



# 2017 ANNUAL REPORT

*Development of the power industry is the  
development of the country*

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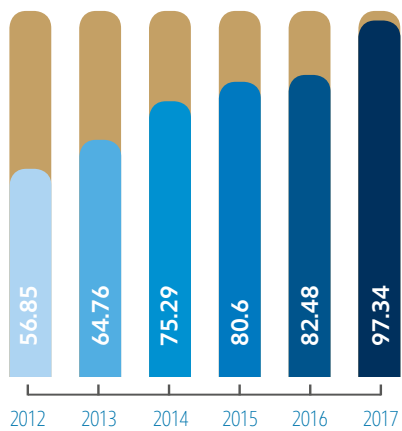
KEY INDICATORS

Revenue for 2017  
[97.34]  
billion KZT

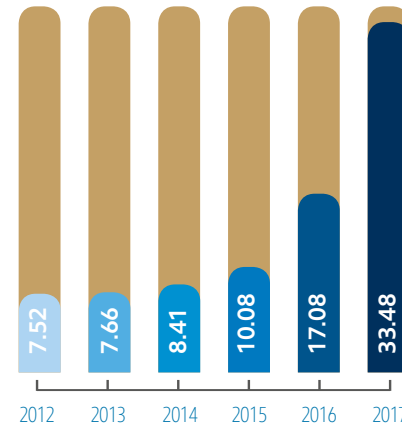
Net profit for 2017  
[33.48]  
billion KZT

EBITDA for 2017  
[52.08]  
billion KZT

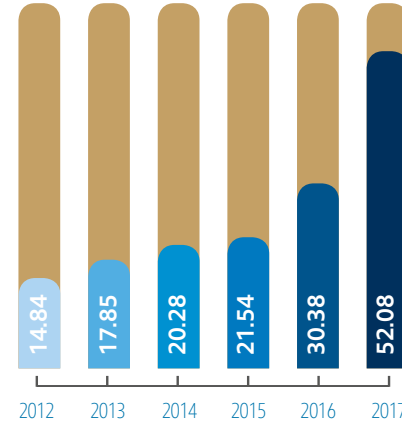
Revenue, billion KZT



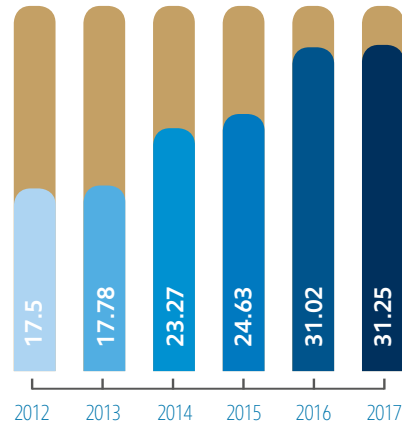
Net profit, billion KZT



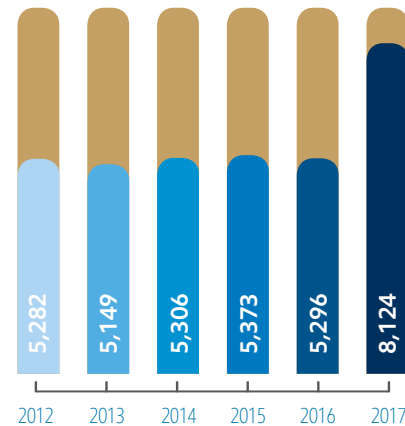
EBITDA, billion KZT



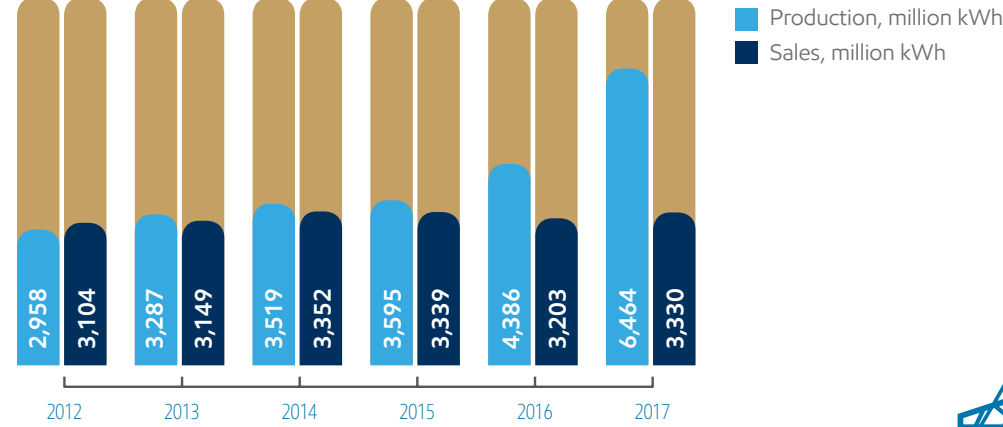
Gross profit, billion KZT



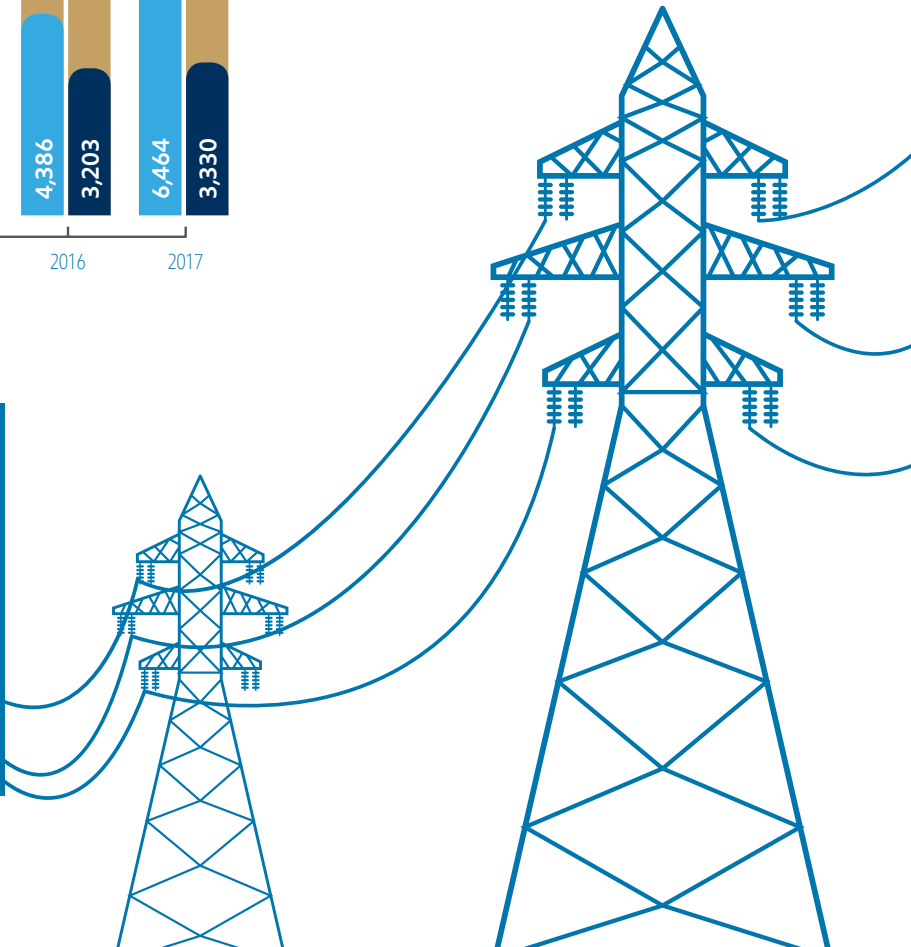
Electricity transmission, million kWh



Electricity production and sale, million kWh



Gross profit for 2017  
[31.25]  
billion KZT



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Message of the Chairman of the Supervisory Board



Dear ladies and gentlemen!

Let me welcome you on behalf of the Supervisory Board of Kazakhstan Utility Systems LLP!

Currently, the energy sector in our republic is entering a new stage of its development. Stable growth of socio-economic indicators in the country, an increase in volume of housing construction, an increase in the number of small and medium-sized businesses, natural population growth in Kazakhstan, undoubtedly, entail a natural consumer demand for heat and electricity. To meet the energy demand in the republic, the regulator and participants in the energy market are taking forward and verified steps as well as timely and effective reforms in the industry. In recent years, modernization of fixed and generating assets has become active, and domestic stations are actively implementing investment programs. In the near future, market participants will continue to invest in the energy system of our republic. This progress allows us to form an optimistic and confident forecast regarding the situation in the country's energy sector.

Kazakhstan Utility Systems LLP, being one of the largest players in the country's energy market, makes every effort to ensure the comprehensive development of all Company divisions – generation of heat and power, transmission and distribution, and power sales.

Investments in CHPPs owned by Kazakhstan Utility Systems LLP are aimed at increasing the power and heat capacity of stations, upgrading and modernizing the equipment, using innovative,

modern approaches to managing energy assets and best international practices in this area.

The implementation of investment projects of subsidiaries of Kazakhstan Utility Systems LLP, focused on the transmission and distribution of electricity, will create a multiplier effect, which will certainly have a positive impact on the socio-economic development of regions in which these companies operate.

Kazakhstan Utility Systems LLP also conducts planned work aimed at improving the quality of customer service by retail companies. Priorities for these organizations are the constant feedback from subscribers on-line, the use of high technologies to automate the services and increase the comfort in customer service.

I can say with certainty that Kazakhstan Utility Systems LLP completed 2017 with a financial-economic and performance indicators showing stable growth and integrated development of all divisions within our Group.

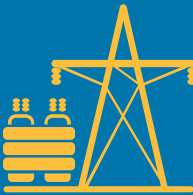
This positive result tells us about smart financial policy and efficiency of investment programs implemented by subsidiaries within the structure of Kazakhstan Utility Systems LLP.

We fully understand the responsibility assigned to us and the task of uninterrupted and high-quality provision of energy for residents of those regions where the KUS Group operates.

I express absolute confidence in the further stable development of Kazakhstan Utility Systems LLP and the successful achievement of all ambitious goals set by the Company. I want to sincerely wish luck to all thousands of employees of the KUS Group in implementation of these projects and I believe in the traditional achievement of high results.

Sincerely, Dinmukhamet Idrissov

I can say with certainty that Kazakhstan Utility Systems LLP completed 2017 with a financial-economic and performance indicators showing stable growth and integrated development of all divisions within our Group.



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## Message of General Director



*Dear readers!*

*Let me welcome you on behalf of the executive management of Kazakhstan Utility Systems LLP!*

In this annual report reflecting the activities of our Company in 2017, we are pleased to present to you all the main events, the dynamics of financial, economic and performance indicators for the period and to highlight the goals and objectives that we set to ourselves before.

I hope that the information contained in our annual report will allow you not only to get acquainted in detail with the activities of Kazakhstan Utility Systems LLP and analyze the current status of our Company but will also serve as impetus for establishing mutually beneficial cooperation with new partners and continuing effective cooperation with our current partners.

Kazakhstan Utility Systems LLP, being one of the main participants of the energy market in our republic, annually strengthens its positions and builds up its potential in this segment. Each year, we set ourselves new tasks and achieve them due to dedication, sound policies of the Company and a solid professional team that we are proud of. I am convinced that human capital assets, people who, regardless of time of day and season work under uninterrupted and trouble-free supply of consumers with heat and power, are the highest value of the Company.

The structure of Kazakhstan Utility Systems LLP covers such activities as production, transmission and distribution, as well as sale of power and heat.

Over the years, the performance and financial indicators of the KUS Group has been showing stable positive growth. I express confidence that this positive progress will continue in the future. Of course, this is facilitated by the large-scale and labor-intensive work of the Company employees. In our activity, we have always placed a special emphasis on the use of innovative solutions, a scientific approach to all processes at our production facilities. This applies to all, without exception, subsidiaries of the KUS Group. I want to emphasize that all the projects we are implementing – modernization of existing assets, construction of new power grids, expansion of generating and power transmission capacities, introduction of new technologies and automation of services in retail companies – are aimed at ensuring the quality and constant supply of our customers with heat and power in the regions where the Group operates.

I can say with confidence that 2017 will be marked in the history of Kazakhstan Utility Systems LLP as a particularly successful one. We managed not only to maintain the rate of development

that we set in the past years, but also to exceed the planned values of the Group’s operating activities. Moreover, in 2017 Kazakhstan Utility Systems LLP increased the geography of its locations from two to four regions, becoming the main shareholder of Mangistau Power Distribution Network JSC and the owner of Ust-Kamenogorsk and Sogrinsk CHPPs. Thus, the regional map of our Group to date is represented by Karaganda, South Kazakhstan, East Kazakhstan and Mangistau regions. Considering the acquisition of new assets in EKR, generation of heat and power by the KUS Group in 2017 increased by 47%. A record growth is also demonstrated by the transmission and distribution division due to acquisition of the main block of shares of MEDNC JSC as well as the efficient operation of Ontustik Zharyk Tranzit LLP and Karagandy Zharyk LLP. The volume of electricity transmitted via the KUS Group’s electric grids increased by 53% in 2017.

The effectiveness of our economic course is also assessed by international institutions. In 2017, the international rating agency Fitch Ratings, which evaluates the activities of the world’s most famous corporations, confirmed that Kazakhstan Utility Systems LLP has long-term issuer default ratings in foreign and national currencies at “BB-” and the national long-term rating at “BBB+(kaz)”, the outlook on ratings is “Stable”.

To achieve these results, we had a favor of economic conditions that are created in the country. For this, we would like to express our gratitude to the Government of our Republic for timely and effective reforms that are being conducted in the domestic energy sector. We completed a year of 2017 with a good financial result and successfully implemented the planned activities in the framework of investment programs.

The ideology of the KUS Group is based on unity and parity and trusting relationships with our customers. We are striving not only to meet the requirements of our consumers, but also to work ahead of requests from residents of those regions where the Group operates. All our efforts are aimed at achieving this goal. In particular, as of today, on the territory where our power grids are located, there is a possibility of connecting a large number of new consumers taking into account population growth, increase in housing construction, the number of social facilities and small and medium-sized businesses. These measures, along with the

increase in the capacity of our CHPPs, actively contribute to the social and economic development of the country.

The development strategy of Kazakhstan Utility Systems LLP has the following development directions in 2018: further implementation of large-scale investment programs by our subsidiaries at their production facilities, modernization of generating capacities along with the construction of new power grids, and automation of services in retail companies.

All our work and its positive results could not have been possible without the full support and confidence from the Supervisory Board of the KUS Group, for which we are very grateful.

I am convinced that the close cooperation of the Group will allow us not only to achieve the goals we set for ourselves in 2018, but also to give an additional impetus to even more dynamic development of the Company in future.

Sincerely, **Nabi Aitzhanov**



The volume of transmitted electricity increased by **[53%]** in 2017

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# KEY EVENTS OF 2017 AND IMPLEMENTATION PRIORITY TASKS



## Kazakhstan Utility Systems LLP

In January 2017, KUS LLP received financing in the amount of KZT 882.4 mln. by successful placement of bonds on the Kazakhstan Stock Exchange.

In March 2017, KUS LLP opened a credit line in Sberbank subsidiary for acquisition of 100% shares in AES Middlezee Holding B.V. for a total amount of KZT 7.2 bln. with maturity up to March 2024, of which KZT 6.6 bln. were used.

In April 2017, KUS LLP acquired generating assets in the East Kazakhstan region: Ust-Kamenogorsk and Soginsk CHPPs, with a total installed capacity of 447.5 MW.

In September 2017, KUS LLP together with the strategic partner, based on the results of a two-stage open tender on the sale of assets of Samruk-Energo JSC was declared the winner. As a result, 37.5% of shares of Mangistau Electricity Distribution Network Company JSC (MEDNC) was acquired, and the total number of MEDNC shares in the KUS portfolio reached 43.73%.

In October 2017, the international rating agency Fitch Ratings confirmed that Kazakhstan Utility Systems LLP have long-term issuer default ratings (IDR) in foreign and national currencies at the level of “BB-”. The outlook on the ratings is “Stable”.



## Karaganda Energocenter LLP

At Karaganda CHPP–3, the 1<sup>st</sup> stage of the project to increase the number of dams in the third section of the ash dump No. 2 was completed.



## Ust-Kamenogorsk CHPP LLP

A project for the reconstruction of the existing ash dump was completed, and design of a new ash dump for the storage of ash and slag was initiated.



## Karagandy Zharyk LLP

Reconstructed: TS, PTS with power equipment and ASKUE equipment – 78 pcs., AVL (SIW) – 48 km; 33 km of cable lines of 0.4–10 kV.

Work were carried out to equip the radio relay connection of the BRES, ShRES.

A new building of the dispatching office of WPS ODS was constructed.

The design and estimate documentation for construction of 110/10 kV Substation Tikhonovka has been developed, and engineering and geological surveys have been performed.



## Ontustik Zharyk Tranzit LLP

In regards of vast population growth, as well as with the introduction of new microdistricts with socially significant objects and a remote location from the center of electric loads in the village Ykylas-Temir of the Ordabasy district, in the village of Mailykent of the Tyulkubas district and the village of Dostyk of the Turkestan district, in order to optimize the existing loads of the substation and power transmission line, improve the quality and reliability of electricity supply for these communities, the Partnership built 3 35/10 kV substations.

At 110 kV L–169 (ring circuit) HV line, feeding Otrar, Turkestan districts, the length is 76 km, AS–70 cables were replaced for AS–120, P–6 insulators have been replaced with PS–70 and PDD–70 insulators and bird protection devices were installed. This enabled increasing the capacity of the line by 21 MW and improving the reliability of power supply to consumers.

The project was developed and complete modernization of 0.4–10 kV overhead transmission lines with the use of SIW with a total length of 0.4 kV overhead line – 309.59 km.

The ASKUE system for 110/35/10kV “Makhtaaral” Substation was implemented.

ASKUE REM in the city of Turkestan with coverage of 4,653 subscribers is implemented for 43 TS, TSS, PTS.



## Mangistau Electricity Distribution Network Company JSC

Construction of a 220–kV Aktau–Karazhanbas power transmission line with 1x150 MVA auto-transformer on the Karazhanbas URPS.

Construction of a 110–kV power transmission line from 220–kV SS Uzen to 110/35/6 kV Plato SS, 18.7 km long, with the replacement of 1x40 MVA transformer.

Transformers were replaced at substations 110/35/6 kV Zhetybay, 35/6 kV BKNS–3, 35/6 kV BKNS–2 with higher power transformers.

The Krun–6kV substation was replaced at 110/6 kV Karazhanbas–2 substation.



## Retail companies of the Group

Within the framework of diversification of activities, the market for services has been successfully expanded by the project on maintenance of house engineering networks.

The number of serviced consumer accounts increased by almost 20 thousand, or 1.8%, compared to 2016.



## Key events after the reporting date

In January 2018, Kazakhstan Utility Systems LLP additionally purchased from Unified Accumulative Pension Fund JSC 6.77% of common shares of MEDNC JSC. Thus, the Group owns 50.19% of MEDNC outstanding shares, ownership ratio of voting shares is 52.63%.

In February 2018, Kazakhstan Utility Systems LLP made a deal to sell Soginsk CHPP LLP.

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*Kazakhstan Utility Systems LLP (KUS LLP, KUS, Company, KUS Group or the Group) is a successful vertically integrated company in the power and heat sector in the Republic of Kazakhstan.*

## Brief Company profile

**Kazakhstan Utility Systems LLP (KUS LLP, KUS, Company, KUS Group or the Group) is a successful vertically integrated company in the power and heat sector in the Republic of Kazakhstan.**

The Group develops and implements a development strategy that meets the state’s energy policy. The main factors for the KUS development are: modernization of existing assets, expansion of generating and power transmission capacities, as well as customer orientation of marketing companies.

KUS Group enterprises form an industrial chain – from the generation of power and heat to their delivery to the end user. In 2017, the Company operated in four regions of the country – South Kazakhstan, Karaganda, East Kazakhstan and Mangistau regions. All KUS enterprises have unified management processes that provide effective interaction of all structural subdivisions of subsidiaries.

KUS is a stable and creditworthy company. In October 2017, the international rating agency Fitch Ratings confirmed that the long-term Issuer Default Ratings (IDR) in foreign and national currencies was at “BB-” level. In addition, the agency confirmed the national long-term rating of the company at the level of “BBB+(kaz)”. The forecast on ratings is “Stable”. The KUS Bond program in the amount of KZT 12.3 bln. also has a “BB-” rating in accordance with the long-term local currency IDR.

The company is a member of the Kazakhstan Electric Power Association (KEPA). KEPA includes 33 corporate members: energy producers and power grid companies, large industrial energy consumers, industry research and design institutes, power generating companies, and other companies. In addition, KUS is a member of the KAZENERGY Association and the RK National Chamber of Entrepreneurs “Atameken”.



**The KUS Bond program in the amount of KZT 12.3 bln. also has a “BB-” rating in accordance with the long-term local currency IDR.**

**The rating of «BB-»**  
in the amount of

**[12.3]**  
billion tenge

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Generation

**Karaganda Energocenter LLP** is a company combined two power plants of the Group – Karaganda CHPP–1 and CHPP–3. The total number of employees of KEC LLP is 1,320.

**CHPP–1**  
Electric power: installed capacity – 32 MW, available capacity – 24 MW.  
Heat power: installed capacity – 460 Gcal/h, available capacity – 234.7 Gcal/h.

**CHPP–3**  
Electric power: installed capacity – 670 MW, available capacity – 536.1 MW.  
Heat power: installed capacity – 1 429 Gcal/h, available capacity – 1,057 Gcal/h.

**Shygys Energo LLP** is a company combined two power plants of the Group in the east of the republic – Ust-Kamenogorsk and Sogrinsk CHPPs.

Transmission and distribution

**Karagandy Zharyk LLP** is a power grid company in the Karaganda region. 0.4–220-kV Electrical networks, designed for electricity supply to urban, industrial and agricultural consumers in Karaganda city and Karaganda region:

- ▶ 0.4–220 kV HV line – 5,144 km;
- ▶ 0.4–35 kV HV line – 1,676 km;
- ▶ 220/110/35 kV substation – 105 units;
- ▶ Service transformer – 242 units;
- ▶ TS, PTS, DB 6–10/0.4 kV – 1,811 units.

Number of employees – 1,564.

**Ontustik Zharyk Tranzit LLP** is a power grid company in the South-Kazakhstan region. 0.4–110 kV electrical networks, designed for electricity supply to urban, industrial and agricultural consumers in Shymkent city and South Kazakhstan region:

- ▶ 0.4–110 kV HV line – 22,387 km;
- ▶ 0.4–110 kV HV line – 687 km;
- ▶ 110–35 kV substations – 247 units;

**Ust-Kamenogorsk CHPP**  
Electric power: installed capacity – 372.5 MW, available capacity – 269.9 MW.  
Heat power: installed capacity – 881.7 Gcal/h, available capacity – 881.7 Gcal/h.  
Number of employees – 568.

**Sogrinsk CHPP**  
Electric power: installed capacity – 75 MW, available capacity – 70 MW.  
Heat power: installed capacity – 232 Gcal/h, available capacity – 187 Gcal/h.  
Number of employees – 241.

**Zhuzimdyk Wind Farm LLP** is a project for the development of alternative energy in the South Kazakhstan region (Shayan village, Baidibek district of the South Kazakhstan region), which is being implemented.  
The installed capacity of Zhuzimdyk Wind Farm – 40 MW.

- ▶ service transformer – 349 units;
- ▶ TS, PTS, DB 6–10/0.4 kV – 5,573 units.

Number of employees – 3,357.

**Mangistau Electricity Distribution Network Company JSC** is a power grid company in Mangistau region. 0.4–220 kV power networks, designed for electricity supply to urban, industrial and agricultural consumers in Mangistau region:

- ▶ 0.4–220 kV HV line – 5,033 km;
- ▶ 0.4–35 kV CL – 40,234 km;
- ▶ 220/110/35 kV substations– 57 units;
- ▶ service transformer – 114 units;
- ▶ PTS 6–10/0.4 kV – 425 units.

Number of employees – 681.

Sales

**KaragandyZhyluSbyt LLP** is an energy retail company in Karaganda and Karaganda region. Two district and two urban sales areas. Number of subscribers for heat supply:

- ▶ 148,421 subscribers – individuals;
- ▶ 3,029 subscribers – legal entities.

Number of subscribers for power supply:

- ▶ 187,966 subscribers – individuals;
- ▶ 4,947 subscribers – legal entities.

Number of subscribers for hot water supply

- ▶ 127,106 subscribers – individuals;
- ▶ 1,769 subscribers – legal entities.

Number of employees – 298.

**Raschetnyi servisnyi center LLP** is an energy retail company in the Karaganda region. Two district and one urban sales area. Number of subscribers for power supply:

- ▶ 51,708 subscribers – individuals;
- ▶ 1,662 subscribers – legal entities. Number of employees – 45.

**Ontustik Zharyk LLP** is an energy retail company in the South-Kazakhstan region. 18 district and one city sales area. Number of subscribers for power supply:

- ▶ 384,606 subscribers – individuals;
- ▶ 14,665 subscribers – legal entities. Number of employees – 481.

**Energopotok LLP** is an energy retail company in the South-Kazakhstan region in Shymkent. Five urban sales areas. Number of subscribers for power supply:

- ▶ 188,949 subscribers – individuals;
- ▶ 9,247 subscribers – legal entities. Number of employees – 249.



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2008–2010

- Kazakhstan Utility Systems LLP management company was formed on November 3, 2008.
- The Group gained control over 100% ownership interest in Ontustik Zharyk Tranzit LLP and Karagandy Zharyk LLP to create a vertically integrated energy company.
- In 2010, the Group joined the participants of Karaganda Energocenter LLP by making an additional contribution to the authorized capital and redistribution of shares between the participants.

2011

- Obtaining control over 100% shares in KaragandyZhyluSbyt LLP, Raschetnyi servisnyi center LLP, Energopotok LLP and Ontustik Zharyk LLP with the goal of creating a vertically integrated energy company.
- Decision on the construction of a new power unit (boiler + turbine) at 110 MW and 185 Gcal/h at Karaganda CHPP–3.
- Reduction of accident rate by 50% at CHPP–3, CHPP–1 of Karaganda Energocenter LLP.
- Karagandy Zharyk LLP commissioned two new substations.
- Karagandy Zharyk LLP has implemented an automated control and accounting system (ASKUE), the second stage.
- The construction of 110-kV HV line GRES–1 – CHPP–2 of Karagandy Zharyk LLP was completed.
- Ontustik Zharyk Tranzit LLP has implemented an automatic database and consumers system (ASBIP) with the purpose of issuing technical conditions for the fastest possible identification of connection points.
- Signing of EPC-contract for expansion of Karaganda CHPP–3, installation of power unit No. 6.
- Commissioning of a new turbine No. 5 with a capacity of 120 MW.
- Reconstruction of belt conveyors (streams 2A, 3A, 4B) at CHPP–3 of Karaganda Energocenter LLP.
- Commissioning of the cooling tower No. 4 of Karaganda Energocenter LLP.
- Implementation of ASKUE by Karagandy Zharyk LLP, 3<sup>rd</sup> stage.
- Upgrade of transformers, development of external electric power networks for creation and maintaining of a reliable system of electric power supply.

2012–2013

- Signing an agreement with Development Bank of Kazakhstan JSC for opening a credit line of KZT 30 bln. For Karaganda Energocenter LLP.
- Construction of new ash dumps for dry storage of waste at stations of CHPP–1 and CHPP–3 of Karaganda Energocenter LLP.
- Construction of Zharyk substation (substation) of Karagandy Zharyk LLP.
- Ontustik Zharyk Tranzit LLP has begun construction of 110-kV Severnaya Substation and 110 kV Nursat Substation.
- Works on reconstruction and technical re-equipment of 10/6/0.4 kV power grids in accordance with the developed working projects of Karagandy Zharyk LLP.
- Establishment of Energy Center LLP. The company's statutory activity is the production of heat and power energy. 100% share in the partnership belongs to KUS LLP.

2014

- Since 2013 there is a process of expansion of CHPP–3 of Karaganda Energocenter LLP, by installing turbine No. 6 and boiler No. 8.
- Karagandy Zharyk LLP commissioned 220/110/10 kV Zharyk and 110/35/6 kV Santechnikeskaya–2 substations.
- Ontustik Zharyk Tranzit LLP commissioned Severnaya substation (2x40,000 kVA), constructed and modernized 10/0.4 kV networks, and various voltage class substations.
- The project “Construction of a wind power station in the SKR” was initiated.
- Subsidiary marketing organizations expanded their customer base and introduced the “Unified Billing System” for suppliers of all types of utilities, buildings were acquired to create contact centers.

2015

- Ontustik Zharyk Tranzit LLP successfully completed construction of 0.4–10 kV networks in the Taraz micro-district in Shymkent.
- Ontustik Zharyk Tranzit LLP completed the construction of the second 110-kV aeral line in the in-out scheme from 110 kV L–108 HV line to 110/10 kV Samal substation with a length of 2.8 km.

- In December, Ontustik Zharyk Tranzit LLP introduced 10/0.4-kV ASKUE, as a result, in 2015 in Turkestan, 31 package transformer substations and 3,740 consumers were connected.
- Ontustik Zharyk Tranzit LLP designed, built and commissioned 110/10–10 kV Nursat closed type substation with installed capacity of 2 x 40 MVA power transformers.
- Karagandy Zharyk LLP constructed and commissioned 220/110/35-kV Zharyk substation.
- Karagandy Zharyk LLP constructed and commissioned 110/35/10-kV Santechnikeskaya–2 and 110-kV CHPP–3 Santechnikeskaya–2 HV line, L = 1.3 km with the installation of AC wire with 300 sq. mm.
- In order to diversify the Group's activities through the development of alternative energy, on July 15, 2015, Zhuzimdyk Wind Farm LLP was established, with 100% shares belonging to KUS LLP.
- In November, in Karaganda region, for the convenience of consumers, a joint project with ERC LLP for implementation of a unified payment document (UPD) was completed and developed on the principle of “one window”, the number of cash handling units was increased, and the electronic queue system was introduced.
- Installation of the new 110-MW power unit was completed at Karaganda CHPP–3 of Karaganda Energocenter LLP. A trial run of the unit was carried out at full capacity with an ad hoc acceptance of equipment, a new fan cooling tower was commissioned.
- New contact centers were opened in subsidiaries of retail organizations of the South Kazakhstan region and Shymkent.

2016

- Kazakhstan Utility Systems LLP acquired 6.54% of common shares of Mangistau Electricity Distribution Network Company JSC.
- In the trading system of Kazakhstan Stock Exchange JSC (KASE) the first specialized trades on placement of bonds of Kazakhstan Utility Systems LLP were held.
- The international rating agency Fitch Ratings confirmed that Kazakhstan Utility Systems LLP has long-term issuer default ratings (IDR) in foreign and national currencies at the level of “BB-“. The forecast on the ratings is Stable.
- During the international contest “Choice of the Year No. 1 in Kazakhstan” Kazakhstan Utility Systems LLP officially

- received “Energy Company No. 1 of 2016 in Kazakhstan” award.
- A new power unit commissioned at Karaganda CHPP–3 of Karaganda Energocenter LLP, which includes a 110-MW power turbine and a 400 Gcal/h steam heat boiler. Due to this, Karaganda CHPP–3 became the largest heat and power plant in the Republic of Kazakhstan.

Ontustik Zharyk Tranzit LLP

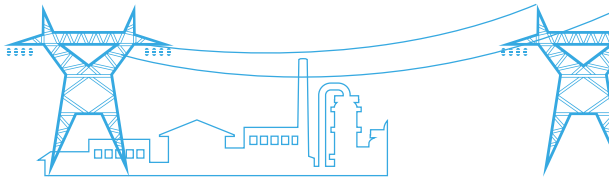
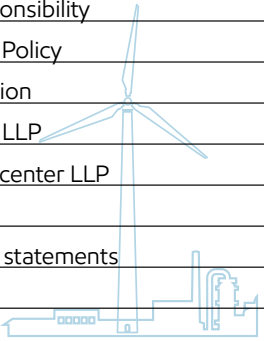
- In Shymkent 110/10 kV Nursat power substation of closed-type was commissioned.
- The construction of a 110 kV HV line (overhead line) with a tapping from 110 kV HV line L–108 to 110/35/10 kV Sovetskaya with a length of 5.5 km.
- The project was developed and complete modernization of 0.4–10 HV transmission lines with the use of self-supporting insulated wire with total length of 0.4 kV overhead transmission line – 220 km for 0.4-kV HV lines, for 6–10 kV HV line – 7 km.
- The cable line (cable line) – 110 kV from the substation (substation) 110/10–10 Nursat to the 110 / 10–10 Severnaya substation in Shymkent with a length of 1,714 m was constructed and put into operation.
- ASKUE REM was implemented in Turkestan with a coverage of 4,172 subscribers for 36 TS, PTS and DB.

Karagandy Zharyk LLP

- Reconstructed: TS, PTS with power equipment – 119 pcs., KL – 52 km, ACL (SIW) – 88 km.
- A large-scale reconstruction of 0.4–10 kV distribution networks was carried out.
- A new building of the dispatcher office of WPS ODS was built.
- The land cadastral plan for the land plot to construct 110/10-kV Tikhonovka substation has been developed.

Retail Companies of the Group

- The quality and convenience of customer service has been improved: modern IT solutions and telephony facilities have been installed, and the number of cash service centers has been increased.
- The number of subscribers increased by more than 23,000 or 2.5%.
- KaragandyZhyluSbyt LLP in 2016 switched to settlement with consumers under a unified payment document (UPD).



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Geography of locations

In 2017, the Group was represented in four of the 14 regions of Kazakhstan – Karaganda, South Kazakhstan, East Kazakhstan and Mangistau. The total population of these regions is 6.3 million people, which is about 35% of the republic’s population.

In 2017, consumers of KUS services were more than 830 thousand individuals and over 33 thousand legal entities.

In the Karaganda region, the Group focuses on the production of heat, power energy and chemically purified water, as well as the transfer, distribution and sale of electricity and heat. In the South-Kazakhstan region – only on the transmission, distribution and sale of electricity, in the East Kazakhstan – on the production of heat and power energy, in Mangistau – on the transfer and distribution of electricity.

For 2017, the Group retains 33% shares of power generation in the Karaganda region, 28% of power transmission services market, 70% of heat supply (KUS provides heat to Karaganda), and 66% of the electricity sales market in Karaganda and the satellite cities due to KUS energy retail companies.

In the South-Kazakhstan region, KUS occupies 69% of the power transmission and 78.3% of the energy retail sector.

In the East Kazakhstan region, the Group owns 15.7% of the total electricity supply from the tires of all stations in the EKR and 40% of the heat supply market (Ust-Kamenogorsk CHPP).

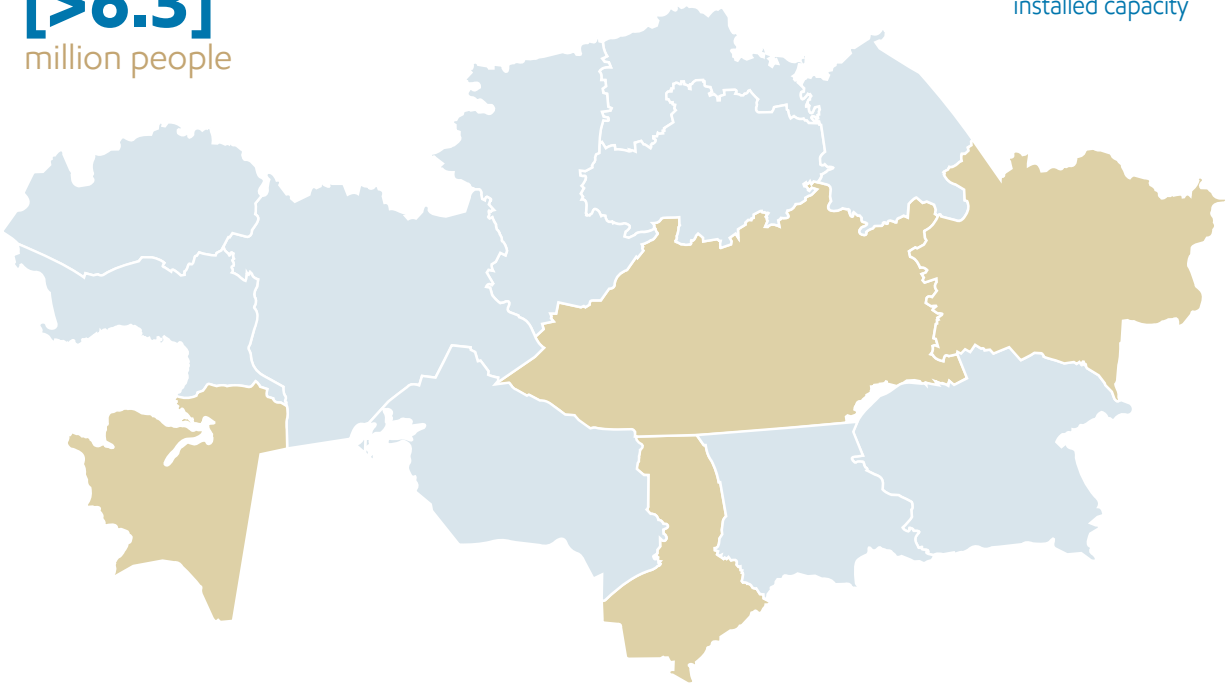
KUS share in the transmission and distribution market of Mangistau region, except Aktau, is 100%.



Population  
in regions of presence  
[>6.3]  
million people



the largest energy  
companies in terms of  
installed capacity



Consumers

[>830]  
thous. individuals

[>33]  
thous. legal entities

In 2017 the  
Company is  
represented in  
4 regions of the  
country.

East-Kazakhstan  
region

15.7% of the total electricity  
supply from the tires of  
all stations in the EKR

40% of market share on heat supply  
(Ust-Kamenogorsk CHPP)

Mangistau  
region

100% of market share on  
power transmission  
and distribution  
(except for Aktau city)

South-Kazakhstan  
region

69% of market  
share on power  
transmission

78.3% of market share  
on power sales

Karagandy  
region

33% of power  
generation share

70% of heat supply share  
(Karagandy city)

28% of market share on  
power generation

66% of market share on power  
sales (Karagandy city and  
satellite cities)

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Mission, vision, values

Mission

The mission of the KUS Group is to provide reliable and high-quality power supply to its consumers, to promote long-term economic growth and social stability in the regions of presence, their prosperity and progress. The Group also sees its mission in the preservation and protection of the environment when using natural resources rationally. At the same time, the Group places its unity with consumers, honest and open dialogue and implementation of joint tasks as the main priority.

Vision

The KUS Group is an actively developing structure that is leading in key segments of power and heat energy of Kazakhstan, its transmission and sales.

KUS operates in some of the most densely populated regions of the country.

The Group is constantly expanding the list of assets and geography of its presence, including various energy companies, using renewable energy sources and supporting promising innovative projects.

Values

**Reliability** is providing the reliability and high quality of the services by the Company.

Professionalism and team spirit are improving the professional level of employees as one of the most important tasks of the Company.

**Human capital asset** is a belief in the success of a common goal, mutual respect, assistance to each employee in growth and development, understanding of their interests and needs.

**Innovation** is the continuous striving to improve and optimize existing approaches and technologies, as well as all-round support and stimulation of new products and solutions.

Goals of KUS LLP *are creation of a new Company value, maintenance of profitability and stability of business, provision of shareholders with income on invested capital by increasing the value of assets.*

To achieve these goals, the Company is constantly working to develop and optimize business processes, including reducing costs, increasing the efficiency of operations, improving the quality of products and services provided, and applying new advanced technologies.

**The Company’s responsibility to the country is to provide:**

- ▶ the Company’s energy assets networks to meet the growing demand for heat and power;
- ▶ sufficiency and reproducibility of the resource base, efficient management of costs;
- ▶ effective and reasonable use of funds invested in the Company, as well as minimizing the risks of investment activity;
- ▶ coordinating the Company’s plans and regional development plans to satisfy the region’s future energy supply needs.

Kazakhstan Utility Systems LLP considers quality management, labor safety, preservation of life, health, environmental protection as an **integral part of its mission** of a high-tech, efficient and dynamically developing company in the Republic of Kazakhstan.

The main **priorities** of Kazakhstan Utility Systems LLP that allow us to provide the quality and timely implementation of all projects are:

- 1) systematic training and continuous improvement of professional skills of KUS Group employees, improvement of human resources, preservation and enhancement of human capital assets of KUS LLP;
- 2) maximum of effective use of existing production, financial and human assets of the KUS Group to achive set goals;
- 3) customer orientation of marketing companies, providing constant feedback to consumers, improving services;
- 4) strict observance of legislation of the Republic of Kazakhstan, state legal acts regulating energy

policy, which are guides to the KUS Group in its activities;

- 5) construction of new power grids, expansion of generating and power transmission capacities, stable growth of production indicators of enterprises belonging to the KUS Group;
- 6) modernization of existing energy assets, use of innovative solutions at their production facilities, scientific, innovative approach and optimization of energy costs;
- 7) constant focus on preserving the environmental balance in the course of operations of the organizations belonging to the KUS Group, implementation of the most progressive, energy-efficient and safe solutions considering the environment and labor protection, technical solutions for implementation of projects;
- 8) openness and transparency of all activities of the KUS Group, provision of the necessary information to consumers, partners and the public about the work of KUS LLP, including media coverage, taking into account the high social significance of the products manufactured and sold by the Group;
- 9) Continuous analysis of activities of all suppliers and contractors of the KUS Group, building long-term, mutually beneficial relationships with them.

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# Strategy

## Strategy of Kazakhstan Utility Systems LLP

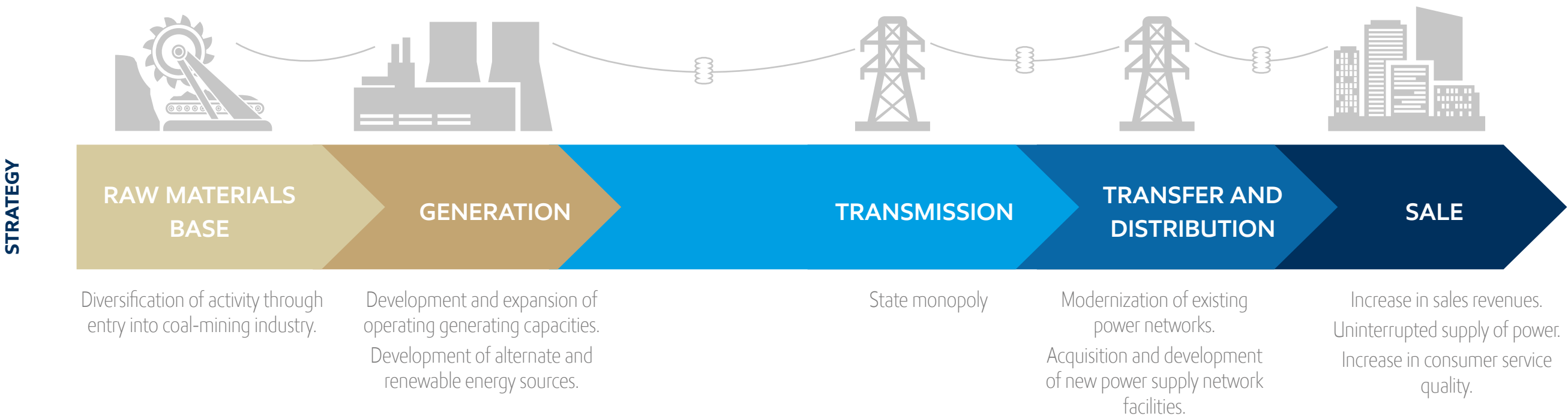
The KUS Group occupies one of the leading places in the list of energy companies of the country. The strategic goal of KUS is to become one of the three largest energy companies in Kazakhstan in the perspective of five years.

### KPI of Kazakhstan Utility Systems LLP for 2018

№	Key performance indicators	Unit of measurement	Planned/ Actual for 2017	Plan for 2018
1.	EBITDA	million KZT	36,255 / 52,085	39,452
2.	Capitalization	million KZT	240,734 / 345,844	261,094
3.	Average annual power output	MW	442 / 603	611
4.	Volume of power energy transportation	mln. kWh	5,235 / 8,124	8,257
5.	Network losses	%	13,37 / 12,26	10,7

## Corporate development

- The Group introduces management innovations, international standards of corporate management.
- Focus on stimulating the expansion of the flow of international investment to KUS and the energy sector of the country as a whole.
- The Group seeks to support the development of human capital by building responsible relationships with employees.
- Forming a positive image of the Company and a strong brand.
- Active promotion of the Company interests at the legislative level.



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Business model

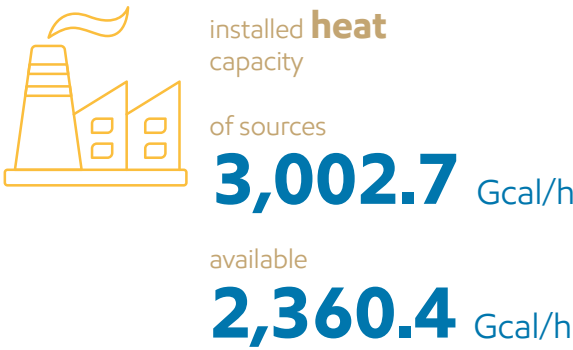
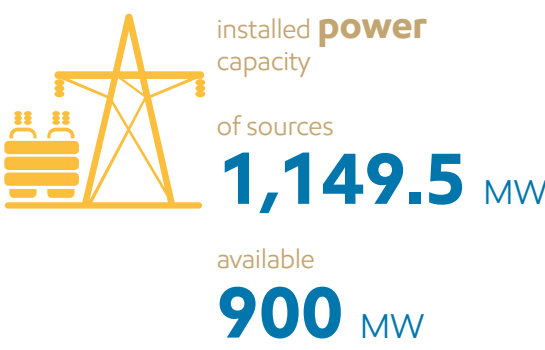
Using existing resources, by implementing a long-term sustainable development strategy, we create values for stakeholders.

Our resources (as of January 1, 2018)

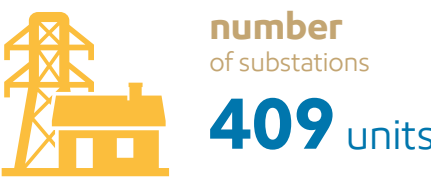
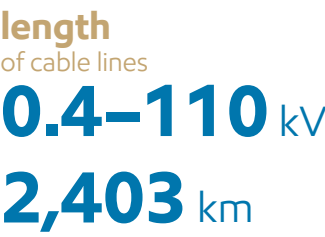
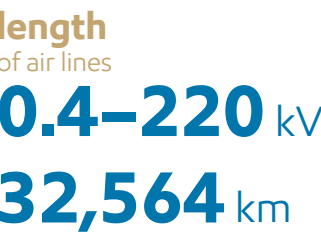
Production capacities

The Group has a strong production base, which is a combination of power and heat generating sources, as well as power transmission networks, heating plants and substations.

Generation:

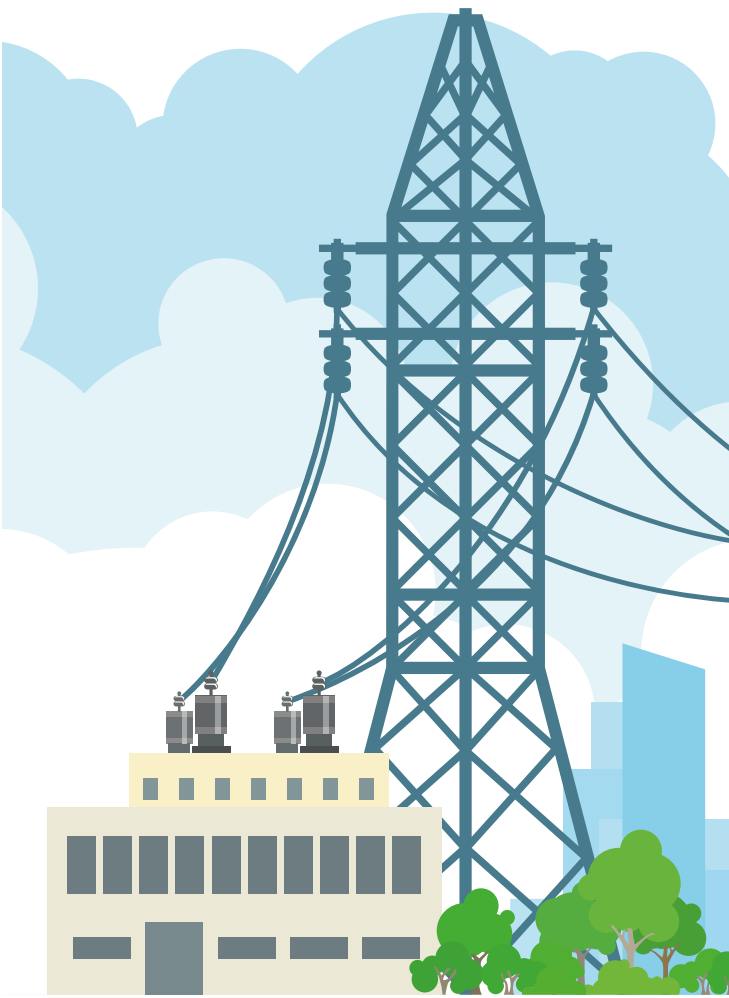


Transmission and distribution:



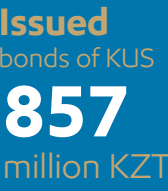
Personnel

The basis of the Company activities are professional employees committed to their business and sharing its values.



Capital

The company strives to effectively use the shareholders’ capital and borrowed financing, ensuring proper profitability and stably performing the financial liabilities, which is confirmed by high credit ratings (“BB-” from Fitch Ratings).



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What we do?

Enterprises of the KUS Group form an industrial chain – from power and heat generation to their delivery to the end user. In 2017, the Company operated in four regions of the country – South Kazakhstan, Karaganda, East Kazakhstan and Mangistau regions. All KUS enterprises have integrated management processes that ensure effective interaction of all structural subdivisions of subsidiaries.

Heat and power generation

The basis for heat and power generation of the Group consists of four combined heat and power plants. CHPP–1 and CHPP–3 are included in the subsidiary organization of Karaganda Energocenter LLP, which is the only centralized supplier of thermal energy and also the largest electricity supplier in Karaganda. Ust-Kamenogorsk and Sogrinsk CHPPs are included in the subsidiary company of Shygys Energo LLP. The power and heat generated by Ust-Kamenogorsk CHPP covers 80% of the city’s housing and utility services. Group assets play a significant role in the energy sector of these regions of operation.

Power transmission and distribution

The Group’s power networks are a set of substations, switchgears and transmission lines with a voltage of 0.4–220 kV. Three daughter power grid companies provide electricity to urban, industrial and agricultural consumers in Karaganda, South Kazakhstan and Mangistau regions.

Sales

Power retail enterprises of the Group carry out direct work on interaction with consumers, which are both individuals and large industrial companies. Power retail companies of the Group operate in Karaganda and South Kazakhstan regions.

Investment operations

The Group implements several large-scale activities to modernize production facilities aimed at significantly improving the efficiency and reliability of equipment. Execution of the investment program allows us to reduce the regulatory technical losses, as well as to increase the reliability of power supply to regions covered.



Capital  
expenditures in 2010–2017

[182]  
billion KZT

Coefficient of installed  
capacity increased

from 0.48%  
to 0.74%

Value creation (2017 results)

Consumers

Consumers of KUS services in four regions of the Group’s presence are more than 830 thousand individuals and over 33 thousand legal entities.

- 6,464 mln. kWh power generated.
- 5,933 thous. Gcal heat generated.

Personnel

The Company seeks to maintain the status of a good employer, creating the best working conditions for its employees, providing them with the appropriate material and non-material remuneration, training and development of competencies.

- 9,154,447 thous. KZT – expenses for labor payment.
- 66,774 thous. KZT – expenses for social employee support.
- 4,993 people received training programs.

Founders and creditors

An effective system of corporate and risk management is aimed at maintaining the balance of interests of founders and creditors and Group’s development.

- 120,182 thous. KZT – interest paid on issued bonds of KUS.
- 4,907,863 thous. KZT – interest paid on loans.

State bodies and regions of presence

The Company is a large employer and taxpayer in the regions of its presence, and also provides infrastructure development and supports local communities.

- 8,824,951 thous. KZT was the payment of taxes for the year.
- 95,531 thous. KZT were social expenses.
- 19.3 bln. KZT were the Group’s capital investments for the year (including investments of MEDNC).



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Vertical integration

The group is a vertically integrated company, which includes ten energy companies at the end of 2017.

The number of employees of the Group companies in 2017 is 8.8 thousand people.

Within the Group the following segments are distinguished:

Generation:

- ▶ Karaganda Energocenter LLP;
- ▶ Shygys Energo LLP;
- ▶ Zhuzimdyk Wind Farm LLP.

Transmission and distribution:

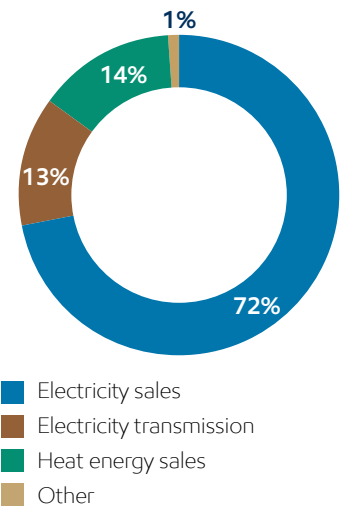
- ▶ Karagandy Zharyk LLP;
- ▶ Ontustik Zharyk Tranzit LLP;
- ▶ Mangistau Electricity Distribution Network Company LLP.

Sales:

- ▶ KaragandyZhyluSbyt LLP;
- ▶ Raschetnyi servisnyi center LLP;
- ▶ Ontustik Zharyk LLP;
- ▶ Energopotok LLP.

Following the results of 2017, KUS supplies regions of presence with power and heat, where lives 35% of the population of Kazakhstan.

Revenue structure, 2017



Competitive advantages

- ▶ Strategic importance – In 2017, the Group and its subsidiaries **supply regions of presence with power and heat, where lives 35% of Kazakhstan’s population (6.3 million people).**
- ▶ The advantages of **vertical integration, large scale and diversification** contribute to the achievement of the Group’s most effective activities in providing its customers with qualitative services, which at the end of 2017 counted more than 830 thousand individuals and 33 thousand legal entities. In the regions of its presence, KUS occupies a dominant position.
- ▶ The possibility of concluding **long-term purchase and sale contracts** for electricity allows us attracting large industrial consumers with long-term development plans.
- ▶ The Group has established itself as **one of the most attractive issuers** of debt obligations among realtor companies present on the Kazakhstan securities market. On October 19, 2017, international rating agency Fitch Ratings confirmed that KUS LLP had long-term credit ratings of the issuer’s default in foreign and national currencies at the “BB-” level. Also, the agency confirmed the national long-term rating of “BBB+(kaz)” of the Company. The forecast on ratings is Stable.
- ▶ Absence of debt burden in foreign currency, respectively, the availability of ensuring **a flexible pricing policy.**
- ▶ The Group **successfully diversifies its funding sources.**

Following the results of 2017, KUS supplies regions of presence with power and heat, where lives 35% of the population of Kazakhstan.

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## External environment review

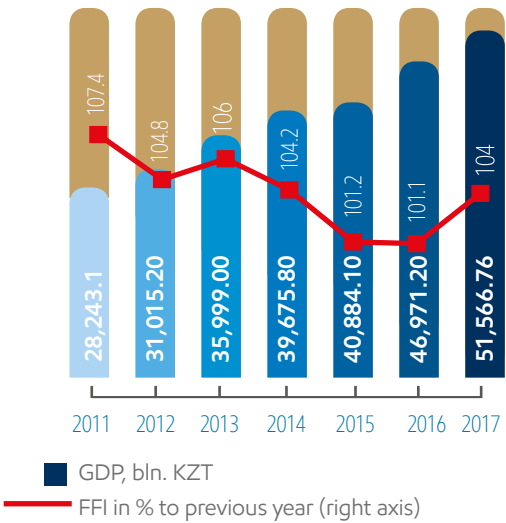
### Sector in 2017

In 2017, the volume of Kazakhstan’s gross domestic product increased by 4% and amounted to KZT 51,966.8 billion, which allows us to speak about a certain acceleration of the economic growth. The revival in the economy was facilitated, in particular, by the improvement of the external economic conjuncture in commodity markets and government programs to support the economy. The volume of industrial production increased by 7.3%, in particular, the growth of the mining industry was 9.3%, mining processing growth was 5.5% – this created a good background for the growth of the country’s energy sector.

Electric power generation in Kazakhstan is carried out by 128 power stations of various forms of ownership. According to the system operator KEGOC JSC, as of January 1, 2018, the total installed capacity of Kazakhstan’s power plants is 21,672.9 MW, the available capacity is 18,791.4 MW. Power stations are divided into national power plants, industrial power stations, and regional power plants.

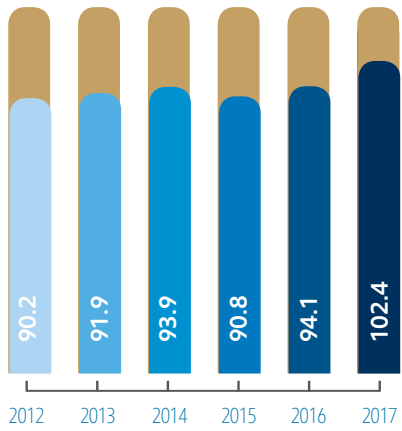
According to KEGOC, the volume of electricity generation in Kazakhstan in 2017 amounted to 102.38 billion kWh and grew by 8.8% by 2016. This is the highest generation rate in recent years.

### GDP dynamics



Source: Statistics Committee of RK MNE

### Power generation dynamics, billion kWh



Source: KEGOC

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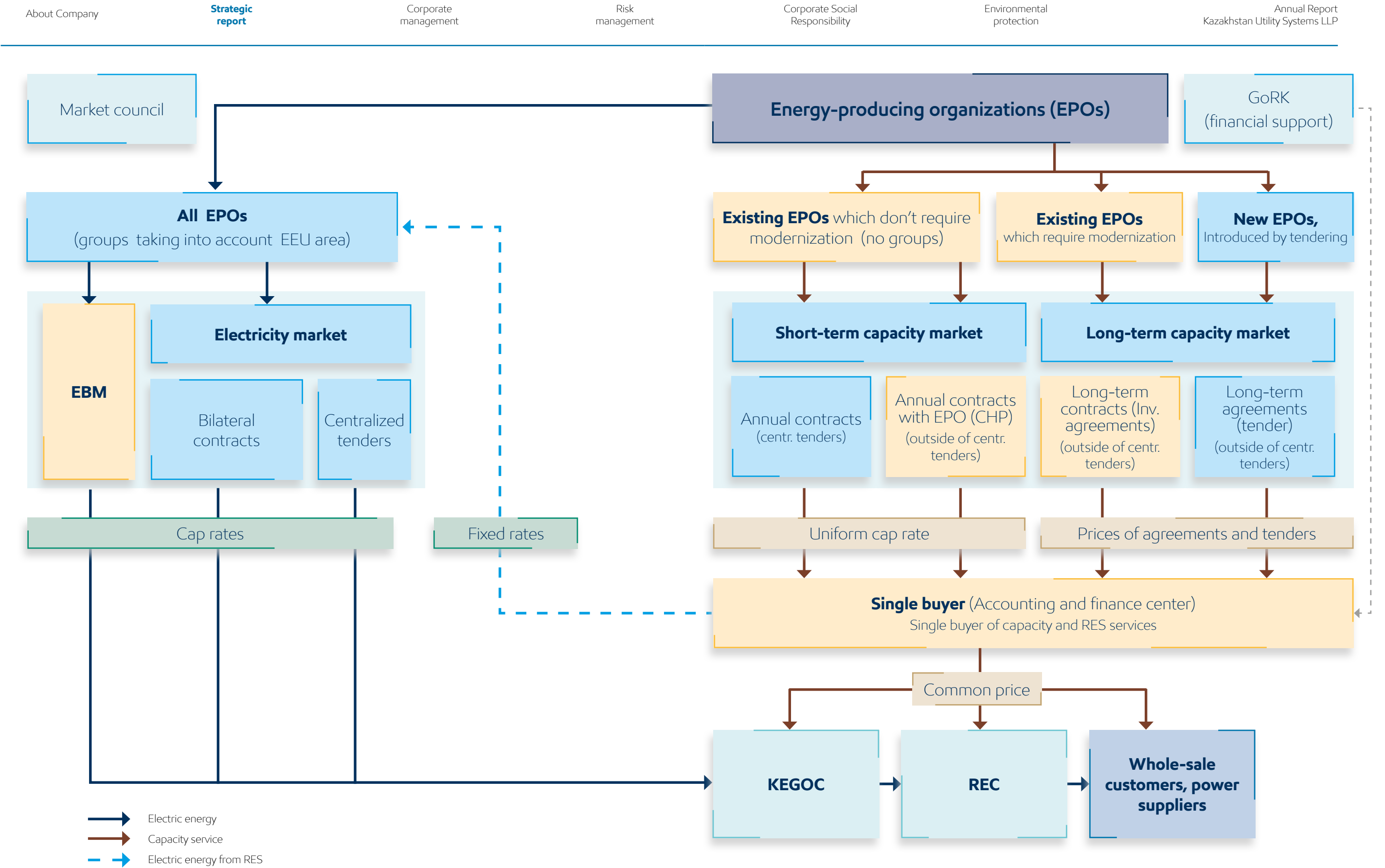
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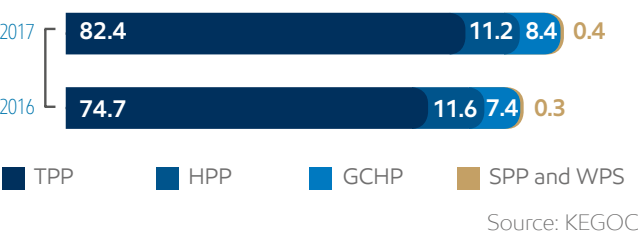
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Structure of power generation in Kazakhstan by types of energy sources, billion kWh



The bulk volume of electricity is generated traditionally in the Northern Energy Zone – 77% of generation in 2017. The western zone accounted for about 12%, the southern zone – 11%. The basis of production capacity in Kazakhstan’s energy sector is heat plants, which in 2017 increased production by 10.3%, to 82.4 billion kWh. In addition, electricity production is increasing at generation facilities using renewable energy sources, in particular, wind and solar power plants. Also in 2017, power generation at the wind farm increased by 23.5% and was 338.5 million kWh.

In 2017, electricity consumption also reached record levels of 97.9 billion kWh (an increase of 6% by 2016). The bulk consumption is also attributed to the North zone. Consumption in the past year has grown by 5% to 64.9 billion kWh, which is 67% of the country index.

To date, there is no shortage of power and capacity in the country’s power system: there is a necessary reserve of the capacity, the volume of which will be sufficient to provide stable coverage of the economy needs in the next 5–7 years. In 2013–2015 deceleration in the growth of electricity consumption in the country against the backdrop of the reserves availability formed due to implementation of the “Tariff for Investment” program in the period from 2009 to 2015, caused the technical capacity to exceed the corresponding demand from consumers. Consequently, in these years wholesale electricity prices in the excess North Zone of the country’s power system were below their threshold levels. KUS LLP was not affected by this decline, because for many years the Company has competitive tariffs and a stable client base. In 2016–2017, the balance of supply and demand has slightly recovered due to recovery of the republic’s economy and a corresponding increase in consumption.

Sector trends

In 2018 and the following years, according to the official forecast of the authorized body (Ministry of Energy of the Republic of Kazakhstan), stable growth of electricity consumption in the power system is expected. This forecast is quite realistic in view of the country’s growing economy.

Despite frozen selling prices for electricity at the level of 7.5 KZT/kWh, until 2018, the Company expects a fairly positive influence of external factors on its activities. In 2019, the introduction of an electric power market is planned. KUS LLP pins their hopes on the capacity market, because per power industry legislation the Company will have the right to conclude an offtake contract in a simplified order on this market with the Single buyer, which will increase the guarantees of loan repayment attracted for the investment program implementation in 2009–2015. This opportunity,

together with the right to implement the maximum capacity in the amount of the technological minimum of heat and power plants of KUS LLP, as well as the ability to sell electricity on the usual market and on the balancing market at prices formed on the basis of the maximum price and special fixed profits, will provide the right for Companies to have the opportunity not only to save their income, but also to increase them.

This trend in the capacity market makes the Company’s business more attractive from the investment point of view. And this is natural, because to increase the investment attractiveness of the energy industry in the framework of the 50<sup>th</sup> and 52<sup>nd</sup> steps of the Nation Plan “100 concrete steps”, reforms were made in the republic’s electricity market in 2015.

Business climate

An important external condition for doing business for the Group is the level of tariffs for products sold.

Tariffs for the transfer and sale of electricity are regulated by the Committee for Regulation of Natural Monopolies, Protection of Competition and Consumer Rights (CREAM).

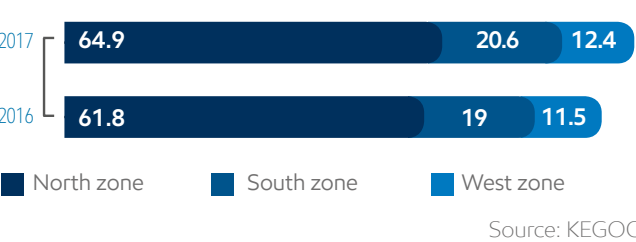
Per law, the tariffs of power grid companies should provide compensation for operating costs (necessary for providing regulated services), as well as capital expenditures (investment program).

Tariffs for the population show stable growth in Kazakhstan, an average of 6% annually over the past six years. This growth was due to increase in tariffs for transmission and distribution services for regional and interregional networks.

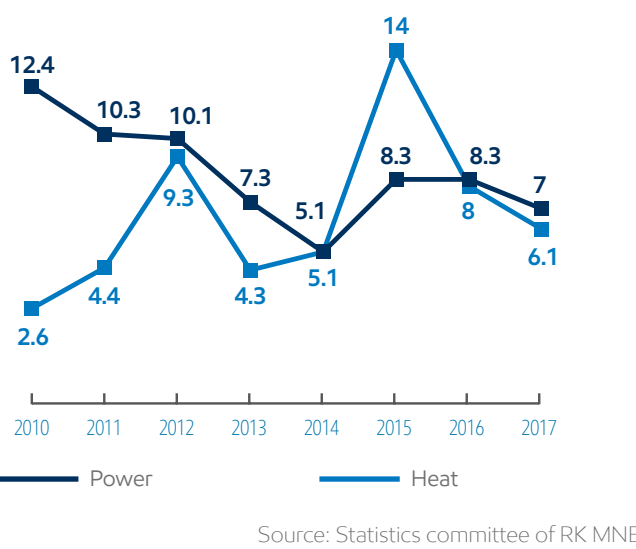
Since 2016, power grid and heat supply companies have switched to tariff setting for long-term threshold tariffs. This approach provides greater certainty to all market participants: energy specialists can plan an investment program, and consumers can plan their costs.

According to the Statistics Committee of the Ministry of Energy of the Republic of Kazakhstan, in 2017 the final selling prices for electricity increased by 7%, for thermal energy – by 6.1%. Last year electricity prices showed one of the lowest growth rates in the last decade.

Structure of power consumption, %



Dynamics of tarriffs for power and heat in Kazakhstan, %



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Subsidiary organizations tariffs

In 2017, tariffs for power and heat of Karaganda Energocenter LLP (KEC) have not changed compared to 2016. Tariffs for power and heat are set for the company until 2019.

In 2017, tariffs for power of Ust-Kamenogorsk CHPP LLP (UK CHPP) have not changed compared to 2016. Tariffs for power are set for the company until 2019. In 2017, the tariff for heat of the UK CHPP increased by 15.5% compared to 2016. Tariffs for heat are set for the company by 2020.

In 2017, tariff for power transmission of Karagandy Zharyk LLP (KZh) has not changed. This tariff is set for the company till 2020, a growth on results of five years will make 19%.

In 2017, the tariff for power transmission of Ontustik Zharyk Tranzit LLP (OZhT) grew by 5.2%. This tariff is set for the company until 2022, a growth on results of seven years will make 112%.

In 2017, the tariff for power transmission of Mangistau Electricity Distribution Network Company LLP (MEDNC) increased by 7.33%. This tariff is set for the company until 2020, a growth on results of five years will make 40.8%.

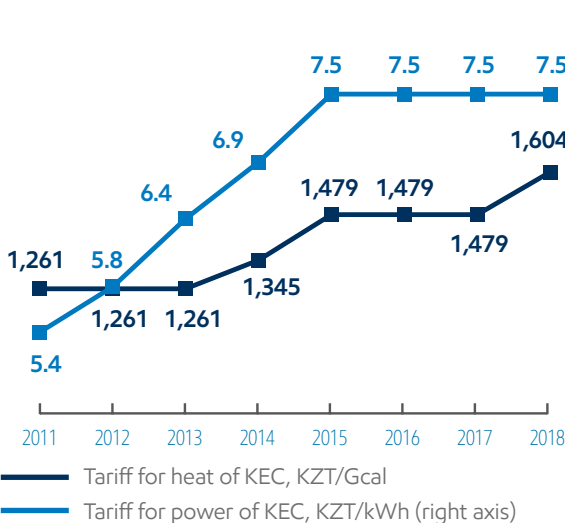
In 2017, the tariff for power supplied by KaragandyZhyluSbyt LLP (KZhS) decreased by 0.3% on average. The tariff for heat supplied in 2017 has not changed.

In 2017, the tariff for power supplied by Raschetnyi servisnyi center LLP (RSC) increased by 1.5% on average.

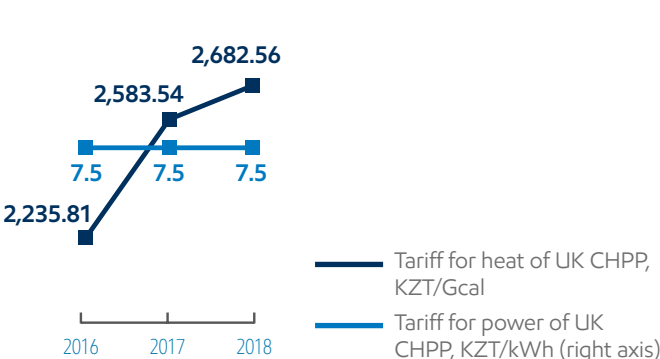
In 2017, the tariff for power supplied by Ontustik Zharyk LLP (OZh) has not changed. This tariff in 2017 remained at the level of 2016.

In 2017, the tariff for power supplied by Energopotok LLP (EP) has not changed. This tariff in 2017 remained at the level of 2016.

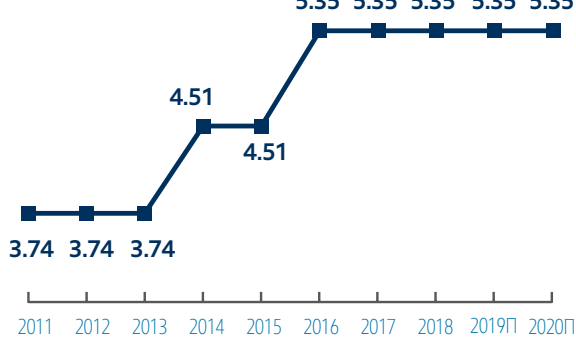
Tariffs for heat and power of KEC



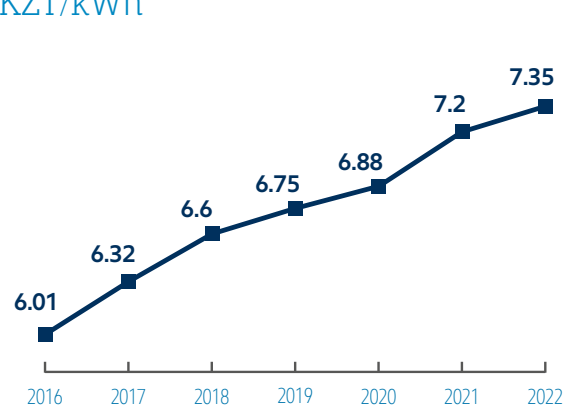
Tariffs for heat and power of UK CHPP



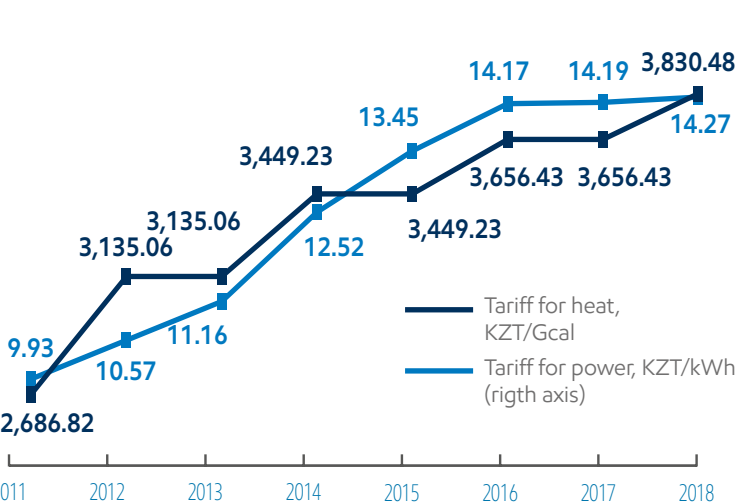
KZh tariff for power transmission, KZT/ kWh



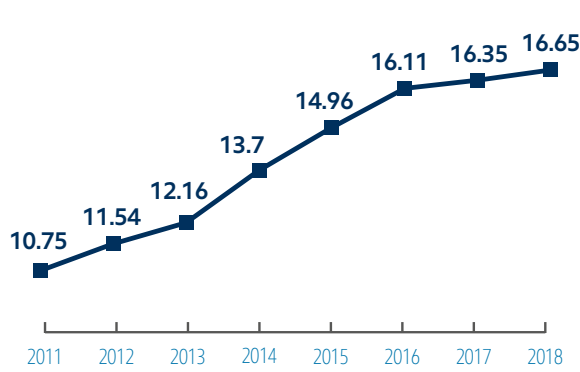
OZhT tariff for power transmission, KZT/kWh



KZhS tariff for power and heat



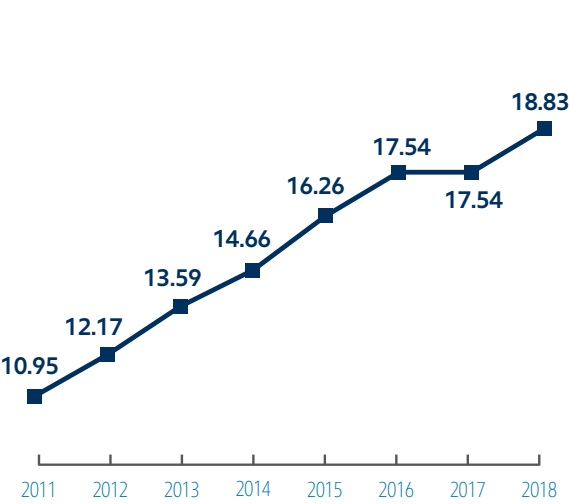
RSC tariff for power, KZT/kWh



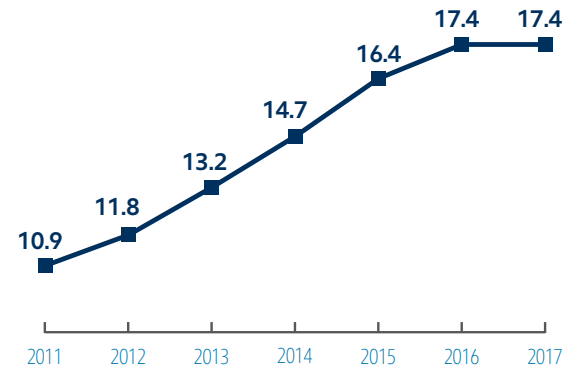
MEDNC tariffs for power transmission, KZT/kWh



EP tariff for power, KZT/kWh



OZh tariff for power, KZT/kWh



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Capacities

In 2017, Group’s production capacities are a combination of power and heat generation sources, as well as power transmission networks, heating plants and substations.

**Generation:**  
► installed electric power of sources – 1149.5 MW, available – 900 MW;

Generation

The Group has completed last year with the growth of key performance indicators. In 2006, power generation was 6,464 million kWh and exceeded the same indicator of the previous year by 48%. Electricity sales reached 5,590 million kWh and increased by 46%.

The volume of power generation grew due to acquisition of new generating assets – Ust-Kamenogorsk and Sogrinsk CHPPs. The volume of sales increased due to increase in output, as well as by reducing the consumption of electricity for own needs.

In 2017, heat generation was 5,933 thousand Gcal, which is 94% higher than results of the previous year. Similarly, sales increased and amounted to 5,778

► installed heat capacity of sources is 3 002.7 Gcal/h, available – 2 360.4 Gcal/h.

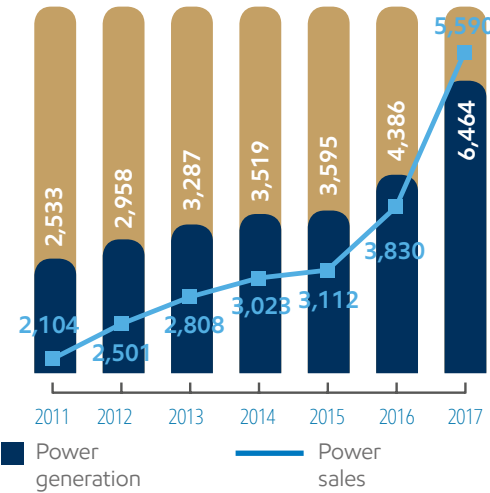
Transmission and distribution:

- length of 0.4–220 kV lines – 32,564 km;
- length of 0.4–110 kV cable lines – 2,403 km;
- number of substations – 409 units.

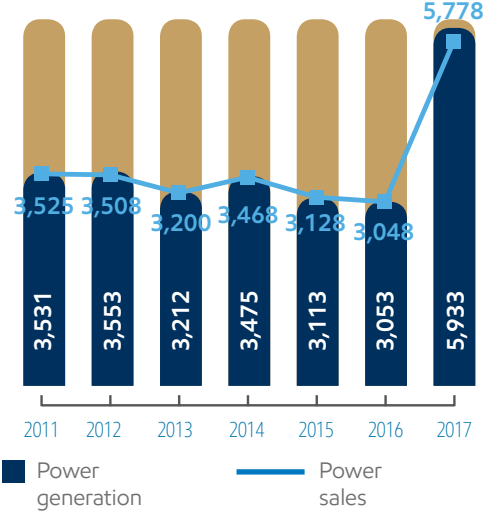
thousand Gcal. Generation and sale of heat also increased due to acquisition of Ust-Kamenogorsk and Sogrinsk CHPPs.

Specific reference fuel consumption for output of heat and power remained at the level of 2016. In addition, in 2017, there was not a single failure of the 1<sup>st</sup> degree and the accident, and the number of failures of the 2<sup>nd</sup> degree was reduced by 5% compared to 2016.

Power generation and sales, million kWh



Heat generation and sales, thous. Gcal



Major clients in 2017

№	Name and location of consumers	Volume of power sales in 2017		% portion in the total volume of power sales
		thous. kWh	thous. KZT	
1.	KaragandyZhyluSbyt LLP	1,025,659	7,692,440	26,9
2.	Ontustik Zharyk LLP	779,945	5,849,586	20,45
3.	Karagandy Energosbyt LLP	428,860	3,216,448	11,25
4.	Energopotok LLP	389,809	2,923,568	10,22
5.	Karagandy Zharyk LLP	291,239	2,184,290	7,64
6.	Raschetnyi servisnyi center LLP	198,617	1,489,630	5,21
7.	Ontustik Zharyk Tranzit LLP	118,683	890,121	3,11
8.	Karagandy Su LLP	76,163	571,220	2
9.	Energosnab 21 LLP	67,442	505,812	1,77
10.	Teplotransit Karaganda LLP	65,215	489,114	1,71
11.	Energougol 21 LLP	57,973	434,794	1,52
12.	Yugenergoimpuls LLP	43,669	327,520	1,15
	Other	269,844	2,023,824	7,08
Total		3,813,118	28,598,367	100



There were  
**36**  
power supply contracts  
concluded for Karaganda  
Energocenter LLP

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There were

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power supply contracts concluded for Ust-Kamenogorsk LLP

Ust-Kamenogorsk CHPP

№	Name and location of consumers	Volume of power sales in 2017		portion in the total volume of power sales
		thous. kWh	thous. KZT	
1.	Shygysenergotrade LLP	352,393	2,642,948	23,9
2.	Energopotok LLP	162,875	1,221,561	11,05
3.	Kazenergocenter LLP	146,926	1,101,945	9,96
4.	AB Energo LLP	118,492	888,688	8,04
5.	Semeyenergotrade LLP	108,808	816,060	7,38
6.	Ontustik Zharyk LLP	105,862	793,966	7,18
7.	Energoservice LLP subsidiary	64,742	485,567	4,39
8.	Shiely Zharygy LLP	51,861	388,954	3,52
9.	Energosnab 21 LLP	41,115	308,363	2,79
10.	Dauletenergo LLP	31,078	233,083	2,11
11.	Zhetysu Energotrade LLP	30,330	227,472	2,06
12.	Prometey 2003 LLP	23,415	175,611	1,59
13.	Kyzylorda Energo LLP subsidiary	20,987	157,404	1,42
14.	Zheskazgan Energosbyt LLP	18,799	140,992	1,27
15.	Yugenergoimpuls LLP	17,290	129,677	1,17
16.	STEM LLP	16,603	124,519	1,13
17.	C.A. Petro Group LLP	15,617	117,127	1,06
18.	Neftegazmash-Service DKhT LLP	15,187	113,901	1,03
	Other consumers	132,074	990,565	8,95
	Total	1,474,454	11,058,403	100

Transmission and distribution

According to results of 2017, Mangistau Electricity Distribution Network Company JSC has reduced the number of technological violations by four cases compared to 2016, the increase in transformer capacity was 39,600 kVA compared to 2016. Technical losses are reduced by 1.38%. The percentage of depreciation of fixed assets decreased by 0.4%.

Due to timely and high-quality implementation of repair and investment programs for 2017, according to Karagandy Zharyk LLP, the number of technological violations was reduced by 162 cases compared to 2016, the increase in transformer capacity was 3,000 kVA, technical losses were reduced by 1.25%. Also, it was possible to reduce the percentage of depreciation of fixed assets in Karaganda by 1%.

According to results of 2017, Ontustik Zharyk Tranzit LLP decreased the number of technological violations by 12 cases compared to 2016, the increase in transformer capacity was 61,400 kVA compared to 2016. Technical losses were reduced by 0.48%. The percentage of depreciation of fixed assets decreased by 2%.

Power transmission volumes in 2017

Name	2017	
	thous. kWh	thous. KZT
Karagandy Zharyk LLP	3,029,159	16,206,002
Ontustik Zharyk Tranzit LLP	2,536,290	16,029,357
Mangistau Electricity Distribution Network Company JSC	2,558,087	11,344,609

Major consumers in 2017

Karagandy Zharyk LLP

In the reporting year, agreements were concluded with 37 consumers for power transmission and/or distribution. Consumers are divided into two categories: power supply, whose share is 59.1%, and economic entities that are end users, their share is 40.9%.

Major clients and volume of power transmission:

- ▶ KaragandyZhyluSbyt LLP – 1,025 million kWh
- ▶ ArcelorMittal Temirtau LLP – 742 million kWh
- ▶ Temirzhol Energo LLP – 211 million kWh
- ▶ RSC LLP – 197 million kWh
- ▶ Teplotransit LLP – 166 million kWh

Ontustik Zharyk Tranzit LLP

In the reporting year, agreements were concluded with 12 consumers for power transmission and/or distribution.

The share of clients from the power supply category was 50%, as well as economic entities.

Major clients and volume of power transmission:

- ▶ Ontustik Zharyk LLP – 1 268 million kWh
- ▶ Energopotok LLP – 818.5 million kWh
- ▶ 3-Energoortalyk JSC – 4.2 million kWh
- ▶ Kuatzhyluortalyk–3 SOPE– 31.9 million kWh
- ▶ Yugenergoimpuls LLP – 140.6 million kWh

Mangistau Electricity Distribution Network Company JSC

Main power consumers are companies in the oil and gas sector, the share of industrial consumers is 97.2% of the total volume, population – 2.2%, individual entrepreneurs and household needs – 0.6%

Major clients and volume of power transmission:

- ▶ Ozenmunaygas JSC – 739 million kWhh
- ▶ Mangistaumunaygas JSC – 270.8 million kWh
- ▶ Karazhanbasmunay JSC – 247 million kWh
- ▶ Kazakh gas processing plant LLP – 234.5 million kWh
- ▶ WB KazTransOil JSC – 77 million kWh
- ▶ Buzachi Operating Ltd branch – 133 million kWh
- ▶ Karakudukmunay LLP – 122 million kWh
- ▶ Elektrzhuyeleri LLP» – 352.5 million kWh



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Investment projects

Starting from 2010 and through 2017, the Group invested more than 182 billion KZT, which led to a significant improvement in the efficiency and reliability of equipment. The coefficient of the installed capacity utilization for this period increased from 0.48% to 0.74% (which is much higher than the average coefficient in the republic).

In 2017, the volume of investments of **Karaganda Energocenter LLP** was about 3 billion KZT. Karaganda Energocenter LLP continues modernization and reconstruction of its facilities. In 2017, the flow part has been reconstructed on the turbine unit of st. No. 1, with the replacement of the high-pressure rotor and the recovery of blades of medium – and low-pressure rotors. In addition, the first stage of the project to build the dams of the 3rd section of the ash dump No. 2 has been implemented.

The volume of investments of **Shygys Energo LLP** was 3.3 bln. KZT. The project of expanding the cooling tower continues with an increase in capacity to 32,000 m³/h at Ust-Kamenogorsk CHPP. A project for reconstruction of the existing ash dump was completed, and a new ash dump for the storage of ash and slag was initiated.

In 2017, the volume of investments of **Mangistau Electricity Distribution Network Company JSC** was 5.7 billion KZT. As part of the investment program implementation, the following activities were completed:

- modernization and reconstruction of equipment of 35 kV switchgear at 35/6 kV substations BKNS–2,3,4,5, Tasbulat, Beket-Ata, Akkudyk, Akzhigit;
- modernization and reconstruction of equipment of 6 kV switchgear of 110/6 kV Karamandybas substation, 110/6 kV Termalnaya substation and RPA modernization of these substations;
- replacement of power transformers at 35/6 kV SS “BKNS–3” with a capacity of 2x6.3 MVA for transformers with a capacity of 2x10 MVA;
- construction of a 110 kV HVTL from 220 kV Uzen SS to 110/35/6 kV Plato SS with a length of 18.7 km with the replacement of a 40 MVA transformer.

In 2017, the volume of investment investments of **Ontustik Zharyk Tranzit LLP** was 5.1 billion KZT.

As part of the investment program implementation, the following activities were completed:

- three 35/10 kV substations were built and commissioned in Ykylas-Temir village of Ordabasy district, in Maylykent village of Tyulkubas district Dostyk village of Turkestan district. New substations made it possible to optimize existing loads in substations and power transmission lines and to improve the quality and reliability of power supply for these villages;
- at HVL 110 kV L–169 (ring line) feeding Otrar, Turkestan districts, length is 76 km, AC–70 wires were replaced for AC–120, PF–6 insulators were replaced for PS–70 and PDD–70 insulators and bird protection devices were installed; this allowed to increase the capacity of the line by 21 MW and to increase the reliability of power supply to consumers;
- the project was developed and complete modernization of 0.4–10 kV overhead transmission lines was implemented, with the use of self-supporting insulated wire with a total length of 0.4 kV HVTL – 309.59 km;
- ASKUE was implemented at 110/35/10 kV Makhtaaral SS, as well as REM ASKUE was implemented in Turkestan with coverage of 4,653 subscribers for 43 TS, TSS, and PTS.

When performing all types of repair work, reconstruction and modernization of 0.4–10 kV power networks, 21,932 worn wooden supports were replaced for new reinforced concrete.

In 2017, the volume of investments of **Karagandy Zharyk LLP** was 2.2 bln. KZT. As part of the investment program implementation, the following activities were completed:

- design and estimate documentation for construction of 110/10-kV Tikhonovka SS has been developed, and the construction and installation are planned for 2018–2019;
- a large-scale reconstruction of 0.4–10 kV distribution networks, reconstruction of: TS, TSS – 197 units, CL – 83.7 km, ACL (SIW) – 144.7 km;
- dispatcher office of WPS ODS was commissioned;
- design and estimate documentation for RPA was developed to replace 6–35 kV oil switches and ODiKZ–110 kV at three substations.

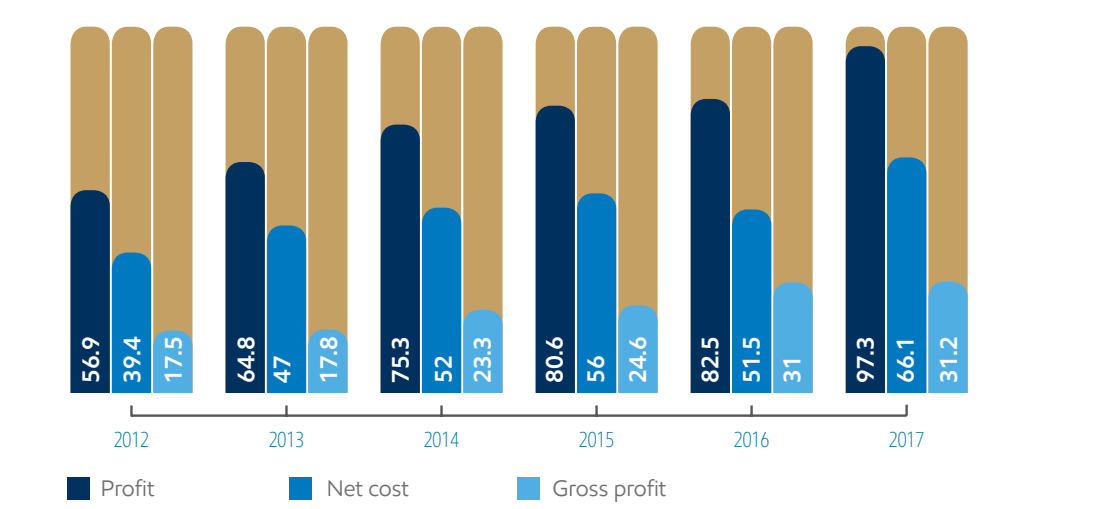
The implementation of these measures made it possible to reduce regulatory technical losses, as well as to improve the reliability of power supply to the regions covered.

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Income-expenditure analysis

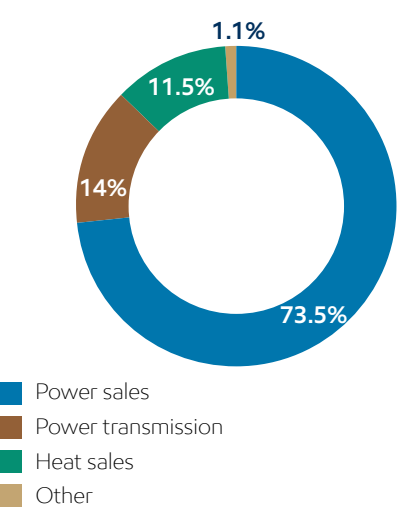
Main data of the revenue report, million KZT	2017	2016	2015
Revenue	97,337.0	82,476.9	80,601.8
Net cost	– 66,087.7	– 51,452.4	– 55,970.1
Gross profit	31,249.4	31,024.4	24,631.7
Administrative costs	– 6,388.7	– 5,870.1	– 5,276.2
Implementation costs	– 2,148.1	– 1,965.0	– 1,574.8
Financial costs	– 4,812.5	– 2,102.5	– 2,397.8
Exchange loss	– 30.3	– 103.7	– 2,646.2
Other profit	19,579.4	501.3	544.3
Pretax profit	37,449.1	21,484.5	13,281.0
Profit tax	– 3,973.1	– 4,402.3	– 3,202.4
Net profit	33,476.0	17,082.3	10,078.6

Dynamics of profit, net cost and gross profit, billion KZT

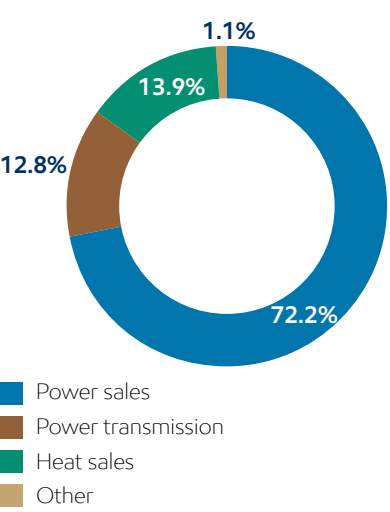


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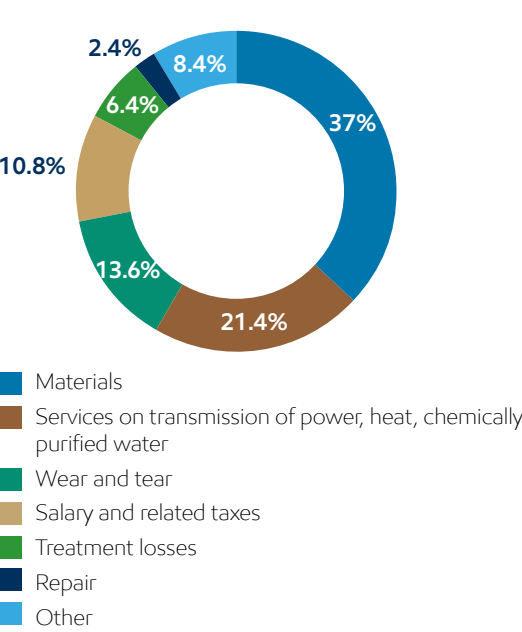
Profit structure, 2016



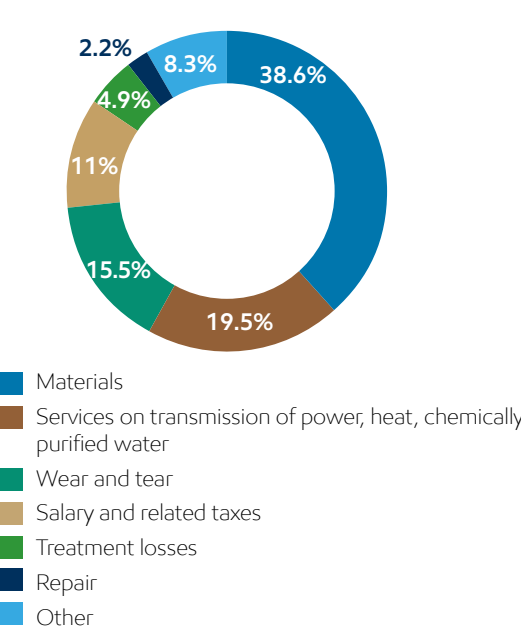
Profit structure, 2017



Net cost structure, 2016



Net cost structure, 2017



In 2017, the Company’s revenue increased by 18%, or by 14.9 billion KZT, and was to 97.3 billion KZT at the end of the year. Growth was observed in all business segments. 72% of the revenue comes from the electricity sale. In 2017, the growth of profit in this direction was 16%, or 9.7 billion KZT. The revenue from the heat sale increased by 43%, or by 4.1 bln. KZT. Power transmission showed an increase of 8%, or 947.3 million KZT. The growth in revenue was primarily due to an increase in production indicators and an increase in the supply of electricity and heat, which in turn is due to acquisition of new subsidiaries in 2017. The sales of electricity and heat increased by 2.4 bln. KZT due to revenues of Sogrinsk CHPP LLP and by 8.9 bln. KZT due to revenues of Ust-Kamenogorsk CHPP LLP.

In 2017, the net price increased by 28%, or by 14.6 billion KZT, which is also connected with the change in the Group’s structure. Growth occurred in all major items of expenditures. In particular, the cost of materials increased by 34% (by 6.5 billion KZT, and costs on transfer.

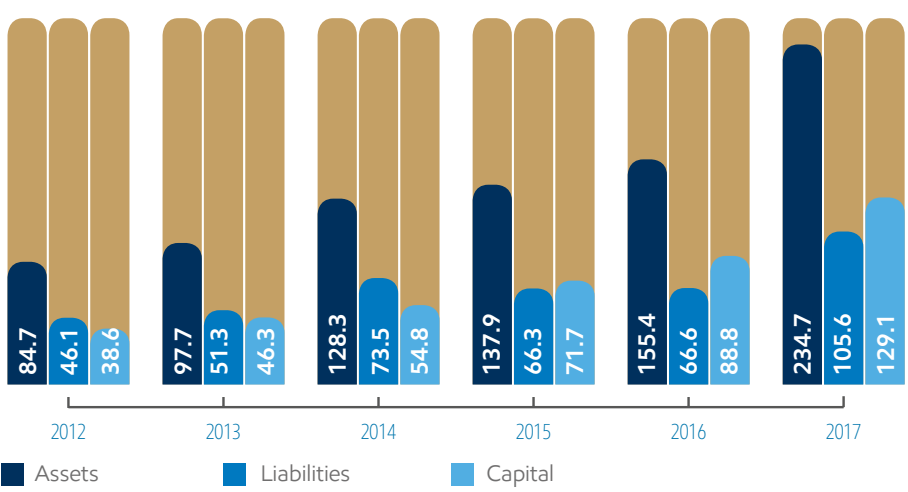
electricity, heat and chemically purified water showed an increase of 17% (1.9 billion KZT). Labor costs increased by 30% 1.7 billion KZT). In addition, treatment losses decreased by 2%. The structure of the cost price has not undergone significant changes.

As a result of comparable changes in revenues and production costs, gross profit remained almost at the level of 2016. The growth of the indicator was 1%, or 224.9 million KZT. The volume of gross profit for the year reached 31.2 billion KZT.

In the previous year, revenue from the good acquisition of subsidiaries was accrued, which was 18.6 billion KZT, and had a significant impact on the financial result. The revenue from the profitable acquisition of UK CHPP, S CHPP and MEDNC was to 12.3 billion KZT, 791 million KZT and 5.5 billion KZT, respectively.

As a result, net profit for 2017 increased by 96% and amounted to 33.5 billion KZT. In 2016, the growth was 69%.

Dynamics of assets and liabilities, billion KZT



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Balance analysis

Basic balance sheet data	2017	2016	2015
Assets	234,651.6	155,396.2	137,947.5
Long-term assets	207,197.1	133,467.6	125,125.5
Capital assets	203,095.7	131,353.2	121,905.7
Recurring advances issued	3,152.1	1,187.0	2,517.8
Other	949.3	927.4	702.0
Current assets	27,454.6	21,928.6	12,822.0
Inventory	3,786.1	2,437.9	2,679.0
Trade receivable	9,958.2	7,690.4	6,990.1
Cash and cash equivalents	6,444.5	2,358.9	1,111.2
Other	7,265.7	9,441.4	2,041.7
Liabilities	105,579.1	66,646.0	66,279.6
Long-term liabilities	73,640.1	43,604.5	41,894.5
Bank loans and bonds	41,396.7	25,107.9	26,772.0
Deferred tax liabilities	28,913.8	18,384.5	14,998.7
Other	3,329.7	112.0	123.8
Current liabilities	31,939.0	23,041.6	24,385.1
Trade payable	4,911.8	4,817.4	9,155.2
Bank loans and bonds	15,752.2	11,949.6	10,789.9
Other	11,275.0	6,274.6	4,440.0
Capital	129,072.5	88,750.2	71,667.9
Equity	11,636.4	11,636.4	11,636.4
Additional paid capital	9,239.1	9,239.1	9,239.1
Undistributed profits	96,699.6	67,874.6	50,792.4
Non-controlling shares	11,497.3	–	–

In 2017, Company assets increased by 51%, up to 234.7 billion KZT. Long-term assets increased by 55% to 207.2 billion KZT, while current assets increased by 25% to 27.5 billion KZT. The increase in assets is largely due to the growth in fixed assets by 55%, or by 72 billion KZT. In 2017, proceeds of fixed assets in business combination during acquisition of new subsidiaries was 73.5 billion KZT. In addition, proceeds of fixed assets are represented by modernization and reconstruction of equipment for the generation, transmission and distribution of electricity. In 2017, as of the commissioning date, the book value of commissioned facilities and capital repairs was 12.5 billion KZT. At the same time, depreciation of equipment was 10.5 billion KZT.

In 2017, Company liabilities increased by 58%, to 105.6 billion KZT. Long-term liabilities increased by 69%, to 73.6 billion KZT. The growth of current liabilities was 39%, and their volume at the end of the year reached 31.9 billion KZT. At the end of 2017, the volume of Company loans was 57.2 billion KZT, and for the year it increased by 54%. The current part of loans is 15.8 billion KZT. Bank loans at the end of 2017 were 49.5 billion KZT, their volume for the year increased by 12.4 billion KZT. 37% of the loan amount is a debt of Karaganda Energocenter LLP subsidiary under the credit line to Development Bank of Kazakhstan JSC, which is open for financing of the investment project on construction of the energy block.

In 2007, the Company capital increased by 45% and was 129.1 billion KZT. Growth is primarily due to increase in the unallocated profit by 42%, up to 96.7 billion KZT. Besides, in the previous year, the non-controlling interest that arose upon acquisition of the subsidiary in the amount of 11.5 billion KZT was allocated in the equity.

During 2017, the Company accrued and paid dividends in the amount of 4.7 billion KZT in accordance with the decision of the General Meeting of Participants dated May 17, 2017.

Analysis of key indicators

Key operational indicators	2017	2016	2015
Liquidity ratios			
Current liquidity ratio <sup>1</sup> (current ratio)	0.66	0.57	0.47
Quick liquidity ratio <sup>2</sup> (quick ratio)	0.54	0.47	0.36
Profit margins			
Net profit margin, %	34.4	20.7	12.5
Gross profit margin, %	32.1	37.6	30.6
Basic earning power <sup>3</sup>	17.7%	15.0%	11.2%
Return on assets <sup>4</sup> (ROA)	14.3%	11.0%	7.3%
Return on equity <sup>5</sup> (ROE)	25.9%	19.2%	14.1%
EBITDA, in billion KZT	52.09	30.38	21.50
EBITDA margin	53.5%	36.8%	26.7%
Capital structure ratios			
Capital adequacy ratio <sup>6</sup>	55.0%	57.1%	52.0%
Leverage ratio <sup>7</sup>	32.1%	28.3%	37.4%
Efficiency ratios			
Inventory turnover ratio	21.24	20.11	22.32
Debt receivable turnover (in days)	33.09	32.48	29.49
Fixed asset turnover ratio	0.48	0.63	0.66
Asset turnover ratio	0.41	0.53	0.58
Interest coverage ratio <sup>8</sup>	8.65	11.05	6.45
Return on Capital Employed <sup>9</sup> (ROCE)	20.53%	17.55%	13.62%

<sup>1</sup> Current ratio is calculated as the ratio of current assets (excluding the prepayment for corporate income tax and other current assets) to short-term liabilities.

<sup>2</sup> Quick liquidity ratio is calculated by dividing liquid assets (excluding the prepayment for corporate income tax and other current assets) for short-term liabilities.

<sup>3</sup> Basic earning power = EBIT / assets.

<sup>4</sup> Return on assets = net profit / asset.

<sup>5</sup> Return on equity = net profit / equity.

<sup>6</sup> Capital adequacy ratio = capital / assets.

<sup>7</sup> Leverage ratio = long-term liabilities / equity.

<sup>8</sup> Interest coverage ratio = EBIT / interest due.

<sup>9</sup> Return on capital employed = EBIT / (equity + long-term liabilities).

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In 2017, there is an improvement in almost all key indicators. Thus, in particular, the advancing growth of current assets led to an increase in liquidity ratios. The current liquidity ratio in 2017 was 0.66, while in 2016 it reached the level of 0.57. The quick liquidity ratio increased from 0.47 in 2016 to 0.54 in 2017.

The profit ratios grew due to a significant increase in net profit in 2017. The net profit ratio was 34.4% as of the end of last year, while in 2016 it reached 20.7%. The gross profit margin dropped slightly from 37.6% to 32.1%, because revenue growth was largely offset by an increase in production costs. The return on assets reached 14.3% (11% in 2016), and the return on equity was 25.9% (19.2). EBITDA for the year totaled to 52.09 billion KZT, while EBITDA margin reached 53.5%.

Plans for 2018

1. Successful placement of Company bonds on the Kazakhstan Stock Exchange (KASE).
2. Implementation of measures to maintain and update the long-term issuer default rating (IDR) in foreign and national currencies.
3. Activities to attract international strategic partners to implement the Company’s long-term development strategy.
4. Active promotion of Company interests at the legislative level. Discussion of all necessary amendments to the legislation for the Company at profile associations (Atameken, KEA, KAZENERGY) and the authorized body for projects.
5. At Karaganda CHPP–1, major repair of boiler units of station No. 1, 5 and the turbine unit at station № 2. On the rest of the equipment, current repair will be implemented.
6. At Karaganda CHPP–3 it is planned to implement:
  - ▶ capital repair the boiler unit, st. No. 4, 7 with replacement of heating surfaces;
  - ▶ capital repair of turbine units at st. №3, 5;
  - ▶ current repair of all boiler and turbine units;
  - ▶ remove the cooling tower No. 3 with the restoration of the polymer coating of 3,300 square meters and replacement of about 500 nozzles;
  - ▶ implementation of the second stage of the construction of the 3<sup>rd</sup> section of the ash dump № 2.

The company continues to maintain financial stability and demonstrates a reliable balance sheet structure, as well as a low level of debt burden. So, by the end of 2017, the share of capital in the balance currency reached 55%, while the leverage ratio, reflecting the carrying of bank loans to capital, by the end of the year amounted to 32.1%.

The company also maintains a high level of efficiency, although some indicators declined in 2017 due to the rapid growth in fixed assets. At the end of 2017, the fixed asset turnover ratio was 0.48, while the asset turnover ratio was 0.41. In 2017, the return on capital employed (ROCE) was 20.53%.

7. At Ust-Kamenogorsk CHPP it is planned to implement:
  - ▶ reconstruction of the boiler unit at st. No. 15 in order to reduce emissions of nitrogen oxide;
  - ▶ capital repair of boiler units at st. №10, 13;
  - ▶ capital repair of turbine units st. №8, 9, 12;
  - ▶ current repair of all boiler and turbine units;
  - ▶ increase the performance of the cooling tower;
  - ▶ implementation of the first stage of reconstruction of the ash dump № 3.

8. Karagandy Zharyk LLP plans the following activities:
  - ▶ large-scale reconstruction of 10–0.4 kV distribution networks with the use of SIW;
  - ▶ construction of a new substation “Tikhonovka” with transfer of substation to 110 kV voltage class;
  - ▶ at 35/10 kV «Abay-Bytovaya», «Novyi Maikuduk» substations it is planned a large-scale reconstruction with the replacement of existing switches, as well as upgaring relay protection and automation;
  - ▶ at 110/10 kV «Vostok» substation, work is planned to replace existing oil circuit breakers with vacuum ones, as well as upgaring relay protection and automation.

9. Ontustik Zharyk Tranzit LLP plans the following activities:
  - ▶ construction of 0.4–10 kV class networks in villages of Kzyl-Su, Artel, Karl Marx, Shymkent and Akbastau (Sharbulak) of the Kazygurt district;

- ▶ at 110/35/10 kV Zabadamskaya substation in Shymkent it is planned to replace physically worn out 10-kV switchgear with oil circuit breakers for new KRUNs with vacuum circuit breakers – 19 units, with 10-kV SRT – 1 unit, with TSN – 2 units, NTMI – 2 units, modernization of relay protection and automation devices;
- ▶ at 110/35/10 kV Leninskaya substation in the Kazygurt district, replacement of worn-out 110 kV MMO oil circuit breakers (L–148, L–149, OV) for modern gas-insulated circuit breakers VGP–110 – 3 units, SCB Installation (sandwich panel), modernization of relay protection devices and automation;
- ▶ at 110/35/6 kV ZhBI substation in the Turkestan district, work is planned to replace worn out OD and 110 kV short-circuit and oil circuit breaker BMT–110 L–169 for gas-insulated circuit breakers of VGP–110 type, replacement of worn-out 6 kV oil circuit breakers with vacuum switches, modernization of relay protection and automation equipment;
- ▶ reconstruction of 0.4–10 kV distribution networks using SIW; further development of the ASKUE system.

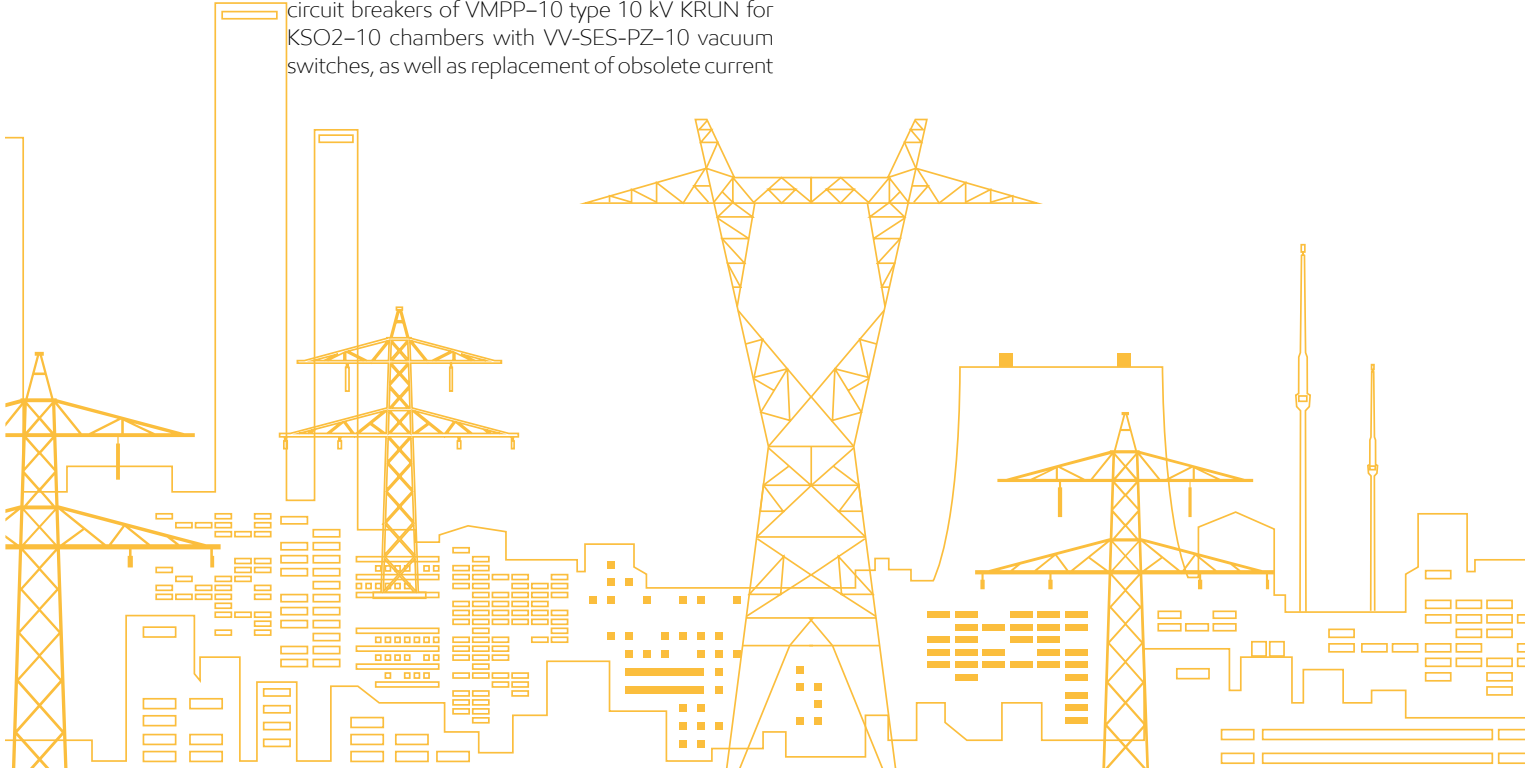
10. Mangistau Electricity Distribution Network Company JSC plans the following activities.
  - ▶ on the 110/6 kV Shaiyr substation are planned to replace the morally and physically worn out oil switches of the S–35M type with a 35 kV NOJA Power OSM38–12–800–300 recloser, replacement of morally and physically worn out cells with oil circuit breakers of VMPP–10 type 10 kV KRUN for KSO2–10 chambers with VV–SES–PZ–10 vacuum switches, as well as replacement of obsolete current

transformers (CT) and 10 kV voltage transformers and integration of installed equipment into existing circuits of relay protection and automation;

- ▶ work is planned on the construction of the 220 kV Aktau-Karazhanbas HV line with the 1x125 MVA autotransformer at the Karazhanbas URPS;
- ▶ at the 110/6 kV Promzona substation work is planned to replace morally and physically worn out cells with oil circuit breakers of VMPP–6 type 6 kV KRUN with KSO 292 with VV–SES–PZ–10 vacuum switches, as well as replacement of obsolete current transformers (TT) and 6-kV voltage transformers and integration of installed equipment into existing circuits of relay protection and automation;
- ▶ completion of the construction of a 110 kV transmission line from the 220 kV Uzen substation to 110/35/6 kV Plato substation with the length of 18.7 km, with the replacement of 1x40 MVA transformer;
- ▶ capital repair with restoration of the insulating characteristics of power transformers at 35/6 BKNS–4 substation and at 110/10 kV Kuryk substation.

- 11 The subsequent expansion of the service market for maintenance of utility networks and general house heat metering devices by energy sales companies.

12. Ubiquitous implementation of the Unified Payment Document for subscribers of the South-Kazakhstan region for the purpose of increasing convenience of power supply.



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*The main factors for the KUS development are: modernization of existing assets, expansion of generating and power transmission capacities, as well as customer orientation of marketing companies.*

## Corporate management principles

Corporate management plays an important role in enhancing the Group’s competitiveness and economic efficiency. The most important principles of corporate management for the Group are:

- ▶ ensuring a balance between influence on the adoption of managerial decisions, responsibility for decisions made and interests of a participant in corporate relations;
- ▶ establishment of standards for reasonable and qualified management and proper control;
- ▶ optimization of the production structure and maximizing the effective use of the Group’s capital;
- ▶ providing transparency of the Group’s financial and business operations and reliability of reporting indicators;
- ▶ increase of the investor confidence, improvement of the investment climate and increase of volumes, improvement of the structure and quality of investments.

## Management structure

The Group’s corporate management structure should provide:

- ▶ protection of participants’ rights;
- ▶ recognition of statutory rights of interested parties;
- ▶ timely and accurate disclosure of information on all material issues related to the corporation;
- ▶ effective control for the executive body from the Supervisory Board, as well as its accountability to KUS participants.

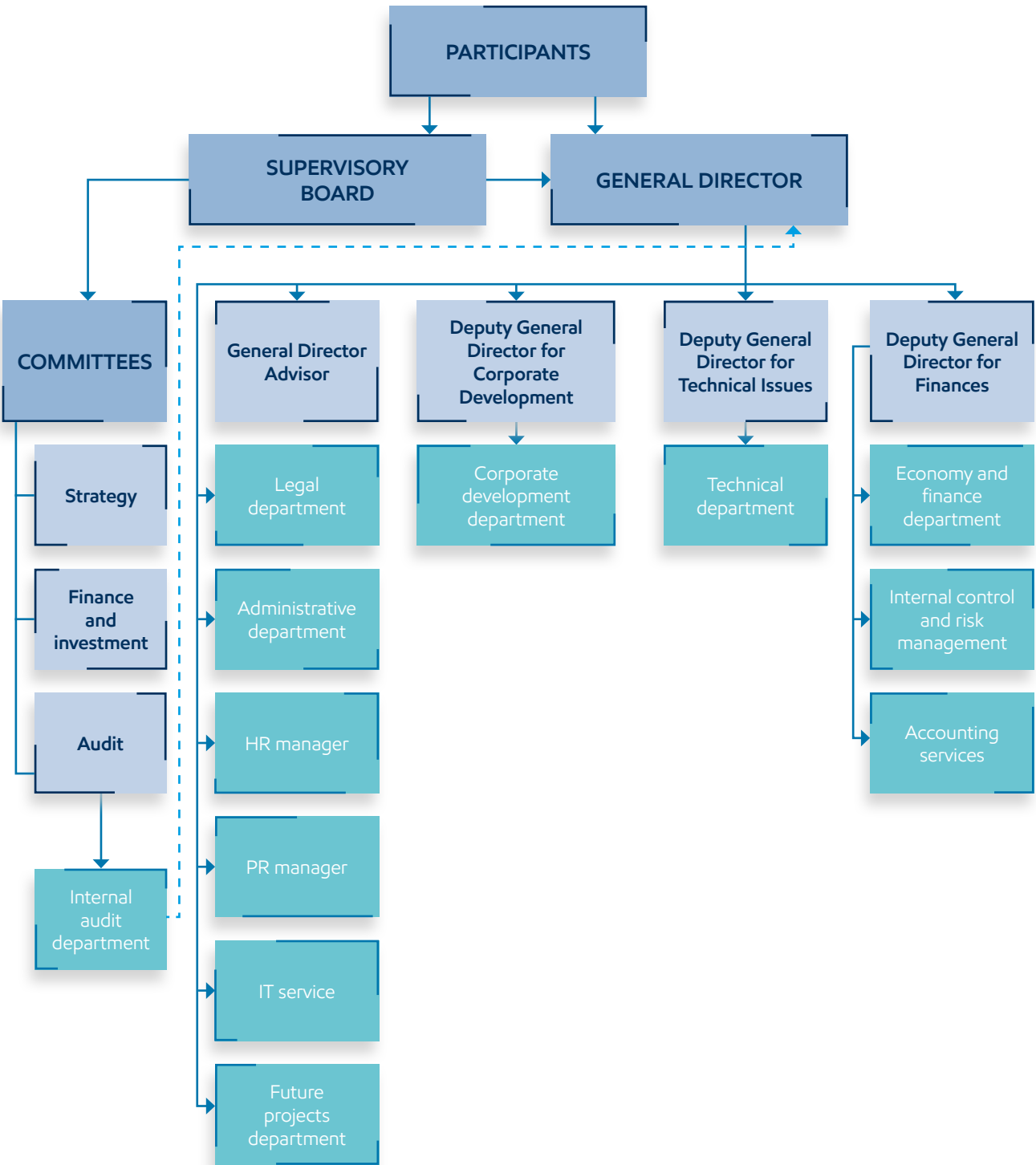
The structure of the Company is divided into three blocks: the General Meeting of Participants, the Supervisory Board, the Executive Body.



**The general meeting of participants** is the supreme body of KUS, which makes decisions on the most important issues of Company activities: changes in the charter, equity capital, brand name, formation of the executive body, early termination of its powers, election or termination of the Supervisory Board, approving financial statements, pledging property of the Company/Group of Companies and other.

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Supervisory Board

The Supervisory Board of the Company provides general management of Company activities, control over activities of the Company’s executive body, control over financial and business activities. The exclusive competence of the Supervisory Board includes the following:

- ▶ determination of priority directions of activity and approval of the development strategy, medium-term development plan of the Company, as well as monitoring the implementation of the Company strategy, plans and budgets;
- ▶ making a decision on the completion of one or more consecutive transactions for acquisition and/ or disposal of the Company’s property, the total value of which is 25 percent or more of the total book value of all the fixed assets held by the Group;
- ▶ determination of the Company’s production and financial policies in the form of approval of certain financial and production documents of the Company, financial and production/technical norms and standards;
- ▶ monitoring the quality and independence of the external auditor;
- ▶ determination of the amount of payment for external auditor services;
- ▶ other matters provided for by internal rules of the Company.

**The purpose of the Supervisory Board** is to monitor the activities of the Company’s executive body, including implementation of Company interests and protecting the rights of participants, establishing the principles and norms of Company’s operations, and ensuring understanding and compliance of Company obligations to participants and others. In 2017, the Supervisory Board met seven times. The key points that were discussed by the Supervisory Board were:

- ▶ review and approval of the report on the forecast execution of KUS LLP for the 1<sup>st</sup> quarter of 2017;
- ▶ review and approval of the adjustment of the budget of revenues and expenditures and key performance indicators (KPI) of KUS LLP for 2017 based on the results of financial and economic activity for the first half of the year;
- ▶ approval of members of the Finance and Investment Committee of the Supervisory Board of KUS LLP;
- ▶ review of the candidacy of the external auditor of the KUS Group of Companies for conducting an audit of consolidated financial statements and separate financial statements of the KUS Group of Companies for the year ended December 31, 2017 prepared in accordance with IFRS.

Members of the Supervisory Board



Dinmukhamet IDRISOV

The Chairman of the Supervisory Board.

Born on December 29, 1964.

- From February 6, 2014 till present – The Chairman of the Supervisory Board of Kazakhstan Utility Systems LLP.
- From April 1, 2010 till present – The Chairman of the Supervisory Board of Ordabasy Group LLP.

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**Askar KANAFIN**  
Supervisory Board member, Strategy Committee member.

Born on November 27, 1972.

- From February 6, 2014 till present – Supervisory Board Member of Kazakhstan Utility Systems LLP.
- From November 1, 2013 till present – Chairman of the Board of Directors of Ordabasy Group LLP.
- From September 2006 to January 2012 – CEO of Group of companies “Resmi” JSC.
- From August 1, 2005 to August 31, 2012 – Supervisory Board Member of Innova Investment LLP.
- From May 3, 2004 to August 31, 2012 – Member of the Board of Directors of Investment Financial House “Resmi” JSC.



**Assiya SALIMOVA**  
Supervisory Board member, Audit Committee Head.

Born on October 13, 1970.

- From February 6, 2014 till present – Supervisory Board Member of “Kazakhstan Utility Systems LLP.
- From November 20, 2013 till present – Deputy Chairwoman of the Executive Board – Compliance Director of Ordabasy Group LLP.
- From November 1, 2006 to February 1, 2013 – financial director of Kazpharm LLP.



**Sultan AKHANOV**  
Supervisory Board member.

Born January 31, 1984.

- From December 2017 till present – Deputy General Director for Finances of Kazakhstan Utility Systems LLP.
- From September 2015 to December 2017 – Managing Director of Ordabasy Group LLP.
- From June 2011 to September 2015 – founder, CEO of the Group of companies “Kazsphere.”
- From September 2010 to June 2011 – Director General of the Kazakh-Malaysian Chamber of Commerce.

## Supervisory Board Committees

As of December 31, 2017, there are three acting committees (established on February 6, 2014) at the Supervisory Board of KUS LLP:

- 1) Audit Committee;
- 2) Committee for Finances and Investment;
- 3) Strategy Committee;
- 4) Nomination and Remuneration Committee (not formed).

- In 2017, committees of the Supervisory Board of KUS met six times. The main points which were discussed by the Supervisory Board committees:
- review of adjusting the budget of revenues and expenditures and key performance indicators of KUS LLP for 2017 based on the results of financial and business activities for the first half of the year;
  - review of actual results of the Company’s financial and economic performance for the first quarter of 2017 as compared to the plan for the same period of 2017 and the fact of the corresponding period of 2016;
  - review of key performance indicators of the Company for 2017;
  - review of audited financial statements of KUS LLP and consolidated financial statements for the Group of Companies of KUS LLP for 2016.

**Audit committee** analyzes the process of preparation of the Group’s financial statements, analyzes the reliability and effectiveness of internal control and risk management systems, and the effectiveness and independence of external and internal audit. Its own area of responsibility is ensuring that the Group complies with the legislation of the Republic of Kazakhstan.

## Executive body

The Executive Body of the Group is managed by Director General, who is accountable to participants, acts on behalf of and in the interests of the Company and solves all current issues of Company activities, except those that fall within the competence of the General Meeting of Participants.

- Committee members:**
- Assiya Salimova – committee Chairwoman;
  - Gulnara Nazkhanova – committee member;
  - Sultan Akhanov – committee member;
  - Vladimir Ussenko – committee member.

**Finances and Investment committee** is responsible for raising funds, establishing an effective evaluation of the funds raised, evaluating investment projects, and overseeing the Group’s financial and business operations. It meets at least once a quarter.

- Committee members:**
- Sultan Akhanov – committee Chairman;
  - Olzhas Zhunussov – committee member;
  - Vladimir Ussenko – committee member.

**Strategy committee** makes recommendations on determining the strategic and priority directions for the Group’s development, and also evaluates the prospects of investment projects and their impact on the Group’s value increase. It meets at least once every six months.

- Chairman of the committee:**
- Dinmukhamet Idrissov – Chairman of the Committee;
  - Askar Kanafin – committee member;
  - Nabi Aitzhanov – committee member;
  - Sultan Akhanov – committee member.

**Nomination and remuneration committee.** Currently, the Nomination and Remuneration Committee has not been formed. The Company plans to create this committee in the medium term.

General Director represents the Company interests, manages the Company property and financial resources, concludes agreements (contracts), including labor ones, issues powers of attorney, opens current and other accounts in banks, approves the staffing table, issues orders and decrees, gives instructions mandatory for all employees of the Company.

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## General Director, his deputies

### General Director



#### Nabi AITZHANOV

Born on September 11, 1980.

- From April 12, 2010 till present – General Director of Kazakhstan Utility Systems LLP.
- From 2008 to April 2010 – General Director of Ontustik Zharyk Tranzit LLP.
- From 2006 to 2008 – Director of Energosbyt LLP.
- From 2005 to 2006 – Deputy Director, Director of Energopotok LLP.

### Deputy General Directors

#### Vladimir USSENKO

Born on June 7, 1960.

- From January 2010 till present – Deputy General Director for Technical Issues of Kazakhstan Utility Systems LLP.
- From January 2009 to January 2010 – Head of the Corporate Management Department of Kazakhstan Utility Systems LLP.
- From June to September 2008 – Head of the Electric Power Stations Department of Kazakhstan Utility Systems JSC.
- From September 2003 to March 2008 – senior dispatcher of the regional dispatch center of KEGOC JSC – Almaty interregional electric networks.



#### Sultan AKHANOV (in office as of December c 8, 2017)

Born on January 31, 1984.

- From December 2017 till present – Deputy General Director for Finances of Kazakhstan Utility Systems LLP.
- From September 2015 to December 2017 – Managing Director of Ordabasy Group LLP.
- From June 2011 to September 2015 – founder, General Director of the Group of companies “Kazsphere.”
- From September 2010 to June 2011 – General Director of the Kazakh-Malaysian Chamber of Commerce.



## Remuneration information

Kazakhstan Utility Systems LLP does not pay remuneration to members of the Supervisory Board, but provides compensation for travel expenses to members of the Supervisory Board during the period when they perform their duties related to functions of the Supervisory Board members and committee members of the Supervisory Board of the Company in accordance with the legislation of the Republic of Kazakhstan, based on supporting documents (approved by the Minutes of the General Meeting of Participants of KUS LLP as of February 6, 2015).

Remuneration to members of the executive body of Kazakhstan Utility Systems LLP for 2017 was 54,625 thousand KZT (in the form of wages according to the staff schedule).

*Remuneration to members of the executive body of Kazakhstan Utility Systems LLP for 2017 was 54,625 thousand KZT (in the form of wages according to the staff schedule).*



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*The risk management system of the KUS Group of Companies is aimed at managing risks and opportunities that significantly affect the creation and preservation of the value of the Group of Companies.*

## Risk management system

The risk management system of the KUS Group of Companies is aimed at managing risks and opportunities that significantly affect the creation and preservation of the value of the Group of Companies. The main goal of risk management in the Group of Companies is to achieve maximum profitability while taking a manageable level of risk. Risk management is aimed at identifying, preventing and minimizing events that may have a negative impact on achieving the objectives of the Group of Companies.

One of the important elements in the risk management system are the structural subdivisions of subsidiary organizations (hereinafter referred to as SO) represented by each of their employees. SS work on a daily basis with risks, manage them and monitor their potential impact on their functional duties. The structural units are responsible for the implementation of the risk management plan, the timely identification and reporting of significant risks in their activities and the provision of risk management proposals for inclusion in the plan of measures.

### Design principles of the risk management system

**Systematic approach.** Risk management is an ongoing, dynamic process used by the Group and its companies – at each level of management and in each division of KUS and its SO.

**Supervisory function of the Supervisory Board.** The Supervisory Board is an active management body of the Company that oversees the management of its risks.

**Responsibility for risk management.** Each employee of the Group and its companies is aware of objectives and tasks in the field of risk management as well as their personal responsibility with regard to managing the risks within the scope of authority, competence, requirements of the Risk Management Manual.

**Separation of decision-making levels.** Decisions to minimize risks are taken at different levels of management, depending on the significance of risks.

**Reference to targets.** Risk management is used in the development and formation of the Group’s strategy and is carried out based on the strategic goals and objectives of specific processes and functions.

**Timely awareness.** The movement of risk information for decision-making is from the lower to higher levels of management. Prompt awareness sharing is carried out on a regular basis.

**Creation of a corporate risk-oriented culture.** Management of the Group of Companies, Internal Control and Risk Management Department and risk supervisors ensure that the Group of companies

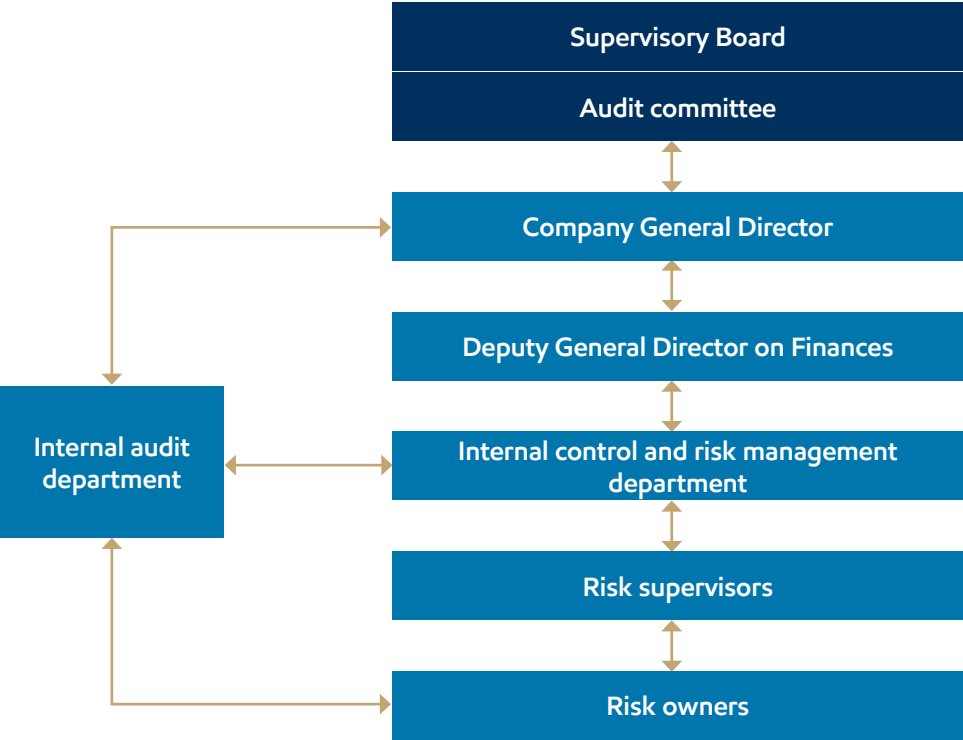
disseminates knowledge and skills in risk management. The Group of Companies provides an opportunity for effective information exchange and introduction of communicative norms within the framework of corporate risk management.

**Interrelation of objective categories.** Risk management provides achievement of objectives by one or more separate but overlapping categories.

*One of the important elements in the risk management system are the structural subdivisions of subsidiary organizations represented by each of their employees.*

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Structure of the risk management system in the Company



Internal control system

The internal control system (hereinafter – ICS) is part of the corporate management system, covering all levels of management, all processes and operations of the Group of Companies. ICS is built into processes and daily operations of the Group of Companies, includes procedures for the immediate informing of the appropriate level of management about significant defects and weakness in control points, along with details of corrective actions that have been or should be taken. Within the framework of ICS updating in the Group of Companies, the design and testing of the operational effectiveness of control procedures in the following business processes were implemented:

In 2017	Current in 2018
Management of occupational safety and health	Information technology and security
Management of industrial control over compliance with industrial safety requirements for the operation of hazardous production facilities	Conclusion and execution of contracts with consumers (sales)
Inventory Management and Warehousing	HR management

Risk classification

After identifying risk sources, each of them identifies risks classified into the main four categories:

- 1) **strategic risks** are the risks of failure to achieve long-term corporate goals of the Group of Companies due to inadequate monitoring of the implementation of strategies and insufficient response to changing external conditions;
- 2) **operational risks** are the risks of loss arising from shortcomings or errors in internal business processes of the Group of Companies, in actions of employees and other persons, in the operation of information systems, or due to external influence;
- 3) **legal risks** are the risks arising from violation of the legislation of the Republic of Kazakhstan, rules, regulations, prescribed procedures, internal policies, norms and ethical standards. Legal risks also apply to objectives of compliance

with requirements, and reporting goals (reliability and timing);

4) **financial risks** are the risks arising from the management of the Group’s financial resources, such as cash, investments, debt instruments and derivative financial instruments. They include risks associated with the structure of capital, a decrease in profitability, currency fluctuations, interest rates, credit risk, liquidity risk.

**Identified risks are reflected on the risk map with respect to significance:**

**Red zone** – risks are critical for the Group of companies

**Yellow (amber) zone** – risks have an average probability of occurrence

**Green zone** – risks have a low probability of occurrence

Main risks affecting business strategy implementation

Risk name	Risk description	Activities to manage key risks
Strategic risks		
Risk of conceptual changes in legislation	Failure to comply with Company's adopted development plans in connection with the possible postponement/ cancellation of the adopted power market model	1. Participation in working groups on the development of draft legislative framework. 2. Analysis of draft legislative framework. 3. Making proposals and recommendations to legislative drafts. 4. Development of alternative options for implementing Company’s adopted development plans.
Operational risks		
Violation of health and safety regulations	Inability to provide safe and healthy working conditions.	1. Functioning of the health and safety system in accordance with the OHSAS 18001 standard. 2. Qualificationtest. 3. Smart system. 4. Check of work places. 5. Compliance with requirements of the legislation on industrial safety at hazardous production facilities. 6. Control over the conclusion of contracts for compulsory insurance against accidents in the performance of labor, official duties; compulsory insurance of the employer’s civil liability – annually. 7. Provision of production personnel with milk, water-drinking regime, overalls, special footwear, PPE, washing and disinfecting means, first-aid kits, standards and technical documentation.

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Risk name	Risk description	Activities to manage key risks
Technological failures	Interruptions in the supply of heat and electricity due to equipment failures	<div>1. Timely detection of defects as a result of inspections of equipment (planned and unplanned).</div> <div>2. Equipment testing.</div> <div>3. Conducting current, capital and emergency repairs.</div> <div>4. Realization of the investment program on modernization and reconstruction of equipment (reduction of equipment wear).</div> <div>5. Presence of an emergency reserve of spare parts and materials.</div> <div>6. Activities for preparation for the autumn-winter period (WS).</div>
Financial risks		
Liquidity risk	Risk of insolvency of the Group and non-fulfillment of its obligations to counterparties	<div>1. Working capital management, monitoring of consumer payments.</div> <div>2. Daily cash balance for all companies of the Group.</div> <div>3. Control over the timeliness of payments.</div> <div>4. Quarterly monitoring of covenant performance.</div> <div>5. External and internal audit of the Group's companies.</div> <div>6. Implemented unified system for budgeting of Group's companies and consolidation.</div> <div>7. Involvement of overdrafts.</div>
Legal risks		
Violation of requirements of the environmental legislation of the Republic of Kazakhstan in terms of emission	The risk of violation of the environmental legislation in terms of exceeding the allocated quota volumes in the long term prospective in accordance with the National Plan for the allocation of greenhouse gas emission allowances for 2018–2020	<div>1. Systematic initiation of amendments and proposals to normative legal acts of the authorized body in the field of ecology with regard to establishing fair and sufficient requirements for greenhouse gas emissions.</div> <div>2. Participation in working groups under the chairmanship of the authorized body in the field of ecology on the issues of amending the regulatory framework.</div> <div>3. Development of regulatory documents for obtaining quotas for greenhouse gas emissions.</div> <div>4. Inventory and confirmation of greenhouse gas emissions.</div>

## Marketing activities

Kazakhstan Utility Systems LLP, which is one of the leaders in its segment of activity in the country, pays special attention to the formation and preservation of its positive image both in the energy market of the republic and among its consumers. Power and heat energy are socially significant products that affect the complex socioeconomic development of the country. Given that the energy sector has always attention from the public and mass media, the Company cultivates the ideology of openness and transparency of all its activities.

In accordance with the media plan of Kazakhstan Utility Systems LLP, various events, as well as information on the current work of the Company, are communicated to the public through electronic and print media. Regular interviews with General Director of Kazakhstan Utility Systems LLP in sectoral print media and electronic media are also regularly posted.

It should be noted that in the information policy of Kazakhstan Utility Systems LLP, the emphasis is on working with the regional mass media, since the preservation of the positive image of the Company's subsidiaries is primarily important among

residents of the regions where the Group operates. According to the media plan, production activities are covered (implementation of investment programs, modernization of production, repair of CHPP, construction of new electric networks, reconstruction of substations, activities of marketing companies and other news breaks) for the KUS Group's subsidiaries in regional media: plots of TV channels, articles in newspapers and on Internet information portals. Along with this, information on operations of the Company and its subsidiaries is published on the official website of Kazakhstan Utility Systems LLP and its official Facebook page.

### The results of the PR purposeful activity are:

- a favorable level of customer loyalty to KUS and its subsidiaries in the regions of presence;
- a dynamic increase of brand recognition Kazakhstan Utility Systems;
- the ability of consumers and other audiences to learn about the KUS Group events in a timely manner;
- an increase of the Company's attractiveness as an employer and an opportunity to attract qualified personnel.

Kazakhstan Utility Systems Group is carrying out a large-scale work to improve the quality of power and heat for its customers, which requires constant coverage in mass media. Among the significant events and facts published in mass media and which aroused the greatest interest among the public in 2017:

- acquisition of Ust-Kamenogorsk and Soginsk CHPPs by Kazakhstan Utility Systems LLP;
- acquisition of the main block of shares of MEDNC JSC by Kazakhstan Utility Systems LLP;
- confirmation of KUS LLP credit rating at “BB-” with a forecast of Stable by an international rating agency Fitch Ratings;
- strict compliance with the environmental legislation of the Republic of Kazakhstan by Group enterprises;
- successful modernization of production within the framework of the investment program implementation of KUS Group subsidiaries during the year.

The Company image is focused on the actual values of a modern society, where KUS operates. Record keeping for these values allows to form an effective policy of interaction with all external and internal counterparties: consumers, partners, employees, society. At the same time, taking into account the dynamic situation, KUS is constantly working to adapt the image to new conditions and needs of the energy market.

Formation of a positive image of the Company, its maintaining at the proper level are important tasks of Kazakhstan Utility Systems LLP, which affect the enterprise status, the activity success on the market, the loyalty of consumers and partners, and the competitiveness of the Company's energy products.

Kazakhstan Utility Systems LLP, which is one of the leaders in its segment of activity in the country, pays special attention to the formation and preservation of its positive image both in the energy market of the republic and among its consumers. Power and heat energy are socially significant products that affect the complex socioeconomic development of the country. Given that the energy sector has always attention from the public and mass media, the Company cultivates the ideology of openness and transparency of all its activities.

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*Corporate social responsibility (CSR) is an integral and very important part of Group activities. This is due, first of all, to the fact that KUS products and Group operations have a significant impact on regions of presence.*

**Corporate social responsibility (CSR) is an integral and very important part of Group activities. This is due, first of all, to the fact that KUS products and Group operations have a significant impact on regions of presence.**

**CSR principles for the Group of Companies:**

- ▶ providing qualitative services, which are ultimately a guarantee of active social and economic development of the regions of presence;
- ▶ fair and timely remuneration of employees, as well as ensuring safe working conditions and creating all the conditions necessary for career growth, personal and professional development of each employee;
- ▶ responsibility for environmental conservation to the state and society as a whole.

CSR principles are observed in all business processes of the Group, are an integral part of business planning and an indispensable tool for preventing contingencies and conflicts.

The Group seeks to carry out open, transparent business, to fully comply with the legislation of the Republic of Kazakhstan and international CSR standards.



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## Human Resources Policy

**The purpose of the Group’s human resources policy** is to form high-quality personnel, in accordance with strategic goals of the Group, through functioning of effective human resources, to strengthen and develop the Group’s human capital, to create and develop additional competitive advantages of the Group, among which the key areas are the development of human resources and the introduction of a motivation system.

**Basic principles of HR policy:**

**1. Proactivity.**  
The Group creates conditions to attract employees to achieve a common success, encourages the initiative, provides opportunities for realizing the potential, career and professional growth in various fields.

**2. Transparency and openness.**  
The system of selection and promotion of employees in the Group provides a sufficiently high level of professionalism of employees and transparency of procedures for recruiting personnel.

Career growth of employees is carried out on the basis of an objective evaluation of the results of their work, business qualities, as well as professional competence. The Group ensures openness at all stages of the human resources management process.

**3. Integrity.**  
The Group ensures the integration of the human resource management process into all business processes.

**4. Continuity**  
The Group supports mentoring as an effective measure to enhance professional skills, especially among young professionals. Specialists are trained and share the accumulated skills and knowledge with their colleagues.

Professional development of employees is carried out through career development planning, management of the talent pool.

**5. Employee motivation.**  
The main elements of effective motivation of employees:  
— terms of payment are set in a way to motivate employees to perform efficiently, and they must

be competitive in order to attract highly qualified specialists;  
— the pay system is transparent and understandable;  
— The level of remuneration depends on the achievement of agreed goals and objectives for the whole Group and its individual employees.

**6. Interrelation of interests and goals of the Group and employees.**  
The Group respects and values its employees, takes care of them and takes into account their needs, contributes to the creation of favorable working conditions that meet the safety requirement.

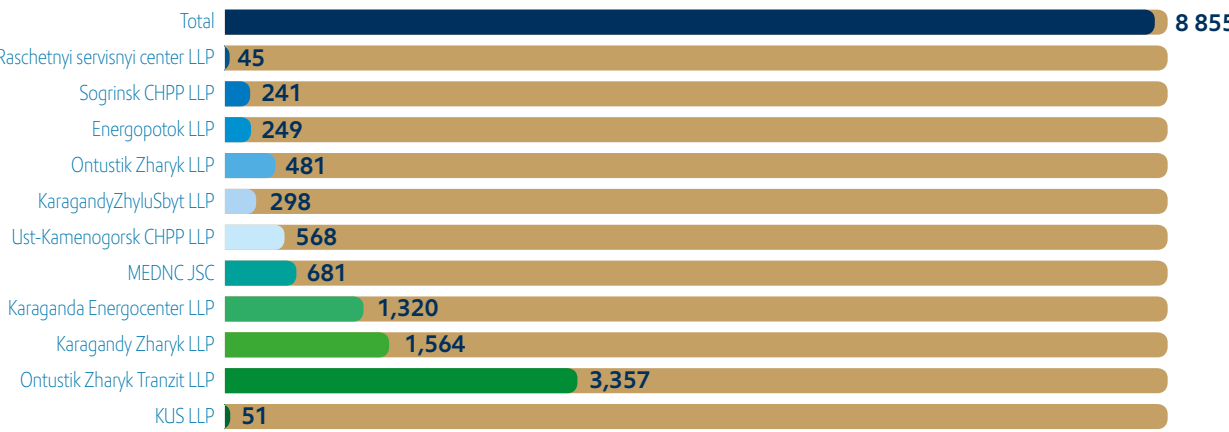
The purpose of the Group’s human resources policy is to strengthen and develop the Group’s human capital, to create and develop additional competitive advantages of the Group, among which the key place is occupied by the development of human resources and the introduction of a motivation system.

*The purpose of the Group’s human resources policy is to strengthen and develop the Group’s human capital, to create and develop additional competitive advantages of the Group, among which the key place is occupied by the development of human resources and the introduction of a motivation system.*

## Number of personnel

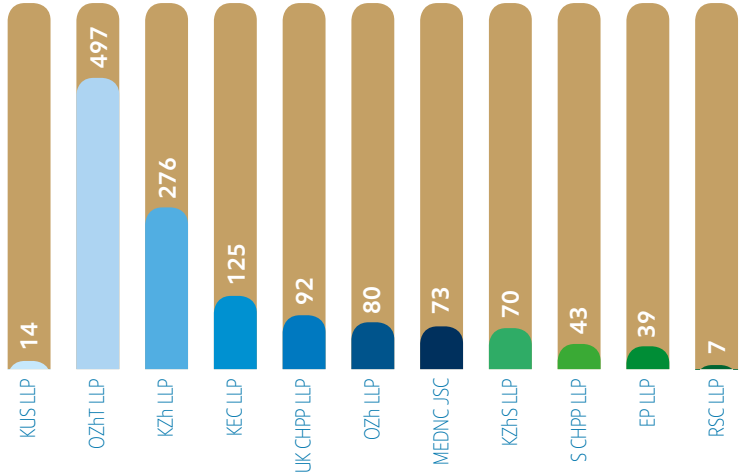
Number of employees in the Group as of December 31, 2017 is 8,855 people.

### Number of personnel in 2017



The total number of employees hired by the Group of Companies was 1,316, of whom 1,065 were workers, 220 were specialists, 31 were managers.

### Total number of personnel hired was 1,316 in 2017



**Number**  
of employees in the Group  
as of December 31, 2017 is

**8,855**  
people

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Personnel turnover

The personnel turnover in the Group of companies for 2017 was 12.4%, which is lower than the level of 2016 by 1.86%.

The decrease in the turnover rate is associated with the implementation of measures aimed at improving the turnover ratio, namely:

- material and non-material incentives for skilled worker;
- improvement of the conditions of social guarantees in accordance with the collective agreement;
- stable business climate in the Group of companies;
- stanle psychological atmosphere;
- opportunity for career growth.

Personnel structure by categories and gender

The personnel structure due to the specificity of the Group’s operations is characterized by a high proportion of men – 75%. The number of men in the category “workers” is 69.1%.

The management is 7.7% of the total number of personnel.

Personnel category	Total		Out of which:			
			men		women	
	people	%	people	%	people	%
Headcount	8,855	100	6,631	100	2,224	100
Management	682	7.7	583	8.8	97	4.4
Specialists	2,097	23.7	1,265	19.1	835	37.5
Workers	6,076	68.6	4,783	72.1	1,292	58.1

Personnel structure by age

In the Group, the proportion of employees under 40 years is 58.7% of the total number. The share of employees in the age category over 60 years is 4.4%.

Age structure of employees



As part of the implementation of the HR policy, the Group carries out activities aimed at ensuring continuity and transfer of professional knowledge and skills from experienced, highly professional workers to young initiative workers. For these purposes, for each student, a new employee is assigned with a tutor

according to contracts for dual training, a program for the adaptation of personnel within the Group.

Thus, the Group conducts activities aimed at attracting young professionals to achieve an optimal balance between the number of young initiative workers and experienced, highly professional workers.

Training and development of personnel

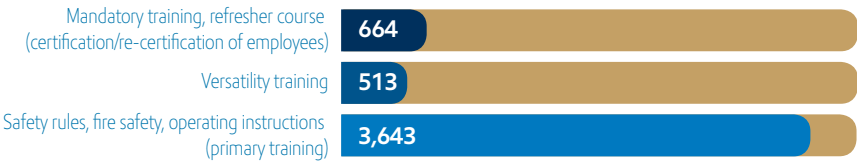
The system of personnel training is a set of measures aimed at acquiring of the theoretical knowledge and practical skills by employees necessary to achieve the Group’s strategic goals.

- Main training objectives:**
- 1) increasing the effectiveness of personnel;
  - 2) providing the professional level of the staff required by the position;
  - 3) ensuring the accumulation and transfer of knowledge within the Company;
  - 4) increasing the loyalty of employees to the Company;
  - 5) talent development.

For the purpose of the structural approach to training and development of personnel, the Annual Training Plan for the calendar year is approved. The plan includes training related to professional development, preparation for the occupation, re-certification, obtaining a related specialty to ensure timely training of new personnel and performance of work.

In 2017, 4,993 people were trained, which is 56.4% of the total number of employees, including 4,820 employees in compulsory education, which accounted for 96.5% of the total number of employees trained. In 2017, the total cost of training was 54,460,237.5 KZT.

Number of employees completed mandatory training



Attraction of young specialists

In 2017, 413 students passed the production and pre-graduation practice in Group’s subsidiaries, 186 of them were employed. At the end of 2017, 53 sightseeing tours were conducted at production facilities of Mangistau Electricity Distribution Network Company JSC, Ust-Kamenogorsk CHPP LLP, Karaganda Energocentr LLP, Karagandy Zharyk LLP.

A number of employees of Ust-Kamenogorsk CHPP LLP take part in the activities of educational institutions: participate in state committees on the final examinations for future power engineers, graduates of the Ust-Kamenogorsk Polytechnic College during the academic year; take part in leading practical exercises, reviewing technical works of students.

Ontustik Zharyk Tranzit LLP carries out a close work with high schools: the Shymkent polytechnical college, the Almaty Energy Institute, the South Kazakhstan state Institute. Students of these universities take technological and industrial internships in the services of experienced masters.

The Group provides a potential resource for mentoring, encouraging employees to transfer their accumulated knowledge and skills to colleagues. The plans are to create a training center based on the corporate training center of Ust-Kamenogorsk CHPP LLP to improve the professional qualification of personnel of all categories.

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Motivation and remuneration of personnel

In 2017, the increase in wages in the Group averaged 6.2%. The Group has a flexible system of labor remuneration, aimed at meeting the key performance indicators of each employee on a monthly basis. This

Non-financial motivation

In order to improve the level of working conditions and ensure safety in the daily performance of work duties, the following activities were organized:

- provision and organization of integrated food service for workers of Karaganda CHPP–1 and Karaganda CHPP–3 at preferential rates;
- provision of preferential travel of employees from Karaganda CHPP–1 and Karaganda CHPP–3 according to approved routes along the city with coverage of the main city districts (Maykuduk, Prishakhtinsk, Sortirovka, Southeast);
- annual allocation of funds for sports and recreational activities at Raschetnyi servisnyi center LLP: rental of a sports hall (for basketball, volleyball, mini-football) and a swimming pool.

Interaction with trade unions

The Group of Companies has trade union organizations and collective agreements have been concluded with a view to provide the social protection of employees.

Collective agreements provide social guarantees and benefits for employees who are members of the trade union, for members of their families, as well as for retirees and veterans of the Group enterprises:

- payment of 50% of the cost of sanatorium treatment;
- payment of 50% of the cost of tickets to children’s health camps;
- help for the children of employees to purchase school supplies;
- New Year’s gifts, gifts for March 8, Nauryz;
- material assistance for May 9 holiday;
- charity aid for the Day of Elderly;
- material assistance upon retirement;
- material assistance related to the death of a close relative, the birth of the first child, hospitalization, the anniversary date.

payment system allows us to encourage employees to work efficiently, to innovate in everyday activities to increase productivity.

Annually, there are events that include awards, certificates of merit, titles in order to increase motivation for effective work, stimulating employees for achieving high production results in Group’s subsidiaries.

As a result of 2017, 417 employees were awarded for effective labor activity. Out of these, 274 employees were awarded with corporate awards, 55 employees – with state awards, five employees – with awards of the SNG Council, 56 employees – with awards from KEA (12 employees were awarded the title of “Honored Power Engineer”, 24 employees were “Honorary Power Engineers”), 16 employees – with awards of the Ministry of Energy, 11 employees – with certificates from the regional council of energy veterans.

In particular, between the Ontustik Zharyk Transit LLP and the public association Local Union of Power Industry Employees of the South-Kazakhstan Region, the collective agreement is valid from 2014 to December 31, 2018.

Between Karaganda Energocenter LLP and the NGO Local Union of Karaganda Energy Group PA collective agreement is valid until December 31, 2019.

Karagandy Zharyk LLP has a permanent collective agreement, where in addition to social guarantees there are overheads to qualified drivers in the following amounts:

- for 1<sup>st</sup> class – 1<sup>st</sup> category (A, B, C, D, E) – 25% of the monthly salary (the tariff rate);
- for 2<sup>nd</sup> class – category (B, C, D) – 10% of the monthly salary (the tariff rate).

Students who are trained to receive technician degrees for further work in the Partnership, the payment is set

before qualification examinations in accordance with the Training Agreement.

In the sphere of social programs:

- registration of own marriage – leave for three calendar days;
- funerals of close relatives (spouse, parents, children, brothers, sisters) – leave for three calendar days;
- birth of children – leave for one calendar day.

Employees are partially compensated for the payment of utility services with transfer of these funds to their settlement accounts in the amount of:

- the cost of 100 kWh of consumed electricity monthly;
- two MCLs for consumed heat energy and hot water in the heating season (from October to April inclusive);
- paid educational leave for preparation and taking examinations, performance of laboratory works, preparation and defense of thesis (project).

It has become a tradition to hold an annual thematic graffiti contest in which any citizen of Kazakhstan and neighboring countries engaged in fine arts can reveal their creative abilities.

Corporate events

Employees of the Group’s subsidiaries participate actively every year in professional, as well as in sports and recreational activities, both at the level of the Group enterprises and at district, regional and international levels.

Therefore, for the formation of a healthy lifestyle, employees of Karaganda CHPP–1, Karaganda CHPP–3 and the Central Office visit Sports facilities (two gyms). Here, employees have the opportunity to play mini-football, volleyball, table tennis, visit the gym and swimming pool.

Ust-Kamenogorsk CHPP LLP is a participant of the sports day among energy enterprises and the “Movement for Health” competition, a participant in the citywide competition between “ZAVODnaya molodezh” enterprises, as well as competitions organized by the Youth Center of the Ust-Kamenogorsk City Akimat.

Every year, the Athletic and Health Club (AHC) Energetik organizes a sports day among energy companies. In 2017, it is already the 43<sup>rd</sup> sports day in the following sports: volleyball, basketball, table tennis, football, chess and swimming.

The structure of the competition “Movement for Health” includes:

- 1) “Come on, guys”;
- 2) cup on volleyball;
- 3) billiards;
- 4) volleyball;
- 5) volleyball among the leaders;

6) participation in sports events around the city.

In addition, Group subsidiaries in Karaganda organize two trips a year for fishing (winter and spring fishing). In summer months, summer holidays are organized on the principle of “weekend getaway”, when employees with families leave for summer vacation in Karkaralinsk, Balkhash, Bayan-aul. The organization of summer holidays is joint: the trade union and the employer, which compensates part of ticket costs.

In 2017, the Group celebrated the 40<sup>th</sup> anniversary of Karaganda CHPP–3 and the 70<sup>th</sup> anniversary of Ust-Kamenogorsk CHPP.

The anniversary of Karaganda CHPP–3 had a festive concert, a film about the history of the station. Especially on the anniversary date of the largest heat and power plant in Kazakhstan, commemorative medals were issued and presented to more than 50 veterans of the enterprise, who worked at the station for more than 30 years. All the people awarded with medals and employees of CHPP–3 also received memorable gifts, and the artists of the musical comedy theater presented songs and dances to power engineers.

One of the significant events in Kazakhstan was the holding of an international exhibition EXPO–2017. Group employees were interested in visiting the exhibition, because its direction is related to the area of Group operations. Therefore, from June to September 2017, all employees of the Group visited the International Exhibition EXPO–2017.

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The Group encourages to celebrate a professional holiday – Energy Day on December 22. Traditionally it involves solemn handing of awards, letters of appreciation, medals to distinguished workers on the actual holiday.

Karagandy Zharyk LLP annually organizes on the day of celebration of the professional holiday – the Day of the Power Engineer – sports competitions in various sports, among which are: volleyball, table tennis, (triathlon), (shooting), mini-football, swimming, chess, fishing.

Health and labor safety

One of the main principles of conducting business for Kazakhstan Utility Systems LLP is the priority of life and health of employees. The main task is the absence of accidents with employees of the Company and contractors.

The management of Kazakhstan Utility Systems LLP adheres to the following principles in the field of health protection and labor safety.

- We put the safety of station employees and contractors on the first place.
- We comply with requirements of the legislation of the Republic of Kazakhstan and support continuing education, enhancing the safety culture of employees.
- We strive to maintain the health of each employee.
- We openly talk about activities of the company in the field of health and safety at work.

All the labor safety personnel of subsidiaries are qualified specialists, a significant part of them has certificates of the IMS system: OHSAS 18001, ISO 14001, ISO 9001, international standards of IOSH and Nebosh. In addition, our specialists are constantly improving their skills at various special courses and trainings in the field of labor safety and environmental protection. Specialists participate in HSE activities at various levels.

Occupational safety system

- Kazakhstan Utility Systems LLP adheres to a policy of **zero tolerance** for violations of major (core) rules and norms in the field of labor safety and protection. The policy of zero tolerance is a certain level of responsibility for violating the basic

Group subsidiaries take part in citywide events dedicated to the celebration of Nauryz Meiramy and establish a yurt in the center of the city for many years of tradition. Here you can get acquainted with national traditions, taste national dishes.

Also, employees of the Group’s subsidiaries take an active part in regional, city and district cleanup days.

Every year the Group organizes team-building events (team building) with a tailgate party, which helps consolidate the team, increase its loyalty and motivation.

rules of the labor safety, until the termination of the contract (labor contract or contract with the contractor organization). Infringement of major rules, revealing of the fact of the use of alcoholic drinks (presence in blood above zero permille) are the bases for the decision to terminate the job contract. Measures for violation of safety and environmental regulations for employees of subcontractors are defined in the standard Annex on environmental and occupational safety for work/ services on customer’s premises. Each employee must comply with and require others to comply with all the laws and regulations on occupational safety and health at work in the company.

- **The right to stop work** is a process that empowers each employee of subsidiary and contractor with authority to stop work, as soon as a situation is unsafe in their opinion. The right to stop work also includes the obligation of all employees and contractors to cease their work as soon as an employee or contractor asks to do so by applying the right to stop work. Stopping work is considered the last opportunity to prevent incidents and, therefore, serious injuries and deaths. Once the right to stop work has been applied, the work must be stopped immediately, the reason for the work stoppage must be explained, an analysis of work safety should be conducted to identify and determine, if necessary, additional control measures to reduce risks. Employees are encouraged for the risks identified and the suspension of work because of safety issues.
- **Preventive safety** is the use of safety work analysis form to assess the risk for a qualitative study of each stage of the work, identify existing and potential

hazards and risks at each stage of the work, and define hazard control measures to reduce and eliminate hazard and risk.

- Check lists of fire works, works at height, lifting works, works in confined spaces and so on.
- 1C: Safety Walk (Ust-Kamenogorsk CHPP LLP) is a program for recording HSE and labor safety inspections. The process of conducting inspections by the enterprise employees, as well as the results achieved, is recorded in the Safety Walk registration program to identify unsafe actions and conditions at workplaces of teams, as well as to keep records of violations identified.
- Application of the LOTO system. Every year in the world in the repair or maintenance of industrial equipment, thousands of employees are killed or injured in various areas of production in accidents involving uncontrolled energy supply. The LOTO system is a system for monitoring hazardous energy sources to provide the safety of people, to protect equipment, and to ensure the continuity of its operation. The LOTO system is based on the processes of multiple inspections of each important stage of monitoring hazardous energy sources, carried out by competent and authorized persons, to ensure proper stoppage from hazardous energy sources. The LOTO system is recommended for use by the International Labor Organization (ILO) as the most effective occupational safety system for repair and maintenance works that allows almost completely eliminate the risks associated with human factors, while providing equipment and blocking the supply of hazardous energy.
- Annual purchase of uniform kits for protection against electric arc. The kit is selected in accordance with the nature of hazard and operating conditions. The kit includes: a jacket made of fire-resistant material, a suit or a romper made of fire-resistant material, heat-resistant gloves, a heat-resistant helmet with a protective face shield, balaclava. Kits for protection against the impact of the electric are provide a chance to save lives and preserve health in case of erroneous actions of operational personnel, as well as in emergency situations and allow extending the evacuation time from the danger zone. In addition, protection kits can reduce the likelihood of accidents in organizations of the electric power industry, including fatalities.
- Conducting monthly labor and environmental safety days is one of the opportunities for personnel training, practical skills honing, and informing on the importance of safety, protection and environmental issues in their daily work. Safety days are also an

opportunity to get feedback on the effectiveness of measures taken to improve the culture of safety and ecology. At the beginning of the calendar year, a schedule of safety days is prepared and approved by the management of stations. It includes the most relevant topics on labor protection and ecology in the field of energy and related industries. The schedule is prepared in such a way that employees of all structural divisions of the enterprise and employees of contract organizations performing work at the enterprise participate in the event every month.

- Training at CTC (Ust-Kamenogorsk CHPP) A significant role in training of personnel and contractors belongs to the Corporate Training Center (CTC). Particularly it is noteworthy to mention the training of contractor personnel. Operational and construction contracting organizations form a large part of our team and it is critically important that they share our safety culture. Training at CTC is a kind of foundation from which all further work begins with employees of contract organizations.
- Weekly release of newsletters on labor and environmental safety.
- Conducting the testing when passing the qualification examinations in the program.

Protection of employees from injuries and occupational diseases is an integral part of risk management and is coordinated by the top management.

From the Company’s point of view, there are compelling reasons to maintain the high-level indicators of labor protections and safety:

- saving lives of people;
- reducing losses from injuries and property damage;
- reducing the number of hours for sick leave;
- reducing insurance payments;
- strengthening the morale of employees and improving motivation;
- improving the Company’s reputation on the market;
- reducing legal costs, costs for payment of fines and compensation;
- improving labor discipline.

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Rewards for labor protection, safety and environment

A quarterly bonus for safety for the enterprise personnel is issued in the absence of accidents with employees of the enterprise and contractors. To motivate contractors’ personnel to perform safe work, the enterprise reserves the right to determine the best contractor organization or employee of the contractor within a certain period of time and reward them.

Certification

The Group of companies of Kazakhstan Utility Systems LLP is certified for compliance with ISO 9001 quality management system, ISO 14001 environmental management and OHSAS 18001 occupational safety.



Charity and sponsorship

Karaganda Energocenter LLP provides free outpatient treatment to employees in accordance with the agreement concluded with the medical institution City Center for Primary Health Care LLP for the amount of 2.4 million KZT per year. Annually the funds are allocated in the amount of 1% of the payroll budget for expenditures on financing, sports development and promotion of a healthy lifestyle for employees.

Karaganda Energocenter LLP as part of the celebration of the Day of Elderly partially reimbursed for the payment of electricity by transferring money to personal accounts of retirees. In 2017, the amount was 1 million KZT. Veterans of the Great Patriotic War and homefront workers received aid in the amount of 1.18 million KZT by May 9.

In 2017, Raschetnyi servisnyi center LLP rendered charitable assistance in the amount of 30 mln. KZT to the Public Fund “Mercy – Kostanay”. The Company provides assistance to veterans of the Great Patriotic War in the served region, monthly writes off the accrued amount (but not more than 120 kWh per veteran).

In fulfillment of the social program, Energopotok LLP provides 30 kW of electricity to WWII veterans on a monthly basis free of charge.

In 2017, in honor of the celebration of the holiday of Nauryz iv Kurban-Ayt, Energopotok LLP assisted poor families in the purchase and delivery of essential food products (flour, vegetable oil, sugar, meat, salt).

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# ENVIRONMENTAL PROTECTION

*From the point of view of the environmental impact, coal generation of energy is one of the most harmful types of the industrial activity. In accordance with the materiality concept in the disclosure of information, the Company discloses environmental protection issues in its annual report on subsidiaries of energy generating assets.*

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## Ust-Kamenogorsk LLP

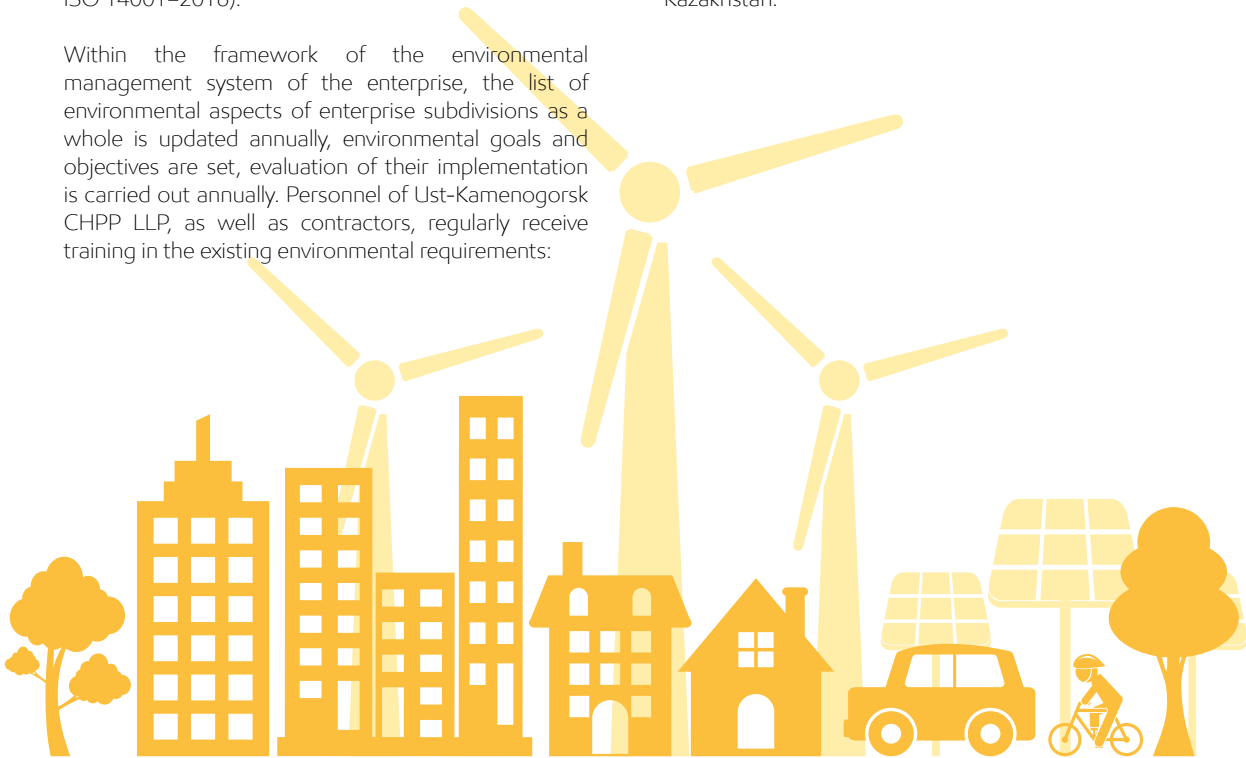
Environmental safety of production is one of priorities in operations of Ust-Kamenogorsk CHPP LLP. Being a life support company in Ust-Kamenogorsk, Ust-Kamenogorsk CHPP LLP strives to maintain a balance between reliable heat supply, environmental safety of production and social responsibility of business. Preservation of a favorable environment through prevention of pollution and improvement of environmental quality indicators as well as a rational use of energy resources are the priority objectives of the integrated enterprise policy in the field of quality, ecology, energy management, and health and safety.

As of 2008, Ust-Kamenogorsk CHPP LLP introduces and operates a system of environmental management. In 2017, Ust-Kamenogorsk CHPP LLP successfully confirmed the compliance of the functioning environmental management system with requirements of the international standard ISO 14001: 2015 (ST RK ISO 14001–2016).

Within the framework of the environmental management system of the enterprise, the list of environmental aspects of enterprise subdivisions as a whole is updated annually, environmental goals and objectives are set, evaluation of their implementation is carried out annually. Personnel of Ust-Kamenogorsk CHPP LLP, as well as contractors, regularly receive training in the existing environmental requirements:

- briefings are given in structural divisions of the station;
- monthly safety and environmental safety days;
- newly recruited personnel is trained in courses for beginners in the Corporate Training Center (CTC);
- personnel of contractors before the start of work on the repair and maintenance of equipment of the station must pass a course of training at CTC, whereby familiarity with the current environmental requirements takes place.

Ust-Kamenogorsk CHPP carries out activities in accordance with requirements of the environmental legislation of the Republic of Kazakhstan, performs environmental activities to reduce the impact of enterprise operations on the environment. The plan of activities for environmental protection is coordinated with the Committee for Environmental Regulation and Control of the Ministry of Energy of the Republic of Kazakhstan.



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In 2017, Ust-Kamenogorsk CHPP LLP implemented the following activities to protect the environment in nine areas of environmental protection:

- 1) reconstruction of 5/2 conveyer’s unloading points;
- 2) inspection of the boiler at st. No. 15 to determine the possibility of reducing emissions of nitrogen oxides;
- 3) inventory of greenhouse gas emissions;
- 4) confirmation of the report on the inventory of greenhouse gases by an independent accredited organization;
- 5) monitoring atmospheric air at the recording station for atmosphere No. 7 with obtaining environmental information;
- 6) reconstruction of the cooling tower;
- 7) purchase of means of response and prevention of spills of pollutants (sorbents);
- 8) reconstruction of the oil storage for the fuel and transport shop;
- 9) seismic reinforcement of tank structures;
- 10) territory landscaping;
- 11) development of a project for reconstruction of the existing ash dump No. 3 with the aim of extending its life, and the development of a new ash dump construction project;
- 12) reuse of ash and slag wastes;
- 13) capital repair of conveying pipes;

Atmospheric air protection

The main operation of Ust-Kamenogorsk CHPP LLP is the production of heat and power. The enterprise, in accordance with the Sanitary and Epidemiological Requirements for Establishment of the Sanitary Protection Zone of Production Facilities (approved by the MNE Order No. 237 of the Republic of Kazakhstan as of March 20, 2015) represents the enterprises of the first class of danger with the size of the sanitary protection zone of 1,000 meters. In accordance with the environmental code of the Republic of Kazakhstan, Ust-Kamenogorsk CHPP refers to the facilities of the 1<sup>st</sup> category.

In 2017, emissions into the environment by Ust-Kamenogorsk CHPP LLP were carried out on the basis of permission for emissions into the environment for 2016–2017 No. KZ74VCZ0060945 as of November 3, 2015.

Due to transition of the station to KUS LLP ownership and change in the enterprise’s name, the permit for emissions was re-registered in accordance with the requirements of the environmental legislation of the Republic of Kazakhstan and received a new one –

- 14) conveying for recycling of mercury-containing lamps;
- 15) radiation monitoring of solid fuel;
- 16) supervisory audit of the environmental management system;
- 17) observation of the ground surface deformation of the ash dump № 3;
- 18) pumping wells and sampling water at the location of the ash dump and industrial site;
- 19) study of qualitative environmental indicators in the area where the ash dump and industrial site are located;
- 20) determination of the level of environmental pollution in the area where the ash dump is located;
- 21) advanced training of specialists in the field of environmental protection;
- 22) environmental advertising, outreach and education.

Actual costs for implementation of environmental protection measures for 2017 were 278,265 million KZT.

On December 6, 2017, based on the results of the Paryz Republican Social Responsibility Competition, Ust-Kamenogorsk CHPP LLP was awarded with Silver Paryz in the For Contribution to the Environment nomination.

No. KZ64VCZ00142023 as of June 6, 2017, valid from June 6, 2017 to December 31, 2017.

In previous years, Ust-Kamenogorsk CHPP LLP implemented the following significant environmental activities:

- in the period from 2004 to 2012, the ash collecting plants were replaced at all nine boiler units of the station for second generation emulsifiers. The implementation of this measure made it possible to increase the efficiency of catching coal ash from outgoing flue gases to 99.1%. In addition, implementation of this measure allowed us to increase the efficiency of sulfur dioxide capture to 7% without addition of special reagents;
- from 2009 to 2013, high-pressure boilers (stations No. 11–15) were used to reconstruct burners with introduction of a technology for high-concentration dust supply to reduce emissions of nitrogen oxides into the atmosphere. The implementation of this measure allowed us to reduce the concentration of nitrogen oxides in outgoing flue gases to 20%.

At Ust-Kamenogorsk CHPP, all acceptable best available technologies were implemented in accordance with the list approved by the Order No. 155 of the Minister of Energy of the Republic of Kazakhstan as of November 28, 2014.

Ust-Kamenogorsk CHPP LLP carries out industrial environmental control (IEC) of emissions in the environment based on the developed program of industrial environmental control. IEC is carried out by its own sanitary industrial laboratory accredited for compliance requirements of GOST ISO/IEC 17025–2009 in accordance with the requirements of the

legislation of the Republic of Kazakhstan, as well as with the involvement of accredited laboratories of third-party organizations.

In 2017, the volume of gross emissions from stationary sources were 13,918 tons against an established standard of 16,010 tons per year.

In 2017, tax payments for emissions of pollutants into the atmosphere from stationary sources were 175,817 thousand KZT, from mobile sources (transportation) – 621 thousand KZT.

Emissions of pollutants (tons/year)	2015	2016	2017
Ust-Kamenogorsk CHPP LLP			
Total including:	11,996.171	11 832,703	13 917,538
Sulfur dioxide (SO <sub>2</sub> )	6,465.238	6,431.016	7,521.222
Nitrogen dioxide (NO <sub>2</sub> )	3,410.331	3,335.263	3,770.589
Nitorgen oxide (NO)	554.171	541.972	613.549
Ash (inorganic dust 70–20 % SiO <sub>2</sub> )	1,423.863	1,405.216	1,853.949
Carbon monoxide (CO)	119.057	96.118	135.244
Other	23.511	23.118	22.985

Based on the results of the inventory of greenhouse gas emissions for 2017, greenhouse gas emissions were as follows:

- carbon dioxide (CO<sub>2</sub>) – 2,505,549 tons;

- methane (CH<sub>4</sub>) – 18.26 tons (383,38 tons of CO<sub>2</sub> equivalent);
- nitrous oxide (N<sub>2</sub>O) – 36.17 tons (11,214.62 tons of CO<sub>2</sub> equivalent).

Waste management

In the course of operations of Ust-Kamenogorsk CHPP LLP, waste production and consumption are formed that are related to green and amber levels of danger.

In accordance with the requirements of the environmental legislation of the Republic of Kazakhstan, Ust-Kamenogorsk CHPP LLP developed normative documents on waste management (waste disposal regulations, hazardous waste passports, waste management program), and it always complies with requirements of the environmental legislation of the Republic of Kazakhstan for waste management.

In total, the company generates 26 types of waste, including:

- 1) waste mercury-containing lamps;
- 2) transformer waste oil;
- 3) turbine waste oil;
- 4) used diesel oil;

- 5) industrial oil used;
  - 6) used lubricating-cooling liquid;
  - 7) oil sludge;
  - 8) whole or broken lead batteries;
  - 9) oily rags;
  - 10) used sealing liquid;
  - 11) humus sludge;
  - 12) acid solutions.
- Waste of the green hazard level:
- 1) ash and slag wastes;
  - 2) scrap metal;
  - 3) scrap and brass scrap;
  - 4) copper waste and scrap (cable waste);
  - 5) aluminum waste and scrap (cable waste);
  - 6) cation resins from treatment plants;
  - 7) waste of rubber products;
  - 8) waste of lining of equipment and pipelines;
  - 9) woodworking waste;

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- 10) waste and scrap of plastics;
- 11) construction and repair waste;
- 12) e-waste;
- 13) waste paper and cardboard;
- 14) solid waste.

In 2017, at Ust-Kamenogorsk CHPP, a total of 195,640,113 tons of waste was generated, including:

- amber-level waste – 10.632 tons;
- green-level waste – 195,629.481 tons.

In 2017, 11,390 tons of waste were reused, 3,816,117 tons were transferred to third parties under contracts, 194,544,997 tons of ash and slag waste were placed in the storage (ash dump No. 3).

Water resources

The existing system of technical water supply of CHPP is straight-flow and circulating with a fan cooling tower.

The source of water supply for Ust-Kamenogorsk CHPP LLP is the Ulba river (own water intake), the system of recycled water supply, the network of the Oskemen-Vodokanal State Enterprise and the Ataman water intake of Ulba Metallurgical Plant JSC (UMP).

Technical water from the Ulba river is used to cool the main and auxiliary equipment; feeding the reverse hydraulic ash disposal system; cooling tower feeding; transfer of water to third-party consumers; replenishment of steam and condensate losses in medium-pressure boilers. Drinking water from Oskemen-Vodokanal SE is used to make up the city’s heat networks (Ust-Kamenogorsk Heating Networks JSC) and for domestic and drinking needs of CHPP. Artesian water of UMP JSC is used for technological needs of CHPP (for replenishment of steam losses to consumers of UMP JSC, Kazzinc LLP), for supplying the city’s heating networks (Ust-Kamenogorsk Heating Networks JSC).

In a co-current cooling system, water after passing through the cooling technological cycle of the main and auxiliary equipment is discharged to the Ulba river.

In the circulating water supply system, a cooling tower is used as the cooler, which was put into operation in 2012.

The volume of water consumption in 2017 was 63,391.1 thousand m³, including:

- from the Ulba river – 53,548.4 thous. m³;

As of January 1, 2018, at the operating ash dump No. 3 of Ust-Kamenogorsk CHPP LLP, 1,929,316 tons of ash and slag wastes were accumulated.

Ash and slag wastes are located in the operating ash dump with an area of 31.6 hectares. In 2017, a working draft of the reconstruction of the existing ash dump No. 3 was developed, which envisages construction of a dam and the extension of its service life. Simultaneously, the completion of the design and implementation of works on the construction of a new ash dump No. 5 is planned.

In 2017, tax payments for placement of ash and slag wastes were 14,567 thousand KZT.

- from networks of Oskemen-Vodokanal SE – 4,554.7 thousand. m³;
- artesian water of UMP JSC – 5,288 thous. m³.

Used for technological needs of the station: 58,434.9 thousand m³.

Used for household and drinking needs: 164.4 thousand m³.

Transferred to outside customers: 4,791.8 thousand m³.

Normative-clean wastewater is formed with cooling of the main and auxiliary equipment and is partially directed to the circulating system of technical water supply with a cooling tower, partially diverted to the Ulba river through the discharge No. 162. The discharge of sewage into the Ulba river (discharge No. 162) is carried out through a closed collector.

The volume of discharge of normative-clean sewage in the Ulba river for 2017 was 49.796 million m³. The discharge of pollutants (petroleum products) to the Ulba river for 2017 was 1,873.5 tons against a normative rate of 1.95 tons.

Tax payments for the discharge of pollutants into the water body were not carried out, as the enterprise did not influence the pollution of the water body (the content of pollutants in the discharged water did not exceed the background content in the water taken from the water source).

In accordance with the program of industrial environmental control, the company carries out control of pollutant emissions into the water body (Ulba River),

as well as control of groundwater contamination through observation wells in the vicinity of the ash dump and industrial site.

Land resources

To determine the impact of the enterprise activities on land resources, according to the PEC program in the vicinity of the ash dump site, the content of pollutants in the soil is monitored.

According to results of soil cover monitoring for 2017, the significant influence of Ust-Kamenogorsk CHPP

According to PEC results for 2017, there were no discharges of wastewater exceeding the established standards, the enterprise does not exert significant influence on groundwater pollution.

LLP on soil resources was not revealed. To determine the dust load of the ash dump № 3 on the adjoining territory, snow cover is monitored. According to results of snow cover monitoring in 2017, no significant impact on the adjacent territory was detected.

Karaganda Energocenter LLP

Karaganda Energocenter LLP considers environmental protection activities as an integral part of its daily work, fully aware of the need to maintain ecological balance and ensure environmentally sustainable socio-economic development of the society. In 2017, the enterprise successfully confirmed the compliance of the existing environmental management system with requirements of the ISO 14001 standard.

Responsible attitude to the environment is a key principle of the Environmental policy of Karaganda Energocenter LLP. The objectives of this policy are to minimize the negative impact on the environment, increase the level of environmental safety, responsibility for ensuring environmental protection, energy saving and rational use of natural and energy resources in the operation of the enterprise. The management of Karaganda Energocenter LLP takes responsibility for the implementation of commitments made by the Environmental Policy for a continuous improvement and prevention of pollution as well as compliance with applicable legislative and other requirements to which Karaganda Energocenter LLP is related in terms of its environmental aspects. Every employee of the Company, as well as an employee of contract organizations working in the interests of the Company, is acquainted with the Environmental Policy of Karaganda Energocenter LLP.

Karaganda Energocenter LLP annually prepares the Environmental Program, which defines the necessary environmental measures, as well as the costs of their implementation.

In 2017, the following measures were taken to protect the environment by the company and outside organizations:

Karaganda CHPP–1

- Development of normative environmental documentation.
- Conducting tests of the radiation quality of ash and slag wastes, fuel oil and coal.
- Disposition of waste to interested individuals and legal entities for processing and disposal.
- Monitoring of soil cover.
- Protection against contamination with ash and slag waste of land adjacent to the ash dump by filling in the summer season beaches of the ash dump with loamy soil (dust suppression).
- Determination of the network water quality.
- Repair and inspection of pumped clarified water.
- Repair and partial replacement of the shut-off valves HVC.
- Monitoring of the impact on atmospheric air at the border of sanitary protection and residential zones.
- Inspection and repair of worn-out units, elimination of suction cups at ARU of PTVV–100 boiler units No. 1–3.
- Inspection and repair of worn out components, elimination of suction cups at ARU of Boiler Units BKZ–50 No. 1–5.
- ARU process flow tests of boilers BKZ–50 № 1–5 and PTVP–100 № 1–3.

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Karaganda CHPP–3

- Monitoring of the impact on atmospheric air at the border of the sanitary protection zone.
- Determination of the network water quality.
- Repair and partial replacement of stop valves in water lines.
- Monitoring of soil cover.
- Disposition of waste to interested individuals and legal entities for processing, and/or disposal.
- Conducting tests of the radiation quality of ash and slag wastes, fuel oil and coal.
- Development of normative environmental documentation.
- Repair and partial replacement of burners.
- Process flow testing of ash collecting systems of boiler units No. 1–7.
- Inspection, replacement of worn out components, elimination of suction cups at ash collecting systems of boiler units No. 1–8.

A total of 50,439 thousand KZT was spent on the implementation of measures for the environmental protection of Karaganda Energocenter LLP.

The risk management system aimed at ensuring the continuity and stabilization of operations by limiting the extent of impact of internal and external negative factors on the operations of Karaganda Energocenter LLP successfully functions at Karaganda Energocenter LLP. To prevent negative impact on the environment, Karaganda Energocenter LLP annually conducts an environmental risk assessment and determines

measures to reduce them, which are fully implemented by the end of 2017.

When considering projects of construction, reconstruction, modernization of equipment and facilities, Karaganda Energocenter LLP assesses for completeness of all types of environmental impact and development of measures to reduce them.

In 2017, all environmental risks of Karaganda Energocenter LLP were under controlled conditions, the details of risks identified in the register of environmental aspects of the enterprise.

The dimensions of the sanitary protection zones of CHPP–1 and CHPP–3 are determined in accordance with Sanitary and Epidemiological Requirements for Establishment of the Sanitary Protection Zone of Production Facilities approved by the MNE Order No. 237 of the Republic of Kazakhstan as of March 20, 2015. According to these rules, CHPP–1 represents an enterprise of the second hazard class with the size of the sanitary protection zone (SPZ) of 500 m. CHPP–3 belongs to the enterprises of the first hazard class with the size of the sanitary protection zone (SPZ) of 1,000 m.

Based on Article 40 of the Environmental Code of the Republic of Kazakhstan and in accordance with the sanitary classification of production facilities, industrial sites of CHPP–1 and CHPP–3 belong to the 1<sup>st</sup> category.

Atmospheric air protection

Karaganda Energocenter LLP is a large nature user and contributes a significant contribution to the pollution of atmospheric air in the city of Karaganda.

In accordance with the requirements of the environmental legislation of the Republic of Kazakhstan, normative documents (MPE, EIA) have been developed for CHPP–1 and CHPP–3 and maximum permissible concentrations (MPCs) have been established.

In accordance with Article 69 of the Environmental Code of the Republic of Kazakhstan for 2017, permits for emissions to the environment were received for CHPP–1 and CHPP–3.

To reduce the technogenic impact on the environment, all boiler units of CHPP are equipped with ash collection system.

In the period of 2013–2016, stations reconditioned the ash collecting facilities with a Venturi pipe (96.6% ash removal efficiency) to 2<sup>nd</sup> generation battery emulsifiers (99.5–99.6% ash removal efficiency).

In 2016, a new power unit was put into operation at CHPP–3, which is equipped with a dry-type ash collecting device (electric filter with a 99.75% ash collecting efficiency).

The implementation of measures for the reconstruction of ash handling facilities has significantly reduced ash emissions.

In accordance with requirements of Technical Regulations, a stationary gas analytical complex is installed on CHPP–3 boilers, which allows continuous monitoring of concentrations of harmful substances in the flue gas at each boiler.

To comply with requirements of the environmental legislation of the Republic of Kazakhstan and reduce emissions of pollutants at CHPP–1 and CHPP–3, operational monitoring is carried out, which includes: calculation of emissions to the environment from stationary sources, accounting for manufactured products, consumption of raw materials and materials, each unit of equipment, the quality and composition of the burned fuel.

In 2017, the reduction in ash emissions is confirmed by the results of industrial environmental monitoring carried out by an independent accredited organization.

In 2017, the volume of gross emissions from stationary sources was 32,967 tons against a normative standard of 43,782 tons per year.

According to the Code of the Republic of Kazakhstan “On taxes and other mandatory payments to the budget”, emissions from mobile sources are not calculated, the amount of fuel used is used as the basis for calculating payments for emissions from mobile sources. Transportation of workers, raw materials, materials used for the activities of the Company and the performance of work, are carried out at insignificant distances and have no significant impact on the environment.

In 2017, tax payments for emissions of polluting substances from stationary sources were 247,045 thousand KZT, from mobile sources (transportation) – 787 thousand KZT.



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Emission types (tons/year)	2015	2016	2017
Karaganda CHPP-1			
Total including:	2,150.031	2,451.883	2,700.496
Ash (inorganic dust SiO <sub>2</sub> –70–20 %)	560.107	520.195	528.749
Nitrogen dioxide (NO <sub>x</sub> )	225.552	289.698	366.261
Sulphur dioxide (SO <sub>2</sub> )	1,095.522	1,347.914	1,579.958
Carbon monoxide (CO)	82.488	108.137	72.963
Other	186.362	185.939	152.565
Karaganda CHPP-3			
Total including:	32,184.320	34,946.119	30,267.124
Ash (inorganic dust SiO <sub>2</sub> –70–20 %)	10,946.686	7,210.676	5,188.492
Nitrogen dioxide (NO <sub>x</sub> )	9,199.528	10,358.444	8,785.880
Sulphur dioxide (SO <sub>2</sub> )	11,493.650	16,704.490	15,638.848
Carbon monoxide (CO)	297.732	548.783	515.198
Other	246.724	123.726	138.706
Total for Karaganda Energocenter LLP	34,334.351	37,394.002	32,967.620

In 2017, according to requirements of the environmental legislation of the Republic of Kazakhstan, an inventory of greenhouse gas emissions from burned fuel (coal, fuel oil) was carried out at CHPP–1 and CHPP–3.

Verified reports were sent to authorized bodies in the field of environmental protection within established time limits.

In 2017, Karaganda Energocenter LLP released into the atmosphere 5,964,281 tons (in CO<sub>2</sub> equivalent) of greenhouse gases, including:

Karaganda CHPP–1

- carbon dioxide (CO<sub>2</sub>) – 424,429 tons;
- methane (CH<sub>4</sub>) – 3 tons (t.eq. CO<sub>2</sub> – 70);
- nitrous oxide (N<sub>2</sub>O) – 6 tons (CO<sub>2</sub> equivalent – 1,864);

Karaganda CHPP–3

- carbon dioxide (CO<sub>2</sub>) – 5,539,852 tons;
- methane (CH<sub>4</sub>) – 37 tons (CO<sub>2</sub> equivalent – 789);
- nitrous oxide (N<sub>2</sub>O) – 74 tons (CO<sub>2</sub> equivalent – 23,029).

As a result of its operations, Karaganda Energocenter LLP does not release ozone-depleting substances that affect climate change.

Waste management

In the course of production activities, industrial and household waste is generated at CHPP–1 and CHPP–3, which are classified as green and amber levels of danger.

In accordance with requirements of the environmental legislation of the Republic of Kazakhstan, regulatory documents for waste management (NRA, waste management program, hazardous waste passport) have been developed for CHPP–1 and CHPP–3.

In total, the company produces more than 28 types of waste:

- Amber hazard level wastes:
- 1) used ion–exchange resins;
  - 2) waste mercury-containing lamps;
  - 3) waste mercury containing devices (thermometers);
  - 4) used lead-acid batteries;
  - 5) waste of a class “B” of the health center;
  - 6) oiled rags;
  - 7) used car filters;
  - 8) used oils;
  - 9) containers for paints and varnishes;
  - 10) used wooden railway sleepers;

- Waste of green hazard level:
- 1) ash and slag;
  - 2) scrap of non-ferrous metals;
  - 3) scrap of ferrous metals;
  - 4) cinder wires welding electrodes;
  - 5) used tires;
  - 6) solid household waste;
  - 7) used air filters;
  - 8) food waste;
  - 9) heat-insulating waste;
  - 10) construction waste;
  - 11) waste from the operation of office and electronic equipment;
  - 12) used clothing;
  - 13) waste from crop production;
  - 14) woodworking waste;
  - 15) waste of rubber products;
  - 16) waste electrical insulating material,
  - 17) dust abrasive-metal;
  - 18) scrap of abrasive products.

In 2017, 1,491,607.585 tons of industrial and domestic wastes were generated at CHPP–1 and CHPP–3,

including: 135.018 tons of amber-level waste and 1,491,472.467 tons of green-level waste.

In accordance with requirements of the environmental legislation of the Republic of Kazakhstan and regulatory documents, the Company records the formation, authorization, accumulation, storage, disposal of industrial and domestic waste.

In 2017, 41,467 tons of industrial and domestic waste were disposed at industrial sites of the stations, 3,295,912 tons of waste were transferred to third parties for disposal, 1,448,135.088 tons of ash and slag waste were disposed in storage tanks (ash dumps). Ash-and-slag wastes of CHPP–1 are located on a ash dump with an area of 24 hectares, which is a hydraulic engineering structure. In 2016, the State Assets and Procurement Department of the City of Karaganda SE transferred to Karaganda Energocenter LLP the ash dump of dry storage on a contractual basis with an area of 40 hectares. In accordance with the project, the end of operation of these ash dumps is planned for 2027–2028.

Ash and slag waste of CHPP–3 are stored in the 1st and 2nd sections of the ash dump No. 2 with an area of 188.5203 hectares. The service life of the 1st and 2nd sections of the ash disposal area No. 2 ends in 2020. In 2016, INFORM TECH Private Entrepreneur developed a project “Reconstruction of ash dump №2 of Karaganda CHPP–3 by increasing the enclosing dam of the 3rd section”. The implementation of this project will extend the service life of the ash dump No. 2 by 3.5 years.

As of December 31, 2017, 7,757,223.858 tons of ash and slag waste were accumulated at ash dumps of stations, including:

- CHPP–1 – 770 276,921 tons;
- CHPP–3 – 6 986 946,937 tons.

In addition, payments for emissions for disposition of ash and slag waste in 2017 were 55,715,778 KZT.

In 2017, the income from the sale of industrial and domestic waste was 7,926,828 KXT, including:

- implementation of ash and slag waste–7,614,200 KZT;
- sale of used ion–exchange resins – 226,528 KZT;
- ale of used lead batteries – 86,100 KZT;
- waste paper – 14,676 KZT.

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Water resources

In accordance with the technological process, a circulating water supply system operates at CHPP–1 and CHPP–3. To replenish losses in the circulating water supply system and domestic needs, water of drinking quality is used at CHPP–1 and CHPP–3. At CHPP–1 water comes from the ArcelorMittal Temirtau LLP and Karaganda Su LLP. In 2017, the volume of water consumption of CHPP–1 was 775 394 tons, including: from ArcelorMittal Temirtau JSC – 532,734 tons, from Karagandy Su LLP – 242,660 tons. Out of these: expenditure on technological needs were 732,648 tons, for domestic and household needs – 42,746 tons. In 2017, turnover water supply of CHPP–1 was 2,750.2 thousand tons, re-use – 732.6 thousand tons.

Water supply of Karaganda CHPP–3 is made on a contractual basis from treatment facilities of Karaganda Su LLP.

In 2017, the volume of water consumption of CHPP–3 was 15,600,842 tons, including 15,342,825 tons for technological needs, 258,017 tons for domestic needs. In addition, recycled water supply in the cycle of CHPP–3 was 649,370 thousand tons, reuse – 1,395 thousand tons.

Land resources

The main impact on re-contamination of the soil can be caused by ash and slag wastes generated during the combustion of fuel in the furnace of the boiler and stored in ash dumps of CHPP–1 and CHPP–3. To prevent the risk of soil contamination at stations, measures are annually developed to prevent the ash dumping.

At the end of the heating season at CHPP–1, to prevent dusting ash dump, works are carried out to cover ash

Household and domestic waste waters of CHPP–1 and CHPP–3 are allocated on a contractual basis to the treatment facilities of Karaganda Su LLP. Discharges to the terrain and water bodies are not carried out.

In the course of industrial environmental monitoring, the stations continuously monitor the quality of incoming water from Karagandy Su LLP and ArcelorMittal Temirtau JSC, as well as GVS. As a result of monitoring, incoming and transmitted water meets sanitary and epidemiological requirements.

Monthly samples of sewage from fecal and storm sewage, clarified water from the ash dump, circulating water are sampled at the stations. The quality of these waters meets PTE requirements.

In accordance with the requirements of the Water and Environmental Codes of the Republic of Kazakhstan, surface and groundwater monitoring is carried out in the ash dumps of CHPP-1 and CHPP-3. Based on the results of monitoring conducted by an independent accredited organization in 2017, no significant impact on groundwater and surface water has been identified.

and slag waste with loamy soil (a layer of loam not less than 30 cm).

At the ash dump of CHPP–3, to prevent dusting ash and slag waste, the level of water in the bowl and the washing of ash accumulations are monitored daily. According to the results of soil cover monitoring carried out in 2017 by an independent accredited organization, significant influence of CHPP–1 and CHPP–3 on soil resources was not revealed.

Energy saving

Karaganda Energocenter LLP

The main objective of energy saving and energy efficiency improvement of Karaganda Energocenter LLP is to reduce the volume of consumed energy resources, including reducing the consumption of energy for own needs, reducing the unit cost of resources for electricity and heat, reducing fuel resources for the production of heat and electric power, improving the mechanisms for monitoring energy costs and equipping Karaganda Energocenter LLP with electric and heat energy meters.

Based on the results of the past repair campaign and implementation of a number of programs aimed at energy saving in 2017, Karaganda Energocenter LLP, in relation to the plan, reduced energy consumption for own needs from 11.8% to 11.6%, the specific consumption of conventional fuel for heat energy from 199 to 198.7 kg/Gcal, the consumption of chlorine-containing substabces for own needs of Karaganda CHPP–3 decreased by 240,000 tons. The use of drinking water for technological needs of plants is reduced, the volume of circulating water supply is increasing.

In 2017, within the framework of the Action Plan for Energy Saving and Energy Efficiency Improvement, the following activities were carried out:

- 1) connection of the pump for the cooling circuit of OGR of the 5th turbine to a single collector, optimization of regulation at CHPP–3. This operation saved 544.7 thousand kWh;
- 2) reconstruction of a turbo-generator of the T–110/120 130 type at st. No. 1 with the replacement of the high-pressure rotor. This measure saved 64.6 thousand tons of coal.

In 2014, In accordance with the Law of the Republic of Kazakhstan “On Energy Saving and Energy Efficiency Improvement” Karaganda Energocenter LLP, based on the concluded agreement with EI-Nur-Service LLP, at Karaganda CHPP–1 and CHPP–3 in accordance with requirements of the Rules for energy audit approved by the Government of the Republic of Kazakhstan on August 31, 2012 №1115, an energy audit was conducted, according to the results of which an energy saving and energy efficiency improvement report was issued on December 11, 2014.



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Karagandy Zharyk LLP

Because of the introduction of the energy management system based on the international standard ISO 50001, Karagandy Zharyk LLP established the requirements for periodic energy analysis and energy planning to improve the energy efficiency of production within the

framework of the operating integrated management system of Karagandy Zharyk LLP.

Energy analysis is carried out on the basis of monitoring and measuring energy consumption.

Information on the results of implementation of the plan of measures for energy saving and energy efficiency improvement for 2017 at Karagandy Zharyk LLP

№	Name of measure	Implementation period (month, year)	Actual investment for the reporting period (including VAT), KZT	Actual savings from implementation of measures for the reporting period		
				Name of energy source	In physical terms	In cash (including VAT), KZT
1	2	3	4	5	6	7
1.	Switching off transformers in low load modes at substations with two or more transformers	Throughout the year (organizational measure)	0	Power (kWh)	2,025,847	17,212,244
2.	Reducing the power consumption for own needs of substations	Throughout the year (organizational measure)	0	Power (kWh)	1,604,740	13,634,385
3.	Reconstruction and construction of 0.4/6 10 kV RS	Throughout the year	2,069,287,847	Power (kWh)	1,123,426	9,544,987
4.	Replacement of incandescent and DRL lamps with LED lamps	December 2017	3,130,104	Power (kWh)	400,839	3,405,656
5.	Heat insulation of metal doors and gates with poly-urethane foam	September 2017	870,075	Heat (Gcal)	38	276,558
6.	Re-certification audit	September 2017	466,667	–	–	–
7.	Refresher Courses and Staff Development	Throughout the year	5,954,915	–	–	–

Ontustik Zharyk Tranzit LLP

On the basis of the Resolution of the Government of the Republic of Kazakhstan No. 904 “On Approval of the Energy Saving Program” as of August 29, 2013, Ontustik Zharyk Tranzit LLP developed a Comprehensive Energy Saving Plan for the South Kazakhstan region jointly

with the South Kazakhstan region akimat for 2015–2020. The action plan was developed on the basis of the approved investment program of the partnership aimed at reducing the regulatory and technical losses in power networks.

Information on the results of implementation of the plan of measures for energy saving and energy efficiency improvement for 2017 at Ontustik Zharyk Tranzit LLP

Measures	2016			2017		
	Volume	mln. KZT	Effect, kWh	Volume	mln. KZT	Effect, kWh
Replacement of overloaded, installation and commissioning of additional power transformers at existing 35 kV PS–x				1	12.4	20,000
Replacement of overloaded, installation and commissioning of additional power transformers on existing transformer substations, 10 6 kV package transformer substation	88 pcs.	167.2	119,984	101 pcs.	167.8	116,232
Replacement of underloaded power transformers with existing transformer substations, 10 6 kV package transformer substation	1 pcs.	1.7	3,000	2 pcs.	4.2	11,400
Replacement of wires on overloaded 10 kV overhead lines				5.15 km	9	71,070
Replacement of wires on overloaded lines of 0.4 kV overhead lines	60.567 km	111.9	532,900	89.629 km	153.7	788,735
Replacement of wires on overloaded lines of 0.4 kV overhead lines (with the use of self-supporting insulated wire))	178.317 km	1,130	1,569,190	217.825 km	1,431.8	1,916,860
Total:						
	–	1,410.8	2,225,163	–	1,778.9	2,924,297

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Mangistau Electricity Distribution Network Company JSC

In 2013, Mangistau Electricity Distribution Network Company JSC in accordance with the requirements of the law of the Republic of Kazakhstan “On energy conservation and energy efficiency” was subject to the energy audit. Based on the results of the energy audit, the plan of measures for energy saving and energy efficiency improvement for 2014–2018 was approved.

The program of energy saving and energy efficiency improvement of MEDNC JSC for 2016–2020 is developed taking into account the main directions of the state policy in the field of energy saving and increasing energy efficiency and defines the goals and objectives. The program is implemented in accordance with the plan of measures.

Information on the results of implementation of the plan of measures for energy saving and energy efficiency increase for 2017 for Mangistau Electricity Distribution Network Company JSC

№	Name of measure	Implementation period (month, year)	Actual investment for the reporting period (including VAT), KZT	Actual savings from implementation of measures for the reporting period		
				Name of energy source	In physical terms	In terms of money (with VAT), KZT
1	2	3	4	5	6	7
1.	Replacement of incandescent lamps with compact fluorescent lamps in buildings and premises of SS of MEDNC JSC	2017	1.968915	Power	129,024	1,829,560
2.	Replacement of existing porcelain insulators with glass	2017	9.140	Efficiency increase	21,456	304,248.35
3.	Replacement of underloaded current transformers of the electricity metering system at the enterprise substations	2017	17.371953	Power		
4.	Replacement of obsolete counters with long-term memory meters, adapted for ASKUE of MEDNC JSC	2017	2.19	Power	16,377,826.3	232,237,576.93
5.	Introduction of ASKUE inx 6–10/0.4 kV networks of MEDNC JSC wth telemechanics and telemetry	2017	1,172.040	Power		



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CONSOLIDATED STATEMENT ON PROFIT, LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR, ENDED DECEMBER 31, 2017 (in thousand KZT)		
	2017	2016
Revenues	97,337,035	82,476,864
Cost of sales	(66,087,670)	(51,452,419)
Gross profit	31,249,365	31,024,445
General and administrative costs	(6,388,741)	(5,870,076)
Selling expenses	(2,148,142)	(1,965,015)
Financial costs	(4,812,517)	(2,102,496)
Financial income	652,805	355,211
Other income, net	18,759,036	138,587
Share in profits of associated company	150,329	–
Income from dividends	17,224	7,531
Exchange loss, net	(30,268)	(103,669)
PROFIT BEFORE INCOME TAX	37,449,091	21,484,518
Income tax expenses	(3,973,072)	(4,402,260)
NET PROFIT AND TOTAL COMPREHENSIVE INCOME FOR THE YEAR	33,476,019	17,082,258

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CONSOLIDATED STATEMENT OF FINANCIAL POSITION  
AS OF DECEMBER 31, 2017  
(in thousand KZT)

	31 December 2017	31 December 2016
ASSETS		
LONG-TERM ASSETS:		
Fixed assets	203,095,669	131,353,218
Advances paid	3,152,062	1,187,026
Long-term financial investments	–	249,055
Other long-term assets	885,850	637,915
Deferred tax assets	63,470	40,400
Total long-term assets	207,197,051	133,467,614
CURRENT ASSETS:		
Trade receivables	9,958,231	7,690,358
Inventories	3,786,086	2,437,888
Advances paid	780,574	688,908
Corporate income tax prepaid	443,120	278,492
Other current assets	2,916,460	8,473,982
Cash and cash equivalents	6,444,524	2,358,941
	24,328,995	21,928,569
Assets held for sale	3,125,587	–
Total current assets	27,454,582	21,928,569
TOTAL ASSETS	234,651,633	155,396,183
EQUITY AND LIABILITIES		
EQUITY:		
Authorized capital	11,636,404	11,636,404
Additional paid-in capital	9,239,137	9,239,137
Retained earnings	96,699,636	67,874,617
Own equity of parent company’s participants	117,575,177	88,750,158
Non-controlling interests	11,497,333	–
Total equity	129,072,510	88,750,158
LONG-TERM LIABILITIES:		
Loans and bonds	41,396,656	25,107,868
Deferred tax liabilities	28,913,770	18,384,547
Other long-term liabilities	3,329,667	112,048
Total long-term liabilities	73,640,093	43,604,463
CURRENT LIABILITIES:		
Loans and bonds	15,752,223	11,949,582
Trade accounts payable	4,911,834	4,817,369
Other account payable and accrued liabilities	8,558,620	4,715,765
Other taxes payable	2,179,717	1,476,868
Corporate income tax payable	82,115	81,978
Liabilities related to assets held for sale	454,521	–
Total current liabilities	31,939,030	23,041,562
TOTAL LIABILITIES	105,579,123	66,646,025
TOTAL EQUITY AND LIABILITIES	234,651,633	155,396,183

CONSOLIDATED STATEMENT OF CHANGES IN OWNER’S EQUITY  
FOR THE YEAR, ENDED DECEMBER 31, 2017  
(in thousand KZT)

	Authorized capital	Additional paid-in capital	Retained earnings	Own equity of parent company’s participants	Non- controlling interests	Total
As of 1 January 2016	11,636,404	9,239,137	50,792,359	71,667,900	–	71,667,900
Net income and total comprehensive income for the year	–	–	17,082,258	17,082,258	–	17,082,258
As of 31 December 2016	11,636,404	9,239,137	67,874,617	88,750,158	–	88,750,158
Net income and total comprehensive income for the year	–	–	33,476,019	33,476,019	–	33,476,019
Payment of dividends	–	–	(4,651,000)	(4,651,000)	–	(4,651,000)
Acquisition of non-controlling interests due to acquisition of subsidiary	–	–	–	–	11,497,333	11,497,333
As of 31 December 2017	11,636,404	9,239,137	96,699,636	117,575,177	11,497,333	129,072,510

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CONSOLIDATED STATEMENT OF CASH FLOWS  
FOR THE YEAR, ENDED DECEMBER 31, 2017  
(in thousand KZT)

	2017	2016
<b>OPERATING ACTIVITY:</b>		
Sale of goods and services	108,211,180	89,854,677
Other receipts	1,616,173	2,180,344
Total cash inflow	109,827,353	92,035,021
Payments to suppliers of goods and services	(57,350,977)	(43,828,457)
Salary payments	(9,154,447)	(7,491,029)
Other payments to the revenue	(8,824,951)	(5,605,286)
Other payments	(1,725,421)	(2,035,596)
Total cash outflows	(77,055,796)	(58,960,368)
Funds received from operating activity	32,771,557	33,074,653
Remunerations received	189,436	30,157
Payment of loan and bonds interests	(5,028,043)	(3,257,439)
Corporate income tax	(1,862,819)	(988,674)
<b>Net cash received from operating activity</b>	<b>26,070,131</b>	<b>28,858,697</b>
<b>INVESTMENT ACTIVITY:</b>		
Sale of fixed assets	105	836
Repayment of financial support provided	30,000	198,529
Dividends received	17,224	7,531
Other receipts	5,000	359,633
Prepayment for sale of subsidiary	1,682,059	–
Total cash inflow	1,734,388	566,529
Acquisition of fixed assets and materials for capital repair and advances paid for acquisition of long-term assets	(15,182,851)	(20,791,513)
Acquisition of equity instruments	–	(249,055)
Acquisition of intangible assets	(16,279)	(16,519)
Provision of financial support	(80,000)	(204,634)
Net cash outflows for acquisition of subsidiaries	(7,855,315)	–
Other payments	(3,845)	–
Total cash outflows	(23,138,290)	(21,261,721)
<b>Net cash used in investing activity</b>	<b>(21,403,902)</b>	<b>(20,695,192)</b>

CONSOLIDATED STATEMENT OF CASH FLOWS  
FOR THE YEAR, ENDED DECEMBER 31, 2017  
(in thousand KZT)

	2017	2016
<b>FINANCING ACTIVITY:</b>		
Bond issue	882,446	100,000
Repayment of financial support provided to the participant	8,128,000	–
Receipt of financial support	976,224	1,398,630
Procurement of loans	21,318,820	13,828,100
Other receipts	48,733	–
Total cash inflow	31,354,223	15,326,730
Repayment of loans	(26,039,791)	(14,357,731)
Redemption of bonds	–	(100,000)
Provision of financial support to the participant	(60,000)	(7,457,000)
Repayment of financial support received	(1,125,500)	(321,260)
Payment of dividends	(4,651,000)	–
Other cash outflows	(25,869)	(6,500)
Total cash outflows	(31,902,160)	(22,242,491)
<b>Net cash used in financing activity</b>	<b>(547,937)</b>	<b>(6,915,761)</b>
NET CHANGE IN CASH	4,118,292	1,247,744
CASH AND CASH EQUIVALENTS, at the beginning of the year	2,358,941	1,111,197
Currency effect on cash balance in foreign currency	19,165	–
<b>CASH AND CASH EQUIVALENTS, at year-end</b>	<b>6,496,398</b>	<b>2,358,941</b>

The full version of audited consolidated financial statements for the year 2017 is available on the website of Kazakhstan Utility Systems LLP (www.kus.kz / Investors Relations / Financial Performance).





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