintains the necessary operational control mechanisms, including ongoing monitoring and evaluation of business performance.

To enhance the transparency of the Corporation's Board of directors, it includes four independent directors who are not affiliated with the Corporation. The Board of directors is headed by the Chairman, who convenes meetings of the Board of directors and presents their agenda based on the recommendations received from members of the Board of directors and Board Committees.

To achieve these objectives, the Board of directors is guided by the following principles:

- Peer-review decision making with thorough discussion of issues using reliable and complete

information on the activities of the Corporation in accordance with the highest business standards;

- No restriction of the legitimate interests and rights of shareholders to participate in the management of the Corporation, receive dividends, reports and information about the Corporation;
- Ensuring a balance between the interests of shareholders of the Corporation and maximum objectivity of decisions made by the Board of directors to promote shareholder interests;
- Providing the Corporation's shareholders with reliable and timely information.

Remuneration for the Board of directors and the executive body is determined by the decision of the General Meeting of Shareholders of CAEPCO JSC. The total amount of remuneration paid to the Board of directors and the executive body in 2017 was 746.7 KZT mln.

VALERIYA KIM (born 1962)

MEMBER OF THE BOARD OF DIRECTORS

General Director of CAPEC JSC, member of the BoD of CAPEC JSC.
19.03.2007–13.10.2017 – Member of the BoD of Eximbank Kazakhstan JSC;
17.09.2007 – Member of the BoD of CAPEC JSC;
01.10.2011 – Strategic Planning Director of Circle Maritime Invest JSC;
12.10.2017 – General Director of CAPEC JSC;
13.11.2017 – Member of the BoD of CAEPCO JSC.

MEMBERS OF THE BOARD OF DIRECTORS AS OF DECEMBER 31, 2017



ALEXANDER KLEBANOV (born 1963)

CHAIRMAN OF THE BOARD OF DIRECTORS

Chairman of the BoD of CAEPCO JSC, Chairman of the BoD and shareholder of CAPEC JSC.
30.06.2004 – Chairman of the BoD of Eximbank Kazakhstan JSC;
20.08.2007 – Chairman of the BoD of CAPEC JSC;
16.03.2009 – Chairman of the BoD of CAEPCO JSC.



IGOR TATAROV (born 1965)

MEMBER OF THE BOARD OF DIRECTORS

2013 - 01.07.2015 – Director of SPMK-4 LLP;
01.07.2015 – General Director of Stepnogorsk Mining and Chemical Plant LLP;
13.11.2017 – Member of the BoD of CAEPCO JSC.



SERGEY KAN (born 1968)

MEMBER OF THE BOARD OF DIRECTORS

President of CAEPCO JSC, shareholder and member of the BoD of CAPEC JSC.
01.03.2004 – Member of the BoD of Eximbank Kazakhstan JSC;
01.08.2004 – Member of the Board of directors of CAPEC JSC;
12.11.2007 – Executive Director of Caspian Offshore Construction LLP;
01.02.2010 – President of Circle Maritime invest JSC;
31.05.2012 – Chairman of the BoD of Circle Maritime Invest JSC;
15.10.2015 – Chairman of the BoD of Kazakh Institute for Oil & Gas JSC;
28.09.2017 – President of CAEPCO JSC;
13.11.2017 – Member of the Board of directors of CAEPCO JSC.



DMITRY PRIKHOZHAN (born 1973)

MEMBER OF THE BOARD OF DIRECTORS

01.04.2010 – Chairman of the Executive Board of Eximbank Kazakhstan JSC;
13.11.2017 – Member of the BoD of CAEPCO JSC.


GRAHAM JOHN WOOD (born 1951)

MEMBER OF THE BOARD OF DIRECTORS

17.08.2009–01.03.2012 – Member of the BoD of Freenergy AS, Tallinn;
 26.02.2009–01.04.2013 – Member of the Supervisory Board, Chairman of the Audit Committee of ENEA SA, Poznan;
 01.11.2008 – Member of the BoD, Chairman of the Audit Committee of West Herts College;
 16.07.2012 – Member of the BoD of CAEPCO JSC.


FRANZ-JOSEPH KAISER (born 1949)

MEMBER OF THE BOARD OF DIRECTORS, INDEPENDENT DIRECTOR

Member of the Board of directors, Independent director. Is not affiliated with CAEPCO JSC and has not been the same for the past three years.
 17.11.1975–30.06.2009 – Partner at PricewaterhouseCoopers (PWC);
 2005–30.06.2009 – PWC's Project Partner for RAO UES of Russia;
 10.10.2009 – Member of the BoD, Independent Director at CAEPCO JSC.


CHAI CHEE TAK (born 1982)

MEMBER OF THE BOARD OF DIRECTORS

01.12.2008 – Managing Director at Capital Advisor Partners PTE LTD (CapAsia).


MANFRED-JOSEPH KEHR (born 1947)

MEMBER OF THE BOARD OF DIRECTORS, INDEPENDENT DIRECTOR

Member of the Board of directors, Independent director. Is not affiliated with CAEPCO JSC and has not been the same for the past three years.
 2003–2009 – Vice President of RWE Power International;
 2008–2010 – Managing Director, Senior Advisor at RWE Power International;
 25.02.2011 – Chairman of the BoD at Rhein Ruhr Power;
 25.10.2011 – Member of the BoD, Independent Director at CAEPCO JSC.


GENNADY ANDREYEV (born 1943)

MEMBER OF THE BOARD OF DIRECTORS, INDEPENDENT DIRECTOR

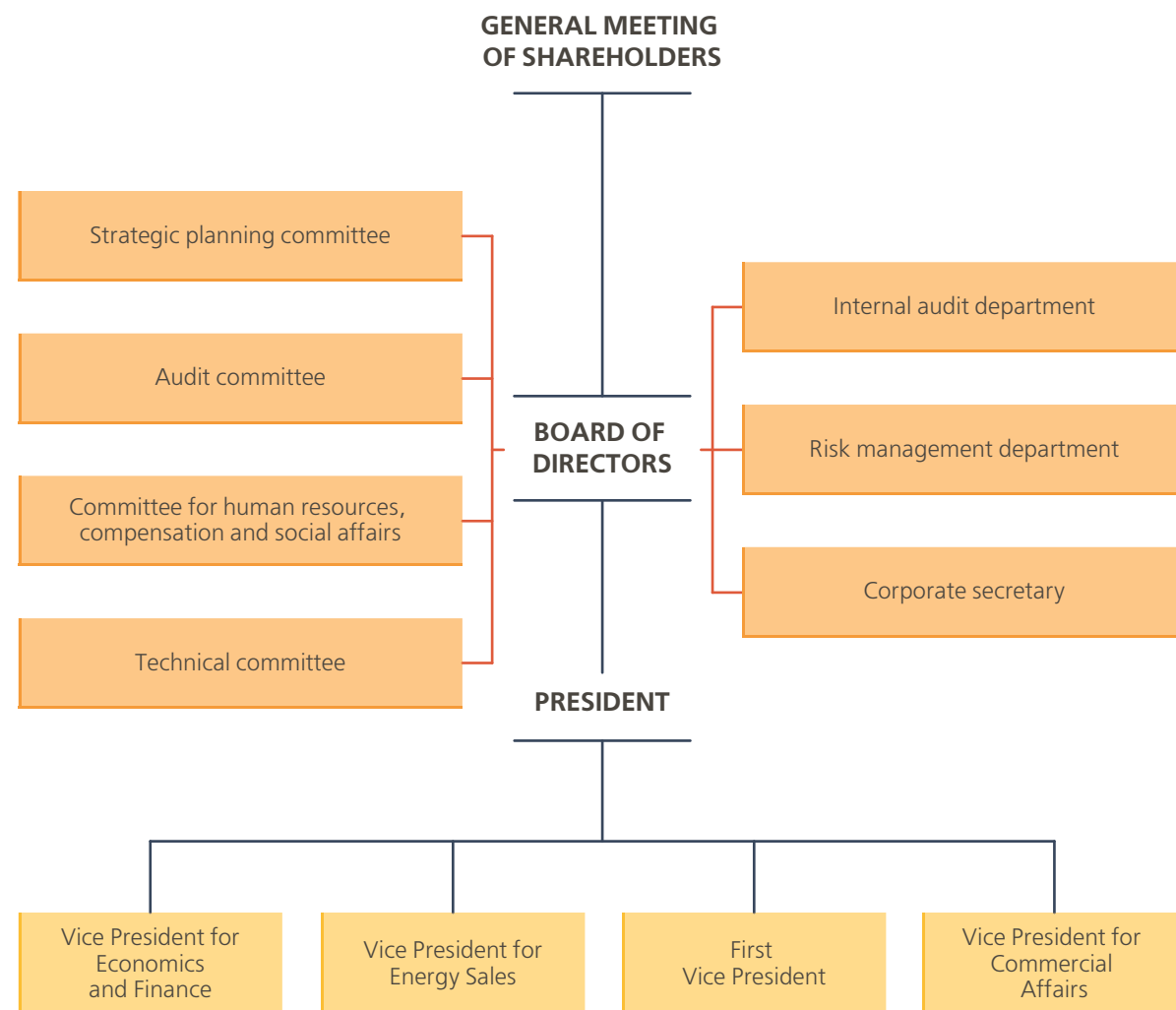
Member of the Board of directors, Independent director. Is not affiliated with CAEPCO JSC and has not been the same for the past three years.
 1970–2015 – President of KazNIPIEnergoprom Institute JSC;
 2011–2015 – Member of the Board of directors of KazNIPIEnergoprom Institute JSC;
 2015 – Honorary President of KazNIPIEnergoprom Institute JSC;
 13.11.2017 – Member of the BoD of CAEPCO JSC.


ELDAR TABANOV (born 1968)

MEMBER OF THE BOARD OF DIRECTORS, INDEPENDENT DIRECTOR

Member of the Board of directors, Independent director. Is not affiliated with CAEPCO JSC and has not been the same for the past three years.
 22.02.2013–17.04.2017 – Member of the BOD of SEVKAZENERGO JSC;
 14.11.2014–12.06.2017 – Member of the BOD of Akmola EDC JSC;
 09.09.2015–16.11.2016 – Deputy Chairman of the Executive Board of Astana Community Entrepreneurship Corporation NC JSC;
 29.09.2017 – Director of City Box LLP;
 13.11.2017 – Member of the BoD of CAEPCO JSC.

ORGANIZATIONAL STRUCTURE



PERFORMANCE OVERVIEW OF THE BOARD OF DIRECTORS

In 2017, the Board of directors held 8 meetings. The Board of directors focused on a number of key issues such as review of monthly and quarterly management reports; monitoring the execution of the consolidated business plan of CAEPCO JSC for 2016; adjustments to the consolidated business plan (budget) of CAEPCO JSC for 2017 and its approval; review of the report on the implementation of Ellipse ERP system; preliminary approval of the annual financial statements of Astanaenergosbyt LLP for 2016; preliminary approval of the annual consolidated financial statements of

CAEPCO JSC for 2016; determining the order of net income distribution of CAEPCO JSC for fiscal year 2016 and dividend per one ordinary share CAEPCO JSC; preliminary selection of the audit firm to audit the consolidated financial statements of CAEPCO JSC for the year 2017; review of reports on the activities of the Internal Audit department of CAEPCO JSC; review of reports on the activities of Risk Management department of CAEPCO JSC; election of the Chairman of the Human Resources, Remuneration and Social Affairs Committee of the Board of directors of CAEPCO JSC, election of a new member of the Technical Committee of the Board of Directors of CAEPCO JSC, approval of a number of corporate documents, etc.

ACTIVITIES OF THE COMMITTEES AT THE BOARD OF DIRECTORS

As of December 31, 2017, the Board of directors of CAEPCO JSC had four Committees:

NAME	TASKS	MEMBERS	RESULTS
Strategic Committee 7 members 1 meeting in 2017	Raising the standards of corporate governance - monitoring of projects - overseeing implementation of the Corporation's development strategy - assisting the Board of directors in improving the Corporation's planning and operational development mechanisms.	M. Kehr Chairman Kan S. Turganov D. Wood G. Chai Chee Tak Karyagin A. Perfilov O.	In 2017, the Committee also assisted the Board of directors in improving the Corporation's planning and operational development mechanisms. The Committee dealt with the following issues: - Progress of the implementation of Ellipse software suit; - Review of the monthly management report; - Compliance with the consolidated budget of the Corporation for 2016; - Review of the feasibility of reconstruction of Karaganda CHP-2 and ArcelorMittal Temirtau CHP; - Creation of the office of the Corporate Secretary of the Corporation; - Election of the observer under the Board of directors of CAEPCO JSC.
Technical Committee 6 members 1 meeting in 2017	Providing timely and effective monitoring of the status of investment projects in the Corporation	M. Kehr Chairman Turganov D. Wood G. Chai Chee Tak Andreyev G. Perfilov O.	In 2017, the Technical Committee ensured effective participation of its members in the implementation of timely and effective monitoring of the Corporation's investment projects.
Audit Committee 5 members 2 meetings in 2017	Assisting the Board of directors in the effective performance of regulatory and oversight functions Improvement and strengthening of the internal audit and risk management mechanisms Advising the Board of directors on matters requiring action on its part.	Kaiser F. Chairman Kim V. Wood G. Chai Chee Tak Karyagin A.	In 2017, the Committee assisted the Board of directors in performing its regulatory and supervisory functions, improvement and strengthening of the internal audit and risk management mechanisms. The Committee addressed issues pertaining to the responsibilities of internal audit and risk management departments, including review of the relevant reports on the departments' work, approval of budgets, work plans, introduction of changes and additions to corporate policies and procedures, etc.

NAME	TASKS	MEMBERS	RESULTS
Committee for Human Resources, Remuneration and Social Affairs	Development and implementation of human resources policy for the Corporation and its subsidiaries	Tabanov E. Chairman	In 2017, the Committee assisted the Board of directors in building an effective system of corporate governance. The Committee addressed issues pertaining to the work of the Human Resources Department of CAEPCO JSC, matters concerning the election of the Chairman of the Board of Directors of CAEPCO JSC and members of committees under the Board of directors, appointment of the Vice President for Economics and Finance, election of the Corporate Secretary of the Corporation and observer under the Board of Directors.
5 members	Establishing an effective corporate governance system and enforcing its principles	Turganov D.	
		Karyagin A.	
		Nigai A.	
1 meeting in 2017		Konstantinova N.	

EXECUTIVE BODY

The President is the sole executive body of the Corporation, responsible for managing its day-to-day operations and implementing a strategy determined by the Board of Directors and shareholders. The President is guided by the principles of action in the best interests of shareholders, integrity, diligence, prudence and vigilance.



President of CAEPCO JSC

SERGEY KAN

Brief biography

In 1998, graduated with a Law degree from the Abai Almaty State University. Has more than 20 years of experience in the development, promotion and administration of Kazakhstani companies and joint ventures with foreign participation in various areas of business in Kazakhstan.

Since 2007, Mr. Kan has been the Executive Director of Caspian Offshore Construction LLP, and since 2010 he has been the President of the ship owning company Circle Maritime Invest JSC.

Since 2004 Mr. Kan has been a member of the Board of directors of Eximbank Kazakhstan JSC, Member of the Board of directors of Central-Asian Power-Energy Company JSC.

Since 2015, he has been Chairman of the Board of directors of Kazakh Institute of Oil & Gas JSC.

Sergey Kan was honored with Parasat state decoration for considerable contribution to the social, economic and cultural development of the country.

Remuneration policy

Remuneration for the executive body is determined by the decision of the Board of directors of CAEPCO JSC.

The President’s remuneration shall be determined based on the following criteria:

- Remuneration must consist of fixed and variable parts;
- The variable part of remuneration depends on the President’s key performance indicators, his or her qualifications and personal contribution to the Corporation’s results for a certain period, with a view to motivating the President to show first-class performance;
- Social benefits, guarantees and compensation payments to the President shall be made in accordance with laws and regulations, the Corporation’s internal policies and the employment contract.

Internal auditors adhere to such principles as integrity, objectivity, confidentiality and professionalism.

The offices of internal audit in the Corporation’s subsidiaries operate in accordance with the requirements set by the IAD and audit methodology and practices adopted in the Corporation.

Since 2017 the Corporation has had a functional system of internal controls which provides reasonable assurance of effectiveness at all control levels, including financial and operational control, compliance with laws and regulations.

CORPORATE GOVERNANCE CODE COMPLIANCE REPORT

In 2017, corporate governance policies of the Corporation fully met the requirements of the Corporate Governance Code which was developed in accordance the Joint-Stock Companies Act of the Republic of Kazakhstan based on the current international practices in the field of corporate governance and recommendations on the use of corporate governance principles by Kazakhstan’s joint stock companies.




The principles of the Corporate Governance Code are aimed at shaping and implementing into the Corporation’s day-to-day operations of the norms and traditions of corporate behavior that are consistent with international standards and contribute to creating a positive image of the Corporation in the eyes of its shareholders, customers and employees with a view to exercising the rights of shareholders to the maximum extent possible and improving their awareness as to the Corporation’s activities, and also to control and reduce the risks, maintain sustainable improvement of the Corporation’s financial performance and successful pursuit of its stated goals.





INTERNAL CONTROLS AND AUDIT

To improve business processes and enhance the effectiveness of its decisions, the Company has established internal control mechanisms. The Corporation’s Internal Audit Department (IAD) reports directly to the Board of directors of the Corporation and is supervised by the Audit Committee which monitors decisions and processes to ensure the reliability of financial reporting and to coordinate internal controls and risk management procedures.

In 2017, the IAD operated in accordance with the annual plan approved by the Board of directors: it conducted evaluation of the effectiveness of the internal control system in the subsidiaries across several business processes such as: “Procurement, contracts and payments to creditors,” “Connection of consumers to electrical/heat networks,” “Revenue accounting and receivables.” In addition, the IAD oversaw the issuance of technical specifications, monitored the implementation of its recommendations, conducted random checks to inspect fixed assets and inventory. The IAD submitted annual and quarterly reports to the Board of directors and the Audit Committee.

The IAD operates in accordance with the International Standards on Auditing (ISA) developed by the Institute of Internal Auditors, as well as the current laws and regulations of the Republic of Kazakhstan and the Code of Ethics of internal auditors of CAEPCO JSC.

KEY PRINCIPLES OF THE CORPORATE GOVERNANCE CODE	ADHERENCE TO THE PRINCIPLES	COMMENTS
Justice Equal treatment of all shareholders, regardless of the percentage of ownership and whereabouts, provision of opportunities for the effective protection of their rights.	RESPECTED 	Corporate governance in CAEPCO JSC is based on the principle of protection of and respect for the rights and legitimate interests of the Corporation's shareholders, promoting the growth of assets and securing the Corporation's financial stability and profitability. The shareholder rights are enshrined in the Charter and the Statute of the General Meeting of Shareholders of CAEPCO JSC and comply with the Joint-Stock Companies Act of the Republic of Kazakhstan.
Accountability The Board of directors of the Corporation reports to its shareholders, executive bodies report to the Board of directors, while employees report to the management (President of the Corporation). This principle ensures accountability and determines the lines of authority between the Corporation's management bodies, as well as full accountability of the Corporation to its shareholders, which is achieved through the timely provision to the shareholders of accurate and complete information about the current financial situation of the Corporation.	RESPECTED 	This principle of the Corporate Governance Code is respected through the introduction of the Corporation's organizational structure in accordance with the Charter and the Joint-Stock Companies Act of the Republic of Kazakhstan. In addition, the principle of accountability is reflected in the statutes of all management bodies/structural units, which allows to determine the lines of authority of the Company's management bodies and ensure full accountability of the Company to the shareholders.
Responsibility Responsibility of the Corporation to its shareholders, employees, customers and partners, close cooperation with them in order to grow the assets of the Corporation, improve its stability and reliability. This principle determines the ethical standards for the Corporation shareholders and employees, as well as outlines the liability of the Corporation officers for their illegal, wrongful actions (willful or ignorant) or inaction, as provided by the current law.	RESPECTED 	In 2017, the Corporation adopted a Fraud and Corruption Prevention Policy. The main goals include: <ul style="list-style-type: none"> – Develop and implement an effective strategy against corruption and fraud; – Develop ethical employee and organizational culture of zero tolerance to corruption or fraud; – Minimize the risk of involvement of the Corporation and its employees in corrupt or fraudulent activities; – Respond rapidly to any corruption or fraud situations. In 2010, the Company adopted a Business Ethics Code which determines the basic principles of the Company's relationship with its shareholders and investors, employees and officers of the Company, and customers of CAEPCO JSC Group.

KEY PRINCIPLES OF THE CORPORATE GOVERNANCE CODE	ADHERENCE TO THE PRINCIPLES	COMMENTS
Transparency Timely disclosure of accurate information about all material facts relating to the Corporation's activities, including its financial situation, performance, ownership and management structure, in the amounts prescribed by the legislation and internal policies, as well as ensuring the free access of all interested parties to such information by publishing it so as to make it easily accessible to the public, as provided by the legislation and the Corporation's internal policies.	RESPECTED 	The mechanism of putting the principle of transparency into practice is best explained in the Information Policy of CAEPCO JSC, whose main objectives include: <ul style="list-style-type: none"> – Timely provision of information on all significant matters related to the Company; – Ensuring availability of public information about the Corporation for all the stakeholders; – Increasing openness and trust between the Corporation and stakeholders; – Improvement of corporate governance. – Creating a favorable corporate image.
Environmental protection and social responsibility The Corporation treats the environment responsibly and rationally, operating as a socially responsible business.	RESPECTED 	CAEPCO JSC has developed and adopted an action plan on environmental and social initiatives, guiding the Corporation's policy in the field of environmental protection and social responsibility.
Effectiveness The Corporation's President and its Board of directors must ensure that the Corporation is managed in a sensible and responsible manner, promoting steady improvement of its financial performance, growth of shareholder wealth, effective human resources policy, employee training and development, motivation and social security.	RESPECTED 	The principle of effectiveness is guided by the Statute of the President and the Statute of the Board of directors of the Corporation. The President is the sole executive body responsible for managing 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 thorough long-term strategy, to grow the Corporation's assets, to ensure operational efficiency, to enforce the rights and legitimate interests of the shareholders and to oversee the executive body.
Control Control over financial and business activities of the Corporation 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 Corporation, as well as the efficient use of internal and external auditors along with the introduction of an effective risk-based internal controls system.	RESPECTED 	Control over financial and business activities of the Corporation is the responsibility of the President of CAEPCO JSC in accordance with the provisions set forth in the internal policies. The Corporation has an Audit and Risk Management Committee which is an advisory body of the Board of directors of CAEPCO JSC, whose goal is to assist the Board of directors in monitoring the decisions and processes, ensuring the reliability of financial reporting and availability of proper internal control and risk management procedures.



5 Alternative



CAEPCO
Central-Asian
Electric Power Corporation

**RISK
MANAGEMENT**



ENERGY MEANS RESPONSIBILITY

We are aware of our responsibility toward consumers, the government, investors, employees, business partners and the public.

RISK MANAGEMENT

The main goals of CAEPCO JSC in the field of risk management include reduction of the negative impact of the events surrounding the activities of the Corporation, as well as pursuit of interesting opportunities.

CORPORATE RISK MANAGEMENT SYSTEM

The Company has an Corporate risk management system (RMS) aimed at identification, assessment

and monitoring of all significant risks, as well as minimization measures. Risk management is performed at all levels: industrial enterprises, departments and at the level of the Group of companies.

RISK GROUPS

STRATEGIC RISKS	FINANCIAL RISKS
<ul style="list-style-type: none"> Regulatory risks Investment risks Project risks Reputational risks Market risks Managerial risks 	<ul style="list-style-type: none"> Financial statements Interest rate risks Liquidity risk Credit risks Price risks Foreign exchange risks
LEGAL RISKS	OPERATIONAL RISKS
<ul style="list-style-type: none"> Violation of law Litigation risk Corruption and fraud risk Property risk Collection risks 	<ul style="list-style-type: none"> Technological risks Procurement and sourcing Planning and operational decision making Human Resource Management Occupational safety and health Interaction with contractors IT and information security Government relations Emergencies Interaction with consumers Human resources risks Environmental risks

Risks are identified, evaluated and controlled.

ORGANIZATION OF RMS ACTIVITIES



STANDARDS OF INTERNAL CONTROL

The Corporation has an internal control system (ICS) which includes a set of policies, processes, procedures, behavior guidelines and actions all

combined into a single continuous process. The ICS is part of the administration process in the Group of companies implemented by the Board of directors, all executive, supervisory bodies and employees. The ICS is aimed at ensuring the achievement of the objectives of the Group and minimization of risks.

The Corporation identifies three levels of the internal control system:

OPERATIONAL	FINANCIAL	COMPLIANCE
Applies to the business objectives of the organization, including productivity, profitability and safety of resources.	Refers to the preparation of reliable published financial statements, including the interim condensed financial statements, as well as any data derived from these reports (for example, income data) which is published openly.	Focuses on compliance with laws and regulations governing the operations of the organization.

RISK INSURANCE



In order to properly manage the risks inherent in the activities of the Corporation, CAEPCO JSC has developed and implemented the Insurance Guidelines formalizing insurance against risks to minimize and eliminate the consequences (damage, losses) from the risks incurred and to reduce (mitigate) the negative impact on the strategic objectives of the Corporation. Thus, the Guidelines are designed to ensure sustainable operation and development of the Corporation through cost-effective insurance protection against major risks threatening company operations, employee health, as well as the interests of shareholders and investors.









CAEPCO JSC Group has all types of compulsory insurance protection in accordance with the regulations of the Republic of Kazakhstan. In addition to the compulsory types of insurance in accordance with the insurance policy and the best international practices, the







Corporation insures property risks voluntarily. Property risks of generating facilities of CAEPCO JSC are insured in insurance companies of the Republic of Kazakhstan in accordance with the regulations. The Corporation has high standards regarding insurance of its assets (insurance of property against all risks), which means additional requirements and control over reinsurance of its risks in international reinsurance organizations (such as Munich RE, Hannover RE, etc.) with a minimum credit rating of AA. The Corporation pursues a policy of openness towards the insurance industry: it occasionally conducts engineering surveys of its generating facilities and implements recommendations of the reinsurers.

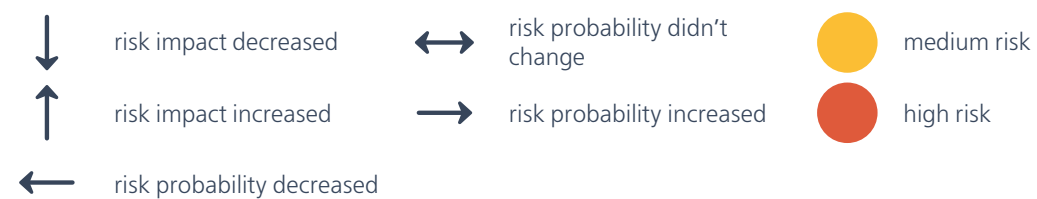
ANALYSIS OF SIGNIFICANT RISKS AFFECTING PERFORMANCE

Sixty-nine risks affecting the Corporation were identified in 2017 based on the new Corporate Risk Register and the Risk Mapping updated in accordance with the approved Risk Management Policy.

RISK	FACTORS	LEVEL	CHANGE	DESCRIPTION OF THE CHANGE	MEASURES TO MINIMIZE THE RISK
Strategic risks					
Failure to implement the investment program/ Failure to achieve expected results in the projects	1. Delays in construction during realization of the investment project. 2. Incorrect/delayed purchase of equipment. 3. Shipping delays with equipment and supplies. 4. Delays in the work execution. 5. Too much time spent negotiating contracts with equipment vendors. 6. Delays in funding.			The main reasons for increased risks are delays in signing contract with construction contractors, as well as low-skilled workers of contractors.	1. Development of internal policies and procedures on cooperation with contractors demanding greater accountability of contractors for the timely and proper performance of works. 2. Timely monitoring of the work progress by contractors.

RISK	FACTORS	LEVEL	CHANGE	DESCRIPTION OF THE CHANGE	MEASURES TO MINIMIZE THE RISK
Damage to the corporate reputation	1. Negative public reaction, lack of counter/positive media coverage. 2. Increase in the number of customer complaints, including those caused by poor service, as well as employees' failure to comply with the corporate ethics code.			In 2017, social media and mass media reported cases of poor customer service and delays in connecting customers to the heating network.	1. Service center of energy distribution companies were renovated. 2. An internal policy was developed to formalize processing of complaints with a view to ensuring better/faster service when processing customer applications. 3. The company held press conferences and published some interesting facts in mass media and social media.
Operational risks					
Injuries/accident	1. Violation of occupational safety guidelines by employees. 2. Industrial accidents. 3. Low-skilled employees.			In 2017, the number of accidents fell compared to 2016.	In 2017, the Corporation approved an action plan to address the shortcomings of its health and safety procedures.
Delayed purchase and delivery of goods, works and services	1. Protracted approval of contracts and purchase orders. 2. Failure to perform obligations to vendors. 3. Lack of automated electronic approval procedures for documents.			Delayed purchase and delivery of goods, works and services, as well as poor procurement procedures throughout the year put the maintenance works behind schedule.	1. Introduction of an annual procurement plan specifying deadlines for each stage from application to delivery. 2. To ensure faster procurement, procedures for management review of vendor quotes, depending on the type of purchase.
Loss of skilled/key personnel	1. Low average wage. 2. Migration to other countries. 3. Poor quality of college training for energy majors, etc.			Despite the fact that risk probability fell, human resources data analysis shows high employee turnover rates in the subsidiaries.	Raising wages by switching to a uniform compensation system, as well as adjustment of wages to the inflation rate.

RISK	FACTORS	LEVEL	CHANGE	DESCRIPTION OF THE CHANGE	MEASURES TO MINIMIZE THE RISK
Above-normal heat losses	1. Significant wear of heat networks. 2. Technical violations and accidents at heat networks.			In 2017, the Corporation reduced above-normal heat losses compared with 2016.	In 2016-2020, heat networks in Pavlodar and Petropavlovsk will be upgraded as part of Nurly Zhol and EBRD investment programs with budgets totaling 14 KZT bln and 12 KZT bln respectively. The main goal of this project is to completely eliminate heat losses above the normal level.
Financial risks					
Increase in receivables	1. Delayed bill payments. 2. Decline of major macroeconomic indicators.			In 2017, more than 90% of bills issued by the Corporation's subsidiaries for the consumed energy have been paid. Despite this, the amount of overdue debt remains high.	Court actions initiated for debt recovery. Installment payment schedules are used to collect debt. Notices about the customers' unpaid bills for utilities are sent to employers.
Legal risks					
Damage to the Corporation by unscrupulous acts by staff or third parties	1. Fraudulent and corrupt practices by employees of the Corporation and third parties. 2. Low level of self-discipline and culture. 3. Poor knowledge of the laws and regulations of the Republic of Kazakhstan. 4. Lack of respect for the law.			Risk probability remained at the same level.	In 2017, in order to create and implement an effective strategy for the prevention of corruption and fraud, as well as to promote integrity among the employees and management of the Corporation, the Board of directors of CAEPCO JSC adopted the Fraud and Corruption Prevention Policy.



Dealing with risks is the responsibility of the Corporation's Risk Management Department which reports to the Board of directors. The department operates based on the annual work plan approved by the Board of directors.

WORK PERFORMED IN 2017	WORK PLANNED FOR 2018
Development of the Fraud and Corruption Prevention Policy of CAEPCO JSC Risk management training for key employees of CAEPCO JSC	Updating the list of business processes exposed to the risk of corruption and fraud
Updating the Corporation's Risk Register and Risk Mapping	Updating the Corporation's Risk Register and Risk Mapping
Analysis and testing of the effectiveness of internal controls in business processes: <ul style="list-style-type: none"> – Monitoring compliance with occupational health and safety standards; – Monitoring compliance with environmental protection standards; – Revenue accounting and accounts receivable; – Inventory accounting; – Accounting of fixed assets and intangible assets; – Information technology and security; – Development and implementation of the basic principles of corporate governance. 	Analysis and testing of the effectiveness of internal controls in business processes: <ul style="list-style-type: none"> – 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; – Tax accounting.





CAEPCO
Central-Asian
Electric Power Corporation

**SUSTAINABLE
DEVELOPMENT**

ENERGY MEANS SUSTAINABILITY

We provide good working conditions, promote implementation of dual training work to bring vocational education in Kazakhstan into the mainstream, support local communities and the social infrastructure.



SUSTAINABLE DEVELOPMENT

Realizing the responsibility before consumers, the government, investors, employees, business partners and the public, CAEPCO JSC adheres to the principles of sustainable development and relies on comprehensive environmental management in the broad sense of the term.

STAKEHOLDER ENGAGEMENT

Stakeholder engagement is an important part of the sustainable development system. Because of the great public significance of its work and in order to minimize risks, CAEPCO JSC is implementing a number

of measures aimed at increasing and improving stakeholder engagement in accordance with such principles of corporate behavior as openness, accuracy and completeness of the information about the Corporation’s activities, balance of the interests of all stakeholders and rapid response to any concerns.

THE CORPORATION COMMUNICATES WITH STAKEHOLDERS ON THE FOLLOWING SUBJECTS:

SOCIAL RESPONSIBILITY	ENVIRONMENTAL PROTECTION	OCCUPATIONAL HEALTH AND SAFETY	ECONOMIC SECURITY
Employees	Non-governmental organizations (NGOs)	Employees	Shareholders
Government agencies and regulatory bodies	Government agencies and regulatory bodies	Vendors, Contractors	Local communities
Local communities	Local communities	Trade union	
Educational institutions			

STAKEHOLDER ENGAGEMENT

KEY STAKEHOLDERS	ENGAGEMENT PROCESST	ISSUES DISCUSSED
Employees	By means of corporate newsletters and websites. There is email support and a helpline which employees can use. Meeting are conducted between company management and employees. Labor disputes are resolved by conciliation commissions with participation of representatives of both the employer and the employee.	<ul style="list-style-type: none"> Respecting occupational health and safety standards; Informing employees about the Corporation’s activities; Promoting professional development; Social assistance and support; Respecting the terms of the collective agreement.

KEY STAKEHOLDERS	ENGAGEMENT PROCESST	ISSUES DISCUSSED
Local communities, Consumers	The Corporation has systemized its communications with the customers; feedback is collected via websites and e-mail. Public hearings, round tables and other events are held.	<ul style="list-style-type: none"> Processing of applications and adoption of rates for monopoly-controlled services; Implementation of the investment program; Quality of rendered services, monitoring of meeting with customer requirements.
Government agencies and regulatory bodies	Requests from the government and regulatory authorities are processed: some are answered, others are for notification purposes only. Employees of the Corporation participate in specialized and general meetings. Visits of official delegations are arranged.	<ul style="list-style-type: none"> Mitigation of the negative impact of industrial facilities on the city and region; Ensuring readiness for the heating season; Fulfilment of investment commitments; Compliance with the law, including environmental and nature protection regulations.
Vendors, Contractors, Customers	Tenders are organized and held, as well as meetings with contractors and customers. Corporate web-site has a special feedback section.	<ul style="list-style-type: none"> Promoting a mutually beneficial partnership; Ensuring transparency during tenders.
Educational institutions	Meetings with representatives of the higher education institutions are held in the regions of operation. Employees of the Corporation take part in the activities of examination boards and certification commissions, as well as in accreditation of educational programs.	<ul style="list-style-type: none"> Recruitment for the enterprises; Internship and jobs for graduates.
Mass media	Every year, enterprises within the Corporation conduct press tours, media briefings, press conferences, issue press releases, promptly respond to requests for information.	<ul style="list-style-type: none"> Promoting cooperation; Communication on the status of the investment program aimed at modernization and renovation of the infrastructure; Compliance with environmental standards; Implementation of social projects.
Non-governmental organizations (NGOs)	Representatives of NGOs are regularly invited for participation in the press tours and public hearings, which are held throughout the year. Employees of the Corporation participate in public hearings with representatives of small and medium enterprises. Meetings are held with leaders of NGOs that support socially vulnerable people, with participation of representatives from consumer right protection associations.	<ul style="list-style-type: none"> Assistance in addressing environmental and social issues.
Trade union	Interaction with trade unions is carried out through the organization of meetings and processing requests during operations.	<ul style="list-style-type: none"> Respecting the terms of the collective labor agreement; Assistance in arranging leisure and recreation for employees.
Shareholders	Interaction during meetings of shareholders.	<ul style="list-style-type: none"> Business efficiency and financial results Adherence to the principles of sustainable development in the operations of the Group of companies.

INFORMATION POLICY

The information policy of CAEPCO JSC is a set of actions, events and procedures helping to manage dissemination corporate information and to create a consistent image of the Corporation among its target audience.

- Promoting openness and trust between the Company and its shareholders, potential investors, market participants, government agencies and other stakeholders;
- Improving corporate governance;
- Creating a favorable corporate image.



The Policy covers internal and external communications. External communication means informing the public about the activities of the Corporation by publishing reports, messages, documents and other materials. The purpose of internal communications is to inform all employees about the current situation, promote corporate loyalty, regulate access of various employees and divisions to corporate information.

The main goals of information disclosure are as follows:

- Timely provision of information on all substantive matters pertaining to the Corporation in order to respect legitimate rights of the shareholders, investors and other interested parties, providing them with appropriate information to make informed decisions or any other action that could affect the financial and business activities of the Corporation, as well as other information conducive to the fullest understanding of its activities.
- Ensuring availability of public information about the Corporation to all stakeholders;

In 2017, CAEPCO JSC Group of companies regularly shared information about its activities with the above stakeholders by updating the official websites of the Corporation and its subsidiaries, providing information to mass media, responding to requests, and by arranging public hearings, press tours, round tables and other events.

In 2017, the Corporation implemented a Stakeholder Engagement Plan (SEP) in accordance with the policy of the European Bank for Reconstruction and Development. As a result of adopting this plan, the Corporation published a report available for public access on the corporate website, which contains information on measures aimed at stakeholder engagement. In 2017, more than 3,000 materials were published in mass media and social media on the activities of the Group companies; 35 events were conducted involving mass media; websites of SEVKAZENERGO JSC, PAVLODARENERGO JSC and Akmola EDC JSC were redesigned, 48 issues of the corporate newspaper were published.

During the reporting year, the public relations departments of CAEPCO JSC participated in the preparation, conducting and news coverage of sports, sponsorship, commemorative, celebratory and urban events; developed and released pamphlets, booklets and booths for companies of the Group.

PLANS for 2018

Moving in line with the information policy, more measure will be taken to ensure timely and regular disclosure of all material facts of the Corporation. This includes:

- Awareness-raising measures for customers on popular topics;
- Improving communication channels within the Group of companies;
- Improving external communication channels;
- Improving in-house training/exchange of experience between subsidiaries.

ENVIRONMENTAL POLICY

ENVIRONMENTAL IMPACT MANAGEMENT

Environmental protection, consistent improvement of environmental performance and energy efficiency are key strategic priorities of CAEPCO JSC forming an integral part of the sustainable development process. In order to minimize the environmental impact, CAEPCO JSC Group of companies consistently implements the Environmental Policy adopted by the Corporation in 2016.

Subsidiaries of CAEPCO JSC Group of companies have passed ISO 14001 international environmental certification and are introducing working methods which meet the requirements of this standard. In the course of their operations subsidiaries of CAEPCO JSC contribute to air and surface water pollution, as well as waste accumulation. In 2017, CAEPCO JSC Group of companies burnt a total of 6,459.7 thous. tons of Ekibastuz coal and 7.4 thous. tons of heating to generate energy.

Significant environmental aspects are managed through regular monitoring of environmental performance, assessment of compliance with the legislative and corporate requirements. The Environment, Health and Safety Department of CAEPCO JSC is responsible for controlling, accounting and analysis of the above mentioned environmental impacts of the subsidiaries.

The Corporation's Environmental Policy and guidelines, as well as sustainable development, environment and social responsibility reports are published on the websites of the Corporation and its subsidiaries to inform the public about what is actually being done. In addition, the subsidiaries inform their contractors of the applicable regulations by including them in agreements, specifications and requirements that contractors must comply with.

Starting from 2009, the Corporation has been implementing the Environmental and Social Action Plan (ESAP) as a part of its Investment Program and in accordance with the Environmental Protection Policy of the European Bank for Reconstruction and Development in the course of EBRD-financed projects. Under the framework of ESAP, every year the Corporation releases a report available for public access.

Starting from November 2009, as a part of Akmola EDC's modernization and expansion program for the electrical distribution system funded by the Asian Development Bank (ADB), the Corporation is implementing an Environmental and Social Management System (ESMS) in accordance with the ADB's Safety Mission Statement (2009, ADB's SMS) and other social policies of the Bank; furthermore, reports are submitted to the ADB on an annual basis to report on environmental, social and occupational safety performance of Akmola EDC's modernization and expansion projects for the electrical distribution network.

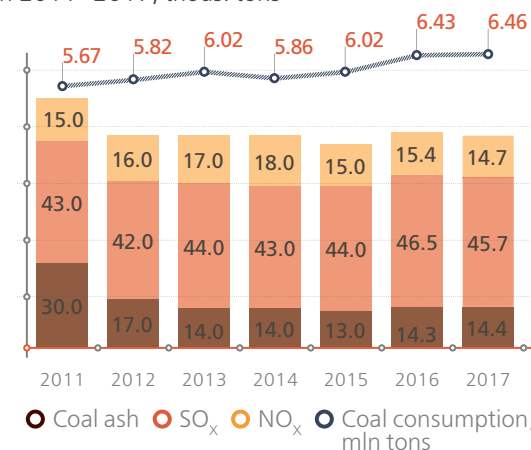
All quantitative environmental data (except environmental spending) is provided for the Generation section due to its significant impact on the environment. The structure of environmental spending includes expenses of electricity grid companies.

PREVENTION OF AIR POLLUTION

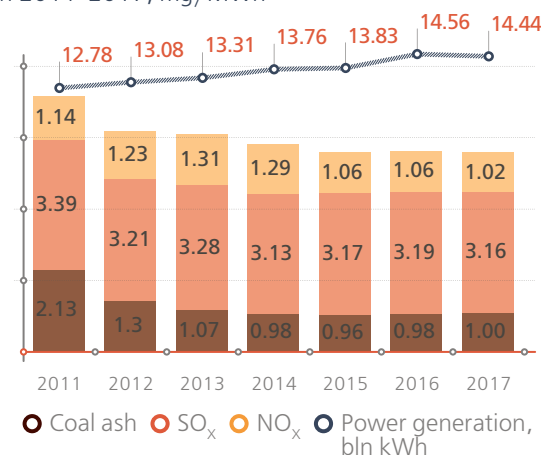
Replacement of obsolete generating equipment with low energy and environmental efficiency with modern facilities meeting current environmental protection standards is the most important factor in reducing emissions by the Corporation. Renovation of scrubbers on all boilers of the power plants helped to reduce the total annual emissions of coal ash from 48,000 tons to 14,400 tons (a 70 % reduction).

During the period from late 2008 to 2017, emissions into the atmosphere by enterprises of CAEPCO JSC fell by 27 % (from 108,500 tons to 79,600 tons, including other emissions).

Gross harmful emissions into the atmosphere in 2011–2017, thous. tons



Per-unit emissions into the atmosphere in 2011–2017, mg/MWh



Compared with 2016, the reporting year saw a decline in the output (0.82%) and, consequently, reduction of harmful emissions resulting from the production of heat and electricity. Gross harmful gaseous emissions into the atmosphere (NO_x and SO_x) fell by 4.5% and 1.7% respectively, while per-unit emissions of NO_x and SO_x fell by 3.77% and 0.94% respectively. Gross and per-unit particulate emissions (fly ash) rose by 0.7% and 2% respectively.

MITIGATION OF ENVIRONMENTAL IMPACT, ENVIRONMENTAL PROTECTION MEASURES

In 2017, the following main measures were implemented to mitigate environmental impact:

- Restoration of boiler heating surfaces to ensure effective cleaning, recycling, neutralization, suppression and elimination of pollutants in gases from emission sources;

- Overhauls and maintenance of emission filtering equipment, specifically replacing worn-out elements of scrubbers and ductwork, ensuring that scrubbers operate at their design capacity of 99.5%, repairing aspiration units and measuring their performance, restoring thermal insulation and burner brickwork, repair and replacement of burners during boiler overhauls;
- Reclamation of ash dump no. 3 and heightening of separation dams of ash dump no. 2 of SEVKAZENERGO JSC;
- Reclamation of a quarry provided for subsoil use (for construction of ash dumps) of PAVLODARENERGO JSC;
- Construction of the 2nd stage of ash dump at Ekibastuz CHP of PAVLODARENERGO JSC;
- Replacement of old lamps with energy-saving lamps;
- Replacement of oil-filled equipment of power distribution companies (transformers, switches) with more environmentally friendly alternatives (SF₆, dry and vacuum).

GREENHOUSE GAS (CO₂) EMISSIONS

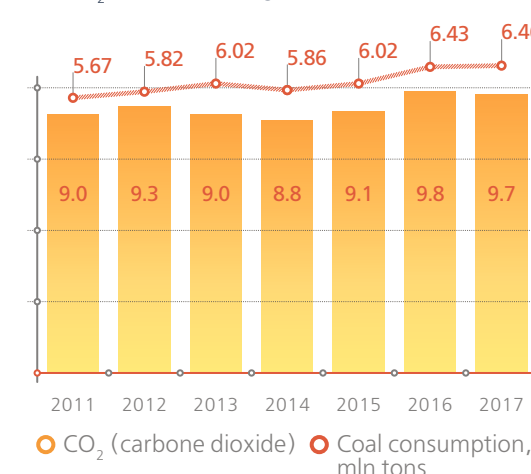
The Corporation takes measures to monitor greenhouse gas emissions and consumption of ozone-depleting substances. Thus, a calculation method is used for greenhouse gas monitoring: the idea is to keep a log of emissions from normal (regular) production activities, special processes (commissioning, shutdown, repair, and maintenance) and emergencies.

Reconstruction of heat networks in Petropavlovsk and Pavlodar, Ekibastuz during 2016–2018 are expected to boost energy efficiency, reduce losses and improve environmental performance (reduction of CO₂ by burning less coal thanks to reduced transmission losses in heat networks). Gross CO₂ emissions in 2016 fell by 200,980 tons compared with 2010, while per-unit emissions fell by 3%.

There is a special improvement program focused on energy savings and fuel efficiency, as new generating units are making an increasing share of generated energy, plus implementation of the ISO 50001 energy management system (energy saving measures), whose purpose is not only to increase energy efficiency of production processes but also to reduce greenhouse gas emissions. Thanks to this program, in 2017 greenhouse gas (CO₂) emissions fell by 585,522 tons.

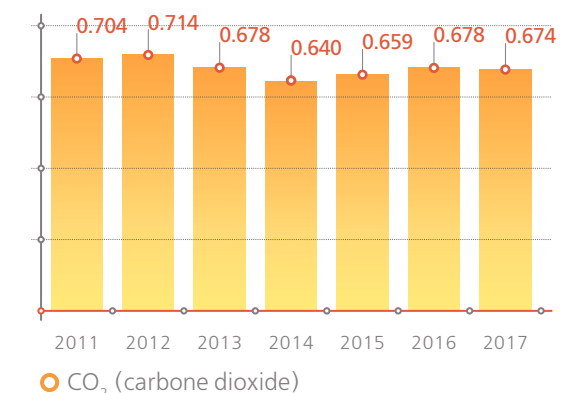
Due to reduced output, in 2017 gross greenhouse gas emissions declined 1% compared with 2016

Gross CO₂ emission during 2011–2017, mln tons



and amounted to 9.735 mln tons of CO₂. Per-unit greenhouse gas emissions also fell by 0.6%.

Per-unit CO₂ emissions during 2011–2017, ton/MWh



ENVIRONMENTAL SPENDING

To improve environmental performance, CAEPCO JSC Group of companies provides funding to environmental protection initiatives. In 2017, environmental spending totaled 2, 940. 572 KZT mln. A special Environmental Impact Assessment section is included in every new

construction and renovation project: its contents are shared with local communities and other interested parties in the form of public hearings. To ensure compliance with the environmental standards of the Republic of Kazakhstan, all projects undergo the government environmental review by regional environmental authorities.

ENVIRONMENTAL COSTS, KZT MLN

NO. ITEM	EXPENSE	AMOUNT, KZT MLN		
		2015	2016	2017
	CAEPCO JSC	8,109.9	6,439.5	2,940.572
PAVLODARENERGO JSC				
1.	Investment costs	2,735.8	958.5	848.396
2.	Major repairs of fixed assets for environmental purposes	788	60.8	59.05
3.	Operating expenses	1,152	837.5	603.674
SEVKAZENERGO JSC				
1.	Investment costs	3,000	4,348.875	707.700
2.	Major repairs of fixed assets for environmental purposes	131.5	27.641	152.121
3.	Operating expenses	292.9	189.899	189.116
AKMOLA EDC JSC				
1.	Investment costs	-	-	358.2
2.	Major repairs of fixed assets for environmental purposes	-	-	-
3.	Operating expenses	9.712	16.277	22.315

In 2017, the government found no significant violations of the environmental laws or regulations by the subsidiaries. In 2017, SEVKAZENERGO JSC and PAVLODARENERGO JSC did not have to go through any audits conducted by regional environmental regulators.

WATER MANAGEMENT AND WATER RESOURCES CONSERVATION

Enterprises of CAEPCO JSC Group of companies have drinking and service water supply systems, as well as storm and household sewer systems. Water supply

for domestic, drinking and fire-fighting needs, as well as sewerage, is carried out in a centralized manner by utilities bases on contracts. Water for production needs is supplied via a closed-circuit water system.

In 2017, a total of 810,167.761 thous. m³ of water was consumed, mostly by the closed-circuit water system. In the reporting period, a total of 489,671 thous. m³ of waste water was drained.

TOTAL WATER CONSUMPTION BY SOURCES, THOUS. M³

ITEM	2015	2016	2017
Total water used,	540,137.6	543,598.7	810,167.8
including:			
from surface water bodies	11,032.3	13,463.0	157,469.7
from closed-circuit water systems	504,231.9	505,669.3	628,906.8
from third-party suppliers	24,873.3	24,466.4	23,791.289
Waste water discharged, thous. m ³			
ITEM	2015	2016	2017
Total waste water	469.15	499.3	489.7
Discharged to third parties	469.15	499.3	461.5
Discharged to surface water bodies	0	0	28.2

The most important environmental initiatives related to water use and water discharge in 2017 include the following:

- Modernization of industrial closed-circuit water systems, recycled water system, and the system for prevention of contamination and depletion of water resources;
- Monitoring of qualitative and quantitative characteristics of water (water analysis was conducted in accordance with the approved schedule);
- Repair of pipelines, valves for service and drinking water at CHP-3 and CHP-2;
- Replacement and repair of valves on pipelines for service water, fire-fighting water pipes and heating network at Ekibastuz CHP.

Biological diversity is the most impacted by water facilities of power plants, as there is a risk of mass mortality of marine life in water intake areas. In order to minimize this risk, special measures are taken to fit suction devices with strainers and to control their operation: specifically, Rubezh 45 floating booms were cleaned.

EFFICIENT HANDLING AND DISPOSAL OF PRODUCTION WASTE

Representing 99% of the total amount of wastes, coal combustion residuals are stored in specially equipped coal ash dump sites. In 2017, facilities of CAEPCO JSC produced a total of 2,619.1 thous. tons of waste, including 2,607.8 thous. tons of coal combustions residuals and 11.3 thous. tons of industrial and household waste. This is 7.8 thous. tones more coal combustion residuals compared to 2016, which is due to

the increased share of “green” coal waste in the general structure of waste. In 2017, there were 3.1 thous. tons more industrial and household waste handed over to third parties for disposal or recycling compared to 2016, which is due to the general increase in waste production by companies within the Group.

In 2017, the most significant waste management measures aimed at improvement of industrial and environmental safety of ash dump sites and other waste disposal facilities included:

- Dam heightening of the 2nd section of the ash dump at CHP-3 (PAVLODARENERGO JSC);
- Construction of the 2nd section of the ash dump at Ekibastuz CHP (PAVLODARENERGO JSC);

- Construction of the 3rd section of the ash dump at CHP-3 (PAVLODARENERGO JSC);
- Reclaiming ash dump no. 3 (SEVKAZENERGO JSC);
- Designating areas for storing waste from renovation and construction of energy infrastructure facilities (preparation of sites, installation of containers).

It should be noted that ash dump sites used Canadian polysynthetic geomembrane for bed reinforcement, which is a state-of-the-art waste containment technology. The use of this special geomembrane film will guarantee 100% waterproofing. It is a reliable and durable landfill liner ensuring protection of soil and ground water against contamination with chemicals contained in clarified water of wet scrubbers used for fly ash capture.

TOTAL WEIGHT OF GENERATED WASTE, THOUS. TONS

ITEM	2015	2016	2017
Coal combustion residuals	2,437	2,600	2,607.8
Other types of waste	14.4	8.2	11.3

WASTE BY HAZARD LEVELS, THOUS. TONS

ITEM	2015	2016	2017
Waste generated	2,452	2,608.2	2,619.1
Green list	2,451	2,607.75	2,618.7
Amber list	1.20	0.45	0.38



WASTES BY METHOD OF HANDLING, THOUS. TONS

ITEM	2015	2016	2017
Waste generated	2,452	2,608.2	2,619.1
including coal combustion residuals	2,437	2,600	2,607.8
Waste used at the enterprise	1.9	0.45	5.02
Waste decontaminated	0.009	0.036	0.04
Waste handed over to third parties	12.7	8.1	6.27
Waste disposed at enterprise's own sites	2,424	2,600	2,607.8
including coal combustion residuals	2,423	2,600	2,607.8

ENVIRONMENTAL MANAGEMENT SYSTEM

Availability of the environmental management system that is developed, well-functioning and has ISO 14001 certification is an important indicator of a systematic, efficient work in the sphere of environmental protection, increasing the Corporation's competitive capacity and market value and creating a positive image in relations with external stakeholders.

During the reporting period, TÜV Rheinland Kazakhstan conducted supervisory and certification audits of subsidiaries of CAEPCO JSC to verify compliance with ISO 14001 (Environmental System Management), ISO 9001 (Quality Management System), OHSAS 18001 (Occupational Safety and Health Management System) and ISO/CD 50001 (Energy Management System). As a result, certificates of integrated management system (IMS) were granted and the Corporation's efficiency, effectiveness and focus on improvement were confirmed.

In 2017, Akmola EDC JSC signed a contract to provide consulting services for the implementation of an environmental management system and for the next 12 months the necessary documentation was developed according to international ISO standards. In 2018, Akmola EDC JSC intends to obtain ISO 14001, ISO 9001 and OHSAS 18001 certifications, and along with other subsidiaries of the Corporation it will contribute to the fulfilment of commitments by annual confirmation and renewal of these certifications.

PUBLIC ASSESSMENT OF ENVIRONMENTAL ACTIVITIES

In order to comply with Kazakhstan's environmental regulations, in 2017 subsidiaries of CAEPCO JSC

Group of companies held 7 public hearings with the participation of representatives of local executive bodies and communities, including the Office of Energy Management and Utility Services of North-Kazakhstan region, Environmental Department for North-Kazakhstan region of the Environmental Regulation and Supervision Committee of the Energy Ministry, Office of Business and Agriculture of the city of Pavlodar, territorial subdivisions of the environmental body of Environmental Department for North-Kazakhstan region of the Environmental Regulation and Supervision Committee of the Energy Ministry, Office for Subsoil Use, Environment and Water Resources of Pavlodar region, Office for Natural Resources and Environmental Management of the city of Astana. Environmental projects discussed included:

- 1) "Assessment of environmental impact" to the working project "Renovation of the heating distribution structure of Petropavlovsk CHP-2";
- 2) "Assessment of environmental impact" to the working project "Heightening of enclosing dams of section 3 of the ash dump site at SEVKAZENERGO JSC's CHP-2";
- 3) "Assessment of environmental impact" (stage III) to Roschinka loam deposits development draft project in Kyzylzhar district of North-Kazakhstan region;
- 4) "Environmental impact assessment (EIA)" section to the project "Construction of the 3rd stage of the ash dump site at PAVLODARENERGO JSC's CHP-3";
- 5) EIA section to the project "Residential complex with the addition of a 3-storey corner structure in Usolsk microdistrict no 1 in Pavlodar";

6) EIA section to the project "Prospecting of clay rocks on Beta plot";

7) EIA project to the project of construction of the double-circuit VL-110 kV power line Akmola CHP-2 – Promzona – Gorodskaya", 2nd launch complex» "Promzona – Gorodskaya» in Astana;

The main goal of public hearings is to determine the environmental impact from the above projects, assessment of possible environmental and economic effects, development of emission limits when conducting renovation and construction. The discussion focused on sources of environmental impact, amounts of harmful emissions during the works, the amount of waste produced. The hearings also discussed a number of remedial measures aimed at minimization of environmental impact during the planned activities.

Announcement about public hearings were published in mass media in the Kazakh and Russian languages in newspapers Severniy Kazakhstan, Soltystik Kazakhstan, Zvezda Priirtyshiya, Saryarka Samaly, and Vechernaya Astana, as well as on online resources of the Office for Energy and Utilities of North-Kazakhstan Region, Office for Business and Agriculture of the city of Pavlodar, Office for Subsoil Use, Environment and Water Resources of Pavlodar region and Office for Natural Resources and Environmental Management of the city of Astana.

PLANS for 2018

In 2018, CAEPCO JSC will continue to implement measures to reduce its environmental impact. As part of the investment program, there are plans to further upgrade generating facilities, carry out environmental activities and confirm compliance with international environmental standards.

In 2018, CAEPCO JSC intends to conduct an independent environmental audit of its generating facilities using the best available technology in order to obtain an objective assessment of its environmental performance and determine opportunities for further improvements in eco-efficiency and pollution control. Based on the results of the audit, the Corporation intends to develop a long-term action plan to reduce emissions and improve the environmental efficiency of its facilities.

HUMAN RESOURCES AND SOCIAL POLICY

HUMAN RESOURCES MANAGEMENT

Human resources management policy of CAEPCO JSC is a comprehensive system of interaction with employees to achieve strategic goals of the Corporation.

The goal of CAEPCO JSC's human resources management policy is to build a company with an effective system of corporate governance, providing opportunities for maximizing employee potential. The Corporation is strengthening its human resources management policy by hiring employees at various levels, retaining highly skilled staff, providing continuous professional training and development, opening up opportunities for professional growth of proactive young workers, creating talent pools and succession planning.

EMPLOYEE NUMBERS AND SKILL LEVEL

As of December 31, 2017, the Corporation employed 10,603 people.

A slight increase of 0.6% compared with 2016 was caused by the planned introduction of new structural units by subsidiaries of CAEPCO JSC and filling vacancies.

EMPLOYEE STRUCTURE BY CATEGORY AND SEX

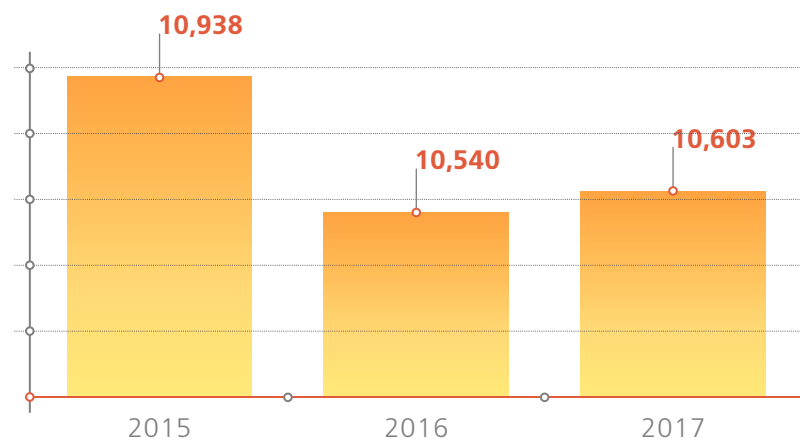
Due to the nature of the Corporation's area of business, men constitute the majority making up 61.2% of the staff. Production personnel are mostly blue-collar workers of whom 73% are men.

EMPLOYEE AGE STRUCTURE

The most productive age group of those who are under 40 make up an impressive 53.8% of the staff. In 2017, there number of employees over 60 years increased 0.9% compared 2016. Considering the above, the Company implements measures to promote mentoring and succession to ensure transfer of professional knowledge and skills to gradually reduce the average employee age for achieving an optimal ratio between young pro-active employees and highly qualified mature workers.

EMPLOYEE CATEGORY	TOTAL		INCLUDING			
			MEN		WOMEN	
	PERSONS	%	PERSONS	%	PERSONS	%
Head count	10,603	100,0	6,494	61.2	4,109	38.8
Managers	1,511	14.3	1,140	75.5	371	24.5
White-collar workers	3,148	29.7	1,012	32.2	2,136	67.8
Blue-collar workers	5,944	56.0	4,342	73.0	1,602	27.0

Changes in head count



HEAD COUNT STRUCTURE OF CAEPCO JSC IN 2017

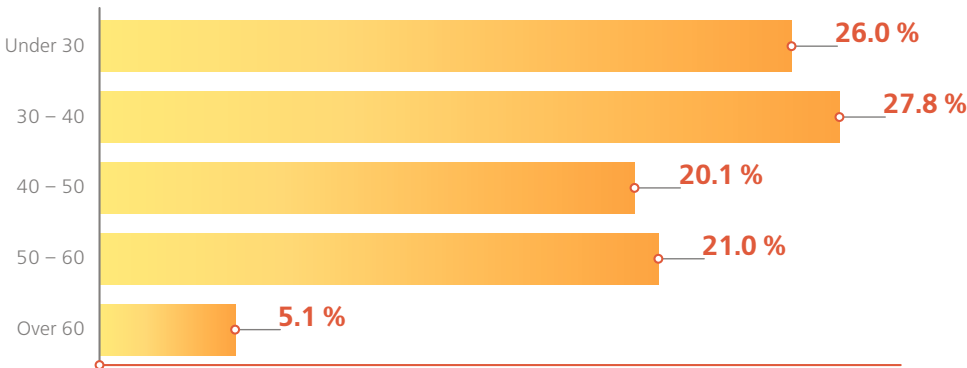
COMPANY NAME	NUMBER OF EMPLOYEES
CAEPCO JSC	94
PAVLODARENERGO JSC	5,189
SEVKAZENERGO JSC	2,576
AKMOLA EDC JSC	2,100
ASTANAENERGOSBYT LLP	644
Total	10,603

EMPLOYEE EDUCATION LEVELS

In 2015-2017, the share of employees with professional education was growing, while the share of employees who only finished high school was dropping. In 2017, 65 employees obtained a college degree

by correspondence training, including 44 employees who majored in disciplines related to energy sector; 51 employees finished technical/vocational schools by correspondence training, including 40 employees who majored in professionally relevant disciplines.

Employee age



EMPLOYEE TRAINING AND DEVELOPMENT

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

- compulsory professional training;
- development of leadership skills;
- development of professional competencies.

In order to increase the effectiveness of these activities and create safe working conditions, training is conducted

in the corporate format and based on individual development plans.

In 2017, 8,215 persons (77.5% of the total head count) were trained, including 6,022 production workers (54.9%). In 2017, 3,694 employees, which is 34,8% of the total head count, were trained in training centers of the Corporation. A total of 722 employees received training in related occupations in order to enhance professional diversity.

In 2017, the Key Personnel Development Program continued as part of the PROFENERGY project. In order



to develop professional and managerial skills, 250 senior managers from subsidiaries of CAEPCO JSC received corporate training. To improve professional competencies of senior and middle management, 76 employees were trained in the following areas: “Project Management in Capital Construction,” “Lean Manufacturing,” “Occupational Safety and Health». Also during the reporting year, 30 external coaches and coaches who are also employees of the Corporation conducted training for 30 employees in such areas as procurement and international financial reporting standards.

NAME	2015	2016	2017
The number of employees who received training, retraining, or professional development, including:	8,061	7,953	8,215
Safety precautions, fire safety guidelines and operating procedures (initial training, qualification, certification/re-certification), courses for managers	6,318	5,786	6,022
ISO9001, ISO14001, OHSAS1800 quality management systems trainings (including environmental protection, internal audit and risk management)	16	52	157
Related occupations training	603	652	722
Civil defense and emergency training	21	32	7
Other (professional development, seminars, workshops, etc.)	1,103	1,431	1,307

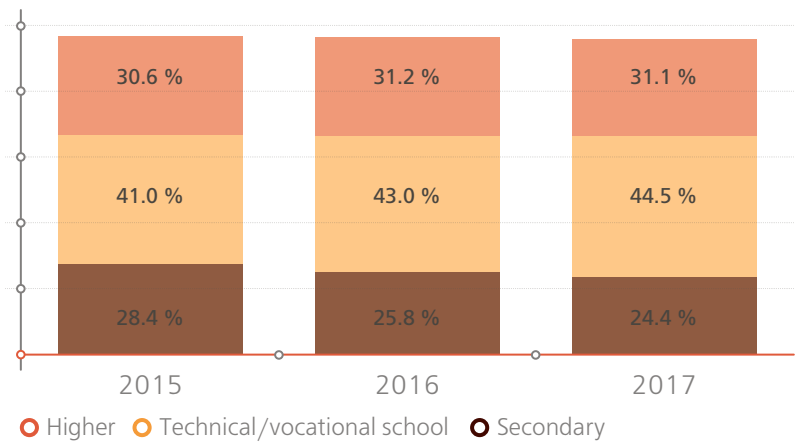
EMPLOYEE TURNOVER

In 2017, the turnover rate increased 2.9% compared to 2016. The main reasons for resigning include lack of financial satisfaction and relocation within or outside Kazakhstan (CIS countries, including Russia).

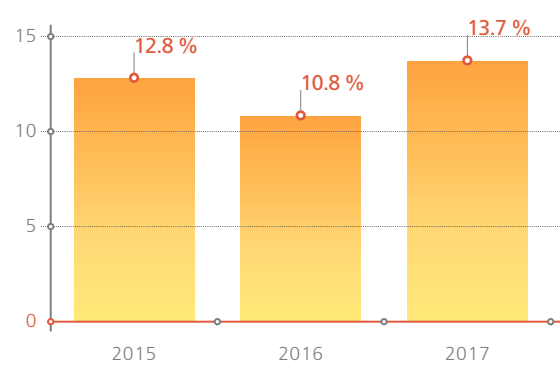
To reduce employee turnover, the following activities were further implemented in 2017:

- Financial optimization in order to detect available funds and use them to raise salaries;
- Promoting mentoring and incentives for young specialists;
- Tangible and intangible incentives for skilled workers;
- Better social guarantees in accordance with collective agreements.

Employee education dynamics



Turnover rate



TALENT POOL

In 2017, subsidiaries of CAEPCO JSC created a talent pool of 1,157 managers for senior, middle and junior management roles to ensure there is enough capacity to fill management positions at various levels.

Succession planning is based on individual programs of professional and management training, including training in the company-owned training centers, skills improvement, internships, mentoring, performing

management functions and temporary employee relocation. External talent pool creation is also under way. In 2017, 124 people from the talent pool were appointed to management positions. As many as 937 young specialists work at the enterprises of the Corporation, 297 of them were hired in 2017, including 165 persons for leading positions and professions. These include 182 persons (61.3%) with technical/vocational training and 121 persons (40.7%) with a college degree.

ATTRACTING YOUNG SPECIALISTS

In 2017, as part of the PROFENERGY project, subsidiaries of CAEPCO JSC continued to implement the program for supporting young specialists with a view to attracting graduates to key/critical positions in the enterprises, professional development and retaining key employees.

The following activities were carried out as part of the Program:

- 44 tours of production facilities;
- A contest of science projects where winners, three undergraduate students from Ekibastuz and Petropavlovsk, received personal corporate



scholarships from PAVLODARENERGO JSC and SEVKAZENERGO JSC;

- 13 students were employed during summer;
- 420 students were admitted for internship and pre-graduation training, of whom 36 received payment and signed employment contracts effective after graduation;
- employees of subsidiaries of CAEPCO JSC took part in examination and state attestation boards responsible for conducting graduation exams and assessment of graduation projects;
- 38 employees received bonuses for successful graduation;
- 158 were granted paid study leaves.

In 2017, 199 employees were enrolled in college degree programs by correspondence training, including 116 employees majoring in company-related disciplines. 87 employees were enrolled in vocational programs by correspondence training, of whom 75 employees majored in company-related disciplines.

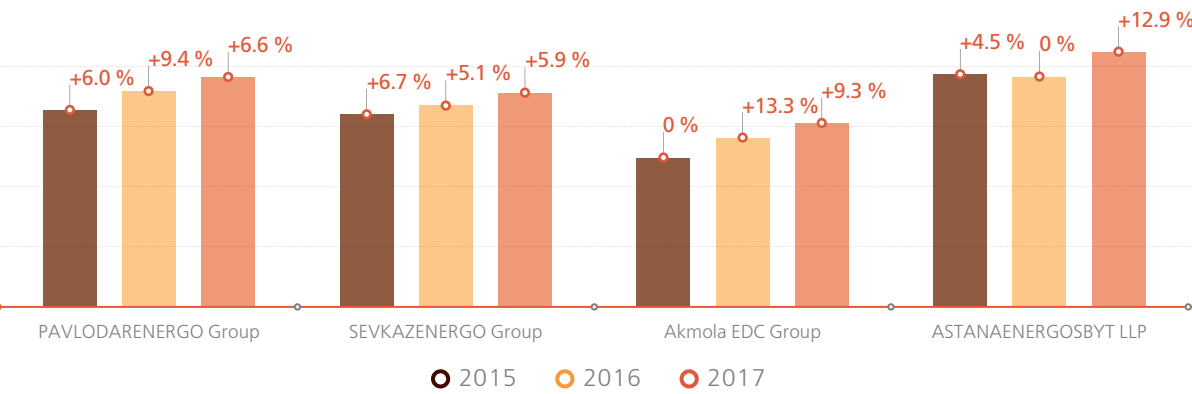
EMPLOYEE MOTIVATION AND REMUNERATION

Motivation and compensation are aimed at improving the efficiency and effectiveness of each employee, also serving to enhance objectivity and transparency.

In 2017, the average salary in the subsidiaries increased 7.6% compared to 2016.

In 2017, Astanaenergobytt LLP switched to a uniform compensation system, where average salaries in the enterprises increased thanks to a differentiated approach to pay raises.

AVERAGE PAY INCREASE RATE IN SUBSIDIARIES OF CAEPCO JSC



INTANGIBLE INCENTIVES

To increase motivation for employee efficiency and productivity, every year the Corporation grants awards, commendations and honorary titles with announcements in corporate media.

In 2017, 113 employees received corporate awards for operational excellence, 14 employees and veterans received state awards, 6 employees received awards from the CIS Electric power council, 49 employees received awards from the Kazakhstan energy association, among them 6 employees were awarded the title of Distinguished Energy Worker and 8 employees the title of Eminent Energy Worker.

INTERACTION WITH TRADE UNIONS

The enterprises of the Corporations have trade unions; collective agreements were signed, providing social benefits and guarantees for employees and their families.

In PAVLODARENERGO JSC, a uniform collective agreement was signed for 2016-2019. In 2017, enterprises of SEVKAZENERGO JSC reviewed employee proposals about changes to the Uniform Collective Agreement, whose draft for 2018-2020 was submitted for approval to the parties.

Enterprises of Akmola EDC JSC are in the process of renewal of their collective agreement.

In developing the terms of the collective agreement, the Corporation's enterprises adhere to the principles of economic feasibility, sufficiency, joint responsibility and transparency.

Within the framework of social partnership, a number of activities are held annually with the participation of enterprises and trade unions such as:

- sports and recreational events;
- leisure and cultural events;
- celebrations of commemorative days and holidays;
- charity events.

NAME	2015	2016	2017
Number of employees in trade unions	6,937	6,601	6,020
Percentage of total head count, %	63	63	57

SOCIAL SUPPORT, GUARANTEES AND COMPENSATION

For social work with retirees, collective agreements provide for the allocation of funds to the Council of Veterans which operate at all enterprises of the Corporation. Every year, the Corporation honors World War II and labor veterans, providing material support to the non-working retirees in the form of food packages, cash rewards and coal supplies. Veterans are provided with home care, invited to concerts and gala dinners during World War II Victory Day celebrations.

Enterprises of Akmola EDC JSC support employee by providing voluntary medical insurance every year which is the main social benefit offered to employees. Thanks to insurance programs, employees can receive quality outpatient and inpatient medical care in the region of the enterprise, as well as in the city of Astana, which is especially important for remote rural areas.

SEVKAZENERGO JSC took part in Paryz competition for socially responsible businesses which is held annually by the Ministry of Labor and Social Welfare jointly with the Ministry of Energy, Atameken National Chamber of Entrepreneurs and the Trade Union Federation of Kazakhstan. In 2017, the competition was held under the motto "Paryz – 10 Years of Success." The purpose of the competition is to promote corporate social responsibility of businesses to further improve public well-being. At the regional stage, SEVKAZENERGO JSC took the second place in the nomination "The Most Socially Responsible Enterprise." Eleven employees of SEVKAZENERGO JSC took part in the regional competition Yenbek Zholy celebrating the Labor Day. The winners of the regional stage were representatives of Petropavlovsk CHP-2 in the nomination "The Best Labor Dynasty" (Zozulya and Nurumov families took 1st and 2nd places respectively),

representative of Petropavlovsk Heat Networks LLP (D. Dyusenbayev) came 2nd in the nomination "The Best Young Production Worker," representative of the North-Kazakhstan Electrical Distribution Company JSC (A. Chekunov) came 2nd in the nomination "The Best Tutor of Young Workers." Members of the Zozulya family, who took the 1st prize, participated in the republican forum "Society of Universal Labor" held in November 2017 in Astana and attended by the Minister of Labor and Social Welfare of the Republic of Kazakhstan.

SPORTS AND RECREATIONAL EVENTS

The Corporation conducts the following activities to promote healthy lifestyle:

- Providing fitness club memberships;
- Organization of active leisure;
- Developing collective traditions;
- Organization of annual competitions and professional contests

Every year, employees of CAEPCO JSC's subsidiaries actively participate in sports and recreational activities at the company, as well as regional and international levels. The practice of holding sports events within the enterprises allows teams to achieve winning places in external competitions.

Enterprises of SEVKAZENERGO JSC conduct annual competitions in 14 sports, hold sports days and travel forums. A total of 293 employees took part



GOALS	SOCIAL PACKAGE
Motivation for long-term employment	Additional pension contributions at the rate of 5%. Bonuses for professional competitions. Rewards to celebrate anniversaries and holidays.
Effective compensation and benefits policy	Compensation of utilities costs, providing dormitories and rented housing. Shuttle buses for employees. Selling coal at cost to employees living in houses with coal furnaces. Subsidizing camp tours to children under 15. New Year gifts to children.
Support of employee fitness and health	Insurance against accidents and illnesses in the workplace. Compulsory health insurance. Reimbursement of the cost of sanitarium treatment.
Social support of employees	Financial support in case of pregnancy. Paid leaves for study. Remuneration upon retirement. Veterans support program. Financial assistance for funeral services.
Sports and recreational events	Reimbursement of food expenses to participants of sports competitions. Reimbursement of expenses on cultural events and group recreation.

in the competitions. In 2017, a 25-strong team of SEVKAZENERGO JSC took part in the first city sports day Kyzylzhar and came 6th out of 17 teams of the city of Petropavlovsk.

On the eve of the Independence Day of Kazakhstan, Akmola EDC JSC held an annual sports day in four sports – volleyball, chess, table tennis and arm wrestling – attended by the teams of the company. A total of 50 employees took part in the competitions. The team of Akmola Inter-District Electrical Networks was the winner in all sports.

A family relay race is traditionally held at enterprises of PAVLODARENERGO JSC to celebrate the Energy Industry Day. In 2017, 8 teams consisting of employees and members of their families participated in the relay race.

Winners of sports events receive valuable gifts and the events themselves are widely covered in corporate media.

PLANS for 2018

In 2018, the Corporation will continue to implement HR policies aimed at employee retention and professional

development. To this end, measures will be taken to support young professionals and to carry out projects for the introduction of key performance indicators and automated processes.

This includes:

- Further measures under the PROFENERGY project aimed at supporting young professionals and promoting professional development; promoting mentoring; development of key personnel and critical occupations;
- Development and introduction of key performance indicators (KPIs) to achieve strategic and operational objectives of the Corporation;
- Unification and development of a common list of social benefits and guarantees for employees of the Corporation;
- Further implementation of programs to improve the living conditions of production workers in subsidiaries of CAEPCO JSC;
- Development and implementation of automated processes on payroll administration, employee assessment and productivity monitoring.



OCCUPATIONAL HEALTH AND SAFETY

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

In 2017, according to the approved occupational safety and health action plan of CAEPCO JSC for 2016-2017, the following activities were carried out:

- Approval and introduction of the occupational health and safety guidelines «Safety requirements for vehicles and pedestrians on production sites and facilities»;
- Development of occupational safety and health guidelines “Working at height”;
- Significant efforts to prevent accidents among administrative staff;
- On the eve of the World Day for Safety and Health at Work, activities were conducted to raise awareness about occupational safety and health issues. The largest event was the contest of young specialists called “Safety at work and at home” among enterprises of PAVLODARENERGO JSC. A children’s painting competition was conducted with the topic “My parents work safely.” Within the framework of the World Day for Safety and Health at Work, subsidiaries of CAEPCO JSC conducted meetings with employees and conferences on occupational safety;
- mutual occupational health and safety audits are carried out to prevent injuries, as well as incidents and accidents during operation of power and technological equipment. The application of the best practices identified in the course of mutual audits helped to improve the overall occupational safety situation and statistics in subsidiaries of the Corporation. In 2017, two mutual audits were conducted at enterprises of SEVKAZENERGO JSC and Akmola EDC JSC;
- in August and September 2017, at the initiative of shareholders, CEOs and heads of occupational safety departments of CAEPCO JSC’s subsidiaries attended IOSH Working Safely course with subsequent testing. At the end, all participants received IOSH certificates from the British qualification institution.
- enterprises of subsidiaries CAEPCO JSC held large-scale repairs of buildings and constructions;
- Petropavlovsk CHP-2 of SEVKAZENERGO JSC purchased an automatic external defibrillator for timely and effective first aid (before arrival of the ambulance) in case of a sudden cardiac arrest;

- Safety Workwear guidelines of CAEPCO JSC regarding safety clothing and protective equipment were revised. The Guidelines include more stringent requirements with respect to the quality of workwear and protective equipment.

The Corporation has implemented the Environmental and Social Action Plan (ESAP) in accordance with the policy of the European Bank for Reconstruction and Development. Under the framework of the ESAP, CAEPCO JSC published an open report describing measures to improve occupational safety at its enterprises.

OCCUPATIONAL SAFETY AND HEALTH COUNCILS

Each subsidiary has its own occupational health and safety council. The councils are headed by chairpersons who are also employees. The councils consist of representatives of the employer and the trade union, plus technical labor inspectors.

Occupational safety and health councils perform the following functions:

- Examine the causes of occupational accidents and occupational diseases, analyze the effectiveness of measures related to occupational safety, review information and analytical materials about the actual state of occupational safety in the organization;
- Analyze the results of employee workplace certification, participate in the preparation of structural subdivisions and the organization as a whole for bringing work place to compliance with occupational safety regulations;
- Review proposals on remedying the revealed violations in the field of occupational safety and health and creation of safe working conditions in the organization, formulating programs, recommendations, decisions, etc., to preserve the life and health of workers in the course of employment;
- Assist in carrying out timely and quality employee training on occupational safety and health, conducting occupational health and safety tests, regular training of employees and trade union activists on relevant occupational safety regulations;
- Make proposals for the introduction of improved and new technology in order to create safe working conditions and eliminate hard physical labor;
- Inform employees of the organization on activities aimed at creating better working conditions and occupational safety practices, prevention of occupational accidents and occupational diseases, explaining regulations regarding special clothing,

footwear and personal protective equipment and correct methods of using them;

- Participate in the review of occupational safety budgets, compulsory social insurance against industrial accidents and occupational diseases; monitors spending aimed at improving occupational safety practices;

Each subsidiary has technical occupational safety inspectors. They interact with department managers, occupational safety and health teams, operational inspectors, industrial safety inspectors, as well as with government labor inspectors.

The main responsibilities of the technical occupational safety inspectors include:

- Protecting the rights and interests of the employees;
- Participation in the development and submission of proposals for the Occupational Safety section of the collective agreement, as well as in integrated programs and plans of priority measures to improve occupational safety practices developed by authorities;
- Monitoring of compliance with occupational safety guidelines 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 2017, the number of occupational injuries across the Group of companies **dropped 30 %** compared to 2016.

In the reported year, subsidiaries of the Corporation had 7 accidents. This report for the first time also includes incidents of low severity. The Corporation strives to minimize occupational accidents and pays great attention to workplace safety.

Below is the list of accidents by type:

- electric shock;
- fall;
- fall from height;

Causes of the accidents include:

- gross negligence of the victim;
- poor labor management;
- tfailure to comply with the occupational health and safety guidelines.

The incident recording, reporting and notification system of the Corporation complies with the laws and regulations of the Republic of Kazakhstan and the International Labor Organization (ILO).



The following measures are taken in order to prevent occupational injuries and occupational health and safety violations in the Corporation and its subsidiaries:

- Investigation of micro-injuries, incidents, near-misses which may lead to for more serious injuries and damage in the future;
- Preparation of incident newsletters and acquainting with them all the employees of the Corporation’s subsidiaries in order to report causes and prevent repetition of similar cases in the future.
- Employee training on occupational health, electrical safety and assessment of their knowledge;
- Implementation of corporate standards on occupational health and safety;
- Carrying out planned and random health and safety audits;
- Arranging health and safety days;
- Holding occupational health and safety meetings;
- Equipping work places in accordance with safety requirements;
- Placing information posters and safety signs at work places;
- Holding professional competitions;
- Arranging demonstrative work permit events, etc.

Contractors working on the premises of the Corporation are also subject to control: subsidiaries conduct audits and training courses for contractor employees and hold meetings with the contractors.

In 2017, the Corporation spent 780 KZT mln on occupational health and safety activities and improvement of working conditions. Investments were made in personal protective equipment, including electrical safety products, special food, medicines, vaccines, employee training, posters, printed copies of laws and regulations in the field of occupational safety, firefighting equipment, additional workplace lighting, repair of ventilation and air conditioning systems, repair of buildings and structures, etc.

All employees of the Corporation’s enterprises are insured against accidents, pursuant to the Compulsory Workplace Insurance Act of the Republic of Kazakhstan.

Employees of the Corporation exposed to high injury risk

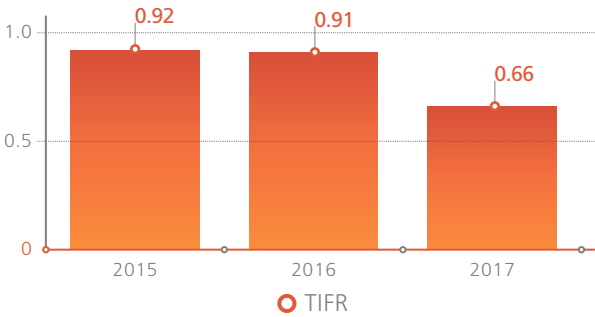
Works related to maintenance and repair of electrical equipment involve high risk of injury. Employee training courses, as well as various organizational and technical measures are implemented to ensure safety of electrical works. Employees are provided with the necessary personal protective equipment, electrical safety products, etc. Suits for protection against electric arc

Tables and charts below show the level and rates of occupational accidents in the Corporation.

NUMBER OF OCCUPATIONAL INJURIES

	2015	2016	2017
Average employee head count	10,938	10,540	10,549
Number of injury cases	10	10	7
Number of injured persons / including women	10/1	7/3	7/0
Number of fatalities	0	1	0

(TIFR -Total Incident Frequency Rate) per 1,000 employees



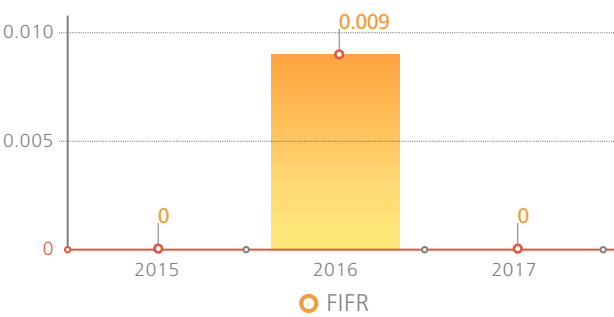
Total injury frequency rate (TIFR) per 1,000 employees was calculated using the following formula:

$$K_h = \frac{n \times 1000}{N}, \text{ where}$$

n – total number of occupational injuries during the reporting period

N – average head count.

(FIFR -Fatality Incident Frequency Rate) per 1,000 employees



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

$$K_{h1} = \frac{n1 \times 1000}{N}, \text{ where}$$

n1 – total number of workplace fatalities during the reporting period

N – average head count.

were purchased for electrical engineers of Petropavlovsk CHP-2.

In 2017, to ensure safe repair and commissioning works of electrical equipment, the Corporation developed a draft occupational safety standard specifying procedures for equipment locking and tagging, or LOTO (Lock out/Tag out). It was expected that the standard will be approved in 2018, for starters at Petropavlovsk CHP-2.

In 2017, Akmola EDC JSC and Petropavlovsk CHP-2 purchased individual voltage signaling devices attached to a protective helmet for enhanced employee safety and situational awareness.

PLANS for 2018

In 2018, the Corporation intends to implement and support the following corporate standards and documents related to occupational health and safety:

- standard “Isolation of energy sources”;
- guidelines concerning incentives to employees of CAEPCO JSC for compliance with occupational safety guidelines;

- guidelines concerning Welcome Training for newly hired employees and contractors;

- guidelines for contractor relationship.

In addition, subsidiaries of CAEPCO JSC have the following plans for 2018:

- At PAVLODARENERGO JSC, construction of the training ground, where employees of electrical distribution companies will be able to practice overhead line maintenance and repair skills, and employees of heating network companies will practice heating network maintenance and repair skills;
- Professional competitions among departments of electrical distribution companies of CAEPCO JSC.

In accordance with the implementation plan for the standard “Isolation of Energy Sources”, a lot of activities are planned for 2018 aimed at updating process flow and electrical diagrams, equipment tagging, determining the required number of blocking devices and development of workflows/operational maps for isolation of energy sources.

CUSTOMER SAFETY

The Corporation cares about the safety and health of its customers. This is manifested in systematic awareness campaigns and equipment checks. Subsidiaries of the Corporation introduce modern technologies and take measures to enhance workplace safety.

Awareness campaigns

The leadership of each district unit of the Corporation's electrical distribution companies, jointly with occupational safety specialists, conduct awareness campaigns among the public about safety precautions near electrical installations and electrical power lines.

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

Special warning signs and texts on the equipment are used to warn the public and the employees about the dangerous nature of all electrical facilities, all equipment is protected against unauthorized access with appropriate fences, locks and disablers.

Regional and district media publish articles to create stronger awareness of safety issues and prevent injuries, especially among children.



SOCIAL PARTNERSHIP

CAEPCO JSC is implementing a social policy aimed at supporting the communities in the regions of operation. In 2017, in the framework of the Memorandum of Joint Social Projects signed between the governor's office of Pavlodar region and CAPEC JSC (shareholder of CAEPCO JSC), a dormitory for students of the Pavlodar Installation School was commissioned with a housing capacity of 200 people.

The dormitory has furnished rooms for two or three persons with private bathrooms, laundries and kitchens on every floor equipped with all necessary appliances, plus there is a gym and a dance hall. Access to the dormitory is by special electronic pass-cards, while the corridors are monitored by video surveillance cameras.

Priority allocation is given to students majoring in Welding (to become electric and gas welders) and in Power Engineering (electrical power line and equipment installers).

Currently, the dormitory is fully managed by the Pavlodar Installation School of the Office for Education of Pavlodar region which is part of the governor's office of Pavlodar region.

CORPORATE EVENTS

In 2017, subsidiaries of CAEPCO JSC actively participated in the celebration of the 20th anniversary of the shareholder CAPEC JSC.

Group visit to EXPO-2017 by employees of the holding in Astana. EXPO-2017 was an event of global proportions, comparable with international economic forums; it is the symbol of industrialization and an open platform for showcasing engineering and technological achievements. Alternative energy sources were the main topic of EXPO-2017: visitors could learn about the history, modern technology and future projects in the field of alternative energy.

This topic is relevant for CAPEC JSC Group of companies, so to celebrate its anniversary, the company gifted a trip to EXPO-2017 in Astana to almost two thousand employees with children, as well as to veterans of the enterprises. From July to September, groups of visitors

came from Petropavlovsk, Pavlodar and Akmola region. For many people it was they first they saw the capital, so they used this opportunity and went on city tours to have a closer look at Astana.

The first corporate mini-football tournament to celebrate the 20th anniversary of CAPEC JSC was held in Astana. Six teams from four regions participated in the tournament, including teams representing CAEPCO JSC, PAVLODARENERGO JSC, SEVKAZENERGO JSC, Akmola EDC JSC, Caustic and Astana Invest. Caustic team won the first prize, followed by SEVKAZENERGO JSC, Akmola EDC JSC, PAVLODARENERGO JSC, CAEPCO JSC and Astana Invest in that order. In addition, the best players were chosen in the following nominations: "Best player of the tournament", "Best forward", "Best goalkeeper", "Best defender".

The main goal of the tournament was to foster corporate culture and promote a healthy lifestyle and sports among the employees of the Corporation.



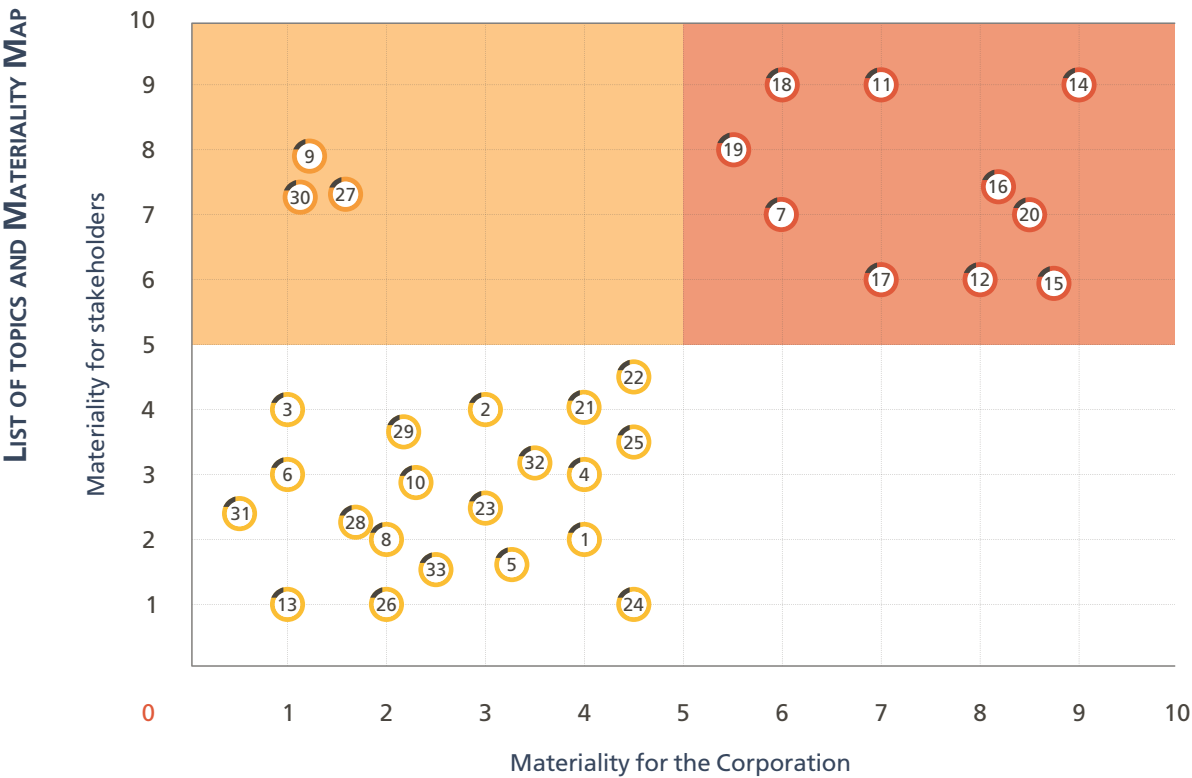
MATERIAL ASPECTS AND BOUNDARIES

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

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

Step 2. Analysis of the extent of impact of the indicated topics within and beyond the Corporation. Selection of topics for further disclosure, taking stakeholder engagement into consideration. Furthermore, priority analysis of topics in terms of their impact on the Corporation’s activities and development strategy.

Step 3. In accordance with the opinion of stakeholders and strategic plans of the Corporation, key topics were ranked in order to determine priorities and develop Materiality Map. Average score was attributed to each aspect of operations based on the impact on the Corporation (horizontal axis) and its stakeholders (vertical axis). The highest priority was determined for aspects located in the Red area: they were given priority during preparation of the Report. Also the report partially discloses aspects of the Orange area.



LIST OF TOPICS

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.	Precautions and safety measures
8.	Energy	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.	Sewage and waste	29.	Public policy
13.	Assessment of vendor compliance with environmental standards	30.	Customer health and safety
14.	Compliance with environmental guidelines	31.	Product and service labeling
15.	Employment	32.	Respect for customer privacy
16.	Relations between employees and management	33.	Violations of social and economic legislation
17.	Occupational health and safety		

GRI ELEMENT INDEX

GRI STANDARD AND THE YEAR OF ITS PUBLICATION	ITEM	PAGE NUMBER, SECTION	EXCEPTIONS/ COMMENTS
GRI 101: Reporting principles (2016)			
GRI 102: General information (2016)	Organization profile		
	102-1 Name of organization	Section «Business profile», p. 8	
	102-2 Areas of business	Section «Business profile», p. 8 and section «Business model», p. 17	
	102-3 Location of the head office	Section «Contacts», p. 113	
	102-4 Geography of operations	Section «Geography of operations», p. 18	
	102-5 Form of ownership	Section «Corporate structure», p. 9	
	102-6 Markets	Section «Geography of operations», p. 18 Section «Subsidiaries», p. 19	
	102-8 Information on employees	Section «Human resources and social policy», p. 79	
	102-9 Supply chain	Section «Business model», p. 17	
	102-10 Significant changes in the Company	Section «Organizational structure», p. 54 Section «Share capital structure», p. 49	no changes
	102-11 Principles of precaution	Section «Environmental spending», p. 78	
	102-12 Support of external initiatives	Section «Environmental management», p. 75 Section «Greenhouse gas emissions», p. 74 Section «Environmental management system», p. 78	
	102-13 Memberships	-	The Corporation is a member of the Kazakhstan Electric Power Association
Strategy			
	102-14 Statement of management	Section «Letter from Chairman of the Board of directors», p. 4 Section «Letter of the President», p. 6	
Ethics and integrity			
	102-16 Values, principles, standards and rules of conduct	Section «Corporate governance code compliance report», p. 57	

GRI STANDARD AND THE YEAR OF ITS PUBLICATION	ITEM	PAGE NUMBER, SECTION	EXCEPTIONS / COMMENTS
	Governance		
	102-18 Management structure	Section «Organizational structure», p. 54 Section «Activities of the committees of the Board of directors», p. 55	
	Stakeholder engagement		
	102-40 List of stakeholders	Section «Stakeholder engagement», p. 70	
	102-41 Collective agreements	Section «Interaction with trade unions», p. 84	
	102-42 Identification and selection of stakeholders	Section «Stakeholder engagement», p. 70	
	102-43 Approaches to engagement	Section «Stakeholder engagement», p. 70	
	102-44 Key topics and concerns raised	Section «Stakeholder engagement», p. 70	
	About the report		
	102-45 Basis of consolidation	Section «About the report», p. 2	
	102-46 Determining the content of the report and boundaries	Section «List of topics and materiality map», p. 94	
	102-47 List of material topics	Section «List of topics and materiality map», p. 94	
	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 content of the report	-	Not changed
	102-50 Reporting period	Section «About the report», p. 2	
	102-51 Date of the last publication	Section «About the report», p. 2	
	102-52 Reporting cycle	Section «About the report», p. 2	
	102-53 Contact information for questions about the content of the report	Section «Contacts», p. 109	
	102-54 GRI compliance level	Section «About the report», p. 2	
	102-55 GRI Content Index	102-55 GRI Element Index	
	102-56 External assurance	Section «About the report», p. 2	

GRI STANDARD AND THE YEAR OF ITS PUBLICATION	ITEM	PAGE NUMBER, SECTION	EXCEPTIONS / COMMENTS
	Significant topics		
	Ecology		
GRI 103: Approaches to management (2016)	103-1 Materiality and boundaries	Section «List of topics and materiality map», p. 94	
	103-2 Approaches to management	Section «Environmental impact management», p. 73	Comprehensive environmental impact management policy covers all major topics in this area
	103-3 Management assessment	-	not held
	Materials		
GRI 301: Materials (2016)	301-1 Materials used by weight or volume	Section «Environmental impact management», p. 73	
	Water		
GRI 303: Water (2016)	303-1 Total water withdrawal by source	Section «Water management and water resources conservation», p. 76	
	303-2 Water sources significantly affected by withdrawal of water	Section «Water management and water resources conservation», p. 76	
	303-3 Percentage and total volume of water recycled and reused	Section «Water management and water resources conservation», p. 76	
	Emissions		
GRI 305: Emissions (2016)	305-1 Direct greenhouse gas emissions	Section «Greenhouse gas emissions», p. 74	
	305-4 Intensity of greenhouse gas emissions	Section «Greenhouse gas emissions», p. 74	
	305-5 Reduction of greenhouse gas emissions (COR2R)	Section «Greenhouse gas emissions», p. 74	
	305-7 NOx, SOx and other significant harmful emissions	Section «Prevention of air pollution», p. 74	
	Waste		
GRI 306: Sewage and waste (2016)	306-1 Total sewage by quality and destination	Section «Efficient management and disposal of industrial wastes», p. 76	
	306-2 Total weight of waste by type and disposal method	Section «Efficient management and disposal of industrial wastes», p. 76	

GRI STANDARD AND THE YEAR OF ITS PUBLICATION	ITEM	PAGE NUMBER, SECTION	EXCEPTIONS / COMMENTS
Compliance			
GRI 307: Compliance (2016)	307-1 Information on non-compliance with environmental laws and regulations	Section «Environmental spending», p. 75	
Social category			
GRI 103: Approaches to management (2016)	103-1 Materiality and boundaries	Section «List of topics and materiality map», p. 94	
	103-2 Approaches to management	Section «Human resources policy», p. 79	Integrated HR policy covers all major topics in this area
	103-3 Management assessment	-	not held
Employment			
GRI 401: Employment (2016)	401-1 Head count and turnover	Section «Employee turnover», p. 82	
Employee/management relations			
GRI 402: Employee/management relations (2016)	402-1 Minimum notice periods regarding significant operational changes	Section «Human resources and social policy», p. 79	
Health and safety			
GRI 403: Health and safety (2016)	403-1 Representation of employees in the official joint health and safety committees with the participation of representatives of management and employees	Section «Strategic goals in the field of occupational health and safety and measures implemented», p. 88	
	403-2 Type and frequency of workplace injuries, occupational diseases, lost-workday rate, absenteeism rate in the workplace, total number of work-related fatalities	Section «Types and incidence of occupational injuries», p. 89	
	403-3 Workers with high incidence of injury and high risk of work-related diseases	Section «Employees of the Corporation exposed to high injury risk», p. 90	
Training			
GRI 404: Training and education (2016)	404-2 Professional development programs	Section «Employee training and development», p. 81	

GRI STANDARD AND THE YEAR OF ITS PUBLICATION	ITEM	PAGE NUMBER, SECTION	EXCEPTIONS / COMMENTS
Diversity and equal opportunities			
GRI 405: Diversity and equal opportunities (2016)	405-1 Composition of the governing bodies	Section «Employee structure by category and age», p. 79	
Local communities			
GRI 103: Approaches to management (2016)	103-1 Materiality and boundaries	Section «List of topics and materiality map», p. 94	
	103-2 Approaches to management	Section «Stakeholder engagement», p. 70	
	103-3 Management assessment	-	not held
GRI 413: Local communities (2016)	413-1 Programs aimed at local community engagement, community impact assessment and community development	Section «Stakeholder engagement», p. 70	
Customer health and safety			
GRI 103: Approaches to management (2016)	103-1 Materiality and boundaries	Section «List of topics and materiality map», p. 94	
	103-2 Approaches to management	Section «Customer safety», p. 92	
	103-3 Management assessment	-	not held
GRI 416: Customer health and safety (2016)	413-1 Evaluation of product safety for the consumer	Section «Customer safety», p. 92	
Further Information			
GRI G4 Electric Utilities protocol	G4-EU1 Installed capacity	Section «About the Corporation», p. 14	
	G4-EU2 Power generation	Section «Operating highlights», p. 10	
	G4-EU3 Number of household, industrial, institutional and commercial customer accounts	Section «Geography of operations», p. 18	
	G4-EU4 Length of overhead and underground electrical transmission and distribution lines by control mode	Section «Production highlights», p. 11	
	G4-EU5 Allocation of COR2R emission allowances or their equivalents	Section «Greenhouse gas emissions», p. 74	

FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT **31 DECEMBER 2017** (KZT THOUS.)

	31 DECEMBER 2017	31 DECEMBER 2016
ASSETS		
NON-CURRENT ASSETS:		
Property, plant and equipment	251,341,851	240,348,875
Goodwill	1,687,141	2,424,419
Intangible assets	1,997,187	1,816,542
Deferred tax assets	1,282,858	710,031
Other financial assets	5,515	14,000
Advances paid	3,317,136	1,883,613
Other non-current assets	1,816,766	1,833,968
Total non-current assets	261,448,454	261,448,454
CURRENT ASSETS:		
Inventories	4,880,435	4,956,047
Trade accounts receivable	18,767,608	16,879,028
Advances paid	1,518,316	1,682,394
Income tax prepaid	179,315	302,911
Other current assets	3,679,690	2,110,065
Other financial assets	17,181,418	10,236,661
Cash	2,368,075	2,022,862
Total current assets	48,574,857	38,189,968
TOTAL ASSETS	310,023,311	287,221,416
EQUITY AND LIABILITIES		
EQUITY:		
Share capital	46,043,272	46,043,272
Additional paid-in capital	1,348,105	1,348,105
Revaluation reserve for property, plant and equipment	41,413,587	44,190,092
Retained earnings	60,979,619	49,253,645
Total equity	149,784,583	140,835,114

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT **31 DECEMBER 2017** (CONTINUED) (KZT THOUS.)

	31 DECEMBER 2017	31 DECEMBER 2016
NON-CURRENT LIABILITIES:		
Bonds issued	20,181,710	14,719,190
Loans	46,448,347	44,821,166
Deferred revenue	7,729,309	3,975,557
Finance lease obligations	2,118,028	1,436,419
Deferred tax liabilities	38,759,445	35,226,177
Ash disposal area restoration liabilities	484,877	653,356
Employee benefit obligations	136,805	131,621
Other long-term payables	194,333	343,745
Total non-current liabilities	116,052,854	101,307,231
CURRENT LIABILITIES:		
Current portion of bonds issued	578,571	9,663,264
Loans	19,270,179	15,216,814
Current portion finance lease obligations	477,867	311,334
Trade accounts payable	17,781,829	14,731,068
Advances received	2,222,981	1,928,519
Current portion of ash disposal area restoration liabilities	87,694	97,785
Current portion of employee benefit obligations	11,574	10,199
Income tax payable	68,681	-
Other liabilities and accrued expenses	3,686,498	3,120,088
Total current liabilities	44,185,874	45,079,071
TOTAL EQUITY AND LIABILITIES	310,023,311	287,221,416

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE
INCOME FOR THE YEAR ENDED **31 DECEMBER 2017**
(KZT THOUS.)

	2017	2016
REVENUE	131,651,735	122,122,783
COST OF SALES	(100,295,105)	(93,197,839)
GROSS PROFIT	31,356,630	28,924,944
General and administrative expenses	(9,144,534)	(7,950,438)
Selling expenses	(2,033,859)	(1,981,898)
Finance costs	(6,467,984)	(6,440,604)
Finance income	1,111,927	1,113,268
Foreign exchange gain, net	181,079	404,090
Impairment loss on goodwill	(737,278)	-
Other (expense)/income, net	(14,314)	741,484
PROFIT BEFORE TAXATION	14,251,667	14,810,846
INCOME TAX EXPENSE	(3,612,563)	(3,546,614)
PROFIT FOR THE YEAR	10,639,104	11,264,232
OTHER COMPREHENSIVE INCOME FOR THE YEAR, net of income tax		
Items that will not be reclassified subsequently to profit or loss:		
Loss on revaluation of property	-	(50,746)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	10,639,104	11,213,486
Earnings per share, in tenge	287.92	304.84

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED **31 DECEMBER 2017**
(KZT THOUS.)

	SHARE CAPITAL	ADDITIONAL PAID-IN CAPITAL	REVALUATION RESERVE FOR PROPERTY, PLANT AND EQUIPMENT	RETAINED EARNINGS	TOTAL EQUITY
At 1 January 2016	46,043,272	1,348,105	47,502,275	34,727,976	129,621,628
Profit for the year	-	-	-	11,264,232	11,264,232
Other comprehensive loss for the year	-	-	(50,746)	-	(50,746)
Total comprehensive income for the year			(50,746)	11,264,232	11,213,486
Amortisation of revaluation reserve on property, plant and equipment	-	-	(3,261,437)	3,261,437	-
At 31 December 2016	46,043,272	1,348,105	44,190,092	49,253,645	140,835,114
Profit and total comprehensive income for the year	-	-	-	10,639,104	10,639,104
Amortisation of revaluation reserve on property, plant and equipment	-	-	(2,776,505)	2,776,505	-
Dividends declared	-	-	-	(1,689,635)	(1,689,635)
At 31 December 2017	46,043,272	1,348,105	41,413,587	60,979,619	149,784,583

CONSOLIDATED STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED **31 DECEMBER 2017**
(KZT THOUS.)

	2017	2016
OPERATING ACTIVITIES:		
Profit before taxation	14,251,667	14,810,846
Adjustments for:		
Depreciation and amortisation	11,326,606	10,414,920
Finance costs	6,467,984	6,440,604
Foreign exchange gain, net	(181,079)	(404,090)
Loss on disposal of property, plant and equipment	383,065	156,364
Loss on impairment of property, plant and equipment	-	152,684
Loss on impairment of goodwill	737,278	-
Accrual of allowance for doubtful debts	684,649	479,826
Gain on write-off of accounts payables	(52,881)	(209,195)
Accrual of provision for unused vacations	76,702	42,785
Accrual of provision for obsolete and slow-moving inventories	62,836	48,540
Finance income	(1,111,927)	(1,113,268)
Other adjustments	46,277	23,263
Operating cash flow before movement in working capital	32,691,177	30,843,279
Changes in inventories	(68,120)	1,408,056
Changes in trade accounts receivable	694,889	(3,147,851)
Changes in advances paid	90,015	(250,507)
Changes in other current assets	(139,377)	(389,230)
Changes in other non-current assets	42,955	-
Changes in trade accounts payable	225,118	2,241,212
Changes in deferred revenue	76,869	(37,199)
Changes in advances received	(247,731)	(233,053)
Changes in ash disposal area restoration liabilities	(192,708)	-
Changes in employee benefit obligations	(13,886)	(16,111)
Changes in other liabilities and accrued expenses	49,099	1,169,408
Cash provided by operating activities	33,208,300	31,588,004
Income tax (paid)/return of income tax paid	(489,868)	158,609
Interest paid	(7,170,574)	(6,308,772)
Net cash generated by operating activities	25,547,858	25,437,841

CONSOLIDATED STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED **31 DECEMBER 2017** (CONTINUED)
(KZT THOUS.)

	2017	2016
INVESTING ACTIVITIES:		
Acquisition of property, plant and equipment	(23,261,781)	(26,922,275)
Acquisition of intangible assets	(347,990)	(309,536)
Proceeds from disposal of property, plant and equipment	10,742	431,214
Placement of deposits	(17,201,239)	-
Cash withdrawn from deposits and interest received	11,180,296	5,107,648
Cash returned from guarantee fees	(24,097)	(27,229)
Net cash used in investing activities	(29,644,069)	(21,720,178)
FINANCING ACTIVITIES:		
Proceeds from loans	28,056,936	23,584,188
Proceeds from issuance of bonds	5,651,772	800,234
Repayment of bonds	(9,038,366)	-
Finance lease repayment	(268,441)	(150,543)
Repayment of loans	(22,398,498)	(28,821,059)
Dividends paid	(1,292,914)	(932,521)
Proceeds from government subsidies	3,760,380	1,569,792
Net cash generated by/(used in) financing activities	4,470,869	(3,949,909)
NET INCREASE/(DECREASE) IN CASH	374,658	(232,246)
CASH at the beginning of the year	2,022,862	2,279,387
Effect of exchange rate changes on the cash balance of cash held in foreign currencies	(29,445)	(24,279)
Net cash generated by operating activities	2,368,075	2,022,862

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 transmissions 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 energy 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 for stack effect.
Goodwill	is the difference between the price of a company and the fair value of all its assets.
GDP deflator	(gross domestic product deflator) is the price index created for measurement of general price level of goods and services (basket of goods) for a certain period in the economy.
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.
Combined heat and power generation	means generation of electric power by the electric power generator driven by a steam turbine, while heat is generated by steam coming from the steam turbine.
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.
Pump	is a device for generating a pressure flow (suction, discharge) of mainly fluids by energizing it (by kinetic or potential energy).
Pumping unit	is a pump with a set of equipment installed according to a certain layout to ensure the pump is operational.
Pavlodar HNs	Pavlodar heat networks
Steam turbine	is an energy turbo machine, an element of a steam turbine unit that converts potential energy of a high-performance steam into mechanical energy of rotor rotation which drives an electric generator.
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	is a value equal to installed capacity of the equipment minus power that cannot be generates for technical reasons (insufficient chimney draught or cooling capacity in turbine condensers, etc.).
Available capacity of a unit (plant)	is installed capacity of a generating unit (plant), minus its capacity limitations.
Combined heat and power plant	(CHP, 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.
MPE Plan	is a draft code for maximum permissible emissions.
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	is a prime motor with rotational movement of its working body, the rotor, that converts kinetic energy of the steam, gas or water into mechanical operation.
Turbo generator	is a combination of steam turbine, electricity generator and exciter united by one shaft train; it converts potential energy of steam into electric power.
Installed capacity	is the 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 in use designed for supplying heat to external customers 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 specifications.
Wet scrubber	is an air pollution control device for ash and dust removal
COSO	Committee of sponsoring organizations of the Treadway Commission
CTF	Clean Technology Fund
EBITDA	Earnings before interest, taxation, depreciation and amortization
ESAP	Environmental and Social Action Plan
ISO	International Organization for Standardization
KEGOC JSC	Kazakhstan Electricity Grid Operating Company
OHSAS	International occupational health and safety management system
JSC	Joint-stock company
AEDC	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
OL	Overhead lines
OTL	Overhead transmission line
WPS	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
IIF	Islamic infrastructure fund
kWh	kilowatt per hour

CL	Cable line
SG	Switchgear
EPL	Electric power line
MW	Megawatt
MNE RK	Ministry of national economy of the Republic of Kazakhstan
MCI	Monthly calculation index
VAT	Value Added Tax
NGO	Non-governmental organization
EP	Environment protection
PREDC	Pavlodar Electric Distribution Company JSC
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
ABC	aerial bundled conductor
NK REDC	North Kazakhstan Regional Electric Distribution Company JSC
SKE	SEVKAZENERGO JSC
MM	Mass media
QMS	Quality management system
EMS	Environmental management system
RMS	Risk management system
SPP	solar power plant
AC	Agriculture
INR	Inventories
LLP	Limited liability partnership
TPP	thermal power plant
CHP	Combined heat and power plant
CAPEC	Central-Asian Power-Energy Company JSC
CAEPCO	Central-Asian Electric Power Corporation JSC
PP	Power plant

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REGISTRAR

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