CAEPCO

Central-Asian
Electric Power Corporation

TRANSFORMING
ENERGY
INTO LIFE

ANNUAL REPORT
2016

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ABOUT THE REPORT

Central-Asian Electric Power Corporation (CAEPCO JSC) has been releasing annual reports since 2013. This Report contains information on activities of CAEPCO JSC and its subsidiaries for the year 2016. The document includes a Sustainable Development Report prepared in accordance with GRI G4 Guidelines. The Report was prepared using the basic version of the report. The main information disclosure principles and GRI guidelines for the electric power industry were used during the preparation. Section "Table of Report's Compliance with the GRI G4 Guidelines" contains a table explaining where to find standard reporting elements and performance data.

The annual report is one of the main stakeholder communication channels, that is why the Corporation pays special attention to the preparation of this document. The Annual Report of CAEPCO JSC prepared for 2015 took the second place at the VI annual contest of annual reports in the «Best Annual Report in the Non-Financial Sector» category.

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LETTER OF THE CHAIRMAN OF THE BOARD OF DIRECTORS

Dear shareholders and partners!

We present you the Annual Report of Central-Asian Electric Power Corporation JSC. Summing up the results of 2016 we should mention a systematic work of the Board of Directors, which was aimed at making informed decisions promoting the successful development of the Corporation and its investment attractiveness. The Board of directors ensures strategic management, control, as well as planning and achieving the Corporation's objectives. The activities carried out in the reporting year, taking into account the targets of the new 2016-2020 Strategy related to the increase in generation, energy saving and other spheres, demonstrate that the Corporation fulfills its objectives. The growth in electricity and heat production in 2016 resulted from the modernization and reconstruction of production facilities, which the Corporation has been implementing since 2009. In 2016, the actual figure of implementing the Investment Program amounted to 25.9 KZT bln. The Corporation increased its operating profit and income by 13.1% and 36%, respectively.

In 2016, the Corporation proceeded to a new stage of its development following the adoption of the Strategy of Central-Asian Electric Power Corporation JSC defining the main objectives for the development of the Group of Companies for the next five years. According to the document, one of the main vectors of activities is to improve the production efficiency. Within the framework of this area certain measures were implemented in 2016 to reduce the risks of accidents and eliminate downtime. Besides, enterprises of the Group introduce energy-saving and energy-efficient techniques in the energy production and transmission processes. The Corporation pays great attention to the formation of an effective environmental risk management system. As part of the 2016-2020 Strategy, the Corporation will continue implementing the Investment Program for equipment modernization aimed to increase generation and reduce losses during the electricity and heat transmission. A share of capacities renewed at the Group enterprises is expected to increase from the current value of 54.9% to 65% by 2019.

CAEPCO JSC pays special attention to the work aimed at improving the heat supply process in Pavlodar, Ekibastuz and Petropavlovsk. In 2016, the European Bank for Reconstruction and Development, the Ministry of National Economy of the Republic of Kazakhstan and subsidiaries of CAEPCO JSC signed a trilateral agreement to implement projects for upgrading heat supply systems. This project is implemented as part of Nurly Zhol state program for infrastructure development. The total investments in the period of 2016-2020 will amount to 25.95 KZT bln. Heat supply in regions of Kazakhstan still remains one of the most problematic housing and utility spheres, therefore, the support of the system reconstruction projects on the part of the government and international institutions is very important.

One of the key events of the reporting year was the issue of short-term commercial bonds by subsidiaries of CAEPCO JSC. It should be noted that PAVLODARENERGO JSC and SEVKAZENERGO JSC were the first among the issuers of Kazakhstan Stock Exchange to issue bonds within the sector and raise more than 800 KZT mln for the development of current projects.

It is important to note that one of the main trends in the power industry of Kazakhstan over recent years is the sector reforming aimed at improving its basic characteristics. CAEPCO JSC acting as a major energy market participant organizes its work taking into account the objectives defined by Nurly Zhol state program aimed at strengthening the energy infrastructure, as well as other programs related to the electric power sector. In 2017, the Corporation will continue enhancing the production and environmental performance following the mission of improving the quality of life of its consumers and creating conditions for regional economic development.

ALEXANDR KLEBANOV,

CHAIRMAN OF THE BOARD OF DIRECTORS OF CAEPCO JSC

LETTER OF THE PRESIDENT

Dear partners and colleagues!

An important outcome of operations of Central Asian Electric Power Corporation JSC in 2016 is the growth of production indicators. Over the period of 2009-2016, generating assets were upgraded by 54.9%, which was one of the highest indicators among energy companies of Kazakhstan.

At the end of 2016 as compared to the level of 2015, the installed electric capacity of the Corporation increased by 5.4% to 1,203 MW, and heat capacity - by 1.2% to 2,953 Gcal/h. Over 12 months of 2016, the volume of net electricity supply from the Corporation's power station buses increased by 8.4% compared to 2015, while the volume of electricity production increased by 7.8%. Equipment upgrading promotes the improvement of energy efficiency of the Corporation's generating assets, which confirms the outpacing growth in the volume of net electricity supply from the station buses as compared to the generation output.

The growth in production in 2016 became possible due to the implementation of projects as part of the Investment Program for reconstruction and modernization of production facilities started in 2009. Thus, in December 2016, Petropavlovsk CHP-2 commissioned a new turbine unit No. 5 as a result of which the installed capacity of the station increased from 479 to 541 MW. In addition, a boiler No. 12 of CHP-2 was upgraded, which allowed increasing the rated steam capacity of the station by 50 tons per hour. During 2016, certain measures were taken to upgrade a turbine unit No. 6 at CHP-3 of PAVLODARENERGO JSC. An important area of the Corporation's Strategy is the work aimed to reduce excessive losses during heat power transmission. The next step towards the goal fulfillment in 2016 was the signing of a trilateral agreement for implementing heat supply systems modernization projects between the European Bank for Reconstruction and Development (EBRD), the Ministry of National Economy of the Republic of Kazakhstan and CAEPCO JSC as part of Nurly Zhol state program for infrastructure development. The total investments in modernization of the heat supply systems of Pavlodar, Ekibastuz and Petropavlovsk for the period of 2016 - 2020 will amount to 25.95 KZT bln. Heat supply services in the regions have already started implementing the reconstruction projects: last year, the amount of 4.02 KZT bln was allocated to reconstruction of pipelines and replacement of heat insulation.

The group of companies of CAEPCO JSC continues working on introduction of automatic systems for commercial accounting of electric power and heat energy - ASCAEP and ASCAHE. According to the preliminary data, in 2016, electricity transmission losses reduced from 7.7% to 7.4% as compared to the previous year. It should be mentioned that the Corporation pays special attention to the process automation issues. In December 2016, Pavlodar CHP-3 launched a project for introduction of an information-computing software complex (ICSC) to support the production control processes. The project is aimed to improve economic efficiency by optimizing the composition and operating mode of the plant as well as to automate labor-intensive calculations.

The Corporation invests funds not only in modernization and new areas of business development, but in sustainable growth as well. In 2016, CAEPCO JSC continued implementing environmental protection, occupational health and safety, employee development and social partnership projects. In December of the reporting year, the Corporation opened a small-family hostel for employees of SEVKAZENERGO JSC and Petropavlovsk citizens.

In 2017, the Corporation will continue implementing the Investment Program and developing social partnership projects in order to improve the quality of life of its consumers and create conditions for economic growth in regions.

YERKYN AMIRKHANOV,

PRESIDENT OF CAEPCO JSC

KEY INFORMATION

4 4 CHPs in Pavlodar, Ekibastuz and Petropavlovsk

3 3 REDCs in Pavlodar, North-Kazakhstan and Akmola regions

2 2 heat supply companies in Pavlodar, Ekibastuz and Petropavlovsk

4 4 retail companies in Astana, Pavlodar, Petropavlovsk, and Akmola region

10 000 More than 10 thousand employees

Installed electricity capacity
1203 MW

Installed heat capacity
2953 Gcal/h

CHP production parameters

CHP	Installed electricity capacity , MW	Installed heatcapacity, Gcal/h	Equipment renovated 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

Number of substations by type

Substation type	Pavlodar REDC JSC	North-Kazakhstan REDC JSC	Akmola EDC JSC	Total
220 kV	4	-	2	6
110 kV	73	38	50	161
35 kV	102	121	193	416
6-10 kV	3 613	2 278	3 370	9 261
Total	3 792	2 437	3 615	9 844

Total length of power transmission lines, km

Power line types	Pavlodar REDC JSC	North-Kazakhstan REDC JSC	Akmola EDC JSC	Total
220 kV	14,3	84,8	-	99,1
110 kV	2 785,6	1 327,2	2 513,0	6 625,8
35 kV	2 401,2	2 852,6	5 147,1	10 400,9
6-10 kV	6 061,5	4 538,2	7 411,0	18 010,7
0,4 kV	4 611,5	4 566,4	5 828,1	15 006,0
Total	15 874,1	13 369,2	20 899,2	50 142,5

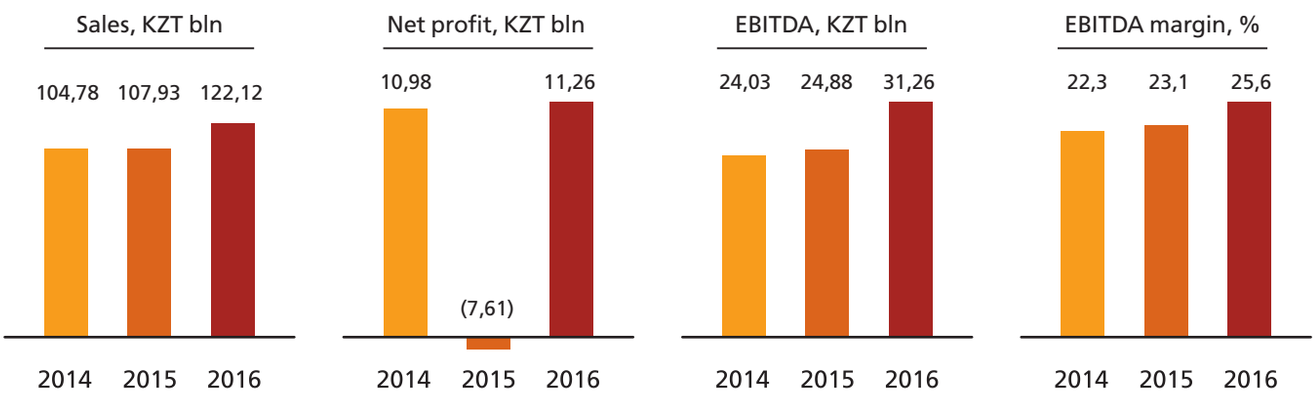
Total heat network length, km

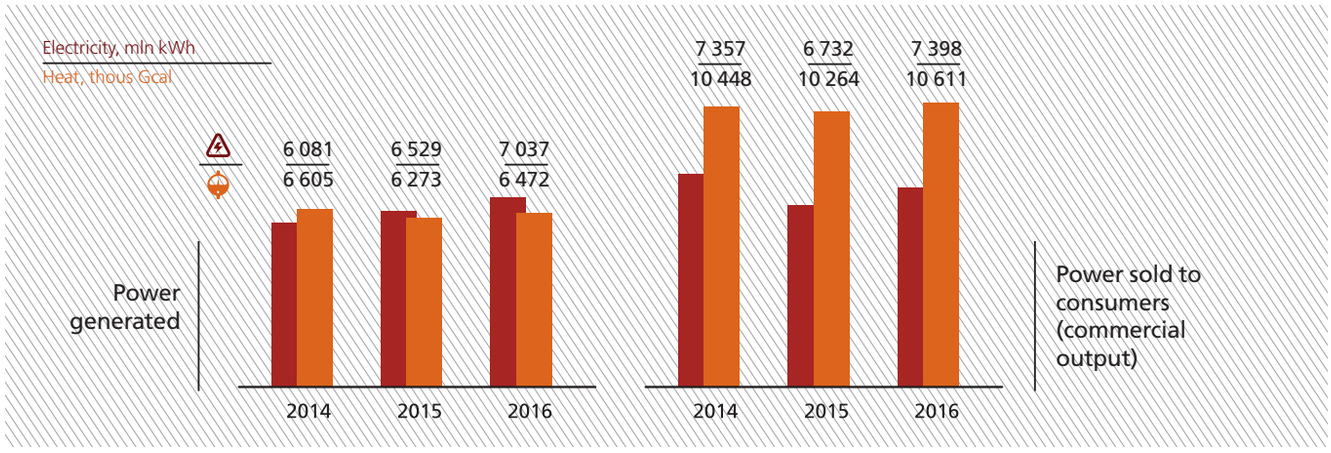
Pavlodar Heat Networks LLP	760,9
Petropavlovsk Heat Networks LLP	233,5
Total	994,4

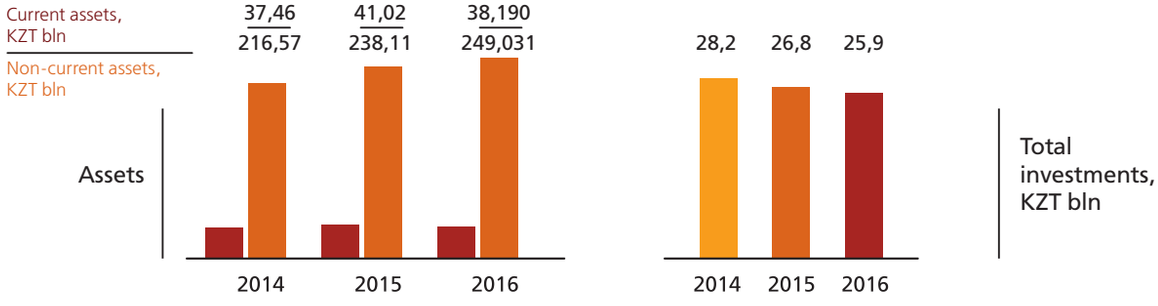
Number of consumers by region

Region	Electric power	Heat power
Pavlodar region	220 997	166 041
North-Kazakhstan region	162 029	71 230
Akmola region	117 801	-
Astana	247 717	223 137
Total	748 544	460 408

KEY PERFORMANCE INDICATORS FOR 2014–2016







OUTCOMES OF IMPLEMENTATION OF PRIORITY OBJECTIVES IN 2016

INVESTMENT PROGRAM

According to the 2016-2020 Development Strategy, the Corporation continued implementing the Investment Program in the following three areas: increase in generation; energy saving, including reduction of electric and heat energy losses during transmission; improvement of environmental performance during the production. In 2016, the total amount under the Investment Program was equal to 25.9 KZT bln.

COMMISSIONING OF NEW AND UPGRADING OF OBSOLETE EQUIPMENT

- A new turbine unit No. 5 was put into operation at Petropavlovsk CHP-2 of SEVKAZENERGO JSC as a result of which electric capacity increased by 62 MW.
- An upgraded boiler No. 12 was put into operation at Petropavlovsk CHP-2 of SEVKAZENERGO JSC as a result of which steam capacity increased by 50 tons per hour.
- Pavlodar CHP-3 of PAVLODARENERGO JSC is implementing a project for modernization of the turbine unit No. 6, which is expected to complete in 2018.

RECONSTRUCTION OF ELECTRIC POWER FACILITIES

In 2016, the Corporation implemented projects for reconstruction of 24 km of 110–35 kV overhead power lines along with 176.175 km of 04-10 kV overhead and cable power lines. As part of the Investment Program, the Corporation continued replacing bare wires with self-supporting insulated conductor (SSIC) and introducing the automatic system for commercial accounting of electric power (ASCAEP) for households. As a result, a total of 136.319 km of bare wires were replaced and 7,515 induction-type electricity meters were replaced with electronic ones.

RECONSTRUCTION OF HEAT NETWORKS

The implementation of projects for heat supply network modernization in Pavlodar, Ekibastuz and Petropavlovsk continued in accordance with the agreement signed in 2016 between the subsidiaries of CAEPCO JSC, the European bank for reconstruction and development (EBRD) and the Ministry of National Economy of the Republic of Kazakhstan. In 2016, a total of 11.31 km of heat networks were reconstructed in the cities of Pavlodar, Ekibastuz and Petropavlovsk: 5.55 km of pipelines were replaced with pre-insulated pipes, and heat insulation was restored using PU foam coating on 5.76 km of pipelines.

Pipelines were replaced with pre-insulated pipes/km

5,55

Heat insulation was restored using PU foam coating/km

5,76

PROJECT IMPLEMENTATION IN RETAIL COMPANIES

In order to improve the quality of customer services and customer-oriented approach, numerous organizational measures were implemented with the aim to reform sales structures and establish servicing on a «one contact» principle:

- the automated database for calculations by types of energy is improved on a systematic basis;
- electricity consumption management at the level of an individual consumer was introduced;
- the operational analysis of payments receipt was organized;
- debt control for each consumer was established;
- service center windows were opened to receive consumers' applications for obtaining, processing and issue of technical specifications to consumers;
- a network of payment acceptance points was reconstructed.

In addition, the Corporation continues introducing the ISO 9001 Quality Management System in order to improve the quality of customer service.

CORPORATION RATING

On July 27, 2016, Fitch Ratings international rating agency assigned «B+» long-term default rating in the national and foreign currencies. The rating outlook is stable.

FULL LIST OF RATING ACTIVITIES

- Long-term issuer default rating (IDR) in the national and foreign currencies at "B+" level; outlook is stable;
- National long-term rating at "BBB(kaz)" level; outlook is stable;
- Short-term foreign currency IDR at "B" level;
- Senior unsecured rating in the national currency at "B" level/recovery rating «RR5».

Electricity transmission structure by groups of end consumers

Population	41,1%
Small and medium enterprises	30,9%
State-financed organizations	9,2%
Industrial and agricultural sector	8,9%
Industrial consumers	8,8%
Direct consumers	0,8%
Inter RAO UES	0,3%

KEY EVENTS AND ACHIEVEMENTS FOR THE REPORTING PERIOD

FEBRUARY

On February 1, one of the first power plants in Kazakhstan having high-pressure equipment - Pavlodar CHP-2 of PAVLODARENERGO JSC celebrated its 55th anniversary.

APRIL

The Board of Directors of CAEPCO JSC held a meeting and adopted the 2016-2020 Development Strategy defining the priorities, resources and sequence of steps to achieve strategic goals and objectives.

MAY

As part of the PROFENERGY program initiated by CAEPCO JSC in 2015 to support young specialists, AEDC JSC signed social partnership agreements with representatives of eight educational institutions of Astana and Akmola region. The partnership is based on the principles of dual training, which allows combining university studies with obtaining practical skills at production facilities.

JUNE

- The VIII Republican Forum of Energy Veterans was held in Pavlodar, which was attended by more than a hundred well-known industry professionals from Kazakhstan, Russia and Kyrgyzstan. The Forum was organized by the Kazakhstan Electricity Association (KEA) with the support of PAVLODARENERGO JSC.
- As part of the PROFENERGY project, SEVKAZENERGO JSC summed up the competition of scientific papers held among Petropavlovsk students. Two winners of the competition were awarded personal scholarships from Petropavlovsk Heat Networks LLP and North-Kazakhstan Regional Electricity Distribution Company JSC.

JULY

Fitch Ratings international rating agency assigned CAEPCO JSC «B+» long-term default rating in the national and foreign currencies with a stable outlook.

OCTOBER

- Within the framework of the XIII Forum of Interregional Cooperation between Kazakhstan and Russia held in Astana, CAEPCO JSC and Ural Turbine Plant signed a Memorandum of Cooperation, which became the third agreement between the companies aimed at upgrading the generating equipment of the Corporation's stations.
- Within the framework of Kyzylzhar Invest 2016 International Investment Forum held in Petropavlovsk, a Memorandum of Understanding and Cooperation was signed between the Akimat of North Kazakhstan region and CAEPCO JSC.
- A trilateral agreement was signed for implementation of projects for heat supply system modernization in Pavlodar, Ekibastuz and Petropavlovsk. The European bank for reconstruction and development (EBRD), the Ministry of National Economy of the Republic of Kazakhstan and subsidiaries of CAEPCO JSC signed an agreement within the framework of Nurly Zhol state program for infrastructure development. The total investments in the infrastructure of the above mentioned cities in the period of 2016-2020 will amount to 25.95 KZT bln.

NOVEMBER

Short-term bonds were issued with the participation of PAVLODARENERGO JSC and SEVKAZENERGO JSC. The instrument became the first in the «Commercial Bonds» sector intended for short-term bonds of companies that had already been listed at Kazakhstan Stock Exchange and whose securities were included in its official list.

DECEMBER

- On December 4, 2016, the 60th anniversary was celebrated by Ekibastuz CHP - the only heat source for the city with a population of more than 159 thousand people.
- A new turbine unit T-95/105-8.8 was commissioned at the station No. 5 of Petropavlovsk CHP-2 as a result of which the plant capacity increased up to 541 MW.
- On December 22, 2016, Petropavlovsk CHP-2 of SEVKAZENERGO JSC celebrated its 55th anniversary.
- A ceremonial opening of the 90-apartment small-family hostel for employees of SEVKAZENERGO JSC and citizens of Petropavlovsk was held.

CORPORATION OVERVIEW

BUSINESS PROFILE

Central-Asian Electric Power Corporation JSC is the largest vertically integrated private holding company in the field of electricity and heat generation in Kazakhstan. In the regions of its operations CAEPCO JSC Group of Companies holds a monopoly in generation and distribution of heat and distribution of electricity (accounting for 80-100% of the market) as well as a dominant position on the domestic electric power generation market. In 2016, the Corporation's market share was equal to 7.5%.

HISTORY

2016 As of December 31, 2016, the equity structure of CAEPCO JSC is as follows:

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

2015 Baiterek Holding represented by its subsidiary funds - KIF ENERGY S.A.R.L., Baiterek Venture Fund JSC and CKIF ENERGY S.A.R.L. - becomes a shareholder of CAEPCO JSC.

2014 IMPLEMENTATION OF PROJECTS FOR GROWTH AND FUND RISING

CAEPCO JSC consolidated 100% stake of Akmola Electricity Distribution Company JSC.

2011 The Islamic Infrastructure Fund (Kaz Holdings Cooperatief U.A., Amsterdam) acquired a 12.89% stake and became a shareholder of CAEPCO JSC.

2009 ACCESSION OF FOREIGN INVESTORS TO SHAREHOLDERS

The European Bank for Reconstruction and Development purchased a 24.99% stake in CAEPCO JSC.

2008 CORPORATION FORMATION

Establishment of CAEPCO JSC uniting SEVKAZENERGO JSC, PAVLODARENERGO JSC and Astanaenergos-byt LLP. At the time of registration, Central-Asian Power Energy Company JSC was the only founder.

MISSION

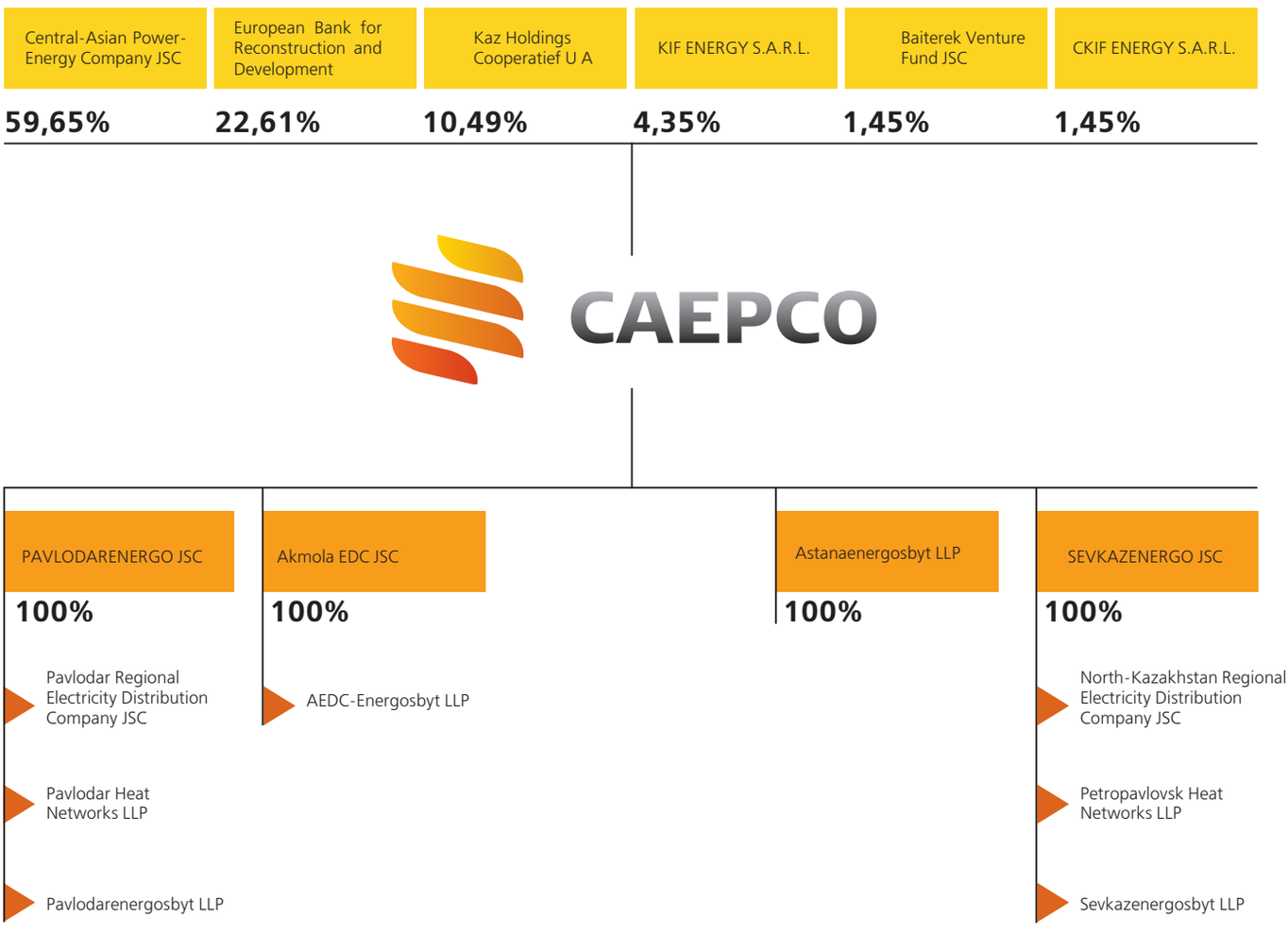
The Corporation's mission is to improve the quality of life to its consumers and create favorable conditions for economic development in the regions of its operations by providing first-class energy supply services for households, industrial and social infrastructure facilities. The Corporation is implementing this mission by organizing its activities in accordance with international production, environmental, occupational health and social responsibility standards. The Corporation's effectiveness is based on its employees, whose value consists in their professionalism and the ability to work as a team focusing on achieving the results.

VISION

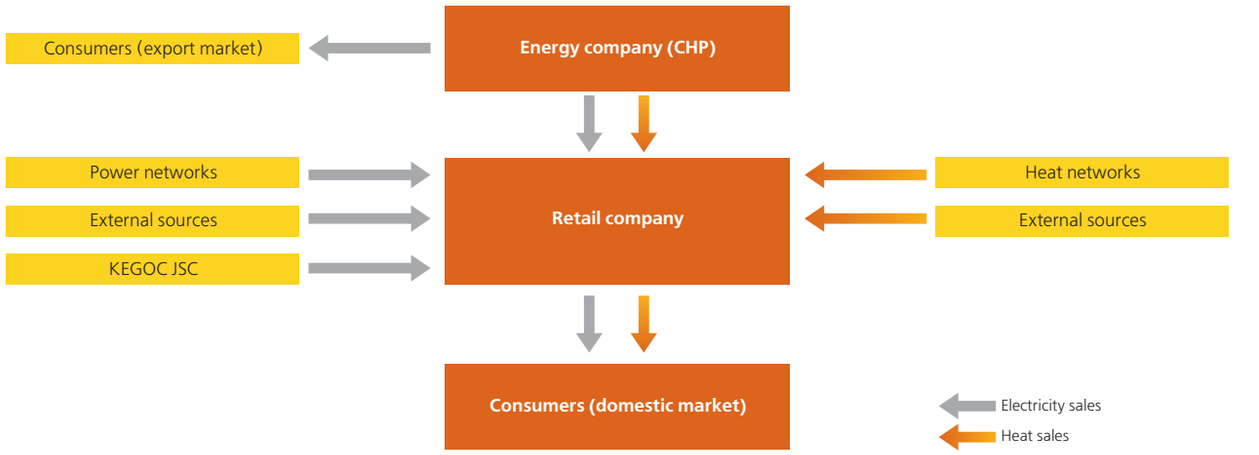
Central-Asian Electric Power Corporation JSC is a leader among private energy companies in Kazakhstan. The Corporation operates in the most extreme climatic conditions in the north of the country. The Corporation successfully uses advantages of the holding structure, combining dynamism and flexibility of its business units (companies within the Group) with stable and reliable centralized management of the Group.

The Corporation's staff are a team of professionals constantly reaching for hgher goals. The Corporation's relations with customers and suppliers are based on the principles of respect and mutual responsibility.

CORPORATION STRUCTURE

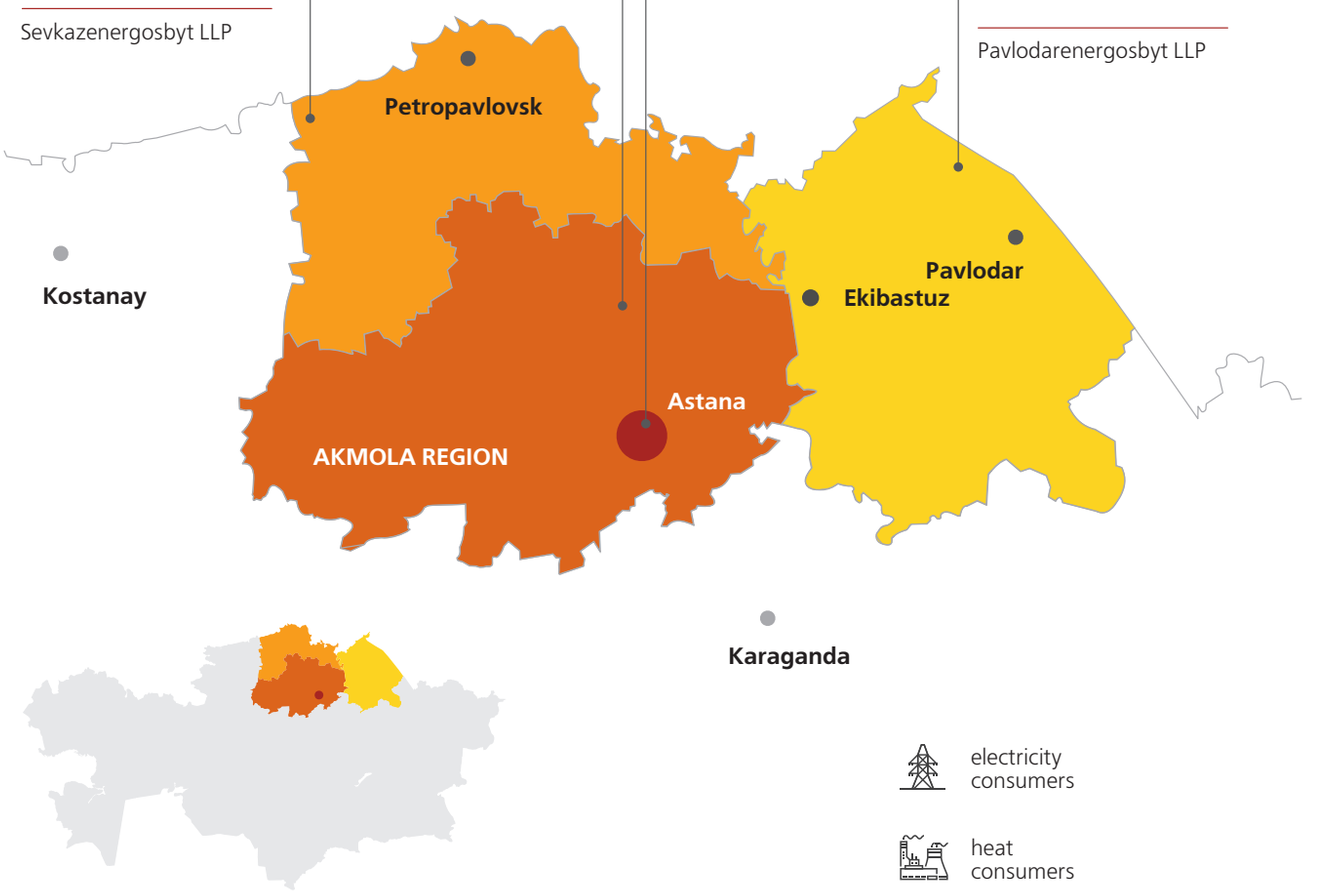


BUSINESS MODEL



GEOGRAPHY OF OPERATIONS

North-Kazakhstan region	Akmola region	Astana	Pavlodar region
SEVKAZENERGO JSC	AEDC JSC	ASTANAENERGOSBYT LLP	PAVLODARENERGO JSC
Petropavlovsk CHP-2	AEDC-Energosbyt LLP		Pavlodar CHP-2
North-Kazakhstan Regional Electricity Distribution Company JSC (electric networks of North-Kazakhstan region)			Pavlodar CHP-3
			Ekibastuz CHP
			Pavlodar Regional Electricity Distribution Company JSC
Petropavlovsk Heat Networks LLP (heat networks of Petropavlovsk city)			Pavlodar Heat Networks LLP (heat networks of Pavlodar and Ekibastuz)
Sevkazenergosbyt LLP			Pavlodarenergosbyt LLP



electricity consumers

heat consumers

SUBSIDIARIES

PAVLODARENERGO JSC

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

PAVLODARENERGO JSC consists of Pavlodar CHP-2, Pavlodar CHP-3, Ekibastuz CHP, Pavlodar Regional Electricity Distribution Company JSC, Pavlodar Heat Networks LLP (heat networks of Pavlodar and Ekibastuz), Pavlodarenergosbyt LLP.

Since 2009, generation facilities of Pavlodar CHP-3 have been upgraded by 70.4%, Ekibastuz CHP - by 100%.

The total installed capacity of power plants is 662 MW (electricity) and 2,240 Gcal/h (heat). Coal extracted from Ekibastuz coal basin is used as the main fuel. PAVLODARENERGO JSC supplies electricity in Pavlodar region having a total area of 124.8 thous. km^2 and population of 758.6 thous people. In 2016, electricity output reached 3,828.8 mln kWh.

Electricity generated by PAVLODARENERGO JSC is supplied to the markets of Pavlodar, Karaganda, Akmola and East-Kazakhstan regions. The total length of power transmission lines is 15,874.1 km. The total length of heat networks is 760.9 km.

In July 2016, Fitch Ratings international rating agency assigned PAVLODARENERGO JSC «B+» long-term default rating in the national and foreign currencies and the national long-term rating at "BBB(kaz)" level with a stable outlook.

SEVKAZENERGO JSC

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

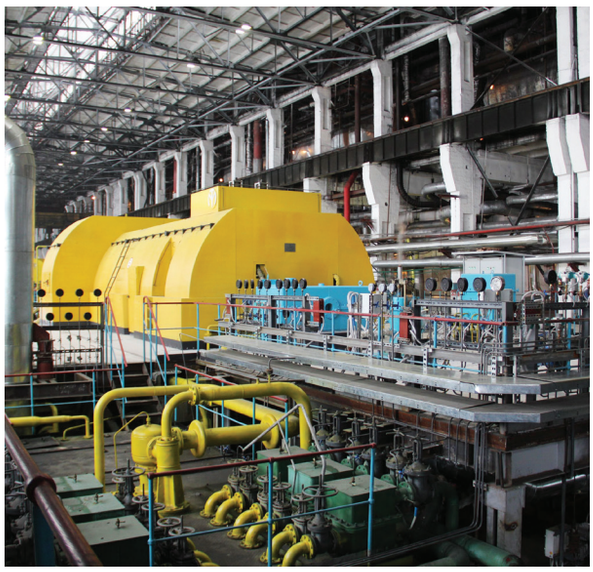
SEVKAZENERGO JSC consists of Petropavlovsk CHP-2,North-Kazakshtan Regional Electricity Distribution Company JSC (electric networks of North-Kazakhstan region), Petropavlovsk Heat Networks LLP (heat networks of Petropavlovsk city), Sevkazenergosbyt LLP.

Since 2009, the plant facilities have been upgraded by 49.7%. At the end of 2016, the installed capacity of the power plant is 541 MW (electricity) and 713 Gcal/h (heat). Coal extracted from Ekibastuz coal basin is used as the main fuel.

SEVKAZENERGO JSC supplies electricity in North-Kazakhstan region having a total area of 97.99 thous. km^2 and population of 579 thous people. In 2016, electricity output reached 3,207.9 mln kWh.

Electricity generated by SEVKAZENERGO JSC is supplied to the markets of the northern, central, eastern and southern regions of Kazakhstan and the company is planning to export electricity to Russia, in particular, to Kurgan and Omsk regions. The total length of power transmission lines is 13,369.2 km. The total length of heat networks is 233.5 km.

On July 2016, Fitch Ratings international rating agency assigned a rating to SEVKAZENERGO JSC. The long-term issuer default rating (IDR) in the national and foreign currencies was assigned at "B+" level with a stable outlook.



AKMOLA ELECTRICITY DISTRIBUTION COMPANY JSC

Akmola EDC Joint-Stock Company (AEDC JSC) transmits and distributes electricity among customers in Akmola region and the city of Astana. The total area served is 114.428 thous km^2 with a population of 746 thous people. The total length of power transmission lines is 20,899.2 km.

AEDC JSC operates 0.4–110 kV power networks across 14 administrative districts of Akmola region. The main energy supplier is Ekibastuz GRES-1 LLP.

AEDC JSC is included in the National Electrical Grid of Kazakhstan. Most of the companies operating in Akmola region being an industrial area with a cluster of enterprises of various forms of ownership are connected to the company's networks. AEDC JSC consists of a managing company, three branches of inter-district power networks (IDPN) and 14 district power networks (DPN).

A subsidiary of AEDC JSC - AEDC-Energosbyt LLP - purchases electricity to supply it to 117,801 consumers in Akmola region.

For the convenience of its consumers, AEDC-Energosbyt LLP has opened 32 payment acceptance points located in customer service offices and service centers. Consumers also have the opportunity to make payments through a network of payment terminals, Internet banking application of Caspi Bank JSC, Qiwi payment system as well as in offices of Kazpost JSC.

ASTANAENERGOSBYT LLP

The company's main area of business is supplying electricity and heat to consumers in Astana. Astanaenergosbyt LLP provides services to customers in Astana, including 237,026 households and 10,691 legal entities (electricity) as well as 223,137 consumers of heat power.

The company's main energy supplier is Astana-Energy JSC (CHP-1 and CHP-2 in Astana).

Electricity purchased by Astanaenergosbyt LLP is delivered to consumers through the networks of transportation companies such as KEGOC JSC, Akmola Electricity Distribution Company JSC and Astana-REDC JSC. Heat is delivered through the networks of Astana-Teplotransit JSC.

For the convenience of its customers, Astanaenergosbyt LLP has established 7 payment acceptance points and a Call Center, which processes data from electricity and hot water meters and provides information relating to energy supply issues.

DEVELOPMENT STRATEGY

In 2016, the Corporation approved the implementation of its long-term 2016-2020 Strategy, which was the logical continuation of the implemented 2010-2015 Strategy and determined the main areas of business development, management projects and technologies.

The strategic goal of CAEPCO JSC is to form 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 power.

MAJOR TARGETS OF ACHIEVING THE STRATEGIC GOAL OF CAEPCO JSC

To achieve this strategic goal, the Corporation is implementing the following tasks:

Market expansion

Targeted market expansion with guaranteed sales and low risks:

- expanding the geography of operations of the Corporation's enterprises;
- implementation of growth projects to enter new generation and transmission markets.

Efficiency

Enhancement of production efficiency through raising a technical level of production and upgrading main production facilities and infrastructure:

- reconstruction and modernization of equipment at power generation facilities through implementing investment programs, reducing accident risks and eliminating downtime;
- minimizing production costs per unit of heat and electricity;
- reducing excessive losses during heat and electricity transmission;
- introduction of energy-saving and energy-efficient technologies in energy production and transmission;

Innovations

Introduction of promising projects through deliberate innovative development

Management

Introduction of best management standards through continuous employee training in the field of new efficient technologies in the production and enterprise management:

- creation of customer service centers on a single IT-platform;
- updating certificates for compliance with the requirements of international standards in the field of ecology, personnel health and industrial safety;
- implementing measures with the aim to decrease work-related incidents;
- continuous training aimed to enhance employee qualification.

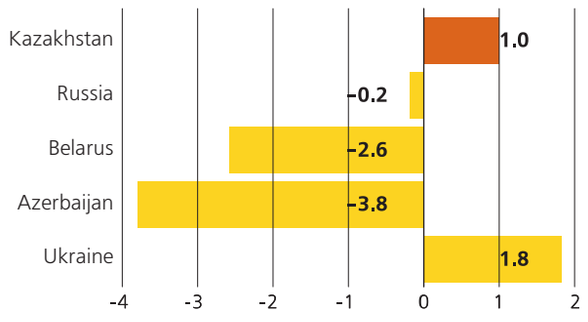
MARKET ENVIRONMENT ANALYSIS

ECONOMIC OVERVIEW

At the end of 2016, economy of Kazakhstan demonstrated growth at the rate of 1.0% against 1.9% of the previous year, which is currently one of the best indicators in the post-Soviet territory over the reporting period. The GDP slowdown resulted from decrease in the physical volume of crude oil production (from 79.5 mln tons to 78.0 million tons or 1.8%) as well as a negative multiplier effect of low oil prices on the economy at the beginning of the year: according to the U.S. EIA, in January 2016, a barrel of Brent crude oil was traded at an average price of 30.70 US dollars, while by December the oil price increased to 53.29 US dollars (+73.6%).

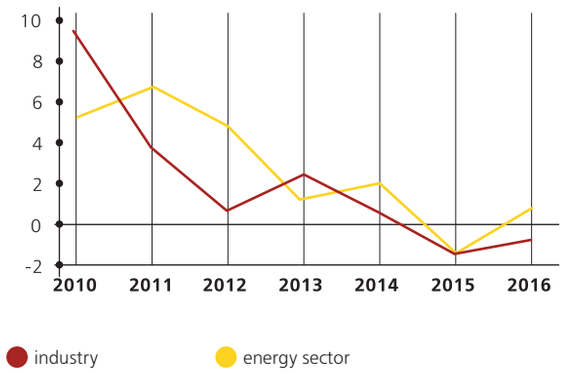
GDP dynamics in Kazakhstan and certain post-Soviet countries in 2016, %

Source: data of statistical agencies of the countries



Production dynamics in the overall industry and in the energy sector, %

Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan



The most marked growth in the GDP structure by 1.3% was demonstrated by the real sector. Outperformance of the real sector ensured a slight increase in its ratio in the GDP structure - from 35.5% to 36.0%. The service sector ratio decreased from 59.4% to 57.9%.

The construction and agriculture sectors demonstrated the most successful indicators among the real sectors of economy - 7.9% and 5.5%, respectively. At the end of the year, the production figures of Kazakhstan industry reduced by 1.1%. The mining industry experienced a 2.7% decline caused by decrease in production of oil, as well as coal - by 4.6% and iron ore - by 12.9%. The manufacturing industry demonstrated growth in indicators by 0.7% due to increase in metallurgy by 6.6% (including 8.5% in non-ferrous metallurgy, 3.3% in ferrous metallurgy), oil refining by 0.6%, food industry by 3.9% and pharmaceuticals by 2.5%. Other energy-consuming sectors of the manufacturing industry - chemical and construction - demonstrated a decline of 2.2% and 4.7%, respectively.

After the last year decline, the energy sector (electricity, gas, steam supply and air conditioning) demonstrated a minimum growth of 0.4%. The positive year end for the sector was affected by favorable dynamics in the electric power industry with an increase in production by 0.7%. Gaseous fuel production and distribution increased by 0.3%, while steam supply and conditioning decreased by 0.1%.

The production output of the water supply industry has been declining for several years. This year, a negative value reached 4.6%.

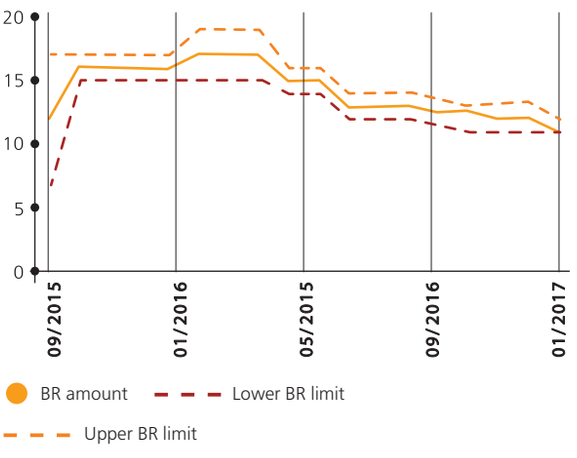
Investment activity in Kazakhstan's economy continued growing last year. The growth in fixed asset investments amounted to 5.1% (in 2015 - 3.7%). The main source of investments is still the companies' own funds - 60.7% of all capital investments. Over one third of investments (35.7%) are accounted for the mining sector. The volume of investments in the energy sector amounted to 6.0%.

MONETARY POLICY

The monetary policy of the National Bank of the Republic of Kazakhstan (NB RoK) is aimed at ensuring price stability. To realize this goal, since August 20, 2015, the NB RoK has changed its policy from currency to inflation targeting depending on a floating exchange rate. Against the background of weakening prices for crude oil, which is the main export commodity of the country, the national currency - tenge - devaluated by 79.7% from August 2015 to January 2016, while the value of the US dollar increased from 203.62 tenge/US dollar to 365.83 tenge/US dollar. During 2016, tenge was strengthening as oil prices recovered. The growth over the period of 12 months amounted to 8.8%: in December, the NB RoK fixed an average exchange rate at the level of 333.73 tenge/US dollar.

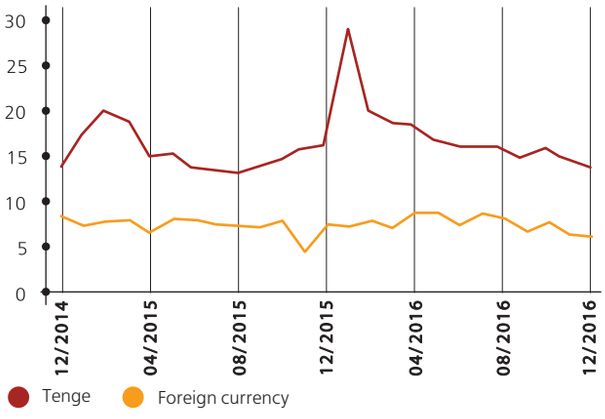
Amount and limits of a base rate (BR) if the National Bank of the Republic of Kazakhstan, %

Source: National Bank of the Republic of Kazakhstan



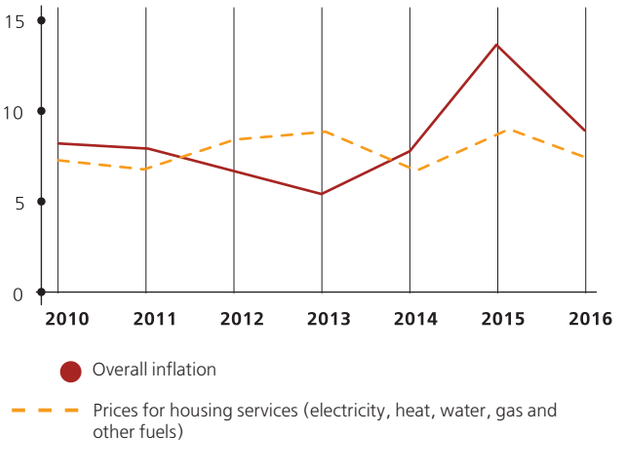
Average interest rate on loans granted to non-banking legal entities, %

Source: National Bank of the Republic of Kazakhstan



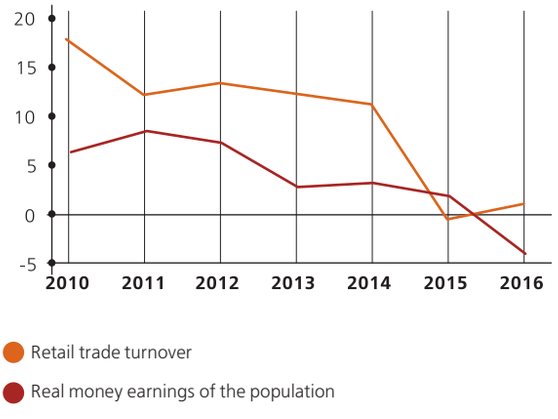
Inflation dynamics in the Republic of Kazakhstan, %

Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan



Dynamics of retail sales and real earnings of the population, %.

Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan



One of the most important elements of inflation targeting was the resumption of using monetary instruments to influence the credit activity of banks, including open market transactions involving provision and withdrawal of liquidity for the purpose of forming interbank interest rates close to the base rate.

During 2016, the NB RoK revised the base rate 5 times: 1 time - upward (from 16% to 17% in February), and 4 times - downward (in May, July, October and December). In January 2016, the base rate was fixed at the level of 16.0% with a lower limit of 15.0% and upper limit of 17.0%; in December - at the level of 12.0% with a lower and upper limit of 11.0% and 13.0%, respectively.

The overall credit activity of second-tier banks (STB) in 2016 was low. The loan portfolio of STBs for the year decreased by 1.6% from 15,553 KZT bln as of January 1, 2016 to 15,303 KZT bln as of January 1, 2017, while a share of foreign currency loans in the structure of liabilities did not practically change (33.7% vs. 32.6%). At the same time, interest rates on tenge-denominated loans granted to non-bank corporate entities decreased for the year from 16.0% to 14.4%. Interest rates on foreign-currency denominated loans granted to economy sectors also decreased from 7.4% to 6.5%.

CONSUMER MARKET

During the reporting year consumer markets met some difficulties. The physical volume of wholesale and retail trade decreased by 1.4%. Retail trade turnover increased by 0.9% against a 0.4% decline in 2015.

In December 2016, the inflation rate amounted to 8.5%, while food prices rose by 9.7%, prices for non-food goods - by 9.5%, and paid services rose in prices by 6.1%. Prices for housing services, water, electricity, gas and other fuels increased by 6.9%. (The target of the NB RoK for 2016-2017 is the annual inflation band of 6-8%. The regulator will strive to achieve a level of 3-4% by 2020).

As a result, real earnings of the population continued declining throughout the year. The annual decline value was equal to 4.5% (in 2015 the indicator grew by 1.4%). The influence of the decline in real earnings on consumer markets will continue during 2017. Due to rise in prices for inelastic goods and services (food, utilities), consumers will refuse to purchase durable goods.

FORECAST FOR 2017

Analysts believe that 2017 will be the first year of post-crisis recovery of economy of the Republic of Kazakhstan.

According to the data predicted by the International Monetary Fund (IMF) in February 2017, by the end of the year GDP of Kazakhstan will grow by 2.5%. The IMF believes that acceleration of economic growth rates resulted from structural reforms and vigorous measures implemented as part of «100 specific steps» program.

In November 2016, the European Bank for Reconstruction and Development (EBRD) predicted GDP growth in Kazakhstan at the level of 2.4% in 2017. EBRD experts believe that the growth will be affected by the restoration of confidence on the part of foreign investors, stabilization of the exchange rate, as well as favorable commodity prices.

The Ministry of National Economy of the Republic of Kazakhstan provided the most cautious forecast for 2017. GDP growth by 2.0% will be ensured by positive dynamics in the mining sector (3.6%) as well as in manufacturing segments such as food production (3.2%) and machine engineering (13.0%); the agricultural sector will grow by 2.5%, the construction sector - by 2.6%, transport sector - by 4.0%.

ENERGY SECTOR OVERVIEW

A distinctive feature of economy of Kazakhstan is high energy intensity. This is associated with a high weight of the real sector of economy, namely, energy-intensive industries such as oil and gas production, coal mining, metal ore mining, metallurgy and oil refining. About two thirds of the generated electricity is consumed by large industrial enterprises.

Kazakhstan is located in the moderate climate zone, and a long winter with an average temperature from -0.7°C (Shymkent) to -18.6°C (Petropavlovsk) is typical for the most regions of the country. Most of the cities of the country are provided with heat through the district heating system (DHS). All above-listed characteristics make the energy sector of Kazakhstan a strategic branch of the country's economy.

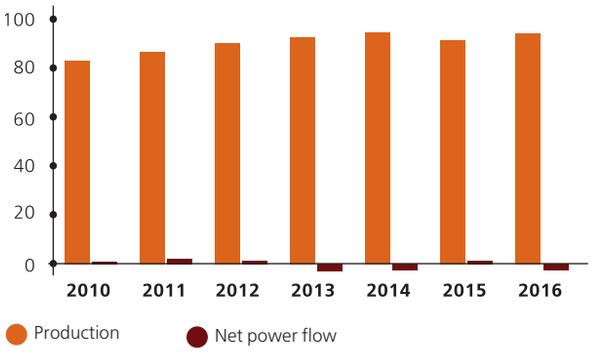
ELECTRIC POWER GENERATION

According to the data of the system operator of the Unified Energy System (UES) of the Republic of Kazakhstan - the National Company KEGOC, electricity is generated in the country by 118 electric power stations of various forms of ownership. As of 01.01.2017, the total installed electric capacity of power stations in Kazakhstan amounted to 22,055 MW, the available capacity - 18,789 MW.

The basis of the generation segment is thermal power stations (TPS, using both coal and gas turbine), which generate about 88-90% of electricity in recent years, including about 8% of electricity produced by gas turbine stations. Hydroelectric power plants (HEPP) of medium and high capacity produce about 10-12% of energy. Currently, renewable energy sources are actively developing in Kazakhstan in the form of small HEPPs, wind power plants (WPP), solar power plants (SPP) and bio-electric power plants.

Electric energy production in Kazakhstan and net power flow, bln kWh

Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan, Kazakhstan Electric Market Operator (KEMO)



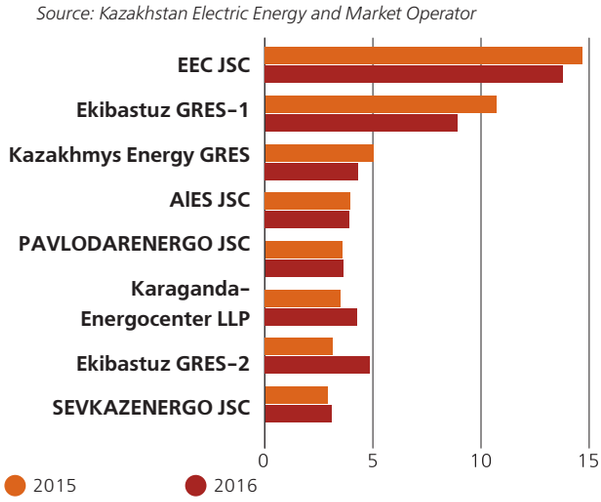
So far, a share of this kind of energy in the country's energy balance does not exceed 1% (0.98% at the end of 2016, according to the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan).

The peak production and consumption of electricity falls on the autumn and winter period. The lowest average monthly generation output is observed in June and July, the highest figure - in December and January. About 70% of electricity is generated in four regions - East Kazakhstan, Pavlodar, Karaganda and Almaty while other 10 regions produce 30%.

According to KEGOC JSC, in 2016, Kazakhstan power plants produced 94.08 bln kWh of electricity, which was 3.6% more as compared to the level of 2015. In monthly terms, the year started with a recession; a positive dynamics was observed from April to December: in January generation decreased by 3.1% compared to the same month of 2015, in April the indicator increased by 2.3%, in October - by 9.9%. At the same time, in 2016, the generating segment of the national electric power industry could not restore its peak values recorded in 2014.

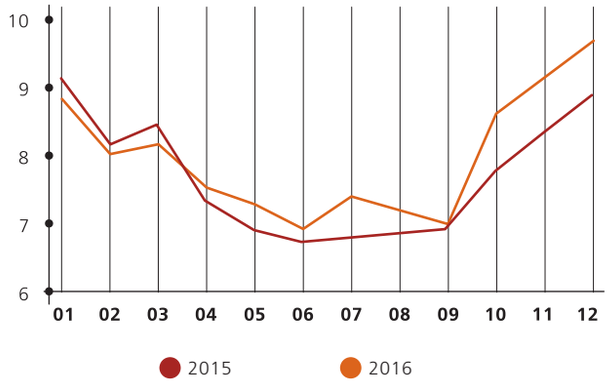
Electric energy generation at the largest energy-producing enterprises of the country, bln kWh

Source: Kazakhstan Electric Energy and Market Operator



Production of electric energy in RK by months, bln kWh

Source: Kazakhstan Electric Energy and Market Operator



Despite the overall increase in production, the year was very difficult for the largest energy producing enterprises of the country. Three leading organizations of the generation segment – EEC (part of ERG), Ekibastuz GRES-1 (a subsidiary of Samruk-Energo holding) and Kazakhmys Energy GRES - have reduced energy production compared to 2015. A noticeable growth in output was observed in PAVLODARENERGO JSC, SEVKAZENERGO JSC, Karaganda-Energocenter LLP and Ekibastuz GRES-2.

ELECTRICITY TRANSMISSION, DISTRIBUTION AND SUPPLY

Electric energy is transmitted through electrical networks, which represent a set of substations, distribution stations and power transmission lines with a voltage of 0.4-1150 kV.

The function of the backbone network in the UES RoK is performed by the National Power Grid connecting the Unified Energy System with the systems of border countries as well as ensuring interregional transit and release of electricity to wholesale consumers within the country. Electric networks that release electricity with a voltage of 220 kV and more are part of the National Power Grid and are included in the balance sheet of KEGOC JSC. In total, KEGOC JSC has more than 25 thous. km of electric grids, which transmit an average of 40% of electric energy generated at the country's power plants.

At the regional level, there are regional electricity distribution companies (REDCs) that provide electrical connections within the regions and electricity transmission to retail customers.

Energy-supplying organizations (energy retail companies) purchase electricity from energy-producing enterprises and sell it to retail customers at fixed tariffs.

ELECTRICITY CONSUMPTION STRUCTURE

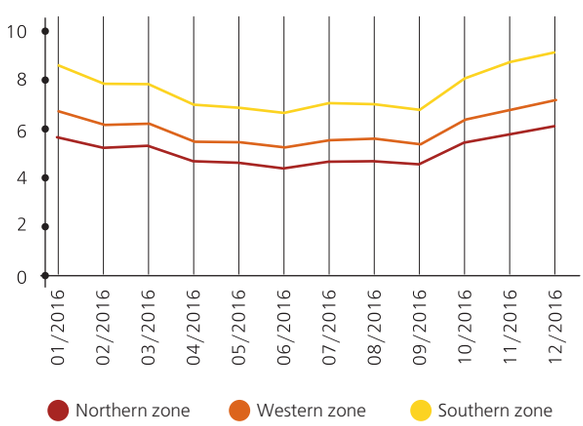
According to KEGOC JSC, in 2016, electricity consumption in Kazakhstan increased by 1.6% - up to 92.31 bln kWh. The main electricity consumers in Kazakhstan are large mining and metallurgical, oil refining and chemical enterprises, as well as the national railway carrier - Kazakhstan Temir Zholy JSC, Aksu Ferroalloy Plant, ArcelorMittal Temirtau JSC , Kazakhstan Electrolysis Plant JSC, Kazzinc LLP, Kazphosphate LLP and other enterprises. In total, 16 largest enterprises, as stated in the reporting of Kazakhstan Electric Energy and Power Market Operator, consume an average of 35 to 40% of electricity.

Since most of large metallurgical companies are located in the northern, central and eastern parts of the country, the Northern zone of the UES of Kazakhstan takes a 2/3 share in the consumption structure (at the end of 2016 - 67.0%). The Southern and Western zones account for 20.5% and 12.5%, respectively. It should be noted that a seasonal factor has a significant influence on the electricity consumption dynamics. During three winter months, 28.0% of the annual volume is consumed, in three summer months - 22.7% (data of 2016).

In 2016, Kazakhstan regained its position as a net electricity exporter; the net power flow has formed in the negative values zone for the third time over the last 7 years: in 2013, net electricity exports amounted to 2.33 bln kWh, in 2014 - 2.27 bln kWh, in 2016 - 1.76 bln kWh.

Structure of energy consumption by regions, %

Source: Kazakhstan Electric Energy and Power Market Operator



HEAT PRODUCTION, DISTRIBUTION AND CONSUMPTION

Heat energy is regarded as a social product in Kazakhstan, because the main consumers in this segment are households, mostly apartment buildings in urban areas, the amount of which at the end of 2016 was about 150 thousand, and part of the urban private sector, as well as over 20 thousand of social and budgetary objects (kindergartens, schools, universities, hospitals, state institutions, etc.). The population as well as housing and utilities consume 55% of the heat output.

According to Kazakhstan Electricity Association (KEA), there are 38 CHPs, 29 large and about 5,400 small boiler houses. Most of CHPs provide combined production - they produce both heat and electricity. The municipal property prevails in the ownership structure of heat-generating enterprises - it takes 80%, and only 20% of enterprises are in private ownership. According to KEA, 11% of facilities were built 20 years ago; the same number of facilities are in operation for 20-30 years, 38% - for 30-40 years, 39% of heat generating capacities - more than 40 years.

According to 2015 data, the length of the republican heat networks is 11.88 thous. km. In 2014, depreciation of the networks was officially estimated at the level of 70-80%. According to the state plan for heat networks modernization for 2014-2020, by 2020 the level of depreciation of the heat network facilities will reduce to an average of 55%.

At the end of 2016, CHPs and boiler houses of Kazakhstan produced 80.7 mln Gcal of heat energy, which was 0.1% less than in 2015. The decrease in heat energy production in Kazakhstan has been observed since 2013: reduction in generation by this year is 22.0% as compared to the results of 2016, the average annual dynamics since 2013 is -5.8%.

The production decline trend is associated with the implementation of programs aimed to improve energy efficiency at industrial enterprises and residential sector facilities, as well as with the modernization of energy generating capacities and heat network facilities.

PRICES FOR ELECTRICITY AND HEAT

Companies operating in heat energy transmission and distribution sectors are regulated by the anti-monopoly authority - the Committee on Regulation of Natural Monopolies and Protection of Competition of the Ministry of National Economy of the Republic of Kazakhstan

Tariffs of electric grid companies are aimed to provide compensation for operating costs and capital expenditures of natural monopoly entities. In this regard, the regulator's policy provides for the application of tariffs that include an investment component - so-called cap rates.

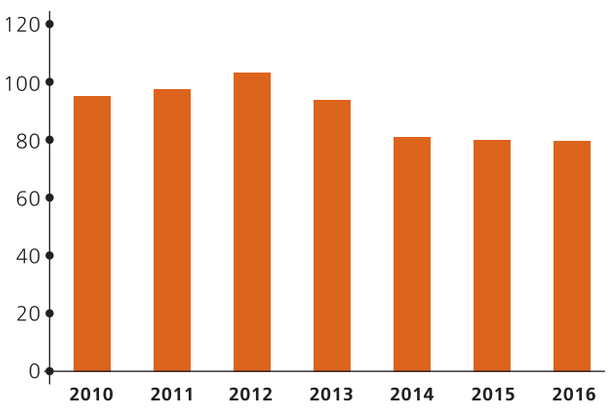
In 2015, the Government of the Republic of Kazakhstan extended the program of cap rates being in effect from 2009 to 2015 until January 1, 2019. From 2019, the investment activities in the electric energy generation sector should be supported through introduction of a power market model.

Since 2016, electricity and heat supply organizations have switched to 5-year cap rates, which can be adjusted.

According to the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan, final selling prices for electricity increased by 6.1%, for heat energy - by 8.0%. As compared to 2015, the growth in tariffs can be estimated as moderate: one year earlier, they increased by 8.3% and 14.0%, respectively. Since 2010, the average annual rate of tariff growth is 8.5% (electricity) and 6.8% (heat).

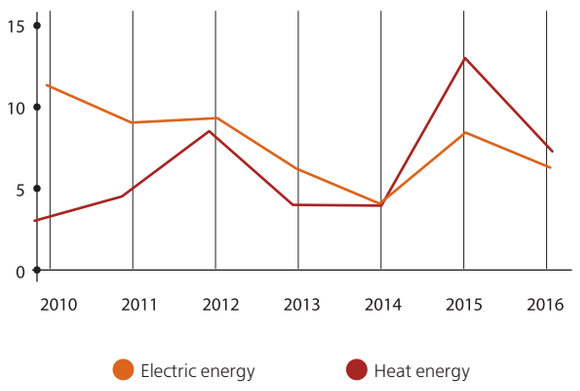
Heat energy production in Kazakhstan, mln Gcal

Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan



Growth of tariffs for electric and heat energy in Kazakhstan, %

Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan



KEY EVENTS OCCURRED IN LEGISLATION IN 2016

During 2016, state bodies (central and local) approved more than 100 regulatory acts in the field of electricity and heat energy.

In February 2016, the Government of the Republic of Kazakhstan approved new Rules for determination of fixed tariffs prescribing the norms for calculation of tariffs for renewable energy sources.

In April 2016, the Law «On introduction of amendments and additions to some legislative acts regarding the transition of the Republic of Kazakhstan to the green economy» providing details of mechanisms of using renewable energy sources came into force.

In August of the reporting year, the Minister of Energy of the Republic of Kazakhstan issued an order, pursuant to which the association of legal entities «Kazakhstan Energy Association» was defined as the Market Council. The Market Council is an integral element of the electric power market, the goal of which is to monitor market activity.

In October 2016, the Council of the Eurasian Economic Commission approved a list of activities aimed to implement the main macroeconomic policy guidelines of the EEU member states for 2016-2017. The unified energy market of the Eurasian Economic Union should be introduced in 2019. During the following two years, the union members should elaborate common rules for operation of the unified electric energy market, including the rules for accessibility of services rendered by natural monopoly entities.

In November 2016, the Government of the Republic of Kazakhstan submitted a draft law «On introduction of amendments and additions to some legislative acts of the Republic of Kazakhstan relating to electric energy» to the Parliament for review. The aim of amendments was to ensure the implementation of activities under the «100 specific steps» plan - «Enlargement of Regional Electric Grid Companies».

State power grids are transferred into trust management or gratuitous use of energy transmission organizations (ETO), to whose networks such grids are connected. The transfer of ownerless power grids to local executive bodies is regulated on a gratuitous basis and it is stipulated that assets of ownerless power grids transferred to ETO's balance sheet are not included in the ETO's tax base. The requirements to ETOs are strengthening: ETOs should have in place dispatching process management, a group of certified employees with the appropriate material and technical base for operation and repair of networks, a service agreement signed with a system operator, automated commercial accounting systems and telecom systems unified with KEGOC systems.

KEY EVENT OCCURRED IN THE INDUSTRY IN 2016

The main event of the year in the energy industry of Kazakhstan was the postponement of two most anticipated projects: construction of Balkhash TPS and power unit No. 3 at Ekibastuz GRES-2. At the end of 2016, two out of eight assets of Samruk-Energo JSC, which were put up for sale under the 2014-2020 privatization program, were privatized. 100% stake of East Kazakhstan REDC JSC and 78.64% of Mangistau REDC JSC were sold. Sale of assets such as Aktobe CHP, Alatau Zharyk Company JSC, AlES JSC, Almatyenergosbyt LLP and Tengis Munay JSC is also expected. The ultimate goal of Samruk-Energo JSC is to prepare for the public listing on the stock exchange.

INVESTMENT PROJECTS

In 2016, investment activities in the energy sector continued to decline. The volume of investments in fixed assets decreased by 19.6% to 459.7 KZT bln. The decline lasts for the second year due to the following two key events - the completion of the main part of the cap rates program in the electric energy generation sector and the decline in consumption due to the national economic crisis.

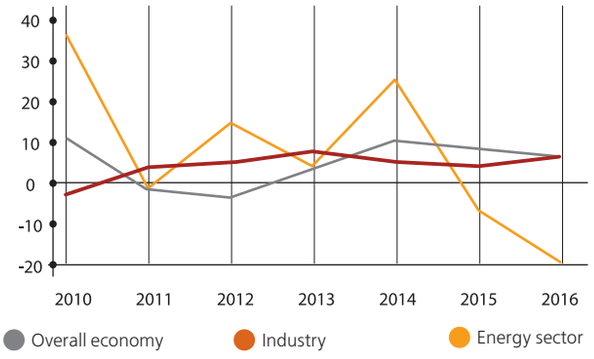
At the same time, the gross inflow of foreign investments demonstrated a positive trend in the reporting year. Following the results of I-III quarters of 2016, the sector received 82.9 mln US dollars of foreign investments - an increase in this indicator is 6.7 times relative to the level of four quarters of 2015.

At the corporate level, it is important to note several players with the largest investment programs implemented in 2016 and whose projects had a great significance for the industry. According to the plan of Samruk-Energo JSC, the total amount of the investment program for 2016 was set at the level of 91.8 KZT bln. Following the results of 2016-2017, a total of 223.9 KZT bln will be invested in the development of new and maintenance of old assets.

In September, a boiler No. 8 was put into operation at Almaty CHP-2, which allowed increasing the heat capacity of the station by 20% up to 1,414 Gcal/h. The project cost amounted to 25.7 KZT bln. Capital expenditures incurred for implementing the project of upgrading and expanding the open switchgear (OSG-500 kV) at EGRES-1 amounted to 18 KZT bln. The cost of the project of installing a new turbine at Aktobe CHP, which allowed increasing the installed capacity of the station from 88 to 118 MW, amounted to 3.5 KZT bln.

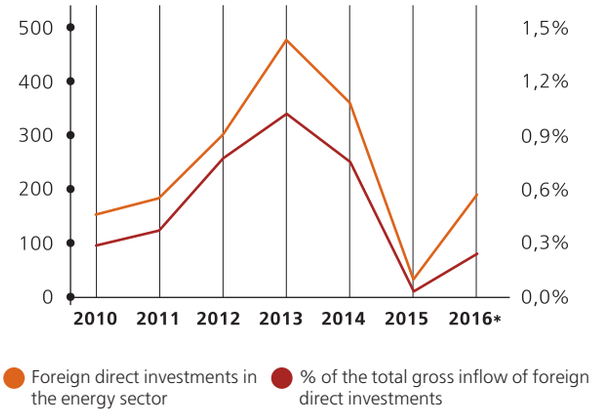
Dynamics of investment to fixed assets in the Republic of Kazakhstan, %

Source: Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan



Gross inflow of foreign direct investments to the energy sector of Kazakhstan, USD mln, %
*according to the results of I-III quarters

Source: National Bank of the Republic of Kazakhstan



The main project of Central-Asian Electric Power Corporation JSC in 2016 was the modernization of a turbine unit No. 5 (95 MW, complete replacement) and a boiler No. 12 (reconstruction) at Petropavlovsk CHP-2. The new turbine unit will allow generating more than 650 mln kWh per year, and the reconstructed boiler with a capacity of 270 tons of steam per hour will provide additional generation of 5.7 mln kWh per year, while a total efficiency will amount to 40.31% (turbine units) and 89.56% (boilers).

In November 2016, a turbine unit No. 12 was commissioned at Ust-Kamenogorsk CHP (included in AES Kazakhstan group). The cost of the project of installing a new turbine with a capacity of 120 MW was equal to 53 mln US dollars.

In May, a turbine unit with a capacity of 110 MW (electric energy) and 180 Gcal/h (heat) was commissioned at Karaganda CHP-3 owned by Karaganda-Energocenter, and therefore the plan efficiency should increase by 25%.

In December, the system operator KEGOC completed the construction of 500 kV high-voltage power transmission lines of Ekibastuz - Shulbinskaya HEPP (Semey). This is the first part of the project for electricity transit in the North-East-South direction. The completion of the project for construction of a transit main, which will also pass through Aktogay and Taldykorgan to Alma substation, with a length of 700 km (500 and 220 kV overhead lines) and costing 120 KZT bln, is expected in 2018.

MARKET DEVELOPMENT PROSPECTS

The positive dynamics outlined in the energy sector of the Republic of Kazakhstan will continue in 2017. The economic growth resulted from increase in production in the mining and manufacturing sectors of industry, as well as in transport, will lead to increase in the electric energy production and consumption.

According to the power balance of the UES of Kazakhstan approved by the Ministry of Energy of Kazakhstan in October 2016, electricity production will amount to 103.9 bln kWh in 2017 (+10.4% compared to the actual figure of 2016). In the long term until 2023, production will grow from 103.9 to 113.4 bln kWh. After 2016, the growth will be affected by newly introduced energy sources, which will generate 19% of the output in 2023. Generation of electric energy by renewable sources will grow from 1.4 to 5.6 bln kWh.

In the next 6 years, the total installed capacity in the energy system of Kazakhstan will grow by 2.2% (from 22,346 to 22,832 MW), the available capacity - by 6.0% - from 18,638 to 18,756 MW.

PERFORMANCE AND DEVELOPMENT PROSPECTS OVERVIEW

As part of the Investment Program, in 2016 the Corporation continued implementing a number of large-scaled equipment modernization projects with the aim to increase generation, reduce electricity and heat transmission losses and improve environmental performance. In 2016, the Corporation intended to allocate 24 KZT bln for implementing the Investment Program. In fact, the amount of 25.9 KZT bln was allocated to projects due to the completion of works planned for 2015 and increase in the cost of equipment and materials purchased.

OUTCOMES OF THE INVESTMENT PROGRAM FOR 2009-2016

PAVLODAR CHP-3 OF PAVLODARENERGO JSC

is the largest energy generating asset of CAEPCO JSC with the installed electric capacity of 540 MW. Pavlodar CHP-3 provides electric energy to industrial enterprises, local service facilities and households of the city. The plant is one of the most modern in Kazakhstan: since 2009, energy generating facilities of the plant have been upgraded by 70.4%. Modernization of the plant will continue until 2020.

2011 – 2012

A new turbine unit No. 1 was installed, due to which the installed electric capacity of the plant increased from 440 to 505 MW. The new turbine was equipped with an automated process control system (APCS), which provided a possibility to introduce a cost-saving and safe operating mode, maintain automatically the specified steam and district heating parameters, and control equipment temperature conditions and specified load at a stable level.

2012

A boiler No. 1 was commissioned after replacement with the installation of automated process control and NOx emission reduction systems.

2014

A turbine unit No. 5 was put into operation thereby increasing the installed electric capacity by 15 MW - from 505 to 520 MW. Modernization of a boiler No. 3 by installing the automated process control and NOx emission reduction systems was completed. The project implementation allowed the company to reduce nitrogen oxide concentrations to values not exceeding the standard limits and to decrease significantly environmental emission payments.

2015

A new turbine unit No. 2 and turbine unit No. 4 were put into operation, which allowed increasing the installed electric capacity from 520 to 540 MW. In summer 2015, a new cooling tower No. 5 was put into operation. Implementation of a complex of measures allowed the company to increase the available electric capacity at CHP-3 and electrical load during the summer period due to the improvement of vacuum efficiency in the plant turbine condensers.

In 2015, a boiler No. 2 was modernized by installing the APCS.

2016

The plant started implementing the project for modernization of a turbine unit No. 6 through increasing the installed electric capacity by 15 MW. In the reporting year, a turbine, generator and auxiliary equipment were supplied. Completion of work is expected in 2018.

In 2016, a boiler unit No. 5 was equipped with an automated process control system (APCS), which would allow maintaining cost-efficient and safe operation and the specified parameters in an automatic mode.

The arrangement of the second section of the ash dump at CHP-3 was almost completed. This was one of measures aimed to ensure the continuity of the plant's technological cycle and storage of ash and slag wastes during a period of 25 years.

PAVLODAR CHP-2 OF PAVLODARENERGO JSC

The installed electric capacity is 110 MW. Pavlodar CHP-2 provides electric energy to industrial enterprises, local service facilities and households of the city. The plant is one of the best in Kazakhstan in terms of using the installed electric capacity during the heating season - 93%.

2011

Boiler No. 1 was upgraded by replacing a drum, which allowed increasing the fleet life and reliability of the boiler operation.

2012

New cooling tower No. 2 was put into operation, which provided a possibility to remove the restriction on electric energy generation in the condensation mode during the summer period.

2016

The construction of the second section of the ash dump at CHP-2 was almost completed. This was one of measures aimed to ensure the continuity of the plant's technological cycle and storage of ash and slag wastes during a period of 25 years.

EKIBASTUZ CHP OF PAVLODARENERGO JSC

The installed electric capacity is 12 MW. Ekibastuz CHP is the only heat supply source in Ekibastuz. In 2016, the plant celebrated its 60th anniversary and is the oldest enterprise of the Corporation.

2009

Turbine No. 1 was put into operation at Ekibastuz CHP with the aim to produce electricity through heat consumption with the installed electric capacity of 12 MW, which allowed using the generated electricity for the plant's own needs.

2014

Boiler No. 6 was commissioned after replacement as a result of which the steam capacity increased by 15 tons per hour.

2016

With the aim to ensure the continuity of the plant's technological cycle and storage of ash and slag wastes for a period of up to 25 years, works were carried out for the construction of the second section of the ash dump at Ekibastuz CHP in the Tuz Lake bed.

PETROPAVLOVSK CHP-2 OF SEVKAZENERGO JSC

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

2012

Boiler units No. 6 and No. 7 were modernized by increasing the steam capacity of each boiler by 50 tons per hour, thereby reducing the steam deficit and increasing the plant reliability.

2013

The project for reconstruction and modernization of a turbine unit No. 4 was completed with a twofold increase in the turbine capacity; a turbine unit No. 6 was upgraded with an increase in electric capacity by 24 MW. The implementation of two projects resulted in increase in the installed electric capacity by 54 MW.

2014

New boiler No. 8 was installed. As a result, the steam capacity increased by 50 tons per hour, thereby reducing the steam deficit and increasing the plant reliability.

2015

Turbine unit No. 1 was put into operation, which allowed increasing its installed electric capacity by 21 MW. A turbine unit No. 7 was reconstructed, which provided a possibility to increase its installed and available capacity by 24 MW. The installation of new equipment allowed the plant to increase its installed electric capacity by 45 MW - from 434 to 479 MW.

2016

Upgraded turbine unit No. 5 was put into operation, as a result of which electric capacity increased by 62 MW. A reconstructed boiler No. 12 was put into operation with an increase in steam capacity of 50 tons per hour, which completely eliminated the steam deficit and increased the reliability of the plant.

The implemented projects provided a possibility to raise the equipment reliability and performance and reduce emissions of harmful substances in the atmosphere. As part of the Investment Program, in order to improve the environmental performance, the Corporation reconstructed fly ash collectors (FAC) by installing battery emulsifiers of the second generation at all boilers of its plants, as a result of which atmospheric ash emissions reduced 4 times.

In the period of 2009 - 2016, the Corporation reduced the concentration of ash emissions by 72%. In 2016, the concentration of ash, nitrogen oxide and sulphur in atmospheric emissions from enterprises of CAEPCO JSC amounted to 304, 447 and 1374 mg/nm3, respectively (at the end of 2008, before the launch of the Investment Program the indicators were 1093, 678 and 1425 mg/nm3, respectively).

During 2009-2014, titanium emulsifiers of the second generation were installed at all boilers at the stations of PAVLODARENERGO JSC and at Petropavlovsk CHP-2 of SEVKAZENERGO JSC. The implemented measures allowed increasing the degree of flue gas purification and ensured the reduction in the amount of environmental payments.

GENERATION INCREASE

In 2016, the Corporation increased the electric energy output by 7.8% (to 7,037 mln kWh relative to 2015) and heat energy output by 3.2% (to 6,472 thous. Gcal relative to the actual figure of 2015), due to increase in the heat energy volume supplied to consumers of PAVLODARENERGO JSC in the form of hot water

The increase in output in 2016 was affected by the commissioning of two turbine units at Pavlodar CHP-3 in June and November 2015, and three turbine units at Petropavlovsk CHP-2 in September, October 2015 and December 2016.

In 2016, specialists of CHP-3 of PAVLODARENERGO JSC started the reconstruction of a turbo unit No. 6 to increase the installed electric capacity from 110 to 125 MW. Completion of works and commissioning of the turbine unit are expected in 2018.

In 2016, a boiler unit No. 5 of Pavlodar CHP-3 was equipped with an automated process control system (APCS), which allowed the company to increase the number of boilers equipped with the APCS to 4 out of 6.

A project was implemented at CHP-2 of SEVKAZENERGO JSC to upgrade a new turbine unit No. 5 with the aim to increase electric capacity from 33 to 95 MW. Besides, in 2016, a boiler No. 12 was put into operation, which allowed increasing the rated steam capacity from 220 to 270 tons per hour, which, in turn, increased the reliability and cost efficiency of the plant and eliminated the steam deficit.

CONSTRUCTION AND DEVELOPMENT OF ASH DUMPS

In 2016, according to the plan, works were performed to design the 2nd section of ash dumps at Pavlodar CHP-2 and Pavlodar CHP-3, and construction of the 2-nd section of ash dump was continued at Ekibastuz CHP. In fact, the following works were performed at Pavlodar CHP-2 and Pavlodar CHP-3: construction of access roads, lighting, drilling of monitoring wells, construction and finishing works at drain water pumping stations, reconstruction of clarified water pumping stations by replacing electrical and technological equipment, commencement of construction of drain pavilions.

In 2016, works were performed to construct the 2nd section of the ash dump at Ekibastuz CHP in the Tuz Lake bed and build-up dams of the 2nd section of the ash dump at Pavlodar CHP-3, which was required to increase the accumulating capacity of the existing ash dump before the construction of the 3d section of the ash dump at CHP-3 for the purpose of organizing the storage of ash and slag wastes generated during the plant's production operation.

With the aim to reduce a negative environmental impact and achieve environmental protection goals, new ash dumps were constructed in Pavlodar city using a modern and technological method for groundwater protection: the bed and protective dams of ash storage facilities are covered with a Canadian geomembrane film resistant to mechanical damage and temperature fluctuations, which provides durability, long service life and environmental safety. In addition, draining, beach irrigation and circulating water supply systems are also provided.

ELECTRICITY TRANSMISSION

CAEPCO JSC implements measures on an ongoing basis to reduce electrical and heat energy losses during transportation and transmission as well as to improve the reliability of energy supply to consumers. In 2014, CAEPCO JSC eliminated completely excess losses in its electric networks and reduced the value of technical losses due to the introduction of household consumption ASCAEP and reconstruction of 0.4 kV OHL using self-supporting insulated conductor aimed at energy saving.

In 2016, technical losses in PAVLODARENERGO JSC were reduced from 8.69% to 8.52%, in SEVKAZENERGO JSC - from 9.8% to 9.1%, in AEDC JSC - from 5.3% to 5.1%.

As part of the action plan aimed to reduce losses in the electric networks of CAEPCO JSC, for the period of 2011 to 2016 consumers' induction meters were replaced with electronic ones in the amount of 58,127 devices and measures were taken to replace 932,217 km of bare wire with self-supporting insulated conductor.

In 2016, distribution companies of CAEPCO JSC implemented measures for reconstruction of 24 km of 110–35 kV overhead power lines along with 176.175 km of 0.4-10 kV overhead and cable power lines, including North-Kazakhstan REDC JSC - 61.65 km, including 46.15 km of self-supporting insulated conductor; AEDC JSC - 73.02 km , PREDC JSC - 41.505 km; construction and reconstruction of 35-110 kV overhead lines with a total length of 24 km (AEDC JSC); reconstruction of 13 10-220 kV substations, including 2 substation - North-Kazakhstan REDC JSC and 11 substations - AEDC JSC.

In 2016, the construction of 220 kV outdoor switch-gear (OSG) at Promyshlennaya substation owned by Pavlodar REDC JSC was continued. The project was aimed to increase the reliability of Pavlodar electric generating system and strengthen its connection with the Unified Energy System (UES) of Kazakhstan. The commissioning of a new OSG and closure of Pavlodar energy circuit are planned for the IV quarter of 2017.

For the purpose of expanding the current capacity of power transmission lines, specialists of PAVLODARENERGO JSC replaced the existing steel-aluminum wire AC-185 with a high-temperature aluminum reinforced composite wire ACCR 373-T13 with a total length of 7.21 km. The new wire has mechanical and strength characteristics that allow transmitting power 2-3 times more.

Reconstruction of cells and relay protection and automation equipment of 110 kV PTL No. 151-154,157 was carried out at 220/110 kV Promyshlennaya substation, including the replacement of existing oil circuit breakers with SF6 circuit breakers with heavy breaking current.

In 2014, North-Kazakhstan REDC JSC became the first company in Kazakhstan to install vacuum circuit-breakers at substation cells. During the period from 2014 to 2016, seven oil circuit breakers were replaced with vacuum VRS-110 kV breakers, which allowed not only increasing the reliability of power supply to consumers in a number of regions of North Kazakhstan region and Petropavlovsk, but also reducing operating costs related to constant repair of oil circuit breakers.

In 2016, within the framework of cooperation between AEDC JSC and the Asian Development Bank, a project was developed for the construction of a 110 kV OHL at the nuclear heat and power plant-2 - Promzona. In September 2016, the design and estimate documentation for the first stage of construction of 3,7-km section passed state expertise. The project implementation is expected in 2017. A composite core wire, which has increased throughput, reduced technical losses parameters and a low degree of ice formation, will be used for the first time during the OHL construction in Astana. The use of this unique wire will provide a possibility to increase the reliability of electricity supply to the old administrative center in the city of Astana.

HEAT TRANSMISSION

The main measures taken to reduce heat losses are aimed at reconstruction and modernization of district heating networks in Pavlodar, Ekibastuz and Petropavlovsk. The project is implemented as part of the Investment Program of CAEPCO JSC for 2016 - 2020 financed both at the expense of own funds and by raising a new investment loan from the EBRD and budgetary subsidies from the Ministry of National Economy of the Republic of Kazakhstan under Nurly Zhol program. The project is aimed at increasing the heat supply reliability, energy efficiency, reducing losses and improving environmental standards through CO2 emissions reduction due to coal consumption saving resulted from reduction of heat losses during transmission over networks. in 2016, a total of 11.31 km of heat networks were reconstructed in the cities of Pavlodar, Ekibastuz and Petropavlovsk: A 5.55 km pipeline section was replaced with pre-insulated pipes, and heat insulation was restored using PU foam coating on 5.76 km of pipelines.

The works included the replacement of pipelines of the existing heating mains with pre-insulated large diameter (630-1020 mm) pipes coated with polyurethane foam (PU foam pipes). Increase in the pipe diameter allows stable heat supplying to all parts of the city.

Polyurethane foam coating on new pipes with a larger diameter reduces heat losses and significantly extends the pipeline service life up to 50 years. This technology is successfully used in many near and far abroad countries. A great advantage of this technology is high heat insulation performance, which ensures reduction in heat losses during the transportation of heat energy.

Automatic heat flow regulators, industrial controllers and modems are installed at heat-transferring enterprises of the Corporation to connect their mechanisms and instrumentation with the dispatch service. All equipment installed at heat supply stations is integrated into a single network, which allows dispatchers to monitor promptly the hydraulic and temperature conditions, and specialists - to make urgent decisions in extraordinary and emergency situations.

In addition, the Corporation uses advanced technologies to detect heat loss sources: thermal imaging devices to monitor and diagnose trunk pipelines, and ultrasonic flaw detectors. The implementation of all the above stated measures will allow reducing overall heat losses in the networks by 9.1% by the end of 2020 as compared to 2015.

PROCESS AUTOMATION

In 2016, a project was launched at Pavlodar CHP-3 for introduction of an information-computing software complex (ICSC). The pilot project is aimed to improve economic efficiency by optimizing the composition and operating mode of the plant as well as to automate labor-intensive calculations. In December of the reporting year, the pilot operation of the system was launched, which will allow upgrading the station's software and hardware in the future. In the future, it is planned to expand the scope of ICSC application by introducing the complex at all facilities of the holding.

CUSTOMER AFFAIRS IN 2016

The following companies are major consumers of electric and heat energy: KSP-Steel LLP, POCR LLP, Caustik JSC, KazTransOil JSC, Format Plant LLP, Yertys Service LLP, Nephtechim Company LTD, ZIKSTO JSC, PPHMB JSC, South-Ural Railway. Services are rendered to the population, small and medium-sized businesses and stated-funded organizations in compliance with the service quality requirements stated by state authorities within their competence and taking into account tariffs approved by an authorized state body.

The number of consumers in regions is 748,544 people (electric energy) and 460,408 people (heat energy). In 2016, services to retail customers were provided through the following three communication channels: direct, remote and interactive servicing.

Direct servicing is carried out on the extraterritorial principle in 62 offices and customer service centers:

- in the territory of Astana - 8;
- in the territory of Pavlodar and Ekibastuz - 7;
- in the territory of Petropavlovsk city and North-Kazakhstan region - 15;
- in the territory of Akmola region - 32.

Remote telephone servicing is provided through contact centers in Pavlodar, Ekibastuz and Petropavlovsk cities, in Akmola region and in Astana city, where consumers call to customer service offices and service centers phone numbers, or to the «helpline» number. The main function of such centers is to serve consumers by a multi-channel phone while recording the calls with the aim to control the service quality. The customer service quality is improved through monitoring of customers' electronic requests.

Interactive servicing is provided through corporate web-sites of subsidiaries in the territory

- of Astana city – www.astanaenergosbyt.kz
- in the territory of Pavlodar and Ekibastuz – www.pavlodarenergo.kz There is also a possibility to apply to the personal blog of General Director, which is functioning on the «question-answer» principle.
- in the territory of Petropavlovsk - www.sevkazenergo.kz
- in the territory of Akmola region - www.arek.kz

The Corporation's subsidiaries involved directly in working with consumers and the public keep records of grievances and applications in the following ways:

via the "helpline"

by registering grievances from individuals and legal entities in special logs

by keeping audio records with data preservation within 30 days (all consumers' applications are considered, after which written answers are sent and measures are taken)

by holding public hearings with citizens of the city with the participation of mass media (local TV channels) and publishing the information in the local press prior to implementing the project for modernization and reconstruction of power facilities

through consumer questioning with the aim to find out the level of satisfaction/dissatisfaction with the work of the Customer Service Center (CSC) staff

through daily receipt of consumers' grievances about insufficient heat supply by phone and in writing

official corporate web-sites have the following sections used to improve grievance mechanisms: "Consumer Relations Headquarters", "Anti-corruption hot line", "Question-answer", "Feedback". These sections address external stakeholders' grievances published in mass media, on web-blogs of akimats of cities and regions and obtained through monitoring the information field in the external environment.

FINANCIAL AND ECONOMIC INDICATORS

The consolidated financial statements of the Corporation for 2016 were prepared in accordance with the International Financial Reporting Standards and include statements of subsidiaries only from the date of their acquisition. Accounting policies are applied to all enterprises of the Corporation on a uniform basis. The key financial and economic indicators of the Corporation demonstrate the effectiveness and efficiency of operational and financial activities, as well as its performance in line with the primary areas of its strategic development.

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

INDICATORS	2014	2015	2016
Operating income	107 783	107 932	122 123
Cost including period expenses	(91 996)	(93 816)	(103 130)
Profit from operating activities	15 787	14 116	18 993
Total EBITDA for the year*	24 034	24 885*	31 263*
Total EBITDA for the year, margin in %	22,3%	23,1%	25,6%
Income tax expenses	(3 603)	727	(3 547)
Net profit for the year	10 982	(7 614)	11 264
Assets	254 030	279 131	287 221
Capital	139 871	129 622	140 835
Capital expenditures for fixed assets	33 982	32 441	22 620

* Total EBITDA is stated excluding the effect of the exchange rate difference

REVENUE FROM SALES OF PRODUCTS/SERVICES

At the end of 2016, electricity and heat energy generated by the Corporation, including the transmission and sales of purchased energy, amounted to 122,123 KZT mln, which was 13% higher than the indicator of 2015 due to increase in the volume of electricity supplied to the wholesale market from the Corporation's own power plants, and 4.9% growth in consumption in the retail sector. The dominant factors affecting the level of income from sales in 2016 compared to the previous period are as follows:

- sales of electric energy increased by 7,006 KZT mln or 11% as compared to the level of 2015 due to increase in generation of the Corporation's own electric energy by 507.4 mln kWh (7.8%) as a result of commissioning of new generating capacities under the Investment Program and positive dynamics of consumers' demand (expanding the boundaries of the existing market).
- Revenues from transmission of electric energy increased by 2,880 KZT mln or 15% due to the growth in energy transportation volumes by 2.1% and increase in transmission tariffs, including Pavlodar REDC JSC - by 16%, North-Kazakhstan REDC JSC - by 6% and Akmola EDC - by 13%.
- Revenues from transmission of heat energy increased by 1,237 KZT mln or 23% due to increase in transmission tariffs, including Pavlodar Heat Networks LLP - by 18% in Pavlodar and 35% in Ekibastuz, Petropavlovsk Heat Networks LLP - by 22%.
- Revenues from sales of heat energy, taking into account the marketing margin, increased by 3,068 KZT mln or 15% due to increase in tariffs for generation and a selling tariff of retail companies by 6% as a whole, as well as the growth of commercial sales of heat energy by 347 thous. Gcal or 3.4% due to the commissioning of EXPO-2017 facilities.

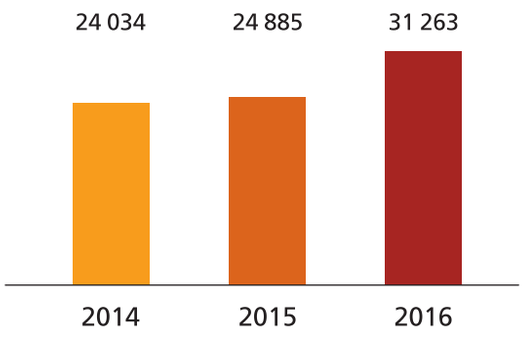
COST OF GOODS/SERVICES SOLD

The cost of electrical and heat energy sold in 2015 amounted to 93,198 KZT mln having increased by 9,054 KZT mln or 11% compared to 2015 due to increase in operating costs under such items as «Purchased energy taking into account transmission», «Fuel», «Depreciation and amortisation», «Remuneration» and others. The dominating relative share (43%) in the cost structure of the Corporation is taken by the costs of purchased energy, taking into account services related to its further sale to consumers. In 2016, these costs decreased by 4,745 KZT mln or 14% due to reduction in-house electric power supply by 10% and increase in costs for purchased energy transmission. The growth of electric power production by 507.4 mln kWh 7.8% affected the increase in consumption of natural coal by 414 thous. tons or 6.9%; increase under the "Fuel" item amounted to 2,085 KZT mln or 14.2%. Expenses for production services increased by 1,108 KZT mln or 11.6% as a result of increase in labor costs by 900 KZT mln or 9.5%, due to annual indexation and increase in the number of employees. Amortization deductions increased by 900 KZT mln due commissioning of fixed assets in 2016 for a total amount of 22,190 KZT mln.

TOTAL EBITDA DYNAMICS

The EBITDA figure for 2016, excluding exchange rate losses, amounted to 31,263 KZT mln, having increased by 6,378 KZT mln or 25.6% as compared to 2015. The main factors affecting the operating performance growth are increase in tariffs for heat energy, including generation - by 17% and 10% (Pavlodar and Petropavlovsk, respectively), transmission - by 18% and 22% (Pavlodar and Petropavlovsk, respectively), sales - by 7%, 16% and 2% (Pavlodar, Petropavlovsk and Astana, respectively) and increase in sales of own-produced electric energy due to increase in demand at the retail market by 4.9% and commissioning of new generating capacities.

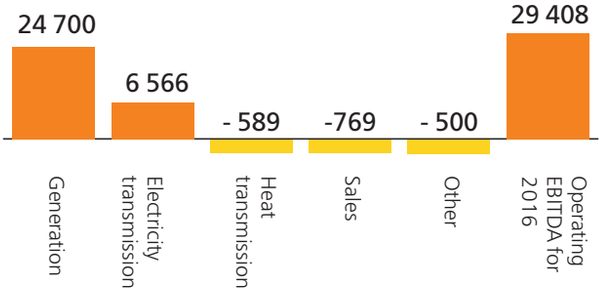
Total EBITDA for the year, KZT mln



* Total EBITDA is stated excluding the effect of the exchange rate difference

Operating EBITDA has been chosen as a basic indicator in the evaluation of the Corporation's production performance. This performance indicator does not take into account other income, finance income, non-monetary component of exchange rate liabilities, depreciation, amortization and non-recurrent or non-permanent items that do not affect the primary production activities of the Corporation. The Corporation's operating EBITDA for 2016 amounted to 29,408 KZT mln, having increased by 5,869 KZT mln or 24.9% compared to 2015. A leading (primary) margin segment in the operating EBITDA structure is accounted for electricity and heat production (24,700 KZT mln), which increased in 2016 by 1,162 KZT mln or 4.9% due to the growth of electricity generation by 507.4 mln kWh or 7.8%, the efficient operation of introduced capacities as well as increase in tariffs for generation, transmission, sale of heat energy and transmission of electricity.

Operating EBITDA by segments, KZT mln



DYNAMICS OF NET INCOME/LOSS

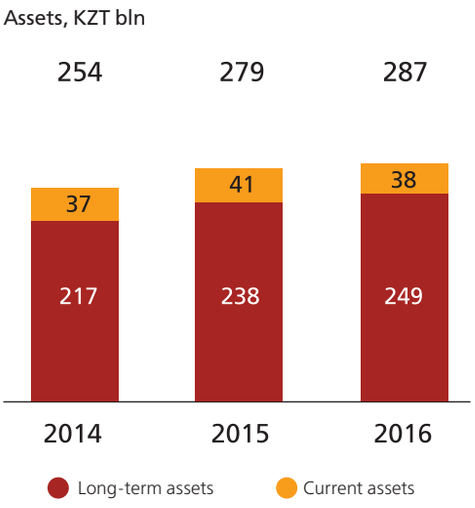
Profit from operating activities for 2016 amounted to 18,993 KZT mln (15.6% margin to sales income), having increased by 4,876 KZT mln due to increase in sales income by 14,190 KZT mln or 13.1%. Net financial expenses increased by 2,472 KZT mln or 86.6% due to accrual of interest on investment loans as a result of completion of interest expenses capitalization for commissioned facilities as well as due to increase in the interest rate on loans denominated in the national currency. Net profit for 2016 amounted to 11,264 KZT mln. As compared to 2015, this indicator increased significantly (18,878 KZT mln), which is explained by exchange rate losses incurred by the Corporation in 2015 due to tenge devaluation.

Financial and economic indicators by segments for 2016, KZT mln						
Indicators	Production of electric and heat energy	Transmission and distribution of electric energy	Transmission and distribution of heat energy	Sales of electric and heat energy	Other	Total
Operating income	53 026	21 544	6 660	40 881	12	**122 123**
Cost	(33 616)	(15 370)	(6 042)	(38 092)	(77)	**(93 197)**
Gross profit	19 410	6 174	618	2 789	(65)	**28 926**
Period expenses	(1 608)	(2 109)	(2 071)	(3 659)	(486)	**(9 933)**
Profit from operating activities	17 802	4 065	(1 453)	(870)	(551)	**18 993**
Financial expenses	(4 055)	(472)	(231)	(494)	(75)	**(5 327)**
Exchange gain	174	64	56	(12)	121	**404**
Other income	369	(4)	35	463	(121)	**741**
Income tax expenses	(3 071)	(804)	233	115	(21)	**(3 547)**
Net profit for the year	11 219	2 850	(1 359)	(798)	(648)	**11 264**
Operating EBITDA by segments	24 700	6 566	(589)	(769)	(500)	**29 408**

ASSETS AND LIABILITIES

As of December 31, 2016, the total assets of the Corporation amounted to 287,221 KZT mln, which was 3% higher as compared to 2015. As of December 31, 2015, the value of fixed assets amounted to 240,349 KZT mln or 84% of the total assets. In 2016, as part of the large-scaled Investment Program, the amount of 22,620 KZT mln was allocated to unfinished construction and acquisition of fixed assets; the value of new and reconstructed facilities of the current period and carried forward from previous years was equal to 22, 190 KZT mln.

In particular, this was caused by the commissioning of a new turbine unit No. 5 and a modernized boiler No. 12 at Petropavlovsk CHP-2 in December 2016, and a boiler No. 5 at Pavlodar CHP-3 in November 2016. Besides, the second section of ash dumps of Pavlodar CHP-2, Pavlodar CHP-3 and Ekibastuz CHP is under construction.



Other financial assets are represented by deposits with flexible conditions of partial replenishment and withdrawal in the amount of 10,251 KZT mln - these are funds accumulated by the Corporation for loan servicing, financing the Investment Program and maintaining the working capital.

The Corporation's authorized capital is composed of 50 mln ordinary shares. As of December 31, 2016, the fully paid ordinary shares amounted to 46,043 KZT mln.

The Corporation placed its coupon commercial bonds for a total amount of 800 KZT mln at a par value of 100 tenge and an indexed interest rate of 13-13.5%, with a condition of semi-annual coupon payments and 1-year maturity for current assets, including: PAVLODARENERGO JSC in the amount of 400 KZT mln with maturity on November 7, 2017 and bonds of SEVKAZENERGO JSC in the amount of 400 KZT mln with maturity on November 21, 2017. These funds were spent to finance the Investment Program and development projects in accordance with the Company's strategy. Long-term loans are mostly composed of loans granted by the EBRD and ADB to finance the long-term Investment Program for reconstruction and modernisation of the Group's assets.

At the end of the reporting year, the total financial debt amounted to 86,168 KZT mln, while the Corporation maintained its financial stability.

CASH FLOW

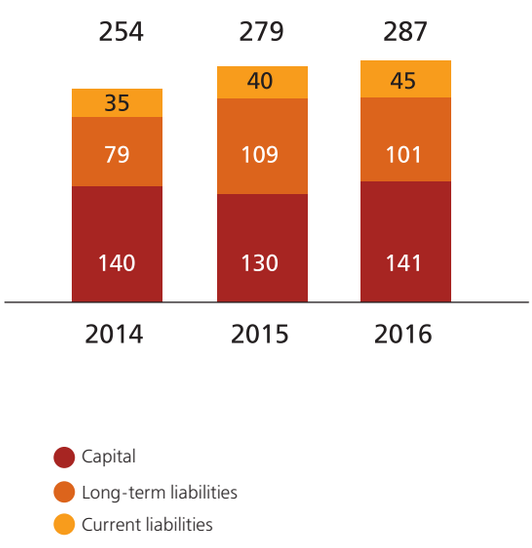
In 2016, there was a trend of increasing cash flows from operating activities, which was caused by increase in sales volumes and tariffs for generation, transmission and sale of heat energy and transmission of electricity. Net inflow from operating activities, taking into account the effect of exchange rate fluctuations on cash balances in foreign currency, amounted to 25,414 KZT mln. Changes in the working capital are associated with increase in trade receivables.

Decrease in accounts payable related mainly to large deliveries under the Investment Program, resulted in reduction in the working capital.

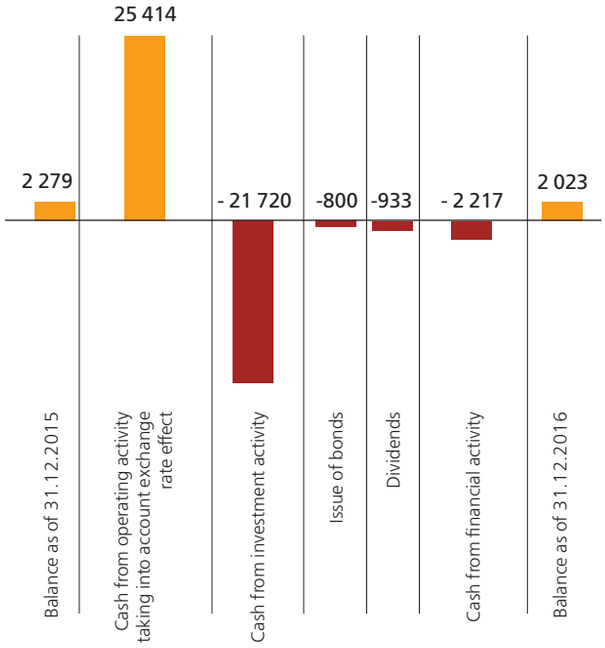
The most significant cash outflows from investment activities in the amount of 26,922 KZT mln are associated with implementing the Investment Program in the current period as well as with payment of debt for facilities completed in 2015. The total cash outflow from investment activities amounted to 21,720 KZT mln.

At the year-end, cash and deposits amounted to 12,260 KZT mln. A sufficient cash reserve allows the Corporation to maintain the required level of its internal resources for debt servicing.

Liabilities, KZT bln



Cash flow, KZT mln



MAIN GOALS AND OBJECTIVES FOR 2017

As part of the Investment Program, in 2017 the Corporation will continue implementing a number of large-scaled equipment modernization projects with the aim to increase generation, reduce electricity and heat transmission losses and improve environmental performance.

In 2017, the Corporation intends to increase electricity generation by 7% relative to the figure of 2016 (up to 7,526 mln kWh) and heat energy output by 0.1% against the level of 2016 (up to 6,477 thous. Gcal), which is associated with the planned volumes of heat energy supply to consumers.

In 2017, the Corporation intends to allocate 26.3 KZT bln for implementing the Investment Program.

CHP-3 of PAVLODARENERGO JSC will continue the reconstruction of a turbine unit No. 6 with an increase in the installed electric capacity from 110 to 125 MW. Completion of works and commissioning of the turbine unit are expected in 2018.

It is planned to perform works at Pavlodar CHP-3 to equip a boiler No. 4 with an automated process control system (APCS), which will allow the company to increase the number of boilers equipped with the APCS up to 5 out of 6.

In 2017, it is planned to complete the construction (installation) of the second section and commence the construction of the third section of ash dumps at Pavlodar CHP-2, CHP-3, which will be completed in 2020-2021. In addition, the construction of the ash dump at Ekibastuz CHP will be continued and the works are expected to complete in 2018.

According to the plan, a project will be implemented at Petropavlovsk CHP-2 of SEVKAZENERGO JSC to modernize and equip a turbine unit No. 2 with the APCS. In addition, it is planned to perform works in 2017 for reconstruction of the unloading device with the aim to increase its productivity and coal unloading rate.

Within the framework of investment programs the following is planned for 2017:

- construction, reconstruction and technical re-equipment of 0.4-10 kV electric networks with a total length of 217.909 km, including North-Kazakhstan REDC JSC - 104 km, including 89 km of self-supporting insulated conductor, 71.244 km - AEDC JSC, 42,665 km - PREDC JSC;
- construction and reconstruction of 35-110 kV overhead lines with a total length of 468.12 km, including 54.5 km - PREDC JSC, 409.62 km - AEDC JSC;
- reconstruction of 16 10-220 kV substations, including 4 substations - PREDC JSC, 1 substation - North-Kazakhstan REDC JSC, 11 substations - AEDC JSC.
- in 2017, the Corporation will continue construction and reconstruction of heat pipelines using pre-insulated pipes with a length of 32.56 km, including: Pavlodar - 3,4 km, Ekibastuz - 21,8 km, Petropavlovsk - 7,36 km, as well as insulation restoration using PU foam coating on pipelines with a length of 6.74 km, including: Pavlodar - 1.03 km, Ekibastuz city - 4.01 km, Petropavlovsk - 1.7 km.

PROSPECTS OF THE 2020 INVESTMENT PROGRAM

CAEPCO JSC implements one of the most large-scale investment programs among the electric power industry enterprises of Kazakhstan in terms of the volume of capital investments in the renovation and reconstruction of production facilities. The planned volume of the Company's investments for 2009-2020 amounts to 192 KZT bln. Within the framework of the Investment Program, activities are carried out in the following three areas:

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

The main activities under the Investment Program were completed in the period of 2009 - 2015. Thanks to the modernization projects, capacities were introduced and upgraded in the volume of 566 MW, the installed capacity increased by 23%, electricity and heat generation grew by 21% and 5%, respectively, while ash emissions decreased by 72%.

In the reporting year, CAEPCO JSC adopted a new Development Strategy for 2016-2020. The adopted document develops and complements the areas of the 2010-2015 Strategy, which has been successfully and fully implemented. Pursuant to the 2016-2020 Strategy, the Corporation will continue implementing the Investment Program for equipment modernization aimed to increase energy generation, reduce electricity and heat transmission losses and improve environmental performance. In addition, the Corporation will continue working to improve the corporate governance system and the human resources policy, and introduce an automated enterprise resource management system.

Due to the main equipment modernization and replacement the growth planned for the period of 2016-2020 will be as follows:

- installed electric capacity - 77 MW or 6.7%;
- installed heat capacity - 63 Gcal/h or 2.2%;
- electric energy generation - 564.8 mln kWh or 8.0%.

A complex of measures will be implemented to reduce electricity and heat energy transmission losses as well as to increase reliability of energy supply to consumers. For the period of 2016-2020 the total heat energy losses in the networks is expected to reduce by 11.6%.

For the period 2016–2020

Within the framework of the Investment Program, activities are carried out in the following three areas:

increase in generation

energy saving, including reduction of electricity and heat transmission losses

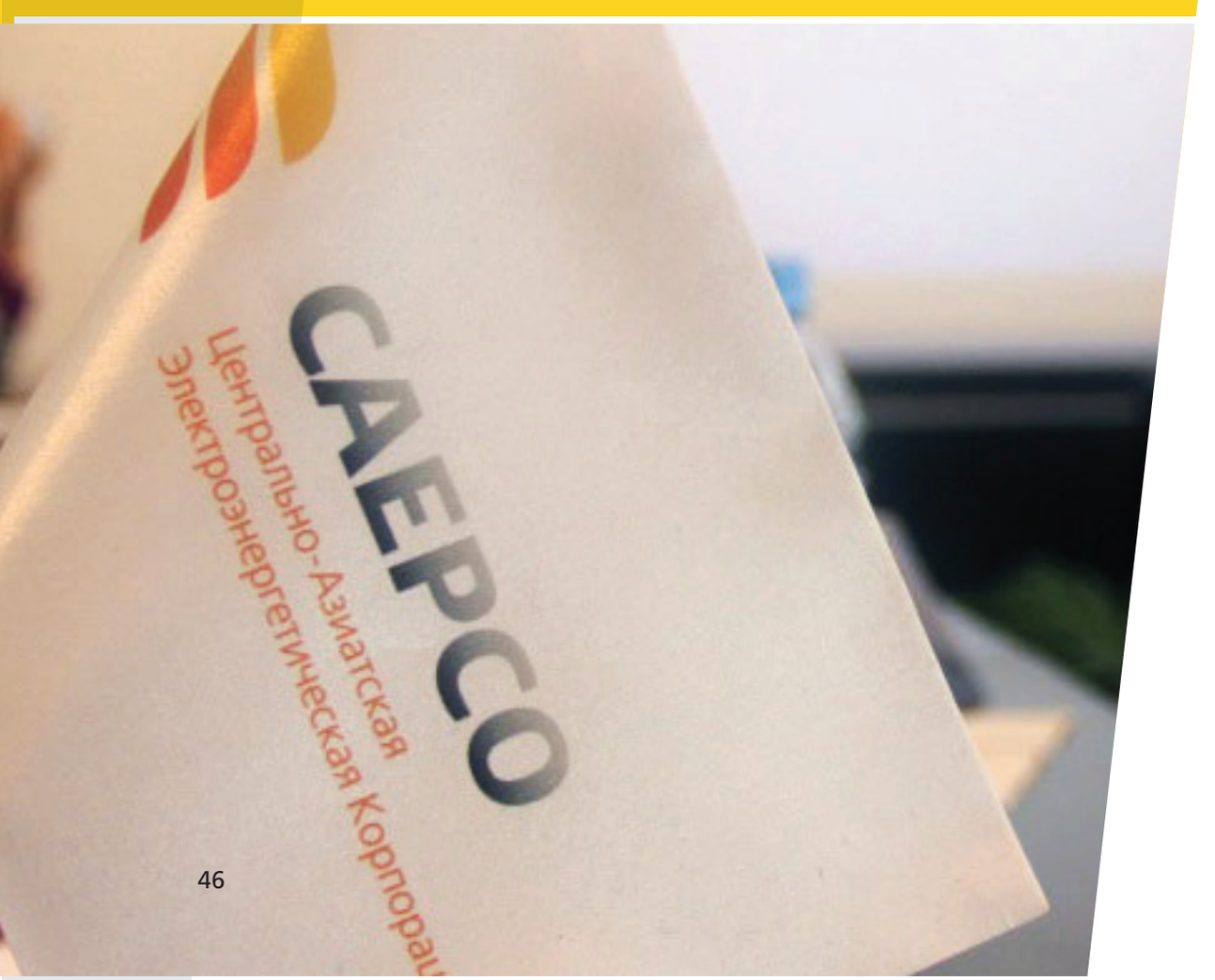
improvement of environmental performance during production

It is expected to reduce the total heat energy losses in the networks by

11,6%

CORPORATE GOVERNANCE

CAEPCO JSC has adopted an effective and transparent corporate governance system that meets the national and international standards. The corporate governance quality provides increase in the Corporation's investment attractiveness, implementation of strategic objectives and strengthening the internal control system. The corporate management system of CAEPCO JSC regulates the process of interaction between the management and internal control bodies of the Corporation, shareholders, other stakeholders, and ensures a balance of interests of all the persons listed.

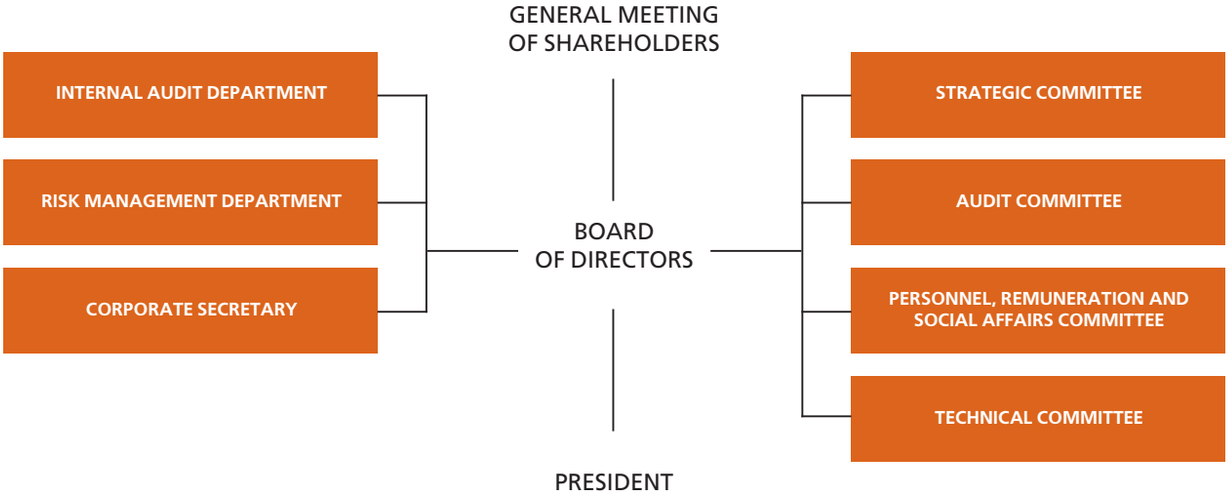


GENERAL MEETING OF SHAREHOLDERS

A superior management body of the Corporation is the General Meeting of Shareholders. The primary way for shareholders to exercise their rights stated in the Charter of the Corporation is to participate in annual meetings of shareholders as well as in extraordinary meetings initiated by the Board of Directors or the executive body.

Shareholders of the Corporation may make suggestions to the agenda of the annual General Meeting, nominate candidates to the Board of Directors and its Committees, and convene meetings of the Board of Directors.

ORGANIZATIONAL STRUCTURE



EQUITY STRUCTURE

As of December 31, 2016, the authorised share capital of CAEPCO JSC was equal to 46,043,272 KZT thous. The equity structure of CAEPCO JSC is as follows:

Central-Asian Power Energy Company JSC	59,65%
European Bank for Reconstruction and Development	22,61%
Kaz Holdings Cooperatief U.A.	10,49%
KIF ENERGY S.A. R.L.	4,35%
AO «Baiterek Venture Fund»	1,45%
CKIF ENERGY S.A. R.L.	1,45%

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RESULTS OF THE GENERAL MEETING OF SHAREHOLDERS

In 2016, the Corporation held one annual and one extraordinary General Meetings of Shareholders, at which the following key issues were addressed:

1. Approval of the annual consolidated financial statements of PAVLODARENERGO JSC for the fiscal year 2015.
2. Determination of the procedure for distribution of PAVLODARENERGO JSC net income for the fiscal year 2015 and the amount of a dividend per one ordinary share of the Corporation.
3. Addressing an issue of shareholders' appeals regarding actions of PAVLODARENERGO JSC and its executives as well as the results of consideration thereof.
4. Approval of the annual consolidated financial statements of SEVKAZENERGO JSC for the fiscal year 2015.
5. Determination of the procedure for distribution of SEVKAZENERGO JSC net income for the fiscal year 2015 and the amount of a dividend per one ordinary share of the Corporation.
6. Addressing an issue of shareholders' appeals regarding actions of SEVKAZENERGO JSC and its executives as well as the results of consideration thereof.
7. Approval of the annual consolidated financial statements of Akmola Electricity Distribution Company JSC for the fiscal year 2015.
8. Determination of the procedure for distribution of net income of Akmola Electricity Distribution Company JSC for the fiscal year 2015 and the amount of a dividend per one ordinary share of the Corporation.
9. Addressing an issue of shareholders' appeals regarding actions of Akmola Electricity Distribution Company JSC and its executives as well as the results of consideration thereof.
10. Approval of the annual financial statements of Astanaenergosbyt LLP for the year 2015.
11. Approval of the annual consolidated financial statements of CAEPCO JSC for the year 2015.
12. Determination of the procedure for distribution of CAEPCO JSC net income for the fiscal year 2015 and the amount of a dividend per one ordinary share of the Corporation.
13. Addressing an issue of shareholders' appeals regarding actions of CAEPCO JSC and its executives as well as the results of consideration thereof.
14. Choosing an audit organization to audit the financial statements of CAEPCO JSC and its subsidiaries based on the results of the year 2016;
15. Termination of powers of a member of the Board of Directors of CAEPCO JSC.
16. Election of a new member of the Board of Directors of CAEPCO JSC.
17. Determination of the amount and terms of payment of remuneration to the newly elected member of the Board of Directors of CAEPCO JSC.
18. Determination of the number of members of the Board of Directors of PAVLODARENERGO JSC.
19. Election of new members of the Board of Directors of PAVLODARENERGO JSC.
20. Determination of the amount and terms of payment of remuneration to the newly elected members of the Board of Directors of PAVLODARENERGO JSC.
21. Determination of the number of members of the Board of Directors of SEVKAZENERGO JSC.
22. Election of new members of the Board of Directors of SEVKAZENERGO JSC.
23. Determination of the amount and terms of payment of remuneration to the newly elected members of the Board of Directors of SEVKAZENERGO JSC.

INFORMATION ABOUT DIVIDENDS

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

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

- balance between the interests of the Corporation and its shareholders in determining the amount of dividend payment;
- improvement of investment attractiveness, financial stability, capitalization and liquidity of the Corporation;
- ensuring the market return on invested capital;
- respect for and strict observance of the rights of shareholders and improvement of their prosperity.

The Corporation intends to allocate a certain portion of its net income for payment of dividends in the amount that would allow the Corporation to keep enough funds for its further development. A decision on dividend payment is made by the annual General Meeting of Shareholders based on the recommendation of the Board of Directors. In case of any unforeseen circumstances that affect negatively the Corporation, the Board of Directors shall recommend the General Meeting of Shareholders to refrain from making a decision to pay (announce) dividends.

In 2016, following the results of the fiscal year 2015, the annual General Meeting of Shareholders decided not to pay dividends to shareholders of CAEPCO JSC.

EXECUTIVE BODY

The sole executive body of the Corporation is the President, who is in charge of managing the Corporation's day-to-day operations and implementing a strategy determined by the Board of Directors and shareholders. The President carries out activities in the best interests of shareholders and in compliance with the fundamental principles such as integrity, diligence, reasonableness and vigilance.

The amount of remuneration for the executive body is determined by the decision of the Board of Directors of CAEPCO JSC.

The President's remuneration is determined based on the following requirements:

- remuneration shall consist of fixed and variable parts;
- the variable part of remuneration depends on the President's key performance indicators, his/her qualification level and personal contribution to the Corporation's performance for a certain period, and is aimed to motivate the President to work in accordance with the highest quality standards;
- social benefits, guarantees and compensation payments to the President shall be made in accordance with the laws, internal regulations of the Corporation and the employment contract.

YERKYN AMIRKHANOV, THE PRESIDENT OF CAEPCO JSC

BRIEF BIOGRAPHY

Mr. Amirkhanov started his career at the Institute of Steel and Alloys (Moscow). Since 1997, he held senior positions at Kazkommertsbank JSC, Pavlodar Oil Refinery, Air Kazakhstan CJSC and Eximbank Kazakhstan JSC. Since April 2011 - the President of CAEPCO JSC.

Mr. Amirkhanov is a shareholder of Central-Asian Power Energy Company JSC comprising a group of companies in the energy, financial and other sectors of the economy. He is currently responsible for strategic management of enterprises within the holding.

Yerkyn Adamiyanovich Amirkhanov was awarded with Kurmet state order and commemorative medals in honor of the 10th anniversary of the city of Astana and the 20th anniversary of independence of the Republic of Kazakhstan.

BOARD OF DIRECTORS

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

With the aim to increase the transparency of the Corporation's activities, the Board of Directors is composed of 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 forms the agenda taking into account suggestions received from members and committees of the Board of Directors.

As of December 31, 2016, the Board of Directors of CAEPCO JSC has four committees:

- Strategic Committee;
- Audit Committee;
- Personnel, Remuneration and Social Affairs Committee;
- Technical Committee.

To achieve the performance goals, the Board of Directors is guided by the following principles:

- making decisions based on collective and thorough discussion of issues using reliable and complete information on the Corporation's activities in accordance with the highest business standards;
- non-admission of restrictions on legitimate interests and rights of shareholders to participate in the management of the Corporation, receive dividends, reports and information on the Corporation;
- ensuring a balance between the interests of shareholders of the Corporation and making maximally objective decisions in the best interests of its shareholders;
- providing the Corporation's shareholders with reliable and timely information.

The amount of remuneration payable to members of 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 2016 is 114.4 KZT mln.

COMMITTEES OF THE BOARD OF DIRECTORS PERFORMANCE OVERVIEW

The Audit Committee is a permanent working body of the Board of Directors. In 2016, it rendered assistance to the Board of Directors in effective performing its regulatory and supervisory functions, improving and strengthening the internal audit and risk management systems.

In 2016, the Committee held 4 meetings.

The Technical Committee is a permanent working body of the Board of Directors. In 2016, it provided actual participation of its members in the timely and effective monitoring of the Corporation's investment projects implementation.

In 2016, the Committee held 2 meetings.

The Strategic Committee is a permanent working body of the Board of Directors established to improve corporate governance, implement projects and monitor the implementation of the Corporation's strategy. In 2016, the Committee provided assistance to the Board of Directors in improving the Corporation's planning and business development mechanisms.

In 2016, the Committee held 1 meeting.

The Personnel, Remuneration and Social Affairs Committee was established to develop and implement a uniform human resources policy in the Corporation and its subsidiaries, elect or appoint candidates for the positions of the head and members of executive body of the Corporation and its subsidiaries, directors of the Internal Audit and Risk Management Departments, Corporate Secretary and other bodies and subsidiary units, as well as to form an effective corporate governance system and implement its principles.

In 2016, the Committee held 2 meetings.

MEMBERS OF THE BOARD OF DIRECTORS

ALEXANDR KLEBANOV (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

YERKYN AMIRKHANOV (1967)

Member of the Board of directors, President of the Corporation

President of CAEPCO JSC, member and shareholder of the BoD of CAPEC JSC

01.07.2001 – Chairman of the BoD of PAVLODARENERGO JSC;
30.06.2004 – Member of the BoD of Eximbank Kazakhstan JSC;
20.08.2007 – Member of the BoD of CAPEC JSC;
16.03.2009 – Member of the BoD of CAEPCO JSC;
28.05.2009 – Chairman of the BoD of Caustic JSC;
22.04.2011 – President of CAEPCO JSC;
25.10.2011 – Chairman of the BoD of SEVKAZENERGO JSC;
25.02.2013 – Chairman of the BoD of AEDC JSC;
13.11.2013 – Chairman of the BoD of NK REDC JSC;
20.01.2014 – Chairman of the BoD of PREDC JSC

GULNARA ARTAMBAYEVA (1969)

Member of the Board of directors

President of CAPEC JSC, members and shareholder of the BoD of CAPEC JSC

16.06.2000 – President of CAPEC JSC;
27.06.2002 – Member of the BoD of CAPEC JSC;
27.06.2002 – Member of the BoD of PAVLODARENERGO JSC;
07.10.2002 – Member of the BoD of PREDC JSC;
31.03.2004 – Member of the BoD of Eximbank Kazakhstan JSC;
27.04.2007 – Chairman of the BoD of CAPEC Invest SICAV;
16.03.2009 – Member of the BoD of CAEPCO JSC;
07.07.2011 – Chairman of the BoD of Astana Invest House;
22.02.2013 – Member of the BoD of SEVKAZENERGO JSC;
14.11.2014 – Member of the BoD of AEDC JSC

GRAHAM JOHN WOOD (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.

DEVARSHI DAS (1972)

Member of the Board of directors

Since April 2006 - Senior Director at Capital Advisor Partners PTE LTD (CapAsia); at the present time - Chief Co-Manager at CapAsia and Manager of Islamic Infrastructure Fund supervised by CapAsia;
16.07.2012 – Member of the BoD of CAEPCO JSC.

GENNADIY ANDREYEV (1943)

Member of the Board of directors, Independent Director since September 5, 2016.

Is not affiliated with CAEPCO JSC and has not been acting as such for the past three years.

1970–2015 – President of KazNIPI Energoprom;
2011–2015 – member of the Board of Directors of KazNIPI Energoprom;
2015 – to the present day – Honorary President of KazNIPI Energoprom

FRANZ-JOSEF KAISER (1949)

Member of the Board of directors, Independent Director

Is not affiliated with CAEPCO JSC and has not been acting as such 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.

MANFRED-JOSEF KEHR (1947)

Member of the Board of directors, Independent Director

Is not affiliated with CAEPCO JSC and has not been acting as such for the past three years.

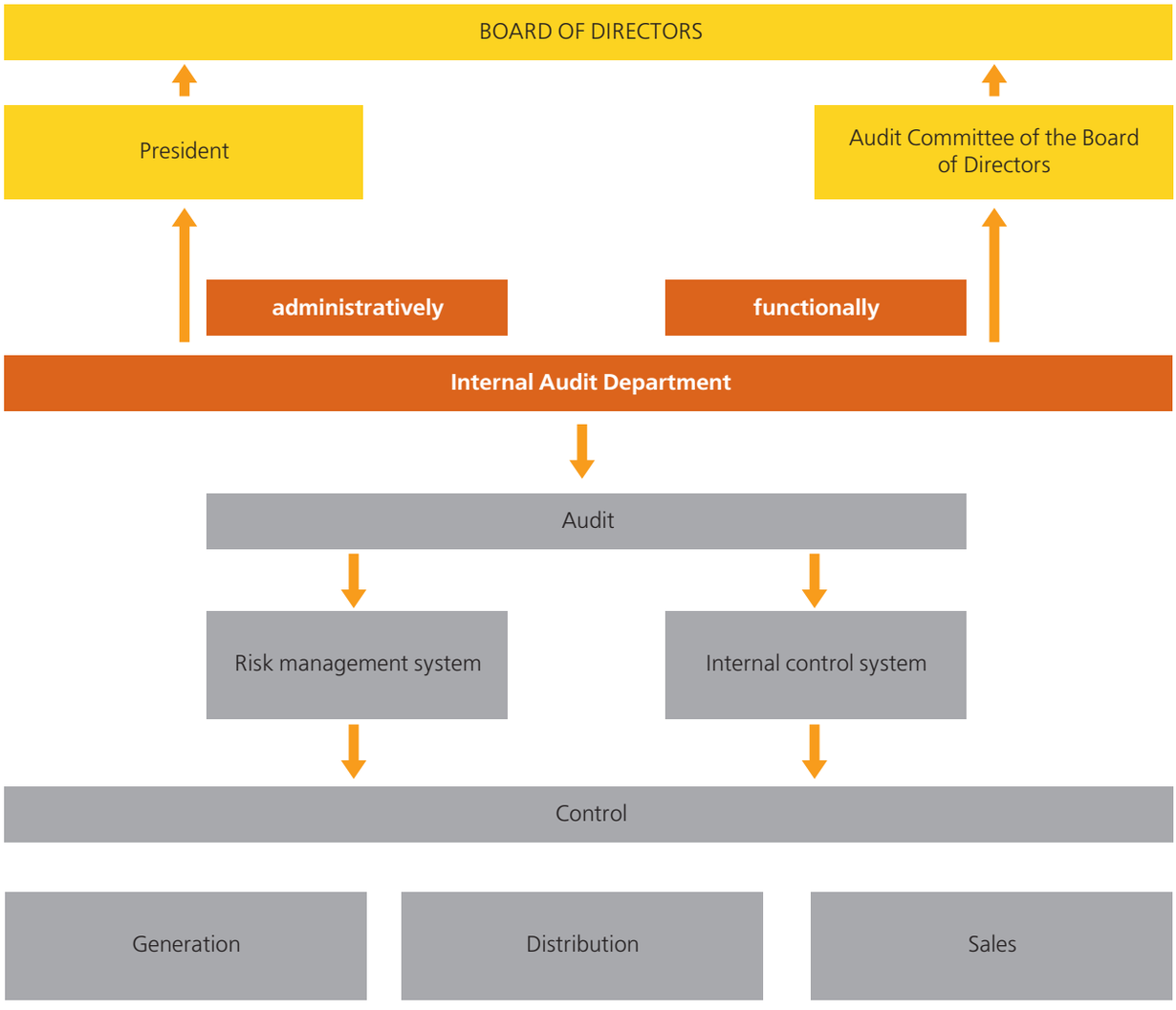
2003–2009 – Vice President of RWE Power International;
2008–2010 – Managing Director, Senior Advisor at RWE Power International;
25.02.2011 – Chairman of the BoD at Rhein Ruhr Power;
25.10.2011 – Member of the BoD, Independent Director at CAEPCO JSC.

THE BOARD OF DIRECTORS PERFORMANCE OVERVIEW

In 2016, the Board of Directors held 7 meetings. The Board of Directors focused on the following key issues:

1. Review of monthly management reports.
2. Review of quarterly management reports.
3. Review of implementation of the consolidated business plan of CAEPCO JSC for 2015.
4. Making adjustments to the consolidated business plan (budget) of CAEPCO JSC for 2016.
5. Approval of the Strategy of CAEPCO JSC for 2016–2020.
6. Review of the report on introduction of Ellipse assets management system.
7. Preliminary approval of the annual financial statements of Astanaenergosbyt LLP for the year 2015.
8. Preliminary approval of the annual consolidated financial statements of CAEPCO JSC for the year 2015.
9. Determination of the procedure for distribution of CAEPCO JSC net income for the expired fiscal year 2015 and the amount of a dividend per one ordinary share of CAEPCO JSC.
10. Preliminary selection of an audit organization to audit the consolidated financial statements of CAEPCO JSC for 2016;
11. Review of the activity report of the Internal Audit Department of CAEPCO JSC for 2015 and the 1st quarter of 2016, 10 months of 2016.
12. Review of the activity report of the Risk Management Department of CAEPCO JSC for 2015 and the 1st quarter of 2016, 10 months of 2016.
13. Appointment of the Financial Advisor.
14. Election of the Chairman of the Personnel, Remuneration and Social Affairs Committee of the Board of Directors of CAEPCO JSC.
15. Election of a new member of the Technical Committee of the Board of Directors of CAEPCO JSC.
16. Approval of the consolidated business plan of CAEPCO JSC for 2017.
17. Approval of the Internal Control Regulations for disposal and use of insider information.
18. Approval of the Regulations for prevention and settlement of corporate conflicts and conflicts of interest.
19. Approval of the Regulations for the executive body.
20. Approval of the occupational health and safety policy;
21. Approval of the environmental policy.
22. Approval of the technical policy.
23. Approval of the work plan of the Internal Audit Department for 2017.
24. Approval of the budget of the Internal Audit Department for 2017.
25. Approval of the work plan of the Risk Management Department for 2017.
26. Approval of the budget of the Risk Management Department for 2017.

INTERNAL CONTROLS AND AUDIT



For the purpose of improving business processes and effectiveness of making decisions, the Corporation has introduced internal control mechanisms. Independence and objectivity of activities carried out by the Internal Audit Department (IAD) are ensured through subordination and accountability to the Board of Directors of the Corporation and are supervised by the Audit Committee, which monitors decisions and processes to ensure the reliability of financial reporting and coordinate internal control and risk management systems.

The IAD operates in accordance with an annual work plan approved by the Board of Directors. The IAD submits its annual report as well as quarterly progress reports to the Board of Directors and the Audit Committee.

The Department carries out its activities in accordance with the International Standards on Auditing (ISA) developed by the Institute of Internal Auditors Inc., as well as in compliance with the current laws and regulations of the Republic of Kazakhstan and the Code of Ethics of internal auditors of CAEPCO JSC.

Internal auditors adhere to the following principles in the course of their activities: integrity, objectivity, confidentiality and professional competence.

The internal audit services of the Corporation's subsidiaries operate in accordance with the requirements set out by the IAD as well as audit methodology and practices adopted in the Corporation.

Both in 2016 and at the present day, the Corporation has an operating internal control system, which provides sufficient confidence in the effectiveness at all levels of control, including financial and operational one, and compliance with laws and regulations.

CORPORATE GOVERNANCE CODE COMPLIANCE REPORT

In 2016, the corporate governance practice of CAEPCO JSC was in full line with the provisions of the Corporate Governance Code developed in accordance with laws and regulations of the Republic of Kazakhstan "On joint-stock companies" and taking into account the current international experience in the field of corporate governance and recommendations for application of corporate governance principles by national joint-stock companies.

The principles of the Corporate Governance Code are aimed to form and introduce into the Corporation's daily operations corporate behavior norms and traditions that meet international standards and contribute to creating a positive image of the Corporation for its shareholders, customers and employees with a view to exercising shareholders' rights to the maximum extent and improving their awareness about the Corporation's activities, as well as to control and reduce risks, maintain sustainable improvement of the Corporation's financial performance and implement successfully its statutory goals.

COMPLIANCE WITH KEY PRINCIPLES OF THE CORPORATE GOVERNANCE CODE IN 2016

Principle description	Comment
JUSTICE	
Equal treatment of all shareholders, regardless of their capital contribution and location, and providing opportunities for the effective protection of their rights.	Corporate governance in CAEPCO JSC is based on the principle of protection and respect for the rights and legitimate interests of the Corporation's shareholders and promotes the growth of assets and maintaining the Corporation's financial stability and profitability. Shareholders' rights are set forth in the Charter and the Regulations on the General Meeting of Shareholders of CAEPCO JSC, and comply with the Law of the Republic of Kazakhstan "On Joint-Stock Companies".
ACCOUNTABILITY	
The Board of directors of the Corporation reports to its shareholders, executive bodies report to the Board of Directors of the Corporation, employees report to the executive management (the President of the Corporation). This principle ensures accountability and delineation of powers between the Corporation's management bodies, as well as full accountability of the Corporation to its shareholders, which is achieved through the timely and complete provision of shareholders with reliable information regarding the current financial situation of the Corporation.	This principle of the Corporate Governance Code is followed through the introduction of the Corporation's organizational structure as provided for in the Charter and the Law of the Republic of Kazakhstan "On Joint-Stock Companies". In addition, the principle of accountability is included in each regulation of the management body/business unit, which allows delineating powers authority between the management bodies of the Corporation.
RESPONSIBILITY	
Responsibility of the Corporation to its shareholders, employees, customers and partners, close cooperation with them aimed to increase its assets of the Corporation and improve its stability and reliability. This principle determines ethical standards for the Corporation's shareholders and employees, and envisages liability of the Corporation's officers for their illegal and wrongful actions or inaction as provided for by the current legislation.	In 2010, the Corporation adopted the Code of Business Conduct comprising business relationship standards in the following four areas: • business and professional ethics; • organizational ethics; • corporate governance; • social responsibility of the Corporation. The Code of Business Conduct is a set of rules and principles followed by the Corporation's employees when applying the principles of business ethics in their work. The group of companies of CAEPCO JSC has developed and adopted a stakeholder engagement plan based on which the Corporation prepares an annual progress report.

Principle description	Comment
TRANSPARENCY	
Timely disclosure of reliable information on all material facts relating to the Corporation's activities, including its financial position, performance, ownership and management structure, in the volume prescribed by the legislation and internal regulations, as well as provision of free access for all interested parties to such information through its publishing in publicly available sources in the manner stipulated by the legislation and the Corporation's internal regulations.	The mechanism of implementing the principle of transparency is explained to the fullest extent in the Information Policy of CAEPCO JSC.
ENVIRONMENTAL PROTECTION AND SOCIAL RESPONSIBILITY	
The Corporation treats the environment responsibly and rationally, operating as a socially responsible company.	CAEPCO JSC has developed and adopted an environmental and social action plan, which regulates the Corporation's policy in the field of environmental protection and social responsibility.
EFFECTIVENESS	
The President of the Corporation 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.	The principle of effectiveness is guided by the Regulations on the President and the Regulations on 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 well-thought-out and long-term strategy, increase the Corporation's assets, ensure operational efficiency, enforce the rights and legitimate interests of the shareholders and control the executive body.
CONTROLLABILITY	
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 efficient engagement of internal and external auditors along with the introduction of an effective risk-based internal control system.	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 regulations. In addition, the Corporation has an Audit Committee acting as 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, and ensuring the reliability of financial reporting.

RISK MANAGEMENT

Minimization of economic, social, environmental and other risks is an important priority of CAEPCO JSC. Timely and comprehensive analysis of risks in the management of the Corporation's activities allows making optimal decisions in terms of expenses and losses as well as improving efficient and sustainable operations in subsidiaries.

CORPORATE RISK MANAGEMENT SYSTEM

The Corporation has a corporate risk management system (RMS) aimed at identification, assessment and monitoring of all significant risks. Risk identification is carried out at all levels - production enterprises, business units as well as at the level of the Group of Companies. Risks are identified, evaluated and monitored.

INTERNAL ENVIRONMENT

Risk management operations are carried out in the Corporation by the Risk Management Department, which is accountable to the Board of Directors of the Corporation. The work of the Department is carried out in accordance with the annual work plan approved by the Board of Directors.

Work performed in 2016	Work planned for 2017
Development of methods for assessment of risks inherent in investment projects of CAEPCO JSC at the pre-investment stage	Development of the anti-fraud policy of CAEPCO JSC and its subsidiaries
Updating of the Risk Register and Risk Map of the Corporation	Updating of the Risk Register and Risk Map of the Corporation
Analysis and testing of the ICS effectiveness in business processes: – control of the customer service process; – control of the process of connecting consumers to heat and electric networks; – management of the industrial control process for compliance with industrial safety requirements when operating hazardous industrial facilities.	Analysis and testing of the ICS effectiveness in business processes: – management of the occupational health and safety process; – management of the revenues and receivables accounting process; – information technology and security; – management of financial accounting business processes;

INTERNAL CONTROL STANDARDS

The Corporation has introduced internal control systems (ICS), which represent a system of procedures implemented by the Board of Directors, executive and supervisory bodies, officers and employees.

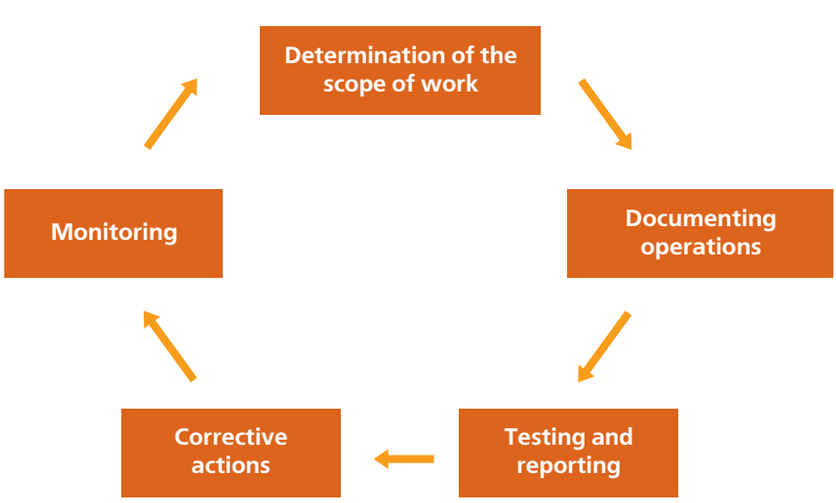
The Corporation's management creates an effective control environment at all levels of the Group through:

- forming an understanding of the need and implementation of internal control procedures among the Group's employees;
- maintaining a high level of corporate culture and demonstrating the principles of integrity and competence;
- improving the level of professionalism and competence among the Group's employees;
- ensuring effective interaction between business units and employees;
- ensuring effective distribution of powers and responsibilities;
- forming fraud prevention mechanisms;
- organizing activities of the internal control bodies.

The ICS are aimed at ensuring the efficiency of operational and investment activities of the Corporation, reliability of all types of reporting, compliance with the requirements of legislative acts and internal corporate requirements.

The Corporation is striving to ensure that all activities are controlled adequately with the aim to reduce risks. Control procedures have been implemented at all levels of management. In 2016, the Corporation continued introducing a risk-based approach in order to minimize various types of risks inherent in activities of enterprises and business units.

ICS LIFETIME CYCLE



RISK INSURANCE

In order to manage properly the risks inherent in the Corporation's activities, CAEPCO JSC has developed and implements an insurance protection policy for risk insurance aimed at minimizing and eliminating the consequences (damage, losses) resulted from the occurred risks and reducing (mitigating) the influence of such negative consequences on achievement of the Corporation's strategic goals. Thus, the policy is aimed to ensure stable operations and development of the Corporation through the implementation of cost-effective insurance protection against significant risks that are subject to insurance and threaten the Corporation's activities, employees' health and property interests of shareholders and investors.

The insurance protection of CAEPCO JSC group is provided for all types of compulsory insurance in accordance with the legislative requirements of the Republic of Kazakhstan. Besides the compulsory types of insurance, the Corporation maintains voluntary insurance of property risks in accordance with the requirements of the insurance protection policy and the best world practices. Property risks of generating assets of CAEPCO JSC group are insured in insurance organizations of the Republic of Kazakhstan in accordance with the legislative requirements. The Corporation imposes high requirements for insurance of its assets (all risks property insurance) and, therefore, places additional requirements and exercises control over re-insurance of its risks in international re-insurance organizations (such as Munich RE, Hannover RE, etc.) having at least AA credit rating. The Corporation implements a policy of openness towards representatives of the insurance community through the conduct of periodic insurance engineering survey of its generating assets and implementation of re-insurers' recommendations.

ANALYSIS OF RISKS HAVING SIGNIFICANT IMPACT ON PERFORMANCE

Based on the results of updating the Corporate Risk Register and Risk Map of the Corporation in accordance with the approved Risk Management Policy, the Corporation identified 70 risks having significant impact on its performance.

Risk	Factors	Risk level
Operational risks		
Deficit of qualified/key personnel	1. Low average salary. 2. Immigration to other countries. 3. Low level of education among energy-related educational institutions, etc.	
Injuries	1. Violation of occupational health and safety requirements by employees. 2. Equipment failure, production accidents. 3. Low level of personnel qualification.	
Excessive heat losses	1. High degree of heat network depreciation. 2. Lower outdoor temperature. 3. Process disturbance and heating main accidents.	
Financial risks		
Change in the national currency exchange rate to foreign currency	1. Change in macroeconomic indicators. 2. Change in oil prices. 3. Interventions of the National Bank of the Republic of Kazakhstan.	
Growth in accounts receivable	1. Low level of customer repayment discipline. 2. Decrease in basic macroeconomic indicators that affect contracting parties' solvency.	


Average risk level


High risk level


Risk influence decreased


Risk influence increased


Risk probability decreased


Risk probability remains unchanged

	CHANGE	RISK CHANGE DESCRIPTION	RISK MITIGATION MEASURES
		Analysis based on staff turnover and turnover rate for 2016 indicates a positive trend to decrease in staff turnover as compared to 2015.	1. Differential wage increase by way of transition to a uniform remuneration system (ECOT); 2. Talent pool formation; 3. Development and approval of a program aimed to support young specialists and increase a personnel education level (both for employees of the Corporation, who upgrade their educationlal level in the enterprise's profile activities and for students of higher and vocational education institutions).
		Despite a decrease in violations of occupational health and safety requirements by the company's employees, there is a growth in injuries and incidents in PAVLODARENERGO JSC and AEDC JSC.	Approval of a new Occupational Health and Safety Policy, which provides for goals and objectives for improvement of occupational health and safety approaches. Detailed information is specified in the "Occupational Health and Safety" section of this Report.
		Subsidiaries of the Corporation show agrowth in excessive heat losses.	Modernization of Pavlodar and Petropavlovks as heating networks part of the investment programs Nurly-Tau and EBRD in 2016-2020. Approval of fincnaing in the amount of 14 KZT bln and 12 KZT bln, respectively. The main goal of this investment project is to reduce excessive heat losses to zero.
		On August 20, 2015 the National Bank of the Republic of Kazakhstan resolved to cancel an exchange rate band and transit to a freely floating exchange rate. Since the beginning of the current year, a tenge/US dollar exchange rate has changed within the range of 327.66-389.91. The Brent oil price has changed within the range of 27.88-53.14 US dollar/barrel.	The Corporation has significant dollar-denominated liabilities. To manage a dollar exchange rate risk the Corporation monitors changes in currency exchange rates. In 2016, CAEPCO JSC carried out currency risk hedge operations due to no choice of derivative financial instruments on the domestic market. In this regard, the Corporation uses a natural hedge method by placing free funds in dollar-denominated deposits and monitoring the efficiency of long-term investment programs.
		In 2016, subsidiaries of the Corporation had a positive trend in payment for energy consumed. Despite this, an overdue debt indicator is still high.	1. Claim-related work is performed; 2. Preparation of a schedule for debt repayment by instalments; 3. Information on employees' overdue indebtedness for utility services is sent to enterprises, as needed.

SUSTAINABLE DEVELOPMENT

CAEPCO JSC realizing its social responsibility to consumers, the state, investors, employees, business partners and society adheres to the sustainable development concept. Based on high social importance of its operations CAEPCO JSC implements a complex of activities aimed at expanding and improving effective interaction with all stakeholders.

STAKEHOLDER ENGAGEMENT

An important element of the sustainable development system is stakeholder engagement. Based on high social importance of its operations and for the purpose of risks minimization, CAEPCO JSC implements a complex of activities aimed at expanding and improving effective interaction with all stakeholders in accordance with the principles of corporate conduct such as openness, reliability and completeness of information on the Corporation's activities, complete respect for interests of all stakeholders and prompt response to manifestation of such interests.

Key stakeholders	Engagement process	Issues raised
Employees	Provided via corporate newsletters and web-sites. There are special e-mail boxes and phone hotline for employees' appeals. Corporation management holds meetings with employees. Labor disputes are resolved by grievance committees with the participation of representatives of both the employer and the employee.	• Occupational health and safety; • Informing employees about Corporation's activities; • Assistance in professional development.
Local communities	The Corporation has systemized its communications with customers and arranged feedback via web-sites and e-mail. Public hearings, round tables and other events are held.	• Addressing and approval of applications for tariff rates for monopolistically regulated services; • Implementation of the investment program; • Quality of services provided to consumers, monitoring of compliance with customers' requirements.
Governmental and regulatory authorities	Requests from governmental and regulatory authorities are processed: some requests are answered, while others are limited to fact finding. Employees of the Corporation participate in specialized meetings and consultations. Visits of official delegations are arranged.	• Mitigation of a negative impact of industrial facilities operations on the city and the region; • Ensuring preparation for a heating season; • Performance of investment commitments; • Compliance with the law, including environmental and nature protection requirements.
Suppliers, contractors and customers	Tender processes, meetings with contractors and customers are arranged and held. Corporation's web-sites provide feedback.	• Creation of a mutually beneficial partnership; • Ensuring transparency of tender processes.
Educational institutions	Meetings with representatives of higher education institutions are held in the Company's presence regions. Employees of the Corporation participate in admission boards, qualification commissions as well as in accreditation of educational programs.	• Staff recruitment for enterprises; • Internship and employment of graduates.
Mass media	The Corporation enterprises arrange annually press tours, media briefings, press conferences, distribute press-releases and provide prompt replies to informational requests.	• Establishment of cooperation; • Provision of information on implementation of the Investment Program for assets modernization and renovation; • Compliance with environmental standards; • Implementation of social projects.
Non-governmental organizations (NGO)	NGO representatives are regularly invited to participate in press tours and public hearings held during the year. Employees of the Corporation participate in public meetings with small and medium business representatives. Meetings are held with leaders who support socially vulnerable people as well as with representatives of the consumer rights protection society.	• Assistance in addressing environmental and social issues.
Trade union	Interaction with trade unions is carried out through arrangement of meetings and handling requests received in the course of activities.	• Compliance with a collective labor agreement; • Rendering assistance in arrangement of leisure time and recreational activities for employees.

In 2016, CAEPCO group of companies provided regular information to the above-mentioned public groups regarding its activities by updating corporate web-sites of the Corporation and its subsidiaries, posting information in mass media, responding to requests, organizing public hearings, press tours, «round table» meetings and other events.

In 2016, the Corporation implemented activities under the Stakeholder Engagement Plan (SEP) in accordance with the policy of the European Bank for Reconstruction and Development. Following the results of plan execution, a public report was posted at corporate web-sites of the Corporation and its subsidiaries, providing information on stakeholder engagement activities.

The Corporation adheres to the following principles of information disclosure:

- guarantee of completeness and reliability of disclosed information;
- prompt disclosure of information on all material facts relating to its activities;
- regular and timely disclosure of information on the Corporation;
- ensuring a high level of safety of commercial, official and other secrets protected by the law of the Republic of Kazakhstan;
- a reasonable balance between the Corporation's openness and respect for its commercial interests;
- provision of relevant, timely, complete, reliable and objective information to employees of the Corporation and its subsidiaries.

ENVIRONMENTAL POLICY

ENVIRONMENTAL IMPACT MANAGEMENT

Environmental protection (EP), consistent improvement of environmental performance and energy efficiency are the key strategic priorities of CAEPCO JSC and an integral part of the sustainable development process. In 2016, the CAEPCO JSC Group of Companies generated 7,037 mln kWh of electric energy and 6,472 thous. Gcal of heat energy. 6,430.6 thous. tons of Ekibastuz coal and 7.7 thous. tons of mazut were consumed for energy generation.

In order to minimize environmental impact the CAEPCO JSC Group of Companies implements consistently the environmental policy as provided for by the Development Strategy of the Corporation with the aim to comply with the environmental law requirements and use the latest scientific and technical achievements.

The priority areas of the environmental activity of CAEPCO JSC are based on key environmental impacts of its subsidiaries – PAVLODARENERGO JSC and SEVKAZENERGO JSC. These impacts include:

- atmospheric pollutant emissions;

- greenhouse gas (CO_2) emissions;

- impact on water bodies as a result of water consumption and water discharge;

- industrial wastes disposal.

Significant environmental aspects are managed through regular monitoring of environmental performance and assessment of compliance with legislative and corporate requirements.

Information on environmental protection activities is provided by publishing the Environmental Policy and Regulations, sustainable development, environmental and social responsibility reports on the web-sites of the Corporation and its subsidiaries.

In addition, subsidiaries inform their contractors on the applicable legislative and normative requirements by including such requirements in agreements, terms of reference and requirements for contractors.

The Corporation intends to make every possible effort to prevent a negative environmental impact and implement operating methods that meet the requirements of the ISO 14001 international standard in all spheres of its activity.

Since 2009, the Corporation has been implementing an Environmental and Social Action Plan (ESAP) as a part of its Investment Program and in accordance with the Policy of the European Bank for Reconstruction and Development with regard to projects financed by the EBRD. Actions envisaged by the Environmental and Social Action Plan are aimed at improvement of environmental performance during the production, as well as of the Occupational Health and Safety Policy implemented in the companies of CAEPCO JSC. Within the frameworks of the ESAP the Corporation provides a public report on an annual basis. Since November 2014, as a part of implementation of the program for modernization and expansion of the electrical distribution system of AEDC JSC funded by the Asian Development Bank (ADB), the Corporation has been implementing an Environmental and Social Management System (ESMS) in accordance with the ADB Safety Mission Statement (2009, ADB SMS) and other social policies of the Bank, such as the Social Protection Strategy (2001), the Gender Equality Policy (1998) and the Public Relations Policy (2011), and submits regular reports to the ADB regarding environmental and social monitoring, occupational health and safety in relation to the AEDC JSC projects for modernization and expansion of the electrical distribution network. These projects are aimed at enhancement of the network reliability, reduction of losses and failures through the modernization of infrastructure.

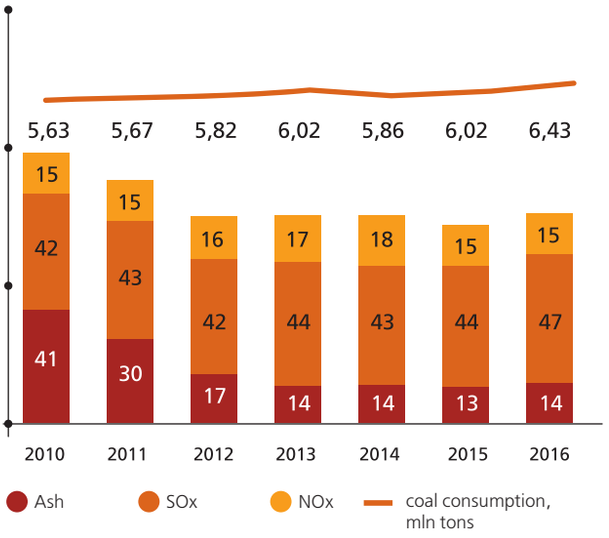
ATMOSPHERIC AIR PROTECTION

Replacement of obsolete generating facilities having low energy and environmental efficiency with new facilities that meet modern environmental protection requirements has the highest impact on reduction of the Corporation's emissions. To improve its environmental performance, during the period of 2009-2014 as part of the Investment Program the Corporation carried out reconstruction of fly ash collectors (FAC) at all boilers of its power plants. After installation of emulsifiers the combustion gas purification efficiency increased from 95.8% to 99.5%. This action allowed reducing the total annual coal ash emissions from 48 thous. tons to 14.3 thous. tons per annum (71%). During 2016, the following measures were implemented at enterprises of the CAEPCO Group of Companies: introduction of additional capacity in the form of a single turbine (turbine unit No. 5), reconstruction of a boiler unit at the station No. 12 (increase in steam-production capacity by 50 tons/hour) of SEVKAZENERGO JSC, as well as reconstruction of a boiler unit at the station No. 5 of CHP-3 with the APCS installation at PAVLODARENERGO JSC.

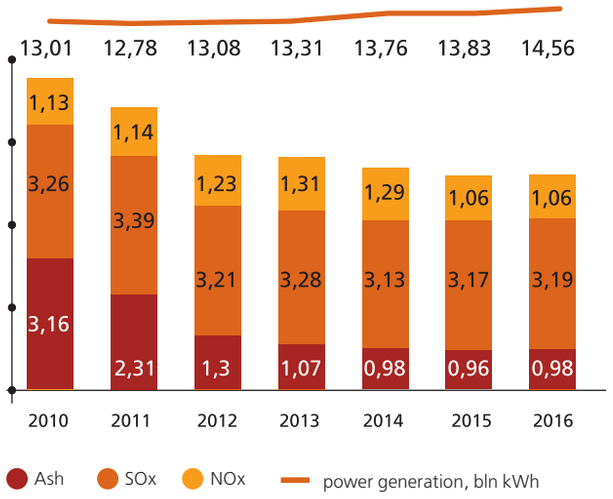
From the end of 2008 to 2016, the volume of atmospheric pollutant emissions from enterprises of CAEPCO JSC decreased by 25% (from 108.5 thous. tons to 81 thous. tons, including other emissions).

Due to the growth in production and, therefore, the increase in the amount of fuel burned (coal, mazut), the gross and specific emissions of solids (coal ash) and sulphur oxide (SOx) resulted from heat and electric energy generation increased slightly in 2016 as compared to the level of 2015 (coal ash by 8%, SOx by 6% (ton/year), specific emissions of coal ash by 3%, SOx - by 0.7%).

Gross atmospheric pollutant emissions in 2010–2016, thous. tons



Specific atmospheric pollutant emissions in 2010–2016, mg/MWh



MITIGATION OF ENVIRONMENTAL IMPACTS, ENVIRONMENTAL PROTECTION MEASURES

In 2016, the following main actions were implemented with the aim to mitigate environmental impacts:

- replacement, reconstruction and modernization of main equipment ensuring efficient treatment, disposal, neutralization, suppression and decontamination of pollutants in gases released from pollutant emission sources, reduction in energy consumption for in-house needs, improvement of fuel consumption accounting, reduction in specific fuel indicators per a unit of generated product;
- overhaul and current repairs of dust and gas treatment plants (repair of worn-out elements of fly ash collectors (FAC) and gas ducts, maintaining the FAC efficiency rate at the design level of 99.5%, repair of aspirators, measurement of their performance efficiency, repair of heat insulation and lining of burners, repair and replacement of burners during the overhaul of boiler units;
- replacement of used lamps with energy-saving lamps;
- commencement of reconstruction of the turbo unit T-100/120-130-3 at the station No. 6 of CHP-3 of PAVLODARENERGO JSC;
- APCS installation at the boiler unit No. 5 of CHP-3 of PAVLODARENERGO JSC;

- recultivation of pits and ash dump at CHP-3 of PAVLODARENERGO JSC;
- recultivation of the ash dump No. 3 of SEVKAZENERGO JSC;performance of current repair works to maintain the main equipment operation in accordance with the Technical Regulations of the Republic of Kazakhstan (No. 1232 dated 14.12.2007).

GREENHOUSE GAS (CO_2) EMISSIONS

After the Kyoto Protocol entered into force for the Republic of Kazakhstan on 17.09.2009, the Corporation arranged work to prepare for taking inventory of greenhouse gas emissions and consumption of ozone depleting substances.

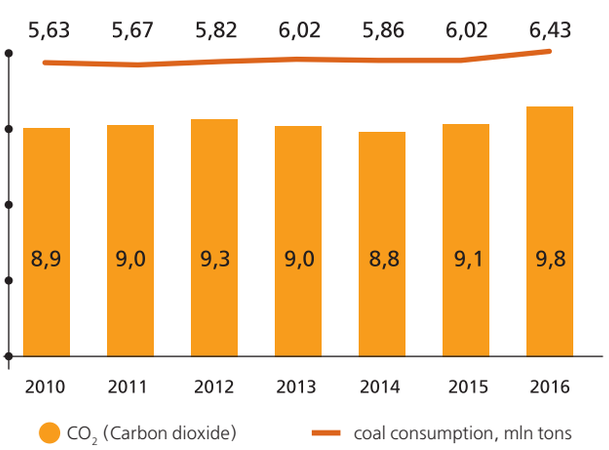
To monitor greenhouse gas emissions the Corporation uses a calculation method in accordance with the guideline regulatory documents, which provides accounting of emissions from normal (regular) production operations, special practices (commissioning works, process shutdown, repair and maintenance) and emergencies.

In 2016, a trilateral agreement was signed between the European Bank for Reconstruction and Development (EBRD), the Ministry of National Economy of the Republic of Kazakhstan and Central Asian Electric Power Corporation JSC as part of Nurly Zhol state program with the aim to modernize and restore the central heat supply system of Pavlodar, Ekibastuz and Petropavlovsk. Pursuant to the agreement, the amount of 25.95 KZT bln will be allocated for the development of the heat supply system of Pavlodar, Ekibastuz and Petropavlovsk in the period of 2016-2020. Modernization projects are aimed at increasing energy efficiency, reducing losses and improving environmental standards (CO_2 emissions reduction by coal consumption saving through reduction of heat losses during transmission over networks). Thus, the gross CO_2 emissions reduction in 2016 vs. 2010 was equal to 129 thous. tons on an accrual basis, or 1% in terms of specific emissions.

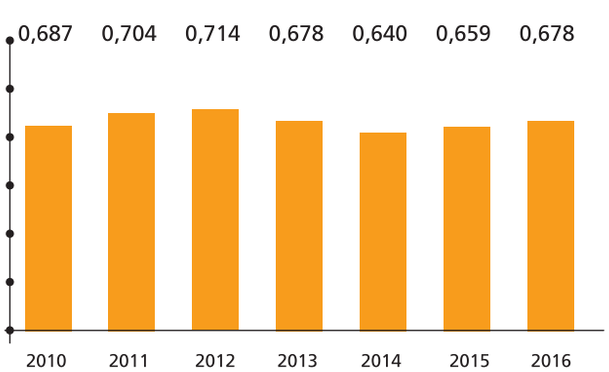
An additional organizational tool for greenhouse gas emission reduction is a program for energy saving and improvement of overall fuel efficiency associated with increase in the share of energy generated by new power generating units, as well as implementation of the ISO 50001 Energy Management Systems standard (energy saving actions) at enterprises with the aim to both increase the energy efficiency of production processes and reduce greenhouse gas emissions. Thanks to the implementation of actions under this program, in 2016 greenhouse gas emissions reduced by 845.711 thous. tons of CO_2.

In connection with increase in production volume and fuel (coal, mazut) consumption, gross greenhouse gas emissions have increased slightly in 2016 as compared to the level of 2015 (8.4%) and amounted to 9.874 mln tons of CO_2. Specific indicators of greenhouse gas emissions also show a slight increase (3%).

Gross CO_2 emissions in 2010-2016, mln tons



Specific CO_2 emissions per a unit of generated energy in 2010-2016, ton/MWh



ENVIRONMENTAL PROTECTION EXPENDITURES

In order to improve efficiency of environmental protection activity the Group of Companies of CAEPCO JSC provides financing for environmental actions. In 2016, the total amount of expenditures was equal to 6,423.2 KZT mln.

For all new construction and reconstruction projects an Environmental Impact Assessment (EIA) project is prepared and communicated to local communities and stakeholders through public hearings. To confirm compliance with the environmental standards of the Republic of Kazakhstan all projects undergo the state environmental examination in local environmental regulatory authorities.

Environmental protection expenditures, KZT mln

No.	Expenditure name	Expenditure amount, KZT mln		
		2014	2015	2016
	CAEPCO JSC	6 874,3	8 100,2	6 423,2
	PAVLODARENERGO JSC			
1	Investment expenditures	2 581, 5	2 735, 8	958,5
2	Expenses for overhaul repair of fixed assets intended for nature protection purposes	4,7	788	60,8
3	Current expenses	925,8	1 152	837,5
	SEVKAZENERGO JSC			
1	Investment expenditures	2 911, 7	3 000	4 348,9
2	Expenses for overhaul repair of fixed assets intended for nature protection purposes	212, 9	131, 5	27,641
3	Current expenses	237, 7	292, 9	189,9

In 2016, there were no significant violations of environmental legislation and other regulatory requirements revealed by state authorities in environmental protection activities of subsidiaries. In 2016, the Ecology Departments of North-Kazakhstan and Pavlodar regions held two scheduled inspections of the environmental protection activities in PAVLODARENERGO JSC and SEVKAZENERGO JSC. Following the inspection results, fines were charged in the total amount of 2.2 KZT mln. Violations revealed during the inspections were mainly associated with the unauthorized disposal of waste and commencement of construction works prior to obtaining an environmental emission permit.

WATER MANAGEMENT AND WATER RESOURCES PROTECTION

Use of water resources is an integral part of production process of the companies and it plays a key role in the equipment cooling process. For the purpose of energy generation the Petropavlovsk CHP-2 uses water from the water pond created in 1959–1961 within the boundaries of the Bolshoye Beloye lake (8 km away from the city), which does not belong to specially protected nature sites or areas of national and/or international significance, and does not

have any value in terms of biodiversity. In accordance with the design data, the surface area of the cooling pond is 10 km^2, the volume of water at a full reservoir level is 20.187 mln m^3; the pond is used at 130–131 m level, which corresponds to the volume of 15.3 mln m^3. The laboratory of SEVKAZENERGO JSC has arranged a production monitoring of hydrochemical parameters of water and water bodies at water intake facilities. Composition and pollution rates of discharged water are controlled by a specialized accredited laboratory on a weekly basis.

Enterprises of CAEPCO Group of Companies have drinking water supply systems, as well as storm and domestic sewerage systems. Water for domestic, drinking, fire-fighting needs is supplied and discharged in a centralized manner via city water supply and sewage networks on a contractual basis. Production water supply is carried out using a circulating water system.

In 2016, the Corporation consumed 546,017 thous. m^3 of water for water supply purposes with the main portion accounting for water of circulating water supply systems. During the reporting period the water discharge volume was equal to 499.3 thous. m^3.

Total water consumption by sources, thous m^3

Indicator	2014	2015	2016
Total water consumption, including:	582 477,8	540 137,6	546 017
from surface-water bodies	11 561,7	11 032, 3	13 463
from third-party suppliers	24 038,4	24 873,3	24 466,4
circulating water supply systems	532 370,4	490 700,9	491 645
from water recycling sources	14 507,2	13 531,1	16 442,6

Volume of waste water disposal, thous. m^3

Indicator	2014	2015	2016
Total waste water generated	504,07	469,15	499,3
Disposal to third party organizations	504,07	469,15	499,3

The most important environmental activities implemented in 2016 in the field of water use and water discharge include the following:

- modernization of industrial circulating water supply systems, water recycling system preventing contamination and depletion of water resources;
- monitoring of qualitative and quantitative characteristics of water (water analysis was carried out in accordance with the approved schedule);
- repair of service and drinking water pipelines and their stop and control valves at CHP-3 and CHP-2;
- replacement and repair of stop valves of service water pipelines, fire-fighting water and heating water pipelines at Ekibastuz CHP.

Biological diversity is the most affected by hydraulic engineering facilities of thermal power plants – there is a risk of mass mortality of hydrobionts in water intake areas. In order to mitigate this risk a number of actions related to equipment of water intake areas with fish protection structures and control of their operation are carried out:

- cleaning of the installed Rubezh 45 floating booms was carried out.

EFFICIENT MANAGEMENT AND DISPOSAL OF PRODUCTION WASTES

Ash and slag wastes, which represent 99% of the total amount of wastes, are stored in specially equipped plain-type hydraulic engineering facilities – ash dumps. Compliance with the environmental law of the Republic of Kazakhstan during the creation of new reservoirs for ash wastes storing allows preventing environment contamination by ash and slag wastes and ensuring stable CHP operation. The total volume of wastes generated at enterprises of CAEPCO JSC in 2016 amounted to 2,608.2 thous. tons, including 2,600 thous. tons of ash and slag wastes, 8.2 thous. tons of industrial and domestic wastes. Increase in waste generation by 163 thous. tons as compared to 2015 was caused by increase in a share of ash and slag wastes of the green hazard list. The volume of industrial and domestic waste delivered in 2016 to third-party organizations for disposal or recycling reduced by 6.2 thous. tons compared to 2015 due to reduction in waste generation at the Group's enterprises.

The most important actions of 2016 related to wastes management were aimed at improving industrial and environmental safety of ash and slag dumps and other waste disposal facilities:

- build-up of the 2nd section of the ash dump at CHP 3 (PAVLODARENERGO JSC);
- recultivation of the 1st section of the ash dump at CHP-2 (PAVLODARENERGO JSC);
- completion of construction of the 2nd section of the ash dump at CHP 2 (PAVLODARENERGO JSC);
- recultivation of the ash dump No. 3 (SEVKAZENERGO JSC);
- arrangement of sites for storage of wastes generated during reconstruction and construction of power facilities (preparation of sites, installation of containers).

It should be noted that new ash disposal pits are constructed using the latest technology of an impervious screen in the ash dump bed - the Canadian polysynthetic geomembrane. Use of a special film – geomembrane would allow achieving 100% water proofing. This is a reliable and durable impervious screen ensuring protection of soil and ground water against contamination due to chemical components contained in clarified water of the hydraulic ash removal (HAR) closed-circuit system.

Total weight of waste generation, thous. tons

Indicator	2014	2015	2016
Ash and slag waste	2 389	2 437	2 600
Other types of wastes	14,08	14,4	8,2

Wastes by hazard levels, thous. tons

Indicator	2014	2015	2016
Waste generation	2 403	2 452	2 608,2
Green list	2 402	2 451	2 607,75
Amber list	1, 311	1, 20	0,45

Wastes by method of handling, thous. tons

Indicator	2014	2015	2016
Waste generation	2 403	2 452	2 608,2
including ash and slag wastes	2 389	2 437	2 600
Wastes used at the enterprise	3,1	1,9	0,45
Wastes decontaminated	0,018	0,009	0,036
Wastes transferred to third party organizations	10,9	12,7	8,1
Wastes disposed at own sites of the company	2 390	2 424	2 600
including ash and slag wastes	2 389	2 423	2 600

ENVIRONMENTAL MANAGEMENT SYSTEM

Subsidiaries of the CAEPCO JSC were among the first companies in Kazakhstan that obtained a certificate of compliance with the ISO 14001 international environmental management standard.

Availability of the environmental management system developed, well-functioning and certified for compliance with the ISO 14001 standard is the most important indicator of a systematic and efficient work in the field of environmental protection promoting the improvement of Corporation's competitiveness, increase in the market value of shares and creation of a positive image in relations with external stakeholders.

During the reporting period the TÜV Rheinland Kazakhstan company (a leader in the independent examination and certification industry) carried out supervisory and re-certification audits of compliance of CAEPCO JSC subsidiaries with the international standards ISO 14001 (Environmental Management System), ISO 9001 (Quality Management System), OHSAS 18001 (Occupational Health and Safety Management System), ISO/CD 50001 (Energy Management System). As a result, the subsidiaries obtained Integrated Management System (IMS) certificates and confirmed that their system is robust, efficient and focused on improvement.

During 2016, Akmola Electricity Distribution Company JSC performed preparatory works (search and selection of a consulting organization) with the aim to introduce and obtain international certificates of compliance with ISO 9001, 14001, 18001 standards. In addition, the Company and other subsidiaries of the Corporation will continue meeting their commitments to comply with the ISO international standards, confirming and extending earlier obtained certificates on an annual basis.

PUBLIC APPRAISAL OF ENVIRONMENTAL PROTECTION ACTIVITIES

In order to meet the environmental requirements of the Republic of Kazakhstan, in 2016, subsidiaries of CAEPCO JSC Group of Companies held 10 public hearings with the participation of representatives of local executive bodies and the public: the State Institution «Energy, Housing and Utilities Administration of North-Kazakhstan Region», the Republican Governmental Agency «North-Kazakhstan Regional Ecology Department of the Environmental Regulation and Supervision Committee of the Ministry of Energy and Science of the Republic of Kazakhstan, the State Institution «Pavlodar Administration of Entrepreneurship and Agriculture», territorial divisions of the authorized body for environmental protection of the Republican Governmental Agency «Pavlodar Regional Ecology Department of the Environmental Regulation and Supervision Committee of the Ministry of Energy and Science of the Republic of Kazakhstan», the State Institution «Administration of Subsoil Use, Environment and Water Resources of Pavlodar region» for addressing the following environmental projects:

1. Discussion of the Action Plan for the period of recultivation of Kuat and Zhyly su pits (11.01.2016);
2. Draft EIA «Building-up the dams of the 2nd section of the ash dump at CHP 3 of PAVLODARENERGO JSC and the draft Action Plan for environmental protection for the period of building-up the dams of the 2nd section of the ash dump at CHP-3 of PAVLODARENERGO JSC (12.01.2016);
3. Preliminary EIA for the Feasibility Study «Replacement of turbine unit P-50-130 at station No. 3 of CHP-3» (07.04.2016);
4. Draft EIA «Exploration and evaluation of clay rocks at Alfa site in the Northern Industrial Area of Pavlodar city» and the draft Action Plan for environmental protection for the period of exploration and evaluation of clay rocks at Alfa site in the Northern Industrial Area of Pavlodar city (07.04.2016);
5. Draft EIA «Pavlodar CHP-3. Construction of a temporary scrap metal storage site» and the draft Action Plan for environmental protection for the period of construction of a temporary scrap metal storage site of PAVLODARENERGO JSC (09.06.2016);
6. Draft EIA «Liquidation of Kuat and Zhyly su pits» (25.08.2016);
7. Draft EIA «Industrial development of clay rocks at Alfa site in the Northern industrial area of Pavlodar city» (05.12.2016);
8. Draft EIA «Reconstruction of mazut-handling facilities at CHP-3 of PAVLODARENERGO JSC in Pavlodar city» (22.12.2016 г.);
9. Draft EIA to the detailed design «Construction of the group control switchboard TA 6,7 at Petropavlovsk CHP-2 of SEVKAZENERGO JSC at the following address: 28 Gashek St., Petropavlovsk;
10. Draft EIA for the detailed design «Reconstruction of Petropavlovsk CHP-2 with replacement of a turbine unit at station No. 5» at the following address: 28 Gashek St., Petropavlovsk.

The main objective of the public hearings is to determine the environmental impact assessment during the implementation of the above stated projects, evaluate possible consequences for the ecology and socio-economic environment, and develop environmental emission standards for reconstruction and construction operations. Announcements of public hearings were published in the Kazakh and Russian languages in Severny Kazakhstan, Soltustik Kazakhstan, Zvezda Priyrtyshya and Saryarka newspapers as well as in Internet sources of the State Institution «Energy, Housing and Utilities Administration of North-Kazakhstan Region» www.ueikh.sko.kz, the State Institution «Pavlodar Administration of Entrepreneurship and Agriculture» http://pavlodar-op.gov.kz and the State Institution «Administration of Subsoil Use, Environment and Water Resources of Pavlodar region» https://tabigatpv.gov.kz.

In 2016, there were no environmental impact grievances in the regions.

HUMAN RESOURCES AND SOCIAL POLICY

HUMAN RESOURCES MANAGEMENT POLICY

The Human Resources Policy of CAEPCO JSC is a comprehensive system of interaction with employees aimed to achieve strategic goals of the Corporation.

The objective of the Human Resources Policy of CAEPCO JSC is to form a company with an efficient corporate governance system providing opportunities for maximizing employees' potential. The corporation is strengthening its Human Resources Policy by engaging various professional employees, retaining highly qualified employees, conducting continuous professional training and development for employees, providing opportunities for professional growth of initiative young employees, creating a talent pool and managing talents.

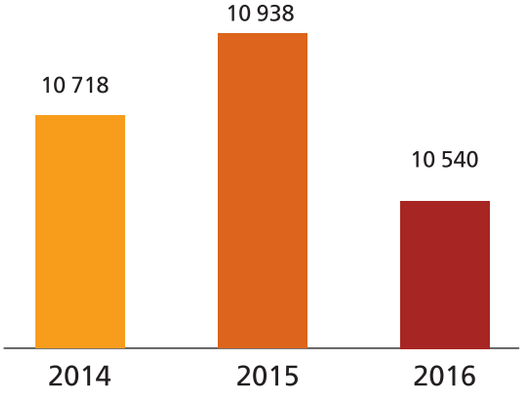
EMPLOYEE HEADCOUNT AND QUALITY

As of December 31, 2016, the Corporation headcount was equal to 10,540 persons.

Decrease in the headcount by 3.6% relative to 2015 is due to:

- transfer of vehicles of AEDC JSC to a specialized enterprise - ATP-Invest LLP;
- implementation of measures to optimize the headcount in subsidiaries.

Payroll headcount trend, pers.



Payroll headcount distribution by companies of CAEPCO JSC for 2016

Company name	Headcount
CAEPCO JSC	87
PAVLODARENERGO JSC	5 054
SEVKAZENERGO JSC	2 581
AEDC JSC	2 214
ASTANAENERGOSBYT LLP	604
Total:	**10 540**

EMPLOYEE STRUCTURE BY CATEGORY AND GENDER

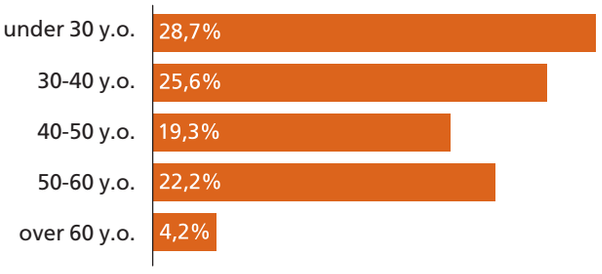
Due to the nature of the business, the Corporation's employee structure is dominated by men, with a share of 62.5%. The production personnel are mostly blue-collar workers, with men accounting for 73.1%.

Personnel category	Total including:		Men		Women	
	persons	%	persons	%	persons	%
Headcount	10 540	100	6 841	62,5	4 097	37,5
Managers	1 504	14,3	1 133	75,3	371	24,7
White-collar workers	3 023	28,7	987	32,6	2 036	67,4
Blue-collar workers	6 013	57,0	4 398	73,1	1 615	26,9

EMPLOYEE STRUCTURE BY AGE

The age structure of the Corporation's employees is characterized by a high proportion of employees who are in the most productive age for professional work - under 40 years old – they make up 54.3% of the total headcount. Increase in the proportion of employees in this age category by 2.7% and decrease in the proportion of employees in the age category «over 60 years old» by 2.2% as compared to 2015 is caused by implementing activities aimed at gradual personnel rejuvenation to achieve an optimal balance of young initiative employees and experienced, highly professional employees with the aim to ensure continuity and transfer professional knowledge and skills.

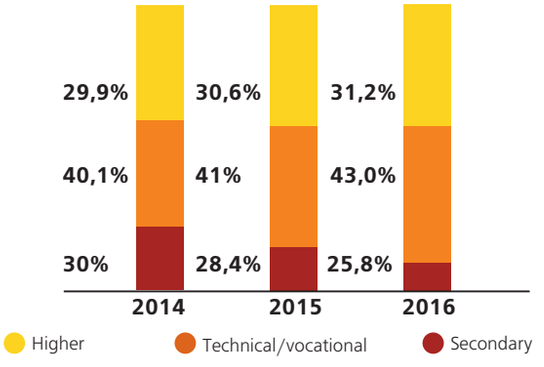
Employee structure by age



EMPLOYEE STRUCTURE BY EDUCATION

In general, in 2014-2016 the Corporation has an increasing trend in the share of the production personnel having technical/vocational education. In 2016, 46 employees completed extramural higher education, including 32 employees in their job related fields; 45 employees completed technical/vocational correspondence training, including 40 employees in their job related fields. The number of employees having general secondary education continues declining.

Employee structure by education



PERSONNEL TRAINING AND DEVELOPMENT

The personnel training and development system of the Corporation covers the following areas:

- compulsory, normative training
- management skills development
- professional skills development

In order to improve efficiency of activities and create safe working conditions the companies of the Corporation carry out training in accordance with its corporate format and individual development plans.

Item	2014	2015	2016
Number of employees who have completed training, retraining or professional development, including:	7 208	8 061	7 953
Safety and fire safety regulations, operating rules and regulations (initial training, qualification certification/re-certification), training courses for managers	5 348	6 318	5 786
ISO 9001, ISO 14001, OHSAS 1800 quality management system trainings (including environmental protection, internal audit and risk management issues)	30	16	52
Secondary profession training	1 270	603	652
Civil defense and emergency training	17	21	32
Other training (professional development, seminars, workshops, etc.)	543	1 103	1 431

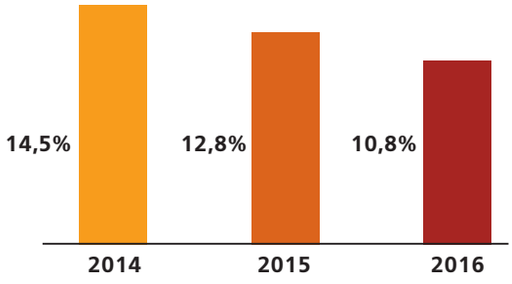
In 2016, 7,953 employees completed training, which was equal to 75.5% of the total number of employees, including 5,786 production employees who received compulsory training, or 54.9%. The number of employees trained in training centers of the Corporation in 2016 amounted to 3,438 persons (32.6% of the total number of employees). For the purpose of expanding the professional profile of the Corporation's employees and preparing them for work in secondary (related) professions, 652 employees were trained.

EMPLOYEE TURNOVER

In general, the Corporation continues reducing the employee turnover rate by 2% compared to 2015 due to further implementation of activities aimed at improving this indicator:

- headcount optimization at enterprises in order to identify payroll fund reserves and use these funds to raise wages;
- development of mentorship and incentives to support young specialists;
- financial and non-financial incentives for skilled workers;
- improving social guarantees in accordance with collective bargaining agreements

Turnover rate



TALENT POOL

In 2016, in order to ensure availability of the required personnel reserve for various managerial positions the subsidiaries of CAEPCO JSC created a talent pool of 1,263 senior, middle and junior level managers.

Talent pool development is carried out based on individual programs aimed at professional and managerial training of succession pool members, including training in the Corporation's own training centers, skills improvement, internships, mentoring, performance of managerial functions and temporary employee relocation. The external talent pool is also formed. During 2016, 112 persons from the talent pool were appointed to managerial positions. 998 young specialists work at the Corporation's enterprises, of which 281 people were employed in 2016, including 171 persons - to leading positions and professions. At the same time, a share of employees having technical/vocational education was 155 persons (55%), higher education - 126 persons (45%).

INVOLVEMENT OF YOUNG SPECIALISTS

In 2016, the Corporation continued implementing the PROFENERGY project, as part of which the program was developed with the aim to support young specialists and graduates and appoint them to key/critical positions at enterprises, develop and improve personnel educational level and retain key employees. The Corporation demonstrates a tendency to increase the share of personnel having technical vocational education. The PROFENERGY project allows implementing the state program aimed to train technical staff.

This program provides for the following actions for students:

- improvement of training programs;
- paid practical training;
- temporary employment for the period of vacation;
- competition of scientific papers;
- granting scholarship;
- participation in examination boards.

Actions stipulated by the program for young specialists, who are already employed at the Corporation's enterprises, include:

- payment for correspondence education;
- payment for educational leave;
- reimbursement of expenses for travel to the place of training.

The PROFENERGY project has many benefits for students, and in 2016 it was implemented at all enterprises of the Corporation.

In May 2016, AEDC JSC signed social partnership agreements with representatives of eight educational institutions of Astana and Akmola region. The partnership is based on the principles of dual training, which allows combining university studies with obtaining practical skills at production facilities.

In June 2016, SEVKAZENERGO JSC summarized the results of the contest of scientific papers held within the framework of social partnership with higher and secondary special educational institutions of Petropavlovsk among the third-year students specialized in the company's profile areas of activity. The energy company awarded the winners diplomas and corporate scholarships. Two winners of the competition were awarded personal scholarships from Petropavlovsk Heat Networks LLP and North-Kazakhstan Regional Electricity Distribution Company JSC.

In November 2016, PAVLODARENERGO JSC announced a contest among the third-year students of Pavlodar and Ekibastuz. In 2017, the winners, who will be determined by the jury after personal project defense, will be awarded with a corporate scholarship of the PAVLODARENERGO group of companies and will also have an opportunity to be employed by the company.

In addition, within the framework of the program following the results of 2016, 136 guided tours were conducted at production facilities, 419 students completed on-the-job and pre-graduation practical training, 152 employees studied at higher educational institutions by correspondence, 108 of them - in the company's profile specializations, 110 employees received technical/vocational education by correspondence, 97 of them - in the company's profile specializations.

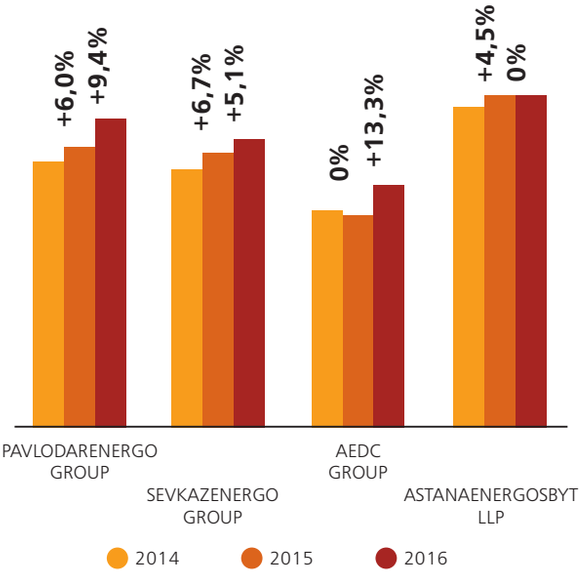
PERSONNEL MOTIVATION AND REMUNERATION

The goal of the Corporation's motivation and remuneration system is to attract, retain and motivate employees in order to ensure that the Corporation can achieve its mission and business targets at an optimal cost.

In 2016, the average income level in subsidiaries increased by 8.6% compared to the level of 2015.

In 2016, PAVLODARENERGO, SEVKAZENERGO and AEDC carried out a transition to the unified remuneration system aimed to create a flexible system of material incentives taking into account internal and external factors, including the allocation of labor remuneration funds depending on the scope of participation in production processes and analysis of social factors and labor market conditions by regions of operations.

Average earnings growth rate by subsidiaries of CAEPCO JSC



NON–FINANCIAL INCENTIVES

In order to increase motivation for efficient performance, every year the Corporation undertakes employee recognition initiatives giving out awards, certificates of merit and titles for achieving high production results; information on such initiatives is published in corporate information sources.

In 2016, 152 employees received corporate awards for efficient performance as well as on the occasion of anniversaries of subsidiaries, 32 employees and veterans received state awards, 3 employee were awarded by the CIS Electric Power Council, 42 employees received awards from the Kazakhstan Electricity Association, among them 10 employees were awarded the title of Respected Power Engineer and 11 employees - the title of Honoured Energy Worker.

INTERACTION WITH TRADE UNIONS

Enterprises of the Corporation have established trade unions and signed collective agreements, which provide for social benefits and guarantees for employees and their families.

Enterprises of AEDC JSC and SEVKAZENERGO JSC concluded collective agreements for the period of 2014-2016. The group of PAVLODARENERGO enterprises has adopted a single collective agreement for 2016-2019.

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

Item	2014	2015	2016
Number of employees in trade unions, person	6 788	6 937	6 601
Percentage of the total headcount, %	63	63	63

Within the framework of the social partnership, the following measures are implemented annually with the participation of enterprises and trade unions:

- sports and recreational activities;
- arrangement of leisure time, recreation and cultural events;
- sponsoring anniversaries and holidays;
- charitable support.

SOCIAL SUPPORT, GUARANTEES AND COMPENSATORY PAYMENTS

The social policy of CAEPCO JSC is determined jointly with employees and their representatives - trade-unions - and is implemented using financial funds of the Corporation's subsidiaries.

To perform social work with pensioners, collective agreements provide for the allocation of funds to Veteran Councils, which operate at all enterprises of the Corporation. Every year, veterans of the Second World War and labor are honored and non-working pensioners are provided with material aid. Veterans are patronized at home; concert programs and celebratory dinners are held in celebration of the Victory Day.

For the purpose of providing social support to personnel, employees of AEDC JSC enterprises are provided with annual voluntary medical insurance as the main component of the company's social package. Insurance programs allow the company's employees to receive qualified medical care in outpatient and inpatient medical institutions both in the region where the company operates and in Astana, which is especially important for remote rural areas.

In December 2016, due to the public-private partnership of SEVKAZENERGO JSC and the North-Kazakhstan regional akimat a new corporate 90-apartment family hostel was officially opened for the company's employees and residents of Petropavlovsk.

In December 2016, the Alakay kindergarten designed for 340 children and built as part of the public-private partnership for children of employees and citizens of Petropavlovsk celebrated its first birthday.

Goals	Social package
Personnel motivation for long-term work	Additional professional pension contributions at the rate of 5%. Bonus payment for professional competitions. Bonus payment for anniversaries and holidays
Effective compensation and benefit payment system	Compensation for housing and utility expenses, provision of benefits for dormitories and rental housing. Transport services for the delivery of employees to/from work. Compensation for camp vouchers for children under 14 years old.
Support of personnel working capacity and health	Insurance against occupational accidents and diseases. Compulsory health insurance. Compensation for sanatorium and preventive treatment expenses
Социальная поддержка работников	Material aid for the birth of a child. Material aid for ritual services. Paid educational leave. Retirement allowance. Veterans support program
Sports and recreational activities	Reimbursement of food expenses to participants of sports competitions. Reimbursement of expenses for mass cultural events and collective leisure time

SPORTS AND RECREATIONAL ACTIVITIES

In order to promote a healthy lifestyle, the following activities are carried out at the Corporation's enterprises:

- payment of membership in sports and recreational facilities;
- organization of active leisure time;
- formation of collective traditions;
- holding of annual sports events, professional competitions.

Every year, employees of subsidiaries of CAEPCO JSC take an active part in sports and recreational activities held both at the enterprise level and at district, regional and international levels. Holding of sports competitions within the enterprises allows the teams to win prizes at external competitions.

The annual Sports Day held in AEDC JSC in 2016 was devoted to the anniversary of the company and held on the eve of the Independence Day in four sports - volleyball, chess, table tennis and arm-wrestling. About fifty employees of the company took part in the competitions.

Enterprises of SEVKAZENERGO JSC hold annual competitions in 14 sports, sports days and tourist meetings among their employees. A total of 276 employees took part in the competitions.

Enterprises of PAVLODARENERGO group hold a traditional family relay race in celebration of the Power Engineers' Day. In 2016, 11 teams composed of employees and their family members took part in the relay race.

Participants of sports and recreational activities get special attention: all winners are awarded with valuable gifts by the Corporation's enterprises, and the events are widely covered in corporate information sources.

OCCUPATIONAL HEALTH AND SAFETY

OCCUPATIONAL HEALTH AND SAFETY STRATEGIC GOALS AND IMPLEMENTED ACTIONS

Occupational health and safety is one of priority values of CAEPCO JSC, and it is considered as an integral part of the Corporation's business system.

In 2016, the Board of directors of CAEPCO JSC approved an occupational health and safety policy (hereinafter - the Policy), which defined the basic occupational health and safety principles, goals and objectives of the Group of Companies officially expressed by senior management.

The principles stated in the Policy are in full line with the Corporation's strategic goals:

- injury reduction;
- improving workplace safety and the occupational safety and health management system;
- improving labor conditions at workplaces;
- prevention of employees' unsafe actions through systematic training in the field of safe work practices;
- development of personnel motivation systems to ensure occupational health and safety;
- development and implementation of unified corporate standards in the field of occupational health and safety;
- study and dissemination of modern best experience and global practices in the field of occupational health and safety.

Approval of the Policy has become the most important step of CAEPCO JSC to improve the level of occupational safety and labor culture. The implementation of the Policy will allow:

- reducing the number of work-related traumatic incidents;
- improving the image and competitiveness of CAEPCO JSC and its subsidiaries on the external and internal markets;
- increasing the level of social responsibility of CAEPCO JSC.

In 2016, according to the occupational health and safety Action Plan for 2016-2017, the following measures were implemented:

- approval and enactment of the Regulation on a rainbow sheet;
- introduction of practices of notifying the family of an employee about his/her violation of occupational health and safety requirements;
- the Album of additional energy safety signs was developed;
- the workplace certification methodology was approved and put into effect;
- in order to unify the requirements for testing, maintenance and use of protective equipment, the relevant instruction was put into effect;
- in order to unify the procedures for occupational health and safety monitoring, including mutual audits between the subsidiaries of CAEPCO JSC and their enterprises, the Regulation for occupational health and safety monitoring was developed and put into effect;
- in October 2016, the first mutual audit of occupational health and safety was conducted at enterprises of PAVLODARENERGO JSC. Heads of occupational health and safety services of CAEPCO JSC subsidiaries met at the same site. This event allowed the company to exchange experience in the field of creating safe labor conditions, effective occupational health and safety management, keeping records, implementing corporate safety procedures, regulations and standards. The next mutual audit is planned to be held at SEVKAZENERGO JSC enterprises in April 2017;
- during 2016, PAVLODARENERGO JSC and SEVKAZENERGO JSC and their subsidiaries conducted certification audits for compliance with the requirements of the International Occupational Health and Safety Standard OHSAS 18001, which confirmed the enterprises' compliance.

TYPES AND RATES OF OCCUPATIONAL INJURIES

During the reporting period, there were 5 incidents in the companies of the Group - all of them occurred at enterprises of PAVLODARENERGO JSC.

Classification of incidents by types:

- electric shock;
- fall of an injured person;
- fall from height.

The causes for the incidents were as follows:

- gross negligence of an injured person;
- unsatisfactory labor management;
- non-compliance with the health and safety requirements.

The incidents include 1 fatality.

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

For the purpose of preventing occupational injuries, monitoring and recording violations of occupational health and safety requirements, the Corporation and its subsidiaries carry out the following work:

- investigation of micro-injuries, incidents and high potential incident being a basis for more serious injuries and damage;
- preparation of newsletters for providing information about incidents and their distribution among employees of all subsidiaries of the Corporation in order to share information about causes of such incidents and prevent their re-occurrence in the future;
- personnel training: occupational health and safety, electrical safety and knowledge assessment;
- carrying out planned and random occupational health and safety audits;
- arranging occupational health and safety days;
- holding occupational health and safety meetings;
- equipping work places in accordance with occupational health and safety requirements;
- placing information posters and safety signs at work places;
- holding professional competitions;
- arranging demonstrative work permit events, etc.

Occupational injury rates

	2014	2015	2016
Headcount	10 622	10 938	10 540
Number of traumatic events	3	4	5
Number of injured persons/including women	3/0	4/1	5/0
Number of fatalities	2	0	1

Main performance indicators of occupational health and safety preventive measures

	2014	2015	2016
Number of occupational health and safety meetings held	230	239	246
Number of Occupational Health and Safety Days held	474	610	575
Number of inspections conducted in contracting organizations/number of non-conformities identified	---	---	220/335

For the first time, the report includes data on the number of inspections carried out in contracting organizations as well as the number of non-conformities revealed in therein. The activities of contractors involved in the work at production facilities of the Corporation and the rate of accidents at contractors' premises affect directly the image of CAEPCO JSC. Subsidiaries of the Corporation spend considerable time to carry out inspections in contracting organizations, ensure interaction/communications with contractors and provide instructions to contractors' personnel.

In 2016, the actual costs of implementing occupational health and safety measures and improving labor conditions amounted to 736 KZT mln. The funds were spent for providing the Corporation's employees with the required personal protective equipment, including electric safety devices, special food and medicines. In addition, the Corporation provided personnel vaccination, training, purchased information posters, normative and technical documents and safety signs, fire-fighting equipment, and implemented measures for additional lighting of workplaces, repairing ventilation and air conditioning systems, buildings, facilities, etc.

All employees of the Corporation's enterprises are insured against accidents as required by the law of the Republic of Kazakhstan »On compulsory employee insurance against industrial accidents».

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

EMPLOYEES OF THE CORPORATION WHOSE PROFESSIONAL ACTIVITY BEARS HIGH INJURY RISK

Works related to maintenance and repair of power equipment are exposed to high injury risks. Electricians/ electrical fitters are the employees whose professional activity bears high injury risk.

To ensure safe working at electrical installations the following measures are implemented:

- personnel training;
- organizational and technical measures are taken, including follow-up;
- employees are provided with all required personal protective equipment, electric safety devices, etc.

In 2016, the Corporation declared a purchase of personal voltage alarm devices that are attached to the employee's protective helmet as additional protection means for personnel operating electrical installations and current-carrying parts. In 2017, voltage alarm devices will be provided to the most of teams engaged in the repair of power transmission lines.

PLANS FOR 2017

In 2017, the Corporation intends to introduce and maintain the following corporate standards and regulations in the field of occupational health and safety:

- Standard «Conduct of behavioral safety audits»;
- Standard «Safety requirements for interaction of vehicles and pedestrians at production sites and facilities»;
- Standard «Work at height»;
- Standard «Isolation of energy sources»;
- Regulations for personnel motivation at enterprises of Central-Asian Electric Power Corporation JSC for compliance with occupational health and safety requirements.

The Corporation will continue implementing the Environmental and Social Action Plan (ESAP) and the Stakeholder Engagement Plan (SEP) in accordance with the policies of the European Bank for Reconstruction and Development. A public report will be generated as part of implementing the ESAP. The report will contain information on projects aimed to improve occupational health and safety at enterprises of CAEPCO JSC.

CONSUMER SAFETY

The Corporation cares about safety and health of its consumers. For this purpose, it carries out systematically awareness-raising work and equipment inspections. The Corporation's subsidiaries introduce advanced technologies and implement safe working practices.

AWARENESS–RAISING WORK

The management of each district branch of the Corporation's power grid enterprises acting jointly with occupational health and safety specialists performs work to raise awareness among the population regarding compliance with safety rules in the vicinity of the operating electrical installations and power lines.

At the beginning and at the end of a school year the Corporation implements measures to prevent electric injuries among children. For this end, specialists of district power grid enterprises are invited to schools to tell the pupils how to avoid electric shocks and thereby keep up their health.

In order to warn the population and personnel of danger, safety signs and inscriptions are placed on all electrical installations operated by subsidiaries, all equipment is protected against unauthorized access by providing appropriate fences, locks and blocking mechanisms.

The regional and district mass media publish articles aimed to prevent injuries, including among children, and protect public health.

ENSURING CONSUMERS' SAFETY AND HEALTH IN RETAIL COMPANIES

Retail companies implement the following measures aimed to ensure consumers' safety and health:

- to prevent injuries, the entrance groups of service center buildings are equipped with anti-slip rubber mats;
- service center buildings are equipped with ramps for disabled people;
- service center buildings are equipped with video surveillance systems;
- all service centers are provided with medical first-aid kits containing necessary medicines;
- service centers premises are provided with air conditioning systems;
- in order to observe fire safety, service centers are provided with fire and security alarm systems and primary fire-fighting means;
- there are people evacuation plans in case of fire in prominent places of service centers; evacuation exit doors are opened without any obstacles in the direction of exit from the premises.

Subsidiaries of the Corporation have organized customer feedback through official web-sites and questioning of consumers in order to identify the level of customer satisfaction and address proposals for improvement.

SOCIAL PARTNERSHIP

CAEPCO JSC is an active participant of social projects aimed at supporting the population in the regions where the Corporation operates.

On December 22, 2016, within the framework of celebrating the 55th anniversary of Petropavlovsk CHP-2 and the Power Engineers' Day, the company carried out official opening of a 90-apartment small family hostel for its employees and citizens of Petropavlovsk. Implementation of the project became possible thanks to the public-private partnership of SEKAZAZENERGO JSC and the North Kazakhstan regional akimat. The availability of a departmental hostel will attract young and promising specialists of the industry to the energy complex enterprises.

The Alakay kindergarten designed for 320 children, which was opened in Petropavlovsk in 2015 within the framework of the public-private partnership with the North-Kazakhstan regional akimat, continues its working.

Over a number of years, SEVKAZENERGO JSC has been providing financial aid to children of the sponsored Zhuldyzdar family by delivering memorable gifts to the school pupils and graduates in celebration of holidays and arranging leisure time during the vacation period.

In 2016, PAVLODARENERGO JSC took part in the republican campaign «Road to School» under the motto «The Territory of a Happy Childhood». The company takes an active part in the campaign for the second consecutive year and provides targeted assistance to orphans.

CORPORATE EVENTS

The Corporation has an unchangeable tradition to celebrate Nauryz Meiramy by presenting Kazakh customs and holding traditional competitions: assyk atu and rope pulling.

In 2016, Petropavlovsk CHP-2 of SEVKAZENERGO JSC celebrated its 55th anniversary. The following events were held in celebration of the anniversary:

- contest of children's drawings and crafts;
- preparation of the corporate photobook «Transformation Energy» dedicated to the history of Petropavlovsk CHP-2;
- the anniversary concert «Spring on Zarechnaya Street» with the involvement of music-talented employees of SEVKAZENERGO JSC.

During 2016, the Corporation held jubilee events dedicated to the 15th anniversary of AEDC JSC, the 45th anniversary of Pavlodar Heat Networks LLP, the 55th anniversary of Pavlodar CHP-2 and the 60th anniversary of Ekibastuz CHP.

SIGNIFICANT ASPECTS AND BOUNDARIES

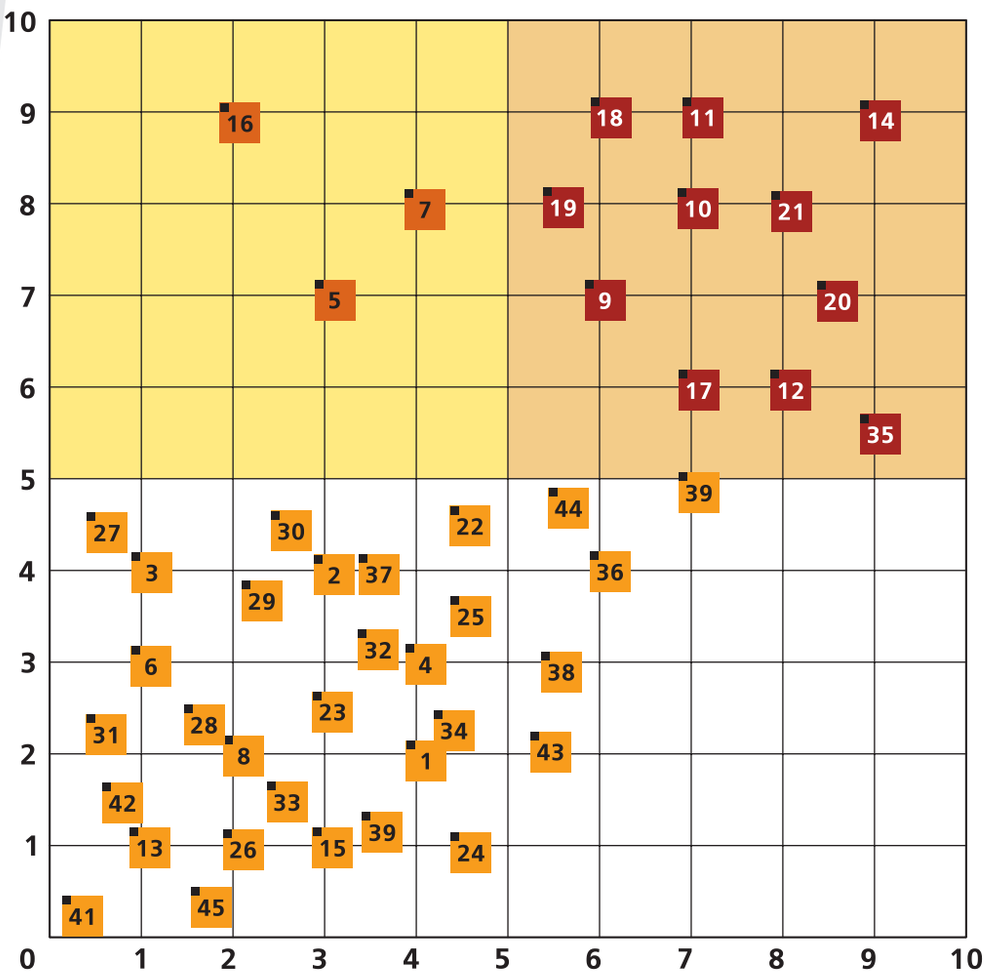
In accordance with the principles for defining the Report content of the GRI G4 Guidelines, the assessment of materiality of topics disclosed in the Report was carried out. The materiality assessment procedure includes the following main phases:

Phase 1. Identification of a maximum wide range of potentially important topics related to sustainable development based on the GRI G4 Guidelines.

Phase 2. Analysis of the degree of impact of the listed topics within and outside the Corporation. Selection of topics for further disclosure was made with due regard for stakeholders engagement. Besides, the priority of topics was analyzed in the context of their impact on the Corporation's operations and development strategy.

Phase 3. In accordance with stakeholders' opinion and strategic plans of the Corporation, key topics were ranked for the purpose of prioritization, and the Materiality Map was created. An average score was attributed to each aspect of activity depending on its impact on the Corporation (horizontal axis) and its stakeholders (vertical axis). The highest priority was defined for the orange zone aspects; they were prioritized during the report preparation. Aspects of the yellow zone were also partially disclosed.

LIST OF ASPECTS AND MATERIALITY MAP



List of aspects

No.	Aspects	No.	Aspects
1	Economic effectiveness	24	Mechanisms for grievances about labour practices
2	Market presence	25	Investment
3	Indirect economic impacts	26	Non-discrimination
4	Procurement practice	27	Freedom of association and collective bargaining
5	Materials	28	Child labor
6	Energy	29	Involuntary or compulsory labor
7	Water	30	Safety practices
8	Biodiversity	31	Rights of indigenous and small-numbered peoples
9	Emissions	32	Assessment
10	Effluents and wastes	33	Evaluation of observance of human rights by suppliers
11	Products and services	34	Mechanisms for grievances about human rights violation
12	Compliance with requirements	35	Local communities
13	Transport	36	Corruption control
14	General information	37	State policy
15	Environmental appraisal of suppliers	38	Hindrance of competition
16	Environmental grievances mechanisms	39	Compliance with requirements
17	Employment	40	Assessment of suppliers' impact on community
18	Relations between employees and management	41	Consumer health and safety
19	Occupational health and safety	42	Marking of products and services
20	Training and education	43	Marketing communications
21	Diversity and equal opportunities	44	Consumer privacy
22	Equal remuneration for women and men	45	Compliance with requirements
23	Evaluation of suppliers' labour practices		

DISCLOSURE OF SIGNIFICANT ASPECTS AND INDICATORS IN THE REPORT AND COMPLIANCE WITH GRI G4 GUIDANCE ("SOCIAL" CATEGORY)

Table of Report's Compliance with the GRI G4 Guidelines

No.	Indicator Index	Indicator name	Disclosure	Provision of the Report and comments
Strategy and analysis				
1	G4-1	Statement from the most senior decision-maker of the organization about the relevance of sustainable development for the organization and its strategy when addressing sustainable development issues	Completely	Section: «Letter of the Chairman of the Board of directors», page 5 Section: «Letter of the President», page 7
2	G4-2	Description of key impacts, risks and opportunities	Completely	Section: «Analysis of risks having significant impact on performance», page 60
Organization profile				
3	G4-3	Organisation name	Completely	Section: «Business profile», page 14
4	G4-4	Primary brands, products, and/or services	Completely	Section: «Business profile», page 14 Section: «Business model», page 16
5	G4-5	Location of the organization's headquarters	Completely	Section: «Contacts», page 98
6	G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the Report	Completely	Section: "Geography of operations", page 17
7	G4-7	Nature of ownership and legal form	Completely	Section: «Corporation structure», page 16
8	G4-8	Markets where the organization operates (including geographic breakdown, sectors served, and types of customers and beneficiaries)	Completely	Section: «Geography of operations», page 17 Section: «Subsidiaries», page 18
9	G4-9	Scale of the organization, including: • total number of employees; • total number of departments; • net sales; • total capital broken down in terms of debt and equity; • quantity of products or services provided	Completely	Section: «Human resources and social policy», page 71 Section: «Key performance indicators for 2014–2016», page 9 Section: «Outcomes of implementation of priority objectives in 2016», page 10 Section: «Financial and economic indicators», page 38
10	G4-10	Total number of employees by employment contract and gender; • total number of permanent employees by employment type and gender; • total workforce by full-time and part-time employees and by gender; • total workforce by region and gender; • portion of the work performed by employees who are legally recognized as self-employed, or by individuals other than full-time and part-time employees, including employees and supervised employees of contractors; • seasonal variations in employment numbers	Partially	Section: «Human resources and social policy», page 71

No.	Indicator Index	Indicator name	Disclosure	Provision of the Report and comments

No.	Indicator Index	Indicator name	Disclosure	Provision of the Report and comments
11	G4-11	Percentage of total employees covered by collective bargaining agreements	Completely	93% of employees are covered by a collective bargaining agreement
12	G4-12	Supply chain description	Completely	Section: «Business model», page 16
13	G4-13	Significant changes occurred during the reporting period in the organization's size, structure or ownership, including: • changes in the location or changes in operations, including opening, closing and expansions of enterprises; • changes in the share capital structure and other capital formation, maintenance, and alteration operations; • changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination of relations	Partially	Section: "Organisational structure", page 45 Section: "Share capital structure", page 45
14	G4-14	Application of the precautionary approach	Completely	Section: «Environmental protection expenditures», page 67
15	G4-15	Externally developed economic, environmental and social charters, principles or any other initiatives ratified or endorsed by the organization	Completely	Section: "Environmental impact management", page 64 Section:"Greenhouse gas emissions", page 64 Section:»Environmental management system», page 70
16	G4-16	Memberships of associations, industry and/or national and international advocacy organizations in which the organization: • holds a position on the governance body; • participates in projects or committees; • provides substantive funding beyond routine membership contributions; • considers its membership as strategic	Partially	The Corporation is a member of the Kazakhstan Electricity Association (KEA)
Identified significant aspects and boundaries				
17	G4-17	List of legal entities included in the organization's consolidated financial statements	Completely	Section: "About the report", page 2
18	G4-18	Methods of defining the report content and the aspect boundaries. Explanation of how the organization has implemented the reporting principles for defining the Report content	Completely	Section: "Material aspects and boundaries", page 82
19	G4-19	List of all existing materials aspects identified in the course of determining the Report content	Completely	Section: "Material aspects and boundaries", page 83
20	G4-20	Description of each material aspect, the aspect boundaries within the organization (including a list of legal entities or groups of legal entities specified in clause 3.2 and for which the aspect is material)	Partially	Section: "Material aspects and boundaries", page 83
21	G4-21	Description of each material aspect, the aspect boundaries outside the organization (including a list of legal entities, groups of legal entities, facilities and geographical regions for which the aspect is material)	Partially	Section: "Material aspects and boundaries", page 83

No.	Indicator Index	Indicator name	Disclosure	Provision of the Report and comments
22	G4-22	Effects of all restatements of indicators provided in previous reports, and reasons for such restatements	Completely	Indicators have not changed and are comparable with the data provided in previous annual reports of the Corporation.
23	G4-23	Significant changes in the scope and aspects boundaries as compared to previous reporting periods	Completely	No changes
Stakeholder engagement				
24	G4-24	List of stakeholders engaged by the organization	Completely	Section: «Stakeholder engagement», page 63
25	G4-25	Principles of identification and selection of stakeholders for engagement	Completely	Section: «Stakeholder engagement», page 63
26	G4-26	Organization's approach to stakeholder engagement, including frequency of engagement by types and by stakeholder groups; information of whether any of the engagement elements were taken specifically as part of the Report preparation process	Partially	Section: «Stakeholder engagement», page 63
27	G4-27	Key topics and concerns raised through stakeholder engagement, and how the organization has responded to such key topics and concerns, including through the preparation of its reporting	Completely	So far, the Corporation does not include stakeholders directly in the Annual Report preparation process, however, it is planned to be done in the future. In particular, as a part of this Sustainable Development Report a feedback form was prepared in order to get a feedback from stakeholders.
General information on the Report				
28	G4-28	Reporting period, to which the provided information relates	Completely	Section: "About the report", page 2
29	G4-29	Date of publication of the previous Sustainable Development Report	Completely	Section: "About the report", page 2
30	G4-30	Reporting cycle	Completely	Section: "About the report", page 2
31	G4-31	Contact point for questions regarding the Report or its contents	Completely	Section: «Contacts», page 98
32	G4-32	Information on the Report preparation option «in accordance» with the GRI Guidelines chosen by the organization. GRI Content Index for the chosen Report preparation option. Statement of public (external) certification of the Report, if the Report has been assured externally.	Partially	Section: "About the report", page 2 Section: "Table of Report's Compliance with the GRI G4 Guidelines", page 84
33	G4-33	Organization's policy and current practice with regard to seeking public (external) certification for the Sustainable Development Report	Completely	This Report has not been certified externally. The Corporation does not find it reasonable in the medium term.
Corporate governance				
34	G4-34	The corporate governance structure of the organization, including committees of the superior corporate governance body in charge of economic, environmental and social impacts of the organization	Completely	Section: «Organisational structure», page 45 Section: «Committees of the Board of Directors performance overview», page 45
Ethics and Integrity				
35	G4-56	Organization's values, principles, standards and norms of behavior such as the Code of Conduct and Code of Ethics	Completely	Section: «Report on compliance with the Corporate Governance Code», page 54

No.	Indicator Index	Indicator name	Disclosure	Provision of the Report and comments
Category: «Environmental» Aspect: Materials				
36	G4-СПМ	Data on management approach	Completely	Section: «Environmental impact management», page 64
37	G4-EN1	Materials used by weight or volume	Completely	Section: «Environmental impact management», page 64
Aspect: Water				
38	G4-СПМ	Data on management approach	Completely	Section: «Water management and water resources protection», page 68
39	G4-EN8	Total water withdrawal by sources	Completely	Section: «Water management and water resources protection», page 68
40	G4-EN9	Water sources significantly affected by water withdrawal	Completely	Section: «Water management and water resources protection», page 68
41	G4-EN10	Percentage and total volume of recycled and reused water	Completely	Section: «Water management and water resources protection», page 68
Aspect: Emissions				
42	G4-СПМ	Data on management approach	Completely	Section: «Greenhouse gas emissions», page 66
43	G4-EN15	Direct greenhouse gas emissions	Completely	Section: «Greenhouse gas emissions», page 66
44	G4-EN18	Greenhouse gas emissions intensity	Completely	Section: «Greenhouse gas emissions», page 66
45	G4-EN19	Reduction of greenhouse gas (CO_2) emissions	Completely	Section: «Greenhouse gas emissions», page 66
46	G4-EN21	NOx, SOx, and other significant pollutant emissions	Completely	Section: «Atmospheric air protection,» page 65
Aspect: Effluents and Wastes				
47	G4-СПМ	Data on management approach	Completely	Section: «Efficient management and disposal of production wastes», page 69
48	G4-EN22	Total water discharge with specification of waste water quality and treatment facility	Completely	Section: «Efficient management and disposal of production wastes», page 69
49	G4-EN23	Total mass of waste by types and disposal method	Completely	Section: «Efficient management and disposal of production wastes», page 69
Aspect: Products and Services				
50	G4-СПМ	Data on management approach	Completely	Section: «Atmospheric air protection,» page 65
51	G4-EN27	Extent of mitigation of environmental impacts of products and services	Completely	Section: «Atmospheric air protection,» page 65
Aspect: Compliance with Requirements				
52	G4-СПМ	Data on management approach	Completely	Section: «Environmental protection expenditures», page 67
53	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Completely	Section: «Environmental protection expenditures», page 67

No.	Indicator Index	Indicator name	Disclosure	Provision of the Report and comments
Aspect: General Information				
54	G4-СПМ	Data on management approach	Completely	Section: «Environmental protection expenditures», page 67
55	G4-EN31	Total environmental protection expenditures and investments	Completely	Section: «Environmental protection expenditures», page 67
Aspect: Environmental Grievance Mechanisms				
56	G4-СПМ	Data on management approach	Completely	Section: «Grievance mechanism», page 37
57	G4-EN34	Number of grievances about environmental impacts filed, addressed and resolved through formal grievance mechanisms	Completely	Section: «Grievance mechanism», page 37
Category: "Social" - sub-category: Labor practices and decent work Aspect: Employment				
58	G4-СПМ	Data on management approach	Completely	Section: «Human resources management policy», page 71
59	G4-LA1	Total number and share of newly hired employees and employee turnover by age group, gender and region	Completely	Section: «Employee headcount and quality», page 71 Section: «Payroll headcount by enterprises», page 71 Section «Employee structure by category and gender», page 71 Section: «Employee structure by gender and age», page 71
Aspect: Labor/Management Relations				
60	G4-СПМ	Data on management approach	Completely	Section: «Interaction with trade unions», page 75
61	G4-LA4	Minimum notice period regarding material changes in operations, including whether this period is specified in a collective agreement	Completely	Section: «Interaction with trade unions», page 75
Aspect: Occupational Health and Safety				
62	G4-СПМ	Data on management approach	Completely	Section: «Occupational health and safety strategic goals and implemented actions», page 77
63	G4-LA5	Percentage of total personnel represented in formal joint health and safety committees with the participation of management representatives and employees engaged in monitoring and providing recommendations for occupational health and safety programs	Completely	Section: "Occupational health and safety strategic goals and implemented actions», page 77
64	G4-LA6	Types and rates of work-related injuries, occupational diseases, lost days and workplace absence as well as total number of occupational fatal accidents, by regions and gender	Completely	Section: «Types and rates of occupational injuries», page 78

No.	Indicator Index	Indicator name	Disclosure	Provision of the Report and comments
65	G4-LA7	Employees with high rates of injuries and high risk of diseases related to their occupation	Completely	Section: «Corporation employees whose professional activity bears a high injury risk», page 79
Aspect: Training and Education				
66	G4-СПМ	Data on management approach	Completely	Section: «Personnel training and development», page 72
67	G4-LA10	Programs for development of skills and lifelong learning aimed to support the continued employability of employees and assist them upon career completion.	Completely	Section:"Employee structure by education", page 72 Section:"Personnel training and development", page 72 Section: «Talent pool», page 73
Aspect: Diversity and Equal Opportunities				
68	G4-СПМ	Data on management approach	Completely	«Human resources management policy», page 71
69	G4-LA12	Composition of management bodies and main personnel categories of the organization by gender, age groups, minority groups and other diversity characteristics	Completely	Section:»Personnel turnover», page 73 Section:»Involvement of young specialists», page 73
Category: "Social" - sub-category: "Society" Aspect: Local communities				
70	G4-СПМ	Data on management approach	Completely	Section:»Stakeholder engagement», page 63
71	G4-SO1	Percentage of business units that have implemented local community engagement, impact assessment and development programs	Completely	Section:»Stakeholder engagement», page 63
Power industry protocol General information				
72	G4-EU1	Installed capacity	Completely	Section: «Corporation overview», page 8
73	G4-EU2	Power generation	Completely	Section: «Key performance indicators for 2014–2016», page 9
74	G4-EU3	Number of residential, industrial, institutional and commercial customer accounts	Completely	Section: «Outcomes of implementation of priority objectives in 2016 «, page 11
75	G4-EU4	Length of aboveground and underground power transmission and distribution lines by regulatory regime	Completely	Section: «Main production characteristics», page 8
76	G4-EU5	Allocation of CO_2 or equivalent emissions allowances	Completely	Section: "Greenhouse gas (CO_2) emissions», page 66

FINANCIAL STATEMENTS

Consolidated financial statements of the Corporation for 2016 were prepared in accordance with International Financial Reporting Standards and include financial statements of subsidiary organizations from the date of their acquisition. Principles of accounting policy are unified for all enterprises of the Corporation.

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CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS OF DECEMBER 31, 2016 (KZT thous.)

	December 31, 2016	December 31, 2015
ASSETS		
NON-CURRENT ASSETS:		
Property, plant and equipment	240,348,875	228,987,976
Goodwill	2,424,419	2,424,419
Intangible assets	1,816,542	1,557,159
Deferred tax assets	710,031	678,959
Other financial assets	14,000	210,000
Advances paid	1,883,613	3,865,706
Other non-current assets	1,833,968	384,360
Total non-current assets	249,031,448	238,108,579
CURRENT ASSETS:		
Inventories	4,956,047	6,412,643
Trade accounts receivable	16,879,028	13,669,521
Advances paid	1,682,394	1,442,893
Income tax prepaid	302,911	509,955
Other current asset	2,110,065	2,431,636
Other financial assets	10,236,661	14,276,758
Cash	2,022,862	2,279,387
Total current asset	38,189,968	41,022,793
TOTAL ASSETS	**287,221,416**	**279,131,372**
EQUITY AND LIABILITIES		
EQUITY:		
Share capital	46,043,272	46,043,272
Additional paid-in capital	1,348,105	1,348,105
Revaluation reserve on property, plant and equipment	44,190,092	47,502,275
Non-distributed profits	49,253,645	34,727,976
Total capital	140,835,114	129,621,628
NON-CURRENT LIABILITIES		
Bonds issued	14,719,190	22,331,233
Borrowings	44,821,166	52,676,536
Deferred incomes	3,975,557	1,268,695
Finance lease liability	1,436,419	672,195
Deferred tax liabilities	35,226,177	31,649,648
Ash dump restoration liabilities	653,356	351,710
Employee benefit obligations	131,621	119,690
Other long-term accounts payable	343,745	223,657
Total non-current liabilities	101,307,231	109,293,364

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS OF DECEMBER 31, 2016 (KZT thous.)

	December 31, 2016	December 31, 2015
CURRENT LIABILITIES:		
Current-portion of the bonds issued	9,663,264	754,846
Borrowings	15,216,814	14,260,908
Current portion of finance lease liability	311,334	115,620
Trade accounts payable	14,731,068	19,521,841
Advances received	1,928,519	2,161,570
Current portion of ash dump restoration liabilities	97,785	53,587
Current portion of employee benefit obligations	10,199	11,427
Other liabilities and accrued expenses	3,120,088	3,336,581
Total current liabilities	45,079,071	40,216,380
TOTAL EQUITY AND LIABILITIES	287,221,416	279,131,372

CONSOLIDATED STATEMENT OF PROFIT AND LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2016 (KZT thous.)

	2016	2015
REVENUE	122,122,783	107,932,528
COST OF SALES	(93,197,839)	(84,144,330)
GROSS PROFIT	28,924,944	23,788,198
General and administrative expenses	(7,950,438)	(7,743,757)
Selling expenses	(1,981,898)	(1,927,558)
Finance costs	(6,440,604)	(3,772,955)
Finance income	1,113,268	917,251
Foreign exchange gains (losses), net	404,090	(20,031,129)
Other income (expenses), net	741,484	429,403
PROFIT/ LOSS BEFORE TAXATION	14,810,846	(8,340,547)
INCOME TAX BENEFIT (EXPENSE)	(3,546,614)	726,860
PROFIT/LOSS FOR YEAR	11,264,232	(7,613,687)
OTHER CONPREHENSIVE INCOME FOR THE YEAR, net of income tax		
Items that will not be reclassified subsequently to profit or loss		
Loss from revaluation of property, plant and equipment	(50,746)	-
TOTAL COMPREHENSIVE INCOME/LOSS FOR THE YEAR	11,213,486	(7,613,687)
(Loss)/earnings per share, in tenge	304,84	(206,05)

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 2016 (KZT thous.)

	Share capital	Additional paid-in capital	Revaluation reserve on property, plant and equipment	Retained earnings	Total capital
As of 01 January 2015	46,043,272	1,348,105	51,005,740	41,473,796	139,870,913
Loss for the year	-	-	-	(7,613,687)	(7,613,687)
Other comprehensive income for the year	-	-	-	-	-
Total year income	-	-	-	(7,613,687)	(7,613,687)
Amortization of revaluation reserve on property, plant and equipment	-	-	(3,503,465)	3,503,465	-
Dividends declared	-	-	-	(2,635,598)	(2,635,598)
As of 31 December 2015	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 income for the year	-	-	(50,746)	-	(50,746)
Total year income	-	-	(50,746)	11,264,232	11,213,486
Amortization of revaluation reserve on property, plant and equipment	-	-	(3,261,437)	3,261,437	-
As of 31 December 2016	46,043,272	1,348,105	44,190,092	49,253,645	140,835,114

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED DECEMBER 31, 2016 (KZT thous.)

	2016	2015
OPERATING ACTIVITIES:		
Profit/ loss before tax	14,810,846	(8,340,547)
Adjustments for:		
Depreciation and amortization	10,414,920	9,421,150
Finance costs	6,440,604	3,772,955
Foreign exchange gains/ (losses), net	(404,090)	20,031,129
Proceeds from disposal of property, plant and equipment	156,364	109,412
Fixed assets impairment loss	152,684	-
Accrual of allowance for doubtful debts	479,826	287,810
Gain on write-off of accounts payables	(209,195)	(54,984)
Accrual of provision on unused vacation	42,785	34,288
Accrual of allowance for obsolete and slow-moving inventories	48,540	385
Employee benefit expenses	26,814	30,729
Finance income	(1,113,268)	(917,251)
Income from governmental subsidies	(2,963)	-
Other adjustments	(588)	(12,671)
Cash flow before working capital changes	30,843,279	24,362,405
Change in inventories	1,408,056	180,757
Change in trade accounts receivable	(3,147,851)	(1,241,721)
Change in advances paid	(250,507)	(180,654)
Change in other current assets	(389,230)	50,034
Change in trade accounts payable	2,241,212	(187,148)
Change in deferred revenue	(37,199)	(35,028)
Change in advances paid	(233,053)	(869,415)
Change in employee benefit obligations	(16,111)	(24,174)
Change in other liabilities and accrued expenses	1,169,408	422,167
Cash generated by operating activities	31,588,004	22,477,223
(Income tax refund)/Income tax paid	158,609	(382,931)
Interest paid	(6,308,772)	(4,899,733)
Net cash generated by operating activities	**25,437,841**	**17,194,559**

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED DECEMBER 31, 2016 (CONTINUED) (KZT thous.)

	2016	2015
INVESTING ACTIVITIES:		
Acquisition of property, plant and equipment	(26,922,275)	(20,309,437)
Acquisition of intangible assets	(309,536)	(886,224)
Acquisition of non-controlling interest	-	(1,878,449)
Proceeds from disposal of property, plant and equipment	431,214	270,587
Cash placed on deposits	5,107,648	(100,008)
Cash returned from guarantee fees	(27,229)	-
Net cash used in investing activities	(21,720,178)	(22,903,531)
FINANCING ACTIVITIES:		
Proceeds from loans	23,584,188	24,205,767
Proceeds from issuance of bonds	800,234	6,665,356
Repayment of loan from related party	-	973,996
Finance lease	(150,543)	(150,542)
Repayment of loans	(28,821,059)	(23,715,221)
Dividends paid	(932,521)	(2,981,929)
Proceeds from government subsidies	1,569,792	-
Net cash (used in)/ received from financing activities	(3,949,909)	4,997,427
NET DECREASE IN CASH	(232,246)	(711,545)
CASH at the beginning of the year	2,279,387	2,805,932
Effect of changes in foreign exchange rates on cash balances in a foreign currency	(24,279)	185,000
CASH at the end of the year	**2,022,862**	**2,279,387**

GLOSSARY

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

Overhead transmission line is a construction for transmission of electric power over a distance by wires.

Gigacalorie is a unit of measurement of heat energy used for assessment in heat power industry, heating systems, 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 having a shape of an exhaust tower providing for an air draught.

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

Ash is an incombustible residue (in the form of dust) that is formed from mineral impurities in complete combustion of fuel.

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

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

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

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

Megawatt is a unit of power measurement in electricity production.

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 mounted according to a certain scheme ensuring pump's operation.

Steam turbine is an energy turbo machine, an element of a steam turbine unit that converts the potential energy of a high-temperature-high-pressure steam into the mechanical energy of rotation of its rotor, 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 the power that cannot be generates for technical reasons (insufficient draught in chimney, cooling systems of turbine condensers, etc.).

Available capacity of a unit (plant) is an 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, heat is distributed to consumers in the form of steam and hot water.

MPE Plan is draft standards 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 medium into mechanical operation.

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

Installed capacity is an effective value of the turbine units' rated capability.

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

Installed power capacity of the electric power system is total effective power output of all turbo and hydroelectric power plants of the electric power system in accordance with their passports or specifications.

Emulsifier is a device for ash and dust removal working in a phase inversion mode.

ABBREVIATIONS

COSO – Committee of Sponsoring Organizations of the Treadway Commission

CTF - Clean Technology Fund

EBITDA – an analytical indicator, which means Earnings before Interest, Taxation, Depreciation and Amortization

ESAP – Environmental and Social Action Plan

ISO – International Organization for Standardization

KEGOC – Kazakhstan Electricity Grid Operating Company JSC

OHSAS – Occupational Health and Safety Management Systems

JSC – Joint Stock Company

AEDC – Akmola Electricity Distribution Company JSC

ASCAHE – Automatic System for Commercial Accounting of Heat Energy

ASCAEP – Automatic System for Commercial Accounting of Electric Power

GDP – Gross Domestic Product

OL – Overhead Line

OTL – Overhead Transmission Line

Gcal – Gigacalorie

Gcal/h – gigacalories per hour

SPAIID – State Program for Accelerated Industrial and Innovative Development

GRES – State District Power Plant

HEPP – Hydroelectric Power Plant

EBRD – European Bank for Reconstruction and Development

FAC – Fly Ash Collector

IIF – Islamic Infrastructure Fund

kWh – kilowatt per hour

CL – Cable Line

SG – Switchgear

PL – 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 regional 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

SSIC – Self-Supporting Insulated 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

AC – Agriculture

LLP – Limited Liability Partnership

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

Integrated Securities Registrar JSC (state registration certificate

No. 1678–1910–02 AO issued on 11.01.2012 by the Department of Justice of Almaty).

Annual Report prepared
by Expert Kazakhstan LLP

CAEPCO

Central-Asian
Electric Power Corporation