

TRANSFORMING ENERGY INTO LIFE

ANNUAL REPORT 2020



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MANAGEMENT LETTERS

DEAR SHAREHOLDERS AND PARTNERS,

The presented annual report contains information on performance results of PAVLODARENERGO JSC group of companies for 2020. The document also provides data on the development prospects for 2021.

For all of us, 2020 was a time of new decisions, which had to be made promptly and accurately, since the further successful activity of the company largely depended on them. The COVID-19 pandemic has made a lot of changes in the work of all spheres. However, the enterprises of PAVLODARENERGO group of companies, even in the most difficult periods, continued to adequately fulfil their task and continuously supply consumers with heat and electric power. Upon imposition of a state of emergency in the Republic of Kazakhstan in March 2020, Central-Asian Electric Power Corporation JSC supported PAVLODARENERGO JSC in carrying out measures aimed at protecting employees against coronavirus and implementing projects in the area of social responsibility of business to the population of the region. Thus, immediately responding to the call of Elbasy Nursultan Nazarbayev in the fight against COVID-19, PAVLODARENERGO handed over 60 tons of products produced at the Kaustik plant of the CAPEC JSC holding to the akimat of Pavlodar at no cost for use in disinfection of public places.

In addition, two new provisional centers were organised: in Energetik Health Care Center for 60 beds and in the building of the recreation center in Michurino village with a total capacity of up to 140 beds. The premises were completely re-equipped for medical needs in accordance with sanitary and epidemiological requirements, specialised equipment was purchased, including devices for artificial lung ventilation. Also, in the free premises of the Energetik Health Care Center, accommodation was provided for almost 70 medical workers of Pavlodar, who conducted medical supervision of isolated patients and those who came into contact with infected persons.

PAVLODARENERGO JSC is an integral component of the energy stability of Pavlodar region. Therefore, it produces, transports and supplies electric power and heat to consumers regardless of current events and conditions. This principle has been and remains fundamental in the company's activities.

LEONID L. YANUSHKO

Chairman of the Board of Directors
of PAVLODARENERGO JSC

DEAR COLLEAGUES AND PARTNERS,

In 2020, which has become a difficult period for all of us, the activities of the enterprises of PAVLODARENERGO JSC group of companies continued unchanged, despite the force majeure with the COVID-19 pandemic. 2020 marked the 55th anniversary of PAVLODARENERGO JSC, which was noted by the company in a way that every day, every minute it realised its main goal: high-quality and stable energy supply to Pavlodar region.

In 2020, electric power generation amounted to 3,704 million kWh and heat generation amounted 4,478.904 thousand Gcal across PAVLODARENERGO JSC group of companies. Income from the sale of services from core activities increased by 5,426 million tenge and amounted to 53,628 million tenge. The volume of sales of electric power in 2020 is 1,293 million kWh, which is 3.7 % lower compared to 2019. The sales volume for heat power in 2020 amounted to 3,363.705 thousand Gcal. There is also a decrease by 2.6 % compared to the prior year. These results are linked to a decrease in the consumption of electric and heat power, including as a result of introduction of restrictive measures due to COVID-19.

However, the planned investment projects were successfully implemented by the company. 2 billion 262 million 293 thousand tenge is the total amount allocated for the implementation of investment programs at two stations of PAVLODARENERGO JSC in 2020. This includes contributions under the investment program approved by the DCRNM (Department of the Committee for Regulation of Natural Monopolies) amounted to 1 billion 433 million 277 thousand tenge (the amounts are net of VAT). The number of major investment projects of Pavlodar CHP-3 included the expansion of the first phase of the ash dump to extend its use for another two years. The second phase of the ash dump was also expanded at Pavlodar CHP-2 to extend its service life for six years. Another investment direction in 2020 was the development of a project for the construction of a reinforced concrete flue No. 2 at CHP-3. The purpose of this project is to remove the restrictions on the traction of the station's boiler units and make it possible to connect boilers No. 7 and No. 8 to the pipe, the construction of which is planned in the future. Due to the prospect of an increase in external consumption of products (steam and water) after the commissioning of facilities in the Pavlodar SEZ, work has begun on a project for the reconstruction of Pavlodar CHP-3 water treatment plant.

The investment program of PEDC JSC in the reporting year included the reconstruction and construction of substations, overhead and cable lines. The main goal is to reduce the wear of networks and equipment to 58.75 % to provide an opportunity to connect new electric power consumers. One of the leading directions was the continuation of the construction of the 110/10 kW Severnaya Gorodskaya substation. The project also

includes the construction of a double-circuit 110 kW overhead line between Promyshlennaya and Severnaya Gorodskaya substations and the installation of two 110 kW cells at the Promyshlennaya substation.

In 2020, Pavlodar Heat Networks LLP allocated 465 million tenge for implementation of the investment program. Large-scale works affected reconstruction of the heating main No. 37 in the Northern industrial zone of Pavlodar with an increase in diameter and the use of new pipes with industrial thermal insulation made of polyurethane foam. This project is designed for several stages, started in 2018 and is scheduled for completion in 2025. Another previously approved project (2019-2022) of heat engineers was the reconstruction of the pumping station No. 3 with its conversion into a central heat supply station to improve the heat supply of Lesozavod and Radiozavod microdistricts, as well as to enable the connection of new consumers.

562 million 937 thousand tenge is the total amount provided for implementation of investment programs of Ekibastuzteploenergo LLP in 2020. Also, 266 million 749 thousand tenge was allocated for Ekibastuz heat networks and 296 million 188 thousand tenge was allocated for Ekibastuz heat power plant. The main project was the construction of the second section of the ash dump in the bed of Lake Tuz, which is planned to be completed in 2021. In the reporting year, works were carried out on the construction of an empty pavilion and a patrol road.

In the reporting year, Ekibastuz heating networks enterprise continued implementation of the project providing for the removal of district heating networks from private low-rise buildings. After the reconstruction, heat engineers plan to reduce the cost of maintaining networks, to provide unhindered access to the equipment of the heating networks for operation and regulation of the coolant delivery, since at the moment many consumers have an excessive heat load. It is closely connected with the reconstruction of intra-block networks and the construction of nine block heating units in seven microdistricts of the city.

Each project individually implemented by PAVLODARENERGO JSC group of companies is aimed at solving common tasks: ensuring high-quality operation of power equipment and improving the process of generating, transmitting and supplying consumers with heat and electric power.

OLEG V. PERFILOV

General Director
of PAVLODARENERGO JSC

COMPANY OVERVIEW

1



 **PAVLODARENERGO**
JOINT-STOCK COMPANY

PAVLODARENERGO TODAY

PAVLODARENERGO is a vertically integrated company consolidating enterprises involved in generation, transmission and sale of electric power and heat. The enterprise is part of Central-Asian Electric Power Corporation JSC (CAEPCO JSC group of companies).

PAVLODARENERGO JSC comprises of:

- > Pavlodar CHP-2
- > Pavlodar CHP-3
- > Pavlodar Heat Networks LLP
- > Pavlodar Electric Distribution Company JSC
- > Pavlodarenergosbyt LLP
- > Ekibastuzteploenergo LLP (Ekibastuz CHP and Ekibastuz heat networks)
- > Energetik Health Care Center LLP (Energetik Health Care Center LLP and Energetik Recreation Center LLP).

PAVLODARENERGO JSC has implemented corporate governance standards, business processes are being optimised and practices are being improved in accordance with modern international standards in the area of production, ecology, health protection and the social sphere.

4,879 persons
THE LIST NUMBER OF THE COMPANY'S PERSONNEL IN 2020

677 MW
INSTALLED ELECTRIC POWER

2,268 Gcal-h
INSTALLED HEAT CAPACITY

MORE THAN **270** thous CONSUMERS

3,5 % IS THE COMPANY'S SHARE IN THE ELECTRIC POWER GENERATION MARKET IN 2020

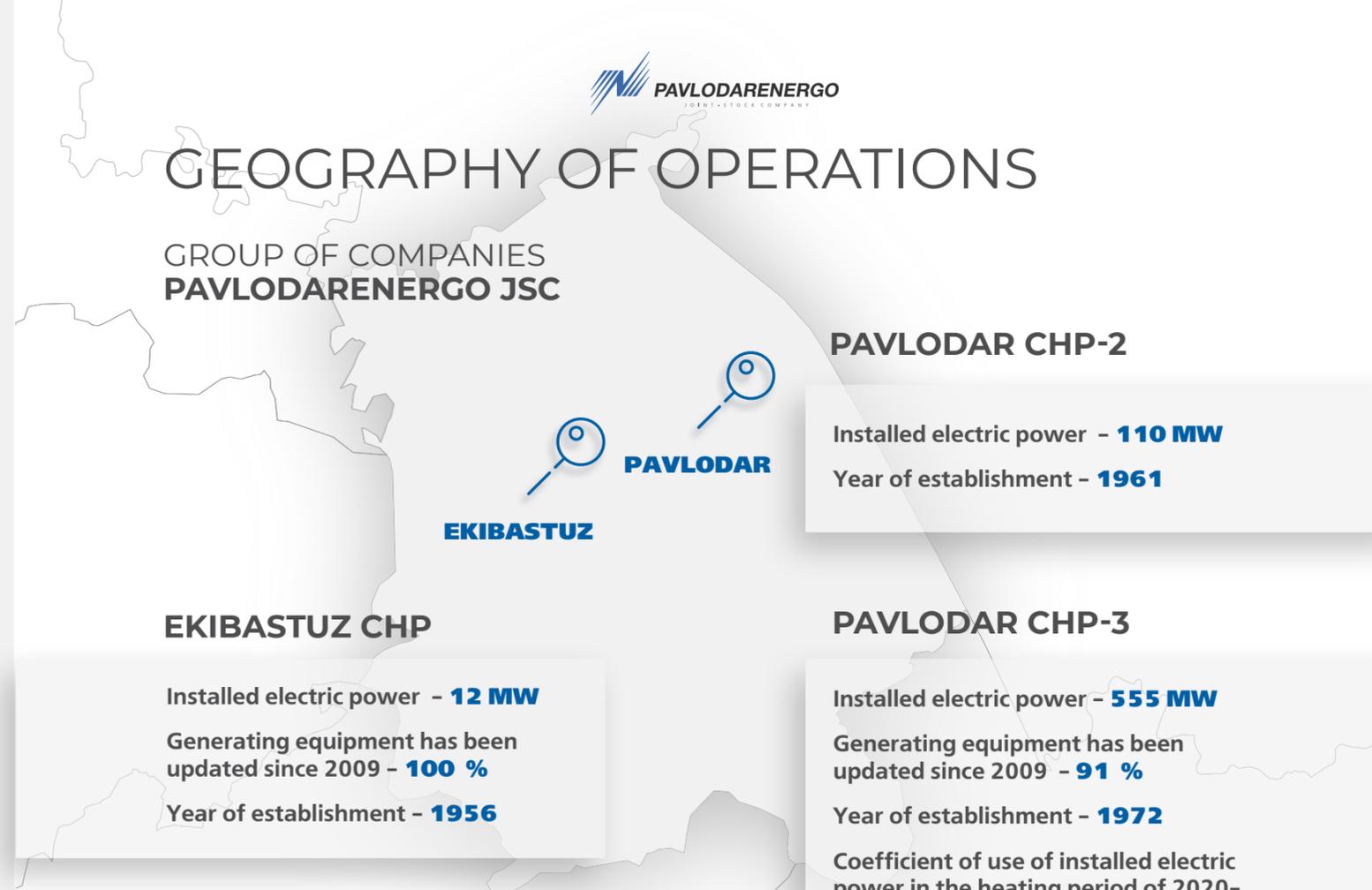


INFORMATION ON STATE REGISTRATION

registered by the Integrated Securities Registrar JSC, State re-Registration Certificate 10539-1945 AO issued on 12 September 2007 by the Department of Justice of Pavlodar.

GEOGRAPHY OF OPERATIONS

GROUP OF COMPANIES PAVLODARENERGO JSC



PAVLODAR CHP-2

Installed electric power - **110 MW**
Year of establishment - **1961**

EKIBASTUZ CHP

Installed electric power - **12 MW**
Generating equipment has been updated since 2009 - **100 %**
Year of establishment - **1956**

PAVLODAR CHP-3

Installed electric power - **555 MW**
Generating equipment has been updated since 2009 - **91 %**
Year of establishment - **1972**
Coefficient of use of installed electric power in the heating period of 2020-2021 - **70,1 %**

MAIN PRODUCTION CHARACTERISTICS

Power lines, km	
PTL Type	Length, km
220 kW	13.7
110 kW	2,798.3
35 kW	2,398.5
6-10 kW	5,697.5
0.4 kW	4,372.0
Total:	15,280.0

Substations	
Substation Type	Number, units
220 kW	4
110 kW	74
35 kW	102
6-10 kW	3,558
Total:	3,738

Heat network length, km	
Pavlodar	411.45
Ekibastuz	342.7
Total:	754.15

The number of consumers as at 1 January 2021	
Electric power	Heat power
227,477	167,904

AFFILIATED COMPANIES

PAVLODAR ELECTRIC DISTRIBUTION COMPANY JSC

The core activity of the Company is transmission and distribution of electric power in 11 districts of Pavlodar region, as well as Pavlodar and Aksu. The production facilities are located in Pavlodar and in Pavlodar region.

Service area – **105.9 thousand km²**

The length of PEDC JSC networks is **15,280 km**

including overhead power transmission lines of **14,477.1 km**

cable power transmission lines of **802.9 km**

Electric network of PEDC JSC is connected to the Unified Energy System of Kazakhstan and the networks of Russia through the electric mains of Kazakhstan Electricity Grid Operating Company JSC (KEGOC), which allows PEDC JSC to transmit electric power produced by Pavlodar CHP-1, CHP-2 and CHP-3. CHP-1 is owned by Aluminium of Kazakhstan JSC, and CHP-2 and CHP-3 are owned by PAVLODARENERGO JSC.

The majority of enterprises of Pavlodar region – an industrial region of Kazakhstan with about 5 thousand enterprises of various forms of ownership and the population of 752.9 thousand people – are connected to the electric mains of PEDC JSC.

PEDC JSC comprises of enterprises that carry out maintenance and repair of 0.4–10 kW electrical distribution system and 35–220 kW substations:

> Western enterprise of electric networks: Aktogay, Bayanaul, Irtysh, Maysky power distribution zones and Aksu electric networks (left bank area).

> Eastern enterprise of electric networks: Zhelezinsky, Kachirsky, Akkuly, Pavlodar, Uspensky, Shcherbaktinsky power distribution zones (right bank area).

> The city enterprise of electric networks carries out operation and maintenance of distribution networks of

0.4-10 kW of Pavlodar.

> Production and repair enterprise is engaged in the operation and maintenance of high-voltage power transmission lines of 35-220 kW in Pavlodar region and repair of high-voltage equipment of 10-220 kW substations of structural divisions.

> The city enterprise of intra-house electric networks, which is not related to regulated types of services, operates under a contract for maintenance of 0.4 kW electric networks of a condominium of multi-storey buildings in Pavlodar and Aksu.

> Production offices, units and departments.

PAVLODAR HEAT NETWORKS LLP

Pavlodar Heat Networks LLP carries out the transmission and distribution of heat power for consumers of Pavlodar. The enterprise's activities are aimed at improving the operational reliability of heating networks and ensuring coordination of the processes of generation, transmission and consumption of heat power.

Heat network length in Pavlodar – **769.91 km**

Main heating networks – **114.09 km**

District heating networks – **274.24 km**

Hot water supply networks – **23.12 km**

Consumer networks – **358.46 km**

Central heating units – **22 points.**



EKIBASTUZ HEAT NETWORKS OF EKIBASTUZTEPLOENERGO LLP

These carry out transmission and distribution of heat power for consumers of Ekibastuz. The enterprise's activities are aimed at improving the operational reliability of heating networks and ensuring coordination of the processes of generation, transmission and consumption of heat power.

Heat network length in Ekibastuz, taking into account the networks of consumers – **422.9 km**

Main heating networks – **37.6 km**

Intra-district heating networks – **305.1 km**

Consumer networks – **80.2 km**

Central heating distribution point – **1 points.**

Discharge pumping stations – **4 stations.**



PAVLODARENERGOSBYT LLP

A power supply organisation that provides electric and heat power to consumers of Pavlodar region, Pavlodar, Ekibastuz and Aksu.

The organisation supplies:

> Electric and heat power in Pavlodar

> Electric power in the districts of Pavlodar region and Aksu

> Heat power in Ekibastuz

Pavlodarenergosbyt LLP implements a policy of improving the quality of customer service with the use of modern technologies. For the convenience of consumers, a payment system has been established through second-tier banks, the Internet, ATMs, kiosks. Contracts have been concluded with second-tier banks for accepting payments from the population, as well as with branches of Kazpost JSC, AstanaPlat TOO, QIWI Kazakhstan, Kazakhstan Interbank Settlement Center of the National Bank of the Republic of Kazakhstan. Payment is also implemented online and via QR code through Kaspi.kz application.

Average daily rate for electric power supply to consumers of Pavlodarenergosbyt LLP, 2016-2020

Electric power	tenge net of VAT / kWh	tenge including VAT / kWh
from 1.01.2016	12.30	13.776
from 9.01.2017	12.30	13.776
from 3.05.2017	12.37	13.854
from 1.09.2017	12.92	14.470
from 1.10.2018	12.39	13.877
from 1.01.2019	12.05	13.496
from 15.06.2020	12.72	14.246
from 20.08.2020	14.05	15.736

COMPANY STRUCTURE



Average daily rate for heat supply to consumers of Pavlodarenergosbyt LLP, 2016-2020
Pavlodar

	Heat power
01.01.2016	2,953.66
01.07.2016	2,992.12
01.01.2017	3,309.63
01.04.2017	3,309.63
01.01.2018	3,685.55
01.05.2018	3,738.41
01.12.2018	3,731.12
01.01.2019	3,874.95
01.01.2020	4,004.11

Average daily rate for heat supply to consumers of Pavlodarenergosbyt LLP, 2016-2020
Ekibastuz

	Heat power
01.01.2016	3,884.98
01.07.2016	3,924.73
01.01.2017	4,662.49
01.04.2017	4,662.49
01.01.2018	5,339.13
01.05.2018	5,379.60
01.12.2018	5,379.60
01.01.2019	5,383.53
01.01.2020	5,386.89

INDUSTRY POSITION

- > The Company enjoys a monopolistic position in the region where it operates on the market of heat and electric power production and distribution.
- > A differentiated portfolio of consumers and stable demand among various types of customers.
- > A vertically integrated company is a full cycle of providing heat and electric power from production to distribution to the final consumer.

- > Acquired experience from equity participation with international and Kazakh shareholders.
- > Focus on introduction of advanced technological solutions and a progressive development policy of the Company.
- > Existing reliable communications with partners and subsidiaries of the Company.

DEVELOPMENT STRATEGY UNTIL 2021

The strategic goal of PAVLODARENERGO JSC is to build an advanced energy company that ensures balanced and sustainable development of the energy system of Pavlodar region to promote economic growth. The Company actively introduces the best global practices and operates in accordance with international standards in the area of production, environmental protection, occupational health and social responsibility. By improving efficiency, PAVLODARENERGO JSC strives to increase the market value of its assets and investment attractiveness.

The main directions for pursuing the strategic goal of PAVLODARENERGO JSC:

- > Targeted market expansion with guaranteed sales and low risk.
- > Improving production efficiency through improving the technical level of production and updating fixed production assets and infrastructure.
- > Introduction of promising projects through the balanced development of innovative areas.
- > Implementation of the best management standards through continuous training of personnel in new effective technologies in the production sector and enterprise management.

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

- > **Reconstruction and modernisation of equipment** of power generating facilities through investment programs, reducing the risks of accidents and eliminating downtime.
- > Reduction of **excess losses** during transmission of heat and electric power.
- > Minimisation of **specific consumption** for production of a unit of heat and electric power.
- > introduction of **energy-saving and energy-efficient** technologies in the production and transmission of energy.
- > Maintaining **up-to-date certification** for compliance with the requirements of international standards in the area of ecology, personnel health protection, industrial safety.
- > Continuous training for **improving the professional level** of employees.
- > Introduction of **an automated enterprise management system**.



KEY PERFORMANCE INDICATORS

	2016	2017	2018	2019	2020
VOLUME OF SALES, BILLION TENGE	45.1	49.9	52.0	48.2	53.6
NET PROFIT, BILLION TENGE	6.5	7.6	2.3	-2.3	-2.6
EBITDA, BILLION TENGE	15.9	17.4	11.3	8.4	8.0
EBITDA MARGIN, %	35	35	22	17	15

POWER GENERATION

Electric power (mln kWh)	3,829	4,074	3,815	3,560	3,704
Heat power (thous. Gcal-h)	4,568	4,445	4,981	4,540	4,478



ASSETS

	2016	2017	2018	2019	2020
Current assets, billion tenge	13.0	13.9	10.2	12.6	18.9
Non-current assets, billion tenge	119.4	126.2	135.7	133.9	182.2

INVESTMENT VOLUME, BILLION TENGE

2016	2017	2018	2019	2020
11.8	10.5	11.7	9.3	5.8

FINANCE

53.6 billion tenge THE VOLUME OF SALES	-2.6 billion tenge NET PROFIT	35 billion tenge TOTAL INCOME FOR THE YEAR	8.0 billion tenge EBITDA	15 % EBITDA MARGIN
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KEY EVENTS FOR THE REPORTING PERIOD

FEBRUARY

- > Public hearings were held in Pavlodar to discuss the EIA project "Expansion of CHP-3 of PAVLODARENERGO JSC with the installation of boiler units of station No. 7, station No. 8, turbine unit of station No. 7» and the EIA project «Construction of the TM-31 heating pipe from TK-839 to TK-227 in Pavlodar».
- > The city communication service of Ekibastuz held a briefing on the heating season. Representatives of Pavlodar Heat Networks LLP, the city akimat and journalists discussed the most pressing issues of heat supply.

MARCH

- > Public hearings were held in Ekibastuz to review the tariff and tariff estimates for the production, transmission and distribution of heat power. The hearings were attended by the management of Ekibastuzteploenergo LLP, Pavlodarenergosby LLP, employees of the DKRNM in Pavlodar region, media representatives, public figures, chairmen of the apartment owners' cooperatives, citizens.
- > In order to protect the life and health of citizens in Kazakhstan, a state of emergency has been imposed by the decree of President Kassym-Jomart Tokayev since 16 March 2020 in connection with the COVID-19 pandemic.
- > In connection with the announcement of the COVID-19 pandemic and the Presidential decree «On imposition of a state of emergency in the Republic of Kazakhstan», the enterprises of PAVLODARENERGO JSC group of companies switched to online customer service using a number of special tools. Also, Pavlodarenergosby LLP temporarily suspended the accrual of penalties for late payments for consumed energy and services.
- > PAVLODARENERGO handed over 60 tons of products produced at the Kaustik plant of the CAPEC holding to the akimat of Pavlodar at no cost. The contribution of power engineers is aimed at helping the city authorities to disinfect public places.
- > In connection with the COVID-19 pandemic, PAVLODARENERGO JSC has taken a number of enhanced measures aimed at preventing the spread of coronavirus among the employees of the group of companies. These measures are defined for regular implementation for the entire necessary period.

APRIL

- > On 23 April in Pavlodar and on 20 April in Ekibastuz, the heating season for 2019-2020, which was held in the normal mode, ended.
- > The annual public hearings on the activities of PAVLODARENERGO JSC group of companies and the implementation of investment programs for 2019 were held in Pavlodar. In the light of the state of emergency in Pavlodar related to COVID-19, the event is organised online.
- > In order to provide social support to the population, from 1 April until the end of the state of emergency in the region, Pavlodarenergosby LLP has reduced electric power tariffs for household consumers by an average of five percent.

MAY

- > PAVLODARENERGO JSC group of companies held events dedicated to the World Day for Safety and Health at Work. The children's crafts contest, occupational health and safety Family Day, and awarding of OHS specialists were held online in order to prevent the spread of coronavirus.
- > Pavlodarenergosby LLP has introduced an option of paying for a single payment document using a QR code through Kaspi.kz app.

JUNE

- > The state of emergency has been terminated since May 11 by the Decree of the President of the Republic of Kazakhstan dated 29 April. In this regard, starting from 1 June, Pavlodarenergosby LLP has returned the electric power supply tariffs that were put into effect on 1 January 2019 reduced for the period of the emergency.
- > PAVLODARENERGO JSC held a crafts contest among the children of employees, dedicated to the World Environment Day. The event was held online.

JULY

- > During the inspection of the region for the heating season, the akim of Pavlodar region visited the CHP-3 of PAVLODARENERGO JSC, the new pumping station No.

2/3 of Pavlodar Heat Networks LLP, built jointly with the city authorities, and also visited the sites where new heating mains are being configured.

- > The second supervisory audit of the quality management system for compliance with the requirements of ISO 9001:2015 standard was successfully passed by Pavlodarenergosby LLP.

SEPTEMBER

- > Since 16 September, the heating season 2020-2021 has started in Pavlodar and Ekibastuz.
- > Ekibastuzteploenergo LLP successfully passed the first supervisory audit of the integrated management system for compliance with the requirements of international standards ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 5001:2011.
- > The Ekibastuz sales site of Pavlodarenergosby LLP has switched to a single billing system for legal entities and individuals in terms of heat power, developed by EnSoft LLP.
- > Public hearings were held in Ekibastuz on Ekibastuz CHP of Ekibastuzteploenergo LLP production project. Reconstruction of section No. 2 of the ash dump in the bed of Lake Tuz. Due to the quarantine measures, the hearings were held online.
- > Press tours to investment facilities of PAVLODARENERGO JSC and Pavlodar Heat Networks LLP were held. The event was attended by representatives of the DKRNM from Pavlodar region, non-governmental organisations and regional media.
- > At a briefing in the regional communications department of Pavlodar, employees of Pavlodar Heat Networks LLP spoke about the readiness of residential buildings of the city to receive heat, as well as about the timing of completion of repair works.

OCTOBER

- > **On 22 October, PAVLODARENERGO turned 55.**
- > Pavlodarenergosby LLP expanded opportunities for household consumers: now documents for changing the owner of housing and the number of permanent residents can be sent via email.
- > Press tours were held to the facilities of the investment programs of PEDC JSC and Ekibastuzteploenergo LLP. The event was attended by representatives of the DKRNM from Pavlodar region, non-governmental organisations and regional media.

> PAVLODARENERGO JSC held a creative competition among children of employees of the group of companies. The competition and awarding of young talents were held online.

> Public hearings on the PAVLODARENERGO group of companies for the 1st half of 2020 were held in Pavlodar. Due to the complicated epidemiological situation, the event was held online.

> The results of the annual competition of student works for the application of a nominal scholarship of PAVLODARENERGO JSC have been summarised. This event is held within the PROFENERGY program. In 2020, presentation of papers and their discussion were held online for the first time.

NOVEMBER

- > In Ekibastuz, public hearings were held online on the report on implementation of the approved tariff estimates for the production, transmission and distribution of heat power, on implementation of the investment program for 2019 and for the 1st half of 2020.
- > The Minister of Energy of the Republic of Kazakhstan and the akim of Pavlodar region visited the CHP-3 of PAVLODARENERGO JSC, where they were informed about modernisation of the main equipment.
- > An online briefing was held on the results of environmental indicators for the 1-3 quarter of 2020, which was attended by representatives of PAVLODARENERGO JSC.

DECEMBER

- > In PAVLODARENERGO, a traditional competition Best in Profession was held among the employees of the group of companies. Electric welders of manual welding competed for the title of the winner.
- > On the professional holiday of power engineers, the management of enterprises of PAVLODARENERGO group of companies honoured the best employees. In addition to internal awards, the distinguished employees received awards signed by the Kazakhstan Electric Power Association, the akim of Pavlodar region, CAEPCO JSC, as well as commemorative award pins for the 100th anniversary of the state electrification plan in Russia. Taking into account the situation with the pandemic, as well as the introduction of restrictive measures for holding mass events, awards were presented to employees in compliance with the necessary sanitary standards.

HISTORY

1965. Pavlodarenergo Production Association succeeded a regional energy department upon its reorganisation under Decree No. 688 of the Council of Ministers of the Kazakh Soviet Socialist Republic.

1971. Pavlodar Heating Network Enterprise was established making it possible to centralise the city heating and to boost the development of Pavlodar heating infrastructure.

1995–1997. PAVLODARENERGO Production Association became a republican state enterprise. In 1997, the assets of Pavlodar CHP-2 and CHP-3 were purchased by Central-Asian Power Energy company at an auction (CAPEC JSC).

2002. PAVLODARENERGO open joint-stock company was established, which was transformed into a joint-stock company in December 2003. Pavlodar CHP-2 and CHP-3 formed the generating capacity of the power system. Pavlodar Electric Distribution Company JSC joined PAVLODARENERGO JSC group of enterprises. That same year, Energocenter JSC became a part of the Company, which in 2011 was reorganised into Pavlodarenergosbyt LLP.

2005. The Company acquired Pavlodar Heat Networks and established Pavlodar Heat Networks JSC reorganised into a limited liability partnership in 2011.

2007. Ekibastuz CHP and Ekibastuz Heat Networks became members of PAVLODARENERGO JSC.

2008–2009. CAPEC JSC transferred the stock of PAVLODARENERGO JSC to the authorised capital of Central-Asian Electric Power Corporation JSC (CAEPCO JSC), its subsidiary. The shareholders of CAEPCO JSC included CAPEC JSC and international development institutions such as the European Bank for Reconstruction and Development and Islamic Infrastructure Fund.

2018 год. Ekibastuzteploenergo LLP was established to comprise Ekibastuz Heat Networks and Ekibastuz CHP.

That same year, Energetik Health Care Center LLP and Energetik Recreation Center LLP were included in PAVLODARENERGO JSC group of companies.

2019. In October, Energetik Health Care Center LLP and Energetik Recreation Center LLP merged into one enterprise, i.e. Energetik Health Care Center LLP.

MISSION

- > Improving the living standards for consumers
- > Creating favourable conditions for economic growth in Pavlodar region
- > Providing high-quality energy supply services to households, businesses and organisations.

The Company implements this mission by building its activities in accordance with international standards of production, ecology, health care and the social sphere.

VISION

PAVLODARENERGO JSC is one of the largest enterprises in North-Eastern Kazakhstan involved in production, transmission and distribution of electricity and heat. PAVLODARENERGO JSC supplies electricity and heat to Pavlodar, Ekibastuz, Aksu and Pavlodar region. The Company also supplies a portion of the generated electric power to other regions of the Republic of Kazakhstan.

The Company successfully uses the advantages of the holding structure by combining dynamism and flexibility of its business units (companies within the Group) with stability and reliability of centralised management.

Employees of the Company are a team of professionals who are striving for higher goals. The Company's relations with its customers and suppliers are based on the principles of respect and mutual responsibility.

VALUES

- > **Respect** for employees' personal rights and interests, customer requirements and cooperation conditions set by our partners and society.
- > **Objectiveness** suggesting remuneration depending on the results achieved and providing equal rights for professional growth.
- > **Honesty** in relations and providing information necessary for our work.
- > **Effectiveness** as a sustainable achievement of the maximum possible results in everything we do.
- > **Courage** to resist what is unacceptable, and to assume responsibility for the consequences of decisions taken.
- > **Care** expressed in attempts to protect people against any harm or threat to health and enimplement them.

RISKS ASSOCIATED WITH COVID-19

In 2020, the outbreak of the COVID-19 coronavirus infection pandemic spread all over the world, including Kazakhstan. The pandemic resulted in a global disruption of trade turnover and the decline of national economies, the introduction of strict quarantine and restrictive measures. The company's management recognises the impact of COVID-19 on sustainable development and takes all necessary measures to protect the life and health of each employee, as well as to ensure continuous production activities for the purpose of reliable uninterrupted power supply to consumers and financial stability.



BUSINESS MODEL

FINANCIAL CAPITAL

201,176 million tenge
ASSETS

56,133 million tenge
EQUITY CAPITAL

16,664 million tenge
AUTHORISED CAPITAL

PRODUCTION CAPITAL

3 CHP SALES COMPANY

411.45 km HEAT NETWORKS (PAVLODAR)

342.7 km HEAT NETWORKS (EKIBASTUZ)

15,280 km ELECTRIC POWER NETWORKS

HUMAN CAPITAL

32.3 % WITH A UNIVERSITY DEGREE of employees

11.2 % STAFF TURNOVER

465 EMPLOYEE POOL

4,879 EMPLOYEES

The program for supporting young specialists within **PROFENERGY** project

CAPITALS

INTELLECTUAL CAPITAL

Deployed systems: Ellipse, Mobility, ASCAE, ASCAHE, ASAE, THESIS automated document control system, billing, boiler and turbine generator automated control system, Infopro

SOCIAL CAPITAL

The company establishes trust relations with communities in the region and makes a significant contribution to the social and economic development of the region being a major employer and an important link in the industrial sector.

NATURAL CAPITAL

As part of its production activities, the Company uses various types of fuel (fuel oil and coal), water resources and electricity, as well as the resources of the air basin.

2020 PERFORMANCE

EMPLOYEES

3,466 EMPLOYEES WERE TRAINED

2,864 INCLUDING MANDATORY TRAINING

82.6% of the total number of trained

935.378 mln tenge ALLOCATED FOR OCCUPATIONAL HEALTH AND SAFETY MEASURES AND IMPROVEMENT OF WORKING CONDITIONS

CONSUMERS

3,704 million kWh ELECTRIC POWER GENERATION

4,478.409 thousand Gcal HEAT PRODUCTION

1,554 electric power metering devices with automatic data transmission were installed

REGION OF OPERATION

Implementation of the Plan for Stakeholder Engagement

9 GROUPS OF STAKEHOLDERS

2,281,555 ENVIRONMENTAL PROTECTION COSTS thousand tenge

by **148,518** thousand tons IN 2020, COMPARED TO 2019, THE VOLUME OF INDUSTRIAL AND HOUSEHOLD WASTE WAS REDUCED BY 1.465 THOUSAND TONS

by **208,161** thousand tons Implementation of the Environmental and Social Action Plan

STATE

589,913.3 thousand tenge PAID CORPORATE INCOME TAX

5.8 billion tenge INVESTMENTS IN MODERNISATION OF THE PRODUCTION FUND

HEAT AND ELECTRIC POWER GENERATION

Combined generation of heat and electric power at three CHPs of the company

E/P TRANSMISSION AND DISTRIBUTION

Electric power transmission and distribution shall mean transmission of energy from the places of generation to the places of consumption carried out through electric power networks, which include converters, power lines and switching gears

H/P TRANSMISSION AND DISTRIBUTION

Heat transmission and distribution shall mean transmission of heat from the places of generation to the places of consumption carried out through main and intra-block heat networks with the participation of central and individual heating units, pumping stations

SALES OF H/P AND E/P

Sales of heat and electric power shall mean activities for the sale of heat and electric power to consumers

ACTIVITIES

Fulfilment of tasks under the development strategy

2009 goals	2020 progress
<p>As a result of implementation of the investment program, by 2020, the wear of the generating equipment of the three stations will be reduced from 62.65 % to 61.6 %.</p> <p>The share of fully updated production assets of PAVLODARENERGO will amount to 76.4 %.</p> <p>Polluting emissions will be reduced by 30 %.</p> <p>Increase in installed electric power of 127 MW or 23.1 %.</p> <p>Increase in installed heat capacity of 356 Gcal-h or 18.6 %.</p> <p>For the production of electric power – 3,733 million kWh or 23.6 %.</p> <p>For the supply of heat – 5,405 thousand Gcal or 32.1 %.</p> <p>For the period from 2009 to 2020, it is planned to achieve the following reduction in network losses:</p> <ul style="list-style-type: none"> > for electric power – by 0.2 % > for heat – by 1.89 % <ul style="list-style-type: none"> • Establishing service centers on a single IT platform 	<p>The wear of generating equipment of the stations will decrease to 56.7 % (the decrease in 2020 was due to the extension of the park resource and the use of a new methodology for calculating the degree of wear – order of the Ministry of Energy of the Republic of Kazakhstan No. 26 dated 21 January 2020).</p> <p>The share of updated production assets of PAVLODARENERGO was 76.4 % (for CHP-3 – 91 %).</p> <p>The amount of polluting emissions was 41.17 thousand tons, a reduction was 2 % compared to 2019.</p> <p>The installed electric power is 677 MW (an increase of 23.1 %).</p> <p>The installed heat capacity is 2,268 Gcal-h (an increase of 18.6 %).</p> <p>For the production of electric power – 3,704 million kWh (increase of 22.6 %).</p> <p>For the supply of heat – 4,478.4 thousand Gcal (increase of 9.4 %).</p> <p>Reduction in losses amounted to:</p> <ul style="list-style-type: none"> > for electric power – by 0.82 % > for heat – by 1.2 % <p>Development of an automated system for managing production funds and assets based on the ABB Ellipse system (Ellipse ERP system).</p>
<p>Transition to a single billing system</p>	<p>Introduction of a unified billing system for legal entities and individuals in terms of heat and electric power in Pavlodarenergosbyt LLP was completed in full in Pavlodar, Aksu and the districts of the region in 2019.</p> <p>The Ekibastuz sales site of Pavlodarenergosbyt LLP has switched to a single billing system for legal entities and individuals in terms of heat power, developed by EnSoft LLP in September 2020.</p>
<p>Maintaining up-to-date certification for compliance with the requirements of international standards in the area of ecology, personnel health protection, industrial safety</p>	<p>The functions of power transmitting companies for data entry has been implemented in Pavlodar EDC JSC and Pavlodar Heat Networks LLP.</p> <p>PAVLODARENERGO JSC is certified for compliance with the requirements of international standards:</p> <ul style="list-style-type: none"> > ISO 9001:2008, quality management system (2008); > ISO 14001:2004, environmental management system (2008); > OHSAS18001:2007 Occupational health and safety management system (2011); > ISO 50001:2011 Energy management system (2015). <p>In 2020, in accordance with the requirements of the Labour Code of the Republic of Kazakhstan, and in order to create a healthy and safe working conditions, improving of the culture and aesthetics of production in PE and develop an Action Plan for labour safety in accordance with the requirements of ISO 45001.</p> <p>In October 2020, an external audit was conducted according to ISO 45001:2018 management system.</p>

Carrying out measures to reduce occupational injuries

During 2020, enterprises of PAVLODARENERGO group of companies held 12 Safety Days in structural divisions, 402 introductory briefings, 26 production meetings, and sent 16 written notifications to families of employees who violated occupational health and safety requirements.

- > Providing enterprises with highly qualified loyal personnel;
- > Development of managerial and professional competencies of employees;
- > Development of the mentoring practice for the transfer of experience and rapid adaptation of new employees;
- > Internal and external succession pipeline.

In 2020, 18 employees got a university degree in extramural form of study in the profile specific for the enterprise; 20 employees received technical and vocational education in extramural form of study in the profile specific for the enterprise. For five years, a pool of mentors has been formed from among highly qualified employees of PAVLODARENERGO, more than 80 employees are appointed mentors annually.

During 2020, 61 of 465 employees who are in the employee pool were transferred to senior positions.

PROSPECTS OF 2021 INVESTMENT PROGRAM

PAVLODARENERGO JSC is implementing one of the largest investment programs among the enterprises of the electric power industry of Kazakhstan in terms of capital investments in the renewal and reconstruction of production assets. The planned volume of investments for the group of companies for 2021 amounted to 11.4 billion tenge. According to the Development Strategy, the Company implements an investment program in three areas: increasing generation; energy saving, including reducing losses of electric and heat power during transmission; improving environmental parameters of production.





2

MARKET ANALYSIS

ECONOMIC REVIEW

GROSS DOMESTIC PRODUCT

Due to the global pandemic of the **COVID-19** coronavirus and quarantine measures, the GDP of the Republic of Kazakhstan decreased by 2.5 % in 2020 (according to preliminary data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan).

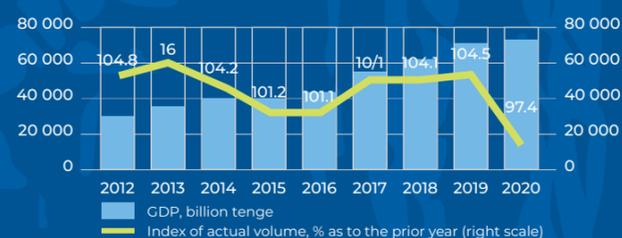
To combat the pandemic in the spring of 2020, a state of emergency was introduced in the country, which implied restrictions that remained with varying degrees of intensity until the end of the year. These measures allowed to sharply reduce the number of cases and, along with sanitary and other measures, to ensure the protection of the health and life of citizens. However, the restrictions resulted in a decrease in business activity, loss of income of the population and increased uncertainty.

The imposed restrictions had the biggest impact on the service sector, where the decline in 2020 was 5.4 %. In particular, wholesale and retail trade decreased by 8.3 %. The production of goods increased by 2 %, primarily due to agriculture and construction.

GDP :
2.5 % ↓

Due to the global pandemic of the **COVID-19** coronavirus and quarantine measures, the GDP of the Republic of Kazakhstan decreased by 2.5 % in 2020.

Gross domestic product dynamics



Source: The Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

INDUSTRY

In 2020, the volume of industrial production decreased by 0.5 %. At that, an increase in production volumes was recorded in 12 regions of the republic: a decrease was observed in the Kyzylorda, Mangistau, Atyrau, Turkestan regions and in Shymkent.

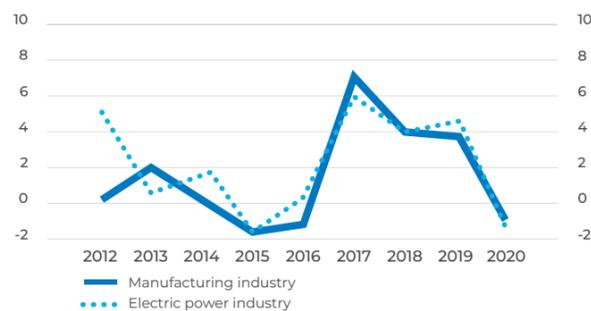
In 2020, reduction in the mining industry and quarry development was 3.7 %. To a large extent, this is due to a decrease in crude oil production by 5.4 %. Due to

the global decline in the economy, there was a drop in demand for petroleum products on global markets, which resulted in the risk of overstocking and lower prices. The largest suppliers of raw materials around the world, in particular the OPEC+ countries, reduced production.

In the manufacturing industry, production increased by 4.1 %, only slightly behind the growth in 2019 (4.4 %). Food manufacturing increased (by 3.2 %), production of essential medicines and pharmaceutical chemicals increased significantly (by 47 %); growth in ferrous metallurgy was 4.1 %, and 16.4 % in vehicle manufacturing. Obviously, certain industries managed to avoid long production downtime.

Industrial production decreased by 0.1 % in the supply of electricity, gas, steam, hot water and air-conditioned air mainly due to a decrease in the volume of production, transmission and distribution of electric power by 1.2 % (in 2019, there was an increase by 4.6 %). The dynamics of the energy industry largely correlates with the dynamics of industrial production.

The dynamics of production in the industry in general and in the electric power industry, %



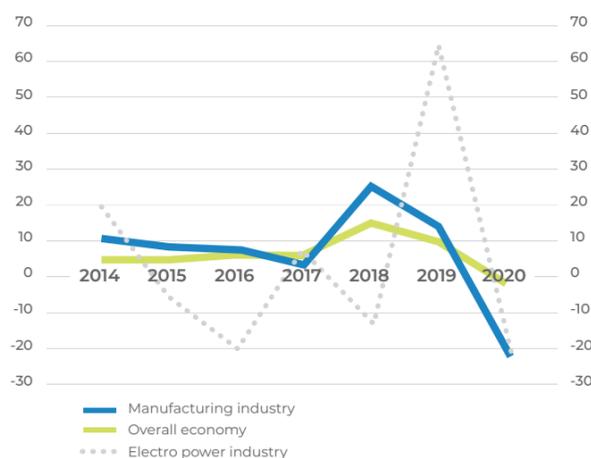
Source: The Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

INVESTMENTS

The volume of investments in fixed capital in Kazakhstan in 2020 amounted to 12.3 trillion tenge, which is 3.4 % less than in 2019. Almost half of this volume corresponded to industry, where the decrease in investment was 19.5 %. Reduction in the mining industry reached 26.4 %.

The energy sector accounted for approximately 11 % of investment in the industry. After an explosive investment growth by 65 % in 2019 as a result of the introduction of the capacity market, in 2020 the decline was 20.5 %.

Fixed capital investments dynamics, in %



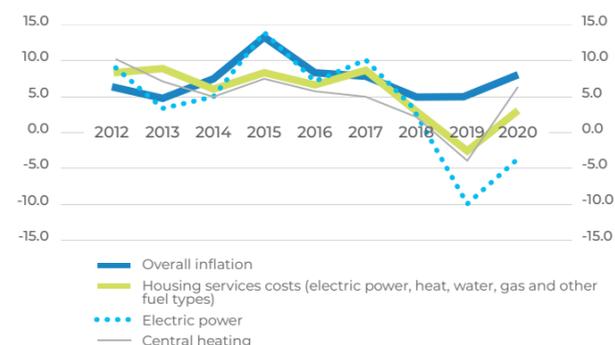
Source: The Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

INFLATION

In 2020, inflation in Kazakhstan was 7.5 %. Food prices increased by 11.3 % becoming the main factor in the growth of the price index. The cost of non-food products increased by 5.5 %, and paid services – by 4.2 %.

The cost of housing services increased by 3.5 %. In particular, after a decrease by 4.3 % in 2019, retail electricity prices increased by 6.5 % in 2020. The cost of heating continues to decline. In 2020, the price drop amounted to 2 %.

Inflation dynamics in the Republic of Kazakhstan, in %



Source: The Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

FORECAST

According to the World Bank's March forecast, Kazakhstan's economy is expected to grow by **3.2 %** in 2021. In 2022, this indicator may reach **3.5 %**, which is due to the expectation of a recovery in business activity, the forecast of an increase in oil demand and production volumes, as well as continuation of fiscal measures to support the economy. This scenario is also supported by the ongoing vaccination of the population against coronavirus, which reduces the risk of further restrictions on the work of organisations.

ENERGY SECTOR OVERVIEW

At the end of 2020, K.K. Tokayev, the President of the Republic of Kazakhstan, signed the law "On amendments and additions to certain legislative acts of the Republic of Kazakhstan on supporting the use of renewable energy sources and electric power".

One of the key innovations of the law is represented by measures aimed at stimulating the construction of maneuverable capacities that contribute to better regulation of production and consumption imbalances during peak hours.

In addition, the law establishes a pass-through tariff for RES support. The costs of purchasing electric power from renewable energy sources from existing energy-producing organisations will be deducted from their marginal tariffs.

In general, it is obvious that there is a course towards

creating of favourable conditions for the development of renewable energy. By 2050, such energy sources should account for at least half of the total energy consumption.

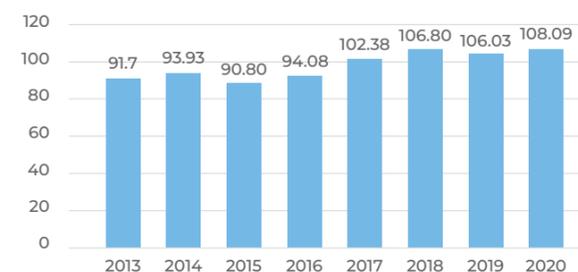
The new law guarantees the provision of financial support from the Government of the Republic of Kazakhstan to the financial settlement center of renewable energy in case of non-fulfilment of its obligations on payments to RES projects (in order to increase the creditworthiness of the FSC). The law also provides for an increase in the validity period of the contract for the purchase of electric power from 15 to 20 years in order to increase the attractiveness of the renewable energy market for future investors.

Another innovation was represented by introduction of centralised purchase and sale of flood electric energy through the FSC.

PRODUCTION

According to KEGOC system operator, 108.09 billion kWh of electric power was produced in Kazakhstan in 2020, which is 1.9 % more than in 2019. At that, in 2019, the decrease was 0.7 %. An increase in production in 2020 was observed in all three zones of the EPS of Kazakhstan.

Electric power generation in the Republic of Kazakhstan, billion kWh



Source: KEGOC

In 2020, as in prior years, 77 % of electric power was produced in the Northern zone. Production increased by 1.7 % compared to 2019 and reached 83.03 billion kWh. The Western zone accounts for 12 % of production. In 2020, 13.49 billion kWh was produced, which is 0.9 % more than in the prior year.

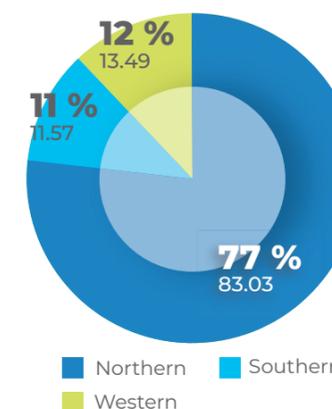
11 % of electric power was produced in the Southern zone, while the most significant growth was observed in this zone, i.e. by 5.1 % up to 11.57 billion kWh.

In 2020, 80 % of the electric power was generated at TPP. The generation growth was 1 %. At the GTPP, there was a decrease in generation by 4 % (8.8 % in the total generation volume), and at the HEPP there was an increase by 6 % (the share in the total generation volume is also 8.8 %).

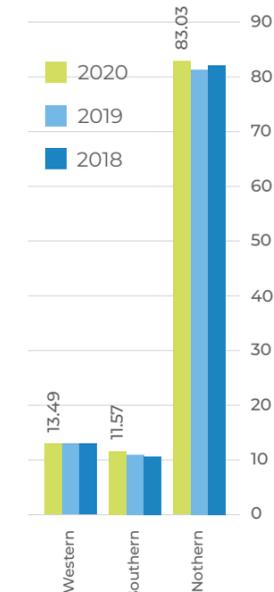
Production of plants using renewable energy sources (SPS, WPP and BGP) demonstrates stable growth. Their share in the total generation structure increased from 1 % in 2019 to 2.2 % in 2020.

Source: KEGOC

Structure of electric power production by zones in 2020, billion kWh



Electric power production by zones, billion kWh



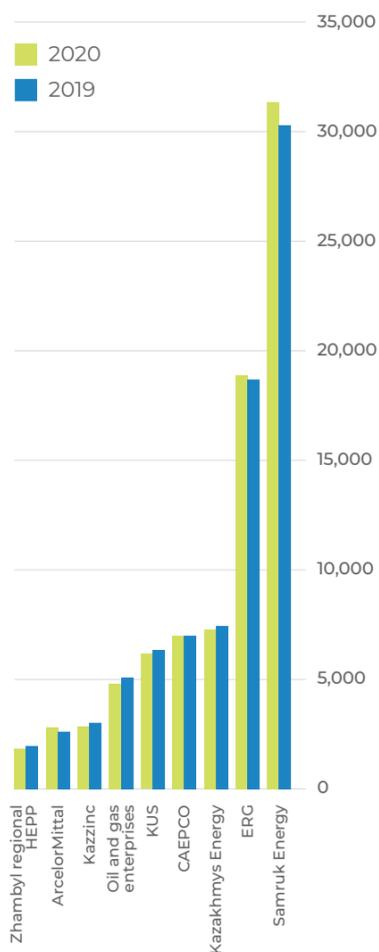
Electric power production by generation types, billion kWh

Generation type	2018	2019	2020	Change	Weight in 2020
TPP	86.80	85.96	86.66	1 %	80.2 %
GTPP	10.30	9.98	9.55	-4 %	8.8 %
HEPP	9.10	8.98	9.53	6 %	8.8 %
SPS, WPP and BGP	0.50	1.11	2.35	112 %	2.2 %

Source: KEGOC

Samruk-Energy JSC is the largest generating group: in 2020, the volume of electric power production increased by 3.9 % and amounted to 29 % of the republican production. ERG is second largest generation group, which accounts for 17 % of the total generation. In 2020, there was an increase in production by 1.7 %. CAEPCO Group of Companies remains on the 4th place among generating companies with a 7 % share in the total generation volume.

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



CONSUMPTION

The growth of electric power consumption in 2020 amounted to 2 %, the volume reached 107.3 billion kWh. Consumption in the Northern zone increased by 2 % or by 1.5 billion kWh. Consumption in the Southern zone – by 3 % or by 0.6 billion kWh. Consumption growth in the Western zone reached 1 % and increased by 0.08 billion kWh.

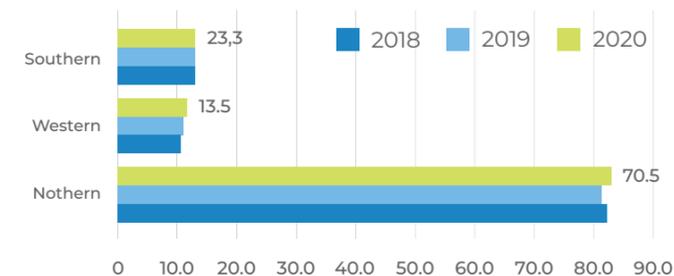
At that, there was a decline in consumption by 3.47 % among 17 largest consumers. Five enterprises significantly reduced consumption, while most of the others either did not change the volume of consumption, or slightly increased it.

Electric power consumption in the Republic of Kazakhstan, billion kWh



Source: KEGOC

Electric power consumption by zones, billion kWh



Source: KEGOC

NET POWER FLOW

Net power export in 2020 amounted to 413.3 million kWh. In particular, export to the Russian Federation was at the level of 1,105.9 million kWh, and import amounted to 1,240.6 million kWh. Export to Central Asia was 862.8 million kWh, and import was 314.8 million kWh.

CAPACITIES

Production of electric power in Kazakhstan is carried out by 179 electric power stations of various forms of ownership. The installed capacity at the beginning of 2021 was 23,547.1 MW (increased by 611.10 MW by the beginning of 2020). At that, the main increase in installed capacity is demonstrated by stations using renewable energy sources. The capacity of solar power plants increased by 288.3 MW, wind power plants – by 229.6 MW, hydroelectric power stations – by 63.6 MW. At that, the capacity growth at steam turbine thermal power plants in 2020 amounted to 15.5 MW, and at GTPP – to 16 MW.

Installed and available capacity of power plants in Kazakhstan, MW (as of 1 January 2020/2021)

Power plants	Installed capacity			Available capacity		
	2020	2021	Growth rate	2020	2021	Growth rate
Total	22,936	23,547.1	611.10	19,329	20,039.1	710.10
TPP	17,389	17,404.5	15.50	15,594	15,679.0	85.00
GTPP	1,999	2,015.0	16.00	1,662	1,777.1	115.10
SPS	597	885.3	288.30	364	641.6	277.60
WPP	282	511.6	229.60	149	311.6	162.60
HEPP	2,666	2,729.6	63.60	1,558	1,628.7	70.70
Biogas plant (BGP)	1.06	1.1	0.04	0.5	1.1	0.60

Source: Samruk-Energy JSC

The available capacity in 2020 increased by 710.1 MW to 20,039.1 MW. According to KEGOC, the annual maximum load in 2020 was recorded on 7 December at 7 p.m. and amounted to 15,761 MW. Compared to 2019 (26 November, 7 p.m.), the maximum load increased by 579 MW or by 3.8 %.

Generation in the Republic of Kazakhstan amounted to 15,461 MW, which is 580 MW or 3.9 % more of a similar indicator in 2019.

TARIFF REGULATION

In 2019, the policy of “marginal tariffs” was replaced by the mechanism of the Electric Capacity Market.

The tariff for electric power is separated into two parts:

1. **The tariff for electric power** is a variable part that will provide a payback for the costs of producing electric power;

2. **The tariff for capacity** is a fixed part that will ensure the return on investment in the construction of new electric capacities, and renewal, modernisation, reconstruction or expansion of existing ones.

For all existing stations, one marginal tariff is set for the service for maintaining the availability of electric power. In addition, it is possible to conclude an individual investment agreement and get an individual tariff, both for the entire capacity and for a certain part of it.

INDUSTRY DEVELOPMENT FORECAST

According to the forecast of the Ministry of Energy of the Republic of Kazakhstan, electricity consumption is expected to reach 108.9 billion kWh in 2021 (this is 1 % more than in 2020). Production is projected to amount to 115.4 billion kWh, which will exceed the results for 2020 by 6.8 %. The surplus is expected to reach 6.5 billion kWh.

Forecast balance of electric power of the EPS of the Republic of Kazakhstan, billion kWh

Name	Forecast						
	2021	2022	2023	2024	2025	2026	2027
Electric power consumption	108.9	111.8	114.9	117.7	120.3	123.5	126.5
Electrical power generation	115.4	123.6	124.0	127.6	132.3	132.6	132.3
Existing stations	114.1	114.1	113.3	112.8	110.9	109.5	105.7
Planned including RES	1.3	9.5	10.7	14.8	21.4	23.1	26.6
Deficit (+), excess (-)	-6.5	-11.7	-9.1	-9.9	-12.0	-9.1	-5.8

Source: Ministry of Energy of the Republic of Kazakhstan



PERFORMANCE RESULTS AND DEVELOPMENT PROSPECTS OVERVIEW

REDUCING THE NEGATIVE IMPACT ON THE ENVIRONMENT DURING ENERGY PRODUCTION

Concentration of ash, nitrogen oxides and sulphur emissions, mg/m³

	2018	2019	2020
Coal ash, mg/Nm ³	276	282	299
Nitrogen oxide (NO _x), mg/Nm ³	419	309	346
Sulphur dioxide (SO ₂), mg/Nm ³	938	972	981

INSTALLATION OF SECOND-GENERATION TITANIUM EMULSIFIERS

Second-generation titanium emulsifiers were installed at the stations of PAVLODARENERGO JSC at all power boiler units, which allowed to increase the degree of flue gas purification and reduce the costs of enterprises for environmental payments.

The volume of sales of electric power in 2020 was 1,293 million kWh, which is 3.7 % lower compared to 2019. The sales volume for heat power in 2020 amounted to 3,363.705 thousand Gcal. There is also a decrease by 2.6 % compared to the prior year.

Thanks to the commissioning of new equipment in 2009-2018, the capabilities of the stations are significantly increasing, which ensures the growing needs of the region for heat and electric power and will contribute to the progressive development of business projects and industry in Pavlodar region.

CONSTRUCTION OF ASH DUMPS

In order to organise storage of ash and slag waste for up to 25 years, works on construction of ash dumps are carried out using polysynthetic geomembrane, which prevents harmful substances from entering groundwater and soil.

GENERATION

In 2020, within the framework of the investment program, a number of large-scale measures for modernisation of equipment aimed at increasing generation, reducing losses during the transmission of electric power and heat and improving the environmental parameters of activities were continued. In 2020, the Company allocated 5.8 billion tenge for implementation of the investment program activities.



Name	2016	2017	2018	2019	2020
Installed electric power, MW	662	662	677	677	677
Electric power generation, million kWh	3,829	4,074	3,814	3,560	3,704
Share in Kazakhstan's electric power generation, %	4.1	4.0	3.6	3.3	3.5
Electric power transmission, million kWh	2,544	2,612	2,375	2,229	2,477
Commercial supply of electric power, million kWh	3,058	3,245	3,023	2,792	2,948
Installed heat capacity, Gcal-hr	2,240	2,240	2,268	2,268	2,268
Heat power supply, thousand Gcal	4,568	4,445	4,981	4,540	4,478
Heat power transmission, thousand Gcal	3,225	3,195	3,355	3,219	2,290
Commercial supply of heat power, thousand Gcal	4,568	4,175	4,797	4,418	4,188

PAVLODAR CHP-3 OF PAVLODARENERGO JSC

Construction of the first stage of the ash dump for storing ash and slag waste for a period of up to two years.

Development of a project for construction of a reinforced concrete flue No. 2. It will allow removing the restrictions on the traction of the station's boiler units and will make it possible to connect boilers No. 7 and No. 8 to the pipe, the construction of which is planned in the future.

Development of APCS project of the boiler unit No. 6 at the CHP-3. Its main goal is the complete automation of burning processes, providing the management and specialists of the plant with prompt, reliable and uninterrupted information about the state of the technological process, improving the efficiency and safety of the boiler unit and the efficiency of managing the technological process of the boiler, saving coal consumption.

Implementation of the second stage of reconstruction of kindling boiler headers No. 1-6; reconstruction of the condenser of the turbine generator No. 5; reconstruction of the cubes of air heaters of boiler unit No. 3; reconstruction of railway tracks; development

of a working project for the reconstruction of the water treatment plant of the station in connection with the prospect of an increase in external consumption of products (steam and water) after commissioning of facilities in Pavlodar SEZ, PavlodarSODA LLP.

PAVLODAR CHP-2 OF PAVLODARENERGO JSC

Construction of the second stage of the ash dump for storing ash and slag waste for a period of up to six years.

Reconstruction of the cubes of the air heaters of the boiler unit No. 1, which allows reducing ash wear; reconstruction of the condenser of the turbine unit No. 2, which increased the reliability of the condensing unit of the turbine unit as a whole.

EKIBASTUZTEPLOENERGO LLP EKIBASTUZ CHP

Construction of the second section of the ash dump in the bed of Lake Tuz is a stage of construction of the empty pavilion and the patrol road.

Reconstruction of the drinking water supply scheme. After reconstruction, the drinking water tank of 6000 m3 will be used as a process water accumulator and will provide its reserve for uninterrupted operation of the station in case of disconnection; it is also assumed that the fire water pipelines will be transferred to process water.

Implementation of an automated system for monitoring emissions into the environment.

Development of a feasibility study for the installation of a new turbine unit No. 2 with a capacity of 50 MW. This will fully meet the station's electric power needs, as well as increase the supply of more cost effective electric power products.

Reconstruction of the equipment of ECHP boiler units: the frame and water intake pipes of boiler No. 7; heating surfaces of the furnace screens and the convective part of boiler No. 12; air heater 1 stage 2 section of boiler No. 13; heating surfaces of the furnace screens and the convective section, sheathing, leveling belts, burners, thermal insulation, boiler No. 14 refractory brickwork.

Feed electric pumps designed to supply water to steam boilers No. 5-9 were purchased.

TRANSMISSION OF ELECTRIC POWER

In 2020, Pavlodar EDC implemented projects aimed at reducing losses of electric power during transportation and transmission, as well as improving the reliability of supply to consumers.

These projects include:

- > works on construction, reconstruction and technical re-equipment of 0.4-10 kV electric networks for 87.6 km;

- > installation of three modular transformer substations in Pavlodar with power transformers with dry insulation and vacuum switches. These substations are equipped with modern security and fire alarm devices;

- > completion of the construction of a new 35 kW L-62 Voskresenka 2 – Trofimovka overhead transmission line to replace the existing 21.7 km length with commissioning in the first quarter of 2020;

- > development of design and estimate documentation and obtaining a positive conclusion of a comprehensive non-departmental examination of working projects for the construction of 35 kW overhead line No. 52 Fedorovka-Lvovka; construction of 35 kW overhead line No. 32 Kyzyl – Kuroma – Belogorye;

- > construction of the 35 kW overhead line No. 63 Olgino – Timiryazevo.

In 2020, works continued on the construction of the 110/10 kW substation Severnaya Gorodskaya with the installation of two 40 MVA power transformers.

In Aksu, reconstruction of the 110/10 kW substation Ermakovskaya was completed, which included the replacement of 10.0 MVA power transformers with 16.0 MVA; the 10 kW switchgear of the 110/10 kW substation Potanino was also reconstructed.

In Kalkaman village the 220/35/10 kW Kalkaman substation was reconstructed with the replacement of 10 oil switches with gas-insulated switches, including 3 switches replaced in 2020.

499 meters of the automated system of technical accounting of electric power were installed, 836 additional meters were purchased for installation in the 1st quarter of 2021.

At the end of 2020, technical losses amounted to 7.74 % by the plan of 8.3 %.

Trunking radio communications were installed in the Lebyazhinsky district: construction and installation works of antenna mast structures were carried out in Zarya, Novoyamyshevo and Chernoye villages to accommodate antenna-feeder devices. Five sets of equipment of the radio relay link system, i.e. Vostochnoye electric power network enterprise – Zarya substation – Yamyshevo substation – Chernoye substation – Lebyazhinsky power distribution zone, were delivered. Installation of security and fire alarm systems was carried out in the Maysky, Uspensky and Lebyazhensky districts.

For the efficiency of maintenance personnel, to monitor the progress of repairs and reconstruction of electric networks, as well as to perform the most common calculations (steady-state modes, reduction of the electrical network and mode, mode optimisation for reactive power and voltage weighting mode) new software RastrWin3 and 1C: Billing were purchased and implemented. 35 buildings and constructions were reconstructed, including construction and installation works on the reconstruction of the garage for the workrooms of Electric Power Distribution and Control Department staff were completed.



TRANSMISSION OF HEAT

The program of modernisation of district heating networks

PAVLODARENERGO JSC in Pavlodar and Ekibastuzteploenergo LLP in Ekibastuz

Implementation period

2016–2020

Project cost

8.75 billion tenge:

- > The EBRD loan of 3.15 billion tenge
- > Budget subsidising under Nurly Zhol program of 2.67 billion tenge
- > Equity funds of 3.45 billion tenge

Tasks

- > Improving the reliability of heat supply, energy efficiency
- > Reducing losses and improving environmental standards in Pavlodar and Ekibastuz by reducing CO² emissions

Target indicators

Within the framework of the program, the following is recorded:

- > Fuel saving – 62.566 thousand tons per annum
- > Reduction of CO² emissions – 91.451 thousand tons per annum

Features

When performing the work, a pre-insulated pipeline was used, which guarantees:

- > High thermal insulation performance
- > Increased reliability life of the equipment
- > Bringing the service life to the standard value of 25 years



In 2020, in accordance with the investment program for the development and reconstruction of heat networks of Pavlodar, the following activities were carried out:

- > Reconstruction of the pumping station No. 3 with its conversion into a central heat supply station to improve the heat supply of Lesozavod microdistrict (continuation, completion of construction and installation works and commissioning – 2022);
- > Reconstruction of the heat main No. 37 from PS No. 15 to PS No. 18 with an increase in the pipeline diameter from 800 mm to 1000 mm (continuation, completion of construction and installation works and commissioning in 2025);
- > Reconstruction of heating network from HC No. 137 to HC No. 137/2 with a length of 208 meters;
- > Reconstruction of heating network from HC No. 221/10 to HC No. 221/8 with a length of 230 meters.

In 2020, in accordance with the investment program for the development and reconstruction of heating networks of Ekibastuz, the following was performed at the expense of depreciation deductions in 2020:

- > Measures for technical strengthening of facilities in accordance with the requirements of counterterrorist security;
- > Removal of district heating networks from private territories of low-rise buildings (street maintenance, ties to residential buildings of consumers)
- > Construction of block heating units (purchase of a Willo pump, shutoff valves);
- > Reconstruction of shutoff valves (disc-turning valves with a diameter of 1000 and 800 mm);
- > Implementation of the automated 1C billing system (introduction of a database of service consumers, accounting for metering devices and indicators).

The result of implementation of these projects is to increase the reliability of heat supply, improve the quality of heat supply to consumers.

PLANS FOR THE RECONSTRUCTION AND MODERNISATION OF EQUIPMENT FOR 2021

In 2021, within the framework of the investment program, a number of measures for modernisation of equipment aimed at increasing generation, reducing losses during the transmission of electric power and heat and improving the environmental parameters of activities were planned to be continued.

In 2021, PAVLODARENERGO group of companies plans to generate electric power at the level of 2020 – up to 3,723 million kWh, supply of heat power from boiler headers – up to 4,583 thousand. Gcal. Also, in 2021, Ekibastuzteploenergo LLP plans to generate electric power at the level of 63,354 million kWh, and for the supply of heat power from boiler headers – at the level of 1,486.621 thousand. Gcal, according to the volumes of heat power declared by consumers.

The Company intends to allocate 7 billion 267 million 282 thousand tenge, as well as borrowed funds in the amount of 4 billion 646 million 286 thousand tenge (the amounts are indicated net of VAT) for implementation of the investment program in 2021.

In 2021, within the framework of the investment program, a number of measures for modernisation of equipment aimed at increasing generation, reducing losses during the transmission of electric power and heat and improving the environmental parameters of activities were planned to be continued.

In 2021, PAVLODARENERGO group of companies plans to generate electric power at the level of 2020 – up to 3,723 million kWh, supply of heat power from boiler headers – up to 4,583 thousand. Gcal. Also, in 2021, Ekibastuzteploenergo LLP plans to generate electric power at the level of 63,354 million kWh, and for the supply of heat power from boiler headers – at the level of 1,486.621 thousand. Gcal, according to the volumes of heat power declared by consumers.

In 2021, PAVLODARENERGO JSC plans to update and modernise IT facilities, purchase a hardware and software complex to ensure information security of automated process control systems and IT systems, create an automated dispatch control system for the needs of Pavlodar CHP-2 and CHP-3, install an automated system for monitoring emissions into the environment for CHP-2 and CHP-3.

At Pavlodar CHP-3, among other things, it is planned:

- > Continue the construction of the third stage of the ash dump and recultivation of the second stage of the ash dump
- > Completion of work on the reconstruction of kindling boiler headers with the replacement of pressure-reducing cooling stations of boiler units No. 1-6
- > Reconstruction of the condenser of the turbine generator No. 6
- > Reconstruction of the air heater cubes of the boiler unit No. 2
- > Commencement of construction of the flue No. 2
- > Updating of the automated control system of the turbine unit No. 1
- > Development of a project to eliminate the consequences of mining from the Gamma site with EIA
- > Development of a mining project with a cartogram and an explanatory note for the production at the Gamma site
- > Development of a project for organisation of a operating network and monitoring of the Gamma site with the drilling of observation wells

In 2021, as part of investment programs, PEDC JSC plans to:

- > Continue construction of the 110/10 kW substation Severnaya Gorodskaya with the construction of the 110 kW overhead line Promyshlennaya – Severnaya Gorodskaya
- > Continue reconstruction of the 220/35/10 kW Kalkaman substation in the Aksu district
- > Construction of the 35 kW overhead line No. 52 Fedorovka 1,2 – Lvovka in the Terenkolsky district
- > Construction, reconstruction and technical reequipment of 0.4- 10 kW electric networks with a length of 15.9 km with the development of design and estimate documentation
- > Construction of a 10 kW distribution point in Pavlodar
- > Reconstruction of buildings and constructions in the amount of 34 units
- > Installation of security and fire alarm systems in Zapadnoye electric power network enterprise in Aksu

> Installation of an automated technical accounting with the development of design and estimate documentation

Pavlodar Heat Networks LLP, in accordance with the investment program for the development and reconstruction of heating networks, within the framework of depreciation charges for Pavlodar for 2021, plans to carry out the following:

- > Reconstruction of the heating network from HC No. 616 to HC No. 616/21
- > Development of design and estimate documentation for the project Reconstruction of the heating network from HC No. 616A to the commissioning of the residential building at 64 Kamzin street in Pavlodar
- > Reconstruction of the pumping station No. 3 with its conversion into a central heat supply station to improve the heat supply of Lesozavod microdistrict (completion of construction and installation works by 2022)
- > Development of design and estimate documentation for the HC No. 616 to HC No. 616/21

Ekibastuzteploenergo LLP has planned events for 2021:

- > Reconstruction of section No. 2 of the ash dump in the bed of Lake Tuz
- > Reconstruction of the drinking water supply scheme of the Ekibastuz CHP
- > Reconstruction of the roof of KVTK building row B-C of ECHP
- > Reconstruction of heating main No. V from pavilion No. 2 to pavilion No. 3
- > Reconstruction of heating main No. VIII from pavilion No. 3 to heating main No. 4A



PROCESS AUTOMATION

SORMAP «PRANA»

PRANA, a system of remote monitoring and prognostics, operates at Pavlodar CHP-3, which is a software and hardware complex that provides the process of remote monitoring and control over the condition of the turbo generator, block transformer and the turbine-generator pedestal. PRANA performs diagnostics and forecasting of changes in the technical condition of the above-mentioned equipment on the basis of the collected data (archived data on the condition of the equipment) and technological data obtained from data collection systems installed on the equipment that do not affect the normal operation of the equipment and ensure the information security of the system of remote monitoring and prognostics during its creation and subsequent operation.

Thus, PRANA system of remote monitoring and prognostics makes the technical condition of the specified equipment an objectively measurable parameter, allows to control the actions of personnel and contractors, increases the efficiency and culture of operating production assets.

The idea of managing a cross-linked CHP is that the load coordinator manages the load distribution between boilers and turbines and other consumers, while all the heat equipment of the station is controlled as a single technological object from the load coordinator of the CHP. The operator has the possibility of individual control of installations (boilers, turbines, etc.).

Advantages of implementing a station coordinator:

- > Participation of the station in the rated primary frequency control and secondary regulation
- > Improving the stability of the station operation
- > Reduction of fuel and steam consumption for generating a unit of electric power
- > Increasing the heat efficiency of the station
- > Visual representation of the key parameters of the work
- > Bumpless switching of control modes
- > Improving safety and production culture

ICSC

An information-computing software suite for supporting production process management has been put into commercial operation at Pavlodar CHP-3. Its goal is to improve economic efficiency due to optimal composition and operating mode of the station, automate time-consuming calculations, modernise the software and technical means of the station.

ELLIPSE

PAVLODARENERGO has implemented an automated system for managing production funds and assets based on the Ellipse 8 system (Ellipse ERP system) across the company.

Ellipse ERP system is a single integrated solution for the operation and repair of fixed capital and assets, which allows making decisions on the impact on equipment based on system data, including:

- > Recording of all expenses for repair work (materials, time, labour costs) and comparing them with the planned ones
- > Control by engineering and technical workers of all repair impacts on the equipment through clear planning
- > Prompt response in case of deviations from the specified parameters and, as a result, making a balanced and business decision

ASAE

Since 2020, PEDC JSC started implementing a project on introduction of ASAE an automatic system for accounting of electricity. At the end of 2020, 1,335 substations of 10-220 kW are equipped with ASAE devices. The process is the modernisation and full automation of metering devices installed at infrastructure facilities, allows to remotely collect accurate data from metering devices on the transmission and consumption of electric power in real time. Monthly control readings from ASAE metering devices takes place remotely strictly on certain days. Automation of electric power metering systems at substations will allow to remotely receive data on electric power consumption, calculate the balance of electric power, identify and localise possible losses.

ASCAHE

In 2020, introduction of the automatic system for monitoring and accounting of heat power (ASCAHE) continued. It includes modernisation and full automation of metering devices. Introduction of metering devices increases the accuracy and reliability of data and calculations between suppliers and consumers according to current and prospective tariff systems, and also reveals the actual state of heat consumption in everyday life. In turn, ASCAHE increases the efficiency of collecting data on heat energy accounting in order to control consumption and reduce delays in paying for the consumed heat power. The system allows to quickly identify losses in order to immediately take measures to prevent them and save heat power in the municipal sector.

In addition, in 2020, modernisation and automation of technological processes in Ekibastuz included the construction of block heating units. The need for this project is due to reconstruction of intra-block heating networks and their removal from private areas of low-rise buildings. The purpose of the construction is to increase the reliability of the heat transmission and distribution system and improve the quality of heat supply to Ekibastuz consumers. For these purposes, in 2020, pumping equipment in the amount of 8 pieces and 55 shutoff valves were delivered. In total, it is planned to build seven block heating units in the city, which will reduce heat losses, as well as keep under control the observance of the necessary temperature regime by consumption systems for the rational distribution of the coolant.

THESIS ADCS

PAVLODARENERGO JSC group of companies has completely switched to the use of an automated internal documentation management system.

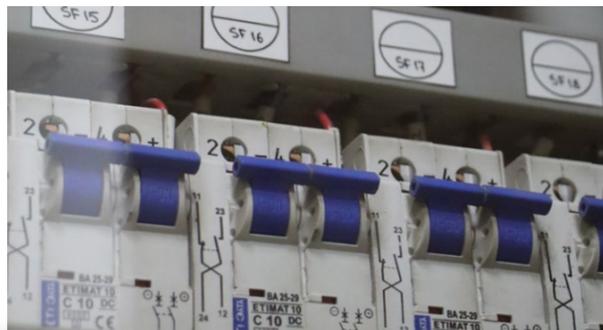
The great advantage of this system is the intermediate control, which makes it possible to determine at what stage and which of the participants in the process have the documents. The system provides effective support for operational activities, organises accounting, control, and approval of documents.

MOBILITY

In 2020, PEDC JSC introduced the Mobility app fully integrated with the Ellipse ERP system.

BILLING

Since September 2020, 1C Billing system for heat power has been put into pilot operation at the Ekibastuz heat power sales site of Pavlodarenergosby LLC in order to automate and unify the accounting of heat power and the operational calculation of the actual cost of electric power and heat consumed.



PLANS FOR PROCESS AUTOMATION IN 2021

ASAE/ASCAHE

In 2021, PEDC JSC plans to install 395 ASAE devices at 10-220 kW substations.

In 2021, the operation of 1,398 devices for collecting and transmitting data from heat metering devices in Pavlodar and 444 devices for collecting and transmitting data in Ekibastuz will continue.

BILLING

Since January 2021, the software in Ekibastuz is planned to be put into commercial operation. All the functionality of the 1C Billing system for heat power, i.e. accrual, payment, analytical reports, will be implemented in accordance with the configuration implemented in Pavlodar.

MOBILITY

Continuation of the process of training the remote linear presonal of PEDC JSC to work with the Mobility app.

IMPLEMENTATION OF PROJECTS BY THE SALES COMPANY

In 2020, Pavlodarenergosby LLC successfully passed the second supervisory audit of the quality management system for compliance with the requirements of ISO 9001:2015 standard, which indicates that the quality of services provided is maintained at the proper level.

Pavlodarenergosby LLC continues to improve the centers of full-time and correspondence services for the population. Under normal conditions, daily, from 8 a.m. to 10 p.m., without interruptions, the contact center operators provide advisory support to the population in matters of energy supply. Up to half a million incoming calls are processed annually. Along with the advisory support, the contact center operators receive meter readings from household consumers, via telephony, SMS, email, voice mail and via WhatsApp messenger.

Due to optimisation of the number of cashiers in Pavlodarenergosby LLC, 11 payment terminals for household and individual consumers have been operating

since 2019, of which there are four payment terminals with card readers. Nine terminals operate in Pavlodar, and two terminals operate in Ekibastuz.

In 2020, 5,146 applications for debt collection for consumed energy in the amount of 1,802,410 thousand tenge were filed against debtors of Pavlodarenergosby LLC, of which 3,473 applications for the amount of 322,761 thousand tenge were filed against household consumers, and 1,673 applications for the amount of 1,479,649 thousand tenge were filed against legal entities.

3,090 enforcement documents were sent for enforcement in the amount of 1,559,089 thousand tenge, of which 1,040 were executed in full in the amount of 1,141,357 thousand tenge.

ENSURING THE SAFETY AND HEALTH OF CONSUMERS IN SALES ENTERPRISES

In 2020, in order to prevent the spread of coronavirus infection, distancing zones are designated in the consumer service centers of Pavlodarenergosby LLC (inside buildings – in waiting and service areas), automatic thermometry of visitors is carried out with the control of the presence of protective masks, a bactericidal air disinfectant (recirculator) is installed, constant replenishment and monitoring of the availability of disinfection products is carried out, regular treatment with antiseptic agents of premises and office furniture, informing the population about the possibility of paying for services via the Internet, and other resources.

In order to ensure the safety and health of consumers, the service centers of Pavlodarenergosby LLC are equipped / provided with:

- > Ramps to help customers with disabilities
- > Video surveillance systems
- > Medical first-aid kits with the necessary medicines
- > Air conditioning systems
- > Fire and security alarm systems and primary fire extinguishing means, emergency plans and safe emergency exits.

In accordance with sanitary requirements, all necessary measures are being taken to prevent the spread of coronavirus.

PLANS OF POWER SUPPLY ORGANISATIONS FOR 2021

In 2021, it is planned to further expand the Unified Payment Center on the basis of Pavlodarenergosby LLC, where municipal enterprises, management bodies of condominium facilities and other organisations providing services to consumers of Pavlodar region are involved in cooperation within the consolidated payment system.

Expansion of the existing Personal Account service with access for consumers residing in Ekibastuz is planned.

PROCUREMENT

Building an effective procurement activity is one of the important tasks of the Company within the framework of improving operational efficiency. The key priorities in procurement are ensuring transparency during tenders, expanding the number of procurement participants to achieve maximum economic effect and reduce costs.

In the reporting year, 1,421 contracts were concluded; the share of contracts with residents is 96.5 %. The total amount of the budget of inventories for 2020 amounted to more than 7.82 billion tenge, net of VAT.

During 2020, the Company carried out processes to increase transparency and implement an effective procurement planning system, a KPI evaluation system, and updating internal procurement regulatory documents.

Following the results of the reporting period, the following tasks were completed:

- > The annual procurement plan execution
- > The processes have been revised and internal regulatory documents on procurement have been approved
- > THESIS electronic document management system has been implemented

PROCUREMENT PLANS FOR 2021

- > The annual procurement plan execution
- > Implementation of an effective reporting system for procurement processes
- > Introduction of an electronic trading platform for the purchase of goods, works and services



FINANCIAL AND ECONOMIC INDICATORS

The Company's consolidated financial statements for 2020 have been prepared in accordance with International Financial Reporting Standards. The principles of accounting policy are the same for all enterprises of the Company.

The key financial and economic indicators of the Company demonstrate the effectiveness and efficiency of operational and financial activities, as well as the implementation of the main directions of the Company's strategic development.

INDICATORS	2017	2018	2019	2020
Income from core activities	49,885	51,971	48,202	53,628
Cost including expenses for the period	-37,952	-42,254	-45,154	-51,326
0Profit from operating activities	11,933	9,716	3,049	2,303
Total EBITDA for the year*	17,418	11,307	8,383	9,715
Total EBITDA for the year, margin in %	34.9 %	21.8 %	17.4 %	18.1 %
Income tax expenses	-2,121	-1,448	-559	-927
Net profit for the year	7,617	2,348	- 2,323	-2,653
Assets	140,473	145,855	146,537	201,176
Equity	73,424	71,833	67,152	56,133
Capital expenditures on property, plant and equipment	9,774	12,465	8,279	5,758

* Total EBITDA is indicated without impact of foreign exchange differences

INCOME FROM SALE OF PRODUCTS/SERVICES

According to the results of 2020, the Company sold electric and heat power, taking into account purchased energy, for a total amount of 53,628 million tenge, or 11.3 % more compared to the results of 2019, which is due to an increase in the production and transmission of heat and electric power, as well as an increase in tariffs for the production of heat and electric power.

The dominant factors that influenced the level of income from implementation of 2020 in comparison with the prior period are the following:

> Revenue from the sale of electric power increased by 3,299 million tenge, or by 14.1 %, compared to 2019, due to an increase in the volume of electric power consumption by 155.7 million kWh (5.6 %);

> Revenues from transmission of electric power increased by 1,475 million tenge (16.8 %) compared to 2019 due to an increase in the transmission volume by 232 million kWh (10.6 %), as well as an increase in the average price for electric power transmission by 0.22 tenge/kWh (5.6 %)

> Income from sale of heat power increased by 2,010 million tenge, or by 19.1 %, in comparison with 2019, due to an increase in the average price for heat power.

> Revenues from transmission of heat power decreased by 1,359 million tenge, or by 25 %, due to a decrease in the volume of transmission by 929,228 thousand Gcal, or 29 %.

COST OF SALES

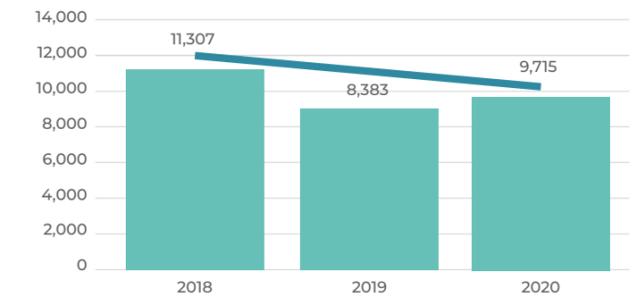
The cost of electric power and heat sold for 2020 amounted to 51,326 million tenge. Increase by 6,172 million tenge, or 13.7 %, compared to 2019 was due to an increase in operating costs for such items as Fuel, Repairs, Purchased Energy and other expenses.

In the structure of the Company's cost price, the specific weight (15.7 %) is occupied by Fuel. Increase in electric power production by 144 million kWh, or 4 %, was reflected in an increase in the consumption of natural coal by 279 thousand tons, or 10 %, the price of coal, taking into account transportation, increased by 10 %, as a result, the increase in price under Fuel item amounted to 1,626 million tenge, or 16.6 %. Increase in costs under the Repairs item by 400 million tenge (7.9 %) is associated with an increase in the planned volumes of repairs, in accordance with the approved tariff estimates for the year. An increase in the cost of purchased energy by 1,480 million tenge, due to an increase in the volume and price of purchased energy. For services related to the sale of electric power for 994 million tenge due to an increase in the volume of electric power sales, as well as prices for services (KEGOC, KOREM, etc.).

EBITDA DYNAMICS, TOTAL*

The total EBITDA for 2020 amounted to 9,715 million tenge, demonstrating an increase of 1 322 million tenge, or 15,9 %, compared to 2019. The main factors for increasing the operating efficiency indicator are the reduction of foreign exchange costs and the accrual of provisions for doubtful accounts receivable in accordance with IFRS.

Total EBITDA for the year, million tenge



* Total EBITDA is indicated without foreign exchange loss

OPERATING EBITDA BY SEGMENT

The operating EBITDA indicator was chosen as the main indicator when evaluating the Company's production activities. This performance indicator does not take into account other income, finance income, non-monetary component of foreign exchange liabilities, depreciation and non-recurring or non-permanent items that do not affect the basic production activities of the Company.

The Company's operating EBITDA for 2020 amounted to 7,969 million tenge, a decrease of 1046 million tenge, or 11,6 %, compared to 2019. In the structure of the operating EBITDA indicator, the primary margin segment is represented by the production of electric and heat power (7,500million tenge), where an increase of 2,247 million tenge, or 42,8 %, is observed in comparison with 2019. In Transmission and Distribution of Electric Power segment, there was an increase in operating EBITDA by 1,044 million tenge (62 %) due to an increase in the volume of electric power transmission.

In Transmission and Distribution of Heat Power segment, the operating EBITDA indicator decreased by 23 %, or 174 million tenge, due to a decrease in the transmission volume by 28.9 %. In Sales of Electric Power and Heat segment, profit in terms of operating EBITDA decreased by 3,943 million tenge, or 207.9 %. In Production and Transmission of Heat Power, the operating EBITDA indicator is 805 million tenge.



Financial and economic indicators by segment for 2020, million tenge

Indicators	Production of electric and heat power	Electric Power Transmission and Distribution	Heat Transmission and Distribution	Electric power and heat sale	Heat production and transmission	Other	Total
Revenue from sales	32,575	10,449	4,087	2,322	4,195	0	53,628
Cost	-26,026	-8,119	-3,327	-3,287	-5,197	0	-45,956
Gross profit	6,549	2,330	760	-965	-1,002	0	7,672
Expenses for the period	-2,440	-609	-719	-1,108	-494	0	-5,370
Profit from operating activities	4,109	1,721	41	-2,072	-1,497	0	2,303
Finance costs	-4,718	-238	-621	-112	-86	0	-5,775
Finance income	756	7	156	24	0	0	942
Foreign exchange loss	650	-214	64	0	0	0	500
Other income/expenses, net	437	46	664	427	-556	-33	986
Impairment of financial assets	-144	-281	-51	-206	0	0	-682
Income tax expense	-433	-291	-292	1	88	0	-927
Profit/Loss for the year	657	751	-40	-1,938	-2,050	-33	-2,653
Operating EBITDA by segment	7,500	2,721	577	-2,046	-805	21	7,969

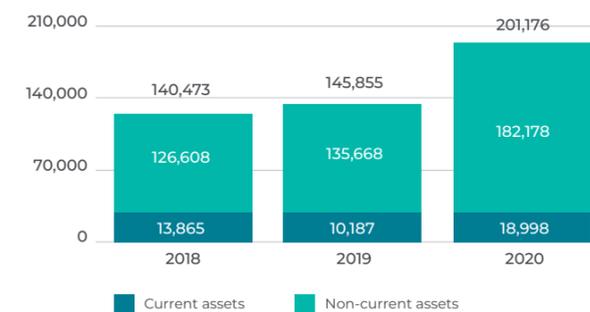
DYNAMICS OF NET INCOME/LOSS

Profit from operating activities for 2020 amounted to 2,303 million tenge (margin of 4,3 % to sales income), a slight decrease in profit – by 746 million tenge or 24.5 %, due to an increase in the cost of production.

ASSETS AND LIABILITIES

The total assets of the Company as at 31 December 2020 amounted to 201 176 million tenge, which is 37.3 % more than in 2019.

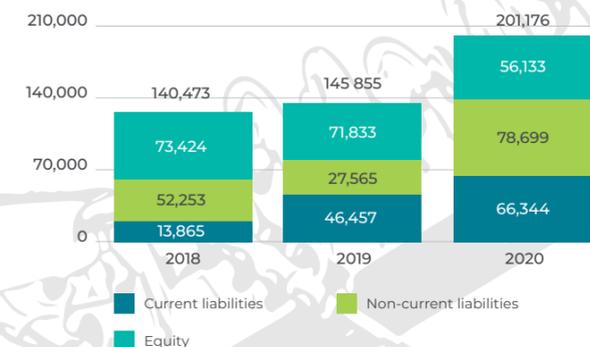
Assets, million tenge



As at 31 December 2020, the cost of property, plant and equipment amounted to 130,310 million tenge, or 65 % of the value of all assets. As part of the investment program for 2020, property, plant and equipment in the amount of 5,458 million tenge were allocated to the construction in progress, as well as purchased, new and reconstructed objects of the current period and transferred from prior years in the amount of 4,088 million tenge were introduced.

Other financial assets are represented by deposits in the amount of 51 million tenge accumulated by the Company for servicing loans, financing the investment program.

Liabilities, million tenge



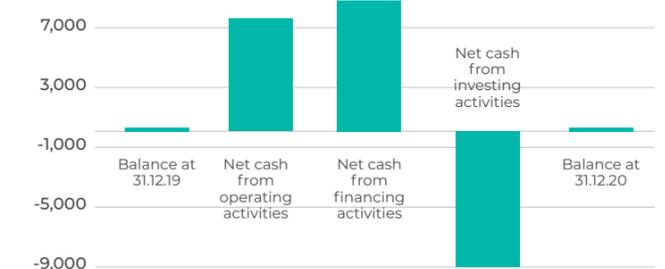
Long-term loans mainly include loans from the EBRD, SB Sberbank of Russia JSC, which are intended to finance a long-term investment program for the reconstruction and modernisation of the Company's assets.

CASH FLOW

In 2020, there was a trend to increase cash flows from operating activities, which is associated with an increase in the production and transmission of heat and electric power, as well as an increase in tariffs for electric power (production) and an increase in tariffs for the transmission of heat power. Net inflow from operating activities amounted to 8, 186 million tenge.

The most significant cash outflows from investment activities in 2020 are associated with the implementation of the investment program of the current period, as well as the payment of arrears on objects completed in 2019.

Cash flow, million tenge



CORPORATE GOVERNANCE

PAVLODARENERGO JSC has implemented a corporate governance system that meets Kazakh and international standards. A high level of corporate governance is a prerequisite for attracting investment, strengthening the Company's position in the competitive market and increasing its shareholder value. The corporate governance system of PAVLODARENERGO JSC regulates the process of interaction between the management bodies, internal control of the Company, shareholders and other stakeholders and is aimed at ensuring a balance of interests of all these parties.

Independent directors participate in the activities of the Board of Directors, which ensures an effective and transparent corporate governance system. The Company complies with all applicable norms and standards and strives to follow ethical business principles to ensure sustainable development.

GENERAL MEETING OF SHAREHOLDERS

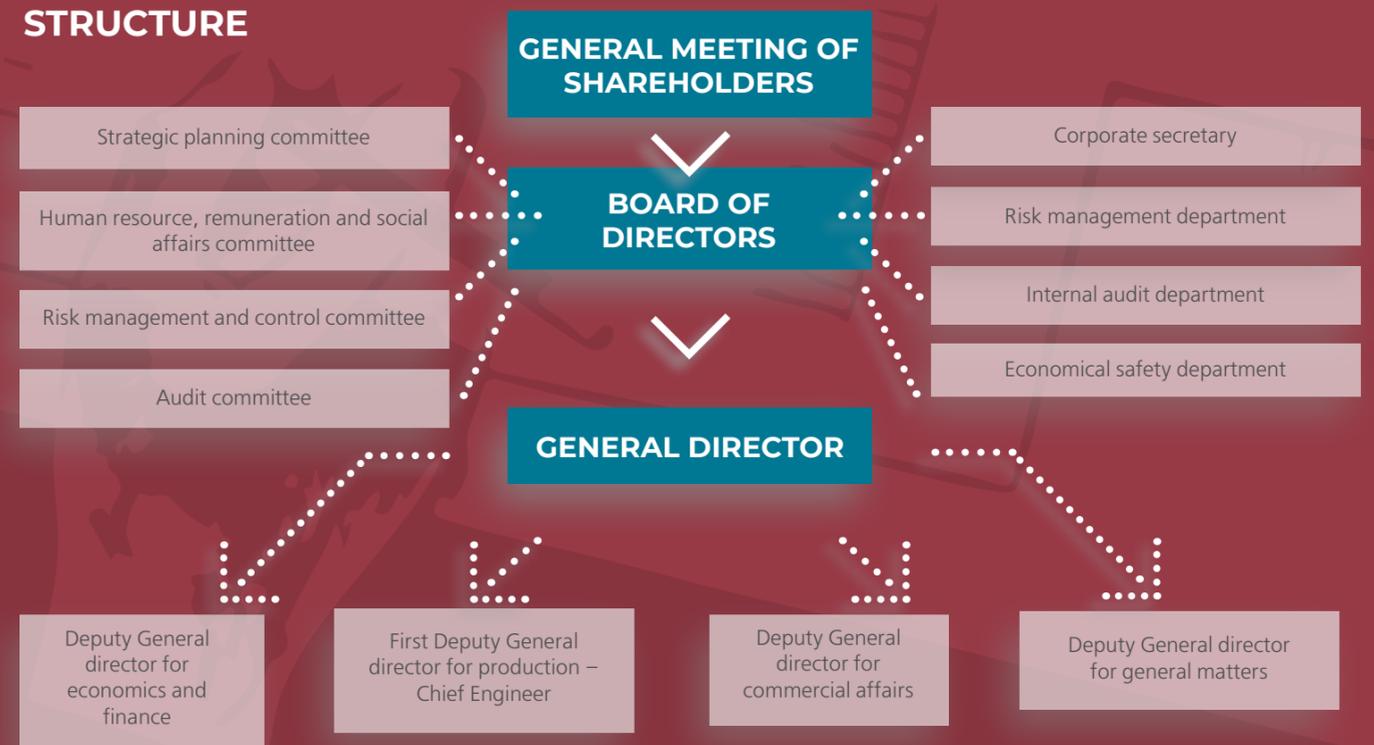
The supreme governing body of the Company is the General Meeting of Shareholders. The main way for shareholders to exercise their rights recorded in the Company's Charter is to participate in the annual meeting of shareholders and in extraordinary meetings at the initiative of the Board of Directors or the executive body.

The Company's shareholders may submit proposals to the agenda of the Annual General Meeting, nominate candidates to the Board of Directors, Committees, convene meetings of the Board of Directors and other rights provided for by current legislation.

PERFORMANCE OF THE GENERAL MEETING OF SHAREHOLDERS

In 2020, five meetings in absentia of the Board of Directors of the sole shareholder were held. At the meetings, such issues as the election of members of the Board of Directors of PAVLODARENERGO JSC, approval of the financial statements of PAVLODARENERGO JSC, determination of the order of distribution of net income, determination of an audit organisation for auditing the financial statements of PAVLODARENERGO JSC and its subsidiaries, etc. were considered.

ORGANISATIONAL STRUCTURE



SHARE CAPITAL STRUCTURE

As at 31 December 2020, the authorised capital of the Company, according to the financial statements, is 16,664 million tenge. The only shareholder with 100 % of the shares is Central-Asian Electric Power Corporation JSC.

Name of the holder	Ordinary shares		Preferred shares	Total shares	
	number	share		number	share
Central-Asian Electric Power Corporation JSC	166,639,957	100 %	–	166,639,957	100 %

INFORMATION ON DIVIDENDS

The Company's regarding the accrual, the procedure for declaring, the amount, form and timing of payment of dividends is defined in the Charter.

The main principles of the Company's dividend policy are as follows:

- > Balance of interests of the Company and its shareholders in determining the amount of dividend payments
- > Increasing the investment attractiveness, financial stability, capitalisation and liquidity of the Company
- > Ensuring market return on invested capital
- > Respect and strict observance of the rights of shareholders, increasing their well-being.

The Company intends to allocate a certain portion of its net profit to pay dividends in the amount that allows the Corporation to keep enough funds for further development. The decision to pay dividends is made by the annual General Meeting of shareholders upon the recommendation of the Board of Directors. If there are unforeseen negative circumstances for the Company, the Board of Directors is obliged to recommend to the General Meeting of shareholders not to make a decision to pay (declare) dividends.

In 2020, the annual General Meeting of shareholders made a decision not to pay dividends based on the results of the Company's operations for 2019.

BOARD OF DIRECTORS

The Board of Directors of the Company determines strategic objectives, supports the necessary mechanisms for monitoring activities, including ongoing monitoring and evaluation of the enterprise's performance.

In order to increase the transparency of the Company's activities, the Board of Directors comprises of two independent directors who are not affiliated with the Company. The Board of Directors is headed by the Chairman, who convenes meetings of the Board of Directors and prepares their agenda based on suggestions received from the members and committees of the Board of Directors and committees of the Board of Directors.

Independent members of the Board of Directors of CAEPCO JSC meet the following criteria:

- > They are not affiliated with PAVLODARENERGO JSC and were not affiliated with PAVLODARENERGO JSC for three years prior to their election to the Board of Directors
- > They are not affiliated in relation to the affiliated persons of PAVLODARENERGO JSC
- > They are not subordinated to officials of PAVLODARENERGO JSC or entities of persons affiliated with PAVLODARENERGO JSC and were not subordinated to such persons for three years prior to their election to the Board of Directors
- > They are not government employees

> They are not representatives of the shareholders at the meetings of the bodies of PAVLODARENERGO JSC and were not such representatives for three years prior to their election to the Board of Directors

> They do not participate in the audit of PAVLODARENERGO JSC as auditors working for an audit firm, and did not participate in such an audit for three years prior to their election to the Board of Directors

To achieve the goals of its activities, the Board of Directors is governed by the following principles:

- > Peer-review decision making with thorough discussion of issues using reliable and complete information on the Company's activities in accordance with the highest business standards
- > Inadmissibility of restrictions on the legitimate interests and rights of shareholders to participate in the management of the Company, receive dividends, reports and information on the Company
- > Ensuring a balance of interests of shareholders of the Company and maximum objectivity of decisions made by the Board of Directors in the best interests of shareholders
- > Providing the Company's shareholders with reliable and timely information

The General Meeting of CAEPCO JSC shareholders decides on the remuneration payable to the Board of Directors and the executive body. In 2020, the amount of remuneration paid to the Board of Directors and the executive body totalled 294,578 thousand tenge

SELECTION AND APPOINTMENT

The members of the Board of Directors of PAVLODARENERGO JSC are elected by the decision of the General Meeting of shareholders of CAEPCO JSC. According to the provisions of the Charter, the Board of Directors of PAVLODARENERGO JSC must consist of at least three persons, of which at least one third of the members of the Board of Directors must be represented by independent directors.

Only an individual can be a member of the Board of Directors of CAEPCO JSC and be elected from among:

- > Individual shareholders
- > Persons proposed for election to the Board of Directors representing the interests of shareholders
- > Individuals who are not shareholders of the company and have not been proposed for election to the Board of Directors representing the interests of shareholders

Генеральный директор АО «ПАВЛОДАРЭНЕРГО» также может быть избран в качестве члена Совета директоров, но не может быть избран председателем Совета директоров.

The General Director of PAVLODARENERGO JSC may also be elected as a member of the Board of Directors, but may not be elected Chairman of the Board of Directors.

The Chairman of the Board of Directors of PAVLODARENERGO JSC is elected from among its members by a majority vote of the total number of members of the Board of Directors by open voting.

The term of office of the members of the Board of Directors is established by the General Meeting of shareholders of CAEPCO JSC. The term of office of the Board of Directors expires at the time of the General Meeting of shareholders, at which a new Board of Directors is elected. Persons elected to the Board of Directors may be re-elected an unlimited number of times.

Term of service in the Board of Directors of PAVLODARENERGO JSC at the end of 2020:

- > 2-3 years – 5 persons
- > Less than a year – 1 person



COMPOSITION OF THE BOARD OF DIRECTORS

The term of office of the elected members of the Board of Directors is 2 years. Members of the Board of Directors do not own shares of the Company



Name, legal form	Members of the Board of Directors	Position	Date of election/expiry of powers
PAVLODARENERGO JSC	Leonid L. Yanushko	Chairman of the Board of Directors	10.02.2021 – 17.01.2022
	Natalia V. Buksha	Member of the Board of Directors	30.06.2020 – 17.01.2022
	Oleg V. Perfilov	Member of the Board of Directors	17.01.2020 – 17.01.2022
	Alexander Danilovich Nigay	Member of the Board of Directors	17.01.2020 – 17.01.2022
	Gennady I. Andreyev	Independent Director	17.01.2020 – 17.01.2022
	Eldar R. Tabanov	Independent Director	17.01.2020 – 17.01.2022
Pavlodar Electric Distribution Company JSC	Bagdat Yerkebulanuly Oral	Chairman of the Board of Directors	12.06.2020 – 13.06.2022
	Oleg V. Perfilov	Member of the Board of Directors	12.06.2020 – 13.06.2022
	Eldar R. Tabanov	Independent Director	12.06.2020 – 13.06.2022

1 LEONID L. YANUSHKO
(born in 1955)

Chairman of the Management Board of PAVLODARENERGO JSC from 10 February 2021 under minutes of board meeting No. 1 of PAVLODARENERGO JSC dated 10 February 2021.

Operations Deputy Chairman of the Management Board of CAEPCO JSC.

4 ALEXANDR D. NIGAY
(born in 1984)

Member of the Board of Directors

Deputy General Director on Commercial Issues of CAEPCO JSC

15.01.2018 – Member of the Board of Directors of PAVLODARENERGO JSC.

15.01.2018 – Member of the Board of Directors of Akmola EDC JSC.

03.05.2012 – Director for Strategic Development of ComTradeProduct LLP.

2 OLEG V. PERFILOV
(born in 1968)

Member of the Board of Directors

General Director of PAVLODARENERGO JSC.

05.09.2016 – Member of the Board of Directors of PAVLODARENERGO JSC.

15.12.2017 – Member of the Board of Directors of Pavlodar EDC JSC.

10.09.2014 – General Director of PAVLODARENERGO JSC.

5 GENNADY I. ANDREYEV
(born in 1943)

Member of the Board of Directors, Independent Director

Not affiliated with PAVLODARENERGO JSC and was not affiliated with PAVLODARENERGO JSC three years prior his election.

05.09.2016 – Member of the Board of Directors of PAVLODARENERGO JSC, independent director.

15.01.2018 – Member of the Board of Directors of Akmola EDC JSC, independent director.

13.11.2017 – Member of the Board of Directors of CAEPCO JSC, independent director.

02.07.2015 – Honorary President of Institute «KazNIPIEnergoprom» JSC.

3 NATALIA V. BUKSHA
(born in 1966)

Member of the Board of Directors

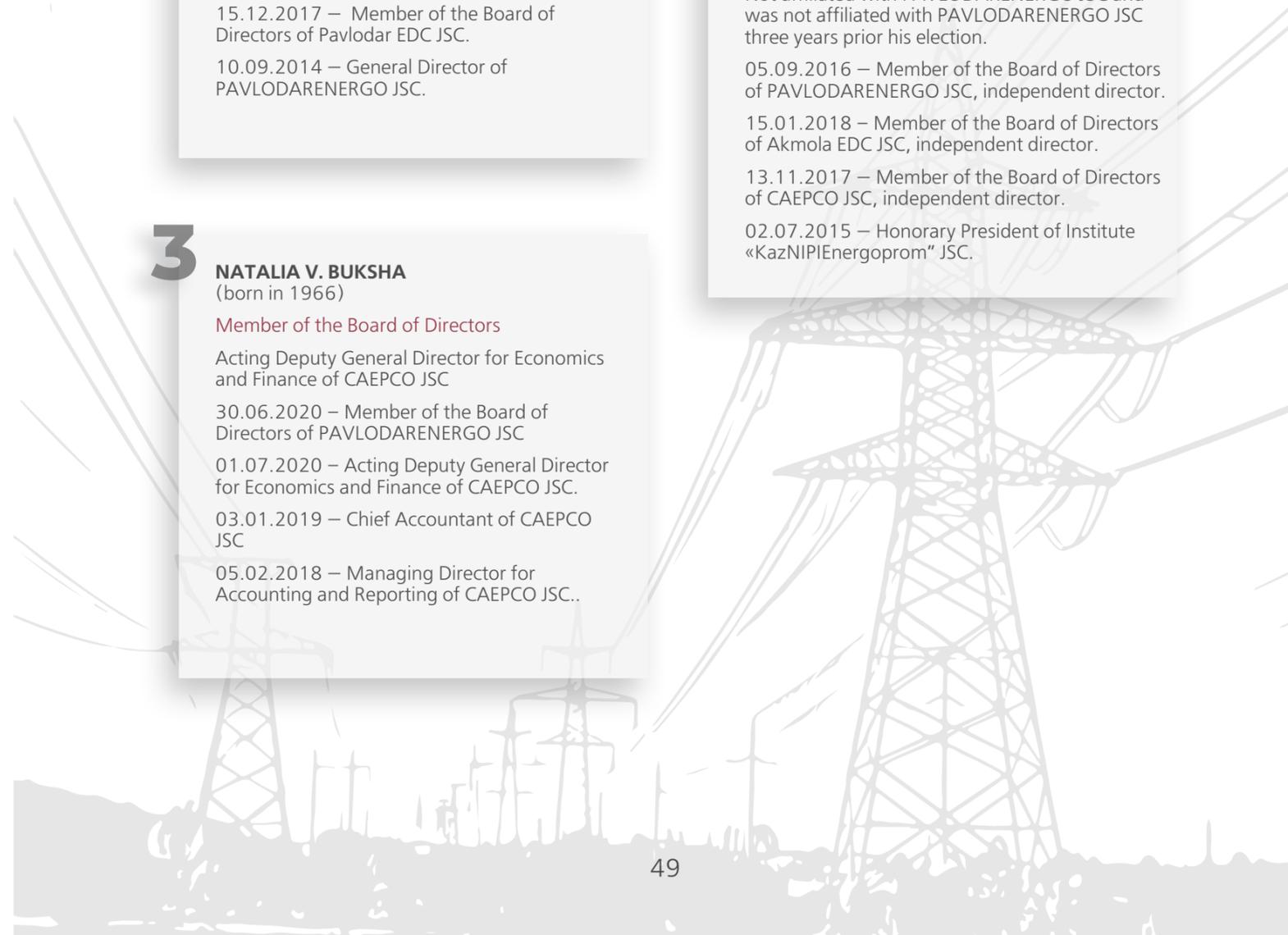
Acting Deputy General Director for Economics and Finance of CAEPCO JSC

30.06.2020 – Member of the Board of Directors of PAVLODARENERGO JSC

01.07.2020 – Acting Deputy General Director for Economics and Finance of CAEPCO JSC.

03.01.2019 – Chief Accountant of CAEPCO JSC

05.02.2018 – Managing Director for Accounting and Reporting of CAEPCO JSC..



6

ELDAR R. TABANOV (born in 1968)

Member of the Board of Directors,
Independent Director

Not affiliated with PAVLODARENERGO JSC and was not affiliated with PAVLODARENERGO JSC three years prior his election.

13.11.2017 – Member of the Board of Directors of CAEPCO JSC

29.09.2017 – Director of City Box LLP

09.09.2015 – Deputy Chairman of the Management Board of Astana SEC NC JSC.

14.11.2014 – Member of the Board of Directors of Akmola EDC JSC.

22.02.2013 – Member of the Board of Directors of SEVKAZENERGO JSC.

7

BAGDAT YE. ORAL (born in 1986)

Chairman of the Board of Directors of Pavlodar Electric Distribution Company JSC

Not affiliated with PAVLODARENERGO JSC and was not affiliated with PAVLODARENERGO JSC three years prior his election.

Energy Sales and Tariff Setting Deputy Chairman of the Management Board of CAEPCO JSC

03.07.2018 – Vice President of CAEPCO JSC for energy sales.

18.08.2014 – Director of CAPEC Green Energy LLP.

18.03.2014 – Head of the Prospective Development Department of Samruk-Green Energy LLP

29.06.2012 – Project Manager, Chief Project Manager of Samruk-Green Energy LLP.

PERFORMANCE OF THE BOARD OF DIRECTORS

In 2020, sixteen meetings in presentia of the Board of Directors were held online with 100 % attendance, as well as 2 meetings in absentia. The Board of Directors focused on the following key issues: election of the Chairman of the Board of Directors of PAVLODARENERGO JSC, election of the members of the Committees under the Board of Directors of PAVLODARENERGO JSC, determining the term of their powers; changing of the terms of financing provided by Islamic Bank Al Hilal JSC for PAVLODARENERGO JSC together with CAEPCO JSC, SEVKAZENERGO JSC, Akmola EDC JSC and Astanaenergoby LLP; increase of the authorised capital of Ekibastuzteploenergo LLP; acquisition of PAVLODARENERGO JSC shares in the authorised capital of CAPEC Green Energy LLP from Ecoalternative LLP and from Circle Maritime Invest JSC; preliminary approval of the annual consolidated financial statements of PAVLODARENERGO JSC for 2019; proposals of the Board of Directors of PAVLODARENERGO JSC on the procedure for distributing the Company's net income for the 2019 financial year and the amount of the dividend for the year per ordinary share of PAVLODARENERGO JSC; preliminary determination of the audit firm that audits the financial statements of PAVLODARENERGO JSC for 2020; increase in the authorised capital of Energetik Health Care Center LLP.



PERFORMANCE OF THE COMMITTEES OF THE BOARD OF DIRECTORS

STRATEGIC COMMITTEE*

3 members of the committee

- > Improving the efficiency of corporate governance
- > Control over projects implementation
- > Control over implementation of the Company's development strategy
- > Assistance to the Board of Directors on improving the frameworks for planning and developing the Company's activities

COMPOSITION OF THE COMMITTEE

E.R. Tabanov. Chairman

D.N. Turganov
O.V. Perfilov

AUDIT COMMITTEE*

3 members of the committee

- > Assistance to the Board of Directors in the effective implementation of its regulatory and supervisory functions
- > Improvement and strengthening of internal audit
- > Bringing to the attention of the Board of Directors recommendations on any issues requiring action on its part

COMPOSITION OF THE COMMITTEE

E.R. Tabanov. Chairman

O.V. Perfilov
N.V. Buksha

RISK AND CONTROL COMMITTEE*

6 members of the committee

- > Assistance to the Board of Directors in the effective implementation of its regulatory and supervisory functions
- > The document also sets out the standards for communication inside and outside the Company

- > Bringing to the attention of the Board of Directors recommendations on any issues requiring action on the part of risk management

COMPOSITION OF THE COMMITTEE

E.R. Tabanov. Chairman

O.V. Perfilov
A.D. Nigai
Zh.Zh. Rakhimberlinova
A.O. Stanbayeva
A.V. Kan

PERSONNEL, REMUNERATION AND SOCIAL AFFAIRS COMMITTEE*

4 members of the committee

- > Development and implementation of a unified personnel policy for the Company and its subsidiaries
- > Development of an effective corporate governance system and implementation of its principles

COMPOSITION OF THE COMMITTEE

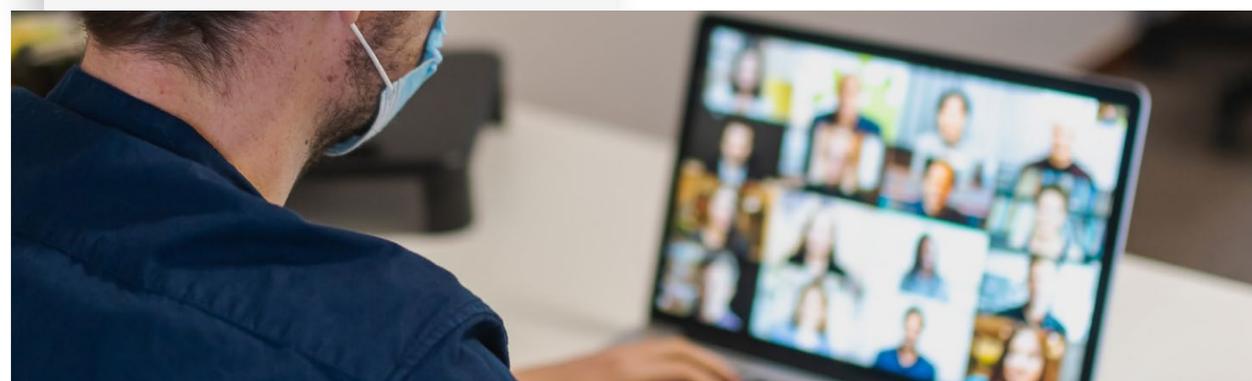
G.I. Andreyev. Chairman

O.V. Perfilov
A.D. Nigai
N.V. Konstantinova

EXECUTIVE BODY*

The sole executive body of the Company is represented by the General Director, who manages the executive body of PAVLODARENERGO JSC. The General Director in his actions is governed by the Regulations on the General Director of PAVLODARENERGO JSC. The General Director manages the current activities of the Company, implements the strategy defined by the Board of Directors and shareholders. The General Director is guided by the principles of action in the best interests of shareholders, integrity, diligence, prudence and vigilance.

*as of July 2021



GENERAL DIRECTOR OF PAVLODARENERGO JSC



OLEG V. PERFILOV

SUMMARY

Oleg V. Perfilov was born on 15 July 1968 in Pavlodar region. In 1992, he graduated from Pavlodar Industrial Institute with a degree in Automatic Control of Electric Power Systems.

He started his career in the energy sector in 1992. During his labor activity, he held various positions at energy enterprises of Pavlodar from a blue-collar worker to the manager. From 2002 to 2007, he headed CHP-2 and CHP-3 of PAVLODARENERGO OJSC.

On 11 November 2007, he was appointed Deputy General Director for Production at AccessEnergO LLP, which was renamed as North-Kazakhstan

Energocenter LLP (Petropavlovsk) on 29 February 2008. In 2009, he held the position of Deputy General Director for Production at SevKazEnergO Petropavlovsk LLP, which was later reorganised into SEVKAZENERGO JSC. From 2009 to June 2013, he held the position of Deputy Chairman of the Management Board for Production of SEVKAZENERGO JSC.

In January 2013, he was appointed acting Chairman of the Management Board of PAVLODARENERGO JSC. Currently, he is the General Director of PAVLODARENERGO JSC.

In 2005, Mr. Perfilov was awarded a certificate of merit from the Ministry of Energy and Mineral Resources of the Republic of Kazakhstan. In 2011, for his contribution to the development of the electrical power industry of the CIS countries, Oleg Perfilov was awarded the title Honoured Power Engineer of the CIS. In 2018, he was awarded a medal for contribution to the energy sector from the Ministry of Energy of the Republic of Kazakhstan.

Executive bodies of the Company's subsidiaries: Pavlodar Electric Distribution Company JSC, Pavlodar Heat Networks LLP, Pavlodarenergosbyt LLP, Energetik Health Care Center LLP, Ekibastuzteploenergo TOO are separate entities and each has its own General Director.

Ser.	Name, legal form	Sole Executive Body	Position	Date of election/expiry of powers
1.	PAVLODARENERGO JSC	Oleg V. Perfilov	General Director	10.09.2014 – 10.09.2021
2.	Pavlodar Electric Distribution Company JSC	Alexander V. Glotov	General Director	21.01.2020 – 21.01.2021
3.	Pavlodar Heat Networks LLP	Marat S. Imanayev	General Director	01.06.2015 – 01.06.2023
4.	Pavlodarenergosbyt LLP	Talgat G. Arginov	General Director	01.04.2009 – 01.11.2023
5.	Energetik Health Care Center LLP	Tatyana N. Kandybayeva	General Director	05.01.2020 – 05.01.2023
6.	Ekibastuzteploenergo LLP	Alexander M. Zakharyan	General Director	01.10.2018 – 01.10.2021

MAJOR AND INTERESTED PARTY TRANSACTIONS

REMUNERATION POLICY

The amount of remuneration to the executive body is determined by the decision of the Board of Directors of PAVLODARENERGO JSC.

The framework for determining the amount of remuneration to the General Director meets the following requirements:

- > Remuneration consists of constant and variable portions
- > The variable portion of remuneration depends on the key performance indicators of the General Director, is linked to the level of qualification and personal contribution to the performance of the Company for a certain period, is aimed at stimulating the achievement of high-quality work
- > Social support, guarantees and compensation payments to the General Director are carried out in accordance with the legislation, internal documents of the Company and the labour agreement

CONFLICT OF INTEREST

The conflict of interests is regulated by the Code of Ethics. This document provides for responsibilities of employees, abuse of official position, activities of employees inside and outside the Company.

Minimising Conflicts of Interest is one of the main principles regarding corruption and fraud in the Anti-Corruption and Fraud Policy of the group of companies. This principle declares that the Company reduces the conflict of interests on the basis of an effective distribution of powers and responsibilities through the development of a transparent organisational structure.

The activities of the members of the Board of Directors are regulated by the relevant Regulation. Avoidance of conflicts of interest among members of the Board of Directors is prescribed in the clause on the Rights and Obligations of members of the Board of Directors.

CORPORATE ETHICS

The Company has a Code of Business Conduct approved by the General Director in 2016.

The document combines the standards of international practice of regulating business relations in four areas:

- > Business and professional ethics

Please visit the website of the Depository of Financial Statements of Public Interest Organisations to get information regarding the Company's major and interested party transactions.



- > Organisational ethics
- > Corporate governance
- > Social responsibility of the Company

All employees of the Company adhere to the standards and provisions of the Code of Business Conduct promoting the achievement of the following operating results:

- > Reducing the number of compromise decisions and promoting independent judgement
- > Enhancing corporate culture as well as the overall image of the Company and its perception by public
- > Improving the efficiency of the corporate governance, risk management and crisis management process
- > Promoting efficient Stakeholder Engagement
- > Allowing to avoid litigations

The Code establishes ethical standards for the Company's activities to ensure confidence in its honesty, openness and professionalism. The document also prescribes the standards for relations both within and outside the Company.

With respect to stakeholders the Code contains a set of fair rules permitting no double standards of cooperation with the company. PAVLODARENERGO JSC's operations in compliance with the Code of Business Conduct are aimed at delivering benefits to its customers, society, the Company and each employee.

Control over observance of business ethics in the group of companies is carried out by the management through organisation of activities in accordance with the prescribed ethical principles and norms.

The established standards and regulations of the Code are shared by all employees of the Company.

EXTERNAL AUDIT

PWC Kazakhstan LLP is an audit firm that performs an external audit of the company's financial statements. The contract with the company for rendering of audit services is concluded until 2021.

INTERNAL CONTROL AND AUDIT

In order to improve business processes and improve the efficiency of decisions made, the Company has established internal control mechanisms. The independence and objectivity of the activities of the Internal Audit Department is ensured by subordination

and accountability to the Company's Board of Directors and is supervised by the Audit Committee, which monitors decisions and processes taken to ensure the reliability of financial statements and coordinate internal control and risk management systems.

2020 IAU carries out its work in accordance with the annual work plan approved by the Board of Directors. The efficiency of the internal control system of business processes in PAVLODARENERGO JSC group of companies was evaluated: Managing Investment Activities, Maintenance and Repair. Also, monitoring over implementation of external audit recommendations, recommendations of the IAU and a selective stock taking of property, plant and equipment and inventory were carried out. The Internal Audit Department has provided the Board of Directors and the Audit Committee with an annual report, as well as a report on the work performed for 10 months.

The Management's activities are carried out in accordance with the International Professional Standards of Internal Auditing (ISA) developed by the Institute of Internal Auditors Inc., as well as in accordance with the current legislation of the Republic of Kazakhstan and the Code of Ethics of Internal Auditors of PAVLODARENERGO JSC.

Internal auditors adhere to the following principles in their work: integrity, objectivity, confidentiality, professional competence.

The activities of the IAU are unified with the requirements of the Internal Audit Department of the parent organisation and comply with the audit methodology and practice.

As at 2020, the Company has a functioning internal control system that provides sufficient confidence in the effectiveness of all levels of control, including financial and operational, as well as compliance with laws and regulations.



CORPORATE GOVERNANCE COMPLIANCE REPORT

The corporate governance system of PAVLODARENERGO JSC regulates the process of interaction between the management bodies, internal control of the Company, shareholders and other stakeholders and is aimed at ensuring a balance of interests of all these parties.

The corporate governance system is regulated by the Company's internal documents presented on the corporate website. In the aggregate, the system is reflected in the Corporate Governance Code of PAVLODARENERGO JSC, adopted in 2010 by the Company's Board of Directors.

In 2020, the Company's corporate governance practice fully complied with the provisions of the Corporate Governance Code.

The main principles of the Corporate Governance Code are as follows:

- > Justice
- > Accountability
- > Responsibility
- > Transparency
- > Environmental protection and social responsibility
- > Effectiveness
- > Control

In 2020, all the fundamental principles of the Corporate Governance Code were respected.

THE MAIN PRINCIPLES OF THE CORPORATE GOVERNANCE CODE ARE AS FOLLOWS

The Corporate Governance Code was developed in accordance with the requirements of the legislation of the Republic of Kazakhstan On Joint-Stock Companies. The document also takes into account the existing international experience in the area of corporate governance, and recommendations on the application of corporate governance principles by Kazakh joint-stock companies.

The principles of the Governance Code are aimed at developing and introducing norms and traditions of corporate behaviour that meet international standards and contribute to creating a positive image of the Company in the eyes of its shareholders, customers and employees into the daily practice of the Company's activities to achieve the fullest exercising of shareholders' rights and increase their awareness of the Company's activities, as well as to control and reduce risks, maintain sustainable growth of the Company's financial indicators and the successful implementation of its statutory activities.



RISK MANAGEMENT

The main objectives of PAVLODARENERGO JSC group of companies in the area of risk management are to reduce the negative impact of events accompanying the Company's activities, as well as to realise favourable opportunities.

CORPORATE RISK MANAGEMENT SYSTEM

PAVLODARENERGO JSC group of companies (the "Group") has a functioning corporate risk management system (RMS).

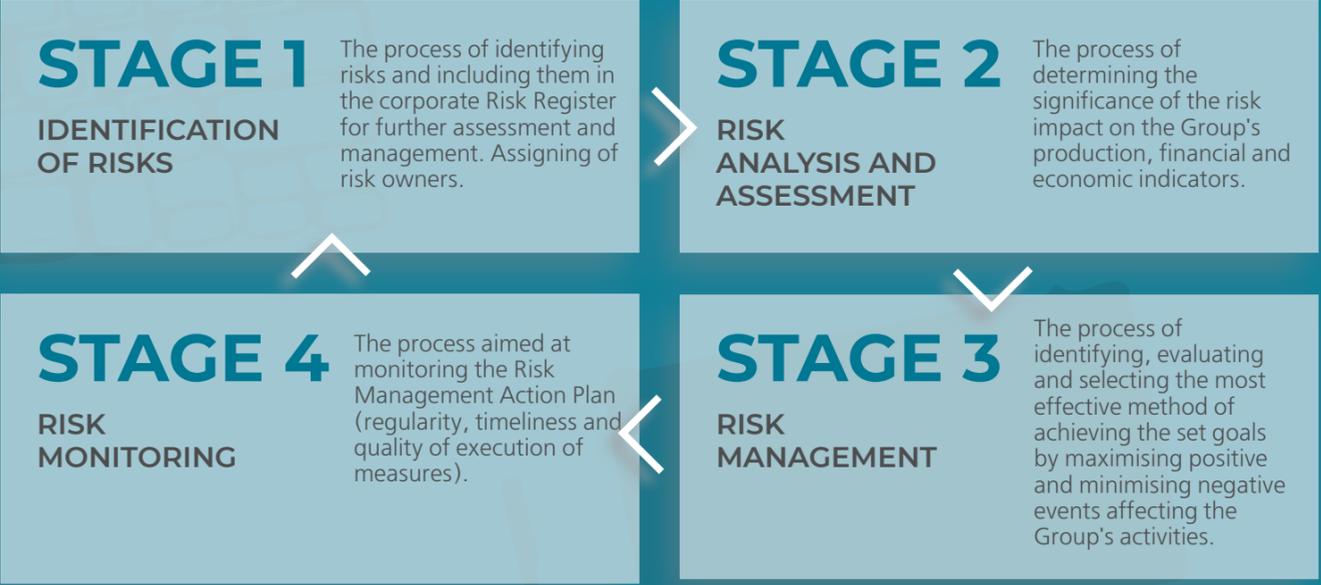
The Risk Management Policy approved and implemented by PAVLODARENERGO JSC establishes the Group's attitude to risks, general principles of development and functioning of the RMS, its goals and objectives, the main approaches to the organisation, implementation and control of risk management processes.

The main objectives of the Group in the area of risk management are represented by timely identification, assessment and reduction of the negative impact of risks that pose a threat to the effective implementation of economic activities and the reputation of the Group,

health of employees, the environment, the property interests of shareholders and investors, as well as the implementation of favourable opportunities to ensure sustainable continuous operation and development, reasonable confidence in achieving the strategic and operational goals set for the Group

To determine the level of risk impact on the Group's activities, the level of risk materiality is determined by expert assessment of the probability and consequences of risk, as well as by quantitative assessment using mathematical methods for calculating the probability and consequences of risk.

THE MAIN STAGES OF THE RISK MANAGEMENT PROCESS



RISK AND CONTROL COMMITTEE

- > Preliminary review and approval:
 - Risk management department reports;
 - Risk register
 - List of risk owners
 - Risk management reports
 - Internal RMS documents
- > Timely informing of the Board of Directors about risks and preparing proposals for improving RMS

Risk Management Unit
Accountability to the Risk and Control Committee

- > Coordination of actions of all RMS participants
- > Coordination and methodological support of risk management processes
- > Critical risk analysis and aggregation of information about key risks
- > Organisation of the risk identification and assessment process (development/updating of the Corporate Risk Register and the Critical Risk Register)
- > Collection and analysis of information on implementation of RMS measures
- > Monitoring and analysis of Key Risk Indicators
- > Providing all stakeholders (Executive Body, Risk and Control Committee, Board of Directors) with information about risks

BOARD OF DIRECTORS

- > Defining the strategy for RMS development
- > Goal-setting, approval of principles and approaches to RMS organisation
- > Making decisions on critical risk management
- > Approval of the risk register
- > Assigning of risk owners
- > Review and approval of key risk management reports, internal audit reports on RMS efficiency
- > Approval of internal RMS documents

AUDIT COMMITTEE

- > Preliminary review and approval of internal audit reports on the effectiveness of the RMS.

INTERNAL AUDIT FUNCTION
Accountability to the Audit Committee

- > Independent evaluation of the efficiency and monitoring of the current condition of RMS and ICS
- > Recommendations for improving RMS and ICS efficiency improvement
- > Informing the Executive Body and the Board of Directors about the status of RMS and ICS based on the results of the conducted audits

GENERAL DIRECTOR

- > Ensuring functioning of RMS, including:
 - Adoption and approval of the necessary decisions on RMS functioning
 - Resolution of cross-functional risk management tasks (performed by several structural divisions)

RISK OWNERS

- > Timely identification and assessment of risks
- > Making proposals on risk management methods
- > Timely development and organisation of implementation of risk management measures
- > Risk monitoring

PERFORMERS OF CONTROL PROCEDURES AND RISK MANAGEMENT MEASURES

- > Assistance to the risk owner in the development of risk management measures
- > Execution of control procedures for timely mitigation of risks
- > Timely and full implementation of risk management measures

OPERATING RISKS

- > Technological risks
- > Procurement and supply
- > Information technologies and information security
- > Emergency situations
- > Human resources risks
- > Environmental risks
- > Interaction with counterparties
- > Commercial risks
- > Professional risks
- > Fuel risks
- > Reputational risks
- > Social risks
- > Property risks

STRATEGIC RISKS

- > Regulatory risks
- > Investment risks
- > Project risks
- > Reputational risks
- > Political risks
- > Market risks
- > Management risks
- > Credit risks
- > Technological risks

LEGAL RISKS

- > Law violation
- > Corruption risk and fraud
- > Property risks
- > Collection risks
- > Regulatory risks
- > Environmental risks
- > Human resources risks
- > Tax risks

ОСНОВНЫЕ УЧАСТНИКИ СУР

Распределение ответственности между участниками СУР и характер их взаимодействия регламентируется внутренними нормативными документами, утвержденными Советом директоров Компании.

FINANCIAL RISKS

- > Price risks
- > Management risks
- > Credit risks
- > Liquidity risks
- > Interest rate risks
- > Foreign currency risks

PAVLODARENERGO JSC group of companies strives to meet the standards and best risk management practices, increases the risk management culture and continuously improves risk management processes.

In 2020, the Company also continued introducing and improving a risk-based approach to business management. Coordination and methodological support for the functioning and improvement of the RMS and ICS is carried out by the Risk Management Unit, which solves the following tasks:

- > Coordination of risk management and internal control processes
- > Development of methodological and internal regulatory documents in the area of ensuring internal control and risk management processes
- > Organisation of training of employees of the group of companies in internal control and risk management
- > Analysis of the corporate Risk Register and the Risk Map of PAVLODARENERGO JSC group of companies and development of proposals for responding and reallocating resources in relation to the management of relevant risks
- > Formation of consolidated risk management reports
- > Implementation of operating control over the processes of internal control and risk management of the divisions of the group of companies in accordance with the established procedure.

During the year, the Risk Management Unit carried out its work in accordance with the annual work plan approved by the Board of Directors:

- > Updating of the corporate Risk Register and Risk Map of PAVLODARENERGO JSC and its subsidiaries and analysis of critical risks
- > Identification and assessment of risks, analysis and testing of the effectiveness of the ICS organisation in business processes:
 - Technical maintenance and repair management
 - Distribution, accounting for electric power consumption and energy control
 - Energy sales and accounts receivable management
 - Technological connection of heat consumers to the heating networks
- > Updating the list of business processes exposed to risk of fraud
- > Updating and approving methodology guidelines and regulations on the internal control system in PAVLODARENERGO JSC group of companies.

MANAGING SIGNIFICANT RISKS IN 2020

In 2020, works on identification, assessment and control of risks continued. The black swan event of 2020, which brought the COVID-19 pandemic, significantly changed the rules of the game and the model of behaviour in business management. During 2020, the current situation has become a serious test of organisational maturity for almost all companies and enterprises not only in Kazakhstan, but all over the world. PAVLODARENERGO JSC group of companies was no exception.

First of all, the accepted strategies and the business continuity system were challenged. The COVID-19 epidemic has become a test of the readiness of personnel and resources to ensure the declared level of operational activity in emergency situations.

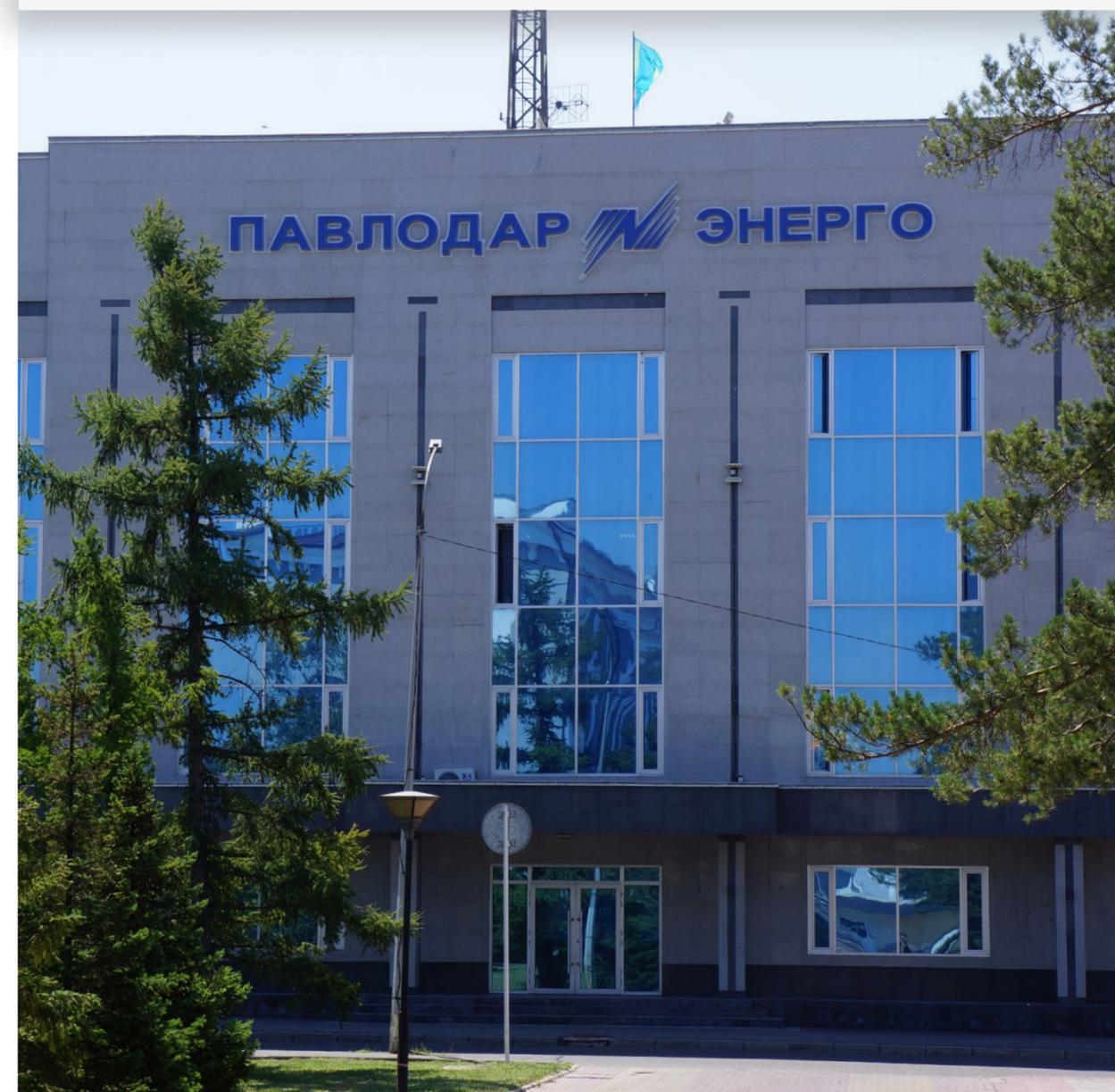
In particular, PAVLODARENERGO JSC group of companies was exposed to a high probability of the following risks due to the influence of COVID-19:

- > Staff retirement due to morbidity
- > Disruptions or interruptions in the supply chains of goods and services
- > Interruption of operational and production activities
- > Decrease in financial solvency of consumers of energy supply services
- > Risks associated with the IT infrastructure and information security violations

Taking it into account, during 2020, the main strategic and operational goals were to ensure the continuity of the activities of PAVLODARENERGO JSC group of companies.

In order to achieve the goals of PAVLODARENERGO JSC and its subsidiaries, Business Continuity Plans were revised and supplemented, as well as their implementation was ensured, sanitary and epidemiological requirements of authorised bodies were fully observed, and measures were implemented to minimise the incidence and spread of coronavirus infection among employees of the group of companies, contractors and customers.

The management system of PAVLODARENERGO JSC group of companies that was built and implemented on the methodological basis of a risk-oriented approach to company management, guidelines and standards ISO 31000, ISO 22301, COSO ERM 2004, ISO 9001, OHSAS 18001 and others, as well as based on its own practices and best international practices, has shown its effectiveness in high uncertainty due to the influence of concomitant negative risk factors of the **COVID-19** pandemic.



The name of the key risk and the dynamics of the significance of the risk for the year

Risk description and key risk factors

Risk management approach

Area: strategic risks

 Introduction of a balancing electricity market in real time

Since 1 January 2019, the electric power market was put into operation in the Republic of Kazakhstan, while the balancing electric energy market is functioning in a simulation mode. The introduction of the balancing electric energy has been postponed to 1 January 2022. The risk remains significant, relevant and requiring close attention and participation.

KEY RISK FACTORS:

1. Imperfection of the legislative framework in the area of the balancing electric energy functioning.
2. The absence of a full-scale automated control system that records the actual consumption of electric power, as a result – the lack of complete statistics on the profiles of consumer loads.
3. The inability of power plants (CHP) to carry the load on a «curved» schedule, among other reasons due to the high level of physical wear of the main and auxiliary equipment of generating enterprises.
4. Imperfection of the algorithm for calculating income and costs when buying/selling imbalances on balancing electric energy.
5. The absence of the possibility of influence of guaranteeing suppliers on planning of consumption volumes during the day by consumers, as a result, losses of energy sales and energy transmission organisations.

In order to minimise this risk, the Company takes the following measures:

1. Cooperation with the Ministry of Energy and other authorised bodies, participation in joint working groups to discuss and submit proposals and comments to legislative documents regulating the rules of operation of balancing electric energy.
2. Defending the interests of excluding guaranteeing suppliers and energy transmission organisations from the balancing electric energy.
3. Working with large consumers to provide daily schedules of electric energy consumption.
4. Monitoring of the actual consumption of electric energy by consumers through the ASCAE system.
5. Further development of the ASCAE system for electric energy consumers.
6. Consideration of the issue of implementing information and analytical software for effective operation in the electric power market and the balancing electric energy market.

 Non-fulfillment of the investment program/ failure to achieve the planned indicators on projects

The COVID-19 pandemic has had a negative impact on the possibility of timely implementation of Investment programs of PAVLODARENERGO JSC subsidiaries.

KEY RISK FACTORS

(due to the impact of the COVID-19 pandemic):

1. Non-fulfillment of contractual obligations by project contractors and material suppliers.
2. Lack of financing due to a decrease in the volume of energy production and transmission.

Measures taken to manage the risk and prevent the introduction of a compensating tariff by the authorised body:

1. Coordination of the postponement of implementation of Investment programs measures with the authorised body.
2. Conducting claims activities with project contractors and suppliers of materials.
3. Development (adjustment) of work schedules by the contractor.

 Untimely replacement of the generating capacities and the main structures of the CHP that are retiring by the service life

The significance of the risk is due to the actual wear and exhaustion of the resource of the main generating equipment and structures of the generating enterprises of the Group, including a high level of physical and moral wear of the main and auxiliary equipment of Pavlodar CHP-2. The annual number of repairs is constantly increasing, but does not solve the problem of restoring the energy source. CHP-2 provides electric power to urban consumers and industrial enterprises of the Northern Industrial Zone, supplies heat and hot water to the housing stock.

KEY RISK FACTORS:

1. Inefficient model of investment financing of energy enterprises.
2. Limited own financial resources.
3. The inability to attract significant credit resources within the framework of the current structure of the industry and the model of regulating tariffs for heat and electric power.
4. Adoption of unfavourable tariff decisions regarding the production of electric and heat power by the authorised body.

1. Inclusion of reconstruction/new construction measures in investment programs for timely replacement of disposed equipment.
2. Determining job priority on reconstruction/new construction, taking into account the significance of equipment for reliable supply of consumers with heat and electric power in sufficient volume.
3. Attraction of additional sources of financing for implementation of reconstruction/new construction works to replace the disposed equipment.
4. Conclusion of investment agreements (as part of the electric power market) with the authorised body for the modernisation and reconstruction of equipment.

ANALYSIS OF KEY RISKS THAT HAVE A SIGNIFICANT IMPACT ON THE ACTIVITIES AND RESPONSE MEASURES

Based on the results of updating the Corporate Risk Register and the Risk Map, carried out in accordance with the approved Risk Management Policy, 79 risks were identified in 2020 that affect the Group's activities as a whole.

The priority of risks is determined on the basis of their impact on the key financial, environmental and social aspects of the activities of PAVLODARENERGO JSC group of companies, taking into account the strategic goals, development priorities and mission of the Company.

The name of the key risk and the dynamics of the significance of the risk for the year

Risk description and key risk factors

Risk management approach

Area: operating risks

 Lack of qualified production and technical personnel

Despite the fact that at the end of 2020, the group of companies recorded a decrease in staff turnover rate compared to 2019, the risk remains in a critical zone. In particular, the decrease in the above coefficient was largely influenced by the inability to travel to other regions of the Republic of Kazakhstan and the CIS countries during the year (due to introduction of quarantine measures), and therefore the probability of an increase in the outflow of personnel after elimination of restrictions remains high.

KEY RISK FACTORS:

1. The uncompetitive level of the average salary of employees of the energy industry results in low attractiveness of this sector.
2. High internal and external migration of the population.
3. Low level of training of qualified personnel for the energy industry by educational institutions.

Loss of qualified / key personnel

The Company's activities largely depend on key qualified employees, and the lack of a sufficient number of qualified personnel, in particular in the production and technical area, results in risks associated with a shortage of personnel. Competition in Kazakhstan and the neighbouring CIS countries in the labour market is increasing due to the limited number and simultaneous growth in demand for qualified specialists. In 2020, according to expert estimates, the risk of a shortage of qualified production and technical personnel remains in a critical zone.

As part of the management of these risks, a set of measures is carried out:

1. Increase of the wage fund in the tariff estimates of PAVLODARENERGO JSC group of companies when advocating for tariffs for the next period.
2. Optimisation of management and production processes, staffing levels in order to identify the reserves of the wage fund with the subsequent distribution and allocation of the released funds to increase wages, primarily to crucial and key production personnel.
3. Continuing of implementing PROFENERGY project in the following areas:
 - External succession pipeline through attracting students, graduates of higher and secondary specialised educational institutions.
 - Improving the educational level of employees.
4. Development of the mentoring practice.
5. Material and non-material incentives for qualified employees.

 Overfill of the ash dump

The critical risk level in 2020 is due to the projected filling of the existing ash dump of Pavlodar CHP-3 in 2021 and the delay in the implementation of the event for the construction of the 3rd stage of the ash dump due to the lack of a source of financing.

KEY RISK FACTORS:

1. Untimely commissioning of ash dumps under construction (delays in design and construction).
2. Lack of sufficient financing in the tariff estimates and investment programs of energy-producing organisations for projects for the construction and development (expansion) of ash dumps.
3. Imperfection of the legislation of the Republic of Kazakhstan, in terms of impossibility of including capital-intensive costs for construction and development projects (building up) ash dumps in the individual tariff under contracts for the purchase of services for maintaining the availability of electric power (capacity market).

1. Increasing the height of existing ash dump dams to the maximum possible (permissible) levels.
2. Attraction of borrowed funds for the completion of the construction of the ash dump of Pavlodar CHP-3.
3. Active interaction with authorised state bodies and other participants of the electricity market in order to change the norms of the current legislation for the possibility of accepting applications from energy-producing organisations for construction, increasing ash dumps with further establishment of an individual tariff within the framework of contracts for the purchase of services for maintaining the availability of electric power (power market).

 Full (partial) suspension of the company's activities/ interruption of production

The **KEY RISK FACTOR** of 2020, which has a significant impact on the continuity of the Group's production activities, is the coronavirus pandemic (COVID-19).

OTHER POTENTIAL KEY RISK FACTORS:

1. Natural disasters (floods, lightning strikes, fires).
2. Sabotage and terrorist threats (attacks).
3. Untimely purchase/non-delivery of material resources.
4. Untimely replenishment of fuel reserves/ non-delivery of fuel.
5. Lack of liquidity /lack of financial resources.
6. Fire /ignition.
7. Technological violations in the operation of equipment (accidents, failures).
8. Military actions, demonstrations, unauthorised strikes of workers.

1. Orders on anti-epidemic measures have been issued and regularly updated in each subsidiary of the Group, responsible persons have been appointed.
2. Automatic thermometric control systems were installed at the checkpoints.
3. Timely purchase of antiseptics, disinfectants, facemasks and gloves was carried out.
4. Daily preventive measures are carried out in all structural units (disinfection, observance of face mask requirements, thermometry, instructing personnel, posting memos).
5. The protocol in case of confirmation of COVID-19 is approved.
6. Social distance zones (markings on stairwell landings and inside the premises) are specified in the service centers of Pavlodarenergosbyt LLP, body temperature of visitors is measured, replenishment and control over availability of disinfection products are carried out, as well as informing of the population about the possibility of paying for services via the Internet, and other resources.
7. Employees are on a remote working regime.
8. Vehicles are treated with disinfectants.
9. Meetings are held as online conferences.
10. Daily monitoring of patients with COVID-19 and signs of acute respiratory infection is established.

The name of the key risk and the dynamics of the significance of the risk for the year

Risk description and key risk factors

Risk management approach

Area: operating risks

The indicator of excess heat losses of the Group's energy transmission enterprises remains at a high level. It is largely due to the high deterioration of the heat main and distribution networks in the regions of the Group's operations (Ekibastuz, Pavlodar). Based on the results of 2020, an increase in the indicator of excess losses was recorded, both in absolute and relative terms.

KEY RISK FACTORS:

1. High level of wear of heating networks.
2. Technological violations and breakdowns on heating mains.
3. Exclusion from the tariff of the amount of normative losses on consumer networks by the Department of the Committee on Regulation of Natural Monopolies and Protection of Competition of the Ministry of National Economy of the Republic of Kazakhstan in Pavlodar region from 1 January 2010.
4. Irrational mode of operation of heating networks to ensure hydraulic and temperature conditions at heating unit of end users.
5. The absence of metering devices on the heating networks of household consumers.
6. Non-compliance of the norm of heat consumption of the housing stock with the actual heat consumption (multi-storey residential buildings).
7. Unpaid losses of heat power on abandoned / consumer heating networks, etc.
8. The absence of heat distribution stations (country part of the town).
9. Joint laying of heating mains with cold water pipelines.
10. The lack of automatic regulation at the central heating units of Ekibastuz.

1. Restoration of the destroyed / missing thermal insulation of pipelines.
2. Performing annual capital and current repairs of heating networks.
3. Reconstruction of heating networks with the use of pre-insulated pipelines (foamed polyurethane technology).
4. Installation of design throttling devices on elevator heating units of consumers.
5. Identification and suppression of the facts of unauthorised consumption of heat power.
6. Interaction with authorised state bodies in order to increase the rate of heat consumption of the housing stock to the level of actual heat consumption.

 Excess heat energy losses

In 2020, a decrease in injuries was recorded in comparison with the indicators of 2019. Meanwhile, 1 (one) case of injury was committed. In general, in 2020 there was a decrease in the number of violations of labour protection and safety requirements for PAVLODARENERGO JSC group of companies. The risk is significant and relevant for the Group as a whole and is under constant control.

Within the framework of risk minimisation, a set of measures aimed at preventing industrial injuries is carried out on an ongoing basis, including:

1. Strict control over the technical condition of equipment, buildings, structures and vehicles.
2. Minimisation of harmful and dangerous factors of production.
3. Risk assessment.
4. Constant monitoring of safety in work performance.
5. Providing employees with workwear and personal protective equipment.
6. Training and testing of employees' knowledge on occupational safety and health and industrial safety.
7. Investigations and in-depth analysis of accidents that have occurred in order to avoid their recurrence in the future.
8. Conducting behavioral security audits to find out the reasons for violations of security requirements.
9. Implementation of procedures for lock out / tag out (LOTO) of equipment to ensure safety during equipment repair and prevent its unintentional or accidental start-up.
10. The use of video recorders mounted on helmets or tablets in power grid companies for documenting personnel admission to work and ensuring safety when switching over switching equipment
11. Application of video recorders mounted on helmets or tablets in electric grid companies for registering personnel work permits and ensuring safety when switching equipment.
12. Step-by-step transition to the use of suits for electrical personnel made of thermal protective fabric to protect against electric arc.

 Injury/ accident

KEY RISK FACTORS:

1. Violation of technological requirements stipulated by the rules and regulations on labour protection and safety by employees while working.
2. Unsatisfactory knowledge of instructions, requirements for safety and labour protection of individual employees.
3. Unsatisfactory organisation of work performance.
4. Equipment failures, industrial accidents.

The name of the key risk and the dynamics of the significance of the risk for the year

Risk description and key risk factors

Risk management approach

Area: financial risks

The risk level in 2020 is largely due to the impact of the COVID-19 pandemic on the solvency of consumers of energy supply services. In May-October 2020, as part of the execution of the order of the President of the Republic of Kazakhstan to support the population during the COVID-19 pandemic, local executive bodies sent subsidies to energy supply organisations to repay accounts receivable of household consumers. This support from the state has had a certain positive impact on accounts receivable. Despite the fact that by the end of 2020, the share of overdue receivables (over three months) in the total amount of receivables decreased slightly compared to 2019, this risk is significant for the company and is under constant control.

 Increase in overdue accounts receivable in the retail market of electric and heat power

KEY RISK FACTORS:

1. Non-compliance with the terms of contracts regarding the implementation of timely and full payment for energy supply services by consumers of heat and electric power due to:
 - Low payment discipline.
 - Deterioration of the main macroeconomic indicators (including due to the impact of the COVID-19 pandemic).
2. Imperfection of the legislative framework regarding the possibility of carrying out transactions for the purchase and sale of residential real estate without paying off debts for energy supply services.
3. Untimely renegotiation of energy supply contracts when changing the homeowner.
4. A ban on the accrual of penalties and the application of penalties (disconnection, debt collection) for late repayment of debts during the period of the state of emergency under COVID-19.

As part of the management of this risk, Pavlodarenergosbyt LLP carries out a set of measures on an ongoing basis:

1. Consumers are notified about the amount due.
2. The power supply is stopped in case of late payment for energy supply services.
3. Debt repayment schedules are drawn up in installments.
4. Claim work is being carried out to recover debts and penalties from non-paying consumers for late payment of services rendered.
5. The property of debtors is seized.
6. Defaulters are visited with the presence of enforcement agents for estate inventory and seizure of property.
7. Information about amounts due by employees for utilities is sent to the address of enterprises.
8. Debtors' departure from the Republic of Kazakhstan is restricted.
9. Collection is carried out through the debtor's source of financing (deduction from wages and pension contributions).
10. The method of collection is changed, on the basis of which the debtor's property (apartment or vehicle) is evaluated for sale at auction.
11. For debts with a low probability of recovery, reserves for doubtful debts are created in the accounting of Pavlodarenergosbyt LLP.

Area: legal risks

On 2 January 2021, the Environmental Code of the Republic of Kazakhstan was approved in a new version, the norms of which imply a significant tightening of environmental requirements. The regulatory legal act comes into effect on 1 July 2021.

 Tightening of environmental regulations

KEY RISK FACTORS:

1. The adoption of a new Environmental Code in the Republic of Kazakhstan, which contains stricter standards, including those establishing:
 - The need for automated systems for monitoring of emissions into the environment at the Group's energy-producing facilities with real-time data transmission to the server of the Ministry of Ecology, Geology and Natural Resources.
 - The need for mandatory introduction of expensive (and not always technically feasible and applicable) best available technologies at the Group's energy-producing enterprises that have a significant harmful impact on the environment, aimed at reducing the negative impact of production on the environment.
 - Tightening of the maximum environmental standards for emissions into the environment.
 - Step-by-step increase of reducing coefficients when calculating the fee for emissions into the environment (in case of non-receipt of a comprehensive economic permit).
2. Introduction of appropriate amendments to other NPA of the Republic of Kazakhstan (Administrative Code, Tax Code), providing for an increase in administrative penalties for violation of new environmental standards.

1. Conducting a comprehensive technological audit at the generating enterprises of the Group (Pavlodar CHP-2, CHP-3 and Ekibastuz CHP), according to the results of which approximate lists of best available technologies for each CHP will be identified.
2. Development of long-term programs to improve the environmental efficiency of the Group's energy-producing enterprises, aimed at reducing their negative impact on the environment.

INTERNAL CONTROL STANDARDS

PAVLODARENERGO JSC group of companies has implemented an internal control system (ICS), which is a set of policies, processes, procedures, standards of conduct and actions combined into a single continuous process. The ICS is part of the management process of the group of companies carried out by the Board of Directors, the Management Board, all executive bodies of subsidiaries, control bodies and employees.

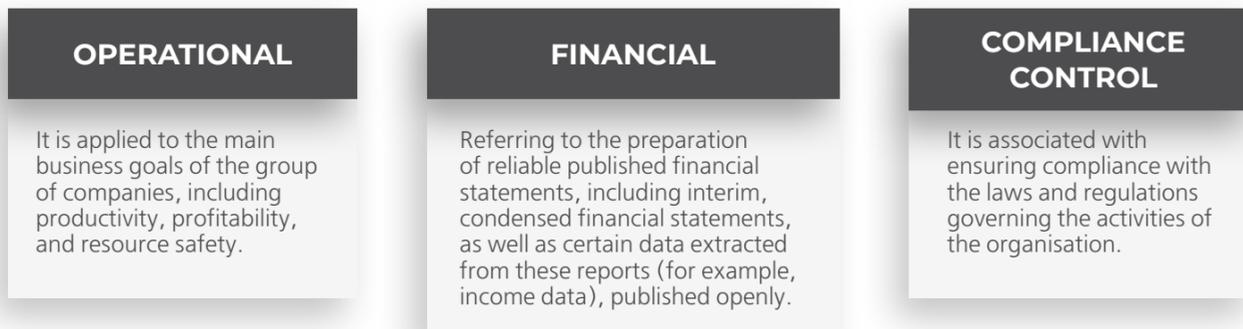
The management at all levels of management creates an effective control environment by:

- > Forming an understanding of the need for and implementation of internal control procedures among the employees of the group of companies
- > Maintaining a high level of corporate culture and demonstrating the principles of integrity and competence

- > Improving the professionalism and competence of employees of the group of companies
- > Ensuring effective interaction of structural divisions and employees
- > Ensuring effective distribution of powers and responsibilities
- > Formation of fraud prevention mechanisms
- > Organisation of the activities of internal control bodies

The ICS is aimed at ensuring the achievement of the goals of the group of companies and minimising risks in its operational and investment activities, the reliability of all types of reporting, compliance with the requirements of legislative acts and internal corporate requirements. The Company strives to ensure that all its activities are adequately controlled in order to reduce risks. Control procedures are implemented at all levels of management.

The group of companies has three levels of internal control system:



ANTI-CORRUPTION MANAGEMENT

PAVLODARENERGO JSC group of companies has an Anti-Corruption and Fraud Policy approved by the Board of Directors, which is the fundamental internal regulatory document of the Company and its subsidiaries in this area. The Policy, among other things, determines modelling of a single ethical standard by the top management of the Group for rejection of corruption in all its forms and manifestations.

The main principles of the Policy are represented by maintaining a high level of corporate governance, intolerance to corruption and fraud, proper risk assessment, minimising conflicts of interest based on an effective distribution of powers and responsibilities by building a transparent organisational structure.

Important elements of strengthening this area are represented by creation and implementation of an effective strategy that ensures anti-corruption and fraud, as well as prompt response to emerging events of this nature. The Group develops an appropriate corporate culture and a negative attitude to all manifestations of corruption and fraud.

The Policy highlights the methods and procedures used to counter fraud and corruption, in particular, to identify and assess such facts, conduct official investigations, and bring to justice for all identified cases of illegal actions. PAVLODARENERGO JSC group of companies has developed and operating feedback channels (hotline, telephone and mail services) for legal entities and individuals (including employees of the Group) to contact and report on the upcoming or known facts of corruption and fraudulent actions.

Work aimed at increasing the transparency of activities is performed on an ongoing basis. In order to inform the business partners of the group of companies about the existing requirements and principles of the Anti-Corruption and Fraud Policy, the approved standard templates of contracts concluded by the Company and its subsidiaries for the purchase of goods, works and services include certain sections that also reflect communication channels in the event of corruption.

In compliance with the requirements of the Anti-Corruption and Fraud Policy, according to the Work Plan for improving the Risk Management System for 2020, the Risk Management Department conducted an anonymous survey of employees through interactive services in order to assess the existing business processes of the group of companies for their exposure to the risk of fraud and corruption.

More than 50 % of all structural units of the Group's subsidiaries and enterprises took an active part in the survey. Following the results of the survey, the list of business processes, during implementation of which there is a high probability of committing corrupt and fraudulent actions by employees of the Group, as well as the list of structural units most exposed to the risk of fraud and corruption, was updated.

The business processes identified by respondents as the most exposed to this risk are identified as priorities for improving the Internal Control System. It should be noted that the work carried out within the framework of improving internal control allows to respond to probable and significant risks of corruption and fraud in a timely manner, namely, to eliminate the identified risks by introducing additional control and prevention measures.

In accordance with internal procedures, all newly hired employees are required to familiarise themselves with the requirements of the Anti-Corruption and Fraud Policy and sign a written confirmation of compliance with these requirements.

No facts of corruption and fraud were identified during 2020.



SUSTAINABLE DEVELOPMENT

STAKEHOLDER ENGAGEMENT

Since 2013, the Company has been regularly publishing a plan and a report on Stakeholder Engagement, which are publicly available on the corporate website. The Report describes in detail quantitative and qualitative indicators, activities, as well as sources of information sharing.

For the full version of the Report please visit the website



Stakeholder in relation to the Company	Stakeholders' interest in the Company	The form of the stakeholder's dialogue with the Company	Completed works in 2020
Shareholders	<ul style="list-style-type: none"> > Implementation of strategic objectives > Economic profit/ performance > Corporate governance rating > Funds for development and receiving dividends > Net asset value > Implementation of social programs > Transparency of business processes 	<ul style="list-style-type: none"> > Resolutions of the General Meeting of Shareholders > Decisions of the Board of Directors > Corporate website > Annual report > In 2020, most of meetings and business meetings were held online. 	<p>18 meetings of the Board of Directors were held. Measures were implemented to improve all forms of corporate governance.</p>
Employees	<ul style="list-style-type: none"> > Human resources and social policy > Terms of the collective agreement > Compliance with the labour legislation of the Republic of Kazakhstan > Motivation for retaining and attracting highly qualified employees 	<ul style="list-style-type: none"> > Management decisions; > Orders and instructions > Production, operational and other meetings > Reports on current activities > Oral negotiations > Industrial safety and labour protection briefings > Internal corporate communication channels > Surveys and questionnaires > Official accounts in social networks 	<p>The provisions of the Collective Agreement were observed in PAVLODARENERGO.</p> <p>Employees were provided with social assistance and support.</p> <p>A competition «The best in the profession» was held.</p> <p>Implementation of activities within the framework of the corporate project PROFENERGY continued.</p> <p>The most distinguished employees were awarded industry and corporate awards and awarded professional titles.</p>

Stakeholder in relation to the Company	Stakeholders' interest in the Company	The form of the stakeholder's dialogue with the Company	Completed works in 2020
State authorities and regulatory bodies	<ul style="list-style-type: none"> > Getting timely and reliable information > Assistance to the development of the electric power industry in the Republic of Kazakhstan > Ensuring reliable and uninterrupted supply > Increase in tax revenues to local budgets > Timely and high-quality implementation of social projects > Increase / saving of jobs > Compliance with the legislation of the Republic of Kazakhstan in the area of industrial safety 	<ul style="list-style-type: none"> > Reporting on the results of the financial and economic activities of the Company > Providing information at the request of state bodies in various areas of the Company's activities > Development of proposals on amendments to laws and regulations of the Republic of Kazakhstan > Memoranda of cooperation between local executive bodies and the Company in order to support and develop the social sphere of the regions > Discussions, business meetings 	<p>In 2020, blogs of akims of the cities of the region and the akim of Pavlodar region were monitored on a daily basis. Answers have been provided to all citizens' appeals concerning the activities of PAVLODARENERGO enterprises.</p> <p>Information about planned and emergency shutdowns of electric and heat power was posted on corporate website and official pages in social networks on a permanent basis, the terms of repair work, testing of heating networks were indicated.</p> <p>The heads of the group of companies (or appointed responsible persons) participated in the meetings of the headquarters for the preparation of the housing stock for the heating season together with state and regulatory authorities.</p>
Local communities (Consumers)	<ul style="list-style-type: none"> > Market share/ market presence > Ensuring reliable and uninterrupted electricity and heat supply > Marketing communications > Emissions into the environment 	<ul style="list-style-type: none"> > Informing and feedback system with consumers; > Public hearings, meetings > Annual report > Signing of memoranda and agreements on partnership and cooperation > Official accounts in social networks 	<p>In 2020, the group of companies accepted and processed 501,881 requests from consumers.</p> <p>Calls and electronic requests included questions, requests, suggestions, transmission of meter readings to the contact center, and more.</p>
Educational institutions	<ul style="list-style-type: none"> > Promoting the development of branch science and education > Training of promising personnel and ensuring the continuity of generations > Providing charitable and sponsorship assistance 	<ul style="list-style-type: none"> > Cooperation with universities in the regions of operation > Participation in the work of examination commissions, qualification commissions, in the process of accreditation of educational programs. > Events: competition of scientific papers 	<p>In 2020, an online competition of scientific papers for a nominal corporate scholarship was organised and held.</p> <p>In 2020, the group of companies provided an opportunity to pass paid and unpaid industrial practice for 171 students</p>

Stakeholder in relation to the Company	Stakeholders' interest in the Company	The form of the stakeholder's dialogue with the Company	Completed works in 2020
Non-governmental organisations (NGOs)	<ul style="list-style-type: none"> > Getting information about the Company's development prospects > Reducing the negative impact on the environment > Providing charitable and sponsorship assistance > Public hearings 	<ul style="list-style-type: none"> > Conducting public hearings > Informing about current activities > Letters (appeals) addressed to the Company 	<p>In 2020, 15 public hearings were held on the environment, on rendering of services, approval of tariff estimates, reports on activities.</p>
Mass media	<ul style="list-style-type: none"> > Transparency of business processes > Ensuring prompt access to information about the Company's activities on the following topics: <ul style="list-style-type: none"> • Production safety • Modernisation of production • Financial indicators • Implementation of joint projectsP • Prospects for the development of the Company, the industry 	<ul style="list-style-type: none"> > Media briefings, press tours > Press releases > Responses to information requests > Media monitoring 	<p>In 2020, 5,238 articles and stories about the activities of PAVLODARENERGO group of companies were published in the media and social networks</p> <p>The Company's public relations department published 24 issues of the corporate magazine</p>
Suppliers, contractors	<ul style="list-style-type: none"> > Creating a transparent competitive environment > Using the market pricing mechanism > Stability and reliability of mutually beneficial cooperation > Guarantee of fulfillment of obligations under contracts 	<ul style="list-style-type: none"> > Feedback system, holding of meetings, negotiations > Signing of agreements and memoranda, agreements on strategic cooperation > Tenders > Meetings with contractors and clients 	<p>In 2020, announcements about tenders and their results will be posted on the corporate website of the group of companies and in the media.</p>
Trade unions	<ul style="list-style-type: none"> > Compliance by the employer with the established obligations in relation to employee > Protection of the rights and interests of employees > Creating decent working conditions > Providing opportunities for professional and personal growth > Social guarantees 	<ul style="list-style-type: none"> > Discussion and approval of the collective agreement > Meetings of trade union members with the management 	<p>Work was carried out to create conditions for the implementation of the activities of the trade union – cooperation with the trade union organisation on the principles of mutual interests, equality in accordance with the legislative acts of the Republic of Kazakhstan and the terms of the Collective Agreement.</p> <p>Charitable assistance was provided at the expense of the trade union funds.</p>

INFORMATION POLICY

The information policy of PAVLODARENERGO JSC is a set of actions, measures and regulations that allow to manage the processes of distributing corporate information, the perception of a single vision of the Company among the target audience.

The policy consists of internal and external information work. External work consists in informing the public about the Company's activities by publishing reports, informational messages, providing documents and other materials. Internal work is aimed at informing all employees about the current state of the Company, maintaining corporate loyalty, regulating the access of various employees and structural divisions to corporate information.

The main objectives of information disclosure are as follows:

- > Timely provision of information on all material issues related to the Company's activities in order to comply with the legal rights of shareholders, investors, as well as other stakeholders in providing information required for making an informed decision or performing other actions that may affect the financial and economic activities of the Company, as well as other information that contributes to the most complete understanding of the activities of the Company.
- > Ensuring the availability of public information about the Company for all stakeholders.
- > Increasing the level of openness and trust in relations between the Company and shareholders, potential investors, market participants, government agencies and other stakeholders.
- > Improving the corporate governance in the Company.
- > Creating a positive image of the Company.

In 2020, PAVLODARENERGO group of companies regularly informed stakeholders about its activities by updating the corporate website of PAVLODARENERGO group of companies, posting information in the media and social networks, responding to requests, organising online public hearings taking into account the situation with the coronavirus pandemic, as well as press tours and other events.

In 2020, 5,238 materials about the activities of PAVLODARENERGO JSC group of companies were published in the media, including 128 printed publications in local and republican media, 1,054 online publications (news agencies, websites, news aggregators, portals), 157 stories on local and republican TV channels, 3,899 publications in social networks. 24 issues of the corporate newspaper Energetik were published. Comments, materials and press releases have been prepared on the most significant newsworthy occurrences and events.

Announcements of the company's events, news, invitations to media events, immediate comments and

information about the company's activities were posted on social networks. The website continues to develop as a leading source of information about the company for external stakeholders.

95 materials were published on the corporate website of PAVLODARENERGO for 2020 in the Company News section.

PLANS FOR 2021

As part of implementation of the information policy, further work is planned aimed at timely and regular disclosure of information about all significant facts of the Company's activities. Among other things, it is planned to:

- > Make public awareness efforts for consumers on topics of interest
- > Continue work on the development of communication channels within PAVLODARENERGO JSC group of companies
- > Continue work on the development of communication channels with an external audience.

ENVIRONMENTAL POLICY

ENVIRONMENTAL IMPACT MANAGEMENT

Environmental protection, consistent improvement of environmental performance indicators and energy efficiency are among the key strategic priorities of PAVLODARENERGO JSC and an integral element of ensuring sustainable development.

In 2020, the Company generated 3,703.816 million kWh of electric power and 4,478.409 thousand Gcal of heat. 3,773.304 thousand tons of Ekibastuz coal and 5.946 thousand tons of fuel oil were spent on energy production.

ATMOSPHERE AIR PROTECTION

Emissions into the atmosphere are one of the main environmental impacts of heat power plants.

The greatest impact on reducing emissions is the replacement of outdated generating facilities with low energy and environmental efficiency with new capacities that meet modern requirements in the area of environmental protection. In order to improve environmental parameters, from 2009 to 2014, within the framework of the investment program, PAVLODARENERGO JSC carried out the reconstruction of dust-collecting features (DCF) on all power boilers of the stations, the degree of flue gas purification after installation of emulsifiers reached 99.5 % instead of 97 %. Implementation of this event made it possible to reduce the total annual volume of coal ash emissions from 29.9 thousand tons to 7.2 thousand tons per annum (by 75.9 %).

In order to protect the atmospheric air at the Ekibastuz CHP, the following measures were carried out:

- > Repair of ash-collecting installations of BKZ and KVTK boilers (scrubbers, emulsifiers), flue gas ducts.
- > Repair of dust-extracting plants at coal junction towers in fuel feed line.

At the end of 2008, the year of the launch of the investment program, the volume of emissions of polluting substances into the atmosphere by PAVLODARENERGO JSC was at the level of 65.9 thousand tons (including other emissions), by the end of 2020 this indicator amounted to 41.2 thousand tons (including other emissions), that is, a decrease amounted to 37.5 %.

According to the results of 2020, the actual emissions of pollutants into the atmosphere in Pavlodar Heat Networks LLP and PEDC JSC also did not exceed the established limit.

In order to minimise the impact on the environment, the Company consistently implements the Environmental Policy stipulated in the Development Strategy to comply with the requirements of environmental legislation and use the latest achievements of science and technology.

Priority directions of environmental activities of PAVLODARENERGO JSC are based on the key impacts on the environment.

These impacts include:

- > Emissions of pollutants into the atmosphere.
- > Greenhouse gas emissions into the atmosphere (CO₂).
- > impact on water bodies due to water consumption and wastewater discharge.
- > Industrial waste disposal.

Management of significant environmental aspects is carried out during regular monitoring of environmental indicators, assessment of compliance of activities with legislative and corporate requirements. The functions of ensuring control, accounting and analysis of the listed environmental impacts of PAVLODARENERGO JSC are assigned to the Environmental Protection Department.

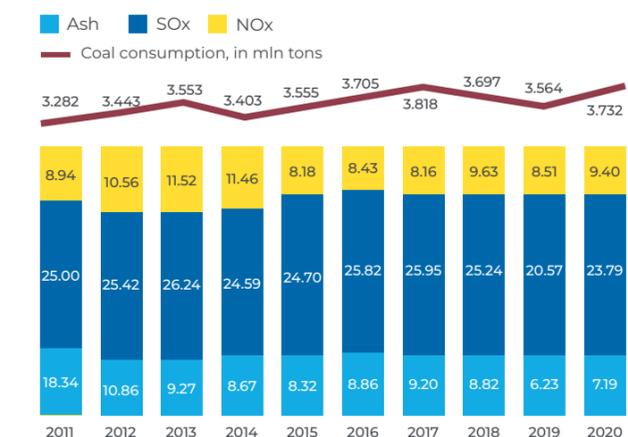
Informing about the activities in the area of environmental protection is carried out by posting IMS Policy, goals and objectives of environmental management, reporting documents: corporate reports, draft sections Environmental Impact Assessment (EIA) for the developed reconstruction and modernisation projects, minutes of public hearings, environmental action plans, and non-technical summaries of projects on the website of PAVLODARENERGO JSC.

In addition, PAVLODARENERGO JSC informs contractors about the applicable legislative and regulatory requirements by including such requirements in contracts, technical specifications and requirements for contractors.

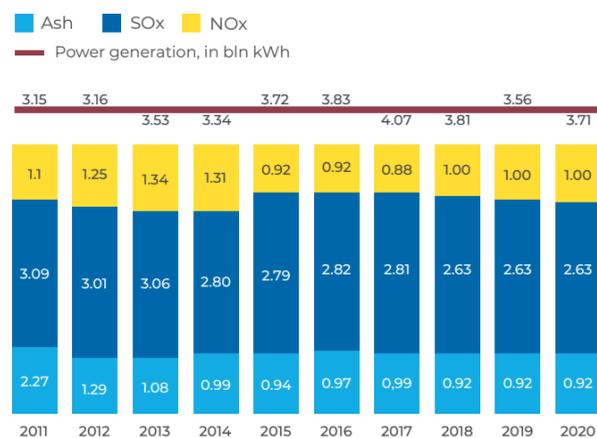
The company intends to do everything possible to prevent negative environmental impact and to implement working methods that meet the requirements of the international standard ISO 14001 in all places.

Since 2009, as part of the investment program and in accordance with the policy of the European Bank for Reconstruction and Development, PAVLODARENERGO JSC has been implementing an Environmental and Social Action Plan (ESAP) for environmental protection in relation to projects financed by the EBRD. The measures of the Environmental and Social Action Plan are aimed at improving the environmental parameters of production, as well as the safety and labour protection policy at the enterprises of PAVLODARENERGO JSC. Within the framework of ESAP, the Company annually provides a public report.

Gross emissions of pollutants into the atmosphere in 2011-2020, thousand tons



Specific emissions of pollutants into the atmosphere in 2011-2020, mg/MWh



Gross and specific indicators of emissions of solid particles (coal ash) and sulphur oxides (SOx) in comparison with 2019 decreased in 2020 (by gross emissions: coal ash – by 3 %, SO_x – by 2 %, specific emissions of coal ash – by 3.03 %, SO_x – by 1.56 %). In Ekibastuzteploenergo LLP, volume of burned fuel (coal and fuel oil), gross and specific indicators of emissions of solid particles (coal ash) and sulphur oxides (SOx) in comparison with 2019 decreased in 2020 (by gross emissions: coal ash – by 8 %, SO_x – by 3 %, specific emissions of coal ash – by 0.31 %, SO_x – by 5.39 %).

REDUCING IMPACT ON THE ENVIRONMENT, ENVIRONMENTAL PROTECTION

In 2020, the following key activities aimed at reducing the level of environmental impact were implemented:

- > Construction of dams of phase 1 of CHP-3 ash dump and construction of phase 3 of CHP-3 ash dump.
- > Perform remedial work for maintaining main equipment operating modes in accordance with the requirements of Technical Regulations of the Republic of Kazakhstan (No. 1232 dared 14 December 2007).
- > Repair of pipelines, shut-off and control valves of technical and household water of CHP-2, CHP-3, ECHP.
- > Replacement of depleted lamps with low energy light bulbs and lamps.
- > Repair of sluice-discharge pipelines and hydraulic fill pipelines at CHP-3, CHP-2, ECHP.
- > Development of a project for installation of an automated system for monitoring emissions into the environment for CHP-2, CHP-3, ECHP.

> Development of the project and detailed engineering design of boiler units No. 7, 8 of CHP-3, with parameters that meet the best available technologies with the best ash boiler header system.

> Repair of ash-collecting installations of BKZ and KVTK boilers (scrubbers, emulsifiers), ECHP flue gas ducts.

> Repair of dust-extracting plants at coal junction towers in fuel feed line of CHP-3, CHP-2, ECHP.

> Measurement of the efficiency of aspiration devices and ash boiler headers with input of measurement results in the passport (tests by a specialised organisation) of CHP-3, CHP-2, ECHP.

> Reconstruction of Ekibastuz CHP water supply system using a 6,000 m³ potable water supply tank as a process water supply tank.

GREENHOUSE GAS (CO₂) EMISSIONS

After the the Kyoto Protocol became effective for the Republic of Kazakhstan on 17 September 2009, the Company organised work on preparing for the stock taking of greenhouse gas emissions and consumption of ozone-depleting substances.

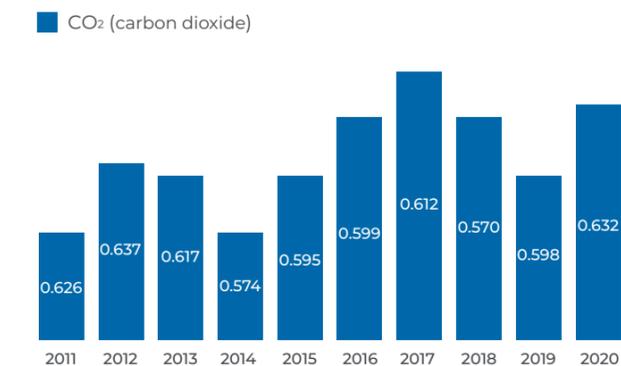
To monitor greenhouse gases, a calculation method was used, according to the guiding regulatory documents, which provides for accounting for emissions from normal (regular) production activities, special practices (commissioning, process stops, repair and maintenance) and emergency situations.

In 2016, the European Bank for Reconstruction and Development, the Ministry of National Economy of the Republic of Kazakhstan and Central-Asian Electric Power Corporation JSC signed a trilateral agreement on implementation of projects for modernisation and restoration of the district heating system of Pavlodar, Ekibastuz and Petropavlovsk as part of the state program Nurly Zhol. Under this agreement, the amount of 27.43 billion tenge was allocated to the development of the heat supply system of Pavlodar, Ekibastuz and Petropavlovsk in 2016-2019. Modernisation projects are aimed at improving energy efficiency, reducing losses and improving environmental standards (reducing CO₂ emissions by saving coal consumption associated with reducing heat losses during transmission through networks). Thus, the volume of reduction of gross CO₂ emissions in 2020 compared to 2010 amounted to 425 thousand tons and by 2.5 % in terms of specific emissions in 2020 relative to the level of 2010.

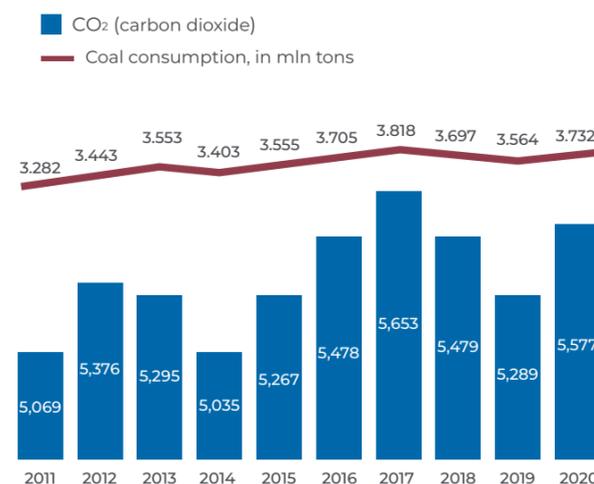
An additional organisational tool for reducing greenhouse gas emissions is the Energy Saving Program and increasing overall fuel efficiency associated with increasing the share of generation by new power units, as well as the introduction of the ISO 50001 energy management system (energy saving measures) at enterprises, the purpose of which, along with improving the energy efficiency of production processes, is to reduce greenhouse gas emissions. Thanks to the implementation of the measures of this program, a reduction in greenhouse gas emissions by 14.776 thousand tons of CO₂ was achieved in 2020.

Due to an increase in production and an increase in fuel consumption (coal, fuel oil), the gross volume of greenhouse gas emissions slightly increased in 2020 compared to 2019 (5.45 %) and amounted to 5.577 million tons of CO₂. Specific indicators of greenhouse gas emissions increased by 5.3 %. At that, specific indicators of greenhouse gas emissions in 2020 increased by 2.5 % compared to 2010.

CO₂ emission rates per unit of energy produced in 2011-2020, tons/MWh



Gross CO₂ emissions in 2011-2020, million tons



COSTS FOR ENVIRONMENTAL PROTECTION MEASURES

To increase efficiency in the area of environmental protection, PAVLODARENERGO JSC finances environmental protection measures. The total amount of expenses in 2020 amounted to 2,281.555 thousand tenge. For all new construction and reconstruction projects, Environmental Impact Assessment is being developed, the materials of which are brought to the attention of local communities and the interested public in the form of public hearings. To confirm compliance with the environmental standards of the Republic of Kazakhstan, all projects undergo state environmental expertise in the territorial supervisory authorities in the area of environmental protection.

Regional Ecology Department. During the reporting year, the company was not subject to financial and non-financial sanctions for violating environmental legislation.

Costs for environmental protection measures

Description of costs	Amount, million tenge				
	2016	2017	2018	2019	2020
Investment costs	958.500	836.600	2 617.950	1 926.791	1963.352
Cost of overhaul repair of key assets intended for environment protection	60.800	59.050	72.860	431.929	20.906
Operating costs	837.500	602.250	642.088	185.125	297.297

WATER MANAGEMENT AND WATER RESOURCES CONSERVATION

The use of water resources is an integral part of PAVLODARENERGO JSC production processes. The main water body that the Company influences is the Irtys River. Water supply for technical needs is carried out by third-party organisations on a contractual basis.

The main technological systems that use most of the water are cooling systems, hydraulic ash transport systems and water treatment plants.

According to the production monitoring program of PAVLODARENERGO JSC for 2019-2028 that was agreed with the Committee for Environmental Regulation and Control of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, the quality of waste water in the ash dump is monitored and the level and quality of underground water is monitored through a

network of observation wells. Reports on implementation of the industrial environmental control program are submitted quarterly to the Department of Ecology of Pavlodar region. For technological purposes, the quality of (source) process water is monitored by departmental laboratories.

The key goal in water use management is to use water more efficiently, contributing to reduction of the negative impact on the environment.

PAVLODARENERGO JSC has systems of drinking water supply, stormwater and municipal sewerage. Water supply and discharge for household, drinking, and fire needs is carried out centrally with the use of water and sewer networks owned by third-party organisations under contracts. The service water supply system is recycling.

In 2020, 479,352.286 thousand m³ of water was used in PAVLODARENERGO JSC for water supply purposes, the main share of which is water from circulating water supply systems. The volume of water disposal in the reporting period amounted to 300.944 thousand m³ for PAVLODARENERGO JSC.

The total amount of water used, broken down by sources, thousand m³

Indicator	2016	2017	2018	2019	2020
Total water used, including:	529,982.768	652,568.961	564,649.314	518,711.456	479,352.286
from surface water bodies	-	-	-	-	-
from third-party suppliers	24,313.469	23,662.189	21,870.000	23,286.290	24,078.760
from water recirculation system	491,645.221	613,936.441	527,464.100	482,975.446	442,870.650
recycling	14,024.078	14,970.331	15,315.214	12,449.720	12,402.876

Volumes of waste disposal, thousand m³

Indicator	2016	2017	2018	2019	2020
Total waste water generated	346.127	332.371	325.981	320.501	300.944
Discharged to third-party organisations	346.127	332.371	325.91	320.501	300.944

Among the most significant environmental measures in the area of water use and sanitation implemented in 2020, the following can be distinguished:

- > Monitoring of the quality characteristics of underground water (water analysis was carried out according to the approved schedule) in the area of industrial sites, ash dumps and quarries of CHP-3, CHP-2, ECHP.
- > Repair of pipelines, shut-off and control valves of technical and household water of CHP-3, CHP-2, ECHP.
- > Reconstruction of ECHP water supply system using a 6,000 m³ potable water supply tank as a process water supply tank.
- > Replacement and repair of pipelines, shutoff valves of process, service and drinking water.

EFFICIENT INDUSTRIAL WASTES MANAGEMENT

The main type of waste generated by PAVLODARENERGO JSC is ash and slag. They represent 99 % of the total amount of waste and are stored at specially equipped hydraulic engineering facilities – ash dumps. Compliance with the environmental legislation of the Republic of Kazakhstan when creating a new container for storing ash and slag waste allows to prevent environmental pollution with ash and slag waste from production and ensure stable operation of the CHP. Other types of industrial waste are transferred for further processing, recycling or final disposal to specialised organisations operating in the Republic of Kazakhstan. The most significant action aimed at soil protection from production and consumption wastes is compliance with the temporary waste storage regulations and disposal methods.

In 2020, the total volume of waste generation at the enterprises of PAVC amounted to 1,594.557 thousand tons, of which ash and slag waste – 1,589.852 thousand tons, industrial and municipal – 4.7050 thousand tons. An increase in the volume of ash and slag waste generation in 2020, compared to 2019, by 148.518 thousand tons is due to an increase in coal fuel consumption by 208.161 thousand tons. A decrease in industrial and municipal waste transferred to third-party organisations for disposal or secondary use by 1.465 thousand tons in 2020, compared to 2019, is due to a decrease in the volume of waste generation at PAVLODARENERGO JSC.

The most significant waste management measures implemented in 2020 are aimed at improving the industrial and environmental safety of ash and slag dumps and other waste disposal facilities:

- > Construction of dams of the 1st section of the ash dump of CHP-3 at PAVLODARENERGO JSC.
- > Construction of phase 3 of the ash dump of the ECHP at PAVLODARENERGO JSC.
- > Construction of phase 2 of the ash dump of Ekibastuz CHP at Ekibastuzteploenergo LLP.
- > Organisation of storage sites for waste generated during the reconstruction and construction of energy facilities (equipment of sites, arrangement of containers).

It is worth noting that during the construction of new ash dump maps, the latest technology of an anti-filtration screen in the ash dump bed – the Canadian polysynthetic geomembrane was used. The use of geomembrane film allows achieving 100 % waterproofing. This is a reliable and durable anti-filtration screen that protects soils and underground water from contamination by chemical components contained in the clarified water of the reverse hydraulic ash transport system.

Total mass of waste generation, thousand tons

Indicator	2016	2017	2018	2019	2020
Ash and slag	1,465.965	1,513.489	1,465.150	1,440.676	1,589.852
Other types of waste	5.778	4.754	6.596	4.471	4.705

Waste by hazard level, thousand tons

Indicator	2016	2017	2018	2019	2020
Waste generated	1,471.743	1,518.243	1,471.746	1,445.147	1,594.557
“green” list	1,471.333	1,517.901	1,471.338	1,444.945	1,594.448
“amber” list	0.410	0.342	0.408	0.202	0.109

Waste by methods of handling, thousand tons

Indicator	2016	2017	2018	2019	2020
Waste generated	1,471.743	1,518.243	1,471.746	1,445.147	1,594.557
Including ash and slag waste	1,465.965	1,513.489	1,465.150	1,440.676	1,589.852
Waste management at the enterprise	0.443	0.409	0.423	0.285	0.150
Neutralised waste	-	-	0	0	0.0000125
Transferred waste to third-party organisations	5.278	4.340	6.096	4.186	4.3250
Waste is placed at the company's own facilities	1,465.965	1,513.489	1,465.150	1,440.676	1,589.852
Including ash and slag waste	1,465.965	1,513.489	1,465.150	1,440.676	1,589.852



ENVIRONMENTAL MANAGEMENT SYSTEM

PAVLODARENERGO JSC was one of the first in Kazakhstan to receive a certificate for compliance with international environmental standards of ISO 14001 series.

The presence of an environmental management system developed, successfully functioning and certified for compliance with the ISO 14001 series standards is the most important indicator of systematic, effective work in the area of environmental management, contributing to the growth of the enterprise's competitiveness, increasing the market value of shares, forming a positive image in relations with external stakeholders.

In 2020, certification authority (TÜV Rheinland Kazakhstan LLP) conducted the second supervisory audit for compliance with the requirements of international standards ISO 9001:2015, ISO 14001:2015, ISO 50001:2011, ISO 45001:2018 in PAVLODARENERGO JSC.

Pavlodar Heat Networks is certified to meet the requirements of international standards ISO 14001 (environmental management system), ISO 9001 (quality management system), ISO 45001 (occupational health and safety management system). In 2021, recertification was successfully completed. Transition to ISO 45001 was made.

Certification authority (TÜV Rheinland Kazakhstan) conducted the first supervisory audit for compliance with the requirements of ISO 50001:2011 and the second supervisory audit for compliance with the requirements of ISO 14001:2015, ISO 9001:2015, OHSAS 18001:2007 in PEDC JSC.

At the end of the audits, the validity of the following certificates was confirmed:

- > Certificate for the quality management system ISO 9001:2015, reg. No. 01 100 1319426, valid from 29 May 2018 to 28 June 2021.
- > Certificate for the environmental management system ISO 14001:2015, reg. No. 01 104 1319426, valid from 20 June 2018 to 21 June 2021.
- > Certificate for the occupational health and safety management system OHSAS 18001:2007, reg. No. OC-4870-0024, valid from 29 May 2018 to 28 June 2021.
- > Certificate for the energy management system reg. No. 01-407-1319426, valid from 3 June 2019 to 20 August 2021.

In the reporting period, Ekibastuzteploenergo LLP was certified for compliance with ISO 9001:2015 (quality management system), ISO 14001:2015 (environmental management system), ISO 45001:2018 (occupational health and safety management system), ISO 50001:2011 (energy management system).

PUBLIC ASSESSMENT OF ENVIRONMENTAL PROTECTION ACTIVITIES

In order to comply with the environmental requirements of the Republic of Kazakhstan, in 2020, PAVLODARENERGO JSC held two public hearings with representatives of local executive bodies and the public: local subdivisions of the authorised body in the area of environmental protection of Pavlodar Region Environmental Department of the Environmental Regulation and Supervision Committee of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan and the Directorate for Subsoil Use, Environment and Water Resources of Pavlodar region to review the following environmental projects:

- > EIA project “Expansion of CHP-3 of PAVLODARENERGO JSC with the installation of boiler units of station No. 7, station No. 8, turbine unit of station No. 7» of PAVLODARENERGO JSC (7 February 2020).
- > EIA project «Construction of the TM-31 heating pipe from TK-839 to TK-227 in Pavlodar» (26 February 2020).

The primary objective of these public hearings is to determine the impact assessment on the environment during implementation of the above projects, the assessment of possible environmental consequences and socio-economic environment, the development of standards environmental emissions when carrying out works on reconstruction and construction. The sources of environmental impact, the volume of emissions of pollutants during the works, and the volume of production waste generation were considered in detail.

Placement of announcements in the media about holding of public hearings was carried out by placing advertisements in the state and Russian languages in the newspapers Zvezda Priirtyshya and Saryarka Samaly, as well as on the Internet resources of the Directorate for Subsoil Use, Environment and Water Resources of Pavlodar region.

PLANS FOR 2021

Conducting public hearings on working projects provided for by the investment programs of PAVLODARENERGO JSC for 2021.

HUMAN RESOURCES AND SOCIAL POLICY

PERSONNEL MANAGEMENT POLICY

The Personnel Management Policy of PAVLODARENERGO group of companies (the Company) is an integrated system of interaction with employees to ensure and achieve the Company's strategic goals.

The purpose of the personnel management policy is to create a company with an effective corporate governance system that provides opportunities for realising the potential of employees. The Company strengthens its personnel management policy by attracting professional employees of various levels, retaining of highly professional employees, continuous professional training and staff development, providing opportunities for professional growth of proactive young employees, creating an employee pool and talent management.

STRUCTURE AND HEADCOUNT

The list number of employees of the Company as at 31 December 2020 was 4,879 people, which is 0.8 % less than in 2019 and is due to suspension of staff recruitment due to restrictive quarantine measures (COVID-19 pandemic).

In comparison with 2018, the number of employees decreased by 4.7 % due to implementation of measures in 2019 to optimise the number of enterprises and increase turnover.

Dynamics of changes in headcount, persons



Distribution of the headcount by enterprises of PAVLODARENERGO group at the end of 2020

Company name	Number of employees
PAVLODARENERGO JSC	1,424
PEDC JSC	1,882
Pavlodar Heat Networks LLP	419
Pavlodarenergosbyt LLP	455
Ekibastuzteploenergo LLP	699
Total:	4,879

STAFF STRUCTURE BY CATEGORY AND GENDER

The structure of the Company's personnel, due to the peculiarities of its activities, is characterised by a high proportion of male employees, i.e. 59.7 %. The production personnel mainly consist of the Workers category, where men make up 70.1 %.

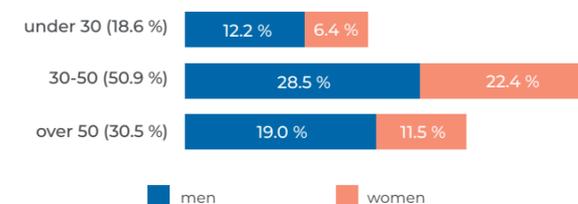
Personnel category	Total		of them:			
			men		women	
	persons	%	persons	%	persons	%
Headcount, of which:	4,879	100	2,912	59.7	1,967	40.3
- Management	751	15.4	553	73.6	198	26.4
- Professional employees/white collar employees	1,291	26.5	369	28.6	922	71.4
- Blue collar employees	2,837	58.1	1,990	70.1	847	29.9

PERSONNEL STRUCTURE BY AGE

At the end of 2020, the main share of the staff comprised of the most experienced employees aged 30 to 50 years (50.9 %). Young professionals under 30 make up 18.6 %, which is 1.1 % less than in 2019. The share of employees over 50 increased by 0.6 % compared to 2019 and is 30.5 %. Taking into account these indicators, the Company carries out activities aimed at attracting young specialists and developing mentoring to ensure continuity and transfer of professional knowledge and skills, and gradual rejuvenation of personnel to achieve an optimal combination of young proactive workers and experienced, highly professional employees.

The average age of employees in the group of companies is 41.8.

Age composition of employees



THE TOTAL NUMBER OF EMPLOYEES BY TYPE OF EMPLOYMENT AND GENDER AT THE END OF 2020

At the end of 2020, 100 % employees of PAVLODARENERGO group of companies had an employment agreement and full employment.

Indicator	Value (persons)	including	
		men	women
Headcount at the end of the reporting period (full-time)			
by agreement term:	4,879	2,912	1,967
Working under an agreement for an unspecified term	4,156	2,546	1,610
Working under a fixed-term agreement	723	366	357
by type of employment:	4,879	2,912	1,967
Full-time employees	4,833	2,868	1,965
Part-time employees	46	44	2
Supervised workers (part-time)	0	0	0

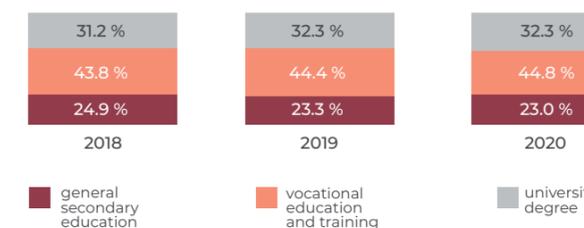
PERSONNEL STRUCTURE BY EDUCATION

In 2020, the share of employees with a university degree in the Company was at the level of 2019, and the share of employees with vocational education and training increased slightly (by 0.4 %). The share of employees with general secondary education has an annual downward trend. Taking into account these indicators, the Company conducts activities as part of PROFENERGY project to improve the level of personnel education.

Every year, about 140 employees of the group of companies study at universities and colleges, including industry-specific disciplines. In 2020, 70 employees continued their studies at institutions of higher education in intra-distance form of study, of which 45 employees are in the profile specific for the enterprise; 87 employees receive vocational education and training in intra-distance form of study, of which 73 employees are in the profile specific for the enterprise. Regardless of participation in the events of PROFENERGY, enterprises of PAVLODARENERGO group provide support to students and graduates of an educational institution.

At the end of 2020, 52 employees received diplomas, including 38 employees in the profile specific for the enterprise.

Dynamics of the educational level



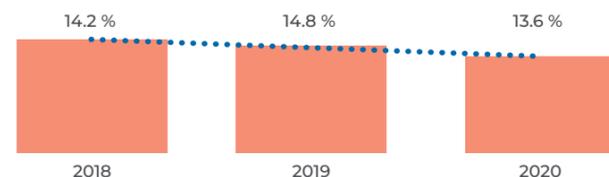
EMPLOYEES HIRED IN 2020

In 2020, 668 employees were hired, which amounted to 13.6 % of the average number of employees in the Company.

Indicator	Total		of them:			
	persons	%	men		women	
			persons	%	persons	%
Hired, of them:	668	100	394	59.0	274	41.0
- under 30	288	43.1	198	68.8	90	31.2
- from 30 to 50	277	41.5	138	49.8	139	50.2
- over 50	103	15.4	58	56.3	45	43.7

> Decrease in the turnover ratio for hiring personnel by 1.2 % compared to 2019 is due to the suspension of hiring and a decrease in the number of applicants due to restrictive quarantine measures (COVID-19 pandemic).

Hiring turnover rate



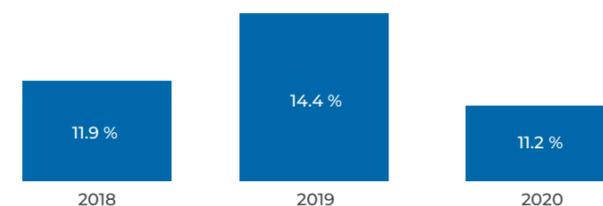
STAFF TURNOVER

At the end of 2020, the staff turnover rate in the Company decreased by 3.2 % compared to 2019. In the dynamics of past years, staff turnover increases annually. In 2020, the sanitary and epidemic situation (the COVID-19 pandemic) affected the decrease in staff turnover.

The main reasons for turnover remain:

- > Pay dissatisfaction.
- > Migration of personnel within Kazakhstan (urban/rural settlements).
- > Migration of personnel to the CIS countries (in the Russian Federation).

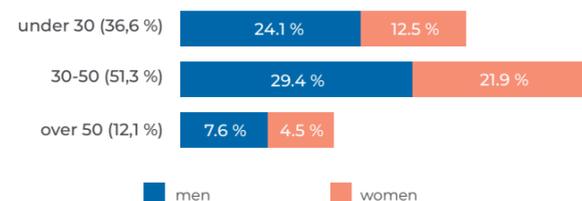
Turnover rate



NUMBER OF PEOPLE WHO LEFT AS PART OF STAFF TURNOVER IN 2020, BROKEN DOWN BY AGE IN THE CONTEXT OF MEN AND WOMEN

In 2020, employment agreements were terminated with 705 employees of the Company, which is 24.8 % less than in 2019. One of the reasons that influenced the decrease in staff resignation is the introduction of restrictive quarantine measures (COVID-19 pandemic). As part of turnover, 552 people have quit, of which the main share is among employees at the most productive in age for professional work, i.e. 30-50 (51.3 %). The share of job leavers under 30 was 36.6 %.

Number of job leavers as part of turnover



In order to reduce the turnover rate, implementation of the following activities continued in 2020:

- > Identification of the reserves of the wage fund and allocation of the released funds for increasing wages.
- > Improving mentoring processes and the support system for young professionals.
- > Training, professional development and organisation of corporate trainings at the Company's expense.
- > Improving conditions and social guarantees in accordance with collective agreement.
- > Material and non-material incentives for qualified employees.

STAFF TRAINING AND DEVELOPMENT

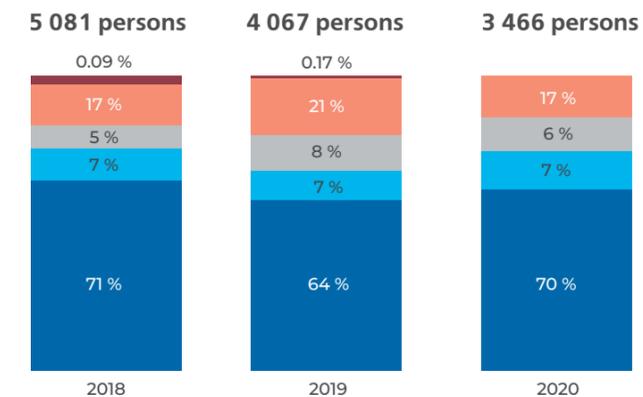
The training and development system in the Company provides for the following areas:

- > Mandatory, prescribed technical safety rules and maintenance training.
- > Versatility training.
- > Advanced training for the development of professional and managerial competencies.

In order to increase the efficiency of activities and create safe working conditions at the Company's enterprises, training is conducted in a corporate format and according to individual development plans, remote forms of training are being introduced. The group of companies practices training on corporate programs in its own training center, as well as training in third-party companies.

In 2020, 3466 people were trained, which is 71 % of the total number of employees. Including compulsory training – 2,864 production employees, which amounted to 82.6 % of the number of trained employees. The number of employees trained at the Company's in-house training center in 2020 amounted to 3319 people (95.8 % of the total number of those trained). The total number of trained employees in 2020 is 14.8 % less than in 2019 due to the established frequency of training and restrictions imposed during the quarantine period 2020

The main direction is primary and periodic technical safety rules and operating procedures training: in 2020, 2634 persons were trained. (76 % of all trained employees). In order to expand the professional profile of the Company's employees and prepare them for secondary professions, 230 employees (6.6 % of all trained employees) were trained in 2020. Professional development in the prior year was organised for 592 employees (17.1 % of the total number of trained employees).



- ISO9001, ISO14001, OHSAS1800 quality management systems training (including environmental matters, internal audit and risk management)
- Advanced training, seminars and trainings
- Occupational health and safety, civil defence and emergency situations
- Versatility training
- Rules of occupational health and safety, fire safety, maintenance

Average number of training hours per employee



The average number of hours of training per male employee is 21.8 hours, female – 6.2 hours. Training for employees of production units in accordance with their positions and professions, regulatory requirements and corporate components in training programs, features of training programs prevails in the Company.

EMPLOYEE POOL

To ensure the necessary reserve for holding managerial positions at different levels, in 2020, employee pool of senior, middle and lower management levels for 465 managers was formed in PAVLODARENERGO JSC group of companies. Development of employee pool is carried out on the basis of individual programs of professional and organisational and managerial training of succession



candidates, including training, also in the in-house training center, advanced training, internship, mentoring, performing managerial functions, temporary relocation of an employee.

During 2020, 61 people from among the employees who are in the employee pool were transferred to senior positions.

Every year, work is carried out to form an external employee pool, including from among graduates of educational institutions. PAVLODARENERGO JSC group of companies employs 331 young specialists with a specialised education for the company, which is 6.8 % of the total number. In 2020, 81 young workers were hired, including 65 people in leading positions and professions. At that, the share of persons hired with vocational education and training is 51.9 %, with university degree – 48.1 %.

ATTRACTING OF YOUNG SPECIALISTS AND STAFF DEVELOPMENT

Since 2016, the PROFENERGY project has been implemented in PAVLODARENERGO JSC group of companies to support young specialists and improve the educational level of staff. The program is aimed at attracting graduates of specialised educational institutions to key / crucial professions, promotion of energy professions, staff development and improvement of the educational level of personnel, retention of key employees.

Currently, the company cooperates with 6 educational institutions of Pavlodar and Ekibastuz. Regular work is carried out to inform students about the contents and conditions of the Program, meetings with students and tours to production facilities are held, employees of enterprises participate in the examination boards and the state attestation commission for final exams and the defence of graduation works.

During implementation of the Program, more than 1,200 students took part in the events, including:

- > 38 students were employed during the summer holidays.
- > 27 students undertook a paid internship and signed an agreement on further employment at the Company's enterprises after getting a degree.
- > 1,196 students completed unpaid industrial placement and pre-graduation internship.
- > Based on the results of the competition of scientific papers, 10 students were awarded a nominal corporate scholarship.

More than 300 employees took advantage of the available opportunity in the period from 2016 to 2020 in the Program's activities aimed at encouraging young employees to receive specialised education:

- > 215 employees were granted paid study leave

- > 27 employees were provided with an interest-free loan to pay for training.

- > 59 employees were paid bonuses for successful completion of educational institutions.

As part of PROFENERGY project, a mentoring project is being developed. The purpose of the project is to transfer professional knowledge and skills to students, as well as fast and effective adaptation of young specialists. Over five years, a pool of mentors has been formed from among highly qualified employees of enterprises. More than 80 employees are appointed as mentors every year.

MOTIVATION AND REMUNERATION OF PERSONNEL

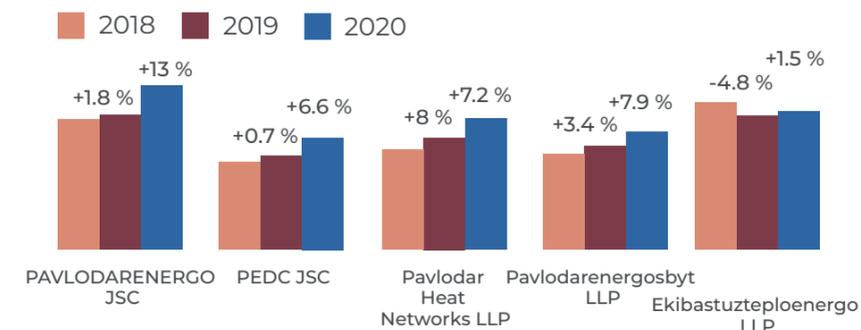
PAVLODARENERGO group of companies has a unified system of remuneration and incentives for employees. The salary level is set in accordance with the unified tariff grid, which is a grading system of remuneration for all categories of employees, regardless of their gender identity.

Incentives and remuneration in the Company are aimed at improving the efficiency and effectiveness of each employee's work. Every year, the enterprises of PAVLODARENERGO JSC make a differentiated increase in wages within the approved budgets and tariff estimates, taking into account the importance and significance of the personnel and the contribution to the results of work. The performance of all employees of PAVLODARENERGO group of companies is assessed on a monthly basis.

In 2020, the salary increase was differentiated for all categories of personnel. As a result, the level of average income for PAVLODARENERGO JSC group of companies in 2020 increased by 8.4 % compared to 2019.



GROWTH RATE OF AVERAGE INCOME IN THE CONTEXT OF PAVLODARENERGO JSC ENTERPRISES



INTANGIBLE INCENTIVES

To increase motivation for efficient performance and incentivise employees, every year the Company grants awards, certificates of merit and honorary titles to its employees for achieving high production results with announcement in corporate media.

At year-end 2020, 133 employees and long-service employees of PAVLODARENERGO JSC group of companies were awarded for efficient performance: 48 employees were granted corporate awards of the enterprise and CAEPCO JSC; 85 employees were granted awards from the state, departmental, industry and local executive bodies. On the occasion of the celebration of the 100th anniversary of the State Commission for Electrification of Russia (GOELRO), 30 employees were awarded with memorial badges.

EMPLOYEE-MANAGEMENT RELATIONS

In relations with employees, the Company complies with the requirements of labour legislation and the Code of Business Ethics.

The minimum period for notifying employees of significant changes in the Company's activities is made in accordance with the legislation of the Republic of Kazakhstan and in accordance with internal regulatory documents.

The minimum period for notifying employees upon termination of employment relations due to a reduction in force is one month in accordance with the Labour Code of the Republic of Kazakhstan.

Labour disputes at the enterprises of PAVLODARENERGO group of companies are resolved in accordance with the current legislation, as well as within the framework of Collective Agreement and the provisions on the grievance committee for individual labour disputes with the participation of representatives of the employer and employee. The procedure for applying and receiving feedback on labour disputes is determined by the internal regulatory document of the Company which is presented to employees during employment.

The composition of the grievance committee is approved by the organisational and administrative document for enterprises. In the event of a labour dispute, before applying to the grievance committee, an employee has the right to apply:

- 1) To the head of the human resources department.
- 2) To the chairman of the trade union/employee representative.
- 3) To the chief executive officer of the enterprise.

In 2020, three cases of applying to the grievance committee for the settlement of a labour dispute were established, which were not satisfied in favour of employees. Of these, two cases were reviewed in court: one in favour of the employee, and another in favour of the employer. In the third case, the employee accepted a decision of the grievance committee. Discrimination of employees on any basis and cases of violation of the rights of employees were not revealed.





INTERACTION WITH TRADE UNIONS

The company operates within the framework of the labour legislation of the Republic of Kazakhstan and the basis for implementation of social policy is represented by a single collective agreement concluded for 2020-2025. The principles of the collective agreement are represented by economic feasibility, sufficiency, joint responsibility and transparency.

The collective agreement provides for social benefits and guarantees for all employees and their families, regardless of membership in a trade union.

Interaction with trade unions of PAVLODARENERGO group of companies:

- > Control over the fulfilment of the terms of the collective agreement.

- > Regulation of the working schedule and rest time in accordance with the employment agreement, internal labour regulations and other regulatory acts of the employer.

- > Remuneration of employees in accordance with the Regulation on the unified remuneration system and other local regulations on remuneration.

- > Work in the grievance committee.

- > Participation in the work of committees conducting comprehensive surveys of occupational health and safety, workplace certification.

- > Working with the Veterans' Council.

- > Making proposals on the required measures for industrial sanitation based on the wishes of employees.

Name	2018	2019	2020
Number of employees participating in a trade union, persons	2,869	2,574	2,278
Share of the total headcount, %	56.2	52.4	46.7

During 2018-2020, there has been a decrease in the share of employees who are in a trade union, which is due to the influence of global processes of individualisation of social and labour relations on the role of the trade union, which results in a decrease in the level of membership in the trade union.

SOCIAL SUPPORT, GUARANTEES AND COMPENSATORY PAYMENTS

The social policy of PAVLODARENERGO group of companies is determined jointly with employees and their representatives – trade unions – and is provided at the expense of the financial capabilities of the group's enterprises.

Objectives	Social package
Incentives for personnel for long-term work	Additional professional pension contributions in the amount of 5 % Award for professional competitions Remuneration on the occasion of anniversaries and holidays
Effective compensation and preferential system	Compensation of a portion of the cost of vouchers to camps for children under 14 New Year's gifts for children of employees Motor transport services for transportation of workers to and from work
Supporting fitness for work and health of the staff	Insurance against accidents and diseases at work Mandatory medical insurance Conducting periodic medical check-ups Reimbursement of costs for health resort preventive treatment
Social support for employees	Financial aid for the birth of a child Financial aid for funeral services Paid educational leave Retirement benefits Additional paid leave for the first marriage of employees and the funeral of close relatives
Sports and recreational activities	Reimbursement of expenses for meals to participants of sports Competitions Reimbursement of expenses for holding cultural events and collective recreation

Social assistance due to maternity or paternity

Company name	Number of employees who have issued maternity leave/childcare leave during a year			Number of employees on maternity leave/childcare leave at the year-end	Number of employees who returned from maternity leave/childcare leave during the year
	women	men	total		
PAVLODARENERGO JSC	27	0	27	64	16
PEDC JSC	43	0	43	66	37
Pavlodar Heat Networks LLP	4	0	4	14	2
Pavlodarenergosbyt LLP	16	0	16	33	7
Ekibastuzteploenergo LLP	10	0	10	35	11
Total:	100	0	100	212	73

Funds are allocated to the PAVLODARENERGO Veterans' Council to ensure social work with the retired. Every year, the veterans of the Great Patriotic War and persons of equivalent status are honoured with the provision of financial assistance on Victory Day. Non-working pensioners of the enterprise get financial aid, social welfare at home, enjoy special events organised for notional memorable dates, get health-promoting tours to

Energetik health care center and holiday trips to Energetik Recreation Center.

Ahead of the school year, children of employees of PAVLODARENERGO group of companies get financial aid from the trade union to prepare for school. Financial aid is provided to large families and those with disabled children under 18.

PLANS FOR 2021

In 2021, implementation of the personnel management policy aimed at attracting and developing the professional staff of the Company will continue. As part of this direction, it is planned:

- > Further development of PROFENERGY project in the following areas:
 - A system for supporting young professionals and improving the educational level of personnel
 - Development of the mentoring practice
 - Key personnel development program
 - Crucial professions program
- > Improvement of key performance indicators for achieving the strategic and operational goals of the Company.
- > Implementation of programs to improve the living conditions of employees of key and crucial professions.
- > Further automation of HR processes related to staff development: adaptation, evaluation, training, etc.
- > Implementation of ENBEKENERGY project to attract personnel from the manpower-surplus regions of the Republic of Kazakhstan and labour management at the enterprises of PAVLODARENERGO group.
- > Improvement of the system of corporate training, training and retraining of personnel amid shortage of the labour market, improvement of qualitative indicators of training, introduction of a system for monitoring the effectiveness of training results.

CORPORATE EVENTS

Events within the Mentors project on work and support for children from orphanages were held at the Energetik Recreation Center in the Michurino village at the end of January 2020.

The February winter fishing competitions among employees of PAVLODARENERGO group of companies were held in the regional center.

All necessary measures to prevent the spread of COVID-19 are regularly carried out at the enterprises of PAVLODARENERGO group of companies, including treatment and disinfection of premises and workplaces, provision of personal protective equipment (masks, gloves) to personnel, installation of sanitizers, purchase and use of non-contact thermometers and terminals for measuring body temperature. Also, as part of the recommendations contained in the resolutions of the chief sanitary doctor of Pavlodar region, certain employees were given the opportunity to work remotely.

PAVLODARENERGO JSC held events dedicated to the World Day for Safety and Health at Work. The held events include the children's crafts contest Labour Protection Through the Eyes of a Child, the annual celebration of

the best employees in the area of labour protection held online.

More than 50 participants of grievance committees of PAVLODARENERGO enterprises received training organised by the local association of trade unions of Pavlodar region.

PAVLODARENERGO JSC organised a contest of works and crafts on waste recycling among the workshops of CHP-2 and CHP-3 of PAVLODARENERGO JSC on the topic: New Lease on Life for Waste for the World Environment Day.

In PAVLODARENERGO, a traditional competition Best in Profession was held among the employees of the group of companies. Electric welders of manual welding competed for the title of the winner demonstrating their skills and knowledge when performing theoretical and hands-on tasks.

On 22 December, on the professional holiday of power engineers, the management of enterprises of PAVLODARENERGO group of companies honoured the best employees. In addition to internal awards, the distinguished employees received awards signed by the Kazakhstan Electric Power Association, the akim of Pavlodar region, CAEPCO JSC, as well as commemorative award pins for the 100th anniversary of the state electrification plan in Russia.

OCCUPATIONAL HEALTH AND SAFETY

STRATEGIC GOALS IN OCCUPATIONAL HEALTH AND SAFETY AND CARRIED OUT ACTIVITIES

The main strategic goal of PAVLODARENERGO group of companies in occupational health and safety is to reduce the indicators of occupational injuries (occupational diseases) through preventive measures, creating safe working conditions and introducing best practices in occupational health and safety.

In 2020, occupational health and safety department implemented the following activities for PAVLODARENERGO JSC group of companies:

- > In order to improve the labour discipline and responsibility of the production personnel of PEDC JSC, who are involved in routine switching, preparation of workplaces, installation/removal of earthing at workplaces, etc., the personnel of PEDC JSC use 11 video recorders.

- > According to the schedules of capital and current repairs, the maintenance sites, protective fences have been brought into compliance with the requirements of the occupational health and safety, and ash sluiceways have been closed.

- > Due to the pandemic of coronavirus infection, devices (thermal imagers) for monitoring the body temperature of employees (visitors) are installed at the entrance at Pavlodar CHP-2 and CHP-3, Ekibastuz CHP, service points and public service centers of Pavlodarenergosby LLP.

- > In order to prevent the spread of infection among employees of PAVLODARENERGO JSC and contractors, protective masks, protective gloves, antiseptics and thermometers were purchased and handed out, logs were registered for recording the daily body temperature (every shift) of employees, relevant orders and instructions were issued.

- > To practice the skills of first aid, a simulator was purchased for the OHS department training class.

- > Certification was carried out on the working conditions of production facilities in the structural units of the group of companies.

- > OHS department in cooperation with the contractor conducted a sanitary and epidemiological audit in the structural units of PAVLODARENERGO JSC for compliance with the requirements of the relevant standards.

- > In order to improve the professional level of skill, competitions were organised among the operation and maintenance personnel of the City First Wind-Power

Station of PEDC JSC in order to increase the reliability and safety of maintenance of electrical installations and reduce the level of injuries due to erroneous actions of personnel.

PAVLODARENERGO JSC group of companies has implemented unchanged standards for occupational health and safety of CAEPCO JSC: guidelines on safety measures when performing work in confined spaces, rules for interaction with contractors in occupational health and safety and ecology, rules for conducting mutual audits on occupational health and safety and ecology, regulations for monitoring the state of occupational health and safety, methodology for drawing up an annual work plan with personnel in occupational health and safety.

The OHS Department has developed regulations on organisation of personnel incentives for Ekibastuzteploenergo LLP; regulations on the production council for occupational health and safety councils of PAVLODARENERGO JSC, regulations on the technical inspector for occupational health and safety councils in PAVLODARENERGO JSC have been developed and put into effect. The program of production control in PAVLODARENERGO JSC has been revised.

In 2020, events dedicated to the World Day for Safety and Health at Work were held online, including:

- > drafting and production of additional information stands on occupational health and safety for each enterprise.

- > Children's creativity contest on the topic Just Safety (videos dedicated to occupational health and safety). All participants received memorable gifts and certificates.

- > Awarding of the best employees in PAVLODARENERGO JSC group of companies in occupational health and safety.

- > Ekibastuzteploenergo LLP held OHS family day, as well as a children's drawing contest on the topic My Parents Work Safely.

During the reporting period, at the enterprises of PAVLODARENERGO group of companies, the personnel of OHS department of PAVLODARENERGO JSC, OHS services of PEDC JSC, Pavlodar Heat Networks LLP, Pavlodarenergosby LLP, OHS department of Ekibastuzteploenergo LLP conducted 541 inspections on compliance with occupational health and safety measures. The activities of contractors involved in the production facilities of PAVLODARENERGO group of companies are monitored by specialists of PAVLODARENERGO group of companies, inspections, briefings for the personnel of contractors, meetings and trainings on OHS are carried out.

TECHNICAL INSPECTORS

PAVLODARENERGO JSC group of companies employs technical labour protection inspectors who interact with the heads of departments, OHS department/service, the operation inspection, the inspection for supervision of industrial safety facilities, as well as with state labour inspectors, state supervision and control.

The main functions of technical labour protection inspectors are as follows:

- > Protection of the rights and interests of employees.
- > Participation in the development and submission of proposals to the Labour Protection section of the collective agreement, as well as in comprehensive target programs and plans of priority measures to improve labour protection.
- > Monitoring compliance with labour protection requirements at workplaces.
- > Representation of the interests of trade union members in state, public organisations, courts of various instances when reviewing labour disputes related to the application of the Labour Code in terms of labour protection.

OCCUPATIONAL HEALTH AND SAFETY TIPS

PAVLODARENERGO JSC group of companies has established occupational health and safety councils. The Council is headed by a chairman from among the employees of the enterprise. The council consists of representatives of the employer, representatives of the trade union organisation, including technical labour inspectors.

Occupational health and safety council performs the following functions:

- > Studies the causes of occupational injuries and occupational diseases, analyses the efficiency of measures taken on labour conditions and safety, information and analytical materials on the actual state of labour protection in the organisation.
- > Analyses the results of certification of workplaces according to working conditions, participates in the preparation of structural units and the Company as a whole to bring permanent workplaces at production facilities in accordance with the requirements of labour protection.

- > Considers proposals for elimination of identified violations in occupational health and safety, creation of safe working conditions in the organisation, development of programs, recommendations, solutions aimed at preserving the life and health of employees in the course of their work.

- > Provides assistance in conducting timely and high-quality instruction of employees on occupational health and safety, as well as knowledge checks in occupational health and safety, regular training and improving the knowledge of employees, trade union activists and employees on legislation in the area of labour protection.

- > Makes proposals for introduction of more advanced technologies and new equipment into production in order to create safe working conditions, eliminate heavy physical work.

- > Informs the employees of the organisation about the measures taken to improve working conditions and occupational safety, prevent occupational injuries, occupational diseases, about the current standards for providing certified special clothing, special shoes and other personal protective equipment, about the correctness of their application.

- > Participates in reviewing of issues related to financing of labour protection measures in the Company, mandatory social insurance against industrial accidents and occupational diseases; monitoring the expenditure of the Company's funds aimed at improving labour protection conditions.

In order to create safe working conditions, systematic information and explanatory work is carried out, equipment inspection is carried out, advanced technologies are introduced, as well as measures for the safe production of work are implemented.

TYPES AND LEVEL OF OCCUPATIONAL INJURIES

In 2020, two cases of injuries with a severe outcome were committed in PAVLODARENERGO JSC group of enterprises (Ekibastuzteploenergo LLP and Energetik Health Care Center LLP). No fatal accidents have been recorded.

Classification of accidents by type of accidents in 2020:

- > The fall from a height of the injured person.
- > The fall of the injured person.

The causes of accidents were:

- > Unsatisfactory organisation of work.
- > Gross negligence of the injured person.

- > Shortcomings in teaching safe working methods.
- > Violation of the rules, instructions on occupational health and safety.

A set of measures was carried out for each accident:

- > A detailed investigation to identify the root and systemic causes and prevent the recurrence of such incidents.

The level of occupational injuries

	2018	2019	2020
List number of personnel	5,108	5,027	4,890
Number of traumatic cases	2	4	2
Number of injured persons	2	4	2
Number of fatal cases	0	0	0



PLANS FOR 2021

- > Improvement of sanitary standards for employees of Ekibastuzteploenergo LLP – repair of the roof of KVTK building rows B-C.
- > Development of the Regulation on interaction of vehicles and pedestrians at production sites and facilities of Ekibastuzteploenergo LLP.
- > Equipping with the necessary equipment and promotional materials on OHS of the OHS department training class (CHP-3).
- > Continuing work on the gradual bringing of electrical equipment into compliance with the OHS requirements at CHP-2, CHP-3.
- > Development and implementation of regulations on monitoring the state of occupational health and safety and regulations on interaction with contractors in occupational health and safety in the structural units of PAVLODARENERGO JSC.
- > Development and implementation of the Regulation on organisation of activities of working groups on certification of workplaces (Quick Wins) in Ekibastuzteploenergo LLP.
- > Development and implementation of the Regulation on individual responsibility of employees in Ekibastuzteploenergo LLP.
- > Purchase of suits for protection from electric arc for employees of Ekibastuzteploenergo LLP.
- > Trial purchase of individual gas analysers for air measurements for gas evidence in the heat chamber (Pavlodar Heat Networks LLP).

Continuing of implementation of the following activities:

- > Certification/securing of workplaces (Quick Wins).
- > Notification by sending letters to the families of employees who have committed violations of occupational health and safety requirements.
- > Implementation of Signal Sheets.



SOCIAL PARTNERSHIP

PAVLODARENERGO JSC implements a social policy aimed at supporting the population of Pavlodar region.

In March 2020, PAVLODARENERGO immediately responded to the call of Elbasy Nursultan Nazarbayev in the fight against COVID - 19 and handed over 60 tons of products produced at the Kaustik plant of the CAPEC JSC holding to the akimat of Pavlodar at no cost for use in disinfection of public places.

The company also organised two new provisional centers were organised: in Energetik Health Care Center for 60 beds and in the building of the recreation center in Michurino village with a total capacity of up to 140 beds. The premises were completely re-equipped for medical needs in accordance with sanitary and epidemiological requirements, specialised equipment was purchased, including devices for artificial lung ventilation and computerised tomography. In the free premises of the Energetik Health Care Center, accommodation was provided for almost 70 medical workers of Pavlodar, who conducted medical supervision of isolated patients and those who came into contact with infected persons.

A significant area of charitable activity is organisation of assistance to the Company's long-service employees. Allocation of funds to the Veterans' Council of PAVLODARENERGO is stipulated by the collective agreement for social work with the retired. Every year, veterans of the Great Patriotic War, Afghan soldiers, participants in elimination of consequences of the Chernobyl accident and home front workers are granted financial aid for the Victory Day. The company provides financial aid to retirees of the enterprise, organises festive dinners in honour of Victory Day, the Day of the Elderly, the Day of the Power Engineer.

Retirees living in detached house suburbs are provided with free coal. The company provides financial aid to retirees in the form of food packages. Social welfare is being conducted for sick veterans at home. Trips to Energetik Recreation Center are organised four times a year for veterans.

In 2020, PAVLODARENERGO JSC typically took part in the republican campaign Road to School under the motto Territory of a Happy Childhood. The company annually provides targeted assistance to orphaned children.



FINANCIAL STATEMENTS

PAVLODARENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES
**STATEMENT OF MANAGEMENT'S RESPONSIBILITIES
 FOR THE PREPARATION AND APPROVAL OF THE CONSOLIDATED FINANCIAL STATEMENTS
 FOR THE YEAR ENDED 31 DECEMBER 2020**

Management is responsible for the preparation of consolidated financial statements that present fairly the consolidated financial position of PAVLODARENERGO Joint Stock Company (the "Company") and its subsidiaries (the "Group") as at 31 December 2020, the consolidated results of its operations, changes in equity and cash flows for the year then ended, in compliance with International Financial Reporting Standards ("IFRS").

In preparing the consolidated financial statements, management is responsible for:

- properly selecting and applying accounting policies;
- presenting information, including accounting policies, in a manner that is relevant, reliable, comparable and understandable;
- providing additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the Group's consolidated financial position and financial performance; and
- making an assessment of the Group's ability to continue as a going concern in the foreseeable future.

Management is also responsible for:

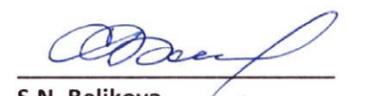
- designing, implementing and maintaining an effective and sound system of internal controls, throughout the Group;
- maintaining adequate accounting records that are sufficient to show and explain the Group's transactions and disclose with reasonable accuracy at any time the consolidated financial position of the Group, and which enable them to ensure that the consolidated financial statements of the Group comply with IFRS;
- maintaining accounting records in compliance with legislation of the Republic of Kazakhstan and IFRS;
- taking such steps as are reasonably available to them to safeguard the assets of the Group; and
- preventing and detecting fraud and other irregularities.

The consolidated financial statements of the Group for the year ended 31 December 2020 were approved by management on 2 September 2021.

On behalf of management of the Group:



O.V. Perfilov
 General Director
 2 September 2021
 Pavlodar, Republic of Kazakhstan

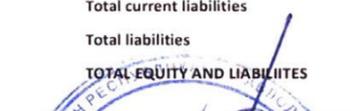


S.N. Belikova
 Chief Accountant
 2 September 2021
 Pavlodar, Republic of Kazakhstan

PAVLODARENERGO JOINT STOCK COMPANY AND ITS SUBSIDIARIES
**CONSOLIDATED STATEMENT OF FINANCIAL POSITION
 FOR THE YEAR ENDED 31 DECEMBER 2020
 (thousands of tenge)**

	Notes	31 December 2020	31 December 2019
ASSETS			
NON-CURRENT ASSETS:			
Property, plant and equipment	6	130,309,651	129,376,058
Investment in associates	7	47,999,737	-
Goodwill	8	1,405,202	1,405,202
Intangible assets	9	404,300	459,769
Advances paid	10	773,648	1,231,003
Other financial assets		40,601	40,601
Deferred tax assets	36	-	220,345
Other non-current assets	12	1,244,550	1,243,927
Total non-current assets		182,177,689	133,976,905
CURRENT ASSETS:			
Inventories	13	2,747,905	2,379,898
Trade accounts receivable	14	8,204,032	5,035,358
Advances paid	10	112,130	224,354
Income tax prepaid		262,137	483,014
Loans issued	11	6,463,386	3,105,030
Other current assets	12	754,109	649,807
Other financial assets		88,860	256,314
Cash	15	365,901	426,209
Total current assets		18,998,460	12,559,984
TOTAL ASSETS		201,176,149	146,536,889
EQUITY AND LIABILITIES			
EQUITY:			
Share capital	16	16,663,996	16,663,996
Additional paid-in capital	17	1,188,176	1,188,176
Reserve for the revaluation of property, plant and equipment		19,732,400	20,824,497
Retained earnings		18,548,177	28,475,051
Total equity		56,132,749	67,151,720
NON-CURRENT LIABILITIES:			
Long-term borrowings	18	52,145,766	-
Bonds issued	21	1,598,798	1,537,163
Deferred income	20	3,491,727	3,937,793
Deferred tax liabilities	36	18,716,469	18,720,200
Ash dump restoration liabilities	22	1,716,605	878,279
Employee benefit obligations		64,715	62,219
Lease liabilities	23	938,978	1,068,972
Other non-current liabilities	26	26,240	27,520
Total non-current liabilities		78,699,298	26,232,146
CURRENT LIABILITIES:			
Current portion of bonds issued	21	49,450	39,560
Short-term borrowings and current portion of long-term borrowings	18	44,368,718	40,200,964
Financial guarantees	19	828,830	833,037
Current portion of employee benefit obligations		8,792	9,548
Trade accounts payable	24	16,522,062	7,825,871
Advances received – liabilities on contracts with customers	25	1,288,044	992,859
Current ash dump restoration liabilities	22	1,061,915	927,879
Lease liabilities	23	232,687	275,071
Other current liabilities and accrued expenses	26	1,983,604	2,048,234
Total current liabilities		66,344,102	53,153,023
Total liabilities		145,043,400	79,385,169
TOTAL EQUITY AND LIABILITIES		201,176,149	146,536,889

Signed on behalf of management of the Group:



O.V. Perfilov
 General Director
 2 September 2021
 Pavlodar, Republic of Kazakhstan



S.N. Belikova
 Chief Accountant
 2 September 2021
 Pavlodar, Republic of Kazakhstan

The notes on pages 11-70 are an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
 FOR THE YEAR ENDED 31 DECEMBER 2020
 (thousands of tenge)**

	Notes	2020	2019
Revenue	27	53,628,130	48,202,301
Cost	28	(45,956,078)	(40,865,616)
GROSS PROFIT		7,672,052	7,336,685
General and administrative expenses	29	(4,539,434)	(3,519,473)
Selling expenses	30	(830,070)	(768,443)
Finance costs	31	(5,774,742)	(4,140,731)
Finance income	32	942,364	498,809
Foreign exchange rate gain/(loss), net	33	499,714	(40,587)
Net losses from the impairment of financial assets and assets on contracts with customers	34	(682,256)	(1,107,010)
Other expenses	35	(469,955)	(1,321,690)
Other income	35	1,392,019	1,298,118
Share in the financial performance of associates	8	64,297	-
Loss before taxation		(1,726,011)	(1,764,322)
Income tax expenses	36	(926,807)	(558,769)
LOSS FOR THE YEAR		(2,652,818)	(2,323,091)
OTHER COMPREHENSIVE LOSS FOR THE YEAR			
Change in estimates of asset restoration obligations		-	(34,061)
TOTAL COMPREHENSIVE LOSS FOR THE YEAR		(2,652,818)	(2,357,152)
PROFIT PER SHARE			
Loss for the year per share, basic and diluted, in tenge	38	(15.92)	(13.94)

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 General Director
 2 September 2021
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 Chief Accountant
 2 September 2021
 Pavlodar, Republic of Kazakhstan

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
 FOR THE YEAR ENDED 31 DECEMBER 2020
 (thousands of tenge)**

	Notes	Share capital	Additional paid-in capital	Revaluation reserve for property, plant and equipment	Retained earnings	Total equity
As at 1 January 2019		16,663,996	1,188,176	21,987,354	31,992,978	71,832,504
Loss for the year		-	-	-	(2,323,091)	(2,323,091)
Total comprehensive loss for the year		-	-	(34,061)	-	(34,061)
Total comprehensive loss for the year		-	-	(34,061)	(2,323,091)	(2,357,152)
Revaluation reserve amortisation		-	-	(1,128,796)	1,128,796	-
Declared dividends	16	-	-	-	(1,174,042)	(1,174,042)
Financial guarantee liabilities	19	-	-	-	(715,805)	(715,805)
Adjustment to the fair value of loans paid	11	-	-	-	(433,785)	(433,785)
As at 31 December 2019		16,663,996	1,188,176	20,824,497	28,475,051	67,151,720
Loss for the year		-	-	-	(2,652,818)	(2,652,818)
Total comprehensive loss for the year		-	-	-	(2,652,818)	(2,652,818)
Revaluation fund amortisation		-	-	(1,092,097)	1,092,097	-
Liabilities on financial guarantees provided	19	-	-	-	(192,953)	(192,953)
Adjustment to the fair value of loans paid	11	-	-	-	(416,374)	(416,374)
Loss from the acquisition of investment in an associate from a company under common control	8	-	-	-	(7,756,826)	(7,756,826)
As at 31 December 2020		16,663,996	1,188,176	19,732,400	18,548,177	56,132,749

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 2 September 2021
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 Chief Accountant
 2 September 2021
 Pavlodar, Republic of Kazakhstan

**CONSOLIDATED STATEMENT OF CASH FLOWS
 FOR THE YEAR ENDED 31 DECEMBER 2020
 (thousands of tenge)**

	Notes	2020	2019
Cash flows from operating activities:			
Loss before income tax		(1,726,011)	(1,764,322)
Adjustments for:			
Amortisation and depreciation	6	5,666,516	5,966,237
Loss from the impairment of construction in progress	6	28,045	346,389
Loss/(income) from the disposal of property, plant and equipment	35	54,581	(426,541)
Loss from the impairment of financial assets and assets from contracts with customers	34	682,256	1,107,010
Loss from the impairment of advances paid	29	591,417	-
Change in ash dump restoration liabilities	22	-	38,272
Accrual of a provision for the impairment of inventories	13	93,174	130,688
Accrual of a provision for unused vacation		12,920	56,591
Employee benefit costs		-	5,421
Finance costs	31	5,774,742	4,140,731
Finance income	32	(942,364)	(498,809)
Loss from the impairment of goodwill	35	-	281,939
Income from an adjustment to deferred income	35	(106,707)	(106,707)
Foreign exchange rate (gain)/loss, net	33	(499,714)	40,587
Share of financial results of associates		(64,297)	-
Cash flows before changes in working capital		9,564,558	9,317,486
Changes in working capital:			
Change in inventories		(461,181)	(97,030)
Change in trade accounts receivable		(4,018,405)	(281,555)
Change in advances paid		(18,487)	258,362
Change in other assets		(330,277)	483,252
Change in trade accounts payable		8,803,901	1,456,263
Change in deferred income		(113,842)	(13,934)
Change in advances received		294,882	(136,618)
Change in employee benefit obligations		(121,688)	(5,158)
Change in other liabilities and accrued expenses		236,389	(1,016,883)
Cash received from operating activities		13,835,850	9,964,185
Income tax paid		(589,381)	(685,775)
Interest paid	18, 21	(5,060,967)	(3,818,385)
Net cash received from operating activities		8,185,502	5,460,025
Cash flows from investing activities:			
Withdrawal of deposit account funds		-	178,299
Loans paid to the parent company		(4,773,345)	(4,425,000)
Settlement of loans paid to the parent company		1,915,000	900,000
Purchase of property, plant and equipment		(5,253,164)	(5,169,420)
Purchase of intangible assets		(46,761)	(57,351)
Deposit interest received		118,804	40,147
Purchase of investment in associate	7	(55,692,266)	-
Others		(4,332)	-
Net cash used in investing activities		(63,736,064)	(8,533,325)

**CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)
 FOR THE YEAR ENDED 31 DECEMBER 2020
 (thousands of tenge)**

	Notes	2020	2019
Cash flows from financing activities:			
Receipt of borrowings	18	75,364,837	38,790,196
Repayment of borrowings	18	(19,192,162)	(33,742,208)
Dividends paid	16	(379,042)	(1,466,002)
Repayment of an interest-free loan received from the parent		-	(200,000)
Receipt of an interest-free loan from the parent company		-	200,000
Repayment of finance lease principal	23	(303,178)	(348,306)
Others		1,007	(38,234)
Net cash received from financing activities		55,491,462	3,195,446
NET CASH (DECREASE)/INCREASE		(59,100)	122,146
CASH at the beginning of the year			
Effect of exchange rate changes on foreign currency cash balances	15	426,209	395,812
Change in provision for expected credit losses	15	(12,623)	(14,890)
CASH at the end of the year	15	365,901	426,209

Signed on behalf of management of the Group:


 O.V. Perfilov
 General Director
 2 September 2021
 Pavlodar, Republic of Kazakhstan


 S.N. Belikova
 Chief Accountant

 2 September 2021
 Pavlodar, Republic of Kazakhstan

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ABOUT THE REPORT

This report was prepared by PAVLODARENERGO JSC based on the results of its activities in 2020. The report presents information on the activities of PAVLODARENERGO JSC and its subsidiaries.

The document contains a Report on sustainable development drafted in accordance with GRI Standards: The main option of compliance. The report is prepared on an annual basis. The previous Annual Report, including the 2019 Sustainability Report, was published in August 2020.

There were no significant changes in the content of the report, while the Company switched to the use of information disclosure requirements under GRI Standards. A table indicating the location of standard reporting elements and indicators is located in the Index of GRI Elements section. This report has not passed external certification.

MATERIAL ASPECTS AND BOUNDARIES

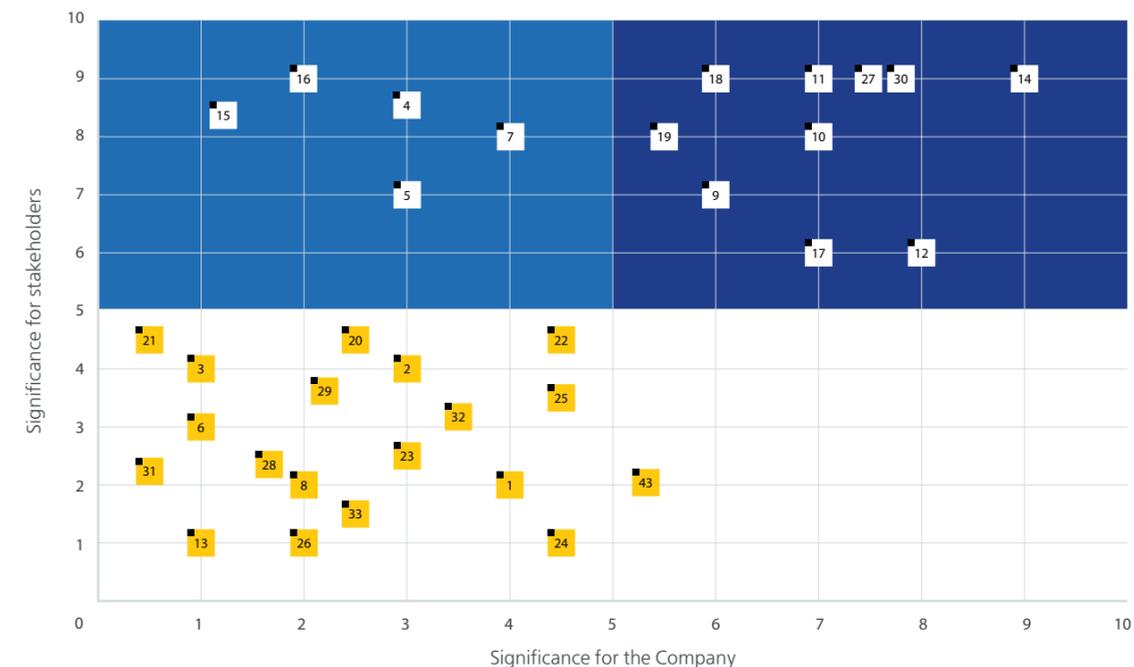
In accordance with the Principles for defining the report content as per the GRI Standards, the assessment of materiality of topics disclosed in the Report was carried out. The materiality assessment procedure includes the following main steps:

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

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

Step 3. In accordance with stakeholders' opinion and strategic plans of the Company, key topics were ranked to determine priorities and develop the Materiality Map. An average score was attributed to each aspect of activity depending on its impact on the Company (horizontal axis) and its stakeholders (vertical axis). The highest priority was determined for aspects within the blue zone; they were given priority during preparation of the Report. Also, the report partially discloses aspects of the dark blue zone.

LIST OF TOPICS AND MATERIALITY MAP



INDEX OF GRI ELEMENTS

Ser.	Aspects	Ser.	Aspects
1.	Economic performance	18.	Training and education
2.	Market presence	19.	Diversity and equal opportunities
3.	Indirect economic impacts	20.	Non-discrimination
4.	Procurement practice	21.	Freedom of association and collective bargaining
5.	Anti-Corruption Management	22.	Child labour
6.	Obstacle to competition	23.	Forced or compulsory labour
7.	Materials	24.	Security practices
8.	Energy	25.	Rights of indigenous and small-numbered peoples
9.	Water	26.	Assessment of human rights observance
10.	Biodiversity	27.	Local communities
11.	Emissions	28.	Assessment of suppliers' compliance with social criteria
12.	Discharges and waste	29.	Public policy
13.	Assessment of suppliers' compliance with environmental protection criteria	30.	Customer health and safety
14.	Compliance with environmental requirements	31.	Labeling of products and services
15.	Employment	32.	Personal privacy of consumers
16.	Relationships between employees and management	33.	Violations of socio-economic legislation
17.	Health and safety in the workplace		

INDEX OF GRI ELEMENTS

GRI standard and year of publication	Indicator	Page number, section and/or URL	Exclusions/ Comments
GRI 101: Principles of reporting (2016)			
GRI 102: General information (2018)	ORGANISATION PROFILE		
	102-1 Name of the organisation	PAVLODARENERGO today section, p. 8	
	102-2 Areas of activity	The PAVLODARENERGO Today section, p. 8 and Business Model section, p. 20	
	102-3 Location of the head office	Contacts section, p. 115	
	102-4 Geography of operations	Geography of operations section, p. 9	
	102-5 Form of ownership	PAVLODARENERGO today section, p. 12	
	102-6 Sales markets	Geography of operations section, p. 9	
	102-7 Scale of the organisation	PAVLODARENERGO today section, p. 14	
	102-8 Personnel information	Personnel and Social Policy section, p. 84	
	102-9 Supply chain	Business Model section, p. 20	
	102-10 Significant changes in the Company's work	Organisational Structure section, p. 45 Share Capital Structure section, p. 46	
	102-11 Precautionary Principles	Environmental Protection Measures section, p. 79	
	102-12 Support for external initiatives	Environment Impact Management section, p. 76 Greenhouse Gas Emissions section, p. 78 Environmental Management System, p. 83	
	102-13 Membership in associations	–	The Company is the member of the Kazakhstan Electricity Association
Strategy			
102-14 Management Statement	Address of the Chairman of the Board of Directors section, p. 4 Address of the General Director section, p. 5		
Ethics and Integrity			
102-16 Values, principles, standards and norms of behavior	Corporate Governance Compliance Report section, p. 55		

GRI standard and year of publication	Indicator	Page number, section and/or URL	Exclusions/ Comments
Corporate governance			
	102-18 Management structure	Organisational Structure section, p. 45 Performance of the Committees of the Board of Directors section, p. 51	
Stakeholder Engagement			
	102-40 List of stakeholders	Stakeholder Engagement section, p. 73	
	102-41 Collective agreements	Stakeholder Engagement section, p. 90	
	102-42 Identification and selection of stakeholders	Stakeholder Engagement section, p. 73	
	102-43 Approaches to interaction	Stakeholder Engagement section, p. 73	
	102-44 Key topics and concerns raised	Stakeholder Engagement section, p. 73	
Information about the report			
	102-45 Basis of consolidation	About the Report section, p. 104	
	102-46 Defining the report content and boundaries	List of Topics and Materiality Map section, p. 105	
	102-47 List of significant topics	List of Topics and Materiality Map section, p. 105	
	102-48 Recalculation of data from prior periods	-	The indicators have not been changed and are comparable with the data provided in the previous annual reports of the Company
	102-49 Changes in the content of the report	-	No changes
	102-50 Reporting period	About the Report section, p. 104	
	102-51 Date of last publication	About the Report section, p. 104	
	102-52 Reporting cycle	About the Report section, p. 104	
	102-53 Contact information for questions about the content of the report	Contacts section, p. 115	

GRI standard and year of publication	Indicator	Page number, section and/or URL	Exclusions/ Comments
	102-54 Level of compliance with GRI standards	About the Report section, p. 104	
	102-55 GRI content index	Index of GRI Elements section, p. 105	
	102-56 External assurance	About the Report section, p. 104	
Material topics			
Economy			
GRI 103: Management Approach (2016)	103-1 Explanation of the Material Topic and its Boundary	List of Topics and Materiality Map section, p. 105	
	103-2 The Management Approach and Its Components	Procurement section, p. 142	
	103-3 Evaluation of the Management Approach	–	Not conducted
GRI 203: непрямые экономические воздействия (2016)	203-1 Infrastructure investments and services supported	Social Projects section, p. 98	
	203-2 Significant indirect economic impacts	Attracting of Young Specialists section, p. 88	
Ecology			
GRI 103: Management Approach (2016)	103-1 Explanation of the Material Topic and its Boundary	List of Topics and Materiality Map section, p. 105	
	103-2 The Management Approach and Its Components	Environment Impact Management section, p. 76	Comprehensive environmental impacts management policy covers all major topics in this area.
	103-3 Evaluation of the Management Approach	–	Not conducted
Materials			
GRI 301: Materials (2016)	301-1 Consumed materials by weight or volume	Environment Impact Management section, p. 76	

GRI standard and year of publication	Indicator	Page number, section and/or URL	Exclusions/ Comments
Water			
	303-1 Use of water resources	Water Management and Water Resources Conservation section, p. 80	
GRI 303: Water (2016)	303-3 Water Intake	Water Management and Water Resources Conservation section, p. 80	
	303-4 Water discharge	Efficient Industrial Wastes Management, p. 81	
Emissions			
GRI 305: Emissions (2016)	305-1 Direct greenhouse gas emissions	Greenhouse Gas Emissions section, p. 78	
	305-4 Intensity of greenhouse gas emissions	Greenhouse Gas Emissions section, p. 78	
	305-5 Reduction of greenhouse gas emissions	Greenhouse Gas Emissions section, p. 78	
	305-7 Emissions of NO _x , SO _x and other significant pollutants	Atmosphere Air Protection section, p. 77	
Waste			
GRI 306: Discharges and waste (2020)	306-3 Total volume of waste	Efficient Industrial Wastes Management, p. 81	
Compliance with requirements			
GRI 307: Compliance with requirements (2016)	307-1 Information on non-compliance with environmental legislation and regulatory requirements	Greenhouse Gas Emissions section, p. 78	
Society			
GRI 103: Management Approach (2016)	103-1 Explanation of the Material Topic and its Boundary	List of Topics and Materiality Map section, p. 105	
	103-2 The Management Approach and Its Components	Personnel Management Policy section, p. 84	A comprehensive personnel policy covers all the main topics in this area
	103-3 Evaluation of the Management Approach	–	Not conducted

GRI standard and year of publication	Indicator	Page number, section and/or URL	Exclusions/ Comments
Employment			
GRI 401: Employment (2016)	401-1 Hired employees and staff turnover	Staff turnover section, p. 86	
Employee-management relations			
GRI 402: Employment (2016)	103-1 Explanation of the Material Topic and its Boundary	List of Topics and Materiality Map section, p. 105	
Health and Safety			
GRI 403: Health and Safety (2018)	403-1 Representation of employees in official joint health and safety committees with the participation of representatives of management and employees	Strategic Goals in Occupational Health and Safety and Carried Out Activities section, p. 94	
	403-2 Types and level of injury, occupational diseases, lost day rate and the rate of absenteeism, and total number of deaths related to work	Types and the Level of Industrial Injuries section, p. 94	
	403-3 Workers with high incidence or high risk of diseases related to their occupation	Strategic Goals in Occupational Health and Safety and Carried Out Activities section, p.93	
Training			
GRI 404: Training (2016)	404-2 Skills Development Programs	Staff Training and Development section, p. 87	
Diversity and equal opportunities			
GRI 405: Diversity and equal opportunities (2016)	405-1 Composition of governing bodies	Staff structure by category and gender section, p. 84	

GRI standard and year of publication	Indicator	Page number, section and/or URL	Exclusions/ Comments
Local communities			
GRI 103: Management Approach (2016)	103-1 Explanation of the Material Topic and its Boundary	List of topics and Materiality Map section, p. 105	
	103-2 The Management Approach and Its Components	Stakeholder Engagement section, p. 73	
	103-3 Evaluation of the Management Approach	–	Not conducted
GRI 413: Local Communities (2016)	413-1 Programs of interaction with local communities, assessment of the impact of activities on local communities and development of local communities	Stakeholder Engagement section, p. 73	
Customer health and safety			
GRI 103: Management Approach (2016)	103-1 Explanation of the Material Topic and its Boundary	List of topics and Materiality Map section, p. 105	
	103-2 The Management Approach and Its Components	Customer Health and Safety section, p. 39	
	103-3 Evaluation of the Management Approach	–	Not conducted
GRI 416: Customer health and safety (2016)	416-1 Assessment of the health and safety impacts of product and service categories	Customer Health and Safety section, p. 39	
Additional information			
Industry Protocol on Electric Power Industry GRI G4	G4-EU1 Installed capacity	About the Company section, p. 8	
	G4-EU2 Power generation	Key Performance Indicators section, p. 14	
	G4-EU3 Number of personal accounts of household, industrial, institutional and commercial consumers	Geography of operations section, p. 9	
	G4-EU4 The length of aboveground and underground transmission and distribution lines of electricity, broken down by regulation modes	Main Production Characteristics section, p. 9	
	G4-EU5 Distribution of quotas for COR2R emissions or equivalents	Greenhouse Gas Emissions section, p. 78	

GLOSSARY, ABBREVIATIONS

Ash dump site	shall mean a place for collection and disposal of waste ash and slag generated during combustion of solid fuel at combined heat and power plants.
Ash	shall mean an incombustible residue (in the form of dust) which consists of mineral impurities left after complete combustion of fuel.
Available capacity of a unit (plant)	shall mean an installed capacity of a generating unit (plant) less its capacity limitations.
Boiler	shall mean a device for generating pressurised steam or hot water through fuel combustion, use of electric power, heat of exhaust gas or technological process.
Calorie or cal	shall mean an off-system unit for measuring the amount of heat.
Combined heat and power plant or CHP or cogeneration unit	shall mean a thermal power plant generating not only electric power, but also heat supplied to consumers in the form of steam and hot water.
Cooling tower	shall mean a structure shaped like an exhaust tower providing air stack effect.
Emulsifier	shall mean a wet ash and dust cleaning device operating in the phase inversion mode.
Gigacalorie per hour	shall mean a derived unit of measurement used to specify the amount of heat produced or used by a certain equipment per a unit of time.
Gigacalorie	shall mean a unit of measurement of thermal energy used for assessment in the heat power industry, heating systems and the utilities sector.
Goodwill	shall mean the difference between the price of a company and the fair value of all its assets.
Installed capacity	shall mean an effective value of the turbine generators' rated capacity.
Installed electrical capacity of the energy system	shall mean total effective capacity of all turbo and hydropower generators of power plants in the energy system in accordance with their passports or specifications.
Installed heat capacity of the plant	shall mean the sum of all rated heating capacities for all the equipment commissioned under the act and designed for supplying heat to external consumers and steam and hot water for internal needs.
Megawatt	shall mean a unit of power measurement in electric power production.
Overhead power line	shall mean an electric line for transmission of electric power through the wires located in the open air and attached by means of insulators and fittings to supports or brackets.
Overhead transmission lines	shall mean the structures intended for transmission of electric power over a distance by wires.
Power transmission line or PTL	shall mean a structure consisting of wires (cables) and auxiliary devices for transmission of electric power from power plants to consumers.
Substation	shall mean an electric installation used for conversion and distribution of electric power and consisting of transformers or other power converters, switchgear, control devices and auxiliary facilities.
Transformer	shall mean a device for converting any significant properties of energy (e.g., electric transformer, torque converter) or objects (e.g., photo transformer).

Turbine generator	shall mean a combination of a steam turbine, electricity generator and exciter united by one shaft train; it converts potential energy of steam into electric power.
CTF	CleanTechnologyFund
EBITDA	shall mean an analytical indicator, which means earnings before interest, taxation, depreciation and amortisation.
ESAP	shall mean Environmental and Social Action Plan.
ISO	shall mean International Organisation for Standardisation.
KEGOC	shall mean Kazakhstan Electricity Grid Operating Company AO.
OHSAS	shall mean International occupational health and safety management system.
ASCAHE	shall mean automatic system for commercial accounting for heat energy.
ASCAE	shall mean automatic system for commercial accounting of electricity.
GDP	shall mean gross domestic product.
OHL	shall mean overhead lines.
Gcal	shall mean gigacalorie.
Gcal-hr	shall mean gigacalorie per hour.
GTPP	shall mean gas turbine power plant.
HEPP	shall mean hydroelectric power plant.
EBRD	shall mean European Bank for Reconstruction and Development.
kWh	shall mean shall mean kilowatt per hour.
MW	shall mean megawatt.
NGO	shall mean a non-governmental organisation.
Pavlodar EDC	shall mean Pavlodar Electric Distribution Company JSC.
RK	shall mean the Republic of Kazakhstan.
ICS	shall mean internal control system.

BoD	shall mean the Board of Directors.
RMS	shall mean risk management systems.
TOO	shall mean a limited liability partnership under the laws of the Republic of Kazakhstan.
TPP	shall mean a thermal power plant.
CHP	is a combined heat and power plant.
CAPEC	shall mean Central-Asian Power Energy Company JSC.
CAEPCO	shall mean Central-Asian Electric Power Corporation JSC.

CONTACTS

PAVLODARENERGO JSC

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