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Ministry of Energy of the Republic of Kazakhstan

INVESTOR'S GUIDE TO RENEWABLE ENERGY PROJECTS IN KAZAKHSTAN

USAID POWER CENTRAL ASIA ACTIVITY

Astana 2024

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The *Investor's Guide to Renewable Energy Projects in Kazakhstan* was prepared at the request of the Ministry of Energy of the Republic of Kazakhstan with funding from the U.S. Agency for International Development (USAID) as part of Power Central Asia Activity implemented by Tetra Tech.

It presents step-by-step guidance for investors planning to develop renewable energy (RE) projects in Kazakhstan and includes information on state support for the development of RE projects and auction rules, as well as an overview of the main regulations governing the preparation, signing off, approval and implementation of RE projects.

This guide was developed based on the regulations and technical documents of the Republic of Kazakhstan effective as of April 2024, which can be found in official information and legal databases at: http://adilet.zan.kz/, https://prg.kz/, http://online.zakon.kz/.

The USAID Power Central Asia Activity appreciates the comments and amendments provided by the Ministry of Energy of the Republic of Kazakhstan, the Financial Settlement Center for the Support of Renewable Energy Sources LLP (FSC), the Operator of the Electric Energy and Capacity Market JSC (KOREM), and the Electricity Grid Operating Company JSC (KEGOC) during the revision of this Guide.

The USAID Power Central Asia Activity was launched to support the accelerated transition of the five Central Asian countries to a cost-effective, low-carbon and sustainable economy by expanding the use of renewable energy sources and increasing energy efficiency.

ACRONYMS

ACEMS	Automated commercial energy metering system
ACS	Automated control system
APS	Architectural planning specifications
BioPP	Bio power plant
CIW	Construction and installation works
CoAO	The Code of the Republic of Kazakhstan on Administrative Offenses
CRNM MNE	Committee for Regulation of Natural Monopolies of the Ministry of National Economy of the Republic of Kazakhstan
D&S	Design and survey
DED	Design and estimate documentation
EDS	Electronic digital signature
EIA	Environmental Impact Assessment
EMC	Energy metering complex
FS	Feasibility Study
FSC	Financial Settlement Center for the Support of Renewable Energy Sources LLP
Gcal/hr	Gigacalories per hour
GDP	Gross domestic product
GHG	Greenhouse gas
GW	Gigawatt
HPP	Hydro power plant
ISC MES RK	Industrial Safety Committee of the Ministry of Emergency Situations of the Republic of Kazakhstan
KEGOC	Kazakhstan Electricity Grid Operating Company JSC
KOREM	Kazakhstan Operator of the Electric Energy and Capacity Market JSC
kV	Kilovolt
kWh	Kilowatt per hour
Law On Support of RES	Law of the Republic of Kazakhstan “On Support of the Use of RES”
LEA	Local executive authorities
MCI	Monthly calculation index
MEGNR RK	Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan
MES RK	Ministry of Emergency Situations of the Republic of Kazakhstan

MIA RK	Ministry of Internal Affairs of the Republic of Kazakhstan
MFA RK	Ministry of Foreign Affairs of the Republic of Kazakhstan
MIC RC	Ministry of Industry and Construction of the Republic of Kazakhstan
MoE RK	Ministry of Energy of the Republic of Kazakhstan
MW	Megawatt
NDC SO	National Dispatch Center of the System Operator
NG	National grid
PSC	Public service center
RDC	Regional dispatching center
REGC	Regional electricity grid companies
REGI	Renewable energy generating installations
RES	Renewable energy sources
RF	The Russian Federation
SPP	Solar power plant
SPZ	Sanitary protection zone
TL	Transmission line
TS	Technical specifications
UN	The United Nations
UPS	Unified power system
WPP	Wind power plant

TABLE OF CONTENTS

TABLES

FIGURES

1. REVIEW OF THE POWER SECTOR OF THE REPUBLIC OF KAZAKHSTAN

Kazakhstan's power sector is the largest among other Central Asian countries. The installed capacity of the power system exceeds 24.6 GW.[1] Kazakhstan is also rich in fossil fuel reserves (oil, natural gas and coal), which in turn determines the structure of electricity generation, in which more than 77% of generation comes from coal and gas thermal power plants.

Due to geography, industrial structure and other factors, Kazakhstan is one of the most energy- and carbon-intensive economies in the world. In 2022, Kazakhstan ranks 7th in terms of carbon intensity of gross domestic product (hereinafter “GDP”) and 24th in the world in terms of total CO_2 emissions from fossil fuels.[2]

At the same time, Kazakhstan has set itself ambitious decarbonization targets: the country intends to increase the share of renewable energy sources (hereinafter “RES”) in the country's energy mix to 15% by 2030, to 50% by 2050 and to achieve carbon neutrality by 2060.[3] For information, in 2023, the share of RES in total electricity generation was 5.92%.

Despite the efforts of the Government of Kazakhstan to modernize generating and grid facilities, the industry is characterized by significant level of wear and tear of fixed assets,[4]

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[1] Power Industry of Kazakhstan: Key Facts. KEGOC (2024).

[2] Global Carbon Atlas (2022). Fossil fuel emissions. http://www.globalcarbonatlas.org/ en/CO_2-emissions.

[3] Kazakhstan plans to increase the share of renewable energy sources in the energy mix to 15% by 2030, Alikhan Smailov (2023). Official Information Resource of the Prime Minister of the Republic of Kazakhstan. https://primeminister.kz/ru/news/kazakhstan-planiruet-uvelichit-dolyu-vozobnovlyaemykh-istochnikov-energii-v-energobalanse-do-15-k-2030-godu-alikhan-smailov-24599

[4] KazEnergy Association (2023). National Energy Report.

which affects high losses in electricity transmission and reliability of electricity supply. The average level of wear and tear of generating assets is 56%, while that of transmission assets is 66%.[5]

One significant change in the functioning of the electricity market is the introduction of the Single Buyer and Balancing Electricity Market model from 1 July 2023. The target market model provides for a transition to centralized purchase and sale of planned volumes of electricity. This implies that all electricity generated by energy producing organizations is sold to the Single Electricity Buyer. An exception is the purchase and sale of electricity between consumers and an energy producing organization belonging to the same group of entities. Deviations from the declared planned schedules will be settled in the balancing electricity market.

In terms of tariff regulation, the Ministry of Energy of the Republic of Kazakhstan sets the cap tariff for electricity for each group of energy producing organizations, as well as for the service of maintaining the availability of electric capacity. Electricity transmission tariffs of Kazakhstan Electricity Grid Operating Company JSC (hereinafter "KEGOC") and energy transmission companies, as well as supply mark-up of energy supplying organizations are regulated by the Committee for Regulation of Natural Monopolies of the Ministry of National Economy of the RK (hereinafter "CRNM MNE"). The final retail price of electricity for consumers is also set by the CRNM MNE. Regarding the operation of the retail market, from 1 April 2024, the operation of energy supplying organizations was suspended in order to eliminate unproductive intermediaries; their functions will be transferred to regional electricity grid companies (hereinafter "REGC")[6].

1.1 KEY INDICATORS OF THE ELECTRICITY SECTOR IN THE RK

ELECTRICITY GENERATION AND CONSUMPTION

In 2023, electricity generation totalled 112.8 billion KWh, practically unchanged from 2022 (112.8 billion KWh). Electricity consumption totalled 115 billion KWh, showing a growth of 2% against 2022 (112.9 billion KWh). Electricity imports from neighboring countries amounted to 3.4 billion KWh, while exports amounted to 1.4 billion KWh.

[5] Ministry of Energy of the Republic of Kazakhstan (2024). https://ortcom.kz/ru/novosti/1705379142 , https://www.gov.kz/memleket/entities/energo/press/news/details/339683?lang=ru

[6] Ministry of National Economy website. Unproductive intermediaries are excluded from the electricity supply chain. https://www.gov.kz/memleket/entities/economy/press/news/details/755589?lang=ru

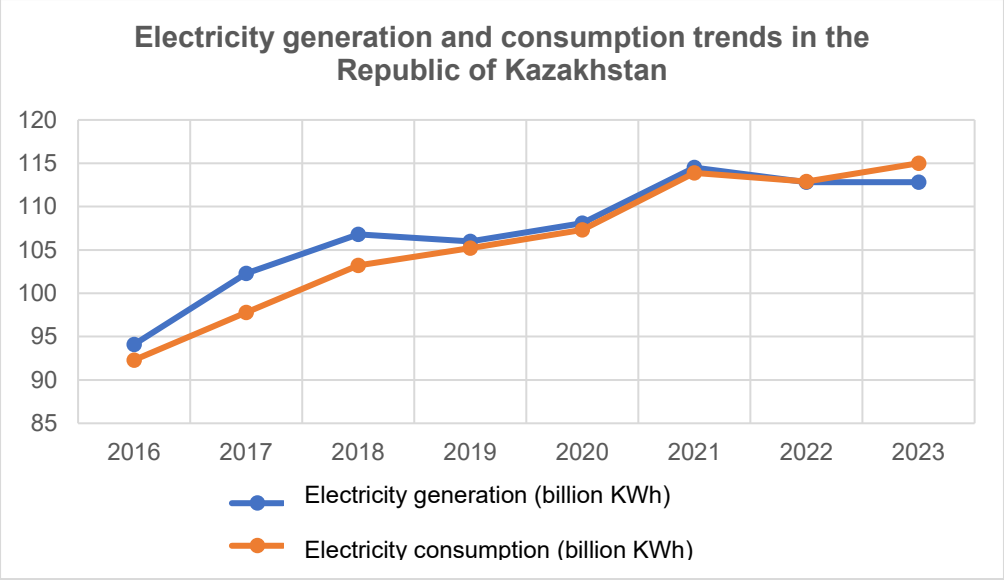

Figure 1. Electricity generation and consumption in the RK (%)

INSTALLED CAPACITY AND GENERATION STRUCTURE

At the beginning of 2024, the total installed capacity of Kazakhstan's power plants is 24.6 GW and the available capacity is 20.4 GW.[7] 222 power plants produce electricity in Kazakhstan.

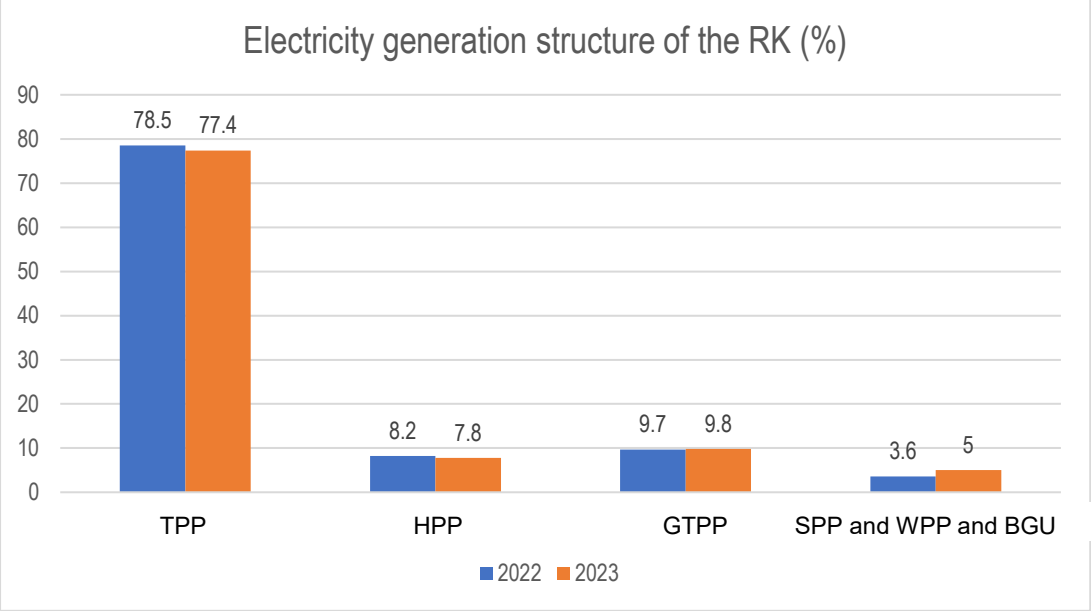

Figure 2. Electricity generation structure of the RK (%)

Kazakhstan's power generation structure is dominated by thermal power plants, mainly coal-fired, which account for 77.4% of total generation in 2023. This is followed by gas turbine plants and hydro power plants with shares of 9.8% and 7.8% of total generation, respectively. Electricity generation from RES plants (WPP, SPP, small HPP and BGU) increases by 30.6% in 2023 compared to 2022 and amounts to 5.9% in total. WPPs and SPPs account for the

[7] Power Industry of Kazakhstan: Key Facts. KEGOC (2024)

largest share of RES generation, about 3.4% and 1.6% respectively, while small HPPs produced about 0.9% of the country's total electricity generation.

In recent years, generation has been actively expanded through the installation of RES facilities. Currently, 148 RES plants (over 100 kW) with an installed capacity of 2,903.7 MW are operating in the country.[8]

According to KEGOC, the country had a deficit of 1,519 MW of electric capacity at the end of 2023, which was covered by flows from the Russian Federation (hereafter “RF”). The most energy-deficient region is the south of the country. In the short term, in the autumn-winter period from October 2024 to March 2025, with a projected load of 17.4 GW and plant generation of 16.4 GW, the deficit will be around 1 GW. The projected electric capacity balance for 2024-2030 also shows a significant electric capacity deficit of up to 6.2 GW by 2030. In order to ensure energy security and increase export potential, a number of projects are planned for the modernization of existing plants and the commissioning of new plants with a total capacity of about 26 GW.[9]

In order to achieve a 15% RES share by 2030, it is planned to continue annual auctions in the period 2024-2027 for a total installed capacity of about 6 GW. It is also planned to implement large-scale projects with strategic RES investors such as Total Energies, ACWA Power, Masdar and Unigreen Energy for a total capacity of around 4-5 GW using energy storage systems.

ELECTRICITY TRANSMISSION AND DISTRIBUTION

The National Grid (hereinafter “NG”) ensures the transmission of electricity from energy producing organizations that have a direct supply scheme to the national grid to wholesale consumers connected to the grid (distribution grid companies, large consumers, etc.). The operator of the NG is KEGOC, which operates mainly 500-220 kV transmission lines (hereinafter “TL”), while the REGCs have an extensive network of 110-6/0.4 kV lines.

TABLE 1. LENGTH OF TRANSMISSION LINES IN THE RK[10]

VOLTAGE	KEGOC	REGC
1150 (in 500 kV mode)	1421.2	0.0
500 kV	8282.3	0.0
330 kV	1863.3	0.0
220 kV	15669.6	1428.2
110 kV	352.8	22857.2
35 kV	44.1	27082.2
10 kV	110.2	51315.9
6-0.4 kV	13.1	47613.1

[8] Ministry of Energy of the Republic of Kazakhstan (March 2024). https://www.gov.kz/memleket/entities/energo/press/news/details/736134?lang=ru

[9] Press release of the meeting of the Council of the Ministry of Energy, 5 March 2024. https://www.kegoc.kz/ru/press-center/press-releases/163167/

[10] KEGOC (2024). National energy system

The long electricity grid infrastructure results in high transmission losses (>8%). Kazakhstan is the ninth largest country in the world in terms of land area, so the transmission of electricity through long electric grids is characterized by relatively high losses. The electric grid infrastructure of KEGOC, the national backbone grid operator, consists of 500-220 kV networks with a total length of more than 26,000 kilometers.[11]

KEGOC's investment portfolio includes a number of large grid development projects through to 2035. These include strengthening the electric grid of the southern zone of the UPS of Kazakhstan, consolidating the power system of Western Kazakhstan with the Unified Power System (hereinafter "UPS") of Kazakhstan, and constructing the North-South Direct Current Transmission Line.

ELECTRICITY CONSUMPTION AND LOSSES

In 2023, Kazakhstan's electricity consumption increased by 1.9% to 115.0 billion kWh compared to 2022. Industry is the largest consumer of electricity, accounting for about half of Kazakhstan's electricity demand (57%). The structure of electricity consumption by industry is as follows.

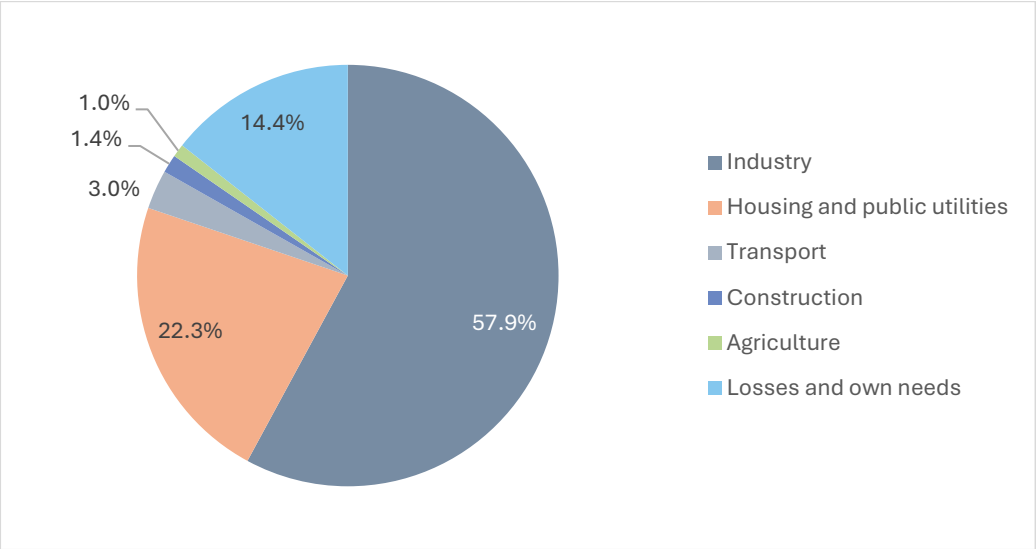

Figure 3. Electricity consumption structure by industry.[12]

18 largest industrial enterprises together account for about a third of the country's total consumption.[13] Growth in Kazakhstan's electricity demand has traditionally depended on growth in industrial production, which in turn has been closely linked to global commodity markets, especially oil, ores and metal alloys.

There are also significant losses in Kazakhstan's distribution networks. REGC's losses reach 18.6%. Many of the high-voltage transmission lines currently operated by REGC were built more than 40-50 years ago and are much longer than designed.

ELECTRICITY IMPORT AND EXPORT

In 2023, the net power flow from the Russian Federation totalled 3,617.3 million KWh (470.9 million KWh in 2022). At the same time, electricity exports to the RF totalled 1377.1 million

[11] KEGOC (2024). Company's activities

[12] KazEnergy (2023). National Energy Report

[13] KOREM (2020)

KWh (in 2022 - 1459.0 million KWh), electricity imports from the RF - 4994.4 million KWh (in 2022 - 1929.9 million KWh). Exports and imports are given taking into account volumes of balancing electricity from the RF. The table below presents data on imports and exports, taking into account the volumes of balancing electricity from/to the RF and Central Asia.

TABLE 2. ELECTRICITY IMPORTS AND EXPORTS FROM/TO THE RF AND CENTRAL ASIA[14]

in million kWh	2022			2023		
	Imports into the RK	Exports from the RK	Δ	Imports into the RK	Exports from the RK	Δ
The RF	1929.9	1459.0	470.9	4994.4	1377.1	3617.3
Central Asia	304.4	696.6	392.2	68.2	1441.0	1372.8

The net power flow with Central Asia totalled 1,372.8 million kWh (in 2022 from CA - 392.2 million kWh). At the same time, exports to CA totalled 1,441.0 million kWh (in 2022 - 696.6 million kWh), electricity imports from CA 68.2 million kWh (in 2022 - 304.4 million kWh).

ENERGY INTENSITY AND CARBON INTENSITY OF THE ELECTRICITY SECTOR

Overall, the energy intensity of Kazakhstan's GDP decreased by 11% in 2020 compared to 2014. Experts note that the change in the energy intensity of the country's GDP was mainly due to real energy efficiency improvements rather than intersectoral structural changes.

In the electricity and heat sector, energy consumption increased by 10% between 2014 and 2020, while the sector's gross value added increased by only 7%. As a result, the energy intensity per unit of gross value added in the electricity and heat sector increased by 3%.[15] Below is a diagram of the energy and carbon intensity of GDP.

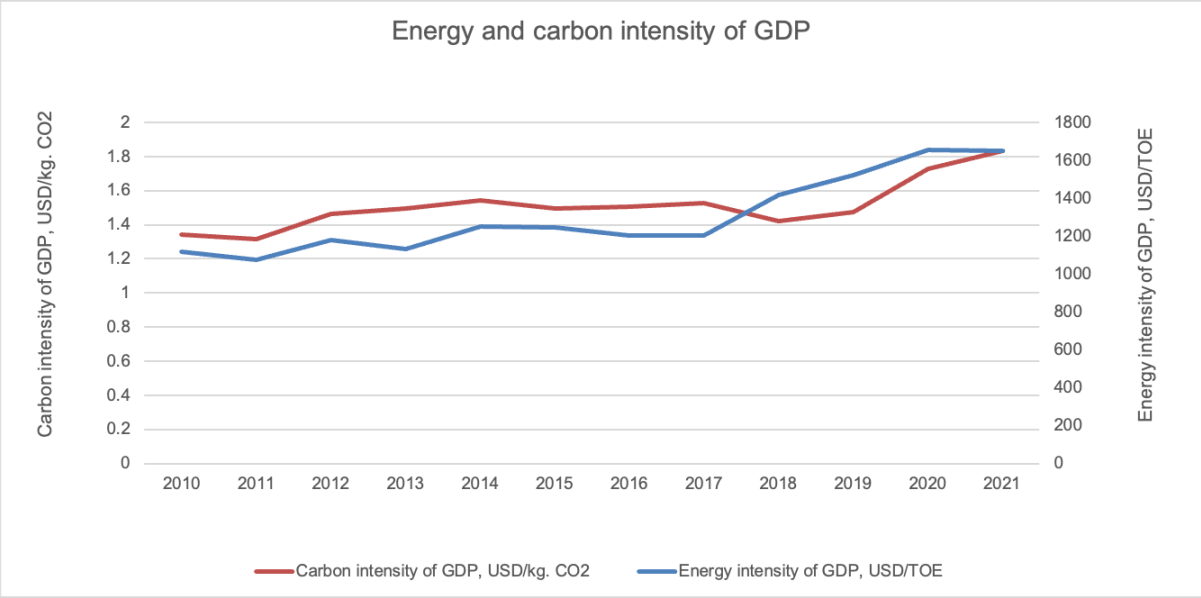

Figure 4. Energy and carbon intensity of GDP

In March 2023, the Concept of Energy Saving and Energy Efficiency Improvement for 2023-

[14] Source: KEGOC, 2024

[15] Bureau of National Statistics of the Republic of Kazakhstan (2024). Indicators of the green economy.

2029 was adopted, which aims to reduce the energy intensity of the energy sector by 5% by 2029 from the 2021 level, and the energy intensity of GDP in general by 10% by 2029 from the 2021 level.

1.2 MAIN STRATEGIC DOCUMENTS IN THE ELECTRIC POWER INDUSTRY

The main legislation of the Republic of Kazakhstan regulating social relations arising in the process of production, transmission and consumption of electric and heat energy is the Law of the Republic of Kazakhstan "On Electric Power Industry" No. 588-II dated 9 July 2004 (hereinafter "Law on Electric Power Industry").

The following strategic documents set out the direction and objectives of government policy on the electricity sector and decarbonization:

- **THE CONCEPT OF TRANSITION OF THE REPUBLIC OF KAZAKHSTAN TO GREEN ECONOMY (2013);**
- **THE FORECAST BALANCE OF ELECTRIC POWER AND CAPACITY FOR 2024-2030;**
- **THE CONCEPT OF DEVELOPMENT OF THE FUEL AND ENERGY COMPLEX OF THE REPUBLIC OF KAZAKHSTAN FOR 2023-2029;**
- **THE CONCEPT OF DEVELOPMENT OF THE ELECTRIC POWER INDUSTRY OF THE REPUBLIC OF KAZAKHSTAN FOR 2023-2029;**[16]
- **THE CONCEPT OF ENERGY SAVING AND ENERGY EFFICIENCY IMPROVEMENT FOR 2023-2029;**
- **ENERGY BALANCE OF THE REPUBLIC OF KAZAKHSTAN UNTIL 2035;**
- **STRATEGY FOR ACHIEVING CARBON NEUTRALITY OF THE REPUBLIC OF KAZAKHSTAN BY 2060.**

The Concept of Transition of the Republic of Kazakhstan to Green Economy. The concept includes coordinated policies in all seven large resource-related sectors - water use, development of sustainable and highly productive agriculture, energy saving, electricity, waste management, reduction of air pollution and conservation and effective management of ecosystems - and sets targets for 2020, 2030 and 2050 for each of these categories. In particular, the document sets the goal of achieving a 50% share of alternative energy sources in the country's energy mix by 2050.

The Forecast Balance of Electric Power and Capacity for 2024-2030. The forecast balance is formed with a significant deficit of electric capacity - up to 6.2 GW by 2030. It is also forecast that the electricity deficit by 2030 will amount to 13.5 billion KWh (production - 142.5 billion KWh; consumption -155.9 billion KWh).

The Concept of the Development of the Fuel and Energy Complex of the Republic of Kazakhstan for 2023-2029. The Concept sets the following target indicators in the electricity sector:

- The volume of commissioned electric capacity with storage will reach 11.7 GW by 2029.

[16] Data from the Concept for Forecast Balance of Electric Power and Capacity have been updated in a new document (Forecast Balance of Electric Power and Capacity for 2024-2030).

- The electricity demand of the economy and the population will be covered by 100%.
- In 2029, the share of electricity from RES will be 12.5% of the total production volume.
- The increase in the volume of electricity generation from renewable energy sources will grow by 2.8 times compared to 2022.
- The demand for coal products by energy producing enterprises, public organizations and households will be met by 100%.
- The reduction of energy intensity in the energy sector will increase by 5% by 2029 compared to 2021.

Strategy for achieving carbon neutrality of the Republic of Kazakhstan by 2060. Kazakhstan signed the Paris Agreement on 2 August 2016 and ratified it on 6 December 2016. Taking into account global climate trends and the fulfilment of relevant international commitments, this Strategy has been developed. The main objective of the Strategy is to achieve carbon neutrality and sustainable development of Kazakhstan's economy by 2060 in relation to climate change. The strategy includes 2 scenarios: baseline and carbon neutrality. The baseline scenario describes the path of economic development that does not include significant technological changes or policy measures aimed at increasing decarbonization in Kazakhstan. The carbon neutrality scenario includes the necessary measures to achieve carbon neutrality by 2060. Key measures to reduce emissions and decarbonize the power sector include:

- Cancellation of new coal-fired generation projects and phase-out of coal combustion (2021-2025);
- Doubling the share of RES in electricity generation (2030);
- 100% electrification of personal passenger transport (2045);
- Use of green hydrogen and complete phase-out of coal-fired generation starting from 2050.

The Strategy also defines nationwide approaches and the strategic direction of state policy for the consistent transformation of the economy to achieve carbon neutrality, and envisages the achievement of the following goals:

- Unconditional 15% reduction in GHG emissions by December 2030 compared to 1990 levels;
- Conditional 25% GHG emission reduction by December 2030 compared to 1990, subject to additional international investment, access to technology and finance.

The Concept of Energy Saving and Energy Efficiency Improvement for 2023-2029. This Concept was adopted in March 2023 and aims to reduce the energy intensity of the energy sector by 5% by the year 2029, compared to the 2021 level.

1.3 INSTITUTIONAL STRUCTURE OF THE ENERGY SECTOR

Government of the Republic of Kazakhstan. The Government of the Republic of Kazakhstan, in accordance with the Law “On Electric Power Industry”, develops the main directions of the state policy in the field of electric power industry, including renewable energy sources.

Ministry of Energy of the Republic of Kazakhstan. In accordance with the Law of the Republic of Kazakhstan “On Electric Power Industry”, Resolution No. 994 of the Government of the Republic of Kazakhstan dated 19 September 2014, “Regulations on the Ministry of Energy of the Republic of Kazakhstan” and other regulations, the implementation of state policy in the field of electric power industry is carried out by an authorized body represented by the Ministry of Energy of the Republic of Kazakhstan (“the Ministry of Energy”), which has

more than 80 competences and powers specified in Article 5 of the Law of the Republic of Kazakhstan "On the Electric Power Industry". In relation to the regulation of prices and tariffs in the electricity sector, the Ministry of Energy is responsible for approving:

- cap tariffs for electricity from power plants;
- cap tariffs for balancing electricity;
- cap tariffs for the service of maintaining the availability of electric capacity;
- individual tariffs for the service of maintaining the availability of electric capacity for operating and newly commissioned generating units, etc.

Committee for Regulation of Natural Monopolies of the Ministry of National Economy (hereinafter "CRNM MNE", or "the Committee"). The Committee carries out state regulation and control in the areas of natural monopolies. The Committee sets tariffs for services provided by natural monopolies in relation to:

- transmission and/or distribution of electricity;
- generation, transmission, distribution and/or supply of heat energy;
- technical dispatching of electricity supply to the network and consumption;
- organizing the balancing of electricity production and consumption, etc.

Kazakhstan Electricity Grid Operating Company JSC. KEGOC is designated as the System Operator under the Law of the Republic of Kazakhstan "On Electric Power Industry" and performs the following functions:

- provides system services for the transmission of electricity by the NG;
- provides system services for technical dispatching, carries out centralized operational dispatching management;
- ensures the reliability of the unified electric power system of the Republic of Kazakhstan;
- provides system services for the execution of balancing of production and consumption of electric energy;
- organizes the functioning of the balancing electricity market and the market of system and auxiliary services;
- interacts with the energy systems of neighboring countries;
- provides technical and methodological guidance for the creation of a unified information system, automated system of commercial electricity metering, connected relay protection and emergency control devices for all participants of the wholesale electricity market;
- develops forecasting balances of electric power and capacity;
- organizing the operation of the electric capacity market;
- certification of electric capacity of generating units and other functions.

Kazakhstan Operator of the Electric Energy and Capacity Market JSC. KOREM is a subordinate organization of the Ministry of Energy of the RK, which is defined as the operator of the centralized commercial market, as well as the settlement center of the balancing market and performs the following main functions:

- organizes and conducts centralized trading in electricity for medium and long-term periods as well as centralized trading in electricity for one year;
- organizes and conducts auctions

- purchases and sells balancing electricity on the balancing market;
- calculates weighted average prices for the purchase/sale of balancing electricity;
- determines the cap tariff for balancing electricity and the cap tariff for negative imbalances, etc.

Financial Settlement Center for the Support of Renewable Energy Sources LLP (hereinafter "FSC"). FSC is a subordinate organization of the Ministry of Energy of the Republic of Kazakhstan, which purchases and sells electricity generated by RES facilities and supplied to the unified power system of Kazakhstan. In addition, FCS has been designated as the Single Electricity Buyer. As the Single Buyer, FSC fulfils the following functions:

- purchases scheduled electricity on a day-ahead basis from energy producing organizations;
- sells scheduled electricity to energy transmission organizations, energy supply organizations, electricity consumers subject to the wholesale electricity market, conditional consumers and miners;
- purchases negative imbalances from RES and sells RES balancing electricity under responsibility transfer agreements;
- purchases (if necessary) electricity from electricity suppliers (producers) in other countries (import);
- sells (if necessary) electricity to consumers in other countries (export);
- provides targeted support to consumers on the wholesale market through differentiated tariffs;
- sets forecast prices for the sale of electricity, etc.

1.4 STRUCTURE OF THE ELECTRICITY MARKET IN THE REPUBLIC OF KAZAKHSTAN

The electricity market consists of two levels: wholesale and retail electricity markets. Participants of the retail electricity market do not purchase and sell electricity on the wholesale electricity market.

WHOLESALE ELECTRICITY MARKET

Participants of the wholesale electricity and capacity market are as follows:

- energy producing organizations engaged in the production and sale of electricity;
- energy transmission organizations engaged in electricity transmission activities;
- power supplying organizations[17];
- electricity consumers;
- system operator;
- centralised trading market operator;
- single electricity buyer.

From 1 July 2023, the wholesale electricity and capacity market of the Republic of Kazakhstan consists of:

1) wholesale electricity market (purchase/sale of planned volumes of electricity);

[17] From 1 April 2024, by order of the Prime Minister of the Republic of Kazakhstan, the work of unregulated electricity supplying organizations is suspended. https://primeminister.kz/ru/news/neproduktivnye-posredniki-isklyuchayutsya-iz-tsepochki-elektrosnabzheniya-28052

2) balancing market;
3) system and ancillary services market;
4) capacity market

The current structure of the wholesale market is provided in the figure below.

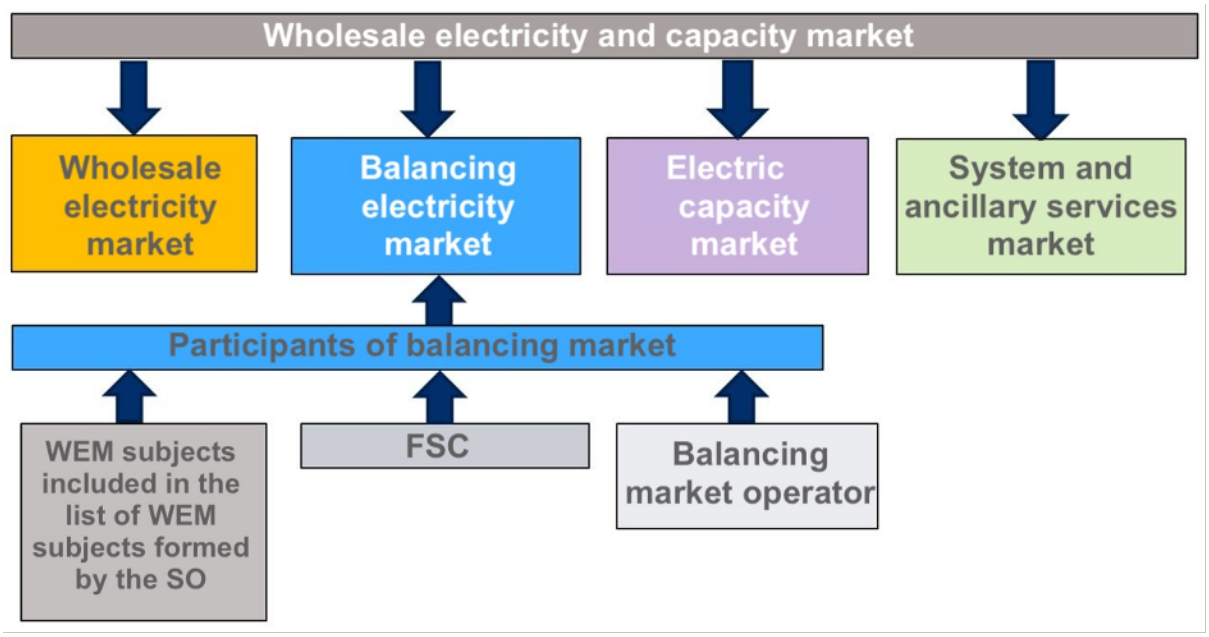

Figure 5. Wholesale market structure

Wholesale electricity market is a system of relations related to the purchase and sale of planned volumes of electricity, functioning on the basis of electricity purchase and sale contracts between wholesale electricity market entities and a Single Buyer.

The introduction of a **Single Buyer** model from 1 July 2023 has fundamentally changed the operation of the wholesale electricity market. After its introduction, bilateral contracts are excluded (except for market entities belonging to the same group of entities), and all volumes must be sold through an intermediary, a single seller, and an electricity buyer on the wholesale market, which is a state-owned company (Financial Settlement Center for the Support of Renewable Energy Sources LLP).

Deviations between actual and planned generation/consumption volumes should be financially settled in the balancing market, which was launched in parallel with the Single Buyer model.

Balancing electricity market is a system of relations between market participants and the settlement center of the balancing market arising from physical settlement of electricity imbalances in the unified power system of the Republic of Kazakhstan by the system operator and related to the purchase and sale of balancing electricity and negative imbalances. The balancing electricity market operates from 1 July 2023 for the purpose of physical and subsequent real-time financial settlement of imbalances.

Within the framework of the Single Electricity Buyer function, planned quantities of electricity are to be bought and sold, and any deviations from the daily schedule (imbalances) are to be settled financially on the balancing market. KOREM is a settlement center of the balancing market.

The market for system and ancillary services operates on the basis of both the purchase of electricity from wholesale market entities and the provision of relevant services by the system operator to wholesale market entities in order to ensure the reliability of the operation

of the unified power system of the Republic of Kazakhstan and the quality of electricity determined by standards.

The electric capacity market operates on the basis of the purchase of the service of maintaining the availability of electric capacity and the provision of a centralized service to ensure the availability of electric capacity to carry load.

The wholesale electricity market is characterized by high concentration and dominance of a limited number of companies, whose combined market share exceeds 70% (see Figure 6). The remaining share is accounted for by owners of more than 30 electricity generating companies, of which almost half are state and municipal owned.

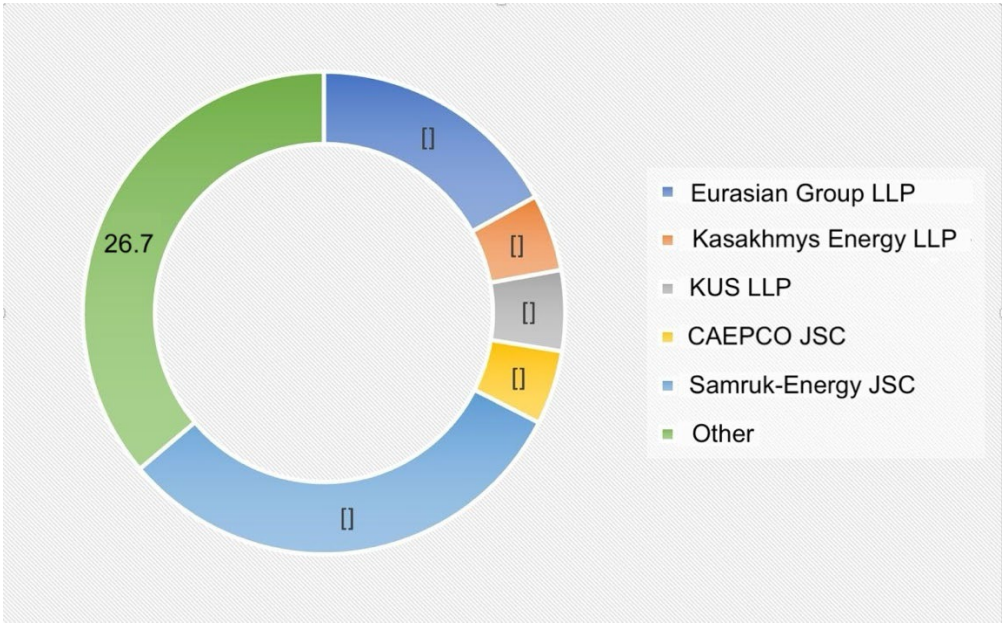

Figure 6. Shares of energy holdings and large energy producing organizations in electricity generation in Kazakhstan.[18]

[18] Samruk-Energy (February 2024). Market analysis of the power industry of Kazakhstan

2. RENEWABLE ENERGY DEVELOPMENT IN THE REPUBLIC OF KAZAKHSTAN

2.1 STRATEGY AND TARGET INDICATORS OF RES DEVELOPMENT

In 2012, the Government of the Republic of Kazakhstan adopted the Kazakhstan 2050 Strategy, which specifies the directions for long-term economic development in the country.

In May 2013, the Concept of Transition of the Republic of Kazakhstan to Green Economy (the Concept of Green Economy) was adopted with the ambitious goal of generation mix comprising 50% alternative energy sources, including gas, nuclear and renewable energy by 2050. The government plans to achieve this through a gradual decommissioning of aging infrastructure, broader use of alternative fuels, installation of energy-efficient equipment, and compliance with strict environmental standards.

The Concept of Green Economy sets renewable energy sector development targets in Kazakhstan:

- ✓ 3% share of RES in total electricity production by 2020
- ✓ 15% share of RES in total electricity production by 2030
- ✓ 50% share of alternative and RES in total electricity production by 2050.

The Plan for Strategic Development of the Republic of Kazakhstan tup to 2025, approved by Decree of the President of the Republic of Kazakhstan No. 636, dated February 15, 2018, sets a target of a 6% share of renewable energy in total electricity production by 2025.

In February 2023, the Strategy for Achieving Carbon Neutrality of the Republic of Kazakhstan by 2060 was adopted. According to the Strategy, the key condition for successful decarbonization will be the development of RES. In the initial phase, the main resource for RES development is planned to be wind energy. In the future, when the cost of investment in solar power plants (hereinafter "SPP") will decrease significantly, solar energy will become the key technology. In addition, it is planned to support the development of small-scale RES.

In order to successfully develop RES in Kazakhstan, taking into account international experience, amendments and additions were made in 2013 to the Law of the Republic of Kazakhstan dated 4 July 2009 No. 165-IV "On Support of the Use of RES" (hereinafter "Law on Support of RES"). Thus, in accordance with the Law on Making Amendments and Addenda to Certain Legislative Acts of the Republic of Kazakhstan on Support of the Use of RES No. 128-V dated July 4, 2013, the FSC carries out centralized purchase and sale of electric energy produced by RE facilities and supplied to the Kazakhstan unified power system in accordance with the procedure provided for in the Law on Support of RES. Later, the Decree of the Government of the Republic of Kazakhstan No. 1281 dated November 29, 2013, appointed the FSC as the Financial Settlement Center for the support of RE sources. In 2023, by Decree of the Minister of Energy of the Republic of Kazakhstan No. 212 dated 6 June 2023, FSC was designated as a Single Electricity Buyer.[19]

The Resolution of the Government of the Republic of Kazakhstan No. 645 dated June 12, 2014 established feed-in tariffs for a period of 15 years. In July 2017, the Law on Support of the Use of RES was amended, introducing a mechanism for RE auctions. The ceiling auction prices were set at the feed-in tariff level.

2.2 RE DEFINITION. RE RESOURCE POTENTIAL

According to Article 1 of the Law of the Republic of Kazakhstan "On Support of the Use of Renewable Energy Sources" dated 4 July 2009 No.165-IV (hereinafter "Law On Support of RES"), renewable energy sources are those that are continually replenished due to natural processes, including the energy of sunlight, wind energy, hydrodynamic energy of water, geothermal energy (heat of the ground, ground water, rivers, and basins), and anthropogenic sources of primary energy (biomass, biogas and other fuels derived from organic waste) used for the production of electric and/or thermal energy.

RE Resource Potential in Kazakhstan:

- ✓ Wind: 1,820 billion kWh/year
- ✓ Hydro: 62 billion kWh/year
- ✓ Solar: 2.5 billion kWh/year
- ✓ Geothermal: 4.3 GW[20].

[19] Order of the Minister of Energy of the Republic of Kazakhstan dated 6 June 2023, No. 212, "On designation of a Single electricity buyer"

[20] Decree No. 724 of the Government of the Republic of Kazakhstan dated June 28, 2014, "On Approving the Concept of Development of the Fuel and Energy Complex of the Republic of Kazakhstan up to 2030"

The U.S. National Renewable Energy Laboratory (NREL) and USAID jointly developed RE Data Explorer[21], which provides data on RE resources, analytical tools and technical support for investors, and allows the visual analysis of RE potential based on user-specified scenarios.

Wind Energy (WPP)

Wind energy has the greatest potential among all RES in Kazakhstan. Around half of its territory has an average wind speed of about 4 to 5 m/sec at a height of 30m. The greatest wind potentials are in the Atyrau and Mangystau regions in the Caspian Sea area, and northern and southern Kazakhstan. According to the Concept of Development of the Fuel and Energy Complex of the Republic of Kazakhstan till 2030, the country's wind potential is 1,820 billion kWh per year.

Hydro Energy (HPP)

Hydropower is the second-largest RES in Kazakhstan. As of 2017, it accounts for about 10.9% of the country's generating capacity. Ranking third among CIS (Commonwealth of Independent States) countries in water resource potential, Kazakhstan has an estimated potential of 170 billion kWh per year, of which about 62 billion kWh are technically feasible. The annual hydropower potential of medium and large rivers is 55 billion kWh, and 7.6 billion kWh from small rivers.[22] About 8 billion kWh from small hydro power plants are estimated to be technically feasible.

Hydro energy resources are distributed throughout the country, but three areas have particularly large resources: the Irtysh River basin and its main tributaries (Bukhtarma, Uba, Ulba, Kurchum, Kardzhil), the southeast zone with the Ili River basin, and the south zone with the Syrdarya, Talas and Chu river basins.

As of 2023, electricity generation from small HPPs was 993.87 million kWh.[23]

Solar Energy (SPP)

Solar energy has an enormous potential in Kazakhstan. According to the Concept of Development of the Fuel and Energy Complex, solar energy can produce about 2.5 billion kWh per year, with 2,200-3,000 hours of solar per year (2,500-3,000 hours per year in the southern regions) out of 8760 hours.

Geothermal Energy

Kazakhstan is also potentially rich in geothermal resources. Its hydro geothermal resources with temperatures of 40°C to more than 100°C are estimated at 10,275 billion m^3 by water rate and 680 billion Gcal by heat rate, which is equivalent to 97 billion toe (ton of oil equivalent) or 2.8 billion TJ, equivalent to the country's estimated fossil fuel reserves. Kazakhstan has estimated hydrocarbon reserves of 12 billion tons of oil and condensate (17.2 billion toe) and about 6-8 trillion cubic meters of gas (7-9.2 billion toe). Its coal reserves are estimated at 150 billion tons (101.0 billion toe).

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[21] Renewable resources. RE Data Explorer. https://rfc.kz/ru/res-sector/investors/renewable-resources/162700/

[22] Resolution No. 724 of the Government of the Republic of Kazakhstan "On Approval of the Concept of the Development of Fuel and Energy Complex of the Republic of Kazakhstan for 2023 – 2029" dated 28 June 2014

[23] Information on electricity production by RES facilities in 2023. https://www.gov.kz/memleket/entities/energo/documents/details/588510?lang=ru

Geothermal sources are located primarily in western Kazakhstan (75.9%), southern Kazakhstan (15.6%) and central Kazakhstan (5.3%). The most promising sources are the Arys, Almaty and Zharkent basins in southern and southeastern Kazakhstan with thermal underground waters with mineralization of up to 3 g/dm^3 and temperatures up to 70-100°C. [24]

Biogas Energy

Kazakhstan is a major producer of grain and other agricultural products, which generate a significant amount of crop and manure waste. Kazakhstan therefore has significant amounts of waste available, particularly in terms of agricultural crops, manure and solid household waste.

The largest volumes of mixed agricultural wastes are available in the Almaty, East Kazakhstan, Zhambyl, Kostanay, Akmola and Karaganda regions. Livestock waste is a stable source of biomass for energy production. No data are yet available on total and available volumes of waste and their geographic locations. Waste and residues are rarely used efficiently, for example, as raw materials for bioenergy projects. Currently, the European Bank for Reconstruction and Development is implementing a project to assess the potential for biofuel production in Kazakhstan.

At present, there are 148 RES plants in operation in the Republic (above 100 kW and taking into account the exclusion of decommissioned plants) with an installed capacity of 2,903.7 MW:

- ✓ 59 wind power plant facilities with capacity of 1,409.556 MW;
- ✓ 46 solar power plant facilities with capacity of 1,222.61 MW;
- ✓ 40 hydro power plants facilities with capacity of 269.785 MW;
- ✓ 3 biogas power plant facilities with capacity of 1.77 MW[25].

FSC website contains an interactive map of renewable facilities[26].

2.3 STATE SUPPORT FOR INVESTMENTS IN RE SECTOR DEVELOPMENT

The Republic of Kazakhstan's Law on Support of the Use of RES includes the following investment support measures**:**

- ✓ The FSC – subordinate organization of the Ministry of Energy – as a Single Buyer of RE.
- ✓ 20-year Power Purchase Agreement s at auction prices with the FSC for all RE.
- ✓ For auction winners, as of January 1, 2022, a one-time indexation for the construction period starting from the conclusion of the PPA and until the commencement of electric power delivery from RES to the FSC.
- ✓ Increase of indexation rate for the RES tariff compared to KZT to USD exchange ratio from current 70% to 100%.[27]

[24] Preliminary overview of geothermal resources in Kazakhstan. https://rfc.kz/ru/res-sector/investors/renewable-resources/162679/

[25] Statistical data provided by the Ministry of Energy of the Republic of Kazakhstan.

[26] Map of RES facilities. https://rfc.kz/ru/res-sector/map/

[27] The Ministry of Energy of the Republic of Kazakhstan is currently working on amendments to the legislation regarding indexation to foreign currencies

- ✓ RE generators are exempt from payment for electricity transmission services.
- ✓ Priority dispatch for RE generators.
- ✓ Land plots and connection points are reserved for RE auctions.
- ✓ Legislation identifies investment preferences.

2.4 GOVERNMENT INVESTMENT PREFERENCES

State support for investments is regulated by the Ministry of Foreign Affairs of the Republic of Kazakhstan (MFA RK). State support aims to create a favorable economic climate, boost investment in new production facilities, expand and renovate production facilities, increase the use of modern technologies, and upgrade skills. State investment support includes the provision of investment preferences (incentives).

Investment preferences are targeted benefits provided in accordance with the legislation of the Republic of Kazakhstan to legal entities of the Republic of Kazakhstan implementing an investment project and leasing companies importing technological equipment under a financial leasing agreement for a legal entity of the Republic of Kazakhstan implementing an investment project in the course of implementing the investment project.

Instruments of state support:

The Entrepreneurial Code of the Republic of Kazakhstan dated 29 October 2015 No. 375-V (hereinafter “Entrepreneurial Code”) provides for the following types of instruments:

- ✓ Investment contract;

- ✓ Agreement on Investment.

An Investment Contract is concluded for the implementation of an investment project and a priority investment project:

Investment project is a set of actions that implies investing in new production facilities, and the expansion and/or the renovation of existing production facilities including those that were established, expanded and/or renovated within a public private partnership project, including concession projects.

Priority investment project means an investment project for:

- ✓ Development of new production facilities implying a legal entity’s investment in the construction of new production facilities (factory, plant or workshop) in the amount of at least 2 million monthly calculation indices, established by the Law on the republican budget and effective on the date of filing an application for investment preferences.

- ✓ Expansion and/or renovation of existing production facilities, implying a legal entity’s investment to modify basic assets, including renovation (renovation, reconstruction and modernization) of existing production facilities that manufacture goods, in an amount not less than 5 million monthly calculation indices, established by the Law on the republican budget and effective on the day of filing an application for investment preferences.

A priority investment project aimed at creating new or expanding and/or renovating existing production facilities is implemented by a legal entity operating in one of the priority business activities included on the priority business activities list defined by the Government of the Republic of Kazakhstan.

Agreement on Investment is an agreement on the implementation of an investment project concluded on the basis of the decision of the Government of the Republic of Kazakhstan between a person authorized by the Government of the Republic of Kazakhstan and a legal entity, including those registered in the jurisdiction of the Astana International Financial Center, which provides for investments in the amount of not less than seven and a half million monthly calculation indexes established by the Law on the Budget of the Republic of Kazakhstan and effective as of 1 January of the respective year.

An Agreement on Investment establishes the conditions and procedure for granting preferences and benefits provided for by the legislation of the Republic of Kazakhstan in force at the time of concluding the Agreement on Investment, as well as the counter-obligations of the legal entities concluding the Agreement on Investment.

The term, procedure and conditions for amending and terminating the Agreement on Investment are determined by the Rules for Concluding, Amending and Terminating Agreement on Investment approved by Decree No. 11-1-4/113 of the Acting Minister of Foreign Affairs of the Republic of Kazakhstan dated 17 March 2023.

For example, in 2023 and 2024, agreements were signed between the Government of the Republic of Kazakhstan and the Government of France, and the Government of the Republic of Kazakhstan and the Government of the United Arab Emirates on the implementation of large-scale RES projects (1 GW and above).

These agreements provide for the conclusion of the following contracts:

a) Agreement on Investment between the Government of the Republic of Kazakhstan and the Project Company;

b) Power Purchase Agreement between FSC and the Project Company;

c) Agreements between KEGOC and the Project Company on the technical dispatch of power supply to the grid and consumption, maintenance of overhead lines and connection to the grid;

d) A land lease agreement between the Akimats of the relevant Oblasts of the Republic of Kazakhstan and the Project Company;

e) and other agreements defining and implementing the terms and conditions of each such project.

According to Article 6 of the Law of the Republic of Kazakhstan dated April 6, 2016 No. 480-V of the Law on Legal Acts, international treaties ratified by the Republic of Kazakhstan take precedence over its laws and are directly applicable, unless it follows from the international treaty that its application requires the issuance of a law. In this regard, the provisions of such international agreements take precedence over national legislation, including the Law on RES, including the following:

- mandatory auction for the purpose of signing a Power Purchase Agreement with the FSC,
- the term of such Power Purchase Agreement (in international agreements such term is set at 25 years),
- obligations of the Kazakhstan party to provide compensation to the project company in the form of increased payments for electricity under the Agreement on Investment and the ESA for any increased costs incurred by any large project under certain events (e.g., events of reduced electricity supply other than those listed in the

documentation of the large project as exceptions to the take-or-pay regime; compensation to the project company in the event of early termination of the Power Purchase Agreement and the Agreement on Investment); and the payment of compensation to the project company in the event of early termination of the Power Purchase Agreement and the Agreement on Investment.

Types of Investment Preferences

Article 283 of the Entrepreneurial Code of the Republic of Kazakhstan provides for the following types of investment preferences.

When concluding an Investment Contract for an investment project, investors are granted the following investment preferences:

- ✓ Exemption from customs duties:
  - *Applies to the import of technological equipment and its components for the duration of the Investment Contract, but not more than 5 years from the date of registration of the Investment Contract;*
  - *Applies to the import of spare parts for technological equipment, raw materials and supplies for a period of up to 5 years, depending on the volume of investment in fixed assets and whether the investment project falls under the list of priority activities.*
- ✓ Exemption from VAT for imports, provided that:
  - *Materials and supplies are included in the Order of the Minister of Investments and Development No.140, dated February 27, 2018, imports of materials and supplies are documented in accordance with the customs legislation of the Eurasian Economic Union and/or customs legislation of the Republic of Kazakhstan; imported materials and/or supplies will be used only for the implementation of activities under the Investment Contract.*
- ✓ State in-kind grants (land plots, buildings, structures, machinery and equipment, computers, measuring and control instruments and devices, vehicles) provided that: the maximum value of any state in-kind grant does not exceed 30% of the volume of investments into fixed assets; a document confirming the preliminary consent of the local executive authorities of the Republic of Kazakhstan (LEA RK) shall be submitted.

When concluding an Investment Contract for a priority investment project investors are granted the following investment preferences:

- ✓ Exemption from customs duties:
  - *import of technological equipment and its components for the duration of the Investment Contract, but not more than 5 years from the date of registration of the Investment Contract;*
  - *import of spare parts for technological equipment, materials and supplies for a period of up to 5 years, depending on the volume of investment in fixed assets and whether the investment project falls under the list of priority activities.*
- ✓ State in-kind grants (land plots, buildings, structures, machinery and equipment, computers, measuring and control instruments and devices, vehicles) provided that: the maximum value of any state in-kind grant does not exceed 30% of the volume of investments into fixed assets; a document confirming the preliminary consent of the LEA RK shall be submitted.

✓ Tax benefits:

- *the following tax preferences are provided for the creation of new production facilities - a factory, a plant, a workshop:*

- Exemption from the corporate income tax for a period of 10 years. At the same time, the period for granting the tax benefit starts from January 1 of the year in which the Investment Contract is concluded and ends no later than in ten consecutive years, which are calculated starting from January 1 of the year following the year in which the Investment Contract for the implementation of the priority investment project was concluded.
- Exemption from the land tax for a period of 10 years. At the same time, the period for granting the tax benefit begins on the 1st day of the month in which the Investment Contract is concluded and ends no later than in ten consecutive years, which are calculated starting from January 1 of the year following the year in which the Investment Contract was concluded. Provisions of the first part of the present Paragraph shall not be applied in cases when the land plot used for implementation of the priority investment project or its part (together with or without buildings, structures, facilities located thereon) is leased out for property rent (lease), for use on other grounds.
- Exemption from the property tax for a period of 8 years. At the same time, the calculation at a rate of 0 to the tax base starts from the 1st day of the month in which the first asset is accounted for in fixed assets in accordance with International Financial Reporting Standards and the requirements of the legislation of the Republic of Kazakhstan on accounting and financial reporting; and ends no later than in eight consecutive years, which are calculated starting from January 1 of the year following the year in which the first asset is accounted for in fixed assets in accordance with International Financial Reporting Standards and the requirements of the legislation of the Republic of Kazakhstan on accounting and financial reporting.

- *Expansion or modernization of ongoing production*
  - Exemption from the corporate income tax for a period of 3 years. At the same time, the period for granting the tax benefit begins on January 1 of the year following the year in which the last fixed asset producing outputs was commissioned under the Investment Contract and ends no later than in three consecutive years, which are calculated starting from January 1 of the year following the year in which the last fixed asset producing outputs was commissioned under the Investment Contract.

When implementing an investment project under an agreement on investment, investors may be granted the following preferences:

- a 100% reduction in corporate income tax calculated in accordance with Article 302 of the Tax Code of the Republic of Kazakhstan on income from the implementation of an investment project for activities defined in the agreement on investment, obtained through the operation of fixed assets introduced as new production facilities, expanded or modernized in accordance with the agreement on investment;[28]
- application of coefficient 0 when calculating land tax on land plots used for investment project implementation;[29]

[28] Subparagraph 1 of Paragraph 1 of Article 712-2 of the Tax Code of the Republic of Kazakhstan.

[29] Subparagraph 2 of Paragraph 1 of Article 712-2 of the Tax Code of the Republic of Kazakhstan.

- application of a 0% rate to the tax base when calculating property tax on property used to carry out an investment project.[30]
- guarantee of stability in case of changes in the legislation of the Republic of Kazakhstan;[31]
- provisions of the Agreement on Investment shall remain in force for twenty-five years from the date of its conclusion in case of changes in the legislation of the Republic of Kazakhstan, except for those provisions arising from international treaties ratified by the Republic of Kazakhstan, as well as cases of amendments to the Agreement on Investment by agreement of the parties;[32]
- other preferences in accordance with the terms and conditions of the Agreement on Investment on the basis of agreement.[33]

To be eligible for investment preferences, a legal entity of the Republic of Kazakhstan uses a standard form to submit an application for investment preferences to the Investment Committee of the Ministry of Foreign Affairs of RK (IC MFA RK) along with documents confirming the Applicant's compliance with the requirements of the Entrepreneurial Code. IC MFA RK accepts applications for investment preferences in electronic form on the website e-license.kz, attachments to the application should be scanned and attached. Review period is *27 working days.*

Kazakh Invest National Company JSC provides full support to investors in the process of filling out an application and preparing a business plan until an Investment Contract is concluded.

The investment preferences are granted on the basis of an Investment Contract concluded between the authorized investment body and a legal entity of the Republic of Kazakhstan implementing an investment project.

In order to be eligible for the investment preferences, a legal entity of the Republic of Kazakhstan shall submit an application for investment preferences and the following documents to the IC MFA RK:

✓ Certificate of state registration (re-registration) of a legal entity;

✓ Copy of the charter of the legal entity, certified by the signature of the executive officer and the seal of the legal entity (if any);

✓ Business plan for the investment project;

✓ Documents confirming the size (cost) of the national in-kind grant requested by the applying legal entity of the Republic of Kazakhstan and preliminary approval of its provision;

✓ If the application for the provision of investment preferences provides for the provision of tax preferences, the investor submits the conclusion of a comprehensive non-departmental examination of construction projects, certified by the signature of the

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[30] Subparagraph 3 of Paragraph 1 of Article 712-2 of the Tax Code of the Republic of Kazakhstan.

[31] Paragraph 1 of Article 289 of the Entrepreneurial Code of the Republic of Kazakhstan, but the guarantee of stability is established in the Entrepreneurial Code of the Republic of Kazakhstan. **According to the Tax Code of the Republic of Kazakhstan, there is no stability with respect to the tax regime in force at the time of conclusion of the Agreement on Investment** (as explained to us in the Ministry of Finance of the Republic of Kazakhstan - the stability provision applies only to preferences).

[32] Paragraph 3 of Article 295-2 of the Entrepreneurial Code of the Republic of Kazakhstan.

[33] Article 295-2 of the Entrepreneurial Code of the Republic of Kazakhstan.

executive officer, in the manner determined by the legislation of the Republic of Kazakhstan.

A standard application form for investment preferences and the requirements for preparing the business plan were approved by the Order of the Minister of Investments and Development No.1133 dated November 30, 2015, On Certain Issues of State Support for Investments.

From the day a decision is made to provide investment preferences, the MFA RK prepares an Investment Contract for signature, using the standard form contract approved by the government (Annex 1).

Term, procedure and conditions for amendment and termination of the Agreement on Investment. The term, procedure and conditions for amendment and termination of the Agreement on Investment are stipulated in the Rules for conclusion, amendment and termination of Agreement on Investment (hereinafter “the Rules”) approved by the Order of the Acting Minister of Foreign Affairs of the Republic of Kazakhstan dated 17 March 2023 No. 11-1-4/113.

According to these Rules, an Agreement on Investment is concluded on the basis of the following conditions:

1) the cost of the investment project is not less than seven and a half million of the monthly calculation index established by the Law on the Republican Budget and effective as of 1 January of the relevant financial year. At the same time, the costs of a fixed asset shall be taken into account not earlier than 24 months prior to the day of submission of the application for the conclusion of the agreement and (or) costs of future periods prior to commissioning;

2) the documents stipulated in Paragraph 6 of the Rules (see below) are available;

3) there is approval of the Commission for negotiating the draft agreement with determination of the investor's counter obligations.

According to Paragraph 6 of the Rules, in order to conclude an Agreement, the Applicant shall apply to the Task Force with the following documents in the state and Russian languages, in paper and electronic form:

1) Application in accordance with Annex 1 to the Rules;

2) Copy of the Applicant's charter, certificate of state registration (re-registration) of the Applicant;

3) Business plan of the investment project in accordance with Annex 2 to the Regulations;

4) Feasibility study;

5) Design and estimate documentation of the investment project;

6) Opinion of comprehensive non-departmental examination on construction projects, certified by the signature of the executive officer, in the order established by the legislation of the Republic of Kazakhstan (in case of granting tax concessions);

7) Information confirming the right to use the licensed technology (agreement or another document regulating the right to use).

The information specified in subparagraphs 4, 5, 6, 7 of this Paragraph shall be provided if available.

Task Force is a structural subdivision of the national company responsible for the initial receipt of documents on the application and support of the process of conclusion of the agreement within 7 working days from the date of receipt of the documents specified in Paragraph 6 of the Rules, checks the completeness of the submitted documents and (or) information contained in them and notifies the Applicant of the results, including by electronic communication.

In case of availability of a complete package of documents and data, including those containing information on the type of the requested investment concessions, conditions and procedure of their granting, investment obligations of the investor, as well as compliance with Paragraph 1 of Article 295-2 of the Entrepreneurial Code of the Republic of Kazakhstan, the Task Force sends the investor's documents to the authorized body.

The authorized body to which the list of documents has been submitted shall, within a period not exceeding 10 working days from the date of its receipt, determine the following:

- Appropriateness of the project implementation, reflecting the real need for goods, works and services and/or export potential within the framework of the application received, with an indication of whether the project is part of sectoral development programs and/or the development of new industrial niches and sectors;

- The validity of the chosen measure of state support in the form of an Agreement on Investment;

- Upon consideration, the sectoral body will send a written reply to the Task Force on the expediency of concluding an Agreement on Investment for the implementation of the project and will send an industry opinion report to the Task Force in accordance with Annex 3 to the Rules.

In case of a positive decision, the authorized body shall, within 5 (five) working days, establish a Commission for Conducting Negotiations (hereinafter referred to as the Commission) and, within 5 (five) working days, prepare a draft Agreement on Investment.

The Commission shall examine the documents on the investment project, approve the application, send it for revision or refuse to conclude an agreement.

Based on the results of the consideration of the application, the authorized body shall submit a conclusion on the main terms and conditions of the agreement together with the draft agreement approved by the Commission for Conducting Negotiations to the next meeting of the Investment Headquarters for consideration and a decision on the conclusion of the agreement.

Based on the results of the consideration by the Investment Headquarters, the conclusion of the basic terms of the agreement may be approved or sent for revision, or the conclusion of the agreement may be declined.

In case of a positive decision of the Investment Headquarters on approval of the conclusion of the agreement, the authorized body shall submit the following documents to the Ministry of

Economy of the Republic of Kazakhstan and the Ministry of Finance of the Republic of Kazakhstan within 3 (three) working days:

1) necessary documents and calculations in accordance with Article 5 of the Budget Code of the Republic of Kazakhstan on the draft agreements providing for a decrease in revenues or an increase in expenditures of the Republican and local budgets and (or) the National Fund of the Republic of Kazakhstan;

2) a written justification of the absence of a decrease in revenues or an increase in expenditures of the republican and local budgets and (or) the National Fund of the Republic of Kazakhstan on draft agreements which do not provide for a decrease in revenues or an increase in expenditures of the republican and local budgets and (or) the National Fund of the Republic of Kazakhstan.

The Ministry of National Economy of the Republic of Kazakhstan sends the agreed documents specified in Subparagraph 1 of part one of Paragraph 18 of these Rules on the draft agreements that provide for a decrease in revenues or an increase in expenditures of the republican and local budgets and (or) the National Fund of the Republic of Kazakhstan, within 20 (twenty) working days to the Ministry of Finance of the Republic of Kazakhstan for submission to the meeting of the Republican Budget Commission.

The Ministry of Finance of the Republic of Kazakhstan sends the documents for the meeting of the Republican Budget Commission within 5 (five) working days on the basis of the conclusion of the Ministry of National Economy of the Republic of Kazakhstan.

In case of positive conclusion of the Republican Budget Commission or in the absence of a decrease in revenues or an increase in expenditures of the republican and local budgets and (or) the National Fund of the Republic of Kazakhstan on draft agreements, the authorized body in the established order sends the draft resolution of the Government of the Republic of Kazakhstan on signing of the agreement for coordination to the interested state bodies and (or) organizations within 5 (five) working days.

3. AUCTIONS

3.1 GENERAL PROVISIONS

The RE auction mechanism was introduced by the Law of the Republic of Kazakhstan No.89-VI LRK dated July 11, 2017 “On Amendments and Additions to Certain Legislative Acts of the Republic of Kazakhstan on Electric Power Industry Issues”, along with the auction requirements introduced to the Law of the Republic of Kazakhstan on Support of the Use of RES.

The main *purpose of the auction mechanism* is to select the lowest cost RE projects and to establish competitive market prices for renewable energy.

Auctions are a process organized and conducted by the auction Organizer (Organizer) using an electronic platform. Auctions are intended to select projects to be constructed and determine auction prices for electricity from renewable energy sources, taking into account the renewable energy facilities siting plan.

The auction system is intended to support the development of RES in Kazakhstan by:

- ✓ Achieving the RES development targets;
- ✓ Reducing the influence of the RES sector on the growth of end-user tariffs;
- ✓ Ensuring systematic development of the RES sector, considering the capabilities of the unified power system of the Republic of Kazakhstan;
- ✓ Ensuring a transparent procedure for the selection of renewable energy projects.

The Rules of Organizing and Holding Auctions, Including Qualification Requirements for Auction Participants, the Content and Procedure for Submitting Applications, Types of Financial Guarantee for Participation in Auctions and Conditions of their Deposit and Return, the Procedure for Summing Up the Results and Determining the Winners (hereinafter "the Rules of Organizing and Holding Auctions") were approved by the Order of the Minister of Energy of the Republic of Kazakhstan No. 466 dated December 21, 2017.[34]

In accordance with the Order of the Minister of Energy of the Republic of Kazakhstan No. 280 dated August 7, 2017, Kazakhstan Electricity and Power Market Operator JSC was determined as the Organizer of the auction bidding. The RE auctions shall be conducted on KOREM's electronic trading platform.

The Methodological Guidelines of Organizing and Holding RE Auctions were developed by KOREM and approved by Order No. 104-OD dated December 21, 2021. These guidelines specify all details regarding stages, conditions and procedures for auctions.

Key Features of Kazakhstan's Auction Mechanism:

- ✓ Auctions are held in accordance with the auction schedule approved by the MoE RK.
- ✓ Auctions are held by zones: Northern, Western and Southern.
- ✓ Auctions are held separately for different types of RE, taking into account technical connection limitations.
- ✓ There are two types of auctions which are held separately – auctions with documentation and auctions without documentation.
- ✓ Auctions are divided into two types depending on the amount of installed capacity: small - up to and including 10 MW and large - over 10 MW.
- ✓ Auction participants shall choose information on the land plots planned to be allocated for the construction of a RE facility and grid connection points of the energy transmission organizations, indicating the maximum permissible capacity and the number of possible connections for SPP and WPP projects as per the auction schedule approved by the MoE of RK.
- ✓ Auctions take the form of a unilateral online auction.
- ✓ For auctions taking place in 2024, ceiling auction prices are set in accordance with the resolution of the Government of the Republic of Kazakhstan No. 645 dated June 12, 2014.
- ✓ the main criterion for admission to the auction is the financial guarantee: bank guarantee or standby letter of credit issued by SWIFT system.
- ✓ The primary selection criterion is the lowest price.

[34] This section is written taking into account changes to the Rules of Organizing and Holding Auctions made by the Order of the Ministry of Economy of the Republic of Kazakhstan No. 228 dated 27 June 2019.

✓ The primary criteria for recognizing auctions as valid are: (a) at least 2 participants in the auction and (b) the total amount of bids should be more than 130% of the declared capacity.

With the enactment of new changes to the Auction Rules, this year type-specific preferential terms for bio-PP and HPP were offset.

The following conditions no longer apply to the Rules:

- non-application of the condition that total volume of applications for auction(s) should be more than 130% of the declared auctioned capacity;
- tariff conditions related to the provision of the offer to the participants of the auction bidding without documentation for the selection of projects using hydrodynamic water energy, biomass, biogas and other fuels from organic waste used for electricity generation, which were not included in the preliminary list of auction winners.

Auction winners that conclude a Power Purchase Agreement shall use only new generating equipment (not previously in operation) to construct the RE facility.

This year, the Ministry of Energy of the Republic of Kazakhstan initiated an amendment to Order No. 345 of 27 July 2016, which relates to the rules for the development of a location plan for RES facilities. The amendment is related to the prohibition of providing the possibility of replacing a land plot in the RES facilities location plan.

A more detailed description of the procedure and the conditions for RE auctions is provided below.

3.2 AUCTION SCHEDULE

The auction schedule is developed and published on the MoE RK website no less than three months prior to the proposed auction date.

The schedule contains information on the land plots allocated for the construction of a RE facility and grid connection points of energy transmission organizations, indicating the maximum permissible capacity and the number of possible connections.

The land plots specified in the schedule are reserved by the local executive authorities of the regions, cities of republican significance, and the capital, until the auction winners are granted rights to the land plot. The relevant information shall be sent to the MoE RK.

The grid connection points provided by the energy transmission organizations to the MoE RK and specified in the Schedule are reserved until the auction winners conclude an agreement on RE facility connection and/or the technical specifications for grid connection are issued. The relevant information shall be sent to the MoE RK.

Participants of the auctions for SPP and WPP projects shall choose information on the land plots planned to be allocated for construction of a RE facility and grid connection points of the energy transmission organizations, indicating the maximum permissible capacity and the number of possible connections as per the auction schedule.

For the purpose of preparation and detailed development of investor projects for participation in auctions for selection of RES projects, the Ministry developed and approved the schedule of auction for 2023 and the auction plan for 2024-2027[35]:

According to the plan, auctions for a total installed capacity of 5.810 GW are expected starting from 2024-2027:

For 2024 – 1270 MW (SPP – 160 MW, WPP – 700 MW, HPP – 400 MW, Bio – 10 MW)

For 2025 - 1390 MW (SPP – 100 MW, WPP – 800 MW, HPP – 480 MW, Bio – 10 MW)

For 2026 - 1590 MW (SPP – 100 MW, WPP – 1000 MW, HPP – 480 MW, Bio – 10 MW)

For 2027 - 1560 MW (SPP – 100 MW, WPP – 1000 MW, HPP – 450 MW, Bio – 10 MW)

Having a long-term plan with specific project scope and details approved by the Ministry is an important factor in attracting investors and ensuring successful implementation of infrastructure projects.

This will allow investors:

- minimize their risks by assessing their financing needs over a longer period of time, thereby facilitating more accurate resource allocation and reducing financial uncertainties;

- effectively plan their own resources, including land leasing, development of project documentation, and infrastructure connections, which will contribute to a smoother and faster start-up of projects;

- advance planning and coordination will help avoid inefficient use of resources and reduce the cost of design, construction and infrastructure connection. This can result in lower overall capital investment and lower project costs.

In general, long-term planning of RES projects is an important component of successful attraction of investors, optimization of costs and ensuring sustainable implementation of projects. Approval of the long-term schedule and implementation of projects will bring us closer to achieving the strategic target of 15% RES share by 2030.

[35] On approval of the schedule of auctions for 2023 and the auction plan for 2024-2027. https://www.gov.kz/memleket/entities/energo/documents/details/472835?lang=ru

TABLE 3. THE SCHEDULE OF THE RENEWABLE ENERGY AUCTIONS FOR 2024																		
RES type	HPP	HPP	HPP	WPP	WPP	WPP	SPP	SPP	SPP	SPP	HPP	HPP	HPP	HPP	WPP	WPP	WPP	BioPP
Auction date	10.06	11.06	12.06	13.06	14.06	17.06	23.09	24.09	25.09	26.09	11.11	12.11	13.11	14.11	15.11	18.11	19.11	20.11
Auctioned capacity, MW	20	20	10	100	200	100	100	20	20	20	200	100	30	20	100	100	100	10
Project size	large	large	small	large	large	large	large	large	large	large	large	large	large	large	large	small	large	small
Auction type	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation	w/o documentation
KZ UPS Zone	All zones except the Tentek River.	All zones except the Tentek River.	All zones except the Tentek River.	North	North	North	South	South	South	South	All zones except the Tentek River.	All zones except the Tentek River.	All zones except the Tentek River.	All zones except the Tentek River.	North	North	South	All zones
Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Connection point	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Results of 2018-2023 auctions

According to the auction schedule approved by the authorized body, in 2018-2024 4,525 MW of installed capacity of renewable energy facilities were auctioned to investors, broken down by type of power plants:

- ✓ WPP – 2,435 MW
- ✓ SPP – 765 MW
- ✓ HPP – 1,250 MW

✓ BioPP – 75 MW

TABLE 4. INSTALLED CAPACITY OF RE FACILITIES AT 2018-2023 AUCTIONS (MW)								
RE technology	2018	2019	2020	2021	2022	2023	2024	Total, by type:
WPP	620	100	65	50	400	500	700	2435
SPP	290	80	55	20	60	100	160	**765**
HPP	75	65	120	120	220	250	400	1250
BioPP	15	10	10	10	10	10	10	**75**
Total:	1000	255	250	200	690	860	1270	4525

In general, at 2018-2023 auctions, 71 RE auctions were held with a total installed capacity of 3,255 MW. 2,502.84 MW of installed capacity was selected with the following breakdown by RE type: WPP - 1,534.79 MW; SPP - 566.5 MW; HPP - 381.09 MW; BioPP - 20.55 MW.

TABLE 5. INSTALLED CAPACITY OF RE FACILITIES SELECTED AT 2018-2023 AUCTIONS (MW)							
RE technology	2018	2019	2020	2021	2022	2023	Total, by type:
WPP	500.85	108.99	64.95	50	400	410	1534.79
SPP	270	86.5	60	20	40	90	566.50
HPP	82.08	7	23	11.8	0	257,21	381.09
BioPP	5	10.4	0	5.15	0	0	20.55
Total:	857.93	212.89	147.95	86.95	440	757,21	2502.93

Twelve auctions were declared invalid due to the insufficient number of participants or the total volume of bids, and the unselected volume was 427.25 MW (WPP – 119.2 MW, SPP – 20 MW, HPP – 263.2 MW and BioPP – 24.85 MW).

TABLE 6. RESULTS OF 2018-2023 AUCTIONS FOR THE SELECTION OF RE PROJECTS IN KAZAKHSTAN						
		WPP	SPP	HPP	BioPP	Total
Projects selected (MW)	2018	500.85	270	82.08	5	857.93
	2019	108.99	86.5	7	10.4	212.89
	2020	64.95	60	23	-	147.95
	2021	50	20	11.8	5.15	86.95
	2022	400	40	-	-	440
	2023	410	90	257.21	-	757.21
	TOTAL	1534.79	566.5	381.09	20.55	2502.93
Starting ceiling price (tg/kWh)/ (cent/kWh)	2018	22.68/ 6.58	34.61/10.04	16.71/4.85	32.23/9.35	-
	2019	22.66/5.92	29.00/7.58	15.48/4.04	32.15/8.4	-
	2020	21.69/5.25	16.97/4.11	15.48/3.75	32.15/7.79	-
	2021	21.53/5.05	16.96/3.98	15.20/3.57	32.15/7.55	
	2022	21.53/4.68	16.96/3.68	15.20/3.3	32.15/6.98	-
	2023	22.68/4.97	34.61/7.59	41.23/9.04	32.23/7.06	
Minimum auction price (tg/kWh)	2018	17.39/5.04	18.00/5.22	12.80/3.71	32.15/9.33	-
	2019	19.27/5.03	12.49/3.26	15.43/4.03	32.13/8.39	-
	2020	15.90/3.85	14.58/3.53	13.48/3.26	-	-
	2021	14.08/3.3	12.87/3.02	15.00/3.52	32.14/7.54	
	2022	12.39/2.69	16.95/3.68	-	-	-
	2023	10.38/2.28	13.89/3.04	17.5/3.84		

In general, 260 Kazakhstani and foreign companies from 13 countries took part in the auction: Kazakhstan, the Russian Federation, China, Germany, Malaysia, Italy, Spain, Netherlands, France, Bulgaria, UAE, Turkey, and Singapore.

The results of 2018 auctions

According to the auction schedule approved by the authorized body, in 2018 1,000 MW of installed capacity of renewable energy facilities were auctioned to investors, including:

- ✓ WPP – 620 MW
- ✓ SPP – 290 MW
- ✓ HPP – 75 MW
- ✓ BioPP - 15 MW.

2018 auctions were divided into spring (from May 23, 2018 to July 5, 2018) and fall (from October 3, 2018 to October 18, 2018).

In the course of the auction, 36 RES projects with a total installed capacity of 857.93 MW were selected, of which:

- ✓ WPP – 500.85 MW
- ✓ SPP – 270 MW
- ✓ Small HPP – 82.08 MW
- ✓ BioPP – 5 MW

113 Kazakhstani and foreign companies from nine countries took part in the auction: Kazakhstan, the Russian Federation, China, Turkey, France, Bulgaria, UAE, Italy, and the Netherlands.

The total volume of bids submitted by the bidders amounted to 3,422 MW, the volume of demand exceeded the volume of supply by 3.4 times. The winners of the auction won projects for 85% of the auctioned capacity.

According to Table 6, the bidders showed interest in the proposed projects for all types of renewable energy sources. For BioPP, HPP and WPP projects the volume of demand exceeded the volume of supply by about two times. The bidders expressed the greatest interest in SPP projects, where the volume of demand exceeded the volume of supply by seven times.

As a result of the auction, the maximum reduction in the auction price achieved:

- ✓ for wind generation - 23.3% (starting ceiling auction price - 22.68 KZT/kWh or 6.58 cents/kWh),
- ✓ for solar generation - 48% (starting ceiling auction price - 34.61 KZT/kWh or 10.04 cents/kWh),
- ✓ for small HPP projects - 23.4% (starting ceiling auction price - 16.71 KZT/kWh or 4.85 cents/kWh),
- ✓ for BioPP - 1% (starting ceiling auction price - 32.23 KZT/kWh or 9.35 cents/kWh).

This is a good result, confirming that the auctions help to determine the market prices for electricity generated by renewable energy facilities.

The results of 2019 auctions

According to the Schedule for 2019 approved by the Ministry of Energy of the Republic of Kazakhstan, the total of 255 MW of installed capacity was announced to be auctioned, broken down by types of power plants:

- ✓ WPP – 100 MW
- ✓ SPP – 80 MW
- ✓ HPP – 65 MW
- ✓ BioPP - 10 MW

In total, 8 auctions were planned and held (4 - for small, 4 - for large renewable energy projects), of which 7 auctions - without documentation and 1 auction - with documentation. In accordance with the Rules for Determining Feed-In Tariffs and Ceiling Auction Prices, the ceiling prices for 2019 auctions were determined at the level of the maximum price of the winners of the 2018 auctions. Therefore, the starting ceiling prices for the 2019 auctions were set at the following level (excluding VAT):

✓ WPP - 22.66 KZT/kWh (5.92 cents/kWh);
✓ SPP - 29 KZT/KWh (7.58 cents/kWh);
✓ HPP - 15.48 KZT/kWh (4.04 cents/kWh);
✓ BioPP - 32.15 KZT/kWh (8.4 cents/kWh).

In general, at 2019 auctions 13 renewable energy projects with a total installed capacity of 212.89 MW were selected, of which WPP - 108.99 MW, SPP - 86.5 MW, HPP - 7 MW and BioPP - 10.4 MW. In total, 32 Kazakhstani and foreign companies from 8 countries took part: Kazakhstan, the Russian Federation, China, Germany, Malaysia, Italy, Spain, and the Netherlands.

The total volume of bids received from the auction participants amounted to 818.99 MW, i.e., the volume of demand exceeded the volume of supply by 3.2 times. The winners of the auctions selected 83% of the auctioned installed capacity. Auction participants demonstrated great interest in projects of all offered RES types. In particular, for WPP projects, the volume of demand exceeded the supply volume by 2.8 times, but the greatest interest from investors was in the implementation of SPP projects, for which the volume of demand exceeded the supply volume by 6.5 times. As a result of the auction, the maximum reduction in auction price was for WPP projects - 15%, for SPP projects - 66%, for HPP projects - 0.3% and BioPP - 0.1%.

The results of 2020 auctions

According to the Schedule for 2020 approved by the Ministry of Energy of RK, the total of 250 MW of installed capacity was announced to be auctioned, broken down by type of power plants:

- ✓ WPP – 65 MW

✓ SPP – 55 MW

✓ HPP – 120 MW

✓ BioPP - 10 MW

In total, 8 auctions were planned and held (4 - for small, 4 - for large renewable energy projects), of which 6 auctions - without documentation and 2 auctions - with documentation. In accordance with the Rules for Determining Feed-In Tariffs and Ceiling Auction Prices, the ceiling prices for 2020 auctions were determined at the level of the maximum price of 2019 auctions winners. Therefore, the starting ceiling prices for 2020 auctions were set at the following level (excluding VAT):

✓ WPP - 21.69 KZT/kWh (5.25 cents/kWh);
✓ SPP - 16.97 KZT/kWh (4.11 cents/kWh);
✓ HPP - 15.48 KZT/kWh (3.75 cents/kWh);
✓ BioPP - 32.15 KZT/kWh (7.79 cents/kWh).

In general, 16 renewable energy projects with a total installed capacity of 147.95 MW were selected at 2020 auctions, of which WPP – 64.95 MW, SPP - 60 MW and HPP - 23 MW. In total, 27 Kazakhstani and foreign companies from 4 countries took part: Kazakhstan, the Russian Federation, the Netherlands, and Germany.

The total volume of bids received from the auction participants amounted to 493.9 MW, i.e., the volume of demand exceeded the volume of supply by 1.9 times. The winners of the auctions selected 60% of the auctioned installed capacity. Auction participants demonstrated great interest in projects of all offered RES types, except for BioPP. In particular, for WPP projects, the volume of demand exceeded the supply volume by 5 times, but the greatest interest from investors was in the implementation of SPP projects, for which the volume of demand exceeded the supply volume by 2.5 times. As a result of the auction, the maximum reduction in the auction price was for WPP projects – 26.7%, for SPP projects – 14.1% and for HPP projects - 13%.

The results of 2021 auctions

In accordance with the Schedule approved by the Ministry of Energy of the RK for 2021, in total 200 MW of installed capacity was announced to be auctioned, broken down by the following types of power plants: WPP - 50 MW; SPP - 20 MW; HPP - 120 MW; BioPP - 10 MW. For 2021 auctions the following starting ceiling auction prices were set:

✓ WPP - 21.53 KZT/kWh (5.05 cents/kWh);
✓ SPP - 16.96 KZT/KWh (3.98 cents/kWh);
✓ HPP - 15.2 KZT/kWh (3.57 cents/kWh);
✓ BioPP - 32.15 KZT/kWh (7.55 cents/kWh).

In total, 5 auctions were planned and held: 2 for small projects, 3 for large projects. Auctions were held in a routine manner, with 1 auction deemed failed due to insufficient number of participants (large HPP). 24 Kazakhstani companies took part in the auctions. Total volume of bids submitted by auction bidders was 626.95 MW, the volume of supply exceeded the volume of demand by 3 times. Namely, as regards SPP and small HPP, demand exceeded supply by approximately by 3 times, but the largest investor interest was drawn to WPP with a supply exceeding demand by 10 times.

In general, 2021 auctions selected 8 renewables projects with a total installed capacity of 86.95 MW, of which WPP - 50 MW, SPP - 20 MW, small HPP - 11.8 MW and BioPP - 5.15 MW. The winners of the auction selected 43.48% of the offered auction capacity. Following the auctions of this year, maximum reduction in auction price for WPP projects amounted to 34.6%, SPP – 24.11%, small HPP - 1.31%, BioPP - 0.03%. This is a good result confirming the idea that auctions contribute to reducing prices and enable determination of market prices for renewable energy prices.

The results of 2022 auctions

According to the Schedule approved by the Ministry of Energy of RK, a total of 690 MW of installed capacity was announced to be auctioned for 2022, broken down by the following types of power plants: WPP - 400 MW; SES - 60 MW; HPP - 220 MW; Biopower - 10 MW.

For the 2022 auctions the following starting ceiling auction prices were set:

✓ WPP - 21.53 KZT/kWh (4.68 cents/kWh);[36]
✓ SPP - 16.96 KZT/kWh (3.68 cents/kWh);
✓ HPP - 15.2 KZT/kWh (3.30 cents/kWh);
✓ BioPP - 32.15 KZT/kWh (6.98 cents/kWh).

In total 13 auctions were planned and held: 2 - for small projects, 11 - for large projects. The auctions were held in a routine manner, with 4 auctions deemed failed due to insufficient number of participants (small and large HPP, BioPP, SES). 36 Kazakhstani and foreign companies from 5 countries took part in the auctions: Kazakhstan, the Russian Federation, PRC, Singapore, and Netherlands. The total volume of bids received from auction participants amounted to 2809 MW, i.e., the volume of supply exceeded the volume of demand by 4 times. The greatest interest on the part of investors was in WPP projects, for which the volume of supply exceeded the volume of demand by almost 7 times. In general, 10 RES projects with a total installed capacity of 440 MW were selected at 2022 auctions, of which WPP - 400 MW, SPP - 40 MW. The winners of the auctions selected 63.77% of the auctioned capacity.

The results of 2023 auctions

According to the Schedule approved by the Ministry of Energy of RK, a total of 860 MW of installed capacity was announced to be actioned for 2023, broken down by the following types of power plants: WPP - 500 MW; SPP - 100 MW, HPP - 250 MW; BioPP - 10 MW.

For 2023 auctions the following starting ceiling auction prices were set (without VAT):

✓ WPP - 22.68 KZT/kWh (4.97 cents/kWh);
✓ SPP - 34.61 KZT/kWh (7.59 cents/kWh);
✓ HPP - 41.23 KZT/kWh (9.04 cents/kWh);
✓ BioPP - 32.23 KZT/kWh (7.06 cents/kWh).

In total 16 auctions were planned and held: 3 - for small projects, 13 - for large projects. Auctions were held in a routine manner, while 2 auctions were recognized as failed due to insufficient number of participants (large HPP and small BioPP), of which, the auction for large HPPs was held again and was recognized as valid. 65 Kazakhstani and foreign companies participated in the auctions. The total volume of bids received from auction participants

[36] Average annual exchange rate for 2022 is 460.48 KZT/USD

amounted to 2976.51 MW, i.e., the volume of supply exceeded the volume of demand by almost 3 times. The greatest interest on the part of investors was in WPP projects, for which the volume of supply exceeded the volume of demand by more than 4 times. Used average value of the official exchange rate of the National Bank of the Republic of Kazakhstan for 2023 is 456.31 KZT/USD. In general, 38 RE projects with a total installed capacity of 757.21 MW were selected at 2023 auctions, including 410 MW of WPP, 90 MW of SPP, 51.2 MW of small HPP and 206.01 MW of large HPP (Figure 20). The winners of the auction bidding selected 86.88% of the auctioned capacity.

The results of 2024 auctions

According to the Schedule approved by the Ministry of Energy of RK, a total of 1,270 MW of installed capacity was announced to be actioned for 2024, broken down by the following types of power plants: WPP - 700 MW; SPP - 160 MW, HPP - 400 MW; BioPP - 10 MW.

For 2024 auctions the following starting ceiling auction prices were set (without VAT):

✓ WPP - 22.68 KZT/kWh (4.97 cents/kWh);
✓ SPP - 34.61 KZT/kWh (7.59 cents/kWh);
✓ HPP - 41.23 KZT/kWh (9.04 cents/kWh);
✓ BioPP - 32.23 KZT/kWh (7.06 cents/kWh).

3.3 PREPARATION FOR PARTICIPATION IN AUCTION

Document Submission, Applicant Registration and Obtaining Auction Participant Status

To participate in the RE auction and to get the auction participant status, the Applicant shall register in the Organizer's trading system and conclude an Agreement for the provision of the service for organizing and holding of the auctions, and pay for the services of the Organizer.

Acceptance of documents and registration of auction Applicants is done by the Organizer within the timeframe specified in 2024 Auctions Schedule. To be registered in the trading system database the Applicant shall apply for online registration on KOREM's official Internet resource http://vie-trade.korem.kz/ru/user/ login and submit the following documents to the Organizer in electronic form:

1. A copy of the charter;
2. A copy of the certificate of state registration/re-registration of a legal entity;
3. A copy of the decision of the relevant body of the legal entity on the appointment of the executive officer;
4. Power of attorney for a designated representative (if the representative is someone other than the executive officer);
5. Details on the legal entity (email, contact numbers, bank details);
6. Document confirming the submission of the financial guarantee for participation in the auction;
7. A copy of technical specifications for connection to the grid, issued and agreed in accordance with the Grid Code or an indication of the grid connection point in accordance with the Schedule;
8. Copies of title documents for the land plot in accordance with the Land Code of the Republic of Kazakhstan dated June 20, 2003, or an indication of the land plot in accordance with the Schedule;

9. A copy of the letter of approval by the System Operator of the “Power Distribution Scheme” with the declared electric capacity of 5 MW or more developed in accordance with the Grid Code or an indication of the grid connection point in accordance with the Schedule.
10. Letter confirming that the Participant familiarized himself with the documentation published on the Organizer’s web site for those participants that take part in the auction with documentation.

For SPP and WPP projects, auction participants select information on land plots planned to be allocated for construction of RE facility and connection points to electric grids of energy transmission organizations with indication of maximum permissible capacity and number of possible connections from the Auction Schedule.

The documents referred to in paragraphs 7, 8 and 9 shall be provided by the Applicants for participation in the auctions without documentation, who plan to participate in the auction with their own land plots and grid connection points.

The document specified in Paragraph 10 is provided by the Applicants planning to participate in the auctions with documentation.

Foreign legal entities shall provide the equivalent documents in accordance *with the laws of the country where they are registered* with notarized translations of each document into the state or Russian languages.

If any of these documents are later amended, the Applicant should notify the Organizer in writing of any changes.

After receipt and verification of the documents, the Auction Organizer shall review the submitted documents within 2 (two) business days from the date of the application submission via Organizer’s Internet resource. The Applicant is granted the status of a participant after online registration, signing the Auction Services Agreement with the Auction Organizer and payment for such services.

The Organizer will stop accepting documents via personal account 5 (five) business days before the auction date according to the auction schedule.

The Applicant shall notify the Organizer of any changes in corporate details and/or the list of employees who have access to the trading system minimum 5 (five) business days prior to the date of the auction in which the Applicant plans to participate.

Auction Services Agreement

Once registration is confirmed, the Organizer will send the draft Auction Services Agreement to the Applicant through the e-document management system to be signed with the use of an e-digital signature, along with an invoice for an auction services fee. The Applicant reviews the draft agreement and returns it signed with the use of the e-digital signature to the Organizer through the e-document management system not later than 12.00 p.m. (noon) Astana time on the working day preceding the auction date chosen by the Applicant.

In exceptional cases, the execution and conclusion of the agreement shall be allowed in the proposed form on paper with due consideration of the requirements of the legislation of the Republic of Kazakhstan.

Auction services are refundable and paid based on the Auction Services Agreement. The Organizer's service fee is defined by the law. The Applicant must pay the fee by 6:00 p.m.

Astana time on the day preceding the day of the auction, chosen by the Applicant. After receiving the signed agreement and payment, the Organizer will confirm the Applicant's participant status, notify the Applicant by email, and provide the participant with access to the online trading system.

According to the Agreement, the auction Organizer shall:

- ✓ Ensure the functioning of the auction trading system;
- ✓ Develop and approve methodological instructions and regulations for conducting the auction;
- ✓ Ensure conditions for equal access to the auction for all participants;
- ✓ Brief participants' employees on how to operate the trading system;
- ✓ Interact with the authorized body and FSC on issues related to the organization and conduct of the auction;
- ✓ Publish the register of auction winners on the official Internet resource.

The Applicant can participate in several auctions under one Auction Services Agreement, provided that the service fee is paid separately for each auction.

The Organizer shall send to the Applicant an invoice, an acceptance certificate of the executed services and an act of reconciliation within 3 (three) business days after the actual auction.

In the following circumstances, the service fee is non-refundable:

- ✓ The Applicant did not provide a financial guarantee for participating in an auction and thus was disallowed;
- ✓ The Applicant admitted to the auction, did not submit any bids to the trading system during the trading session;
- ✓ The Applicant did not become the winner of the auction in accordance with the results of the auction;
- ✓ The auction was announced invalid due to the fact that the competition requirements haven't been met:

    1) The total volume of installed capacity of bids for participation in the auction for sale is more than 130% of the volume of demand for installed capacity.

    2) The number of participants registered and allowed to participate in the auction is no less than two.

A training on the use of the trading system can be carried out by the Organizer, either in person or remotely. Applicants can request training after completing the online registration, signing the auction services agreement, and paying the auction service fee. The trainings end 5 (five) business days before the date of the auction. The online training schedule is published on the official Organizer's website.

Applicants can also review training materials on the Organizer's website on their own.

3.4 FINANCIAL GUARANTEE FOR AUCTION PARTICIPATION

Applicants provide a financial guarantee for participation in the auction to the FSC as a guarantee, should their bid be selected, to sign the PPA with the FSC and submit the PPA performance bond per the terms and timeline set in the Rules of Organizing and Holding of Auctions. The financial guarantee for participating in the auction shall be issued in favor of the FSC and submitted not less than 2 (two) working days prior to the date of the auction.

It is recommended to issue the financial guarantee for participation in auctions according to the form published on the FSC website www.rfc.kz. In case of making changes and adjustments to the financial guarantee form, as well as in order to avoid the return of the financial guarantee, it is necessary to first agree its text with the FSC.

The FSC shall send the Organizer a list of Applicants who have provided financial guarantees and the amounts at least 2 (two) hours before the start of the auction.

The Applicant shall choose one of the following types of financial guarantee, issued with the SWIFT system:

- ✓ A bank guarantee;
- ✓ A standby letter of credit.

The amount of the financial guarantee is 2,000 (two thousand) KZT per 1 (one) kW of installed capacity multiplied by the installed capacity of the renewable energy facility indicated in the bid.

The amount of the financial guarantee to participate in the auction with documentation is 5,000 (five thousand) KZT per 1 (one) kW of installed capacity multiplied by the installed capacity of the renewable energy facility indicated in the auction bid.

A financial guarantee deposited by the Applicant in the form of a bank guarantee or a standby letter of credit is returned (released) within 3 (three) working days after the auction date via a letter submitted by the FSC to the bank in one of the following cases:

- ✓ The participant did not win the auction, according to the auction results
- ✓ The auction winner signed a PPA and submitted a PPA performance bond.

If the auction winner has avoided signing the PPA and (or) has not provided the PPA performance bond, the FSC shall issue a claim for payment under the relevant bank guarantee or standby letter of credit.

The financial guarantee shall be valid for at least 150 calendar days from the date of the auction and is irrevocable. The financial guarantee is executed by the bank when the FSC submits the following documents:

- ✓ Statement of the debtor’s failure to fulfill its obligations issued in a hard copy, signed by the authorized person of the FSC and certified by the seal of the FSC.
- ✓ The demand for payment indicating the amount to be paid in accordance with the Rules of Organizing and Holding of Auctions.

All bank commissions and expenses related to the financial guarantee, including those of the beneficiary's bank, are paid by the debtor. The bank guarantee or the standby letter of credit is accepted:

- ✓ From resident banks of the Republic of Kazakhstan with a long-term credit rating in foreign currency not lower than “B” by Standard & Poor's or “B-” by Fitch or “B3” by Moody's Investors Service or with the rating of the parent organization (which owns more than 50% of the shares of the Republic of Kazakhstan resident bank) not lower than the “BBB” level by Standard & Poor's or “BBB” by Fitch or “Baa2” by Moody's Investors Service. At the same time, a bank guarantee or a standby letter of credit from non-resident banks of the Republic of Kazakhstan must be confirmed by the resident banks by issuing a counter-guarantee for non-residents’ obligations.
- ✓ Non-resident banks in the Republic of Kazakhstan with a long-term credit rating in foreign currency not lower than “BBB” by Standard & Poor's, “BBB” by Fitch, or “Baa2” by Moody's Investors Service may issue a bank guarantee or a standby letter of credit without issuing the corresponding counter-guarantees.

3.5 PROCEDURE FOR CONDUCTING AND PARTICIPATING IN AUCTIONS

The trading session is held according to the Schedule, from 2 a.m. Astana time. Trading session can have an unspecified duration. At the same time, the main duration of the trading session is 30 minutes. If after 25 minutes of the trading session, bidders do not submit bids with a price lower than the lowest bid price, the Organizer closes the trading session and determines the results of the auction.

If after 25 minutes, a bidder submits a bid with the price less than the minimum bid registered in the trading system, the trading session is extended for 5 minutes. At the same time, the trading session is extended each time for 5 minutes when the minimum price bid is received from the bidders.

A trading session consists of the following steps:

- ✓ The Organizer opens the trading session;
- ✓ The participants submit their bids through the trading system;
- ✓ The Organizer closes the trading session;
- ✓ The results of the auction are summed up, including the determination of auction prices;
- ✓ The Organizer compiles the register of auction winners and publishes it on its website;

Before the opening of the trading session, the Organizer should:

- ✓ enter the information on the capacity volume auctioned and the ceiling auction price into the trading system, as well as any other information according to the Schedule.
- ✓ enter the information received from the FSC on the amounts of financial guarantees of the bids into the trading system.
- ✓ enter the information on the land plots and grid connection points into the trading system.

During a trading session, the following information is open to participants:

- ✓ General auction information, as specified in the Schedule approved by the MoE RK;
- ✓ Each bid submitted by the participant with all its parameters (price, time of submission);
- ✓ The lowest price indicated in the submitted bids (without volumes specified).

Bids are accepted from participants from the moment the trading session is opened. Only those participants that participate in the trading session in accordance with the Agreement shall have access to the trading session.

Bid Contents and Submission

Participants' bids shall contain the following basic information:

- ✓ Participant's name
- ✓ The price of electricity per one kilowatt hour net of VAT, indicated in the national currency of the Republic of Kazakhstan with not more than 2 (two) digits after the decimal point;
- ✓ The volume of installed capacity, which shall be at least 100 kilowatts, be multiples of 1 (one) kW and shall be indicated in megawatts (MW);
- ✓ The minimum permissible volume of installed capacity;
- ✓ The land plot planned to be used for construction of the RE facility and the electric grid connection point.

In this case, the participants indicate in their bids the relevant data on the land plot and grid connection point submitted to the Organizer or select data from the Schedule.

In accordance with the amendments made to the Rules of Organizing and Holding Auctions, from 2022 participants of auctions shall select information on the land plots planned to be allocated for the construction of a RE facility and grid connection points of energy transmission organizations, indicating the maximum permissible capacity and the number of possible connections for SPP and WPP projects as per the Auction Schedule approved by the Order of the MoE of RK No. 187 dated May 23, 2023.

Participants submit their bids without documentation to the trading system throughout the trading session, and the prices indicated in the bids shall not exceed the values of the corresponding auction ceiling prices. Bids submitted by participants during the trading session with prices that coincide with bid prices submitted to the trading system by other participants are rejected.

Participants are prohibited from submitting bids that indicate a volume exceeding:

- ✓ The volume of installed capacity auctioned by the authorized body;
- ✓ The maximum permissible capacity for the grid connection points;
- ✓ The amount of the financial guarantee of the bid.

Participants have the right to simultaneously bid for several land plots planned to be used for the RE facility's construction and several electric grid connection points within the limits of the financial guarantees of every single bid submitted.

Bidders participating in the auction for which the Schedule does not offer land plots and grid connection points are allowed to participate in the auction only if they have a properly registered land plot and a grid connection point.

Auction participants shall attach these documents when registering for participation in the auction. The participants that fail to submit supporting documents on the availability of the land plot and the connection point will not be registered by the Organizer.

A participant who submitted his/her bid to the trading system is prohibited from withdrawing it from the auction.

Participants can change previously submitted bids at their discretion by submitting a new bid before the deadline for submission of the bids expires. However, a new bid shall specify a price lower than the previous bid and the volume indicated in the previous bid shall remain the same. Price change step within the main 30-minute time frame of the trade session in the submitted bid shall be not less than 5 (five) tiyn/kWh (before VAT), from the time period of trade session extension by 5 minutes, price change step shall be not less than 50 tiyn/kWh (without VAT).

The date and time of submission of bids to the trading system shall be recorded by the Organizer with millisecond accuracy.

The participant's submission of a bid to the trading system is sufficient evidence that he agrees to conclude the PPA with the FSC at the price specified in their bid.

Bids submitted online are formed by the participant directly on the Organizer's web server using the participant's password as the access key to the trading system.

3.6. PROCEDURE FOR CALCULATING AUCTION PRICES

The Organizer calculates prices when the following conditions are met:

- ✓ The total volume of installed capacity declared in bids is more than 130% of the volume of capacity demanded;[37]
- ✓ No less than two participants are registered and admitted to participate in the auction.

If these conditions are not met, the Organizer does not calculate the prices, closes the auction before the end of the trading session, and invalidates the auction.

A preliminary list of auction winners without documentation is determined after the deadline for the submission of bids expires. Based on the submitted bids, the Organizer shall make a ranked schedule, arranged in ascending order of price.

If there are several bids in the preliminary list of winners that specify the same connection points and the total volume indicated in these bids is less than or equal to the capacity at these connection points, then such bids shall remain in the list of winners.

If there are several bids in the preliminary list of auction winners without documentation that specify the same connection points and the total volume indicated in these bids exceeds the capacity at these connection points, then such bids shall be checked for possible inclusion on this list, starting from the bid with the lowest price, until the partially satisfied bids for these connection points are determined. In case of auction with technical possibility of one connection, bids for participation in the auction for the volume of installed capacity equal to that specified in the Schedule shall be accepted in the trading session. After the determination

[37] This Paragraph does not apply to auction tenders for the selection of projects for the construction of facilities using hydrodynamic water energy, consumer waste, biomass, biogas and other fuel from consumer waste for the production of electricity.

of partially satisfied bids, the declared volume shall be reduced to the remaining volume at these connection points:

- ✓ If the reduced volume of partially satisfied bids is greater than or equal to the minimum permissible volume of the bids, then such bids are satisfied to the remaining volume at these connection points.
- ✓ If the reduced volume of partially satisfied bids is less than the minimum permissible volume of the bids, then such bids are excluded from the list of winners.

Then, the process of re-selecting bids from the ranked list is carried out in the ascending order of prices without the excluded bids for the same connection points, and the preliminary list of winners is determined. This process of exclusion shall be applied until the conditions for the permissible capacity at these connection points are met.

If the number of bids in the preliminary list of winners for the same connection points is less than or equal to the number of possible connections at these connection points, then such bids shall remain in the list of winners.

If the number of bids for the same connection point exceeds the number of possible connections at these connection points, then the bids will be excluded from this list of winners in descending order of prices until the conditions for the number of connections are met.

This process of exclusion shall apply until the conditions for the number of connections are met. If the last bid from the preliminary list of auction winners without documentation cannot be fully satisfied with the existing demand, the following conditions will apply:

- ✓ If the satisfied volume of the last selected bid is 50% or more of its declared volume, then such a bid shall be fully satisfied at the end of the auction or in an amount that does not exceed the maximum permissible capacity of the connection point. At the same time, the volume of installed capacity auctioned by the authorized body will be increased by the amount of the unsatisfied remaining volume (or a part thereof) of the last selected bid from the ranked schedule;
- ✓ If the satisfied volume of the last selected bid is less than 50% of its declared volume, then this bid shall be checked against the condition for the minimum permissible amount of installed capacity.

Then, the process of re-selecting bids from the ranked schedule is carried out in ascending order of prices without the excluded bid, and the preliminary list of winners is determined. This process of exclusion shall apply until the above conditions are met. In case there are no bids after the exclusion from the ranked schedule, the volume of the installed capacity will be reduced by the amount of the satisfied volume of the last bid from the ranked schedule.

Annex 3 sets out examples of determining auction prices for different combinations of demand and supply scenarios.

After checking the specified conditions, the Organizer determines the winner(s) of the auction and includes them in the register of auction winners. Then, auction prices are determined based on the prices indicated in the submitted bids.

3.7. THE SPECIFICS OF THE AUCTIONS WITH THE DOCUMENTATION

Auctions with documentation were introduced in 2019 and are a type of auctions organized and conducted by the Organizer of the auctions in the electronic system and aimed at selecting the winner with the lowest bid price for electricity, taking into account the documentation

defining technical and economic parameters of the RES project, prepared in advance and provided to the Applicants.

The Financial Settlement Center sends the documentation to the Organizer, indicating its cost no later than 3 (three) months before the planned date of the auction to be posted on the official website.

Bidders that participate in auctions with documentation are provided with the following package of documents:

1) Baseline data, marketing research on the construction of a new RES facility, including assessment of resource potential.
2) Results of public hearings and preliminary environmental impact assessment.
3) Location of the land plot with consideration of technical specifications and costs for purchase/lease of the land, and taxes.
4) Scheme of power distribution and technical specifications for connection, developed and agreed in accordance with the Grid Code approved by the Order of the Minister of Energy of the Republic of Kazakhstan No. 210 dated December 18, 2014.

Based on the received documentation, the Applicants have the opportunity to more thoroughly prepare for participation in auction.

The documentation is prepared by the developer of the documentation or delegated by the authorized body to the FSC for preparation.

In auctions with documentation, a participant submits a bid within the amount of financial guarantee, which is equal to the full volume of the auctioned installed capacity of the project.

According to the results of the auction with documentation one winner is determined. The winner of the auction with documentation is obliged to reimburse the FSC for the costs of preparing the draft documentation.

In preparation for participation in auctions with documentation, the Applicants are required to submit the financial guarantee for participation to the FSC. The guarantee shall be equal to the total volume of auctioned capacity, as defined in the schedule. The amount of financial guarantee for participation in auctions with documentation is 5,000 (five thousand) tenge per 1 (one) kilowatt of installed capacity.

The size of the bid for participation in auctions with documentation must be equal to the total volume of auctioned capacity, determined in the schedule for this type of auctions.

The winner of the auction with documentation is determined by the bid with the lowest price.

3.8. ANNOUNCEMENT OF AUCTION RESULTS

Based on the results of the auction, the Organizer sends notifications of the auction results to the participants in electronic form within one (1) hour after the closing of the trading session. Written notifications are sent to the participants no later than 6 p.m. Astana time on the next business day.

The register of auction winners is published on the Organizer’s website within one (1) hour after the closing of the trading session, with an indication of the auction prices and the installed capacity of the RE facilities selected during the auction.

The documentation is handed over by the FSC to the ownership of the winner of the auction by concluding an appropriate PPA.

The costs of the documentation preparation, including the related taxes, are reimbursed (paid) by the winner of the auction with documentation to the FSC within 30 calendar days from the date of publication of the corresponding register of winners.

The Organizer shall provide the authorized body with a summary of the auction results with an explanation of the auction procedure and complete information about all the bids submitted to the trading system, as well as the register of auction winners, not later than one (1) working day after the closing of the trading session.

The authorized body shall include the auction winners into a list of energy producing organizations that use RES within five (5) working days and into the RE facilities' siting plan within thirty (30) working days from the date of receipt of the register of auction winners from the Organizer. The winners of the auction shall apply for a PPA with the FSC within sixty (60) calendar days after being included in the list of energy producing organizations that use RES.

Suspension and Cancellation of the Auction

The auction can be suspended for up to 30 minutes under the following circumstances:

- ✓ Technical problems with the server equipment or failure of the electronic system leading to the inoperability of the trading system;
- ✓ Technical malfunctions of the equipment or Internet communication channels preventing access to the trading system.

In case of suspension of the auction, the Organizer promptly informs the participants through available technical means of communication of the reason for the suspension of the auction, specifying the time during which the auction process will be renewed.

The auction can be canceled if the following circumstances occur:

- ✓ The elimination of technical problems takes longer than 30 minutes.
- ✓ A long (more than two hours) break in the power supply of the trading hall and/or server equipment of the trading system.

If the auction is canceled, another auction shall be held. Another auction is held on the next working day after the date of the cancelled auction.

If the auction is declared invalid, the Organizer holds them repeatedly in the second decade of the last month of the next quarter no more than once.

Disputes arising during the organization and conduct of auctions shall be settled according to procedures set forth in the civil legislation of the Republic of Kazakhstan.

4. POWER PURCHASE AGREEMENT

4.1 GENERAL PROVISIONS

According to Paragraph 1, Article 9 of the Law of the Republic of Kazakhstan on the Support for the Use of RES, an energy producing organization that uses renewable energy sources shall have the right to sell the produced electric energy at its discretion using one of the following options:

- ✓ To the Single Electricity Buyer at the feed-in tariff that is valid as of the date of signing of the PPA between the organization and the FSC, or at an auction price determined based on auction results, considering indexation;
- ✓ To the consumers through signed bilateral agreements in accordance with the power industry regulations of the Republic of Kazakhstan.

When participating in the RE auction, the auction winners conclude the PPA with the Single Electricity Buyer at the auction price determined during the auction.

Date of the Single Buyer's commencement of procurement of electric power generated by a renewable energy facility is the date of the commencement of comprehensive tests whereby electric power is delivered to the electric grid of an energy transmission organization and recorded by commercial metering devices.

According to Paragraph 4-2 of Article 7-1 of the Law of the Republic of Kazakhstan on the Support for the Use of RES, the Single Buyer concludes PPAs based on the results of the auctions with energy producing organizations using RES and included by the authorized body in the list of energy producing organizations using RES, and purchases electricity for **twenty years** from the date of commencement of comprehensive tests, during which the electricity is

supplied to the unified power system, or from the date of expiration of the deadline to submit the operational acceptance certificate of the RE facility as per the PPA, whichever comes first.

This section describes the procedure for the centralized purchase of electricity produced at new RE facilities at auction price.

4.2 INCLUSION OF THE AUCTION WINNERS IN THE RE FACILITIES SITING PLAN

The MoE shall include the winners of the auction in the RE facilities siting plan within five working days from the date of receipt of the register of the auction winners from the Organizer.[38]

The RE facilities siting plan is developed based on the following data and is approved by the authorized body:

- ✓ The renewable energy sector development targets;
- ✓ The list of existing RE facilities, indicating the installed electric capacity, the unified power system (UPS) zone (district) where they are located, and the type of RE facilities;
- ✓ The maximum permissible capacity of RE facilities by the UPS zones (districts) and by types of RE facilities;
- ✓ The register of auction winners;
- ✓ RE facilities construction projects of qualified conditional consumers.

The renewable energy sector development targets for each type of RES are approved by the MoE RK. The list of operational RE facilities is formed in accordance with the Rules for Monitoring the Use of RES, approved by Order No. 74 of the Minister of Energy of the Republic of Kazakhstan as of February 11, 2015.

The MoE approves the maximum permissible capacity of RE facilities by the UPS zones (districts) for the coming year.

The projects of energy producing organizations that use RES are excluded from the siting plan in the following cases:

- ✓ Untimely submission of an application for the agreement on RE facilities connection by the energy producing organization to the energy transmission organization that issued the technical specifications for connection to the electric grid;
- ✓ Failure to conclude the agreement on RE facilities connection within the specified time, due to the fault of the energy producing organization that uses RES;
- ✓ Upon termination of the agreement on RE facilities connection;
- ✓ Upon the exclusion of the organization from the list of energy producing organizations that use RES.

4.3 INCLUSION OF AUCTION WINNERS IN THE LIST OF ENERGY PRODUCING ORGANIZATIONS THAT USE RES

[38] The Order of the Acting Minister of Energy of the Republic of Kazakhstan dated July 27, 2016 No. 345, On Approval of the Rules for the Formation of the RE Facilities Siting Plan

The MoE shall include the winners of the auction in the list of energy producing organizations that use RES within 5 working days from the date of receipt of the register of the auction winners from the Organizer (the List).[39]

Within 2 working days from the moment of inclusion of the energy producing organization in the List, the MoE RK informs the energy producing organization and the Single Buyer of the inclusion in writing.

Energy producing organizations that use RES are excluded from the List in the following cases:

- ✓ Upon failure to submit the application for the PPA's conclusion to the Single Buyer within 60 calendar days after being included in the List;
- ✓ If the PPA with the FSC ceases to be effective or is terminated;
- ✓ Upon exclusion of the RE project from the RE facilities siting plan.

4.4 CONCLUSION OF THE PPA BY THE ENERGY PRODUCING ORGANIZATION THAT USE RES AT THE AUCTION PRICES

The Applicant that is recognized as the winner of the auction submits an application for the conclusion of the PPA to the Single Electricity Buyer within 60 calendar days from the date he and his corresponding renewable energy project were included in the list of energy producing organizations that use RES, published on the MoE RK website. The PPA shall be concluded according to the standard form given in Annex 1.

The Applicants shall attach the application for the conclusion of the PPA with the Single Buyer with the following:

- ✓ Founding documents;
- ✓ A document confirming that the person is authorized to sign the PPA;
- ✓ Information regarding the planned volumes of electricity supply;
- ✓ A copy of the written notification of the results of the auction.

The Single Buyer reviews the application and the submitted documents within no more than 10 working days from the date of their receipt. If the Applicant did not submit the full package of documents, the FSC returns the application specifying the reasons for the return within 5 working days from the date of the receipt.

The Applicant supplements the application with the missing documents and/or addresses the comments of the Single Buyer within 15 calendar days from the date the application was returned in order to bring the Application and attached documents in compliance with the requirements of these Rules and the legislation of the Republic of Kazakhstan.

At the same time, the Single Buyer concludes the PPA with the Applicant when the following conditions are met:

- ✓ The Applicant submitted all required documents;

[39] The Order of the MoE RK, dated November 9, 2016, No. 482, On Approval of the Rules for the Formation of a List of Energy Producing Organizations Using Renewable Energy Sources

- ✓ The renewable energy facility and the Applicant are included in the list based on the results of the auction;
- ✓ There is no existing PPA between the FCS and the Applicant;
- ✓ The Applicant chooses to sell the produced electricity via the Single Buyer;
- ✓ The Applicant met the deadline for submitting the application for the conclusion of the PPA and submitted a full package of documents for the conclusion of the PPA;
- ✓ The Applicant entered into PPA with the Single Buyer and made payment in accordance with the Rules for Organizing and Conducting Auctions, including qualification requirements for auction participants, the content and procedure for submitting bids, types of financial guarantee for bids to participate in the auction and the conditions for their payment and return, the procedure for summing up the results and determining the winners.

The Single Buyer sends two copies of the draft PPA to the Applicant within 60 working days from the date it receives the documents. An Applicant shall sign two copies of the PPA and send them to the Single Buyer within no more than 10 working days after receiving two copies of the PPA from the Single Buyer. The PPA indicates the auction price for this Applicant in accordance with the register of auction winners.

Scope of the PPA

In accordance with the PPA, the Seller (energy producing organization – investor) sells and the Buyer (Single Electricity Buyer) buys the declared amount of electrical energy from a day ahead schedule of production-consumption of electric energy approved by the system operator.

The price of electric energy under the PPA is the auction price determined based on the results of the completed auction.

Annual indexation of the auction price is carried out according to the procedure established in the Rules for Determination of Feed-In Tariffs and Ceiling Auction Prices.

Metering of the Volume and Payment for the Electricity

The volume of delivered electricity is metered based on the readings of the seller's commercial metering devices installed at the delivery point.

After the buyer ensures that the Automated Commercial Energy Metering System (ACEMS) at his facility is operational, he has the right to use ACEMS data to meter and determine the volumes of electricity delivered by the seller and for commercial mutual settlements between the seller and the buyer.

The electric energy produced by the power plant and delivered to the grid of the energy transmission organization during the period in which the commercial metering devices at the delivery point are absent or malfunctioning is not paid for by the buyer and is not taken into account in the mutual settlements. At the same time, the fact and the period of absence or malfunction of the seller’s commercial metering devices must be confirmed by the relevant statement of the energy transmission organization to whose grid the power plant is connected. The buyer pays for the electricity within 15 working days.

Seller is Obliged to:

1. Provide the Single Buyer with a copy of the notice on the beginning of the construction and installation works of RE facility, which is the subject of the PPA, sent to the State Architectural and Construction Supervision Authority (GASK) within

12 months from the date of signing of the PPA for SPP, within 18 months for WPP and BioPP, and within 24 months for HPP.

2. Provide the Single Buyer with a copy of the operational acceptance certificate of the RE facility within 24 months from the date of signing of the PPA for solar power plants, within 36 months from the date of signing of the PPA for wind and biogas power plants, and within 60 months from the date of signing of the PPA for hydro power plants.
3. At the same time, the indicated terms are prolonged for one calendar year if, before the expiration of the term stipulated above, the organization authorized for architectural and construction control and supervision will confirm that at least 70% of the total scope of RE facility construction and installation has been completed.
4. In addition, as per the Order of the acting Minister of Energy of the RK No. 252 dated July 31, 2021, the deadline to submit a copy of the operational acceptance certificate of the RE facility to the Single Buyer is extended for a period not exceeding 1 (one) calendar year based on the Applicant's request (in arbitrary form) with the attachment of confirmation that proves force majeure in accordance with Subparagraph 13 of Article 14 of the Law of the Republic of Kazakhstan "On the National Chamber of Entrepreneurs of the Republic of Kazakhstan", sent to the Single Buyer, but no later than the deadline to submit a copy of the operational acceptance certificate of the RE facility. This period is extended by concluding an addendum to PPA, with due consideration of the fact that the countdown of the twenty-year purchase period starts from the date following the date of expiration of the deadline to submit the documents, excluding the extended period. Thus, if the period is extended by one calendar year, the PPA validity period is reduced by the extended period for the submission of the operational acceptance certificate of the RE facility to the Single Buyer.
5. Provide the buyer with the PPA performance bond within 30 calendar days from the date of signing of the PPA.
6. Select the indexation formula when entering into PPA for the entire period of its validity and more.
7. Build a renewable power station with the use of new generating units (that have never been in operation before).

Seller's Liabilities:

- ✓ If the seller violates the deadline for submission of the copy of the notice on the beginning of the construction and installation of the RE facility for more than 6 months, the buyer retains 30% of the PPA performance bond.

- ✓ If the seller violates the deadline for submission of the copy of the operational acceptance certificate of the RE facility, the buyer retains 100% of the PPA performance bond.

Dispute Settlement

Disputes arising from the Power Purchase Agreement are subject to settlement in accordance with the legislation of the Republic of Kazakhstan. All disputes related to the conclusion, validity, execution, amendment, suspension and termination of the Agreement shall be heard by the court having jurisdiction over the buyer's seat (Astana, Kazakhstan).

At the same time, according to the amendments and additions to the standard form of the Power Purchase Agreement and the Rules for Centralized Purchase and Sale of Electric

Energy,[40] the disputes of the parties under the Power Purchase Agreement can be referred to international arbitration, namely to the International Arbitration Center of the Astana International Financial Center (AIFC). In general, following the international arbitration practice, the rules of the AIFC and those of its International Arbitration Center (IAC) allow the choice of IAC Rules, UNCITRAL Model Rules or ad hoc rules, which is consistent with the policies of several international financial institutions.

The Rules for the Centralized Purchase and Sale of Electric Energy establish the following conditions for dispute settlement at the International Arbitration Center of the AIFC:

- ✓ The rules and the language of arbitration - at the choice of the Applicant;
- ✓ The composition of arbitration - 3 arbitrators;
- ✓ Applicable law - substantive law of the Republic of Kazakhstan;
- ✓ Place of arbitration - Astana.

At the same time, before concluding an arbitration agreement, the FSC is obliged to obtain the relevant consent of the authorized body.

Validity Period of the PPA and the Auction Price

Pursuant to Paragraph 4-2 of Article 7-1 of the Law of the Republic of Kazakhstan "On the support of the Use of RES", following the outcomes of the auctions, the Single Buyer enters Power Purchase Agreements with energy producing organizations that use renewable energy sources and included by the authorized body into the list of energy generating entities that use renewable energy sources, and procures electric power within a twenty-year period of the date of the commencement of comprehensive tests whereby electric power is delivered to the unified power system of the Republic of Kazakhstan, or of the date of expiry of the deadline for submission of the Facility Commissioning Certificate in accordance with the sale and purchase agreement, whichever is earlier.

Restriction of electricity receipt in the grid. According to Paragraph 2 of Article 11 of the Law on Electric Power Industry, the system operator has the right to disconnect electrical installations of wholesale electricity market entities that do not comply with operational orders on the mode of production, transmission and consumption of electricity from the electric grids under centralized operational dispatch control.[41] Restrictions may also be imposed on entities of the wholesale electricity market that violate the terms and conditions of contracts concluded in the wholesale electricity and capacity market.[42]

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[40] International arbitration related additions to the Rules for Centralized Purchase and Sale by the FSC of Electrical Energy produced by renewable energy facilities were made by the Order of the Ministry of Energy of the Republic of Kazakhstan No. 224 dated 19.06. 2019.

Order of the Ministry of Energy of the Republic of Kazakhstan introducing amendments to the standard Power Purchase Agreement in relation to international arbitration is currently at the final stage of approval.

[41] Paragraph 2 of Article 11 of the Law of the Republic of Kazakhstan dated July 9, 2004 No. 588-II "On Electric Power Industry"

[42] Paragraph 3 of Article 17 of the Order of the Minister of Energy of the Republic of Kazakhstan dated December 3, 2015 No. 691 "On Approval of the Rules for Provision of Services by the System Operator, Organization and Functioning of the System and Auxiliary Services Market"

According to the Rules for Prevention and Elimination of Contingency in the Unified Power System of Kazakhstan,[43] limitation of electricity consumption by wholesale electricity market entities is carried out in cases of:

- ✓ reduction of generating capacity at the electricity supplier when operational capacity reserves are exhausted;
- ✓ emergency shutdown or emergency overloading of lines and equipment when operational capacity reserves are exhausted;
- ✓ prolonged (more than two hours) reduction of frequency in the unified power system below 49.6 Hz and exhaustion of operational capacity reserves.

Restrictions are imposed in case of reduction of generating capacity at the power supplier if there is no substitution and operational capacity reserves are exhausted.

PPA Final Provisions

The PPA ceases to be effective when:

- ✓ in case of violation of the deadline for submitting a copy of the acceptance certificate for operation of the RES facility;
- ✓ failure to provide the PPA performance bond.

In accordance with Paragraph 36 of the Rules for centralized purchase and sale by a Single Buyer of electric energy produced by renewable energy facilities, energy waste disposal facilities, approved by Order of the Minister of Energy of the Republic of Kazakhstan dated March 2, 2015, No. 164, after signing the PPA, the seller shall also submit the following documents to the FSC:

- ✓ a copy of the notice on the beginning of the construction and installation works of the RE facility, which is the subject of the PPA, sent to the State Architectural and Construction Supervision Authority within 12 months from the date of signing of the PPA for solar power plants, within 18 months from the date of signing of the PPA for wind and biogas power plants, and within 24 months from the date of signing of the PPA for hydro power plants;
- ✓ a copy of the operational acceptance certificate of the RE facility approved in accordance with the procedure determined by the legislation of the Republic of Kazakhstan in the field of architectural, urban planning and construction activities, in respect of which the PPA is concluded, within 24 months from the date of signing of the PPA for solar power plants, within 36 months from the date of signing of the PPA for wind and biogas power plants, and within 60 months from the date of signing of the PPA for hydro power plants.

The deadline for submitting the Acceptance Certificate shall be prolonged by 1 calendar year if, prior to the above deadline, a confirmation of the authorized organization (person) carrying out technical supervision in accordance with the legislation of the Republic of Kazakhstan in the field of architecture, urban planning and construction activities on the performance of construction and installation works on the RES facility in the amount of at least 70% of the total amount of works on the construction of the RES facility is submitted;

[43] Paragraph 34 of the Order of the Minister of Energy of the Republic of Kazakhstan dated February 2, 2015 No. 58 “On approval Rules for Prevention and Elimination of Contingency in the Unified Power System of Kazakhstan”

- ✓ A copy of the act of delineating balance sheet attribution and operational responsibilities of the parties: within 10 working days from the date of the signing the act of delineation of balance sheet attribution and operational responsibilities of the parties and before the beginning of the comprehensive testing of the renewable energy facility;
- ✓ A copy of the certificate of acceptance of the scheme of commercial metering of electric energy, including the layout of commercial and technical metering devices at the renewable energy facility: within 10 working days from the date of the signing of the certificate of acceptance of the scheme of commercial metering of electric energy and before the beginning of the comprehensive testing of the renewable energy facility;
- ✓ PPA performance bond within 30 calendar days from the date of its signing;
- ✓ Copy of the act on commissioning of the automated commercial energy metering system of the RES facility within 5 working days from the date of comprehensive testing.

PPA Termination

The PPA and the corresponding auction price cease to be effective 20 years after the date of the commencement of the purchase of electrical energy produced by the RE facility in accordance with the PPA, except in the following case:

- ✓ Violation of the deadline for the provision of a copy of the operational acceptance certificate of the RE facility;
- ✓ Failure to provide the PPA performance bond.

4.5 PPA PERFORMANCE BOND

The PPA performance bond is provided by the Applicant within 30 calendar days after the conclusion of the PPA in one of the following ways:

- ✓ A bank guarantee;
- ✓ A standby letter of credit.

The Applicant provides the bank guarantee or the standby letter of credit: from the resident banks of the Republic of Kazakhstan with a long-term credit rating in foreign currency not lower than “B” by Standard & Poor's or “B-” by Fitch or “B3” by Moody's Investors Service or with the rating of the parent organization (which owns more than 50% of the shares of the resident bank of the Republic of Kazakhstan) not lower than the “BBB” level by Standard & Poor's or “BBB” by Fitch or “Baa2” by Moody's Investors Service.

At the same time, the bank guarantee or the standby letter of credit from non-resident banks of the Republic of Kazakhstan must be confirmed by resident banks, by issuing a counter-guarantee for non-residents’ obligations. Non-resident banks with a long-term credit rating in foreign currency not lower than “BBB” by Standard & Poor's or “BBB” by Fitch or “Baa2” by Moody's Investors Service can issue a bank guarantee or a standby letter of credit without issuing the respective counter-guarantees.

The amount of the PPA performance bond is 10,000 KZT per 1 kW of installed capacity multiplied by the installed capacity of the renewable energy facility indicated in the register of the auction winners.

A bank guarantee or a standby letter of credit shall be irrevocable and provide for the possibility of being executed in whole or in part as ordered by the beneficiary and shall be valid for the following periods since the date of signing of the PPA:

- ✓ For solar power plants: for at least 25 months;

- ✓ For wind and biogas power plants: for at least 37 months;
- ✓ For hydro power plants: for at least 61 months.

A bank guarantee or a standby letter of credit are executed by the bank when the following documents are submitted by the FSC:

- ✓ The statement of failure to fulfill obligations by the debtor;
- ✓ The demand for payment indicating the amount to be paid in accordance with the PPA.

All bank commissions and expenses related to the performance bond, including those of the beneficiary's bank, are paid by the winner of the auction.

The PPA or a part thereof performance bond shall be returned in the case of timely commissioning of the RE facility within 10 working days from the date of submission of the written request.

The PPA performance bond shall be retained in the following cases:

- ✓ When there is a failure to provide a copy of the notice on the beginning of the construction and installation of the RE facility: within 12 months for SPP, 18 months for WPP and BioPP, or 24 months for HPP from the date of signing of the PPA, 30% of the PPA performance bond shall be retained;
- ✓ Failure to provide a copy of the operational acceptance certificate of the RE facility: 100% of the PPA performance bond shall be retained; and in the case when the performance bond is to be partially executed – 70% of the PPA performance bond shall be retained within the following timeframe after the date of the PPA's signing:
  - *For solar power plants – within 24 months;*
  - *For wind and biogas power plants – within 36 months;*
  - *For hydro power plants – within 60 months.*

4.6 AUCTION PRICES INDEXATION

FSC undertakes to purchase the declared volume of electricity from day-ahead electricity production-consumption schedule approved by the system operator for the forthcoming day, at auction prices determined based on the results of auction bidding, taking into account indexation.

According to the Law of the Republic of Kazakhstan "On Support of the Use of RES", the auction price is the price of purchase by the Single Buyer of electric energy produced by RE facility, determined based on the auction results and which does not exceed the level of the corresponding ceiling auction price. The ceiling auction price is the maximum value of the auction price for electric energy.

Ceiling auction prices are defined based on feed-in-tariffs adopted by a resolution of the Government of the Republic of Kazakhstan No. 645 dated June 12, 2014.

In accordance with the provisions of the Rules for the Determination of Feed-in-tariffs and Ceiling Auction Prices approved by the Decree of the Government of the RK dated March 27, 2014, No. 271, a Single Buyer shall index auction prices annually and conclude the respective amendments to the concluded agreements. The annual indexation of auction prices starts after one year of RE facility operation.

Pursuant to the Resolution of the Government of the Republic of Kazakhstan No. 704 dated September 16, 2022 “On the introduction of changes and additions to the Resolution of the Government of the Republic of Kazakhstan No. 271 dated March 27, 2014 “On the adoption of the Rules of Determination of Feed-in-tariffs and Ceiling Auction Prices”, changes were made to the auction price indexation mechanism with respect to the following:

- *Indexation of auction prices includes a one-time indexation for the construction period and yearly indexation. At the same time, use of yearly indexation of auction prices in accordance with the annexes to the Indexation Rules is held not later than within one calendar year following the use of one-time indexation during construction period;*
- *Following the results of auctions held after January 1, 2022, auction prices are subject to one-time indexation for the construction period from the date of auction winner registry publication and until the commencement of supply of electric power from renewable facilities to the Financial Settlement Center, taking into account the change of national currency to US dollar exchange rate:*

$T_{t+1} = T_{\text{auc}} \times (1 + \frac{(USD_{\text{input}} - USD_{\text{auc}})}{USD_{\text{auc}}})$, where:

T_{t+1} – indexed auction price calculated using the above formula, rounded down to nearest whole tiyn (one-hundredth of a tenge);

T_{auc} – auction price established after auctions;

USD_{input} – cost of one US dollar in KZ tenge as per the exchange rate of the National Bank of the Republic of Kazakhstan as of first day of the month subsequent to the month when the comprehensive testing had been conducted whereby electric power was supplied to the unified power system of the Republic of Kazakhstan and metered by installed automated commercial energy metering system;

USD_{auc} – cost of one dollar in tenge using the exchange rate of the National Bank of the Republic of Kazakhstan as of publication date of the registry of auction winners on the website of the auction Organizer;

After the completion of the auctions held after January 1, 2022, auction prices are subject to yearly indexation on October 1. At the same time, yearly indexation is performed on the grounds of the bidder’s decision submitted by official letter to the Financial Settlement Center 30 calendar days prior to the date of yearly indexation. Yearly indexation is conducted with the use of one of two formulas: either the one that uses the consumer price index, or the change in the exchange rate between the national currency and US dollar. Indexation formula is selected only once, when concluding a PPA, and stays in effect for the duration of said agreement.

Indexation using consumer price index:

T_{t+1} =T_t * CPI, where

T_{t+1}– indexed auction price calculated using the above formula, rounded down to closest whole tiyns;

T_t – auction price taking into account previously performed indexation, if any;

CPI – consumer price index accumulated over the course of twelve months preceding October 1 of the year of indexation, calculated using data provided by the authorized body in the area of state statistics;

Indexation formula that accounts for changes in the national currency to US dollar exchange rate:

$T_{t+1} = T_t \times (1 + \frac{(USD_{t+1} - USD_t)}{USD_t}$, where

T_{t+1}– indexed auction price calculated using the above formula, rounded down to closest whole tiyns;

T_t – auction price taking into account previously performed indexation, if any;

USD_{t+1} – current tenge to US dollar exchange rate as of October 1 of the year of the indexation, based on the data from the National Bank of the Republic of Kazakhstan;

USD_t – tenge to US dollar exchange rate as of October 1 of the preceding year, based on the data from the National Bank of the Republic of Kazakhstan;

Calculation and application of yearly indexation with respect to auction prices shall be performed in a manner similar to that used for feed-in-tariffs;

Calculation of one-time indexation of auction prices for the construction period shall be performed within 30 (thirty) calendar days of the date of comprehensive testing that involves supply of electric power into the unified power system of the Republic of Kazakhstan, as metered by the automated commercial energy metering system. At the same time, one-time indexation of auction prices for the construction period is used from the date of comprehensive testing.

Following the results of auctions conducted prior to January 1, 2022, auction prices shall be indexed once per year, on October 1, with inflation using the following formula:

T_{t+1} = T_t * CPI, where:

T_{t+1} - is an indexed auction price, calculated by the above formula, rounded downwards to the nearest whole tiyn;

T_t - is an auction price, taking into account the previous indexation, if there was any;

CPI is a consumer price index, accumulated for the 12 months preceding October 1 of the year of indexation, determined according to the data of the authorized national statistics body.

For the projects that have credit obligations in foreign currency, the auction prices are indexed once a year on October 1, taking into account inflation and changes in the exchange rate of the national currency against convertible currencies, using the formula:

$T_{t+1} = T_t * \left(1 + 0{,}3 * \frac{(CPI_t - 100\%)}{100\%} + 0{,}7 * \frac{(USD_{t+1} - USD_t)}{USD_t}\right)$, where:

T_{t+1} - an indexed auction price, calculated by the above formula, rounded downwards to the nearest whole tiyn;

T_t - an auction price, taking into account the previous indexation, if there was any;

CPI_t- a consumer price index, accumulated for the 12 months preceding October 1 of the year of indexation, determined according to the data of the authorized national statistics body;

USD_{t+1} – current tenge to US dollar exchange rate as of October 1 of the year of the indexation, based on the data from the National Bank of the Republic of Kazakhstan;

USD_t - an average exchange rate of KZT to USD for the 12 months preceding October 1 of the year of indexation, determined according to the data of the National Bank of the Republic of Kazakhstan. The calculation of indexation is carried out by the FSC every year until October 10. The auction prices indexation calculations are published by the FSC on its official website no later than October 15 of the corresponding year.

The first indexation is applied not earlier than one calendar year after the beginning of electricity supply from renewable energy sources. Subsequent indexations are carried out twice a year: from July 1 for RE facilities that started supplying electricity during the period from January to June, and from January 1 for RE facilities which started supplying electricity in the period from July to December.

4.7 RESERVE FUND

In accordance with The Law of the Republic of Kazakhstan on Support of the Use of RES, the Financial Settlement Center sets up a reserve fund to cover its cash deficiencies and debts to energy producing organizations that use renewable energy sources arising from non-payment or delay in payment by the conditional consumers for the delivered electricity produced by the RE facilities.

The FSC sets up a reserve fund using the contributions of funds to a specially created bank account in a second-tier bank of the Republic of Kazakhstan.

Tenge is the currency of the reserve fund. The size of the reserve fund is 3% of the annual expenses of the FSC for electric energy purchases from RE facilities.

Annually no later than January 15 the FSC:

- ✓ Calculates the costs for purchases of electric energy produced from renewable energy sources by energy producing organizations by zones of electricity consumption for the forecast year;

- ✓ Calculates costs for the forecast year for the reserve fund by electricity consumption zones according to the formula:

$$\text{RFC} = C_{fixed} \times 3\% - RFC_{exp}$$

RFC – the costs of reserve fund setting up for the forecast year, relating to the consumption zone Zi;

RFC_{exp} - the costs of reserve fund setting up at the beginning of the forecast year;

C_{fixed} - the annual costs of the FSC for the purchase of electric energy in the consumption zone Zi;

3% - the size of the reserve fund as the share of the annual expenses of the FSC;

Zi - a zone of consumption.

The costs of reserve fund setting up are taken into account by the FSC in determining the tariff for the support of RES. The costs of the reserve fund setting up are subject to adjustment depending on the change in the data used for calculation.

Each month, ten calendar days before the month of supply, the energy producing organizations that use RES provide the FSC with information on the projected volumes of electricity generation and release into the grid until the end of the current year.

The FSC shall determine the amount of the cash deficiency and use the money in the reserve fund to cover this cash gap not later than 15 working days after the end of the payment deadline established for the conditional consumers. This money is reimbursed and credited to a special bank account of the reserve fund at the expense of the funds received from the conditional consumers.

The establishment of the reserve fund of the FSC for RES started in January 2017.

4.8 PROCEDURE FOR CENTRALIZED SALE OF ELECTRICITY PRODUCED BY RENEWABLE ENERGY FACILITIES TO CONDITIONAL CONSUMERS

According to the requirements of the Law of the Republic of Kazakhstan on RES support, the costs of RES support are distributed by the Single Electricity Buyer among conditional electricity consumers in proportion to the share of their planned volume of electricity consumption covered by energy producing organizations belonging to the same group of entities as these consumers.

Conditional electricity consumers include wholesale consumers purchasing electricity from energy producing organizations belonging to the same group of entities, direct consumers, industrial complexes and qualified consumers defined in accordance with the Law of the Republic of Kazakhstan “On Support of the Use of RES”.

Qualified consumers of electricity are obliged to annually conclude agreements with a Single Electricity Buyer in accordance with the standard form. The Single Electricity Buyer shall draw up a sales agreement with qualified consumers in accordance with the standard form of the sales agreement approved by the authorized body.

According to Paragraph 4 of the Rules for determining the tariff for RES support, a Single Electricity Buyer shall annually, by 30 December of the forecast year, based on actual data for existing energy producing organizations using renewable energy sources and waste-to-energy and forecast data for energy producing organizations planned to be commissioned using renewable energy sources and waste-to-energy, perform the following activities:

1) calculates the projected total production of electricity by energy producing organizations that use renewable energy sources and waste-to-energy for the forecast year by zone of electricity consumption broken down by months;

2) calculates the projected costs of supporting the use of renewable energy sources per one kilowatt-hour of electricity produced from all types of renewable energy sources and waste-to-energy electricity broken down by months.

4.9 PROCEDURE FOR RES FACILITIES PARTICIPATION IN THE BALANCING MARKET

The Balancing Electricity Market (BEM) is a mechanism that effectively manages imbalances between electricity generation and consumption in real time.

The provision of Article 15-10 of the Law of the Republic of Kazakhstan “On Electric Power Industry” establishes the obligation for the subjects of the balancing electricity market,

including RES facilities, to enter into standard form contracts for PPA with the settlement center of the balancing market and adhesion contract, approved by the authorized body.

At the same time, the participants of the balancing electricity market represented by energy producing organizations that use renewable energy sources are obliged to transfer responsibility for the purchase and sale of balancing electricity and negative imbalances to the balance provider represented by the Single Electricity Buyer.

The liability transfer agreement concluded between a Single Electricity Buyer and energy producing organizations that use renewable energy sources shall be carried out in accordance with the civil legislation of the Republic of Kazakhstan.

After the conclusion of the liability transfer agreement, it is ensured that the relevant amendments are made to the purchase and sale agreement for balancing electricity and negative imbalances that was concluded with the settlement center of the balancing market.

Under the liability transfer agreement with a Single Electricity Buyer, RES facilities:

- cover in total their positive imbalances by purchasing balancing electricity from a Single Buyer in the relevant volumes at the electricity sales price specified in the existing PPA with a Single Buyer or with a wholesale electricity market entity, multiplied by an increasing coefficient calculated in accordance with the procedure determined by the authorized body;
- sell in total their negative imbalances to a Single Buyer at the electricity sale price specified in the existing electricity purchase and sale agreement with the Single Buyer or with a wholesale electricity market entity, multiplied by a decreasing coefficient calculated in accordance with the procedure determined by the authorized body.

According to the Law of the Republic of Kazakhstan on Electric Power Industry, there is a clear procedure for transferring responsibility to a balance provider to participate in the electricity balancing market. A certain set of actions is required to ensure the correct functioning of this process:

- Conclusion of a balancing electricity and negative imbalance purchase and sale agreement with the settlement center of the balancing market (this agreement establishes the rules of trade and settlement for balancing electricity).

- Conclusion of an adhesion contract with the settlement center of the balancing market (this contract defines the terms and conditions of transfer of financial responsibility arising between the balancing electricity market entity and the settlement center of the balancing market).

- Conclusion of a liability transfer agreement with the balance provider (this agreement formalizes the transfer of liability for electricity balance management from the settlement center to the balance provider).

- Providing a copy of the transfer of responsibility agreement to the balancing market settlement center (this requirement ensures transparency and control over the transfer of liability).

- Conclusion of an additional agreement to the balancing electricity and negative imbalance purchase and sale agreement with the balancing market settlement center and the electricity balancing market entity (this agreement specifies the details of cooperation).

This operating procedure provides a clear structure and procedures for the transfer of electricity balancing responsibility from the balance provider to the balancing market settlement center, and for organising processes in the electricity balancing market in accordance with the legislation of Kazakhstan.

5. REGISTRATION OF LAND RIGHTS, SPECIAL WATER USE AND DESIGN AND SURVEY WORKS PERMITS

5.1 GENERAL PROVISIONS

Foreign nationals and foreign entities may obtain private ownership of land plots for construction or land plots occupied by industrial and non-industrial, including residential, buildings (structures) or complexes, including lands intended for building service (structures) in accordance with land category, except for lands designated for agricultural production and afforestation.

However, land plots located in the border zone of the Republic of Kazakhstan cannot be owned by foreign nationals, stateless persons, citizens of the Republic of Kazakhstan married to foreign nationals or stateless persons, as well by foreign legal entities and legal entities of the Republic of Kazakhstan with foreign participation.[44]

After citizens of Kazakhstan enter into marriage with foreign nationals or stateless persons, the ownership rights for land plots located in the border zone and the border land of the state border of the Republic of Kazakhstan are subject to re-registration or alienation in accordance with the Land Code of the Republic of Kazakhstan dated 20 June 2003 (hereinafter “the Land Code of the RK”)[45].

[44] Paragraphs 3 and 4 of Article 23 of the Land Code of the RK

[45] According to the norms of Article 66 of the Land Code of the Republic of Kazakhstan

Citizens (including foreign nationals) and legal entities (including foreign ones) can also be granted the right of temporary land use, which can be short term (up to 5 years) and long term (from 5 to 49 years). [46]

Foreign land users cannot acquire the right of permanent land use for any category of land plot.[47]

Foreign land users include, among others, foreign nationals, stateless persons, legal entities established in accordance with the laws of foreign states (foreign legal entities), foreign states and international associations and organizations.[48]

Reservation of Lands

In accordance with the Law of the RK "On Support of the Use of RES" and the Auction Rules, [49] the local executive authorities of regions, cities of republican significance and the capital shall reserve land plots for the construction of renewable energy facilities until the auction winners are given the land title, according to the Land Code of the RK, and shall send the relevant information to the MoE RK. The procedure for reserving lands is determined by the Rules for the Reservation of Land approved by the Order of the Minister of National Economy of the Republic of Kazakhstan dated February 28, 2015, No. 178. The contacts of the mayor's offices of the cities of Almaty, Astana, and the regions are listed in Annex 5.

If a land plot slated for construction is not used for its intended purpose within three years from the date the decision to grant it was made (unless a longer period is provided for in the design and estimates documentation), then the land plot is subject to expropriation. [50]

The ownership right for the lands owned by the state is granted in accordance with the general procedure provided for in Article 43 of the Land Code of the Republic of Kazakhstan.

5.2 INVESTOR SELECTION OF A LAND PLOT

The first stage in the implementation of any RES project is choosing the site where the generating station will be built. Site selection is one of the most critical decisions and determines the success of the project's implementation because the site determines how optimally a RES will be used and, consequently, the economic feasibility of the project. This is particularly true for wind, hydro and solar energy

When the land belongs to the state, the investor must either obtain the right to short-term (up to 5 years) or long-term (from 5 to 49 years) land use or buy the land from local executive authorities.

If the land is privately owned, the developer has the right to buy it from the owner. This is a fairly simple method that is not particularly regulated by the law. The transfer of ownership should be accompanied by:

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[46] Paragraph 2 of Article 35 of the Land Code of the RK

[47] Paragraph 2 of Article 34 of the Land Code of the RK

[48] Subparagraph 45 of Article 12 of the Land Code of the RK

[49] Order of the Minister of Energy of the Republic of Kazakhstan dated 21 December 2017 No. 466 "On approval of the Rules of Organizing and Holding Auctions, Including Qualification Requirements for Auction Participants, the Content and Procedure for Submitting Applications, Types of Financial Guarantee for Participation in Auctions and Conditions of their Deposit and Return, the Procedure for Summing Up the Results and Determining the Winners"

[50] The procedure of forced expropriation is stipulated by Article 94 of the Land Code of the RK

- ✓ Registration of purchase/sale in the registering authority – the public service center (PSC) – that is responsible for the area where the plot is located;

- ✓ Receipt of a land title deed specifying that the plot has been registered, as well as a certificate of state registration (in cases stipulated by law).

In this case, the investor must conclude a lease contract, a land free use contract or land purchase-sale contract in accordance with the approved contract forms. The terms of these contracts are usually non-negotiable. In accordance with Paragraph 1 of Article 71 of the Land Code of the RK, it should be noted that in order to carry out design and survey works (hereinafter “D&S”) on the given land plot, physical and legal entities carrying out land surveying, design and other survey works may carry out these works without withdrawal of land plots from private owners or land users. Obtaining a permit to use land plots for surveying is free of charge. If the survey is accepted, the right to use the land can be formalized. The only reason developers do not take this opportunity is that they don't get exclusive rights to this land for the period of the survey. It is possible in theory that another developer will register to use the land during this period. The legislation allows developers to use an “arbitrary form of contract”, under which they can ensure exclusive rights to this land throughout the D&S. But in practice, most developers prefer to formalize their land rights before they invest.

The granting of the right to a land plot from state-owned lands, except for cases envisaged by Articles 44-1 and 44-2 of the present Code, as well as lands offered for auction (auctions) in accordance with Article 48 of the Land Code, shall take place in 2 stages.

The first stage includes determining the possibility of using the requested land plot for the stated purpose in accordance with land zoning, preliminary selection of the land plot (if the land plot is requested for construction of facilities, except for the construction of facilities within the boundaries of a populated area), preparation of a conclusion by the land commission. For the needs of communication and energy, as well as for the construction of other facilities of state significance, the following documents shall be submitted:

1) Application for acquisition of rights to land plots owned by the state, which does not require tenders (auctions);
2) Scheme (plan) of the requested land plot;
3) Approvals of authorized bodies of railway, automobile, sea and inland waterway, air, pipeline transport and communication and energy.

The second stage includes taking a decision on granting the right to a land plot and concluding a sale and purchase agreement or a temporary (short-term, long-term) compensated (without charge) land use agreement - within 3 working days from the date of receipt of the approved land use design.

Owing to the nature of renewable energy projects and the remoteness of land plots suitable for such projects, in most cases, these lands are in the public domain. Section 4.4 provides a detailed description of the steps and procedures the investor needs to obtain the right to temporarily use or purchase the land plot from the state.

In general, the Land Fund of the Republic of Kazakhstan is divided into the following categories based on the intended purpose:

- ✓ Agricultural lands;

- ✓ Settlement lands (cities, towns, rural settlements);

- ✓ Lands for industry, transport, communications, activity spaces, defense, national security and other non-agricultural purposes;
- ✓ Lands for nature reserves, sanatory lands, lands of recreational and historical-cultural designation;
- ✓ Forestry fund lands;
- ✓ Water fund lands;
- ✓ Reserve lands.

Lands are attributed to these categories and transferred from one category to another due to changes in their intended use by the Government of the Republic of Kazakhstan, LEAs of the regions, cities of republican significance, the capital, districts, and cities of regional significance. The process for changing the land plot's intended use is described below

Reserve lands are lands with no registered ownership or land use right and are under the jurisdiction of district-level authorities. The transfer of reserve lands to other land categories is carried out simultaneously with the provision of the right to ownership or land use.

Agricultural production that is lost[51] due to the withdrawal of agricultural lands and their use for other purposes shall be compensated to the national budget to maintain the level of agricultural production by restoring agricultural lands and their quality.

Compensation for losses in agricultural production is made by persons who are granted agricultural land for non-agricultural purposes from all land categories except for lands for industry, transport, communication sites, defense, national security and other non-agricultural purposes, and also by persons for whom security, sanitary and protective zones are established.

Losses in agricultural production shall be compensated within six months from the date of the decision to grant the right to a land plot or changes are made in the intended purpose of agricultural lands.

The lands for placement of hydroelectric power plants, nuclear power plants, thermal power plants and other power plants, structures and facilities serving them, as well as facilities for the use of renewable energy sources are called energy lands, according to Paragraph 2 of Article 119 of the Land Code of the Republic of Kazakhstan. To ensure the safety of the population and create conditions for the operation of energy facilities, protection zones of electric and heat networks with special conditions for the use of land shall be established in accordance with the rules for establishing protection zones of electric network facilities and special conditions for the use of land plots, rules for establishing protection zones of heat network facilities and special conditions for the use of land plots approved by the authorized body in charge of electric power industry management.

5.3 DESIGN AND SURVEY WORKS

[51] Order of the Minister of National Economy of the Republic of Kazakhstan dated 23 December 2014 № 161 "On approval of the norms of compensation for losses of agricultural production caused by the withdrawal of agricultural land for use for purposes not related to farming"

Design and survey work is the first stage in the construction or reconstruction of a new facility or the expansion or technical re-equipment of an existing facility.[52]

Based on the results of an engineering survey, the design documentation, construction investment rationale, construction plan and working documentation for the construction of enterprises, buildings and structures, including expansion, reconstruction, technical upgrade, operation and removal of facilities, are developed, including updating the national cadasters and information systems of settlements, and economically, technically, socially and environmentally appropriate design decisions are proposed.

The engineering survey for construction includes the following main types of surveys: engineering geodesic, engineering-geological, engineering - hydrometeorological, engineering and environmental surveys, exploration of ground building materials and sources of water supply based on groundwater, geotechnical control, soil survey of foundations of buildings and structures, justification of measures for engineering protection of territories, local monitoring of environmental components, geodetic, geological, hydrogeological, hydrological, cadastral and other related works and studies (observations) in the process of construction, operation and removal of facilities, scientific research during the process of engineering surveys for the construction of enterprises, buildings and structures, on-site supervision of the use of survey products in the process of construction by the commission (working group), and engineering services for arrangement and implementation of engineering surveys.

Engineering surveys for construction or some of their types (works, services) must be carried out by licensed legal entities and/or individuals (surveyor), which have obtained appropriate licenses for their production in accordance with the established procedure.

The basis for performing engineering surveys is the agreement (contract) between the customer and the surveyor with the following integral annexes: terms of reference (by letter), calendar schedule of works, cost estimation, and, if available, the requirements of the customer, the engineering survey program, as well as amendments to the contract if there are changes in the scope, timeframe and conditions of work.

The cost and deadlines for D&S are established by the contract between the design company and the customer.

Individuals and legal entities that carry out geological, geophysical, exploration, geodetic, soil, geobotanical, land surveying, archaeological and other survey works can carry out these works without withdrawing the lands from private owners or land users.

At the same time, survey works for construction purposes are carried out on lands owned by the state without granting the right to a land plot, provided that the designed construction project complies with the urban development plans (master plan, detailed planning and development projects) approved in the order established by the architectural, urban planning and construction legislation of Kazakhstan.

The customer can carry out D&S after obtaining permission from the district, city-level LEAs, and in case of D&S on arable lands, improved hayfields and pastures, on the lands occupied by perennial plantations, and on the lands of nature reserves and the Forestry Fund from LEAs of regions, cities of the republican significance, and the capital.

[52] Article 71 of the Land Code of the RK

The D&S timeframe, the location of work, the obligations to compensate for losses and reclaim the land for further intended use, as well as other conditions are determined by the contract concluded by the surveyor (the customer) with the private owner or land user or the LEA of the region, the city of the republican significance, the capital, district, or city of regional significance depending on the location of the land plot.[53]

D&S permits[54] are issued by local executive bodies of regions, cities of republican significance, the capital city, districts and cities of regional significance ("service provider").

To obtain the public service in question, individuals and legal persons ("service recipients") are to use the www.egov.kz website to file the following documentation:

- ✓ Application according to Annex 6;
- ✓ Softcopy of D&S site plan (layout);
- ✓ Softcopy of D&S work specifications.

The permit is denied if:

It was found that the documents submitted by the beneficiary for receiving a public service and/or data (information) contained in them are inauthentic.

Should service recipient and (or) submitted materials, data or information necessary for the rendering of the public service be found to be incompliant with the requirements set forth in the Rules for rendering the public service "Issuance of land use permit for purpose of survey works".

5.4 LAND PLOT RIGHT REGISTRATION FOR THE CONSTRUCTION OF RE FACILITIES

This section describes the procedures for obtaining the right to temporary land use.

Practice and legislation also allow an investor to acquire ownership or land use rights by participating in an auction, where the price for the purchase or lease of a land plot is approved. The overall timeframe for reviewing the application for the provision of the land plot rights is up to fifteen working days from the date of its receipt, except where land plots are being claimed for purposes of defense and national security. [55] The specified period does not include the time:

- ✓ Required for the preparation of the land use design;
- ✓ For land allocation coordination;[56]

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[53] Article 2 of the Land Code of the Republic of Kazakhstan

D&S agreement is concluded with LEA if there are no owners of land plots and land users on reserve lands, on lands of other categories on which there are no land plots owners and land users

[54] Rules of rendering the state service "Issuance of permission to use a land plot for survey works" according to Annex 5 to the Order of the Minister of Agriculture of the Republic of Kazakhstan dated 1 October 2020 № 301

[55] Paragraph 3 of Article 43 of the Land Code of the RK

[56] According to Paragraph 7 of Article 44 of the Land Code, if there are residential buildings, other buildings and structures on the territory chosen for the construction of the facility, as well as utilities and green plantations subject to demolition or relocation (including those that turn out to be a part of the sanitary-protective zone of industrial enterprises after land allocation), the Applicant shall obtain the approvals required for the allocation of the land plot independently. The Applicant submits a loss compensation contract concluded with each of the owners of the real estate. The contract specifies the specific

✓ For land delineation in the field.

To obtain the right to a land plot, [57] the investor sends the application in accordance with the form given in Annex 7 to the LEA (of regions, cities of the republican significance, the capital, districts, cities of regional significance, mayors of the cities of district significance, towns, villages, and rural districts within the scope of their competence) that has jurisdiction over the territory where the land plot in question is located.

The application must specify: the purpose of using the land plot; its estimated size; location; the requested right of use; the presence (absence) of another land plot. An application for granting the right to a land plot within one working day is submitted to the authorized bodies of regions, cities of regional significance (in the territory transferred to their administrative subordination), districts and structural divisions of the relevant local executive bodies performing functions in the field of architecture and urban planning, at the location of the land plot to determine the possibility of using the requested land the plot according to the declared intended purpose in accordance with the territorial zoning. The authorized bodies of regions, cities of regional significance (in the territory transferred to their administrative subordination), districts and structural divisions of the relevant local executive bodies performing functions in the field of architecture and urban planning, at the location of the land plot, determine the possibility of using the requested land plot for the declared purpose in accordance with territorial zoning and make materials to the land the commission within 7 working days from the date of receipt of the application.

When requesting a land plot, except for a land plot located in cities of republican significance, the capital, cities of regional (except for the territory transferred to their administrative subordination) and district significance, a land plot shall be pre-selected for the construction of an object. The results of the selection of a land plot for the construction of an object, and in necessary cases for the establishment of its protection or sanitary-protective zone shall be formalized by an act on the selection of a land plot by an authorized body of an oblast, a city of oblast significance (on the territory transferred to its administrative subordination) and a district together with structural subdivisions of the relevant local executive bodies performing functions in the sphere of architecture and town planning, at the location of the land plot.

Selection of a land plot and execution of an act on selection of a land plot shall be carried out within ten working days with subsequent forwarding of the act on selection of a land plot to the land commission for consideration and preparation of a conclusion. In cases where the Applicant is on the register of persons from whom land plots have been forcibly withdrawn, or the Applicant has submitted an incomplete package of documents required for making a decision on granting or refusing to grant the right to a land plot, authorized bodies of regions, cities of republican significance, the capital, districts, cities of regional significance at the location of the land plot shall, within 2 working days, issue a written refusal to the Applicant to consider the application.

The general period of consideration of an application for granting the right to a land plot shall be up to 15 working days from the moment of its receipt, except for cases of requesting land plots for the needs of defense and national security.

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conditions and terms for resettlement, relocation of the existing buildings, utilities, green plantations, and the developer's obligation to compensate for all losses associated with the demolition of the real estate.

[57] The procedure for registration of the land plot is established by Articles 43 - 44-1 of the Land Code of the RK

This term does not include the following periods:

- Land use design;
- Land delineation in the field.

According to Paragraph 2, Article 43 of the Land Code of the Republic of Kazakhstan, the decision to grant the land plot is made based on a positive decision of the Land Commission and the land use design.

The Land Commission operates on permanent basis. The members of the Land Commission are chosen by the LEA of the region, cities of republican significance, the capital, the district, or the cities of regional significance and is sent for approval to the appropriate local representative body. The Land Commission members include:

- ✓ Members of the local representative body;
- ✓ Representatives of the authorized body of the region, city of the republican significance, the capital, the district, city of the regional significance, and the subdivisions of the relevant local executive authorities in the fields of architecture, urban planning and agriculture;
- ✓ Representatives of public councils, agribusiness and other industry-specific non-governmental organizations, and local self-government bodies;
- ✓ Representatives of the National Chamber of Entrepreneurs of the Republic of Kazakhstan;
- ✓ Representatives of the local agglomeration council (if any).

The conclusion of the commission shall be drawn up in three copies in the form of a protocol resolution within 2 working days from the date of submission by the authorized body to the Commission of a proposal on the possibility of using the requested land plot for the stated purpose in accordance with the territorial zoning or provision of a preliminary selection of the land plot (when the land plot is requested for the construction of facilities, except for the construction of facilities within the boundaries of a populated area).

One copy of the positive decision of the Commission is given to the Applicant within 1 working day for the preparation of the land use design.[58]

Decision to deny the land plot shall be made on the grounds of a negative opinion report of the land commission within three business days after the deadline for appealing the protocol resolution of the land commission.

Denial in granting the right to the land plot in question, with the exception of cases of land plot seizure, including for purposes of the state, pursuant to Article 84 of the Land Code of the Republic of Kazakhstan, shall be executed through a decision of the local executive body of a region, city of republican significance, capital, district, city of regional significance, akim of city of district significance, village, hamlet, rural district shall be motivated.

Protocol resolution of the land commission within seven business days of the date of its receipt by the Applicant may be appealed in court in a manner prescribed by the Administrative Procedure Code of the Republic of Kazakhstan.

A positive ruling of the Land Commission is valid for one year from the date of its adoption according to Paragraph 2 of Article 43 of the Land Code of the Republic of Kazakhstan. The

[58] According to Paragraph 2, Article 43 of the Land Code of RK

expiry of the one-year period is the basis for the LEA's decision on the refusal to grant the land plot rights.

Development and Approval of the Land Use Design:

When granting the right to land plot out of lands in public ownership, developing of a land use design for establishing a new land plot shall be performed on the grounds of a positive opinion report of the land commission and an application submitted by a person interested in providing the land plot (hereinafter “customer”) for purposes of developing the land use design.

Procedure for drafting a land use design involves the following sequence of actions:

1. Preparatory activities (office-based and field-based);
2. Drafting of the land use design;
3. Consideration and sign-off on the land use design;
4. Approval of the land-use project.

The period of **preparatory activities**, office-based activities are undertaken, which involves selection of cartographical materials, as well as collection and study of land plot information contained in the state land cadaster, land-use, urban planning, forest planning, geodesic and cartographical documentation.

In order to obtain information from the state land cadaster with respect to a land plot in question, a request is dispatched to the State Corporation in accordance with Article 158 of the Land Code of the Republic of Kazakhstan.

Field examination of the land plot shall be conducted by the developer with the participation of the client and third parties whose land plots are situated along the designed boundaries

Results of the land plot field examination shall be formalized with a report on field examination of the land plot based on the form provided in Annex I to the Order of Minister of Agriculture of the Republic of Kazakhstan No. 180 dated June 3, 2022 “On approving the Rules of drafting land-use project for establishing land plots”, along with the drafting of a land plot field examination drawing. Land plot field examination report is signed by the drafter, client and third parties involved in the field examination of the land plot.

Land use design is drafted on the basis of the text and technical parts, in accordance with paragraphs 12 and 13 of the Order of Minister of Agriculture of the Republic of Kazakhstan No. 180 dated June 3, 2022 “On adopting the Rules for drafting land use designs for establishing land plots”.

Signing off on the land use design with stakeholder state agencies, relevant services shall be performed within 1 (one) month of the day of the receipt of the land use design and shall be presented in the form of letters (agreements, opinion reports), or seal-affixed signatures on the layout (plan) of the land plot coordination.

Stakeholder state agencies and relevant services signing off on the land use design shall be designated by the authorized body, depending on purpose and permitted use of the land plot.

Signing off on the land use design shall be performed with respect to compliance with standards pertaining to land, forest, water legislation, firefighting, public health and hygiene, environmental, construction and urban planning mandatory standards and regulations, depending on the purpose of the land plot.

Land use design shall be executed in two counterparts, bound and numbered by the drafter. One counterpart with a summary of coordinates and lengths of boundaries of the designed land plot shall be dispatched to a structural unit of the State Corporation for purposes of verifying the accuracy of data included in the land cadaster documentation, pursuant to Paragraph 5 Article 158 of the Land Code of the Republic of Kazakhstan, and the second counterpart shall be dispatched to the client.

Approval of the land use design shall be performed in accordance with the Rules for the rendering of a public service “Approval of land use designs for establishing land plots” approved by the Order of Minster of Agriculture of the Republic of Kazakhstan No. 301 dated October 1, 2020.

Land use design shall be approved by local executive bodies of regions, cities of republican significance, capital city, districts and cities of regional significance (“service provider”).

In order to obtain the public service, natural and legal persons (“service recipients”) are to use the www.egov.kz website to file the following documents with the service provider:

1. Application to approve the land use design for the establishment of land plots;

2. Electronic land use design.

Service provision time: 4 (four) business days.

Service output: order of approving the land use design for the establishment of a land plot, or a motivated response to deny the public service.

On the grounds of the land use design, the authorized body of the region, city of republican significance, capital city, district, city of regional significance at location of the land plots in question shall prepare a draft ruling of the local executive body with respect to granting the corresponding land right.

The decision of the local executive body of the region, city of republican significance, capital city, district, city of the regional significance, or the mayor of a city of district significance, town, village, or rural district on granting the right to the land plot is made within three working days after the receipt of the land use design and a positive ruling from the land commission.

Sale or temporary (short-term, long-term) paid (unpaid) land use agreement shall be entered into by the relevant authorized body of the region, city of republican significance, capital city, district, city of regional significance on grounds of a ruling on the granting of the right to land plot not later than within ten working days of the date when the decision was made.

Establishing of boundaries of the land plot in the field shall be performed on the grounds of the Applicant’s motion/application, in a manner prescribed by the Order of Minister of Agriculture of the Republic of Kazakhstan No. 119 dated April 20, 2022 “On approving the Rules for drafting inner farm and inter-farm land use designs”.

Land plot identification document shall be prepared and issued by the State Corporation maintaining the state land cadaster, within four business days, in a manner prescribed by the legislation of the Republic of Kazakhstan.

Land plot identification documents issued by the State Corporation maintaining the state land cadaster are as follows:

- For private ownership of the land plot: land plot private ownership deed;
- For permanent land use: permanent land use deed;

- For temporary paid land use (lease): temporary paid (long-term, short-term) land use (lease) deed;
- For temporary unpaid land use: temporary unpaid land use deed.

Further, for state registration[59] of the land plot rights, the customer needs to approach the PSC responsible for the area where the land plot is located or receive the service via the egov.kz portal. The procedure for receiving the service and the list of required documents is described in Annex 8.

The procedure for registering the land plot rights, established by Article 44 of the Land Code, differs from the procedure for land plot rights registration for the construction of facilities within the limits of a settlement, established by Article 44-1 of the Land Code. It involves obtaining approval for a pre-selected land plot via state information systems or via hard copies if the consent-giving authorities do not have such information systems, as well as the compilation of a land cadaster plan.

The public service of obtaining the land plot for the construction of a facility within the limits of a settlement is received in two stages:

✓ First stage: individuals and legal entities (hereinafter "the service recipient") send through the portal to the service provider as follows:

- *An application for obtaining a land plot for the construction of a facility within the limits of a settlement in the format presented in Annex 9 in the form of an e-document certified by the e-digital signature of the service recipient;*
- *An e-copy of the land plot location plan.*

✓ Second stage: the final agreed land allocation certificate.

The public service is delivered by the service provider in two stages.

✓ First stage: the land allocation certificate is prepared along with its site plan and architectural and planning assignment within 28 (twenty-eight) working days.

✓ Second stage: upon approval of the final land allocation certificate and payment for the land and cadastral works by the service recipient, a decision on granting land use rights to the land plot is made within 18 (eighteen) working days.

5.5 SPECIAL WATER USE PERMIT

In the case of the development of a hydro power plant (HPP), the developer must obtain the right for water use. This right is granted to individuals or legal entities in accordance with special, stand-alone or joint use procedures established by the water legislation of the Republic of Kazakhstan.

Individuals and legal entities are granted the rights to water bodies for:

✓ Short-term use: up to 5 years;

✓ Long-term use: from 5 to 49 years.

Natural persons and legal entities who are granted water bodies for use cannot dispose of the right to use water bodies. Special water use is carried out by individuals and legal entities

[59] The procedure for state registration of the land plot rights is established by the Order of the Minister of Justice of the Republic of Kazakhstan dated May 4, 2020 № 27 "On Approval of the Rules of rendering the state service "State registration of rights (title encumbrance) to real estate"

based on a permit and solely for the purposes defined therein. These persons must not violate the rights and legitimate interests of others or cause harm to the environment.

Permit for regulation of water resources use and protection by the Water Resources Committee of the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan. These inspections carry out issuance, suspension, extension and reissuance of special water use permit, as well as termination of special water use right in accordance with the procedure established by the Water Code of the Republic of Kazakhstan.

To obtain a permit for special water use, the Applicant submits the following documents with the basin inspection authority:

- ✓ Application for a permit according to the form given in Annex 10;
- ✓ Certificate of state registration (re-registration) of a legal entity;
- ✓ ID of the water facility, irrigation and drainage systems or devices;
- ✓ Calculations of the specific norms of water consumption and water discharge, except for individuals or legal entities that withdraw water resources for water treatment and/or delivery to water users for drinking needs, activities to regulate surface runoff with the help of retaining hydro technical facilities, use of water bodies without withdrawing water resources from them, discharging incidentally taken underground water (mine, pit), which present calculations for justifying the volumes of water consumption and water discharge;
- ✓ Sanitary and epidemiological decision on compliance of surface and/or ground water intake for drinking water supply with sanitary and epidemiological requirements;
- ✓ The list of secondary water users with applications for the supply or receipt of waste water;
- ✓ Information on the availability of water intake meters.

HPP project developers shall provide additional information along with the application:

- ✓ HPP installed capacity;
- ✓ Information on the capacity of energy, discharge and other structures;
- ✓ Information about fish protection and fish access structures;
- ✓ Data on the proposed amount of water resources to be used for hydropower needs.

A permit for special water use is issued by basin inspection authorities not later than 10 working days from the date of submission of the application with all the necessary documents in accordance with the Water Code of the Republic of Kazakhstan.

The procedure for carrying out work at water bodies and their water protection zones is determined for each water body separately, taking into account its condition and the requirements for preserving the environment as agreed with basin inspection authorities, authorized state body for environmental protection, the authorized body for sanitary and epidemiological welfare of the population, LEAs (of regions, cities of republican significance, the capital) and other concerned state bodies.

6. GRID CONNECTION PROCEDURE

The Law of the Republic of Kazakhstan on Support of the Use of RES creates an obligation for energy transmission organizations to ensure unimpeded and non-discriminatory determination of the closest electric network connection point that corresponds to the voltage class and to ensure connection of RE facilities. [60] This section presents the main stages, procedure and timeframe for connecting renewable energy facilities to the grid.

Figure 7. Procedure for Identifying the Closest Connection Point and Developing the Power Plant Power Generation Scheme

6.1 IDENTIFYING THE CLOSEST GRID CONNECTION POINT

The closest grid connection point is the closest point of physical connection of the generating company's power installation that uses RES with the electric grid of the energy transmission organization of a corresponding voltage class.

[60] Paragraph 2 of Article 10 of The Law of the Republic of Kazakhstan on Support of the Use of RES.

The procedure for identifying the closest connection point and developing a power plant power generation scheme is:

1. An investor submits a request to the energy transmission organization to identify the closest technically feasible connection point for the RE facility. **The request to identify the closest connection point contains the following information:**

- ✓ Name and type of installation;
- ✓ Preferred location of the site;
- ✓ Permissible power transmission of the whole installation (maximum in megawatts, specifying cos and/or in megawatt (MW) or megavolt-amperes (MVA);
- ✓ Technology used by the proposed power installation;
- ✓ Date of expected commissioning;
- ✓ Minimal generation of active power in MW;
- ✓ Nominal values in MVA, transient reactance on a direct axis, short-circuit ratio, inertia constant of the power installation with synchronous generators (engines);
- ✓ Nominal values in MVA of the step-up transformer and positive phase sequence reactance (for max/min branches);
- ✓ Type and category of plant voltage controller.

The energy transmission organization will notify the investor within 15 days upon receipt of the request in writing about the possible closest grid connection points for consideration in the power generation scheme of the power plant.[61]

2. If the investor fails to submit the above information in full, the energy transmission organization returns the application within 5 working days from the date of its receipt, indicating the reasons for the return. Within 15 calendar days from the date of return of the application, the investor shall supplement the application with missing information and/or eliminate remarks of the energy transmission organization in order to bring the application in compliance with the requirements of the legislation.
3. The energy transmission organization, when providing the stipulated information in full, within 15 calendar days from the date of receipt of the application from the investor, determines the nearest connection point to the electric grid and notifies the investor in writing.

The energy transmission organization, within 10 calendar days from the date of receipt of the application from the investor, determines the nearest connection point of the facility for the use of renewable energy sources to heat networks and notifies the investor in writing.

6.2 OBTAINING TECHNICAL SPECIFICATIONS (TS) AND DEVELOPING A POWER GENERATION SCHEME

Technical specifications for the connection of grid users with a declared electric capacity of 5 MW or more to the electric grid are issued on the basis of the “Power Generation Scheme”, which are developed by specialized design organizations with a license to perform design activities. Pre-design documentation for the construction of new and modified (reconstruction, expansion, technical re-equipment, modernization, overhaul) electrical installations contains

[61] Paragraph4 of the Order of the Minister of Energy of the Republic of Kazakhstan dated February 20, 2015, No. 117 “On Approval of the Rules and Terms for Determination of the Nearest Connection point to Electric or Heat Grids and Connection of Renewable Energy Facilities and Waste-to-Energy Facilities”.

a section “Power Generation Scheme”.[62] The development of the “Power Generation Scheme” of the pre- design and design documentation, and the implementation of technical conditions measures are carried out at the expense of the grid user.

The Power Generation Scheme[63] contains the following:

- ✓ Overview of the current electric energy supply state in the region in question and prospects for the next 3(5)-10 years;
- ✓ Power and energy balances of the region in question (current state and prospects for 3(5)-10 years), identification of the location for reserves placement to cover for fluctuations in RES generation, their capacity and flexibility, and data on multi-annual meteorological observations, taking into account seasonal changes, the balances should account for limitations in power generation from RES;
- ✓ Options for Power Generation Scheme;
- ✓ Justification for the recommended Power Generation Scheme;
- ✓ Calculations of electrical modes (normal, post-emergency modes) of the area under consideration with adjacent power grids;
- ✓ Short-circuit current calculation for equipment selection;
- ✓ Principles of relay protection and automation, emergency control system;
- ✓ Principles of dispatching and technological management organization;
- ✓ Energy metering;
- ✓ Planned activities for energy conservation;
- ✓ Extent of grid construction, estimation of the construction cost;
- ✓ Conclusions;
- ✓ Blueprints: schematic circuit, schematic maps or situational plan, calculation results for grid conditions, functional layout of protective relaying and automation, schemes for organization of dispatch control system;
- ✓ Technical characteristics of the renewable energy facilities and plant in general, including detailed technical data on wind turbines (capacity curve, efficiency factor and energy depending on the wind in table and graphical formats, as well as other characteristics), data on the setup of power plant and renewable energy installations, data for plant modeling under grid conditions, calculation software, specifying operational ranges by frequency, load, wind speed, air temperature ranges, dependence of reactive power regulating capabilities on the frequency and load, and any other technical characteristics.

The power plant Power Generation Scheme must be approved by system operator (KEGOC JSC) with the relevant organization (energy transmission and energy producing organizations), to the grids of which the connection is planned.

The legislation of the Republic of Kazakhstan establishes administrative responsibility for violating the RES support laws, [64] including violations of procedures and timeframes for identifying the closest connection point to the grid for the RES installations.

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[62] Paragraph4 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 18 December 2014 No 210 "On Approval of Electric Grid Rules"

[63] Power Generation Scheme is a section of the pre-design documentation for the construction of new and modified (reconstruction, expansion, technical re-equipment, modernization, overhaul) power installations, and is being developed taking into account the requirements of the legislation of the Republic of Kazakhstan in the field of electric power industry

[64] The Code on administrative offences of the RK, Article 303. Violation of the legislation of the Republic of Kazakhstan on Support of the Use of RES:

1. Based on the approved Power Generation Scheme, the grid company to which the power plant is to be connected issues technical specifications (TS) for a connection to the grid. The procedure for obtaining TS for a connection to the grid of the energy transmission organization is the following: to send a request to the grid company to connect generating installations to the grid. The requirements set for the contents of the Power Generation Scheme are specified in the Order of the Minister of Energy of the Republic of Kazakhstan dated December 18, 2014, No. 210, On approval of the Grid Rules.

2. Technical specifications are issued within a period of no more than two calendar months from the date of submission of the application by the grid user. Technical specifications are issued by the energy transmission organization within 10 working days after the expiration of the deadline for reviewing the application for technical specifications.

The TS includes the following information:

- ✓ Last name, name and patronymics (if any) of the individual or name of the legal entity to which the TS is issued;
- ✓ Name of the electric power generating facility;
- ✓ Location of the facility (city, village, street);
- ✓ Agreed power plant capacity;
- ✓ Nature of energy generation (continuous, temporary, seasonal);
- ✓ Category of energy supply reliability;
- ✓ Permissible power factor of the plant;
- ✓ Category of energy supply reliability;
- ✓ Permissible power factor of the plant
- ✓ Connection points (substation, power plant or power transmission line), specifying the connection scheme (input-output scheme, branch of the power transmission line, connection to the switchgear bus bar of the substation or power plant);
- ✓ Main technical requirements to the connected power transmission lines and substation equipment;
- ✓ Justified requirements to strengthen the grid due to the introduction of a new power plant – increase of the wire section, replacement or increase of transformer capacity, construction of additional cells of switching gear;
- ✓ Reason for issuing TS;
- ✓ TS validity period;
- ✓ Requirements for organization of commercial metering of energy, using ACEMS;
- ✓ Requirements for equipping the power plant with relay protection and automation equipment, dispatch control: telemetering, remote control and organization of communication channels;
- ✓ Requirements for compensation of reactive power.

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1. Failure to fulfill and/or improper fulfillment of the obligation to buy electric or heating energy generated by installations using RES entails a fine: 100 monthly calculation indices (MCI) for small businesses, 200 MCI for medium businesses, and 1500 MCI for large businesses.

2. Violation of the procedure or timeframe for the identification of the nearest connection point to electric or heating grid and the connection of RES installation entails a fine: 100 MCI for small businesses, 200 MCI for medium businesses, and 1500 MCI for large businesses.

3. The actions stipulated in paragraphs 1 and 2 of this Article that are repeated within a year after the imposition of an administrative penalty will entail a fine of 150 for small businesses, 350 MCI for medium businesses, and 2000 MCI for large businesses.

If the investor disagrees with the requirements specified in the TS, he can go to an expert organization to conduct an energy expert assessment. If an expert organization contacts the energy transmitting (energy generating) organization on behalf of the investor, the energy transmission (energy producing) organization will provide all requested information within the scope relevant for this grid user.

Based on the opinion of energy expert based on an examination of insufficient justification of the requirements specified in the TS, the investor resubmits a request for the TS to the energy transmission (energy producing) organization. In case of repeated rejection to change the requirements specified in the TS, the investor has a right to appeal the actions of the energy transmission (energy producing) organization following the procedure specified in the legislation of the Republic of Kazakhstan.

The TS duration period complies with the regular design and construction timeframe for a power plant. The TS for the facilities where construction has started can be extended based on a request of the power plant owner, which must be submitted before the TS expires.

The validity period of TS for connection is not less than the time needed for preliminary project studies, design and construction of the renewable energy facilities, as identified by current design and construction norms, and shall not exceed 3 years. In line with point 1 of Paragraph 7 of the Rules on Approval of the Standard Form Contract for Connection of Renewable Energy Facilities to the Grid, as well as Rules for Concluding a Contract, approved by the order of the acting Minister of Energy of the Republic of Kazakhstan dated July 27, 2016, No. 343, energy transmission organization, on the grounds of an application submitted by the generator, may extend the validity period of the technical specifications until the renewable facility commission deadline, as per the Power Purchase Agreement signed with the Financial Settlement Center.

The investor finances all activities under the TS. The costs related to constructing the grid from the renewable energy facility to the transmission organization's grid connection point, connection to the grid, energy transmission from the renewable energy facility to the connection point to the grid, and metering of the energy supplied are covered by the owner of the renewable energy facility.[65]

After fulfilling the TS requirements and completing the construction of the power plant, comprehensive tests of the power plant are performed in line with the connection and Power Generation Scheme. According to Paragraph 2-1 of Article 9 of the Law of the Republic of Kazakhstan on Electric Power Industry, a comprehensive test program must be agreed upon by the grid operator (KEGOC JSC).

6.3 SIGNING OF STANDARD FORM AGREEMENT ON CONNECTION OF RE FACILITIES

The energy producing and transmission organizations must sign a standard form contract on the renewable energy facility's connection to the grid, as specified in Annex 11[66] following the required procedure and timeframe. [67]

Main Content of the Agreement on Connection of RE Facilities

[65] Paragraph 6 of Article 10 of the Law of the Republic of Kazakhstan for the Support of RES

[66] Order of the acting Minister of Energy of the Republic of Kazakhstan dated July 27, 2016, No. 343, On Approval of the Standard Form Contract for the Connection of RE Facilities to the Grid, as well as Rules for Concluding a Contract

[67] Paragraph 1-1 of Article 10 of the Law of the Republic of Kazakhstan for the Support of RES

The energy transmission organization shall provide grid access to the energy producing organization by providing the grid connection point in line with technical specifications.

The energy producing organization shall fully comply with technical specifications and will ensure the commissioning of the renewable energy facility within the validity period of the technical specifications.

The energy producing organization must:

- ✓ Fulfill all requirements of the technical specifications on time;
- ✓ Before the comprehensive tests, sign a contract with the grid operator on the technical dispatching services for supply to the grid and consumption of electric energy;
- ✓ Before the comprehensive tests, sign a contract with a client on electricity purchase and sale;
- ✓ Before the comprehensive tests, sign a contract with the energy transmission organization on the provision of energy transmission services;
- ✓ After satisfying the requirements of the technical specifications, conduct comprehensive tests of the renewable energy facility, in pursuance of the requirements set forth by the Grid Rules.

The energy transmission organization must:

- ✓ Reserve the grid connection point to the generating organization until the end of the technical specifications' validity period;
- ✓ Within 30 (thirty) calendar days after the request is submitted, give permission to connect the renewable energy facility's generation capacity to the grid, provided the agreement conditions are satisfied in full.

The energy transmission organization has a right to:

- ✓ Deny the grid connection request if the technical specifications are not fulfilled;

- ✓ Extend the term of validity of the technical specifications until the deadline for the renewable energy facility commissioning, pursuant to the Power Purchase Agreement entered into force with the Financial Settlement Center, upon a petition by the generating organization submitted until the expiry of the term of validity of the technical specifications;

- ✓ Amend the TS if there are changes in the legislation of the Republic of Kazakhstan with advanced written notice to the energy producing organization.

The agreement is valid until the end of the term of validity of the technical specifications or before the signing of the act on connection to the electric grid, but not later than the deadline for the submission of the act on acceptance for the operation of the renewable energy facility specified in the PPA by the Financial Settlement Center from the energy producing organization, depending on which one is earlier. Information on the agreement is confidential. In the event of an extension of the term of the technical specifications in accordance with the terms of the agreement for connection to the grid, the parties shall draw up an additional agreement to the agreement on connection to the grid. Non-fulfillment or improper performance of the terms of the agreement shall entail termination under the laws of the Republic of Kazakhstan.

The Procedure for Concluding a Standard Form Agreement to Connect RE facilities:[68]

1. The energy producing organization sends a request to sign the contract within 30 (thirty) days after the facility was included in the renewable energy facility's siting plan. The following is attached to the request:
   - *Charter documents of the energy producing organization;*
   - *Technical specifications for connection to the grid;*
   - *Power plant Power Generation Scheme;*
   - *Copies of letters from the energy transmission organization and system operator agreeing on the power plant Power Generation Scheme.*
2. The energy transmission organization considers the request and documents within 10 (ten) business days. If the documents do not comply, the organization sends a notification within 2 (two) days.
3. The energy producing organization provides documents within 10 (ten) business days from the date of receiving notification.
4. The contract is concluded within 30 calendar days after the provision of the complete set of documents.

6.4 SIGNING A TECHNICAL DISPATCHING AGREEMENT

The system operator provides technical dispatching based on a standard form agreement on service rendering for technical dispatching of release to the network and consumption of electric energy in line with Annex 12. [69] The energy producing organization has to sign an agreement for technical dispatching before the start of comprehensive tests and obtaining access to the grid

Parties to the contract: The consumer of the technical dispatching services – energy producing, energy supply, or energy transmission organization – as well as the legal entity supplying (importing) energy from abroad to the Republic of Kazakhstan (hereinafter "Service Consumer"). *Supplier* - system operator, which provides technical dispatching services.

The agreement regulates the following matters:

- ✓ Ensuring technical dispatching for the supply of energy to the grid and parallel operation of energy installations of the consumer of the services as a component of a single electric energy system of the Republic of Kazakhstan;
- ✓ Technical specifications and characteristics of the technical dispatching services;
- ✓ Conditions for provision of technical dispatching;
- ✓ Metering of the energy supplied;
- ✓ Rights and responsibilities of the parties;
- ✓ Payment procedure for dispatching services;
- ✓ Liabilities of the parties, force majeure and other provisions.

Main Rights and Responsibilities of the Parties

[68] Rules for concluding a Standard Form Agreement on connecting RE facilities, Appendix 1 of the Order No. 58 of the Minister of National Economy of the Republic of Kazakhstan dated June 24, 2019 "On Approval of standard form agreement for the provision of regulated services"

[69] Standard form agreement for technical dispatching services provision of release to the network and consumption of electric energy, approved by the Order of the Minister of National Economy dated March 27, 2015, No. 266.

The supplier has a right to:

- ✓ Change the approved 24-hour schedule of electric energy generation, provided that electrical supply to network is within agreed amounts in the end of the billing period (subject to the agreement with the consumer of the RES services);
- ✓ To conduct switching in the electric switchgear of the consumer to start maintenance of high-voltage line equipment, start operations or eliminate disturbances;
- ✓ In case of violation of contractual terms, to terminate the provision of services for technical dispatching of supply to the grid and consumption of electric energy in accordance with the civil legislation of the Republic of Kazakhstan.

The supplier must:

- ✓ provide equal conditions for all participants of the wholesale electricity market;
- ✓ not to allow interruptions in the provision of services not stipulated by the agreement, termination or restriction of services on technical dispatching of supply to the grid;
- ✓ ensure reliability of parallel operation of the Service Consumer within the UPS of the Republic of Kazakhstan, including by means of emergency control systems at the facilities of the Consumer and third parties;
- ✓ to inform the Consumer in a timely manner about the causes of disturbances in the UPS of the Republic of Kazakhstan;
- ✓ inform the Consumer in a timely manner about the causes of a disturbance of the normal mode of the Unified Power System of the Republic of Kazakhstan that resulted in a disturbance of the normal mode of operation of the Consumer's energy source equipment;
- ✓ provide the Consumer with technological information in the amount agreed by the Supplier, characteristics and schemes of transmission lines and substations, lists of persons directly responsible for fulfilment of the agreement and entitled to conduct operational negotiations;
- ✓ provide technical possibility for access of the Consumer's representatives to receive full information on fulfilment of the agreement by the Supplier;
- ✓ maintain the required level of frequency and voltage at the Supplier's electric power facilities in normal modes in accordance with regulatory and technical acts and standards in the Electric Power Industry;
- ✓ submit voltage schedules at least once a quarter at the Supplier's control points;
- ✓ review and approve annual and monthly schedules of overhauls and current repairs of electric grid and electric power equipment, relay protection and automation devices and emergency control equipment under operational management and control of the Supplier;
- ✓ perform necessary calculations and approval of installations, development or approval of schematic (structural) diagrams for relay protection and automation devices and emergency control equipment under the Supplier's operational management and control;
- ✓ comply with the dispatch and technological discipline, do not allow actions that may lead to disruption of the operating mode of the Consumer's energy source;
- ✓ and other obligations stipulated by the Order of the Minister of National Economy of the Republic of Kazakhstan No. 58 dated 24 June 2019 “On Approval of Standard Formal Agreements for Provision of Regulated Services”.

The consumer has a right to:

- ✓ require the supplier to fulfill its obligations under the agreement;
- ✓ contest his actions in line with the legislation of the Republic of Kazakhstan;

- ✓ Apply for adjustment of the day ahead electricity production-consumption schedule in accordance with the Rules of Organization and Operation of the Wholesale Electricity Market.

The consumer must:

- ✓ Ensure the proper technical condition of the switchgear, emergency control automation, equipment and commercial energy metering devices;
- ✓ comply with the approved day-ahead electricity production and consumption schedule;
- ✓ arrange transmission of telemetric information on supply to the Consumer's grid to the national dispatch center of the system operator (regional dispatch center);
- ✓ fulfil the regulatory requirements aimed at maintaining the standard frequency of electricity of the UPS of the Republic of Kazakhstan;
- ✓ comply with the requirements of the National Dispatch Center of the System Operator (hereinafter "NDC SO") and the Regional Dispatch Center (hereinafter "RDC");
- ✓ ensure availability of measuring systems of commercial electricity metering with connection to the Supplier's automated commercial energy metering system;
- ✓ not to violate the agreed annual, quarterly, monthly schedules of capital and current repairs of electric grid, electric and heat power equipment, relay protection and automation devices, and emergency control equipment under operational management and control of the Supplier;
- ✓ provide energy metering;
- ✓ organise transmission of telemetric information on grid supply to NDC SO and RDC.

6.5 SIGNING A STANDARD FORM CONTRACT FOR THE TRANSMISSION AND/OR DISTRIBUTION OF ELECTRIC ENERGY

An energy producing organization is obliged to conclude a contract with the energy transmission organization for the transmission of electric energy before the beginning of comprehensive tests and access to electric grids.

Signing a Contract with the Regional Grid Company

In the event that the electrical grid to which the nearest point is to be connected belongs to regional electric grid companies, the energy producing organization undertakes to conclude a contract for the services of transmission and/or distribution of electric energy with these companies in accordance with the standard form contract, approved by the Order of the Minister of National Economy of the Republic of Kazakhstan dated March 27, 2015, No. 266 (Appendix 11 to the Order).

The standard form contract for the transmission or distribution of electric energy.

Main provisions. *Parties to the contract: Consumer* – individual or legal entity that uses or intends to use the energy transmission and/or distribution services. *Supplier* – organization that provides services on energy transmission and/or distribution in the grid.

The contract regulates the following matters:

- ✓ Technical specifications and characteristics for the provision of services on energy transmission and/or distribution from the reception station through the grid, substations and switchgear of the supplier up to the boundary of balance sheet attribution of the consumer;

- ✓ Energy metering;

- ✓ Rights and responsibilities of the parties;
- ✓ Financial settlement procedure;
- ✓ Liabilities of the parties, force majeure and dispute resolution.

Terms of service. Electricity is transmitted and/or distributed based on and in accordance with the annual application of the volumes of transmission of electric energy of the consumer with a breakdown by quarters and months, taking into account possible adjustments. Proposals for adjustments are promptly agreed by the parties at least 1 (one) day before the change begins. A deviation of the actual volume from the declared volume is allowable by 10% downward for the billing period.

Electrical energy metering. The actual volume of electric energy transmitted and/or distributed by the supplier for the billing period at the delivery points is determined from 00:00 hours of the first calendar day to 24:00 hours of the last calendar day of the accounting period on the basis of indications of commercial metering devices installed at the borders of the balance sheet attribution. This is confirmed by the reconciliation report on volumes, which are compiled based on indications of commercial metering devices. When the supplier finds violations in the scheme of electrical energy metering, damage to the equipment used for commercial metering, the supplier disconnects the consumer from the electric grid and/or recalculates the volume of electricity transmitted to the consumer.

Main rights and responsibilities of the parties. The supplier has the right to terminate or suspend the execution of the contract in connection with the non-payment by the consumer for the energy used; to stop supplying electricity to the consumer in case of an emergency. The supplier is obliged not to allow interruptions in the transmission and/or distribution of electrical energy.

The consumer has the right to demand compensation from the supplier for damages caused by the termination of the transmission and/or distribution of electric energy, as a result of a shortage or delivery that does not meet the standard parameters of electrical energy.

Settlement procedure. The consumer pays for the services of the supplier that transmits and/or distributes electric energy at tariffs approved by the authorized body. At the same time, Consumers and their energy producing organizations, which are members of the same group of persons with them, using renewable energy sources and (or) secondary energy resources (which are put into operation after 1 January 2022) for their own needs, are exempted from paying for the Supplier's services on electricity transmission through the national electricity grid in accordance with Paragraph 7 of Article 9 of the Law of the Republic of Kazakhstan on the Support of RES.

Liabilities of the Parties. In the case of a reduction in the agreed monthly volume of the transmission and/or distribution of electric energy for the billing period when the supplier is at fault, the supplier replaces the unsupplied volumes from any sources. Otherwise, the consumer has the right to impose a fine in the amount of the cost of the transmission and/or distribution of electrical energy, based on the amount of unsupplied electrical energy.

If the energy producing organization supplies less power than stipulated by the contract, the supplier limits the generation transmitted to the Consumer in an amount that is balanced with the seller's output.

Responsibility for the consequences arising from limitation or disconnection due to non-payment or untimely payment, as well as non-delivery of energy/capacity by an energy

producing organization falls entirely on the consumer. At the same time, the entire responsibility for the possible consequences of disconnection of the consumer, including the facilities of continuous energy supply, is borne by the consumer.

Signing an Agreement with KEGOC

In the event that the electric grid to which the nearest point is connected is part of the national grid of the Republic of Kazakhstan, the energy generator undertakes to enter into an agreement for the provision of electricity transmission and/or distribution services with KEGOC JSC in accordance with a standard agreement approved by the Order of the Minister of National Economy of the Republic of Kazakhstan dated 24 June 2019 No. 58 "On Approval of Standard Form Agreements for Provision of Regulated Services" (Annex 2 to the Order).

Standard Form Agreement on electricity transmission services through the national grid. General provisions.

Parties to the contract: Consumer - a wholesale market entity that has entered into a bilateral electricity purchase and sale transaction with its delivery in a certain period of time (week, month, quarter, year). *Supplier* - a system operator that transmits electricity through the national grid.

The agreement regulates the following issues:

- ✓ Receiving electric energy at the boundary of balance sheet attribution at the receiving stations and energy transmission in the grid to the delivery points;
- ✓ Conditions for transmission of electric energy;
- ✓ Electric energy metering;
- ✓ Rights and responsibilities of the parties;
- ✓ Payment procedure;
- ✓ Liability of the parties, force majeure, other provisions and dispute resolution.

Terms for transmission of electrical energy. Electrical energy is transmitted based on and in accordance with the quarterly or monthly application, subject to possible adjustments. A monthly application for the upcoming billing period shall be submitted no later than 10 calendar days before the beginning of the corresponding billing period. Adjustment of the monthly volume is allowed only within the limits of the contractual quarterly volume of electricity transmission. The monthly and quarterly application is submitted by the consumer to the supplier by fax.

Electric energy metering. The actual volume of electricity transmitted by the supplier to the Consumer's address for the billing period at the delivery points is determined from 00:00 hours of the first calendar day to 24:00 hours of the last calendar day of the billing period on the basis of measurements of commercial metering devices installed at the boundaries of the balance sheet attribution, and is confirmed by a reconciliation report on the volumes of the electric energy transmitted, which is compiled on the basis of acts of reconciliation of the readings on commercial metering devices. If a violation is detected in the metering scheme, an appropriate act is compiled, in which all violations are recorded. In this case, the amount of electric energy transmitted by the supplier to the consumer is determined at the end of the

billing period based on the actual balance of electricity. Here, an appropriate certificate is drawn up and signed by the parties.

Main rights and responsibilities of the parties. The supplier has the right to transmit electrical energy in the amount necessary for the facilities to provide a continuous power supply to the consumer in accordance with the Emergency Reservation Act, taking into account the bank or the Treasury (regional financial management) guarantee obligations on the basis of a separate agreement to the contract. The supplier has the right to perform other actions, including limiting or completely stopping the transmission of electrical energy to the consumer in specified cases. The supplier cannot allow non-contractual breaks in the transmission of electricity.

The consumer has the right to demand compensation from the supplier for the damage caused by an insufficient or low-quality electricity supply due to the fault of the supplier in accordance with the terms of the concluded agreements.

Payment procedure. Payment for the services of the supplier for the transmission of electric energy through the national electric grid is made in accordance with the tariff approved by the office of the authorized body.

At the same time, the consumer is exempted from the payment of the supplier's services for the transmission of electric power through the national grid in accordance with Clause 7 of Article 9 of the Law of the Republic of Kazakhstan on the Support RES.

Liability of the parties. In case of a reduction of the agreed monthly volume of transmission of electric energy for the billing period, due to the fault of the supplier, the latter replaces the unsupplied volumes from any sources. Otherwise, the consumer has the right to impose a fine in the amount of the cost of the transmission and/or distribution of electrical energy, based on the amount of unsupplied electrical energy.

If the energy producing organization supplies less power than stipulated by the agreement to the consumer, the supplier limits the generation transmitted to the consumer in an amount that is balanced with the seller's output.

Responsibility for consequences arising from the limitation or disconnection due to non-payment or untimely payment, as well as non-delivery of energy/capacity by an energy producing organization falls entirely on the consumer.

The supplier shall not be liable to the consumer for the interruption, termination or restriction of the transmission of electric energy caused by the triggering of the emergency control system at the levels and in the amounts set by the National Dispatch Center of the system operator (regional dispatch center).

The liability of the supplier before the consumer for the interruption, termination or restriction of the transmission of electric energy not provided for by the contract is determined in accordance with the legislation of the Republic of Kazakhstan.

6.6 OPERATIONAL REGULATIONS

Sustainable operation shall be ensured for renewable energy generating installations (REGI) (without automatic disconnection from the grid) if the frequency deviates in the grid from the nominal value within the minimal periods of time when the generating module should be working without disconnection from the grid.

In case the network frequency deviates from the nominal value, the REGI must not be automatically disconnected because of the deviation within the frequency ranges of the

minimum time periods during which the generating unit must be able to operate without disconnection from the grid.

Broader frequency ranges or longer minimum operating time periods can be negotiated with the system operator and described in the rules of technical operation of the power plants, grid regulations, and technical specifications for connection to the grid in order to optimize the use of the technical capabilities of the REGI when it is necessary to maintain or restore the reliability of the system.

The REGI should be able to disconnect automatically at a certain frequency at the request of the system operator. The conditions for automatic disconnection shall be defined by the system operator in the technical specifications for connection to the grid.

The REGI shall provide for a stable power output when the frequency goes down until the thermal power plants are disconnected by the action of the frequency range system. Frequency ranges for REGI shall be specified at the design stage to maintain the efficiency of under-frequency load shedding.

The REGI shall be equipped with automatic systems to control active power generation, which allows wind farms to participate in the primary frequency control (in case of frequency deviation in the grid, both below and above the relative nominal value). The settings for the automatic systems shall be agreed upon with the system operator, the automatic systems shall be put into operation at the direction of the system operator.

The REGI shall remain connected to the grid when the line (phase-to-phase) voltage at the grid connection point drops due to asynchronous running in the adjacent grid or due to nearby short circuits (symmetrical or asymmetrical). At the same time, the respective stable operation conditions for a wind power plant are defined based on the “voltage-time” parameter indicated in Figure 4.

The REGI shall provide black start capability. At the same time, it shall be possible to synchronize the REGI with the grid within the frequencies of the minimum time periods in which the generating unit must be able to operate without disconnection from the grid as defined in Table 7.

The REGI shall provide for an isolated operation ability with dedicated load. At the same time, isolated operation shall be possible within the frequency ranges and time periods indicated above.

The REGI shall be equipped with automatic systems that regulate the generation of reactive power:

- ✓ In voltage control mode;
- ✓ In reactive power control mode;
- ✓ In power factor adjustment mode.

The system operator shall determine which of the above control modes is feasible.

The REGI shall provide the reactive power control range within the limits specified in Figure 8. When the voltage at the connection point goes below (or above) the limits specified in Figure 9, the REGI shall operate in the mode of maximum generation (or maximum consumption) of reactive power.

Requirements for the REGI measurement and control equipment:

- ✓ The REGI shall be equipped with the appropriate equipment, which records plant automatic systems operations, records faults and monitors transients, regulates the dynamic system and (measures), and records the following parameters: voltage, active power, reactive power, frequency, wind speed, ambient temperature, and power quality.

- ✓ Parameters of emergency registering equipment, including activation criteria and measurement frequency, are set by the system operator in the technical specifications for connection to the grid.

- ✓ Dynamic system control equipment and power supply quality control equipment shall enable the system operator's access to information. The data transfer protocol is agreed upon with the system operator in technical specifications for connection, grid regulations or in any other bilateral agreements.

During the approval stage of a REGI project, the system operator is presented with the REGI simulation model, as well as calculations performed in the simulation model that demonstrate the compliance of the REGI with the requirements of the electric power sector legislation of the Republic of Kazakhstan. The simulation model is presented in the format defined by the system operator

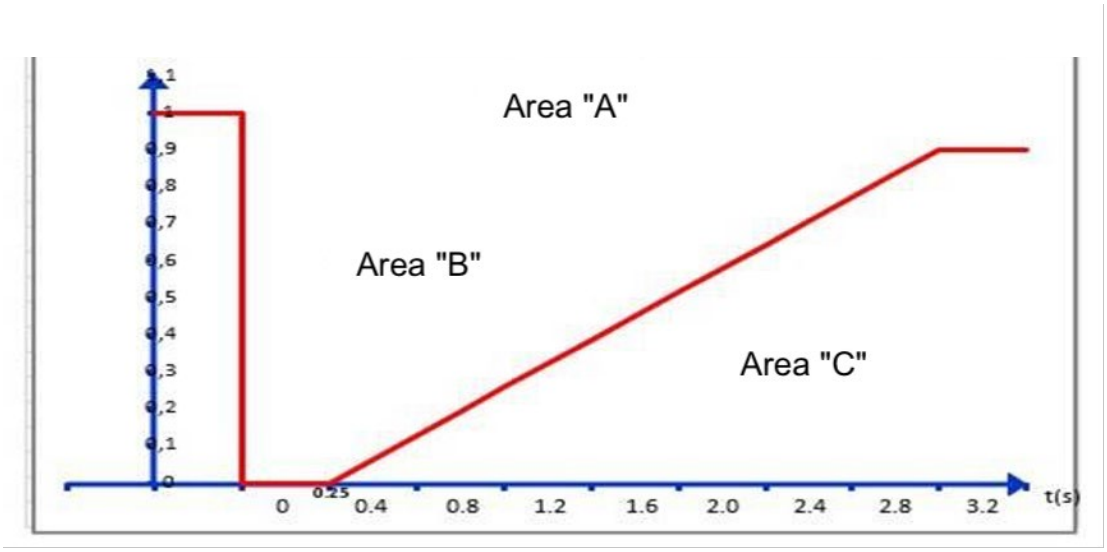
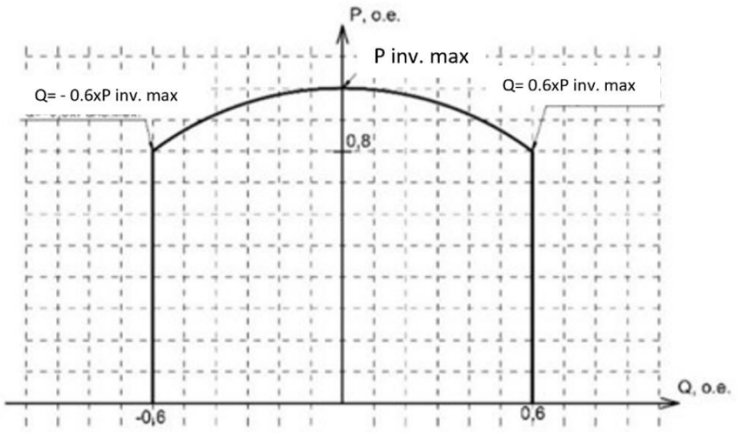


Figure 8. Characteristics for sustainable work of WPPs are specified by the “voltage-time” characteristic.

TABLE 7. MINIMUM OPERATIONAL TIME PERIODS WITHOUT DISCONNECTION FROM THE GRID	
Frequency range (Hz)	Minimum operation time
47.0 Hz – 49.0 Hz	120 min
49.0 Hz – 51.0 Hz	Not limited
51.0 Hz – 51.5 Hz	90 min

Area “A” – the REGI shall stay connected to the grid with sustainable operation. Area “B” – the REGI shall stay connected to the grid and ensure maximum support of the voltage by generating a controlled amount of reactive power. Area “C” – disconnection of REGI from the grid is allowed.



where,

P inv. max - total maximum active power of all inverter converters of the SPP

Q - generated/consumed power

Figure 9. Dependence of SPP’s reactive power regulation range on the actual voltage at the connection point.

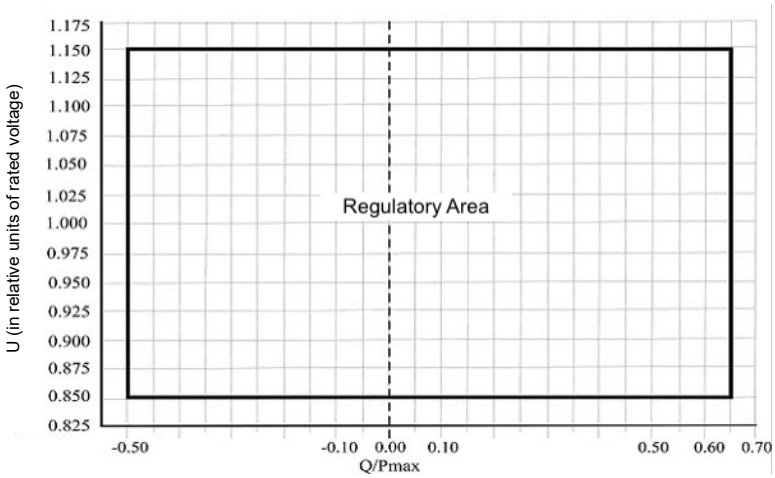


Figure 10. The conditions of stable operation of WPP are defined by the “voltage-time” characteristic.

7. PRELIMINARY PROJECT PROCEDURES AND DESIGN

The construction and operation of renewable energy facilities is done in line with the legislation of the Republic of Kazakhstan on architecture, urban planning and construction activities, and the electric energy sector, as well as following the construction norms of the Republic of Kazakhstan: Construction Regulations (SN RK) 1.02-03-2022 “Procedure for Development, Coordination, Approval and Content of Construction Project Documents” and other regulatory documents and standards. Furthermore, renewable energy facilities are constructed using new generating equipment (which has not been in operation before).

Construction projects are implemented in the following stages[70] based on the relevant claim for a land plot.

7.1 OBTAINING SOURCE MATERIALS TO DEVELOP CONSTRUCTION PROJECTS[71]

Source materials to design construction projects include:

- ✓ Architectural planning specifications (APS);
- ✓ Technical specifications (TS) for connection to the sources of engineering and utility provision;
- ✓ Cross profiles of roads and streets;

[70] Order of the Minister of National Economy of the Republic of Kazakhstan dated 30 November 2015 No. 750 “On Approval of the Rules for Organizing Development and Permit Procedures in Construction”

[71] Order of the Minister of National Economy of the Republic of Kazakhstan dated 30 November 2015 No. 750 “On Approval of the Rules for Organizing Development and Permit Procedures in Construction”

- ✓ Vertical design elevations;
- ✓ Extracts of the detailed design plan;
- ✓ Layout scheme of external utility networks.

Request[72] for the provision of source materials/ APS and technical specifications is submitted (in line with Annex 13) to the local executive bodies of the cities of Astana, Almaty and Shymkent, of districts and cities of regional significance through the “electronic government” web portal:

www.egov.kz, www.elicense.kz and shall be attached with:

- ✓ an electronic copy of the title document for the land plot (in the absence of registration in the national database “Real Estate Register”);
- ✓ an electronic copy of the input form in the form provided for in Annex 14 (in case of obtaining technical specifications).

Before the facility is designed, the investor needs to obtain APS and TS for connection to engineering and utility networks (energy, water supply, sewerage), which are issued by the structural subdivisions of the relevant local executive authorities for architecture and urban planning (architecture and urban planning office (A&UPO) on the basis of the decision on the provision of rights to land or land title of the investor.

TS for connection to engineering and utility networks is a mandatory annex to the APS. Issuance of technical specifications for connection to the designed engineering networks is not allowed (except for the main and distribution networks of Saryarka gas pipeline).

A&UPO within not more than 1 (one) working day after receiving submitted documents for obtaining an APS and TS, sends the input form and a situational diagram to engineering and utilities service providers to obtain technical specifications with a preliminary layout scheme of external utility networks.

From the date of receipt of the above documents, engineering and utility service providers prepare and send to the structural unit of the relevant A&UPO the technical specifications with a preliminary layout of external utility networks within:

- ✓ 2 (two) working days for technically and (or) technologically simple facilities;
- ✓ 5 (five) working days for technically and (or) technologically complex facilities;
- ✓ 2 (two) working days for a motivated denial in technical specification issuance with preliminary layout of external utility infrastructure routes.

In case of receipt of a refusal, the applicant shall resubmit the application to after making corrections. In such a case, a repeated refusal on the reasons that could have been, but were not specified earlier, is not allowed.

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[72] Standard of the state service “Provision of initial data for the development of construction and reconstruction projects (Re-Planning and Re-equipment)” in Annex 1 to the Order of the Minister of National Economy of the Republic of Kazakhstan dated 30 November 2015 № 750 "On Approval of the Rules for Organization of Development and Enabling Procedures in the Construction Industry"

Timeframes for consideration of submissions for technically and/or technologically complex facility construction projects:

- ✓ issuance of APS and technical specifications: 9 (nine) working days;
- ✓ issuance of original materials for a new construction (APS, technical specifications, extraction of detailed layouts from the project, vertical planning grade elevations, cross sections of roads and streets, diagrams of external utility infrastructure routes): 15 (fifteen) working days.

Timeframes for consideration of submissions for technically and/or technologically complex facility construction projects:

- ✓ issuance of APS and technical specifications: 15 (fifteen) working days
- ✓ issuance of original materials for a new construction project: 17 (seventeen) working days.

Service fee: free of charge.

7.2 APPROVAL OF SCHEMATIC DESIGN

Upon receipt of the source materials and after developing the schematic design, the Applicant must obtain approvals from the LEA of the cities of Astana, Almaty and Shymkent, of districts and cities of regional significance through the “electronic government” web-portal:

www.egov.kz, www.elicense.kz in the form according to Annex 15.

An electronic copy of the schematic design shall be attached to the application.

The deadline for the provision of the service or a justified refusal is 10 (ten) working days.

7.3 DESIGN AND ESTIMATE DOCUMENTATION

Construction (reconstruction, renovation, extension, technical re-equipment, modernization, overhaul repairs) of units and complexes thereof, as well as laying of infrastructure routes, site utility preparation, site improvement and landscaping without duly approved design and estimate documentation shall not be permitted, unless otherwise provided by the legislation of the Republic of Kazakhstan on architectural, urban planning and development activities.

Design documentation for construction of new or alteration of existing units shall be developed in accordance with design phases and detailed design and shall be approved in accordance with sections 4, 5 and 7 of construction regulations SN RK 1.02-03-2022 “Procedure for development, signing off, approval and composition of design and estimate documentation for construction”.

Design and estimate documentation at design phase shall be developed with detailed design documentation for construction of units with standard construction duration of 36 months and over, for units implemented using state investments and quasi-public sector entities’ funds, 24 months and over for all other units requiring in its design process elaborations and refinement of originally specified parameters, characteristics, constructive diagrams and specific space-planning, engineering and technical and technological design solutions.

Design is developed based on conclusions and indicators of pre-design documentations (where available).

Improvement and detailing of the accepted design solutions is carried out during the development of detailed design documentation, which is not subject to expert review, is agreed

and approved by the client. Design solutions of the detailed design documentation shall correspond to the design solutions adopted at the stage of development of the pre-project documentation.

It is allowed to develop design and estimate documentation for construction, reconstruction and modernization of sewage treatment facilities (STF) at the design stage with detailed design documentation, regardless of the duration of construction and source of financing.

Design documentation for the construction of facilities units with standard construction duration up to 36 months for units implemented using state investments and quasi-public sector entities' funds, and up to 24 months for all other units, shall be developed at the detailed design stage.

Design and estimate documentation are developed by individuals and legal entities that are licensed for the relevant types (subtypes) of design activities in architecture, urban planning and construction.[73]

The development of design and estimate documentation is done on the following basis:[74]

- ✓ Contractor agreement (agreement) for design (design and survey) works (hereinafter "Agreement"), which is signed by the client, who orders the construction and executor (contractor, chief designer) following the procedure established in the legislation of the Republic of Kazakhstan;
- ✓ Design specifications, in accordance with Annexes B and C of construction regulations of Kazakhstan SN RK 1.02-03-2022 "Procedure for developing, signing off, approval and composition of design and estimate documentation for construction projects", approved by construction client.

The Agreement shall provide the following:

- ✓ Name of unit/facility under construction (specifying location of construction site) pursuant to type of construction activity specified in sub-Paragraph 31) Article 1 of the Law of the Republic of Kazakhstan "On architectural, urban design and construction activities in the Republic of Kazakhstan" and design solutions with respect to this unit under construction. Similar information shall be specified in design specifications.

- ✓ Types and amounts of works (services), which the executor (chief designer) intends to transfer for implementation to other entities under a subcontractor agreement,41 in according to the legislation of the Republic of Kazakhstan on public procurement, or these works are performed without subcontracting.

- ✓ Conditions of designer supervision (upon consent of project developer).[75]

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[73] Clauses 4.3, 4.4 and 4.5 of SN RK 1.02-03-2022 "Procedure for development, coordination, approval and composition of design and estimate documentation for construction"

[74] Clause 5.2 of SN RK 1.02-03-2022 "Procedure for development, coordination, approval and composition of design and estimate documentation for construction"

[75] Clause 5.3 of SN RK 1.02-03-2022 "Procedure for development, coordination, approval and composition of design and estimate documentation for construction"

Note.

Design specifications are prepared by the client or with the involvement of third-party experts, and approved by the client, following the template specified in Annex 16. Approved design specifications are an integral part of the agreement.

Along with the design specifications, the client issues to a subcontractor design organization (general designer) the original materials (data) for drafting design and estimate documentation in accordance with Paragraph 10 of Rules for arranging activities and carrying out duties of the client (developer), adopted by Order of the Minister of National Economy of the Republic of Kazakhstan dated March 19, 2015 No. 229,[76] annexes 2–3 of the Rules for conducting comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new as well as modifying (reconstructing, expanding, technical re-equipment, modernizing and overhauling) of existing structures, complexes thereof, utility and transport communication infrastructures, regardless of funding sources, adopted by Order of the Minister of National Economy of the Republic of Kazakhstan dated April 1, 2015 No. 299[77] and paragraphs 25 and 26 of Chapter 3 of the Rules of organizing development and permitting procedures in the area of construction, adopted by Order of the Minister of National Economy of the Republic of Kazakhstan dated November 30, 2015 No. 750.[78]

Article 312 of the Code of Administrative Offenses of the Republic of Kazakhstan of July 5, 2014, No. 235-V (hereinafter, the Administrative Code) establishes administrative responsibility for the performance of pre-design, survey, design, construction and installation works, production, use of construction materials, structures violating the Republic's legislative requirements for architectural, urban planning and construction activities. For violations, government officials are fined in the amount of 60 monthly calculation indices (MCI), small businesses 200 MCI, medium-sized businesses 400 MCI, and large businesses 700 MCI. If a similar violation is repeated during a calendar year, the amount of the above fines is doubled.

Procedure for Signing Off on Design and Estimate Documentation

Coordinating and getting a sign-off on design and estimate documentation with governmental bodies and stakeholder organizations shall be carried out within timeframes and in a manner established in regulatory legal acts governing the relevant types of construction.

Procedure for Approving Design and Estimate Documentation

Design and estimate documentation signed off on in a duly prescribed manner, prior to approval, not later than 3 (three) months following its receipt from the designer, shall be

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Designer supervision is implemented to control the development of the construction project (construction documentation) carried out by the author(s) of the architectural and urban planning work and the implementation of a construction project carried out by its developers, including the author(s) of the architectural or urban planning work. Designer supervision is implemented by the developers of design (design and estimate) documentation at all construction sites, except for cases of the construction of individual houses and other technically uncomplicated buildings intended for personal use by a citizen, the construction of temporary structures located on personal plots, the reconstruction of existing buildings not connected with a change in load-bearing and enclosing structures, and cases when the owner or investor independently puts the technically uncomplicated facilities into operation.

[76] Order of Minister of National Economy of the Republic of Kazakhstan No. 229 dated 19 March 2015 "On the adoption of Rules of arranging activities and performance of duties of client (developer)"

[77] Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 "On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing"

[78] Order of Minister of National Economy of the Republic of Kazakhstan No. 750 dated November 30, 2015 "On the adoption of Rules of organizing development and undergoing permit procedures in the area of construction"

furnished by the client for a comprehensive non-departmental expert examination, unless otherwise prescribed by the legislation of the Republic of Kazakhstan on architecture, urban planning and construction activities.[79]

Comprehensive non-departmental expert examination of design and estimate documentation intended for construction of new, as well as modification (reconstruction, expansion, technical re-equipment, modernization and overhaul, post-discarding) of existing structures, complexes thereof, utility and transport infrastructure regardless of funding sources, shall be conducted in accordance with the Rules of conducting comprehensive non-departmental expert examination of feasibility studies (FS) and design and estimate documentation (DED), adopted by Order No. 165 of the Minister of National Economy of the Republic of Kazakhstan dated February 28, 2015. [80]

Projects of construction of units, subject to mandatory comprehensive non-departmental expert examination, but not having undergone said assessment, and not having received a positive expert opinion/report, shall not be approved.[81]

Design and estimate documentation developed at the expense of other funding sources, shall be approved by the decision of the client (legal entity or sole proprietor), not later than within thirty calendar days of the date of obtaining a positive opinion/report of the comprehensive non-departmental expert examination.[82]

The project documentation for which construction has not started for three or more years after its approval is considered obsolete and can be used after it has been brought into line with the current state standards and re-confirmed in accordance with the procedure established by law.

Developing Feasibility Study

According to Paragraph 12 of Article 1 of the Law of the Republic of Kazakhstan dated 16 July 2001 № 242 “On architectural, urban planning and construction activities in the Republic of Kazakhstan” (hereinafter “the Law on Architecture”), the feasibility study is part of the concept of pre-design documentation, as the latter is understood as documentation preceding the development of urban planning, architectural projects, construction projects and including programs, reports, feasibility studies for construction, technical and economic calculations, the results of scientific research and engineering studies, technological and structural calculations, drafts, models, measurements and results of site surveys, as well as other source data and materials required to make decisions on the development of design documentation and subsequent implementation of projects.

In cases when the object does not require the development of pre-design documentation, the design task may provide for the development of options of design proposals (schematic

[79] Clause 5.2 of SN RK 1.02-03-2022 “Procedure for development, coordination, approval and composition of design and estimate documentation for construction”

[80] Clause 7.2 of SN RK 1.02-03-2022 “Procedure for development, coordination, approval and composition of design and estimate documentation for construction”

[81] Clause 7.3 of SN RK 1.02-03-2022 “Procedure for development, coordination, approval and composition of design and estimate documentation for construction”

[82] Clause 7.4 of SN RK 1.02-03-2022 “Procedure for development, coordination, approval and composition of design and estimate documentation for construction”

designs, schemes, calculations, justifications), requiring the selection of the most optimal solution.[83]

Approval and further implementation of construction projects (feasibility studies or design and estimate documentation) subject to mandatory comprehensive non-departmental examination without its positive conclusion is not allowed. Technically non-complex objects specified in Paragraph 2 of Article 60 of the Law on Architecture are not subject to mandatory examination.[84] In cases where the object does not require the development of pre-design documentation, the design task may provide for the development of variants of design proposals (schematic designs, schemes, calculations, justifications), requiring the selection of the most optimal solution. Thus, according to schematic designs the client (owner) in coordination with local executive bodies of cities of republican significance, the capital, districts (cities of regional significance) can carry out:

1) Construction of individual residential houses not higher than two storeys;

2) Construction of residential buildings on the territory of individual homestead plots and on the territory of garden and horticultural associations;

3) Construction of internal communication lines;

4) landscaping on homesteads and dachas that does not require changes to existing engineering networks;

4-1) Construction of fish technology ponds (fish pond, fish tank) for fish farming (aquaculture) with the water surface area of one pond and (or) tank not exceeding 0.15 ha;

5) Construction of mobile complexes of container, block and modular design, as well as single-storey buildings (structures) for trade, public catering and consumer services enterprises, built from prefabricated structures;

6) In case of emergency and (or) emergency situations, reconstruction works, construction of fast-constructed buildings and structures of not more than two storeys, which are not technically complicated;

7) Construction of buildings or structures for temporary, seasonal or auxiliary purposes (warehouses and storage facilities (with a span of up to 6 meters, a height of up to 7 meters and an area of up to 2,000 square meters inclusive) requiring special conditions for the storage of goods and materials) that are not hazardous due to fire, explosion, gas, chemically aggressive, poisonous and toxic substances, greenhouses, hothouses, pavilions, communication towers, lighting, fencing and similar structures;

8) Construction of temporary structures of residential and (or) household premises for seasonal work and pastoral stock-breeding;

9) Construction of open-type car parks for a maximum of fifty cars, as well as garages with boxes for no more than two cars;

10) Overhaul of linear engineering networks and structures on them, not requiring changes in their position, depth (height) of embedment, diameter of pipes;

11) Construction of street furniture and fencing of territories;

12) Construction of outdoor sports grounds, pavements, paving around buildings (structures);

13) Repair and replacement of technological or engineering equipment units for which the

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[83] Clause 5.10 of SN RK 1.02-03-2022 “Procedure for development, coordination, approval and composition of design and estimate documentation for construction”

[84] Paragraph 6 of Article 64-1 of the Law on Architecture

technological resource has been exhausted and which do not require reconstruction or re-profiling of the enterprise (workshop);

14) Protection of engineering networks from electrical corrosion;

15) Construction of free-standing one-storey buildings (structures) for placement of individual business premises with a total area of up to 20 square meters;

16) Reconstruction (redevelopment, re-equipment) of residential and non-residential premises in residential buildings (residential buildings), which does not require allotment of additional land plot (additional piece of land), is not associated with any changes in load-bearing structures, engineering systems and communications, does not deteriorate architectural and aesthetic, fire protection, anti-explosion and sanitary qualities, does not have a harmful impact on the environment during operation;

17) Replanning (re-equipment) of premises for non-production purposes, carried out in existing buildings and not requiring changes in load-bearing structures;

18) Construction of power supply networks with installed capacity up to 200 kW for business entities;

19) Construction and installation of an automatic security and fire alarm system inside administration, accommodation and production buildings;

20) Construction of water supply and wastewater disposal networks of homestead-type residential buildings;

21) Construction of on-site networks and installation of in-house domestic gas supply systems for individual residential buildings.[85]

The technical complexity of the designed facility[86] is determined by the level of importance in terms of the technical requirements for the reliability and strength of the foundation and building structures stipulated by state (interstate) norms that determine the basic provisions for calculations, loads and impacts, taking into account the possible seismic hazard, other special geological (hydrogeological) or geotechnical conditions, and also taking into account the natural climatic features of the facility's location.

To account for the degree of importance of buildings and structures, characterized by the possible economic, social and environmental consequences caused by the complete or partial loss of the bearing capacity of the structure of the facility as a whole or its main elements (individual products), the following levels of importance for buildings and structures are specified:

- ✓ First: enhanced;
- ✓ Second: normal;
- ✓ Third: reduced.

Technically complex facilities (complexes) include all buildings and facilities of the first (enhanced) and second (normal) levels of importance, except for facilities at the second (normal) level of importance, which are not considered technically complex: industrial facilities.

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[85] Paragraph 2 of Article 60 of the Law on Architecture.

[86] Order of the Minister of National Economy of the Republic of Kazakhstan dated February 28, 2015, No. 165, On the Approval of the Rules for Determining the General Procedure for Classifying Buildings and Structures as Technically and/or Technologically Complex Facilities.

These include manufacturing facilities, which are not hazardous in terms of fire, explosions, gas, chemically aggressive, poisonous or toxic, with a total span of less than 12 meters and/or a height under 12 meters and/or with cranes with lifting ability below 5 tons; facilities utilizing solar energy at 100 MW (megawatt) (inclusive) with electric grids of up to 35 kV (kilovolt) (inclusive); civil facilities; other facilities: power transmission lines and other energy facilities with voltages up to 35 kV (kilovolt, inclusive); external water supply networks with operational pressure below 1 MPa (megapascal) with a nominal diameter up to 350 mm (millimeters) (inclusive) and facilities that are part of those, including distribution (street, city quarter level) networks, internal water supply, internal sewerage networks, building-level water supply and sewerage networks, water treatment facilities for individual housing blocks with less than 500 inhabitants, etc.

Technically complex facilities (complexes) do not include buildings and structures of the third (reduced) level of importance, as well as facilities of the second (normal) level of importance specified above.[87]

SN RK 1.02-04-2022 “Rules for the development, coordination, approval and composition of feasibility studies for construction” approved by the Order of the Chairman of the Committee for Construction and Housing and Utility Services of the Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan dated 03/01/2013 No. 33-NK, as well as the Order of the Acting Minister of Economic Development and Trade of the Republic of Kazakhstan dated August 6, 2010 No. 136 “On approval of Requirements for the development or adjustment, as well as conducting the necessary expert assessment of the feasibility study of an investment project for the provision of state guarantees” are provided for investment projects.

According to these documents, the purpose of developing a feasibility study of an investment project is to develop optimal project solutions, including the most optimal structure and scale of the investment project in terms of the most appropriate marketing, technical and technological, financial, institutional, environmental, social and other solutions envisaged within the framework of project implementation.

The composition and content of the feasibility study should be sufficient to assess the feasibility and effectiveness of investments in the construction of facilities. Each section of the study be elaborated and contain the study’s results and determine the efficiency of the construction project conducted on the basis of a cost-benefit analysis.

The cost-effectiveness of the investment should be proven by the calculations and a comparison of the technical and economic indicators of the project with similar projects, if any.

The feasibility study is developed for the whole facility with the allocation of separate construction stages, the project is developed for each stage, which may consist of a part, one or more start-up facilities or be a construction stage.[88] A construction and financing plan, with

[87] Order of the Minister of National Economy of the Republic of Kazakhstan dated February 28, 2015, No. 165, On the Approval of the Rules for Determining the General Procedure for Classifying Buildings and Structures as Technically and/or Technologically Complex Facilities

[88] Clause 12.2 of SN RK 1.02-03-2022 "Procedure for development, coordination, approval and composition of design and estimate documentation for construction"

a breakdown of volumes by project phase, is prepared in the feasibility study section justifying the total investment cost based on the standard construction period.[89]

The preliminary project documentation (feasibility study) for construction of new and changed (reconstruction, expansion, technical re-equipment, modernization, overhaul) electric installations shall include a power plant power generation scheme.

The feasibility studies approved in accordance with established procedure serve as the basis for further development of design estimates and financing of design and survey works.

The main document regulating legal and financial relations, mutual obligations and the responsibilities of the parties to the feasibility study is the contract.

The customer applies to an organization specializing in developing feasibility studies. Contacts of some specialized organizations providing services for the development of a feasibility study are given in Annex 17.

An integral part of the contract should be the feasibility study development specifications, which provide the source materials, basic technical and economic indicators, and other customer requirements. Feasibility studies, for which within 3 years after their approval the design and estimate documentation has not been developed and approved, is considered outdated and is used for implementation only after a new expert examination and re-approval in accordance with the procedure established by the legislation of the Republic of Kazakhstan in the field of architecture, urban planning and construction.[90]

Expert Examination of the Feasibility Study and DED

The goal of the comprehensive non-departmental expert examination is to conduct analyses and quality assessments of the projects by establishing the facts of compliance (non-compliance) of the design solutions with the specifications of source materials (materials, data) for design, specified by the laws of the Republic of Kazakhstan, and of compliance with the following requirements in design solutions and calculations:

- ✓ Urban planning and technical regulations, norms and provisions of government and intergovernmental regulatory documents, cost estimate measures for architecture, urban planning and construction;
- ✓ Regulations and laws, as well as regulatory methodological documents on environment protection;
- ✓ Regulations on the sanitary and epidemiological wellbeing of the population and hygiene norms.

Comprehensive non-departmental expert examination of the feasibility study and DED for construction is done prior to their approval.

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[89] Clause 12.3 of SN RK 1.02-03-2022 "Procedure for development, coordination, approval and composition of design and estimate documentation for construction"

[90] Paragraph 76 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 "On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing"

Technically non-complex units/facilities specified in Paragraph 2 Article 60 of the Law on Architecture shall not be subject to mandatory expert examination.

Comprehensive non-departmental expert examination of projects in the field of construction of facilities is carried out by expert organizations and is carried out by experts certified for the relevant sections (parts) of feasibility studies or design and estimate documentation. Positive expert conclusions are the basis for approval of the reviewed projects.[91]

Comprehensive non-departmental expert examinations of construction projects (feasibility studies, design and estimate documentation) are carried out on the basis of contracts concluded between the clients of the expert examination and expert organizations, the cost of which is included in the cost of development of the project in question. Irrespective of the source of financing, the costs of expert activities performed by the state expert organization with the participation of industry experts are determined in accordance with the Rules for determining the costs of activities for comprehensive, non-departmental expert examination on projects for construction of facilities approved by the authorized body for architecture, urban planning and construction. The cost of expert activities performed by accredited expert organizations with the participation of industrial experts is determined in accordance with the contract concluded between the customer and the expert organization. The procedure and period (terms) of the comprehensive expert examination of the feasibility study for construction, as well as the design and estimate documentation for construction, are determined in the order established by the authorized body for architecture, urban planning and construction, and are uniform for all subjects of expert activity in the field of design of construction facilities.[92]

- ✓ The state monopoly includes comprehensive non-departmental examination of projects for:[93]
- ✓ comprehensive urban design examination across all urban design projects;
- ✓ comprehensive non-departmental examination of construction projects (feasibility studies, design and estimate documentation) for:
    - Construction projects for new industrial buildings and facilities, which are considered potentially hazardous construction facilities, as well as new technically and/or technologically complicated facilities, complexes thereof, engineering and transport networks, regardless of their funding sources;
    - Reconstruction, expansion, modernization, technical re-equipment and overhaul of existing facilities, funded through the budget or other forms of state investment, which are considered: potentially hazardous; technically and/or technologically complicated;
    - Reconstruction, expansion, modernization, technical re-equipment and overhaul of existing facilities funded at the expense of quasi-public sector entities belonging to responsibility tier I;
    - Standard projects developed by the authorized body in the field of architectural, urban planning and construction activities.

Comprehensive non-departmental expert examination, which is considered a state monopoly, is performed by the state-owned expert examination organization. The contact details of RSE “Gosexpertiza” are given in Annex 18.

[91] Paragraph 1 of Article 64-4 of the Law on Architecture

[92] Paragraph 1-4 of Article 64-2 of the Law on Architecture

[93] Paragraph 1 of Article 64-4 of the Law on Architecture

Accredited expert examination organizations conduct mandatory comprehensive non-departmental expert examinations of construction projects, except for the projects stipulated in Paragraph above.

A comprehensive non-departmental expert examination of construction projects that do not require mandatory expert examination can also be performed by the accredited expert organization at the request of the client.[94]

A comprehensive non-departmental expert examination of projects conducted by the state or accredited expert organizations is done based on the contract, with the costs attributed to the project in question.[95]

The comprehensive nature and contents of the presented construction project and source data should follow the list of documents (materials) to be supplied for comprehensive non-departmental expert examination:

- ✓ For the construction of new facilities in line with Annex 19;
- ✓ For reconstruction projects (expansion, modernization, technical re-equipment) of existing facilities;
- ✓ For project overhauls of existing facilities. [96]

The following is attached to the materials:

- ✓ Copies of licenses of the developers of DED, which give permission to conduct the relevant types of design activities;
- ✓ Official source documents, which served as the basis for project construction and design decision making, as well as documents proving preliminary approval of the project, as stipulated by the legislation of the Republic of Kazakhstan on architecture, urban planning and construction, environmental protection and sanitary and epidemiological wellbeing of the population.[97]

During the course of the comprehensive, non-departmental expert examination, tasks are carried out to assess the construction project for:

1) compliance with the design task, other source documents (materials, data), tasks, technical conditions and requirements, as well as approved urban planning regulations and urban

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[94] Paragraph 3 of Article 64-4 of the Law on Architecture

[95] Paragraph 6 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[96] Paragraph 13 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[97] Paragraph 14 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

planning (planning) solutions and functional purpose of the given site (site, road) of construction;

2) compliance with state and interstate regulatory requirements to ensure sanitary and epidemiological, fire safety, requirements for strength and reliability of structures that ensure sustainable operation of the facility, as well as compliance with building codes and regulations, standards of foreign countries, international and regional organizations for facilities located on the territory of special economic zones, international specialized exhibition on the territory of the Republic of Kazakhstan;

3) compliance with energy efficiency requirements for unique buildings and structures (their enclosing structures), as well as facilities, the design consumption of energy resources of which exceeds the equivalent indicator of five hundred tonnes of equivalent fuel per year;

4) compliance with the conditions and restrictions established in the field of resource saving, protection of interests of domestic manufacturers;

5) validity of the adopted space-planning and structural solutions, materials, technological and engineering equipment, reliability and strength of building structures;

6) validity and expediency of the construction volumes of facilities (buildings and structures, their complexes, communications) stipulated in the DED;

7) validity and reliability of indicators, including calculated or estimated construction costs;

8) efficiency, completeness and sufficiency of the proposed measures to protect public health;

9) establishment of completeness and correctness of the planned activities to protect public health

10) compliance with sanitary and epidemiological requirements and hygienic standards.[98]

To implement the “one-stop shop” principle, the construction projects (feasibility study and DED) with source documents are submitted for comprehensive non-departmental expert examination only through a single portal for comprehensive non-departmental expert examination[99] (hereinafter –portal).

The portal is a single platform for:

- ✓ Clients who order projects, regardless of their ownership, departmental affiliation and sources of funding;
- ✓ Designers of construction projects;

[98] Paragraph 11 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[99] Paragraph 16 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

- ✓ State expert organization, accredited expert organizations, accredited expert organization of a special industrial zone that conduct comprehensive non-departmental expert examinations.

When conducting comprehensive non-departmental expert examinations, state and (or) accredited expert organizations conduct all procedures and operations using the information systems of the state expert organization and chamber of expert organizations, which are integrated with the portal.[100]

The comprehensive nature and contents of the submitted construction project and source documents are checked against the list of documents (materials) submitted for comprehensive non-departmental expert examination or construction projects, within 5 business days after the registration of the aforementioned materials of the expert organization.[101]

After 5 working days, if the project or source documents are incomplete or inconsistent with the requirements for contents, the customer will get an official notification of refusal to accept the project for expert examination and its return without consideration, indicating the missing materials to be re-submitted for expert examination after the project and/or source documents are amended to comply with completeness and contents requirements.

Acceptance by the expert organization of the construction project (taking into account the source documents attached to it) after confirmation of their required completeness and contents, as well as the establishment of the cost of expert works, the timing and duration of the works, serve as the basis for concluding an agreement with the customer for conducting a comprehensive non-departmental expert examination on the submitted construction project.

Agreement on a comprehensive non-departmental expert examination, conducted by the state expert organization, accredited expert organizations or accredited expert organization of a special industrial zone, is concluded through the portal and information systems of the state expert organization or chamber of expert organizations in electronic form (e-contract), to be signed by authorized representatives of the parties using their electronic digital signatures.

The project (feasibility study or DED) presented for comprehensive non-departmental expert examination with source documents is sent by the client through the portal to check for completeness and contents of the materials against the norms of the state or accredited expert organization or accredited expert organization of a special industrial zone, selected by the client.

The date of commencement of expert works is the date of entry into force of the agreement on a comprehensive expert examination carried out by a state expert organization, an accredited expert organization or an accredited expert organization of a special industrial zone.

During a comprehensive non-departmental expert examination, experts do the following:

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[100] Paragraph 18 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[101] Paragraph 20 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

- ✓ Request and receive from the client and designers of the project the necessary materials and information, which are provided to them within the deadline set by the expert;
- ✓ Provide reasoned comments, for the purpose of correction.

A negative opinion of the comprehensive non-departmental expert examination is drafted and sent to the client if a noncompliance is identified with conditions, requirements or limitations specified by the source documents (materials, data) and state (intergovernmental) design and construction norms, sanitary and epidemiologic requirements, hygienic standards, and regulatory and methodological documents on environment protection.

The expert examination agreement is terminated in such cases.

Data on the current status of the cases of project materials review by the experts are posted on the appropriate section of the Internet site of a state or accredited expert organization weekly, indicating the following:

- ✓ Name of expert organization that provided a comprehensive non-departmental expert examination of the project;
- ✓ Official name of the project (feasibility study or DED), sector of the designed facility and its location;
- ✓ Client (investor, owner) and project funding sources;
- ✓ Project designer (main designer);
- ✓ Results of the acceptance procedure for the documents provided for expert examination;
- ✓ Date when the agreement was signed to conduct a comprehensive non-departmental expert examination, specifying the date when the agreement entered into force.

The regulated duration of the comprehensive non-departmental expert examination of construction projects (feasibility study and DED) is defined based on the following:

- ✓ Technological and/or technical complexity of the project, and importance level of the constructed facility;
- ✓ Class, category, epidemic significance or potential danger of the designed facility;
- ✓ Calculated normal duration of the design;
- ✓ Calculated indicator of the normal duration of the construction of the designed facility.

The procedure and duration (terms) of the comprehensive, non-departmental expert examination of the feasibility study for construction, as well as the design and estimate documentation for construction, shall be determined in accordance with the procedure established by the authorized body for architecture, urban planning and construction, and shall be uniform for all subjects of expert activity in the field of design of construction objects, [102] but shall not exceed:

- ✓ 45 business days for constructing facilities that are considered technologically or technically complex with levels I and II of importance, potentially hazardous production facilities.

[102] Paragraph 4 of Article 64-2 of the Law on Architecture

- ✓ 30 business days for constructing facilities that simultaneously are not technologically and technically complex facilities of level II importance, and not considered potentially hazardous.
- ✓ 10 business days for constructing facilities that simultaneously are not technologically and technically complex facilities of level III importance, and not considered potentially hazardous.
- ✓ If the agreements specify a different timeframe for expert examination, which is shorter than the maximum allowable time, the timeframes for observations and consideration of sections are distributed proportionally, specifying for deadlines and stages.[103]

During a comprehensive non-departmental expert examination, the experts send reasoned observations to the client, which are given to the client at the latest in the following timeframe:

- ✓ 20 business days from the entry of the agreement into force and are corrected by the client within 10 business days after the observations are issued, given that the duration of expert examination is no more than 45 business days.
- ✓ 15 business days from the entry of the agreement into force and are corrected by the client within 5 business days after the observations are issued, given that the duration of expert examination is no more than 30 business days.
- ✓ 4 business days from the entry of the agreement into force and are corrected by the client within one business day after the observations are issued, given that the duration of expert examination is no more than 10 business days.
- ✓ 26 business days from the entry of the agreement into force and are corrected by the client within 14 business days after the observations are issued, given that the duration of expert examination is no more than 60 business days.

If reasoned observations are not corrected in time, a negative opinion of the experts will be issued.[104]

The cost of non-departmental examination: the cost of expert works performed by the state expert organization with the participation of industry expertise, regardless of the source of funding, is established in accordance with the rules for determining the cost of works on the comprehensive non-departmental expert examination of construction projects, as approved by the authorized body for architecture, urban planning and construction.[105]

After the previously completed comprehensive non-departmental expert examination of the feasibility study or DED, in which reasonable changes and/or additions are made that affect the previous design solutions and the approved basic technical and economic indicators, a repeated (new) expert examination of the corrected sections is carried out. In this case, the

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[103] Paragraph 31 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[104] Paragraph 38 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[105] Order of the Acting Minister of National Economy of the Republic of Kazakhstan dated 21 December 2015, No. 780 “On Approval of the Rules for Determining the Cost of Work for the Comprehensive Non-Departmental Expert Examination of Projects for Construction of Facilities, as well as Comprehensive Urban Planning Expert Examination of Projects for Urban Planning of Territories of Different Levels”

corrected feasibility study or DED shall be submitted for repeated examination in accordance with Paragraph 15 of these Rules. If the construction and installation works have been completed in full, the DED according to which the construction was carried out shall not be subject to adjustment and re-approval.[106]

Previously approved design and estimate documentation is subject to correction if, before or during the construction of the planned facility, there is a reasonable need to make changes and (or) additions of a significant nature affecting the structural scheme of the facility, its space planning, engineering and (or) technological design solutions, including the replacement of engineering and (or) technological equipment, basic materials and (or) products that change technical and economic indicators, and also with a significant increase in the cost of previously approved design estimates by at least ten percent due to an increase in the cost of construction resources when the contractor applies in accordance with Paragraph 3 of Article 655 of the Civil Code of the Republic of Kazakhstan for a revision of the estimates, without changing design solution.[107]

If, during the construction process, the customer requires changes to the previously approved design and estimate documentation with regard to the sequence of construction (including start-up complexes and stages), which do not entail an increase in the cost of construction, do not affect the previous design solutions and approved basic technical indicators, a repeated (new) comprehensive non-departmental expert examination is not carried out.[108]

The cost of expert works performed by accredited expert organizations is specified in the agreement between the client and expert organization.

Article 316 of the Code of Administrative Offenses establishes administrative responsibility for the construction or reconstruction (restoration, expansion, technical re-equipment, modernization, overhaul) of facilities and their complexes without project (design and estimates) documentation, or project (design and estimate) documentation that has not undergone required due examination, in the form of a fine of 120 MCI for individuals, 160 MCI for officials, 200 MCI for small businesses or non-profit organizations, 380 MCI for medium-sized businesses, and 580 MCI for large businesses.

Depending on the specific nature of the renewable energy facility, feasibility studies and design and estimates documentation may be subject to additional approval by the authorized body for the study of subsoil, the central authorized body for land resource management (MoA RK) the authorized body on civil protection (MES RK), the authorized body for industrial safety

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[106] Paragraph 75 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[107] Paragraph 75-1 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

[108] Paragraph 75-2 of the Order of Minister of National Economy of the Republic of Kazakhstan No. 299 dated April 1, 2015 “On the adoption of Rules of comprehensive non-departmental expert examination of feasibility studies and design and estimate documentation intended for constructing new and modifying (reconstructing, expanding, technical re-equipping, modernizing and overhauling) existing buildings and structures, their complexes, engineering and transport communications irrespective of the sources of financing”

(MES RK), the authorized body on water transport issues (MoT RK), as well as LEA, on whose territory the implementation of the construction of a renewable energy facility is planned.

Design, construction and deployment on water bodies[109] and/or water protection zones (with the exception of water protection bands) of new facilities (buildings, structures, complexes thereof as well as utility networks), and reconstruction (expansion, modernization, technical re-equipment, re designation) of existing facilities, which were constructed before the land plots were designated water protection zones or bands or other types of nature conservation territories have to be agreed with basin inspection agencies, the authorized body in the area of environmental protection (Ministry of Environment, Geology and Natural Resources of the Republic of Kazakhstan, hereinafter referred to as “the MEGNR RK”) , the authorized body on subsoil study, the authorized body on sanitary-epidemiologic wellbeing of the population - the Ministry of Healthcare of the Republic of Kazakhstan (MoH RK), the authorized body on veterinary (MoA RK), and local oblast-level executive authorities (city of the republican significance, capital city).

The same activity on water bodies that are potentially hazardous must be agreed by the body authorized for civil protection (MES RK), and for navigable waterways, with authorized body on water transport (Ministry of Transport of the RK).

After the comprehensive non-departmental expert examination, the client must notify the architecture and construction oversight bodies of the local executive authorities about the start of construction and installation activities in accordance with the Law of the Republic of Kazakhstan “On Permits and Notifications” dated 16 May 2014.

[109] Paragraph 3 of Article 125 of the Water Code of the Republic of Kazakhstan No. 481 dated July 9, 2003

8. ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL PERMITS

8.1 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

Pursuant to Article 64 of the Environmental Code of the Republic of Kazakhstan dated 2 January 2021 № 400-VI LRK (hereinafter "the Environmental Code of the Republic of Kazakhstan"), “environmental impact assessment” (EIA) is defined as a process of identification, study, description and assessment – based on the outcomes of relevant studies – of any possible significant impact on the environment associated with the implementation of planned activities.

In accordance with sub-Paragraph 2) Paragraph 1 Article 65 of the Environmental Code of the Republic of Kazakhstan, EIA is mandatory where its necessity is established in the reported findings of impact screening for the planned activity, with respect to:

1. Hydropower plants with a total installed capacity of 50 megawatts (MW) or above, or with an installed capacity of an individual generating unit of 10 megawatts (MW) or above.
2. Facilities utilizing wind energy to produce electric power, with mast heights exceeding 50 meters (windmills).
3. Thermal power plants and other fuel-fired installations with a thermal capacity of 50 megawatts (MW) or above.

Boring geothermal wells 200 meters and deeper, as well as a number of other activities and facilities.

Impact screening for the planned activity is the process of identifying potential significant environmental impacts of a planned activity in order to determine whether or not an EIA is required.[110]

A person intending to carry out an activity for which the Environmental Code of the Republic of Kazakhstan provides for mandatory EIA or mandatory impact screening for the planned activity must submit an application on the planned activity to the authorized body in the field of environmental protection, after which the person is recognized as the initiator of the EIA or impact screening for the planned activity, respectively.[111]

In accordance with Paragraph 2 of Article 68 of the Environmental Code of the Republic of Kazakhstan, an application on planned activity shall be submitted in electronic form and shall contain the following information:

1. For an individual: surname, first name, patronymic (if it is indicated in the identity document), residential address, individual identification number, telephone number and e-mail.
2. For a legal entity: name, place of business address, business identification number, details of the top executive officer, telephone number, e-mail address.
3. General description of the types of planned activities and their classification in accordance with Annex 1 to the Environmental Code of the RK or description of significant changes to such activities in accordance with Paragraph 2 of Article 65 of the Environmental Code of the RK.
4. Information on the proposed location of the planned activity, the rationale for selecting the location and the possibility of selecting other locations.
5. General expected technical characteristics of the proposed activity, including the capacity (productivity) of the facility, its expected size and product characteristics.
6. Brief description of the proposed technical and technological solutions for the planned activity.
7. Estimated start and completion dates of the proposed activity implementation.
8. Description of the types of resources required for the activities, including water resources, land resources, soil, minerals, vegetation, raw materials, energy, and their expected quantitative and qualitative characteristics.
9. Description of the expected types, quantities and qualitative characteristics of emissions to the environment and waste that may be generated as a result of the planned activities.
10. List of permits expected to be required to carry out the proposed activity and the public authorities responsible for issuing such permits.
11. Description of possible alternatives for achieving the objectives of the planned activity and options for its implementation (including the use of alternative technical and technological solutions and site locations).
12. Characterization of the possible forms of negative and positive environmental impacts resulting from the planned activity, their nature and expected extent, taking into account their likelihood, duration, frequency and reversibility.

[110] Paragraph 1 of Article 69 of the Environmental Code of the RK

[111] Paragraph 1 of Article 68 of the Environmental Code of the RK

13. Characterization of the possible forms of negative and positive environmental impacts resulting from the planned activity, their nature and expected extent, taking into account their likelihood, duration, frequency and reversibility.
14. A brief description of the current state of the environmental components on the land and/or in the water area where the proposed activity is to be carried out and the results of baseline studies, if available to the initiator.
15. Proposed measures to prevent, eliminate and mitigate possible forms of adverse environmental impact and to remedy their consequences.

Impact screening for the planned activity shall be arranged by the authorized body in the area of environmental protection, in accordance with Paragraphs 5–11 of Article 68 and Article 69 of the Environmental Code of the RK, as well as the Order of Minister of Environment, Geology and Natural Resources of the Republic of Kazakhstan No. 280 dated July 30, 2021 “On the Adoption of the Procedures for Organizing and Conducting Environmental Assessment”.

Time allotted to assessing impact of the planned activity shall be 22 business days from the date of the lodging of the copy of the application for the planned activity on the website of the authorized body in the area of environmental protection.

Authorized body in the area of environmental protection shall, within said time, make a ruling on the impact assessment findings with respect to the planned activity, and forwards it to the initiator and relevant governmental authorities, subsequently publishing its copy on the official website within two business days.

Impact screening results report for the planned activity shall contain findings on the necessity or lack of necessity of conducting a mandatory EIA, with a rationale.

In the event that the impact screening findings for the planned activity stipulates a necessity of conducting a mandatory EIA, the authorized body in the area of environmental protection shall file to the initiator a report on the EIA coverage, prepared in accordance with Article 71 of the Environmental Code, along with the screening findings.

The aim of designating EIA coverage consists in identifying the degree of granularity and types of information to be gathered and studied during the EIA, as well as study methods and procedures for delivering said information in possible impact report. The report on the definition of the scope of the environmental impact assessment, taking into account the type, location, nature and extent of possible environmental impacts, as well as comments and suggestions from interested governmental authorities and the public, which have been recorded in the minutes, may include the requirements for the report on possible impacts in relation to:

1. the alternatives for achieving the objectives of the planned activity and its implementation, which should be studied during the environmental impact assessment process;
2. types of impacts and impacted objects that require detailed study;
3. the field of impact assessment and its methods.

As per the opinion report on determining the EIA coverage, the initiator shall ensure implementation of activities necessary for assessing the environmental impact of the planned activity and preparing a report on possible impact, in pursuance of Article 72 of the Environmental Code of the RK.

Environmental impact assessment is carried out by individuals and (or) legal entities that have received a license to perform works and provide services in environmental protection (hereinafter “impact assessment report drafters”).

The organization and financing of works on environmental impact assessment is provided by the initiator of the planned activity.

Following the completion of the draft impact assessment report, the initiator or the impact report drafter, acting under an agreement with the initiator, shall file the following with the authorized body in the area of environmental protection:

1. Draft impact assessment report for purposes of assessing its quality and determining the need for its refinement with consideration to comments and feedback of interested governmental authorities and the public, results of public hearings and in the event specified under Paragraph 19 Article 73 of the Environmental Code of the RK, expert commission minutes;

2. Cover letter specifying proposed locations, dates and time of public hearings, signed off by local executive bodies of the relevant administrative territorial entities.

Pursuant to Article 73 of the Environmental Code of the RK, draft environmental impact report shall be subject to deliberation through a public hearing involving representatives of interested governmental agencies and the public, conducted in accordance with this Article and the Regulations for organizing public hearings, approved by the Order of acting Minister of the Environment, Geology and Natural Resources of the Republic of Kazakhstan No. 286 dated August 3, 2021 (“Regulations for organizing public hearings”).

Timeframe for the public hearing shall not exceed five consecutive business days from the date specified in the announcement of the public hearing.

Following the completion of public hearings, minutes shall be drafted using the form provided for by the Regulations for organizing public hearings, which shall include:

1. All comments and suggestions from interested governmental agencies and the public, in writing, in accordance with Paragraph 7 Article 73 of the Environmental Code, or voiced during the public hearing, with the exception of comments and suggestions that were retracted by their authors during the public hearing.

2. Initiator’s replies and comments to each comment and suggestion introduced to the minutes according to Sub-Paragraph 1 of Paragraph 13 of Article 73 of the Environmental Code of the RK.

3. Information on the right to lodge a complaint against the minutes in a manner prescribed by the legislation of the Republic of Kazakhstan.

4. Following the signing of the public hearing minutes:

5. Where minutes do not contain any comments and suggestions from interested governmental agencies and the public, not retracted by their authors during the public hearing, public hearing Chair shall within two business days file the signed minutes with the authorized body in the area of environmental protection to prepare the conclusion report on the findings of EIA, pursuant to Article 76 of the Environmental Code of the RK.

6. If the minutes contain any comments and suggestions from interested governmental agencies and the public, not retracted by their respective authors during the public

hearing, the initiator shall arrange for a finalization of the draft environmental impact report to reflect said comments and suggestions, and shall file said finalized draft environmental impact report to the authorized body in the area of environmental protection.

When resubmitting a draft report on possible impacts to the authorized body in the field of environmental protection, public re-hearings are not required, with the exception of:

1. If the resubmitted draft report on possible impacts contains significant changes to the planned activity, stipulated by Paragraph 2 of Article 65 of the Environmental Code of the RK, which were not previously considered at public hearings;

2. If the minutes of previous public hearings contain public comments and/or proposals that have not been retracted by their authors in the course of such public hearings;

3. If the requirements of the environmental legislation of the Republic of Kazakhstan to the procedure for holding public hearings were violated during the public hearings.

Public re-hearings shall be organized in accordance with Paragraphs 1 through 15 and 18 of Article 73 of the Environmental Code of the RK.

In the event that the initiator disagrees with comments and suggestions received from interested governmental agencies and the public, that weren't retracted by their authored during the public re-hearing, this opinion of the initiator shall be entered into the minutes of the public re-hearing, after which, any disputes shall be settled in a manner prescribed by Article 74 of the Environmental Code of the RK.

The local executive body of the respective administrative-territorial unit shall post the signed protocol on the official Internet resource no later than two working days after its signing. After signing the minutes of public hearings:

1. in the absence of comments and suggestions of interested governmental bodies and the public, not retracted by their authors during the public hearings, the chairman of the public hearings within 2 working days sends the signed minutes to the authorized body in the field of environmental protection for the preparation of a conclusion on the results of environmental impact assessment in accordance with Article 76 of the Environmental Code of the RK;

2. if there are comments and suggestions of interested governmental bodies and the public in the protocol, which were not retracted by their authors during the public hearings, the initiator shall ensure the finalization of the draft report on possible impacts in accordance with such comments and suggestions and send the finalized draft report on possible impacts to the authorized body in the field of environmental protection.

According to Article 76 of the Environmental Code of the RK, if there are comments to the draft report on possible impacts, the authorized body in the field of environmental protection sends such comments to the initiator within 17 working days from the date of registration of the application for environmental impact assessment. Such comments must be addressed by the initiator within five working days from the date the comments were sent. The authorized body in the field of environmental protection within 30 working days from the date of registration of the application for environmental impact assessment issues to the initiator an opinion report on the results of the environmental impact assessment with a conclusion on the admissibility or inadmissibility of the planned activity. If the signed minutes of public hearings are not submitted to the authorized body in the field of environmental protection before the

expiry of the term for elimination of comments established by part one of this Paragraph, an opinion report on the results of environmental impact assessment shall be issued with a conclusion on inadmissibility of implementation of the planned activity. The opinion report of the authorized body in the field of environmental protection on the results of environmental impact assessment shall be based on the draft report on possible impacts, taking into account its possible revision in accordance with this Code, the minutes of public hearings, which established the absence of comments and proposals of the public, the minutes of the meeting of the expert commission (if available), and, if it is necessary to carry out an assessment of transboundary impacts, on the results of such an assessment.

The authorized body in the field of environmental protection publishes the opinion report on the results of the environmental impact assessment and the summary table with the comments and suggestions of the interested governmental bodies on the official Internet resource within two working days of the day of issuing the opinion report on the results of the environmental impact assessment; and sends the opinion report on the results of the environmental impact assessment to the local executive bodies of the relevant administrative-territorial units located wholly or partly within the affected territory, which publish the opinion report on the official Internet resource no later than one working day of the day of receipt of the conclusion.

Opinion report of the authorized body in the area of environmental protection on the EIA findings shall be based on the draft environmental impact report, with consideration to its possible finalization in accordance with the Environmental Code of the RK, and based on the public hearing minutes that indicate absence of any comments or suggestions from interested governmental agencies and the public, and on the expert commission meeting minutes (where applicable), and in the event that necessitates a transboundary impact assessment — based on the outcomes of said assessment.

The opinion report on environmental impact assessment shall be valid for an unlimited period of time, except for the case where the initiator or its legal successor does not proceed with the implementation of the relevant planned activity within three years from the date of issue of the opinion report on environmental impact assessment, including in the case of activities involving construction and installation works, to the performance of such works, then the opinion report on environmental impact assessment shall be deemed to be invalid upon expiry of the said period.[112]

Post-project analysis of actual impact in the implementation of the planned activities (hereinafter “post-project analysis”) shall be conducted by the environmental impact report drafter in order to verify the conformity of the currently implemented planned activities with the environmental impact report and the opinion report on the EIA findings.

Post-project analysis shall be commenced not later than within twelve months and completed not later than within eighteen months of the commissioning of the relevant unit/facility negatively impacting the environment.

Post-project analysis shall be organized by the operator of the relevant unit/facility, at their own expense.

8.2 CLASSES OF FACILITIES NEGATIVELY IMPACTING THE ENVIRONMENT

[112] Paragraph 7 of Article 76 of the Environmental Code of the RK

Facilities negatively impacting the environment, depending on their tier and impact risk, fall into the following four categories:

- *Facilities that have a significant negative impact on the environment (Class I facilities)*
- *Facilities that have a moderate negative impact on the environment (Class II facilities)*
- *Facilities that have an insignificant negative impact on the environment (Class III facilities)*
- *Facilities that have a minimal negative impact on the environment (Class IV facilities)*[113]

Annex 2 to the Environmental Code of the RK provides types of planned activities and other criteria based on which facilities with negative impact on the environment are classified as class I, II or III. Activities not specified in this Annex or not conforming to the criteria provided therein, shall be classified as Class IV.

For instance, in the power sector, in order for a facility to be classified as Class I, the following activities and criteria shall apply:

- Combustion of fuel, with the exception of gas, at plants with a total nominal thermal capacity of 50 megawatts (MW) or over;
- Gas-fired power generating plants with a capacity of over 500 megawatts (MW);
- Hydrocarbon exploration and production, hydrocarbon processing;
- Coke production;
- Gasification or liquefaction of coal;
- Gasification and liquefaction of other fuels in installations with a total nominal thermal capacity of 20 megawatts (MW) or above.[114]

To qualify for Class II in the power sector, facilities must include the following activities and satisfy the following criteria:

- Supply of electric power, gas and steam with the use of equipment with an installed capacity of not less than 50 megawatts (MW).
- Production of gas by method of gasification and (or) liquefaction of solid fuels, with the exception of coal, in plants with a total nominal thermal capacity of under 20 megawatts (MW);
- Gas-fired energy generating plants with a capacity of 10 megawatts (MW) and above.[115]

8.3 ENVIRONMENTAL EXPERT ASSESSMENT

Pursuant to Article 87 of the Environmental Code of the RK, design documentation for construction and (or) operation of Class I and II facilities, as well as design documentation for

[113] Paragraph 1 of Article 12 of the Environmental Code of the RK

[114] Section 1 of Annex 2 to the Environmental Code of the RK

[115] Section 2 of Annex 2 to the Environmental Code of the RK

construction and (or) operation of Class III facilities and other design documents stipulated by this Code, required for preparation of environmental impact declaration and other design documents stipulated by the Environmental Code of the RK for obtaining environmental permits shall be subject to compulsory state environmental expert assessment, however said assessment shall be conducted as part of the environmental permit issuance procedure and a special opinion report of the state environmental expert assessment shall not be issued.

8.4 ENVIRONMENTAL PERMITS

Environmental permit is a document certifying the investor's right to exercise a negative impact on the environment and designating environmental terms of engaging in the investor's activities. Environmental terms shall mean individual requirements imposed upon the construction and operation of Class I and II facilities for purposes of adhering to applicable environmental regulations enshrined in the environmental legislation of the Republic of Kazakhstan, as well as conclusions contained in EIA opinion reports.[116] It is prohibited to include conditions in environmental permits that are not aimed at ensuring environmental protection.

Procedure for issuance of environmental permits shall be set forth in the Order of acting Minister of the Environment, Geology and Natural Resources of the RK, No. 319 dated August 9, 2021, "On the adoption of Regulations for issuance of environmental permits, submission of environmental impact declarations, as well as environmental impact permit letterhead forms and the procedure for their completion".

Kazakhstan has provisions in place for issuance of the following types of environmental permits:

- Comprehensive environmental permit;
- Environmental impact permit.

Class I and II facilities shall not be constructed or operated without appropriate environmental permit.[117]

For Class I facilities require the comprehensive environmental permit.[118] However, pursuant to transitional provisions of the Environmental Code of the RK, this requirement shall be effective as of **January 1, 2025**, and shall not apply to particular Class I facilities, except as provided under Paragraph 4 Article 418 of the Environmental Code of the RK. Until January 1, 2025, Class I facilities shall require the environmental impact permit (with exceptions).

Obtaining an environmental impact permit shall be mandatory for construction and (or) operation of Class II facilities. [119]

8.4.1 ENVIRONMENTAL IMPACT PERMIT

Environmental impact permit is a duly executed document containing the following:

1. information on its owner (operator), facility and activities taking place in said facility
2. validity period

[116] Paragraph 1 of Article 106 of the Environmental Code of the RK

[117] Paragraphs 4 and 5 of Article 106 of the Environmental Code of the RK

[118] Paragraph 1 of Article 111 of the Environmental Code of the RK

[119] Paragraph 1 of Article 120 of the Environmental Code of the RK

3. environmental terms of operation, including:
    - *environmental emission standards;*
    - *limits of waste accumulation, limits of waste dumping (where own landfill is available);*
    - *waste management program;*
    - *industrial and environmental oversight program, including requirements for industrial monitoring, including soil and subsurface water condition monitoring;*
    - *environmental protection action plan for the permit's effective period;*
    - *other environmental requirements specified in the EIA opinion report (where available)*[120]

8.4.2 PROCEDURE FOR OBTAINING ENVIRONMENTAL IMPACT PERMIT

Obtaining an environmental impact permit shall be compulsory for purposes of construction and (or) operation of Class II facilities, as well as for operation of Class I facilities in the cases provided for in part two Paragraph 4 Article 418 of the Environmental Code.[121]

Issuance of environmental permits is a public service that is provided through the electronic government website at www.egov.kz.[122]

Environmental impact permit for Class I facilities shall be issued by the authorized body in the area of environmental protection in the cases provided for in part two Paragraph 4 Article 418 of the Environmental Code of the RK. Environmental impact permits for Class II facilities shall be issued by local executive bodies of regions, cities of republican significance, the capital city.[123]

The following shall be attached to the environmental permit application:[124]

1. With respect to the planned activity: design documentation for construction and (or) operation of Class I or II facilities.
2. EIA opinion report or an opinion report on the findings of planned activity impact screening, indicating that mandatory EIA is not warranted.
3. For activities not subject to mandatory EIA: materials of environmental assessment in simplified form.
4. Draft emission standards.
5. Draft waste management program.
6. Draft production and environmental oversight program.

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[120] Paragraph 1 of Article 121 of the Environmental Code of the RK

[121] Paragraph 1 of Article 120 of the Environmental Code of the RK

[122] Paragraphs 34 and 47 of the Rules for Issuing Environmental Permits, Submitting an Environmental Impact Declaration, as well as Forms of Environmental Impact permit and the procedure for filling them out, approved by Order No. 319 of the Acting Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan dated August 9, 2021

[123] Paragraph 3 of Article 120 of the Environmental Code of the RK

[124] Paragraph 2 of Article 122 of the Environmental Code of the RK

7. Draft action plan on environmental protection for the effective period of the environmental impact permit.

8. Draft regulations for open-air stockpiling sulfur on sulfur pads (when conducting hydrocarbon surveying and mining operations).

Authorized body in the area of environmental protection, with not more than 5 business days of the registration of the environmental impact permit application, and the local executive body, not later than within 3 business days of the registration of the environmental impact permit application, shall assess the submitted documents for completeness and comprehensiveness. During the specified period, the application shall be admitted to consideration or rejected for incompleteness and (or) non comprehensiveness of the submission.[125]

Applications received for consideration shall be assessed for compliance with the requirements of the Environmental Code of the RK, and, following the consideration, the authorized body in the area of environmental protection, not later than within 45 business days, and local executive body not later than within 30 business days of the registration of the application, shall issue the environmental impact permit or a motivated denial of issuance.[126]

Where comments were made with respect to the environmental impact permit application and (or) attached documents, governmental bodies engaged in issuance of environmental impact permits shall send these comments within:

- *25 business days of the date of receipt of the application for consideration – for Class I facilities;*
- *15 business days of the date of receipt of the application for consideration – for Class II facilities.*

Communicated issues shall be rectified by the Applicant within:

- *10 business days of the feedback dispatch – for Class I facilities;*
- *5 business days of the feedback dispatch – for Class II facilities.*

If the Applicant rectifies the communicated issues within the prescribed timeframe, the Applicant shall be issued the permit; should the Applicant fail to rectify the issues, a motivated denial of issuance of the permit shall be issued.[127]

Grounds for denial of issuance of environmental impact permit are as follows:

- *Non-compliance of the application and (or) documents attached thereto with the requirements set forth in the environmental legislation of the Republic of Kazakhstan and (or) opinion report on the EIA findings or opinion report on the findings of the planned activity impact screening indicating that mandatory EIA is not warranted.*
- *Inaccuracy of the information contained in the application and (or) documents attached thereto*[128]

[125] Paragraph 1 of Article 123 of the Environmental Code of the RK

[126] Paragraph 2 of Article 123 of the Environmental Code of the RK

[127] Paragraph 3 and 4 of Article 123 of the Environmental Code of the RK

[128] Paragraph 1 of Article 124 of the Environmental Code of the RK

9. CONSTRUCTION AND INSTALLATION WORKS, FACILITY COMMISSIONING

According to the Paragraph 12 of the Article 68 of the Law of the Republic of Kazakhstan dated July 16, 2001, No. 242, On Architectural, Urban Planning and Construction Activities in the Republic of Kazakhstan (hereinafter “the Law on Urban Planning”) before construction and installation work (hereinafter "CIW") begins, the customer must notify the local executive authorities of the State Architectural and Construction Supervision Authority (GASK) about the commencement of CIW activity. [129] The form of the notification is given in Annex 20. The notification is made only in electronic form using the state information system of permits and notifications and the state electronic register of permits and notifications. [130]

For the implementation of CIW, the customer must conclude an agreement with a specialized organization that has a state license for implementing CIW. The construction process is accompanied by architectural and construction supervision and control.

According to Chapter 11 of the Law on Urban Planning, a completed construction facility is subject to commissioning. Acceptance and commissioning of the constructed facility are carried out by the customer after its ready in accordance with the approved project and availability of the declaration of conformity, conclusions on the quality of construction and installation works, and compliance of executed works with the approved project.

[129] In the order established by the Law of the Republic of Kazakhstan, On Permits and Notifications, dated May 16, 2014, No. 202-V

[130] Order of the Minister of Information and Communications of the Republic of Kazakhstan dated October 29, 2016, No. 232, On Approval of the Rules for the Functioning of the State Information System of Permits and Notifications.

The complete readiness of the constructed facility is determined in accordance with the rules on the organization of construction and licensing procedures for the construction sector.

The acceptance of the constructed facility into operation is formalized by acceptance certificate. The acceptance certificate of constructed facility is subject to approval. The approval of the acceptance certificate is made by the customer. The date of signing of the acceptance certificate is considered to be the date of its approval and the date of commissioning of the facility. The form of the acceptance certificate is given in Annex 21.

In addition, within three business days from the date of approval of the acceptance certificate of the facility into operation, the construction customer is obliged to send to the PSC at the location of the facility the approved facility acceptance certificate, with the application of the technical characteristics of the facility, the declaration of compliance and the conclusion on the quality of the completed construction and installation works, and compliance with the approved project.

The basis for entering into the information system of a legal cadaster and registration of rights on real estate is the approved facility acceptance certificate.

Rules for Facility Acceptance

The operation of the constructed facility without an approved facility certificate acceptance is not allowed.

Facilities whose construction has been completed are put into operation with its full readiness in accordance with the approved project. Facility acceptance from the contractor (general contractor) is carried out by the customer in conjunction with technical and designer supervision. After receiving a written notification of the readiness of the facility for commissioning from the contractor (general contractor), the customer carries out the facility acceptance.

- The contractor notifies the customer of the facility's readiness for commissioning.
- Then the customer asks the contractor for a declaration of compliance, technical and designer supervision of the conclusion on the quality of the works performed and their compliance with the approved design decisions, which must be provided within 3 days.
- The Customer on the basis of the submitted documents together with the contractor (general contractor), persons performing technical and author's supervision is obliged to check the executive technical documentation for availability and completeness, to inspect and accept the facility into operation according to the relevant act.

In the case of violations of approved design decisions and state (interstate) standards, and in the presence of negative conclusions, the customer places the facility into operation after the contractor (general contractor) corrects the violations.

The list of rights and obligations of the customer, contractor, technical and copyright supervision is provided for in Chapter 11 of the Law on Architecture, Urban Planning and Construction Activities.

The forms of all documents necessary for the acceptance of the facility, including the declaration of compliance, the conclusion on the quality of construction and installation works, and the conformity of the executed work to the project were approved by Order No. 235 of the Minister of Investments and Development of the Republic of Kazakhstan dated April 24, 2017,

On Approval of Forms of Conclusion on Quality Construction and Installation Works and Compliance of the Executed Works with the Project and Declaration of Conformity.

The introduction of the declarative method of accepting a facility into operation allows for increasing the personal responsibility of the direct participants in the construction: the customer, the contractor, technical and designer supervision. Administrative and criminal liability are provided.

10. STATE REGISTRATION OF THE RIGHT TO A CONSTRUCTED RENEWABLE ENERGY FACILITY

In order to enter identification and technical data on newly created real estate into the legal cadaster information system, the investor submits a list of documents in accordance with the legislation. [131] According to the results of entering data into the legal cadaster information system, the investor is issued a document of title with a note on entering identification and technical data of the newly created real estate into the legal cadaster information system. For state registration, the Applicant (or authorized representative of the Applicant) must produce a document proving his/her identity and the following documents:

- ✓ Application for state registration;[132]
- ✓ Document of title confirming the object of registration. In case of registration of a right (encumbrance) to a land plot, the identification document for the land plot is submitted. In case of assignment of rights (claims) under pledge agreements for real estate, the agreement on assignment of rights (claims) is submitted (agreement on simultaneous transfer of assets and liabilities).

[131] Rules and terms of entering into the information system of the legal cadaster of identification and technical data of buildings, structures and (or) their components on newly created real estate, state technical survey and Rules of assigning cadastral number to primary and secondary real estate objects, approved by the Order of the Minister of Justice of the Republic of Kazakhstan on 6 May 2013 № 156

[132] If the application for registration contains information that the aggregate book value of the assets being acquired or sold exceeds the amounts established by the anti-monopoly legislation of the Republic of Kazakhstan, then the Applicant also receives the prior written consent of the anti-monopoly authority

✓ Document confirming payment of the state registration fee for rights to real estate.

The registering authority obtains the information which belongs to state electronic information resources and is necessary for state registration of rights to real estate from the relevant state information systems in the form of electronic documents certified by electronic digital signatures.

Legal entities submit constituent documents as well as minutes (extracts from the minutes) of the meetings of founders (members, board of directors, shareholders' board) for acquisition or alienation of real estate items in cases provided for by the legislative acts of the Republic of Kazakhstan or constituent documents.

Foreign legal entities submit a legalized extract from the trade register or other legal document certifying that the foreign legal entity is a legal entity under the legislation of a foreign country, with a notarized translation into the state and Russian languages.

If the application for registration contains the information that the total book value of the acquired or sold assets exceeds the amounts established by the competition legislation of the Republic of Kazakhstan, then the Applicant submits the prior written consent of the antimonopoly authority.

In case of expropriation of the land plot or other real estate in connection with the withdrawal of the land plot for state needs, the registration of termination of ownership over the withdrawn property and emergence of the rights of the State is done upon the submission to the registering authority of the document confirming the payment of compensation by the Applicant.

If the transaction is not notarized, then the registering authority is obliged to check the authenticity of the signatures of the persons who made the transaction (their authorized representatives), their dispositive capacity (legal capacity), and the conformity with their will.

When registration is made based on a power of attorney, two copies of the power of attorney are submitted to the registering authority, one of which is the original or a notarized copy.

These provisions do not apply to the electronic registration of rights to real estate by electronic digital signature (EDS) through the portal www.egov.kz.

In cases where one entitlement document contains two or more facilities of state registration, the Applicant must indicate all the facilities of registration in the application. For the registration of each facility of state registration by interested persons, separate applications must be submitted.

In cases where, in the presence of several facilities of state registration in the title document, only one will be indicated in the application. The registering body is entitled to indicate to the Applicant the need for state registration of other facilities of registration and setting an appropriate fee for it.

Payment for state registration shall be collected in accordance with the tariffs established by the order of Minister of Information and Communications No. 418 dated September 27, 2018 "On approving prices for goods (works, services) in the field of state registration of real estate titles".

State registration of titles (encumbrances) to real estate, from the moment of application receipt, takes three business days, and in the event that state registration is requested for a

non-notarized transaction, the public service shall be rendered within one business day of the moment the application was received by the service provider.

Electronic registration shall be performed not later than within one business day subsequent to the day the title cadaster information system received a confirmation of payment for state registration of real estate titles or exemption from payment.

Expedited electronic registration shall be performed within two hours from the moment the title cadaster information system received a confirmation of payment for state registration of real estate titles or exemption from payment.[133]

Certificate of State Registration

The registering body verifies the registration by making an inscription on the title deed submitted for registration, with the exception of electronic registration.

Electronic registration is confirmed by sending a notice of registration to the unified notary information system and, if available, to the electronic addresses and personal accounts of the parties to the transaction on the egov.kz portal.

[133] Order of Minister of Justice of the Republic of Kazakhstan No. 27 dated May 4, 2020 “On approving the Rules for rendering the public service “State registration of titles (encumbrances) to real estate”

11. COMPREHENSIVE TESTING OF THE ELECTRIC INSTALLATION AND COMMISSIONING OF AUTOMATED COMMERCIAL ENERGY METERING SYSTEM

11.1 COMPREHENSIVE TESTING OF ELECTRIC INSTALLATIONS

According to the requirements for connecting RES [134] to electric networks, the power generating organization is obliged to conduct comprehensive tests. Prior to the commencement of these tests, an energy producing organization shall:

- ✓ Comply with the requirements of the technical specifications within the deadlines and in full;
- ✓ Conclude a purchase and sale agreement with the buyer for the entire volume of electric power produced during the comprehensive test.

In order to be included in the list of subjects of the wholesale electricity market formed by the system operator, an energy generating organization shall be obliged to:

1. To conclude an agreement with the system operator for the provision of services for the use of the national grid;
2. To conclude an agreement with the system operator (if necessary) for the provision of services for the transmission of electricity through the national grid;

[134] Detailed requirements for connection of RES facilities to the grid are described in Chapter 5

3. To conclude an agreement for the provision of electricity transmission services with power transmission organizations (if necessary);
4. To conclude an agreement with the system operator for the provision of services for the organization of the balancing of production and consumption of electricity;
5. To conclude an agreement with the system operator for the provision of services for the technical dispatching of electricity production and consumption (in the case of availability of generation facilities and imports).[135]

After fulfilling the requirements of the technical specifications and the conclusion of the above agreements, the energy transmission organization conducts comprehensive tests of the renewable energy facility, in accordance with the Connection and Supply Scheme and the requirements of the Grid Rules approved by the Order of the Minister of Energy of the Republic of Kazakhstan dated December 18, 2014, No. 210 (hereinafter "Grid Rules").

The comprehensive testing of the energy producing organization's electrical installations using RES is carried out in accordance with the test program agreed with the system operator (KEGOC JSC) in the presence of an agreement for the purchase and sale of the entire amount of electrical energy produced during the comprehensive test.[136]

According to the Rules for the Centralized Purchase and Sale of Electricity by the FSC, [137] an energy generating organization using renewable energy sources or an energy generating organization using waste-to-energy shall notify the Single Buyer or the Financial and Settlement Center and the energy transmission organization to whose network the RES installation and waste-to-energy facilities are connected of the date of the comprehensive test of the electrical installations of the RES installation and waste-to-energy facilities 30 calendar days before the start of the relevant test. This organization shall also provide the forecasted volume of generation supplied to the network for the period up to the end of the current year, broken down by month.

The contractor, unless otherwise provided by the construction agreement, guarantees achievement of indicators identified in the DED by facility construction and the possibility of operating the facility in accordance with the agreement for the entire guarantee period. The warranty period shall be ten years from the date of acceptance of the facility by the customer, unless another warranty period is stipulated by legislative acts or the agreement.[138]

11.2 THE ORDER OF ACCEPTANCE IN COMMERCIAL OPERATION OF AUTOMATED COMMERCIAL ENERGY METERING SYSTEM (ACEMS) FOR THE WHOLESALE ELECTRIC ENERGY MARKET PARTICIPANTS[139]

Acceptance for commercial operation of the ACEMS is carried out with the aim of implementing a unified technical policy for the accounting of electric energy with the help of ACEMS entities and integrating it into a single automated metering system of the Republic of Kazakhstan's wholesale market. It also entails determining the compliance of the ACEMS entities with the requirements of the legislation of the Republic of Kazakhstan on electricity

[135] Paragraph 8 of Article 12 of the Law on Electric Power Industry
[136] Paragraph 2-1 of Article 9 of the Law on Electric Power Industry
[137] Paragraph 7 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 2 March 2015 No. 164 "On Approval of the Rules of Centralized Purchase and Sale by a Single Buyer of Electric Energy Generated by Installations for Utilization of Renewable Energy Sources and Waste-to-energy facilities".
[138] Paragraph 1 of Article 665 of the Civil Code (Special Part) No. 409 of 1 July 1999
[139] Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 "On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market"

and ensuring uniformity of measurements.

After the completion of pilot industrial tests, the ACEMS entities sends letters of invitation to the system operator and related entities regarding the readiness to put the ACEMS into commercial operation and to participate in the work of the commissions for analyzing the results of pilot tests of the ACEMS and making a decision on the further operation of the system.[140]

The acceptance into commercial operation of the ACEMS is carried out by a commission approved by the executive officer or technical director of the entity, which includes representatives of the:

- ✓ Electric grid operator, to the electric networks of which entities are technologically connected;
- ✓ Related participants in the wholesale electricity market having common boundaries of balance sheet affiliation with the entities;
- ✓ General contracting, contracting and project organization;
- ✓ System operator.

The system operator and related entities shall agree on terms within 10 working days and send their representatives to participate in the work of the commission. The entities shall submit the following documents to the committee for consideration:

- ✓ Technical specifications for the connection of the ACEMS system to the ACEMS of the system operator;
- ✓ Terms of reference for the design of the ACEMS, agreed by the system operator;
- ✓ ACEMS project signed off by the system operator;
- ✓ Working documentation on the ACEMS;
- ✓ Operating documentation of the ACEMS, including: technical descriptions and operating instructions for data collection, transmission, storage and display devices, ACEMS user's manual, and ACEMS system administrator's manual;
- ✓ Copies of certificates on the verification of measuring instruments that are part of commercial electricity accounting in accordance with the requirements of the legislation of the Republic of Kazakhstan on ensuring the uniformity of measurements;
- ✓ Examination certificates of commercial electricity accounting;
- ✓ A copy of the licensing agreement for system and application software for the ACEMS;
- ✓ Copies of the organizational and administrative documents for pilot operation: the program of pilot-industrial tests of the ACEMS, industrial tests of the ACEMS, and documentation of the pilot testing of ACEMS components.[141]

When reviewing the ACEMS documents, the commission:

- ✓ Checks the completeness of the documents for compliance with the requirements of the rules for the operation of an automated commercial energy metering system for the entities of the wholesale electricity market;

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[140] Paragraph 24 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[141] Paragraph 27 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

- ✓ Assesses compliance with the terms of reference against the requirements of ST RK 34.015 “Information Technology: A Set of Standards for Automatized Systems, Terms of Reference for the Creation of an Automated System”, technical specifications for the creation of the ACEMS;
- ✓ Assesses the compliance of the ACEMS project with the requirements of the technical specifications of the ACEMS;
- ✓ Assesses the compliance of the working documentation with the requirements of the ACEMS project;
- ✓ Assesses the compliance of the documents (sections) of the operational documentation to the automated system with the requirements of the terms of reference and the project, including the assessment of the “User's Guide” with the requirements of ST RK 1087 “Unified Program Documentation System. User's Guide. Requirements for composition, content and design.”;
- ✓ As-built documentation after the implementation of the ACEMS project;
- ✓ Assesses the characteristics of the system and application software with the requirements of the terms of reference and the design of the ACEMS;
- ✓ Analyzes organizational and administrative documents for the pilot operation for compliance with the requirements of RD 50-34.698-90 “Guidance document on standardization. Methodical instructions. Information technology. The complex of standards and guidance documents for automated systems. The automated systems. The requirements for the content of documents.”;
- ✓ Analyzes the results of pilot industrial tests and pilot operation of the ACEMS.[142]

The results of the commission’s consideration of the documents are documented in the minutes of the commission’s meeting. [143] If there are comments, the entity eliminates the deficiencies specified in the minutes and inform the system operator of the readiness for re acceptance into commercial operation. [144] In the absence of any comments, the commission draws up an act to put the ACEMS into commercial operation. [145]

The system operator registers the act in the register of automated commercial energy metering system, which is maintained by the system operator. The act confirms the readiness to use the ACEMS both for internal commercial settlements and for settlements in the wholesale market. The act is made in two copies, one of which is sent to the entity and the second to the registry.[146]

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[142] Paragraph 28 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[143] Paragraph 29 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[144] Paragraph 30 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[145] Paragraph 31 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[146] Paragraph 32 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

Every five years after the ACEMS begins commercial operation, entities provide a letter to the system operator, which includes the following documents that confirm the operability of the system:

- ✓ The list of metering systems with identification codes with an indication of the status of the account of electric energy: “commercial” or “technical”;
- ✓ Copies of certificates with valid verification dates for measuring instruments included in commercial electricity accounting;
- ✓ Copies of replacement certificates of metering instruments included in CEM;
- ✓ Copies of verification certificates of data transmission from the metering systems to the central database of the ACEMS system operator;
- ✓ Copy of the order on the appointment of responsible persons for the operation and metrological support of ACEMS, telephone numbers and e-mail addresses of contacts.[147]

Within 15 calendar days, the system operator and the administrator of the integrated automated system verify the documents provided for by the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market. [148] If there are comments, the entity corrects the deficiencies and inform the system operator of its readiness to conduct a second check. [149] If the results of document verification are positive, the system operator, together with the administrator of the integrated automated system, shall issue an act on re-registration of ACEMS and make appropriate changes to the register. [150]

[147] Paragraph 33 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[148] Paragraph 34 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[149] Paragraph 35 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

[150] Paragraph 36 of the Order of the Minister of Energy of the Republic of Kazakhstan dated 30 March 2015 No. 248 “On Approval of the Rules of Functioning of the Automated Commercial Energy Metering System for Entities of the Wholesale Electricity Market”

12. OPERATION OF RENEWABLE ENERGY FACILITIES

12.1 GENERAL PROVISIONS

The technical regulation of the construction and operation of renewable energy facilities is carried out by the authorized state body, the Ministry of Energy of the Republic of Kazakhstan, which makes proposals for improving state standards in the design, construction, operation and safety engineering of renewable energy facilities for the production of electrical energy.

The main task of power plants, boiler houses and electric and heat networks is the production, transmission, distribution and supply of electricity and heat to consumers (hereinafter “energy production”).[151]

The main technological links of energy production are energy producing organizations (power stations), energy transmission organizations (hereinafter “energy facilities”), connected by a common mode and centralized operational dispatching management.

Each power facility, regardless of its organizational and legal status, must ensure the fulfillment of the objectives and conditions of activities set out in its charter. An entrepreneur in the electric power industry must ensure all the requirements specified by state and sectoral regulatory acts and documents regarding the organization and conduct of production are met.

12.2 PERSONNEL REQUIREMENTS

The main functions of the industry’s workers are:

[151] Order of the Minister of Energy of the Republic of Kazakhstan dated March 30, 2015 No. 247 On approval of the Rules for the technical operation of power plants and networks

- ✓ Complying with the contractual terms of energy supply to consumers;
- ✓ Maintaining the normal quality of the released energy of the standard frequency and voltage of electric current, and voltage and temperature of the heat-transfer fluid;
- ✓ Observing operational dispatch discipline;
- ✓ Maintaining equipment, buildings and structures in operational readiness;
- ✓ Ensuring maximum reliability of energy production and efficiency in full compliance with energy saving legislation;
- ✓ Complying with the requirements of industrial and fire safety in operating equipment and structures;
- ✓ Complying with the requirements of legislation on occupational safety and health;
- ✓ Reducing the harmful impacts of production on people and the environment;
- ✓ Using scientific and technological progress to improve efficiency, reliability, safety, and the environmental status of energy facilities.

At each power facility, the functions of servicing equipment, buildings, structures and communications are distributed among structural units.

Persons who have technical education and have completed the training required for their positions are allowed to work at power facilities. Persons who have passed the professional selection and are specially trained for the management of these facilities can directly influence the control of power installations. Personnel appointed to manage the work of people who influence the management of power plants and those directly serving power plants are trained in special requirements.

All employees, with the exception of those who do not directly participate in the technological processes of production, are tested on rules, norms and instructions for technical operation, labor protection, industrial and fire safety.

Depending on the employee's position, the examination is carried out by commissions of power facilities, their structural subdivisions, the superior management body, as well as regional commissions and the central examination commission of the state energy supervision and control authority.

Persons who maintain the equipment of the main power plant departments and persons admitted to special works should have a record about it in the certificate of knowledge testing.

Knowledge verification and the admission of workers and certain categories of experts, serving facilities supervised by the territorial subdivisions of the authorized state body for industrial safety, to the independent work shall be carried out in accordance with the requirements of the rules of industrial safety.

Personnel authorized to operate thermal-mechanical equipment in which flammable, explosive and hazardous substances are used for technological purposes must be aware of the properties of these substances and the safety rules for handling them.

All personnel shall be provided with working clothes, special footwear and personal protective equipment according to the type of work performed, in accordance with current standards, and shall use them during work in accordance with the requirements of the Labor Code of the Republic of Kazakhstan.

All production personnel should receive practical training in methods of disconnecting an electrocuted person and first aid for victims of other accidents.

All personnel of power facilities and organizations should be practically trained in first aid techniques immediately at the scene of an accident in accordance with safety requirements.

First aid kits or bags with a constant supply of medicines and medical supplies shall be available in each power plant shop, substations, grid sections, laboratories and other facilities, as well as in the mobile team vehicles.

12.3 TECHNICAL REQUIREMENTS

At each thermal power plant with a capacity of 10 megawatts (MW) or more, hydroelectric power plants with a capacity of 30 MW or more, in each district boiler house with a heat output of 50 gigacalories per hour (Gcal/hr) (209.5 gigajoules per hour (GJ/h) and more, energy characteristics of the equipment are developed, establishing the dependence of the technical and economic performance of its operation in absolute or relative terms from electrical and thermal loads.

To ensure the performance of power stations and electric networks, they must:

- ✓ meet the accuracy specified for energy consumption and process parameter measurement;
- ✓ account (shift, daily, monthly, annual) for the established forms of equipment performance, based on readings from measurement equipment and information measuring systems;
- ✓ analyze technical and economic indicators for assessing the state of equipment, its operating modes, fuel saving reserves, and efficiency of organizational and technical measures;
- ✓ develop and implement measures to improve the reliability and economics of the equipment, reduce unsustainable costs, and reduce the losses of fuel and energy resources.

12.4 TECHNICAL CONTROL: TECHNICAL AND TECHNOLOGICAL SUPERVISION OF THE ORGANIZATION FOR THE OPERATION OF POWER FACILITIES

At each power facility, it is necessary to organize continual and periodic monitoring (inspections, technical inspections) of the technical conditions of energy installations (equipment, buildings and structures), identify the persons responsible for their condition and safe operation, and appoint personnel for technical and technological supervision and their approved official duties.

Technical inspection encompasses the assessment of the conditions, establishment of terms and conditions of operation, and identification of measures needed to ensure the installed resources of the power plant.

The scope of the periodic technical inspection should include external and internal inspection, verification of technical documentation, and tests for compliance with the safety conditions of equipment, buildings and structures (hydrological tests, adjustment of safety valves, testing safety devices, load-lifting mechanisms, ground loops).

Simultaneously with the technical inspection, the requirements of the supervisory (control) bodies and activities are planned according to the results of the investigation of the plant's violations and maintenance accidents, and the measures developed during the previous technical inspection.

The results of the technical inspection are entered in the technical certificate of the power facility.

It is not allowed to operate units with hazardous defects detected during the inspection and with violations of the conditions of technical certification.

All technological systems, equipment, buildings and structures, including hydro constructions, that are part of the power facility are subject to periodic technical inspection.

Technical inspection is carried out by a commission of an energy facility headed by a facility technical director or his/her deputy. The commission includes managers and experts of structural units of the power facility, and experts of specialized and expert organizations.

Technical inspection is performed at least once every 5 years.

Permanent monitoring of the technical condition of the equipment is carried out by the operation, maintenance and repair personnel of the power facility.

The order of control is established by local working and service instructions.

Periodic inspections of equipment, buildings and structures are carried out by persons responsible for their safe operation.

The frequency of inspections is established by the technical director of the power facility. The results of the examinations are recorded in a special journal.

12.5 MAINTENANCE

At each power plant, maintenance, planned repairs and the modernization of equipment, buildings, structures and communications of power plants should be organized. Control over the technical condition of equipment, buildings and structures, performance of repair works that ensure the stability of the established performance indicators, completeness of preparatory work, timely provision of planned repair work with spare parts and materials, as well as control of terms and the quality of the repair work should be entrusted to the executive officers of power facilities.

The management structures for the maintenance and repair of power facilities should provide for the separation of functions and performers through the organization of the relevant units for the preparation and provision of repairs.

The scope of maintenance and scheduled repairs should be determined by the need to maintain equipment, buildings and structures in a working and efficient condition, taking into account their actual state and the requirements of instructions and regulatory documents. For all types of repairs of basic power plant equipment, buildings and structures, boiler houses and networks, prospective and annual schedules should be compiled.

12.6 NECESSARY DOCUMENTATION AND DESIGNATION

The following documents should be maintained at each power facility:

- ✓ Lands allotment certificates;
- ✓ General plan of the site with buildings and structures, including underground facilities;
- ✓ Geological, hydrogeological and other data on the site territory with results of soil tests and groundwater analyses;
- ✓ Foundation locations reports with sections of pits;
- ✓ Certificates of acceptance of concealed work;
- ✓ Primary acts on the yield of the building foundation, structures and foundations for equipment;

- ✓ Primary acts of testing devices providing explosion safety, fire safety, lightning protection and anti-corrosion protection of structures;
- ✓ Primary acts of testing of internal and external water supply systems, water supply for fighting fires, sewerage, gas supply, heat supply, heating and ventilation;
- ✓ Primary acts of individual testing and testing of equipment and process pipelines;
- ✓ Acceptance committee certificates;
- ✓ Approved project documentation with all subsequent changes;
- ✓ Energy performance certificate in accordance with the legislation on energy conservation;
- ✓ Technical certificate of buildings, structures, technological units and equipment;
- ✓ Executive working drawings of equipment and structures, the lines of the entire underground farm;
- ✓ Executive process diagrams of primary and secondary electrical connections;
- ✓ Executive working technical schemes;
- ✓ Drawings of spare parts for equipment;
- ✓ Operational firefighting plan;
- ✓ A set of operating and canceled instructions for the operation of equipment, buildings and structures, job descriptions for all categories of professionals and workers relating to duty personnel, and instructions for safety and health. Approval of instructions on labor protection is carried out by the top executive officer, and not by the technical manager;
- ✓ The above documentation is stored in the technical archive of the power facility with the stamp “documents” and when the owner changes, it is transferred in full to the new owner, who needs to ensure its permanent storage.

Plates with nominal data are to be installed on the main and auxiliary equipment of power plants, according to the manufacturer’s instructions for the equipment.

All main and auxiliary equipment, including pipelines, bus systems and sections, as well as fittings, gas and air ducts, must be numbered.

All changes in power plants made during operation are entered in the instructions, diagrams and drawings before commissioning, with the signature of the supervisor, indicating his/her position and the date of the change.

Technological diagrams (drawings) are checked at least once every 3 years for conformity with the actual diagrams (drawings) with a note for verification.

The sets of necessary schemes are located at:

- ✓ national dispatch center of the system operator;
- ✓ regional dispatch centers;
- ✓ heat and electricity network;
- ✓ shift supervisor of the power plant, each shop and power unit;
- ✓ substation duty officer;
- ✓ district of the heat and power network;
- ✓ master of the field service team;
- ✓ repair personnel.

At each power facility a list of necessary instructions, regulations, technological and operational schemes for each workshop, substation, district, site, laboratory and service is established, which is approved by the technical director of the power facility.

All workplaces are supplied with the necessary instructions,[152] compiled in accordance with the requirements of the Rules for the Technical Operation of Electric Power Stations and Networks approved by Order No. 247 of the Minister of Energy of the Republic of Kazakhstan dated March 30, 2015, based on plant and design data, standard instructions and other regulatory-technical, and test results, as well as local conditions

Lists of instructions are reviewed once every three years. In the instructions for the operation of equipment, buildings and facilities, relay protection, telemechanics, communication and the complex of technical means of an automatic control system for each installation, the following are given:

- ✓ Brief description of the installation's equipment, buildings and structures;
- ✓ Criteria and limits of the safe condition and operating modes of the plant or complex of installations;
- ✓ The procedure for preparing for launch;
- ✓ The procedure for starting, stopping and servicing equipment, and maintaining buildings and structures during normal operation and in case of violations in work;
- ✓ The procedure for admission to inspection, repair and testing of equipment, buildings and structures;
- ✓ Requirements for safety and labor protection, explosion and fire safety specific to each installation.

The service instructions for each workplace include:

- ✓ List of instructions for servicing equipment, diagrams of equipment and devices, knowledge of which is necessary for employees in this position;
- ✓ Rights, functions and duties of the employee;
- ✓ Mutual relations with superiors, subordinates and other work-related staff.

On-duty personnel have operational documentation, which is described in Annex 22.[153]

Daily logs shall be kept at the workplaces of operating and dispatching personnel in the shops of power plants, at control panels with personnel on permanent duty at dispatch centers.

Administrative and technical personnel, in accordance with the established schedules for plant and equipment inspections should check the operational documentation and take the necessary measures to eliminate defects and violations in the operation of equipment and personnel.

12.7 AUTOMATED CONTROL SYSTEMS

Automated control systems (ACS) provide industrial-technological, operational-dispatching and organizational-economic management of energy production tasks. These tasks are assigned to:

- ✓ Automated process control systems of technological process (APCS);
- ✓ Automated dispatch control systems (ADCS);
- ✓ Automated industrial control systems (AICS).

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[152] The list of instructions requiring coordination is determined by the National Dispatch Center of Kazakhstan's system operator and the Regional Dispatch Center.

[153] Depending on local conditions, the scope of operational documentation can be changed by decision of the technical director of the power facility

Depending on the local conditions, economic and production feasibility, each power plant and each organization operating the electric grid should have an APCS in place.

At the dispatch centers of organizations' operating electric networks, the united power network (UPN) and the unified power system (UPS) shall operate in the ADCS.

When operating the ACS, it is necessary to follow the instructions for operating the ACS.

Operative documentation, diagrams of recording instrumentation, records of operational dispatch negotiations, and output documents formed by the operational information system of the ACS are strictly documented and are subject to storage in the order established by law. For example, data storage device with notes of recording instruments are stored for 3 years.

Power plants, organizations operating electric grids of the united power network and UPS should have AICS, the main task of which is reliable and economic management of production in market conditions.

The choice of complexes of individual ACS tasks at each power facility is determined on the basis of production and economic feasibility, taking into account the rational use of available standard design solutions, application software packages and the capabilities of technical means.

The composition of the complex of technical means of ACS:

- ✓ Means of information collection and transmission (information sensors, communication channels, telemechanics devices, data transmission equipment);
- ✓ Means of information processing and display (computers, analog and digital devices, displays, printing devices, functional keyboards);
- ✓ Means of control (controllers, executive machines, electrical equipment: relays, power amplifiers);
- ✓ Auxiliary systems (uninterruptible power supply, air conditioning, automatic fire extinguishing).

The ACS is put into operation in accordance with the established procedure based on an act of the State Acceptance Commission.

Commissioning of the ACS in commercial operation can be preceded by pilot operation lasting notьless than 1 month and not more than 6 months. The ACS can be created and put into operation in one or two stages.

Acceptance of the ACS into commercial operation is performed upon completion of acceptance into commercial operation of all tasks envisaged for the phase to be commissioned.

When organizing the operation of the ACS, the functions of the structural units for servicing the complex of technical means and software are determined by the orders of power facility managers.

The list of equipment serviced by each unit with an indication of the service boundaries is approved by the technical director of the relevant power facility or organization.

ACS service personnel, except for design and factory personnel, must maintain technical and operational documentation for the list approved by the technical manager of the power facility.

Repairs and preventive maintenance of ACS technical facilities are carried out in accordance with the approved schedules, the procedure for their repair is determined by the approved regulations.

The power facility's dispatching office manager must analyze the functioning and effectiveness of the ACS, monitor its operation, and develop measures for improving the ACS and its technical re-equipment in a timely manner.

12.8 MEASURES FOR METROLOGICAL SUPPORT

At each power facility, a set of measures must be carried out to ensure uniformity and the required accuracy of measurements. The set of measures for metrological support performed by each power facility should include:

- ✓ timely submission of verification of measuring instruments subject to state metrological control;
- ✓ use of certified measurement techniques;
- ✓ ensuring that the accuracy of the measuring instruments used complies with the requirements for the accuracy of measurements of technological parameters and metrological examination of design documentation;
- ✓ maintenance of measuring instruments, and metrological control and supervision.

The metrological services of power facilities and organizations or units performing these services should provide metrological support, control and supervision over their implementation.

Equipment of energy installations with measuring instruments shall be ensured. The scope of equipment of energy installations with measuring instruments shall ensure control over technical condition of equipment and its operation mode; recording of input and consumption of resources, generated, spent and released, electricity and heat; control over observance of safe labor conditions and sanitary norms; control over environmental protection.

All measuring instruments, information and measurement systems shall be in operative condition and ready for measurement at all times.

At power facilities, process parameters are measured according to project design.

Measuring instruments and their accuracy are selected at the design stage based on state and industry documents establishing the requirements for the accuracy of measuring process parameters and measurement techniques.

12.9 OCCUPATIONAL SAFETY

All work on occupational safety and health must be aimed at creating a system of organizational measures and technical means designed to prevent the exposure of workers to hazardous production conditions.

The design, operation and repair of equipment, buildings and structures of power facilities shall meet the requirements of labor safety regulations. Protective equipment, devices and tools used during maintenance of equipment, buildings and structures of power facilities shall be inspected and tested in a timely manner in accordance with applicable labor safety regulations.

The employer is obliged to:[154]

- ✓ Assess occupational risk and take measures to minimize and eliminate it through prevention, replacement of production equipment and technological processes with safer ones;
- ✓ Train workers on occupational safety and health;
- ✓ Carry out organizational and technical measures of safety and labor protection;
- ✓ Provide guidance and documents on the safe conduct of the production process and work;
- ✓ Organize the verification of knowledge of persons responsible for ensuring safety and labor protection, and workers in matters of safety and labor protection;
- ✓ Create the necessary sanitary and hygienic conditions for the workers, ensure the issuance and repair of employee clothing and footwear, and provide them with preventive treatment, detergents and disinfectants, a medical first aid kit, milk, medical and preventive nutrition, individual and collective protection equipment in accordance with the standards, established by the authorized body on work in coordination with the central authorized body for budget planning;
- ✓ Provide the authorized state labor authority, local labor inspectorate, and employee representatives, upon their written request, with necessary information on the status of conditions, safety and labor protection, including information on the certification of production facilities for working conditions in organizations once a quarter;
- ✓ Comply with the requirements of state labor inspectors;
- ✓ Register, record and analyze accidents and occupational diseases at work;
- ✓ Conduct, with the participation of employee representatives, periodic (not less than every five years), certification of production facilities for working conditions in accordance with the rules approved by the authorized labor authority;
- ✓ Submit within a month the results of certification of production facilities in terms of working conditions to the relevant local labor inspection body in paper and electronic form;
- ✓ Ensure the investigation of accidents at work in accordance with the procedure established by the legislation of the Republic of Kazakhstan;
- ✓ Insure the employee against accidents during the performance of his/her labor (official) duties;
- ✓ Report on cases of acute poisoning to the appropriate territorial unit of the authorized state body for sanitary and epidemiological welfare of the population;
- ✓ Ensure safe working conditions;
- ✓ Carry out, at its own expense, obligatory periodic (during work) and pre-shift medical examinations of employees in the cases stipulated by the legislation of the Republic of Kazakhstan, as well as in case of transfer to another job with change of working conditions or in case of appearance of signs of occupational diseases;
- ✓ Take urgent measures to prevent the emergency from developing and other persons from being exposed to injury-risk factors.
- ✓ Develop instructions for work safety and have them approved at the enterprises:
  - *For certain categories of workers;*
  - *For certain types of work (work at height, installation, commissioning, repair, testing) in accordance with the requirements set out in regulations and instructions for safety and labor protection.*

[154] The employer's additional obligations may be provided by a labor or collective agreement, taking into account the specifics of activities and types of work, and the presence of increased danger

General management of safety work is assigned to the top manager (employer) of the energy facility.

Managers and officials of energy facilities and organizations should:

- ✓ Ensure safe and healthy working conditions at workplaces, in production facilities and on the territory of power facilities and organizations
- ✓ Organize regular training, knowledge assessments and briefs for personnel and monitor compliance with safety requirements.

Production facilities are subject to mandatory periodic certification of labor conditions.

Certification of production facilities' working conditions is carried out by specialized organizations at least every 5 years. The authorized state labor authority places information on the specialized organizations (name, legal address, contact phone number, activities and information on qualified personnel) on the Internet.

The procedure for carrying out mandatory periodic certification of production facilities with respect to working conditions is determined by the Rules for Mandatory Periodic Certification of Production Facilities with respect to working conditions.[155]

To organize the certification of production facilities' labor conditions, the employer issues an appropriate order to establish a certification committee consisting of the chairman, members and secretary responsible for drawing up, maintaining and storing documentation on the certification of production facilities' working conditions.

The composition of the certification committee of the organization includes the executive officer or his deputy, specialists of the security and labor protection services and structural units of the organization as agreed upon, as well as representatives of employees.

The certification committee of the organization carries out internal control in the organization for the quality of certification of production facilities.

Buildings (structures) in which workplaces are located should correspond to their functional purpose and to the requirements of safety and labor protection.

Work equipment must comply with safety standards established for this type of equipment, have appropriate technical certificates, warning signs and be provided with fences or protective devices to ensure the safety of workers at workplaces.

Emergency routes and exits from the premises should remain free and lead to the open air or to a safe area. Hazardous areas should be clearly marked.

The design and operation of equipment, buildings and structures must comply with the requirements of the Fire Safety Regulations[156] and the Fire Safety Regulations for Power Enterprises. [157]

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[155] Order of the Minister of Health and Social Development of the Republic of Kazakhstan dated 28 December 2015 No. 1057 "On Approval of the Rules for Mandatory Periodic Certification of Production Facilities for Labour Conditions".

[156] Order of the Minister of Emergency Situations of the Republic of Kazakhstan dated 21 February 2022 No. 55 "On Approval of Fire Safety Rules"

[157] Order of the Minister of Energy of the Republic of Kazakhstan dated 20 February 2015 No. 123 "On Approval of Fire Safety Rules for Energy Enterprises".

Power plants can be started up only after all work on basic and auxiliary equipment is completed: cleaning of mechanization facilities, appliances, dismantled equipment, waste and materials from workplaces; and restoration of insulation of steam pipelines, fire safety and workplace safety.

Before starting up the power plant, the personnel must:

- ✓ check documented readiness (sign off work permit, appropriate entries in log books, etc.);
- ✓ inspect equipment (working and backup) and, if necessary, run it unloaded for the time required to determine readiness for normal operation;
- ✓ check readiness of technological protections, interlocks, control devices, control and measuring instruments;
- ✓ check readiness of fire protection equipment, as well as availability and serviceability of enclosures, insulation, etc.

Based on the Fire Safety Regulations for energy companies, for each factory workshop, laboratory, workshop, warehouse, administrative premises and other facilities, energy enterprises must develop an instruction on fire safety measures.

Instructions on fire safety measures are posted in a conspicuous place and periodically reviewed based on of an analysis of fire risks at the facility, but at least once every three years.

Instructions for fire safety in factory workshops, laboratories, workshops, warehouses and other production and auxiliary facilities are developed by the management of these units, coordinated with the fire service (if it is available at the enterprise) and approved by the chief technical manager of the enterprise.

In accordance with the Fire Safety Regulations approved by the Decree, a fire response plan is developed and approved at energy enterprises.

Executive officers of energy enterprises periodically check the readiness of the facility's fire service and voluntary fire units and take the necessary measures to improve their work.

Wind power plants should provide for the protection of maintenance personnel from electric shocks and from injury by rotating and moving parts when climbing on internal or external ladders.

Current-carrying conductors and grounding systems should be installed according to ST RK 1295-2004. The requirements for grounding devices and protective conductors must comply with GOST R 50571.10-96.

All open conductive parts of electrical equipment that may carry hazardous voltage due to insulation damage must be electrically connected to the unit casing and the tower.

The electrical equipment of the WPP shall have grounding clamps for connection of the zero protective and zero working conductors, as well as grounding marks, performed in accordance with GOST 12.2.007.0.75.

Electrical insulation of current-carrying parts of electrical equipment of windmill electric circuits with nominal voltage 230 and 400 V must withstand without damage for 1 min a sinusoidal voltage of 1500 and 1800 V, respectively, with a frequency of 50 Hz.

The resistance of the electrical isolation of separate individual power circuits with a voltage of 230 and 400 V between themselves and with respect to the housing in a cold state should be not lower than 20 megohms, while in a hot state, not lower than 3 megohms.

The WPP must meet fire safety requirements in accordance with GOST 12.1.004.-91.

Additional requirements for protection against lightning overvoltages should be specified in technical specifications and operating instructions for a particular type of WPP. It is recommended to be guided by the requirements when designing protection systems of WPP against lightning overvoltages:

- ✓ International Electrotechnical Commission Standard 61024-1:1990;
- ✓ International Electrotechnical Commission Standard 61024-1-1:1993;
- ✓ International Electrotechnical Commission Standard 61024-1-2:1998.[158]

12.10 ENVIRONMENT PROTECTION

During the operation of power plants, measures are taken to prevent or limit the harmful impacts of pollutants emitted into the atmosphere and/or discharged into water bodies, noise, vibration, electric and magnetic fields and other harmful physical impacts, and to reduce irreversible losses and volumes of water consumption.

The number of pollutants emitted into the atmosphere should not exceed the norms of maximum permissible emissions (limits), and discharges into water bodies should not exceed the norms of maximum permissible or temporarily agreed discharges.

The intensity of the electric and magnetic fields should not exceed maximum permissible levels, while noise impacts should not exceed the norms for the acoustic output of equipment.

Sites for the installation of WPP should be selected away from typical migratory bird routes. In order to avoid killing birds, acoustic bird deterrent beacons should be installed on operating WPP.

The sound level created by a single WPP at a distance of 50 m from a wind-power unit at a height of 1.5 m from the ground level should not exceed 60 dBA.

In residential and public premises near the WPP in all cases, the sound level of a working WPP should not exceed 60 dBA, infrasound - 100 dB in accordance with the requirements of MSN 2.04-03-2005.

The requirements for electromagnetic compatibility of electrical equipment that is part of the WPP shall be established in standards and specifications for specific types of WPPs and comply with the requirements of GOST R 51317.6.1-99 and GOST R 51317.6.3-99.

12.11 REQUIREMENTS FOR INDUSTRIAL SAFETY AND EQUIPMENT CERTIFICATION

Equipment Certification

The electro-technical equipment and materials produced in the Republic of Kazakhstan, as well as imported into its territory must comply with the requirements established by technical regulations, and in cases stipulated by the legislation of the Republic of Kazakhstan, must undergo a conformity assessment.

Electro-technical equipment and materials must meet the requirements to ensure the safety, health, and lives of humans and the environment.

[158] ST RK GOST R 51991-2008

The commissioning of power plant equipment, electric and heat networks, and consumer installations, which are subject to a confirmation of compliance with the requirements of technical regulations, is not allowed without a conformity assessment.

In the agreement concluded for the supply of imported products, which are subject to mandatory confirmation of compliance, an obligation to confirm compliance must be provided.[159]

The certification procedure is a written confirmation by the authorized body of the equipment's conformance with the requirements established in regulatory documents by issuing a certificate of compliance[160] which states:

- ✓ Name and location of the Applicant, the manufacturer (executor) of the product, and the body that issued the certificate of conformity;
- ✓ Name of the certified product, which allows its identification;
- ✓ Name of the technical regulation, for compliance with the requirements of which certification was carried out;
- ✓ Information on the research (tests) and measurements conducted;
- ✓ Information on documents submitted by the Applicant to the conformity assessment body as evidence of conformity of products to the requirements established by technical regulations;
- ✓ Period of validity of the certificate.

The certificate of conformity shall be drawn up on a blank form[161] and shall be subject to registration with the conformity approval body that issued it.

The certificate of conformity for serial production is issued for a period established by the scheme of confirmation compliance.

The validity of the certificate of conformity extends throughout the territory of the Republic of Kazakhstan.

Importing or selling products that did not pass the compliance confirmation is prohibited.

Authorized bodies that carry out certification in the Republic of Kazakhstan are:

- ✓ Authorized body on standardization, metrology and certification - Committee for Technical Regulation and Metrology of the Ministry of Trade and Integration of the Republic of Kazakhstan;[162]
- ✓ Accredited bodies for certification of products, processes, works, services;[163]

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[159] Certificates of conformity of foreign countries, product test protocols, and conformity marks are recognized in accordance with international treaties or concluded agreements with international or regional non-state and non-governmental organizations for accreditation

[160] Gosstandart of RK

[161] The form and procedure for issuing a certificate of conformity is established by Standard ST RK 3.4-2017, State System of Technical Regulation of the Republic of Kazakhstan, Forms of Certificates of Conformity, Declarations of Compliance and Procedure for their Completion

[162] Committee for Technical Regulation and Metrology of the Ministry of Trade and Integration of the Republic of Kazakhstan. https://www.gov.kz/memleket/entities/mti-ktrm?lang=ru

[163] According to the Decree of the Government of the Republic of Kazakhstan dated 28 June 2021 № 439 'On the establishment of the Republican State Enterprise on the right of economic management "National Accreditation Center" of the Committee for Technical Regulation and Metrology of the Ministry of Trade and Integration of the Republic of Kazakhstan' RSE on the REM

- ✓ Accredited testing laboratories (centers);
- ✓ Accredited bodies on validation of conformity (experts - auditors on certification).

At present two systems of technical regulation operate simultaneously in the territory of the Republic of Kazakhstan: the state system of technical regulation (general regulations conform to the Law of the Republic of Kazakhstan "On technical regulation" No. 396-VI LRK dated December 30, 2020) and the system of technical regulation of the Customs Union.

In terms of requirements for mandatory product certification (validation of conformity), the Unified Lists within the Customs Union are in force:

- ✓ Unified list of products subject to mandatory conformity assessment (confirmation) within the Customs Union with issuance of unified documents (Decision of the Customs Union Commission No. 620 dated 7 April 2011).
- ✓ Unified list of products subject to mandatory requirements within the Customs Union (Decision of the Customs Union Commission No. 526 dated 28 January 2011).

Products subject to the technical regulations of the Customs Union must be accompanied by a Single Certificate of Conformity or a Single Declaration of Conformity with a single sign of circulation of EAC products. Products included in the Unified List may also be accompanied by a Single Certificate of Conformity or a Single Declaration of Conformity (there can be no single sign on these documents).

If the products included in the Unified List are accompanied by a certificate of conformity issued in the national system of technical regulation of Russia and Belarus, then the products must undergo the procedures of confirming compliance under national legislation, and conformity certificates must be reissued for Kazakhstan-type certificates.

Products not subject to the technical regulations of the Customs Union and not included in the Unified List are subject to mandatory assessment (confirmation) of compliance in accordance with national legislation of the Republic of Kazakhstan.

The products are accompanied by a certificate of conformity issued in the GOST R system; such a certificate of compliance must be re-registered with a Kazakhstan's certificate.[164]

Permits of the authorized body in the field of industrial safety

Hazardous production facilities include hazardous technical devices:[165]

- ✓ Technical devices operating under pressure more than 0.07 megapascal or at a water heating temperature of more than 115° Celsius;
- ✓ Load-lifting mechanisms, escalators, cable cars, funiculars and elevators.

Hazardous industrial facilities and equipment are subject to supervision by the state authority in the field of industrial safety - Industrial Safety Committee of the Ministry of Emergency Situations of the Republic of Kazakhstan (ISC MES RK).

'National Accreditation Center' of the Committee for Technical Regulation and Metrology of the Ministry of Trade and Integration of the Republic of Kazakhstan is determined as the accreditation body of the Republic of Kazakhstan.

[164] Source used: information available on the website of National Center of Examination and Certification JSC, http://naceks.kz/ru/informirovan-vooruzhen/220-o-sertifikazii-v-usloviyach-tamozhennogo-soyuza.html

[165] According to the Law of the Republic of Kazakhstan on Civil Protection, dated April 11, 2014, No. 188-U LRK

The following are subject to industrial safety examination:

- ✓ Hazardous technical devices;
- ✓ Technologies, technical devices, and materials used at hazardous production facilities, with the exception of construction materials;
- ✓ Legal entities for compliance with the declared types of work and industrial safety requirements when obtaining a certificate;
- ✓ Design documents subject to industrial safety examination in accordance with the Code of the Republic of Kazakhstan “On subsoil resources and subsoil use”.

Industrial safety examinations are carried out by certified organizations that are independent of the Applicant organization, at the expense of the Applicant.

The result of an expert examination of industrial safety is an expert report.

The authorized industrial safety body is the ISC MES RK, [166] whose competence includes, inter alia, issuing permits for the use of technologies, technical devices, materials used in hazardous production facilities and hazardous technical devices.

To obtain permission to use technologies, technical devices, materials used in hazardous industrial facilities and hazardous technical devices, including those of foreign origin, the Applicant submits to the authorized agency in the PSC or the web portal egov.kz:[167]

- ✓ Application with brief information on the use of technologies, technical devices, materials used at hazardous production facilities, and hazardous technical devices, and the field of their application;
- ✓ Expert conclusions on the compliance of these technologies, technical devices, materials used at hazardous industrial facilities and hazardous technical devices with industrial safety requirements;
- ✓ The document proving the identity (in case the documents are submitted through the PSC).

The permit is issued within 7 working days, provided that the technologies, technical devices, materials used at hazardous production facilities and hazardous technical devices comply with industrial safety requirements.

When inconsistencies are detected for technologies, technical devices and materials used at hazardous industrial facilities and hazardous technical devices with industrial safety requirements, the permit for their use is revoked by the authorized industrial safety body.

To register or deregister a hazardous technical device, the owner of the hazardous technical device or the executive officer of the organization operating the hazardous technical device submits an application to the territorial subdivision of the authorized body in the field of industrial safety - ISC MES RK.

The application shall specify the basis for identification of a hazardous technical device for registration or deregistration.

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[166] Resolution of the Government of the Republic of Kazakhstan dated 23 October 2020 No. 701 “Issues of the Ministry of Emergency Situations of the Republic of Kazakhstan”

[167] Order of the Minister of Industry and Infrastructural Development of the Republic of Kazakhstan dated 16 April 2020 No. 208 “On Approval of the Rules for Provision of State Service “Issuance of Permits for Application of Technologies Used at Hazardous Production Facilities, Hazardous Technical Devices”

Term of registration/deregistration of a hazardous technical device: within 3 working days from the date of application submission with issuance of a notification on registration or deregistration of a hazardous technical device.

12.12 RESPONSIBILITY FOR NON-COMPLIANCE WITH TECHNICAL REGULATION LEGISLATION

Individuals and legal entities (manufacturers, executors, sellers) take administrative and civil responsibility for:

- ✓ for the safety of products sold on the market;
- ✓ for violation of requirements established by technical regulations;
- ✓ for failure to fulfil instructions and decisions of the body exercising state control.

Article 415 of the Administrative Offences Code establishes administrative liability for violations of the legislation of the Republic of Kazakhstan on technical regulation, in the form of:

- ✓ Release of products that do not meet the requirements of technical regulations and regulatory legal acts;
- ✓ Release of products with no compliance verification and (or) compliance assessment documents in accordance with the requirements of technical regulations and regulatory legal acts.

The following fines are foreseen for the listed violations:

- ✓ 90 MCI for individuals;
- ✓ 195 MCI for the officials of small businesses or non-profit organizations;
- ✓ 310 MCI for medium-sized businesses;
- ✓ 600 MCI for large businesses.

Repeated violation within one year after the imposition of an administrative penalty is punishable by a fine of 135 MCI for individuals, 360 MCI for officials, small businesses or non-profit organizations, 600 MCI for medium-sized businesses, and 1,200 MCI for large businesses, with or without suspension of activities and confiscation of products or without confiscation of products.

Damage caused to the life, health or property of a citizen, or property of a legal entity as a result of product non-compliance with technical regulations shall be compensated in accordance with the Civil Code of the Republic of Kazakhstan.[168]

[168] Articles 947-950 of the Civil Code of the Republic of Kazakhstan (Special Part) No. 409 dated 1 July 1999

13. TERMS AND DEFINITIONS

The following terms and definitions are used in this document:

1. Applicant – A legal entity planning to participate in an auction.
2. Auction – The electronic process organized and conducted by the auction Organizer to select projects for the construction of facilities using renewable energy sources. The auction also determines the prices for the electric energy produced by the renewable energy facilities, taking into account the RE facilities siting plan.
3. Auction Organizer – A legal entity, determined by the authorized body, that organizes and conducts auctions in accordance with the procedure provided by law.
4. Auction price - the price for the purchase of electricity produced by a facility using renewable energy sources, a waste-to-energy facility, determined by the results of the auction bidding and not exceeding the level of the respective auction ceiling price by a Single Electricity Buyer.
5. Auction schedule – The schedule of auctions for a calendar year developed by the authorized body according to the established form (hereinafter “Schedule”). The information specified in the auction schedule is not subject to adjustment.
6. Authorized body – A central executive body that administers and provides intersectoral coordination to support the use of renewable energy sources.
7. Bank guarantee – A written document, executed in accordance with the rules for issuing bank guarantees and sureties by second-tier banks, approved by the Resolution of the Management Board of the National Bank of the Republic of Kazakhstan as of January 28, 2017, No. 21 (registered in the Register of State Registration of Regulatory Legal Acts under No. 14915) and issued by a bank to a client (a debtor) on the basis of his/her application in favor of a third person (creditor), under which the bank undertakes to pay a limited amount of money to the third person (creditor) under the conditions specified therein.
8. Beneficiary – A person who derives advantage from a payment and/or money transfer.
9. Ceiling auction price – The maximum value of the auction price for electric energy.
10. Energy producing organization that uses renewable energy sources – A legal entity that produces electric and/or thermal energy with the use of renewable energy sources.

11. Energy storage system - A technical device with an automated control system designed for accumulation, storage and supply of electricity, as well as interconnected facilities and infrastructure technologically necessary for its operation in accordance with the legislation of the Republic of Kazakhstan.

12. Financial Settlement Center for the support of renewable energy sources - A legal entity designated by the authorized body, which is a party to purchase agreement of power (PPA) generated by renewable energy sources and waste-to-energy facilities in accordance with the legislation of the Republic of Kazakhstan that was in force prior to the date of adoption of this Law.

13. Grid connection point – The place where the energy producing organization's renewable energy facility physically connects with the energy transmission organization's electric grid.

14. Land use design – The scheme (plan) of a land plot, including information on the area of the land plot, its boundaries and location, on the adjacent land owners and land users, and on land plots' encumbrances and easements.

15. Minimum permissible volume of installed capacity – The capacity volume below which the participant is not ready to implement the construction of a new renewable energy facility.

16. Power Purchase Agreement (PPA) - A contract for the purchase of electricity from an energy producing organization that uses renewable energy sources, at auction prices signed between the FSC and an energy producing organization that uses RES.

17. Ranked schedule – The list of bids of the auction participants arranged in ascending order of bid prices.

18. Register of auction winners – a document compiled by the auction Organizer at the end of the auction confirming the results of the auction.

19. Renewable energy facilities – Technical devices intended to produce electric and/or thermal energy using renewable energy sources and their associated structures and infrastructure which are technologically necessary for the operation of the renewable energy facility and are on the books of the renewable energy facility owner.

20. Renewable energy sources – Energy sources that are continually replenished by natural processes, including the energy of sunlight, wind energy, hydrodynamic energy of water, geothermal energy (heat of the ground, ground water, rivers, and basins), and anthropogenic sources of primary energy (biomass, biogas and other fuel derived from organic waste) used to produce electric and/or thermal energy.

21. Reserve fund – A fund established by the Financial Settlement Center to support renewable energy sources. This money is kept in a special bank account and is used only to cover the Financial Settlement Center's cash deficiencies and debts to energy producing organizations that use renewable energy sources, that occur due to a failure to pay or late payment by conditional consumers for the electric energy produced by the renewable energy facilities.

22. Sanitary protection zone – A territory that separates special-purpose zones, as well as industrial organizations and other industrial, utility and warehouse facilities in a locality from nearby residential areas, housing and public buildings and structures to mitigate adverse impacts on them.

23. Single Buyer or FSC - A legal entity designated by the authorized body that performs centralized purchase of the service for maintaining the readiness of electric capacity and

centralized provision of the service for ensuring the readiness of electric capacity to carry the load in accordance with the procedure stipulated by the Law on Electric Power Industry.

24. Standby letter of credit – A bank's obligation to pay the beneficiary of the letter of credit a certain amount upon the occurrence of an event (failure of the debtor to fulfill his/her obligations to the beneficiary). The standby letter of credit is issued with the SWIFT system.

25. System operator - A national company (Kazakhstan Electricity Grid Operating Company JSC, KEGOC) that implements centralized operational and dispatch control, ensures parallel operation with the power systems of other states, maintains balance in the power system, provides system services, procures auxiliary services from the wholesale electric energy market players, and transmits electric energy through the national electric grid, maintains it, and ensures its operational readiness.

26. Tariff for the support of renewable energy sources – A tariff for the Financial Settlement Center's sale of electricity produced by renewable energy facilities set by the Financial Settlement Center in accordance with the rules for determining tariffs for the support of renewable energy sources approved by the authorized body.

27. Trading session – A process during which auction participants submit their bids, prices and auction volumes are determined, and the register of auction winners is generated.

28. Trading system – A complex of organizational, technical and software components that enable auctions via the Internet.

29. Unilateral auction – A form of auction where the winners are determined by successive selection of auction participants' bids from the ranked schedule of auction participants.

14. ANNEXES

ANNEX 1

STANDARD FORM CONTRACT FOR THE IMPLEMENTATION OF AN INVESTMENT PROJECT, WHICH PROVIDES FOR INVESTMENT AND THE PROVISION OF INVESTMENT PREFERENCES

Astana_____ (day, month, year)

This Investment Contract for the implementation of an investment project, which provides for investment and the provision of investment preferences, is concluded by _____ (name of the authorized body) represented by

_____,

(Surname, name and patronymic of the executive officer or acting executive officer of the body) acting pursuant to

_____ (statute or order) (hereinafter – authorized body) and,

performing_____

(Name of the legal entity of the Republic of Kazakhstan, number, date of state registration) implementation of the investment project, represented by

_____

(Surname, name and patronymic of the top manager or other authorized person) acting pursuant to (charter of power of attorney) (hereinafter – Investor), jointly referred to as Parties.

Whereas:

1) The legislation of the Republic of Kazakhstan on entrepreneurship, based on the Constitution of the Republic of Kazakhstan, identifies as one of the directions the creation of a favorable investment climate for economic development and stimulation of investments in the creation of new, expansion and/or modernization of existing production facilities using modern technologies, building the capacity of local staff and protecting the environment;

2) Authorized body has the rights, directly related to concluding and controlling the performance under the Investment Contract;

3) Authorized body and investor have agreed that an Investment Contract will regulate their mutual rights and responsibilities in the implementation of _____

Name of investment project:

_____

the authorized body and investor have concluded this Investment Contract, on the following.

1. Main terms

Main terms, used in this Investment Contract:

1) Investment contract – an agreement for the implementation of an investment project that provides for investment and investment preferences;

2) Revenues – income derived from or associated with investment activities, regardless of the form in which they are paid, including profits, dividends and other fees;

3) Intangible assets – intangible objects used for a long-term period (more than one year) to obtain total annual income;

4) Force majeure – circumstance of insuperable force, complicating the course or leading to the impossibility of further fulfillment of the Investment Contract (military conflicts, natural disasters, acts of God, etc.);

5) Third party – any entity that is not a Party to the Investment Contract;

6) Working program – Annex 1 to the Investment Contract, which identifies the schedule for implementation of the investment project until its commissioning;

7) Investment project – a set of measures that includes investments in the creation of new, and expansion and/or modernization of existing production facilities, including facilities created, expanded and/or modernized during the implementation of the public-private partnership project, including the concession project;

8) A priority investment project is an investment project for the:

creation of new production facilities, entailing investments by the legal entity in the construction of new production facilities (factory, plant, or unit) in the amount of not less than two million monthly calculation indices established by the law on the republic's budget and acting as of the date of filing of an application for investment preferences;

expansion and/or modernization of existing production facilities, entailing investments by the legal entity in the amount of not less than five million monthly calculation indices established by the law on the republic's budget and acting as of the date of filing an application for investment preferences in the modernization of fixed assets (renovation, reconstruction, modernization) of existing production facilities;

2. Subject of the Investment Contract

The subject of this Investment Contract is to provide the investor with investment preferences stipulated by the legislation of the Republic of Kazakhstan on entrepreneurship, within the framework of the investment project.

Investor:

1) The following types of investment preferences are granted for an investment project (including a priority investment project):

exemption from customs duties when importing technical equipment and its components for the term of the Investment Contract, but not more than 5 (five) years from the date of registration of the Investment Contract according to Annex 2 to this Investment Contract;

Exemption from customs duties when importing spare parts for technical equipment for a period of up to 5 (five) years depending on the volume of investments in fixed assets according to Annex 3 to this Investment Contract;

exemption from customs duties when importing raw materials and (or) materials for a period of 5 (five) years, according to Annex 3 to this Investment Contract, from the date of commissioning of fixed assets under the working program;

exemption from value added tax on imports of raw materials and (or) materials for a period of 5 (five) consecutive years starting from the 1st day of the month in which the fixed assets provided for in the working program are put into operation, according to Annex 4 to this Investment Contract;

State in-kind grant in the form of: _____ on the right to _____ with subsequent _____, in the case of fulfilling investment obligations in accordance with the Investment Contract;

2) The following types of investment preferences are provided under the priority investment project:

Tax preferences:

For the creation of new industrial enterprises:

reduction of corporate income tax on income derived from the implementation of priority activities specified in the Investment Contract in the amount of 100 percent, starting from January 1 of the year

in which an Investment Contract was concluded for the implementation of the priority investment project and ending no later than ten consecutive years, which are calculated starting from January 1 of the year following the year in which the Investment Contract for the implementation of the priority investment project was concluded;

application of a 0 percent rate to the rates of land tax starting from the 1st day of the month in which the Investment Contract is concluded and ending no later than 10 (ten) consecutive years, which are calculated starting from 1 January of the year following the year in which the Investment Contract for the implementation of the priority investment project is concluded;

calculation of property tax at the rate of 0 percent to the tax base starting from the 1st day of the month in which the first asset is accounted for as fixed assets in accordance with International Financial Reporting Standards and (or) requirements of the legislation of the Republic of Kazakhstan on accounting and financial statements, and ending no later than 8 (eight) consecutive years, which are calculated starting from 1 January of the year following the year in which the first asset is accounted for as fixed assets in accordance with International Financial Reporting Standards and (or) requirements of the legislation of the Republic of Kazakhstan on accounting and financial statements;

for expansion and/or modernization of existing industrial enterprises:

reduction of corporate income tax on revenues received from the implementation of priority activities specified in the Investment Contract by 100 per cent, starting from 1 January of the year following the year in which the last fixed asset producing products under the Investment Contract for the implementation of the priority investment project is put into operation and ending no later than 3 (three) consecutive years, which are calculated from 1 January of the year following the year in which the last fixed asset producing products is put into operation, and ending no later than 3 (three) consecutive years, which are calculated from 1 January of the year following the year in which the last fixed asset producing products is put into operation under the Investment Contract for the implementation of the priority investment project;

for expansion and/or modernization of existing industrial enterprises with stage-by-stage commissioning of fixed assets for manufacturing products, stipulated in the Investment Contract for implementation of priority investment projects:

reduction of corporate income tax on income derived from the implementation of priority activities specified in the Investment Contract in the amount of 100 percent, starting from January 1, following the year in which the fixed asset was commissioned, which manufactures products under the Investment Contract for the priority investment project and ending no later than three consecutive years, which are calculated starting from January 1 of the year following the year in which the fixed asset was commissioned, which manufactures products under the Investment Contract for the priority investment project.

3. Purpose of the Investment Contract

This Investment Contract establishes the legal framework for the contractual relationship between the authorized body and the investor in accordance with applicable law to provide investment preferences in the implementation of

_____

(Investment or priority investment project) and performing

_____

(Name of priority activity type)

4. Object of investment activity

Investment activity object under this contract is

_____ name of the investment project, located at _____,

including: (address)

Investments into fixed assets:

No.	Cost items	Amount without value added tax (thousands KZT)
Investments into fixed assets		
1		
2		
Investments into intangible assets		
3		
4		
	Total:	

5. Rights of the Parties

The authorized body has the right to:

1) within the delegated authority representing the Republic of Kazakhstan during negotiations with the investor;

2) determine the conditions and the procedure for concluding and terminating an Investment Contract, and concluding and registering an Investment Contract;

3) control the implementation of the investment project, including requiring the investor to report regularly in accordance with paragraphs 19, 20 and 21 of this Investment Contract for the fulfillment of the terms of the Investment Contract, and to request other information relating to the investment project;

4) assist in ensuring the guaranteed order specified in Annex 6 to this Investment Contract by interested legal entities;

5) other, stipulated by the regulation on the authorized body and legislation of the Republic of Kazakhstan.

The investor has the right to:

1) take any actions that do not contradict the terms of the Investment Contract and the current legislation of the Republic of Kazakhstan, for the implementation of the investment project;

2) at its own discretion, use the income received from its activities after payment of taxes and other mandatory payments to the budget in accordance with the legislation of the Republic of Kazakhstan;

3) open bank accounts in the national currency and/or foreign currency in banks in the territory of the Republic of Kazakhstan in accordance with the banking and currency legislation of the Republic of Kazakhstan;

4) attract foreign labor for the implementation of the priority investment project following the list of occupations and numbers in accordance with Annex 7 to this Investment Contract.

6. Responsibilities of the Parties

The authorized body within its competence undertakes:

1) by means of concluding this Investment Contract, to provide investment preferences;

2) to assist in the settlement of investment disputes with the participation of the investor in the pre-trial manner.

The investor undertakes to:

1) carry out the investments specified in clause 5 of this Investment Contract and to commission fixed assets in accordance with the work program;

2) comply with the provisions of this Investment Contract when implementing an investment project;

3) not change the type of activity specified in clause 4 of this Investment Contract and not violate the terms of the investment project for which investment preferences were granted;

4) introduce continuous training systems for Kazakh specialists and carry out work to improve their skills;

5) provide information on the implementation of the investment project requested by the authorized body and comply with the deadline for submitting reports in accordance with paragraphs 19, 20 and 21 of this Investment Contract;

6) during the term of the Investment Contract, not alienate or change the purpose of the state full-scale grant and property acquired in accordance with the work program of the Investment Contract;

7) during the validity of the Investment Contract, use spare parts for technical equipment, raw materials and/or materials imported in accordance with Annex 3 to this Investment Contract for carrying out the activities specified in clause 4 within the framework of this Investment Contract;

8) on its part to ensure the withdrawal of the state and (or) quasi-state sector entity from the founders and (or) participants (shareholders) of the investor within 5 (five) years from the date of registration of the Investment Contract, and for priority investment projects in the machine building industry, including the production of castings, within 20 (twenty) years from the date of registration of the Investment Contract.

The provisions of this Subparagraph shall not apply when a quasi-state sector entity, in which the share of the state and (or) quasi-state sector entity as a founder and (or) participant (shareholder) of the investor is less than 50 percent, carries out its activities within the framework of the implementation of a priority investment project for coalbed methane production.

7. Taxes and duties

The investor undertakes to pay taxes and other mandatory payments to the budget in accordance with the current tax legislation of the Republic of Kazakhstan.

8. Force majeure

1) Neither Party shall be liable for any failure to fulfill any obligations under the Investment Contract if such failure or delay in performance is caused by insurmountable circumstances (hereinafter, force majeure).

2) Force majeure includes force majeure circumstances, i.e., extraordinary and unavoidable circumstances under the given conditions (acts of God, military actions, etc.).

3) In case of full or partial suspension of works under an Investment Contract caused by force majeure circumstances, the period for carrying out these works is extended, by making changes to the work program for the duration of the force majeure and resumes from the moment of the termination of force majeure.

4) In the event of force majeure circumstances, the Party affected by them shall notify the other Party within 15 working days from the date of their occurrence by giving written notice specifying the date of the beginning of the event and describing the force majeure circumstances.

5) In the event of force majeure circumstances, the Parties shall immediately conduct negotiations to find a solution to the current situation and use all means to minimize the consequences of such circumstances.

9. Confidentiality

1) In accordance with the legislation of the Republic of Kazakhstan, parties observe the confidentiality conditions (according to clause 17 of this Investment Contract) for all documents, information and reports related to the work on the implementation of this Investment Contract, during the period of its validity.

2) Neither Party, without the written consent of the other Party, shall have the right to disclose information relating to the content of the Investment Contract or other information considered confidential and related to the implementation of the investment project, except for the following cases, when:

1) information is used in course of judicial proceedings;

2) information is provided to third parties providing services to one of the Parties of the Investment Contract, provided that such third party assumes the obligation to comply with the confidentiality of such information and use it only for the purposes established by the Parties and for the period specified by the Parties;

3) information is provided to a bank or other financial organization from which the Party receives investment funds under the Investment Contract, provided that such bank or financial institution assumes the obligation to comply with the confidentiality of such information;

4) information is provided to the tax authorities or other authorized state bodies of the Republic of Kazakhstan who have access to any information, including bank secrecy, relating to any bank accounts of the investor, including those opened with foreign banks outside the Republic of Kazakhstan;

5) the authorized body publishes in the mass media regulatory legal acts relating to the implementation of the investment project under which the Investment Contract is concluded. At the same time, the authorized body is entitled to publish only information on the amount of investments, the region of implementation, the number of jobs created and the name of the investment project.

10. Control over compliance with the terms of the Investment Contract

Control over compliance with the terms of the Investment Contract is carried out by the authorized body in the following forms:

1) in-house audit – control exercised by an authorized body based on the examination and analysis of reports submitted in accordance with Paragraphs 19, 20 and 21 of the present Investment Contract;

2) site visits to the object of investment activities, including consideration of the documents on the execution of section 1 of the work program and conditions of the Investment Contract.

After the conclusion of the Investment Contract, the investor submits semi-annual reports on the implementation of the Investment Contract, no later than July 25 and January 25, in accordance with the form established by the authorized body, with the explanation of cost items stipulated in the work program, with the documents confirming the commissioning of fixed assets, and the use of spare parts for process equipment, raw materials and/or material.

To confirm the condition for the exit of the state and/or a quasi-public sector entity from the list of founding members and/or participants (shareholders), the investor submits to the authorized body a copy of the charter, certified by the signature of the executive officer and the investor's seal (if any), within thirty calendar days after expiry of the term for leaving the list of the founding members (or) participants (shareholders) of a legal entity of the Republic of Kazakhstan.

After the completion of the work program, a legal entity of the Republic of Kazakhstan that has concluded an Investment Contract within two months submits to the authorized investment body an audit report that must contain the following:

1) information on the performance of investment obligations under the work program;

2) details of fixed assets acquired in accordance with the work program;

3) a consolidated register of documents confirming the implementation of the work program;

4) information on the fulfillment of the terms of the Investment Contract.

Changes in the annexes to the Investment Contract may be made by agreement of the Parties once a year.

The inspection, with a visit to the investment activity site, is carried out within six months after the commissioning of fixed assets subject to the completion of the work program.

Based on the results of the inspection, the representative of the authorized body and the executive officer of the investor sign, according to the form established by the authorized body, the act of the current state of execution of the work program of the Investment Contract.

If the investor fails to fulfill its obligations under the Investment Contract and if the investor fails to provide documents substantiating the possibilities for further implementation of the investment project, the authorized investment body shall terminate the Investment Contract early and unilaterally within three months from the date of the notification.

In case of termination of the Investment Contract, the said legal entity pays the amount of taxes and customs duties not paid to the budget as a result of investment preferences granted under the Investment Contract.

In the event that, based on the results of the inspection conducted by the authorized body, it is established that technical equipment, components, spare parts imported for the implementation of the investment project and exempt from customs duties, raw materials and/or materials were not put into operation or not were used, the investor, who did not pay the amount of customs duties due to investment preferences granted under the Investment Contract, pays them in part of unused equipment, components, spare parts, raw materials and/or other materials

In case of non-fulfilment of the condition on withdrawal of the state and (or) quasi-state sector entity from the founders and (or) participants (shareholders), application of investment preferences shall be suspended until its (their) complete withdrawal from the founders and (or) participants (shareholders) of the investor for a period not exceeding one year.

Failure to fulfil the condition of withdrawal of the investor from the founders and (or) participants (shareholders) during the suspension period entails early termination of the Investment Contract and return of previously granted investment preferences.

Information on the termination of the Investment Contract for protecting the economic interests of the state is sent to the following bodies:

1) to the state revenue bodies, and when necessary, to other government bodies, which will take proper measures;

2) under Investment Contracts, according to which a state in-kind grant was granted, to state revenue bodies, authorized bodies for managing state property and/or land resources, as well as local executive bodies.

11. Dispute resolution

1) The Parties will make every effort to resolve all disputes and disagreements related to the implementation or interpretation of any of the provisions of the Investment Contract, by negotiating with each other.

2) If the Parties fail to reach an agreement within two months from the date of receipt of a written appeal of any of the Parties to the other Party, disputes may be resolved in the Astana International Financial Center Court, the International Arbitration Center of the Astana International Financial Center or the judicial authorities of the Republic of Kazakhstan, as well as arbitrations determined by agreement of the Parties.

3) The parties are not exempted from the fulfillment of the obligations established by the Investment Contract until the disputes and disagreements are fully resolved.

12. Investment contract stability guarantees

1) The investor is granted full and unconditional protection of rights and interests, which is ensured by the Constitution of the Republic of Kazakhstan, the Entrepreneurial Code of the Republic of Kazakhstan and other normative legal acts of the Republic of Kazakhstan, as well as international treaties ratified by the Republic of Kazakhstan.

2) The investor has the right to compensation for damage to him as a result of the issuance by government bodies of acts that do not comply with the laws of the Republic of Kazakhstan, as well as illegal actions (inaction) of officials of these bodies in accordance with the civil legislation of the Republic of Kazakhstan.

3) he Republic of Kazakhstan guarantees the stability of the terms of contracts concluded between investors and state bodies of the Republic of Kazakhstan, except for cases when amendments to contracts are made by agreement of the Parties.

The present guarantees do not cover the following:

1) changes in the legislation of the Republic of Kazakhstan and/or the entry into force and/or changes in international treaties of the Republic of Kazakhstan, which change the procedure and conditions of import, manufacturing, and sale of excisable goods;

2) changes and additions that are made to the laws of the Republic of Kazakhstan in order to ensure national security, public order, public health and morality.

13. Applicable law

The Investment Contract and other agreements concluded on the basis of the Investment Contract shall be governed by the legislation in force in the Astana International Financial Center or the Republic of Kazakhstan.

14. Term and entry into force of the Investment Contract

1) The term of the Investment Contract is determined by the period of investment preferences. The work schedule for the work program must end no later than nine months before the expiration of the Investment Contract.

2) The present Investment Contract comes into force from the moment of its registration with the authorized body.

3) The Investment Contract shall be terminated upon the expiry of _____, except for the cases, (date) specified in Section 16 of the Investment Contract.

15. Amendments and additions to the Investment Contract

The parties have the right to introduce amendments and additions to the Investment Contract by mutual consent in accordance with the legislation of the Republic of Kazakhstan.

16. Termination of the Investment Contract

1) The effect of investment preferences is terminated after the expiration of the Investment Contract or may be terminated before the expiration of such period in the order established by this Paragraph.

This Investment Contract can be terminated:

1) by agreement of the parties;

2) unilaterally.

2) If the Investment Contract is terminated early upon the initiative of a legal entity of the Republic of Kazakhstan that has concluded an Investment Contract, the said legal entity unilaterally pays the amounts of taxes and customs duties not paid due to investment preferences granted under the Investment Contract.

3) In case of early termination of the Investment Contract by agreement of the Parties, a legal entity of the Republic of Kazakhstan that has concluded the Investment Contract shall pay the amounts of taxes and customs duties not paid as a result of investment preferences granted under the Investment Contract.

4) In case of early termination of the Investment Contract, the investor who concluded the Investment Contract shall return the property in kind provided to it as a state in-kind grant or its original value as of the date of transfer in accordance with the terms and conditions of the Investment Contract.

5) The return of the state in-kind grant shall be made by the investor who concluded the Investment Contract within thirty calendar days after the decision of the authorized investment body on early termination of the Investment Contract is made.

17. Language of the Investment Contract

1) The text of the Investment Contract, amendments, annexes, additional documents attached to this Investment Contract shall be drawn up in the state and Russian languages. All copies are equally authentic and have the same legal force, unless otherwise provided for by the terms and conditions of the Investment Contract.

2) The parties agree that _____ language will be used as a language of communication. From the day the Investment Contract enters into force, information on the implementation of the investment project will be compiled in _____ language.

18. Additional provisions

1) Reorganization of legal entity-investor is done according to the legislation of the Republic of Kazakhstan with written consent of the authorized body.

2) Notifications and reports are presented in person or are sent to the following address by certified mail:

Authorized body: _____

(Name, official address, phone numbers)

Executive officer of authorized body: _____

(surname, first name, patronymic (if available))

Investor: _____

(Name, legal and actual address, phone numbers, e-mail)

Executive officer of the investor: _____

(surname, first name, patronymic (if available))

3) Should the addresses on the Investment Contract change, each of the Parties shall notify the other Party in writing within two weeks.

4) If there is any discrepancy between the provisions of the annexes and the Investment Contract itself, the latter is of fundamental importance.

5) This Investment Contract was signed on ___ _____ ____ in Astana, Republic of Kazakhstan, by authorized representatives of the Parties.

Authorized body:	Investor:
Signature_____ stamp here	Signature_____ stamp here

ANNEX 2

THE AUCTION SCHEDULE FORM

Auction date	Auction time (Astana time)	The deadline for acceptance of documents for inclusion in the register of auction participants	UPS Zone	RES Type	Auctioned installed capacity, MW		Ceiling auction price, tenge/kWh	Required commissioning date, PPA validity period	Financial guarantee for participation in the auction calculated based on 1 kW of project installed capacity	PPA bond calculated based on 1 kW of project installed capacity
					Small – from 0.1 to 10 MW inclusive (for WPP – from 0.75 MW)	Large – over 10 MW				

Table 1. Information on the Reserved Land Plots

No.	Region	District	Settlement	Area, ha	Land category

Table 2. Information on the Possibility of Connecting to the Electrical Grids of Energy Transmission Organizations with an Indication of the Maximum Permissible Capacity at the Electrical Grid's Connection Points and the Number of Possible Connections

Energy transmission organization	Region	District	Power transmission line	Substation		Limitation on the connected capacity (maximum permissible volume of installed capacity), MW	Limitation on the number of new connections
				Name, coordinates	Buses		

ANNEX 3

EXAMPLES OF DETERMINING AUCTION PRICES FOR DIFFERENT DEMAND AND SUPPLY SCENARIOS

Example 1. The demand and supply graphs **do not overlap.** The number of participants who submitted bids for sale is **less than two** (Figures 1 and 2). In this case, the transactions are impossible, and the auction is declared invalid.

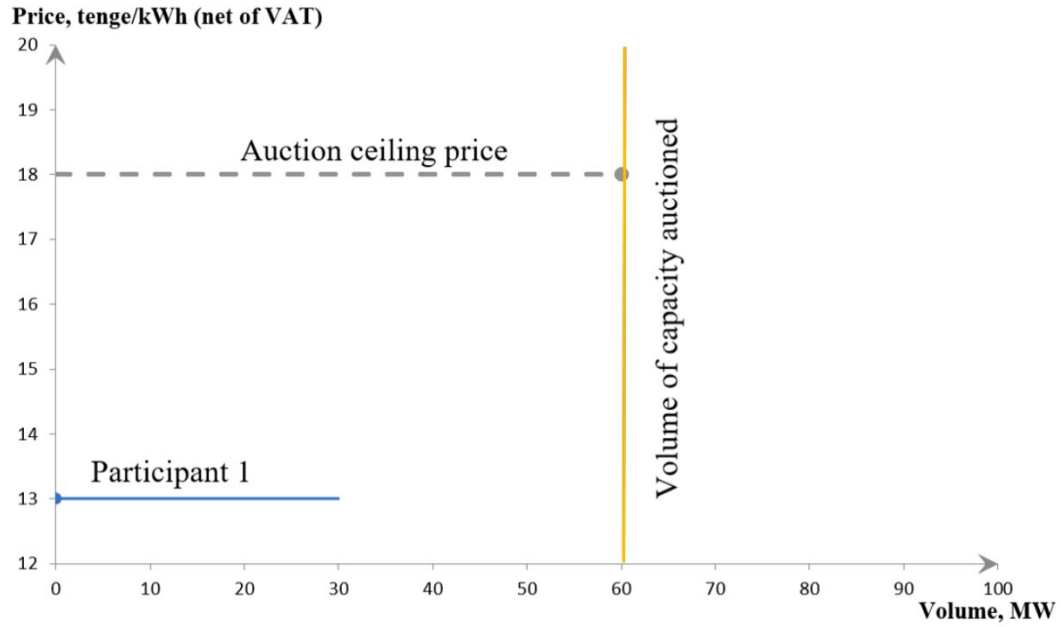

Figure 1

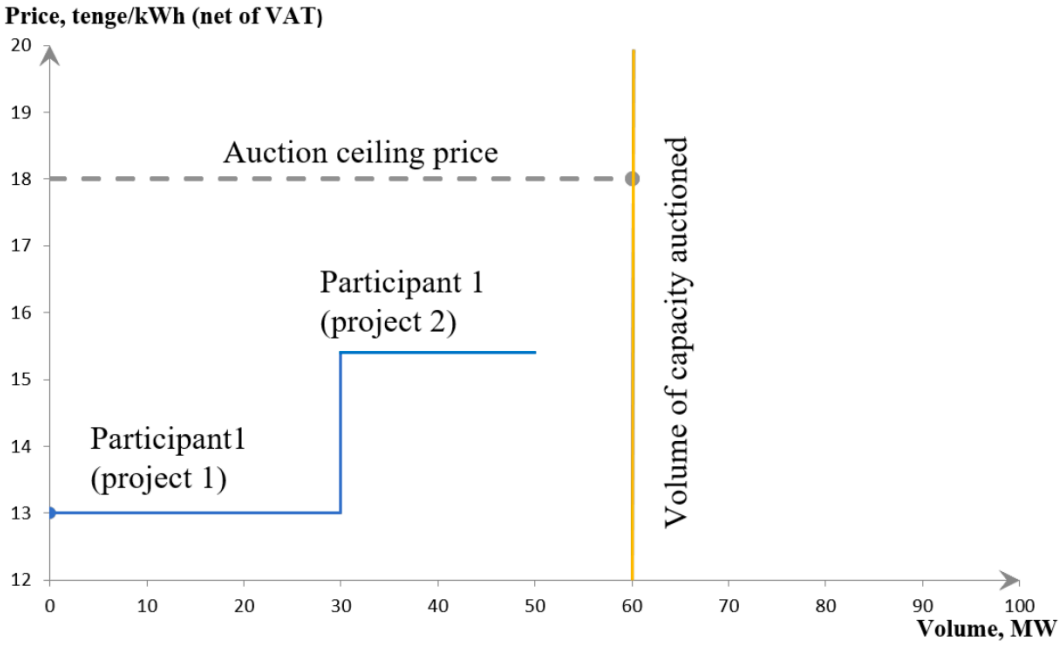

Figure 2

Example 2. The demand and supply graphs **overlap**. The number of participants who submitted bids for sale is **less than two** (Figures 3 and 4). In this case, the transactions are impossible and the auction is declared invalid.

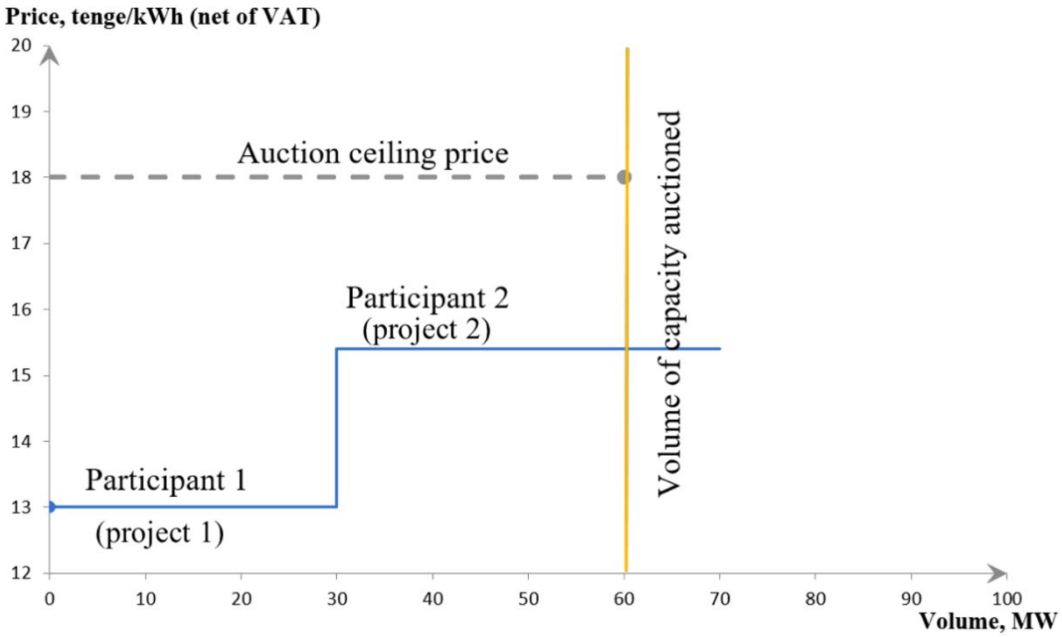

Figure 3

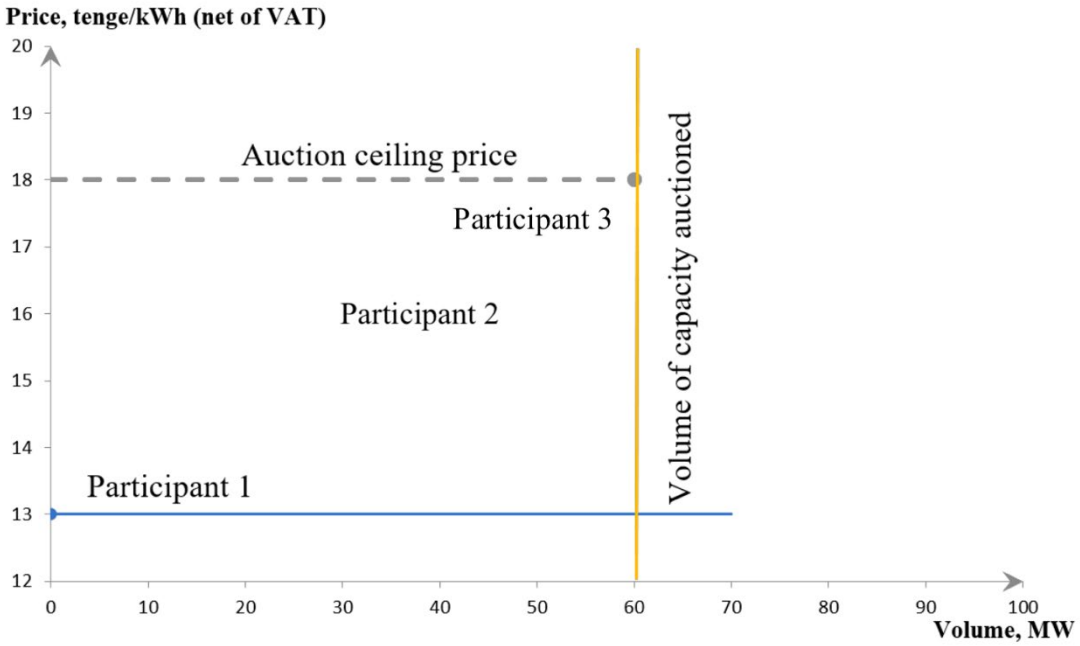

Figure 4

Example 3. The demand and supply graphs **do not overlap**. The total installed capacity volume of the auction bids for sale is **less than 130%** of the installed capacity demand volume (Figure 5). In this case, transactions are impossible and the auction is declared invalid.

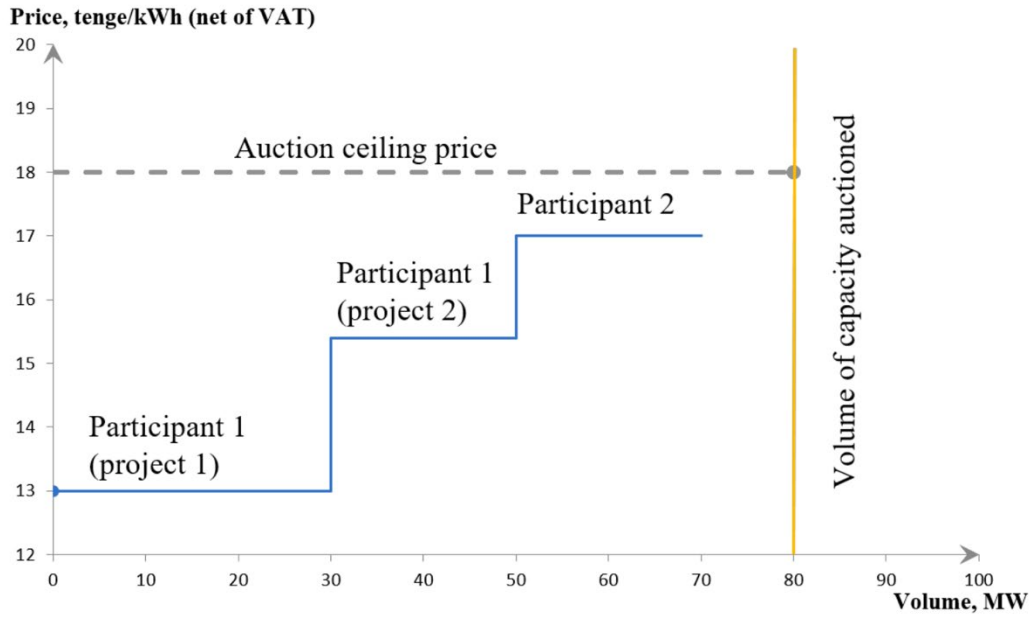

Figure 5

Example 4. The demand and supply graphs **overlap.** The total installed capacity volume of the bids for sale is **less than 130%** of the installed capacity demand volume (Figure 6). In this case, transactions are impossible and the auction is declared invalid.

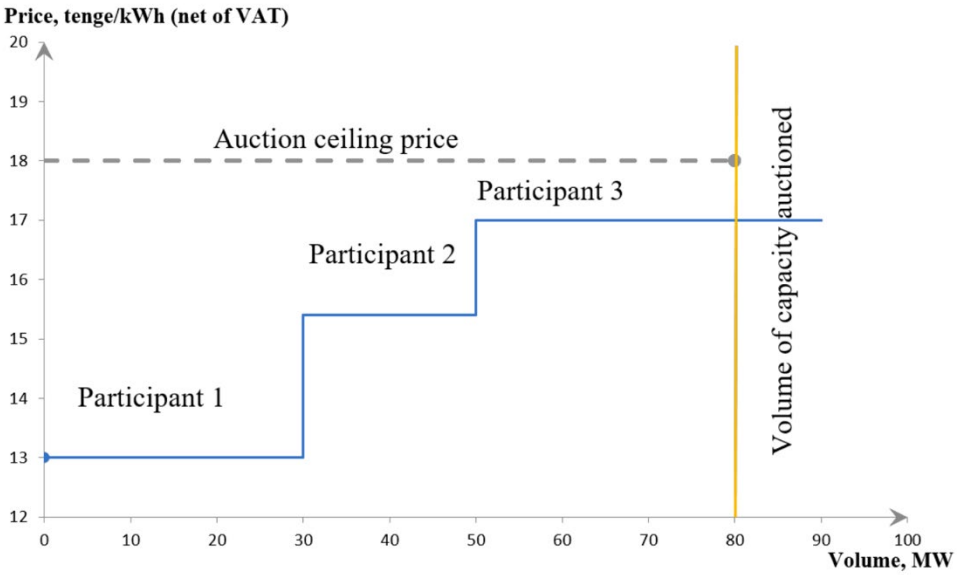

Figure 6

Example 5. The demand and supply graphs **overlap**. The number of participants who submitted auction bids for sale is **at least two**. The total installed capacity volume of the auction bids for sale is **not less than 130%** of the installed capacity demand volume. The satisfied volume of the last selected auction bid is **less than 50%** of its declared volume (Figure 7).

In this case, the second bid will be **partially** satisfied. The auction prices are determined based on the prices indicated in the auction bids submitted for sale.

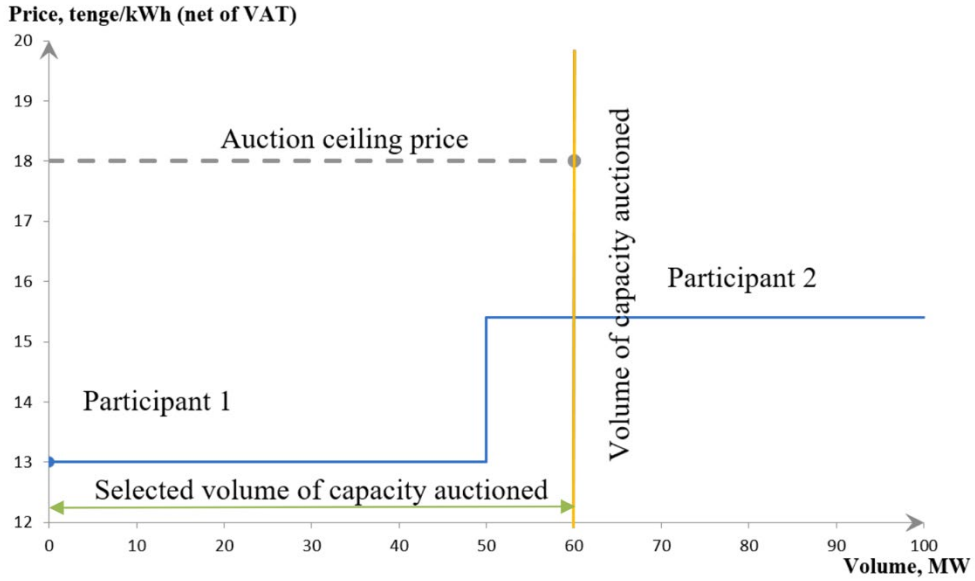

Figure 7

Example 6. The demand and supply graphs **overlap**. The number of participants who submitted bids for sale is **at least two**. The total installed capacity volume of the bids for sale is **not less than 130%** of the installed capacity demand volume. The satisfied volume of the last selected bid is **50% or more** of its declared volume (Figure 8). In this case, the installed capacity volume to be selected will be increased by the amount of the unsatisfied remaining volume of the last selected bid from the ranked schedule. The auction prices are determined based on the prices indicated in the bids submitted for sale.

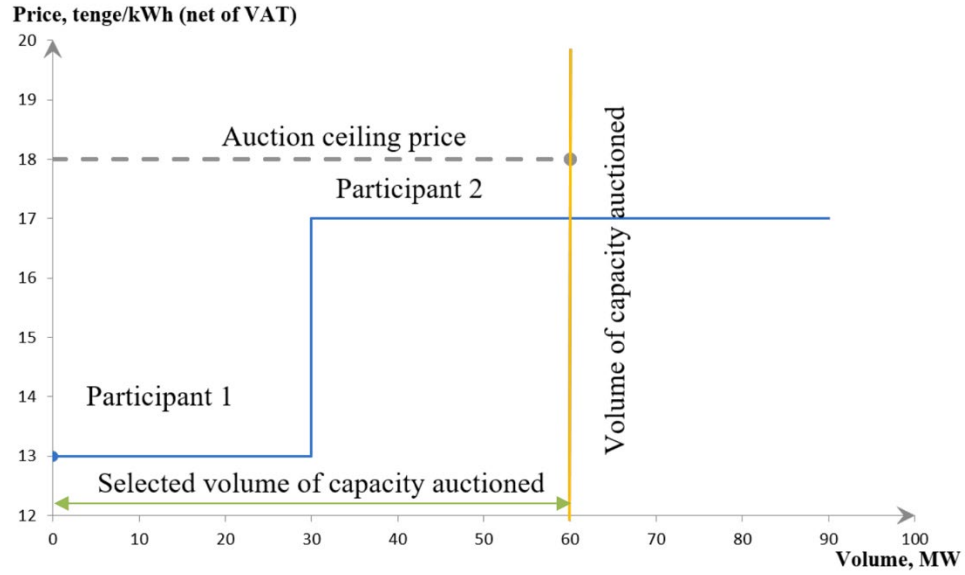

Figure 8

Example 7. The demand and supply graphs **overlap**. The number of participants who submitted bids for sale is **at least two**. The total installed capacity volume of the bids for sale is **more than 130%** of the installed capacity demand volume.

In the preliminary list of winners there are several preliminary satisfied bids which indicate the same connection point, the technical specifications of which cannot be met because the total volume of these bids exceeds the maximum permissible capacity at this connection point. In this case, the bids are excluded from the preliminary list of winners in descending order of price, until the condition for the maximum permissible installed capacity for this connection point is met (Figure 9).

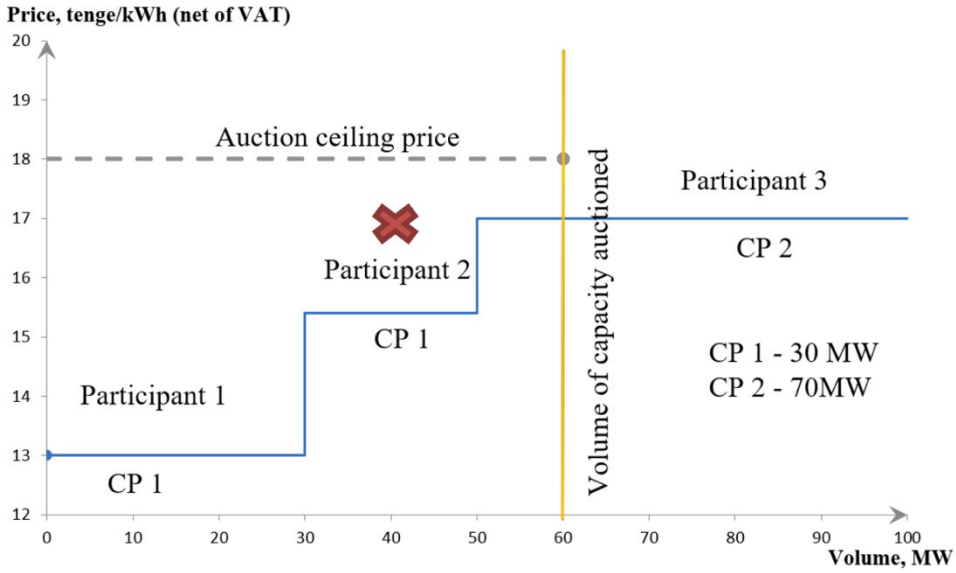

Figure 9

The satisfied volume of the last selected bid is **50% or more** of its declared volume. The installed capacity volume to be selected will be increased by the amount of the unsatisfied remaining volume of the last selected bid from the ranked schedule. Auction prices are determined based on the prices indicated in the submitted bids for sale (Figure 10).

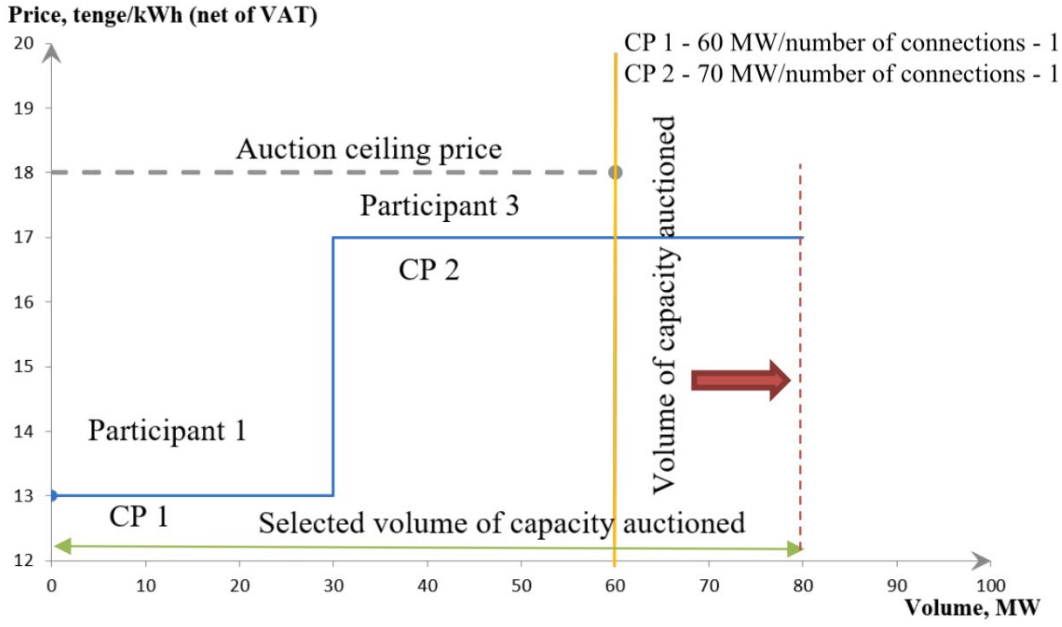

Figure 10

Example 8. The demand and supply graphs **overlap**. The number of participants who submitted bids for sale is **at least two**. The total installed capacity volume of the bids for sale is **not less than 130%** of the installed capacity demand volume.

In the preliminary list of winners there are several preliminarily satisfied bids which indicate the same connection point, the technical specifications of which cannot be met because the total volume of these bids exceeds the maximum permissible capacity at this connection point. In this case, the bids are excluded from the preliminary list of winners in descending order of price, until the condition for the maximum permissible installed capacity for this connection point is met (Figure 11).

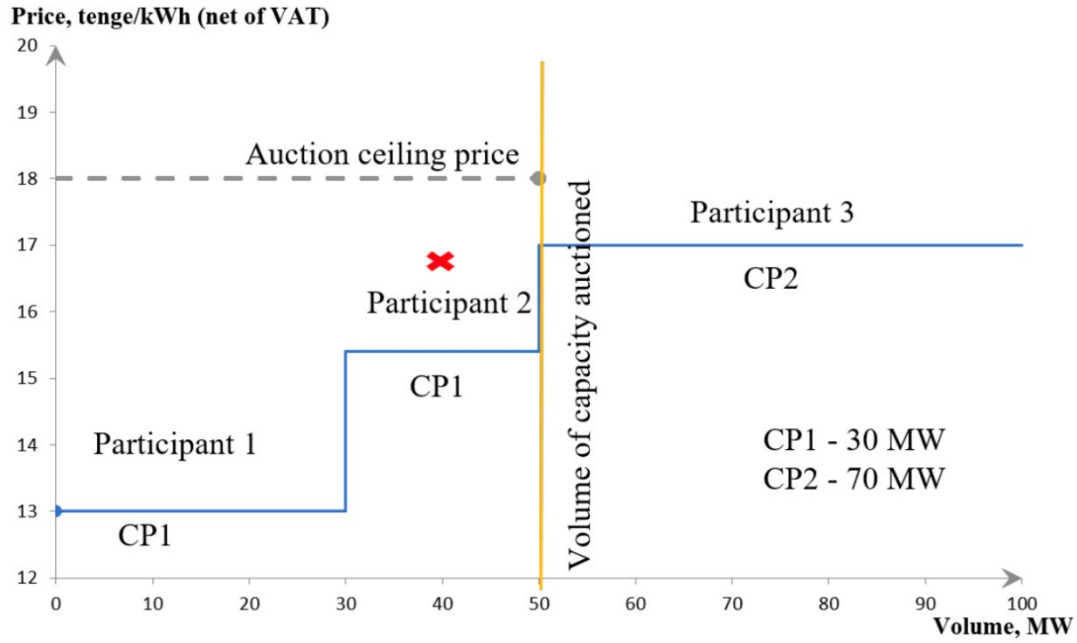

Figure 11

The satisfied volume of the last selected bid is **less than 50%** of its declared volume. The installed capacity volume to be selected will be decreased by the amount of the satisfied volume of the last selected bid from the ranked schedule. Auction prices are determined based on the prices indicated in the submitted bids (Figure 12).

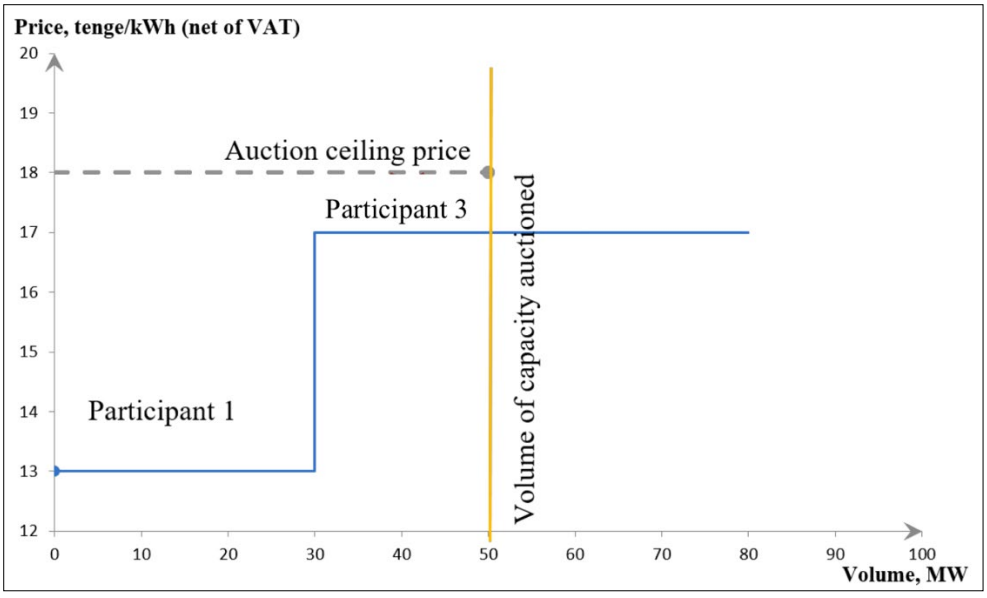

Figure 12

Example 9. The demand and supply graphs **overlap**. The number of participants who submitted bids for sale **is at least two**. The total installed capacity volume of the bids for sale is **not less than 130%** of the installed capacity demand volume. In the preliminary list of winners there are several preliminarily satisfied bids which indicate the same connection point, the technical specifications of which cannot be met because the total volume of these bids exceeds the maximum permissible capacity at this connection point.

In this case, the bids are excluded from the preliminary list of winners in descending order of price, until the condition for the maximum permissible installed capacity for this connection point is met (Figure 13).

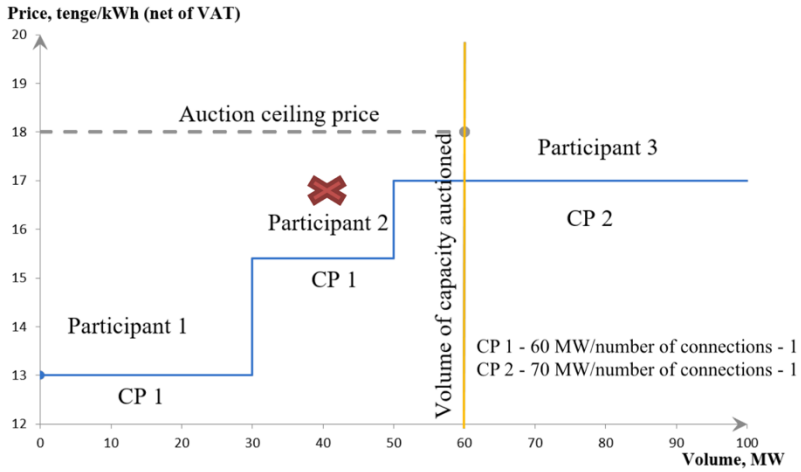

Figure 13

The satisfied volume of the last selected bid is **50% or more** of its declared volume. The installed capacity volume to be selected will be increased by the amount of the unsatisfied remaining volume of the last selected bid from the ranked schedule. Auction prices are determined based on the prices indicated in the submitted bids (Figure 14).

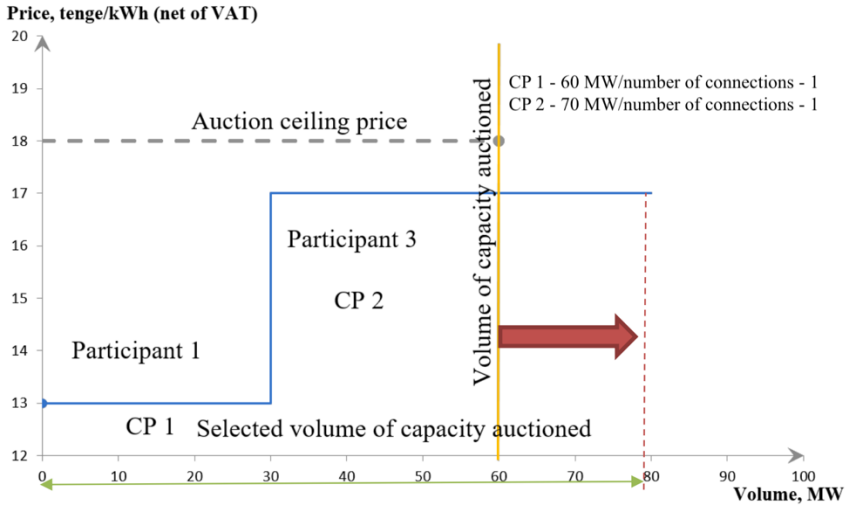

Figure 14

Example 10. The demand and supply graphs **overlap**. The number of participants who submitted bids for sale is **at least two**. The total installed capacity volume of the bids for sale is **not less than 130%** of the installed capacity demand volume. In the preliminary list of winners there are several preliminarily satisfied bids which indicate the same connection point, the technical specifications of which cannot be met because the total volume of these bids exceeds the maximum permissible capacity at this connection point. In this case, the bids are excluded from the preliminary list of

winners in descending order of price, until the condition for the maximum permissible installed capacity for this connection point is met (Figure 15).

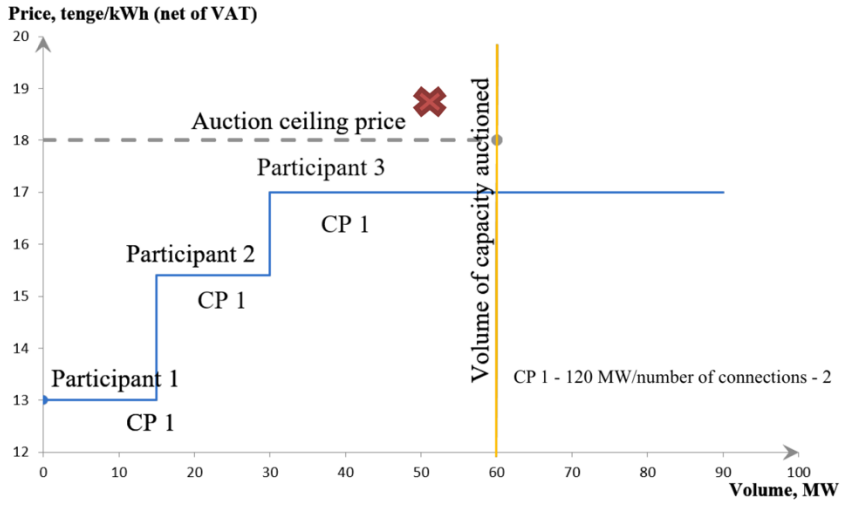

Figure 15

The installed capacity volume to be selected will be decreased by the amount of the satisfied volume of the last selected bid from the ranked schedule. Auction prices are determined based on the prices indicated in the submitted bids for sale (Figure 16).

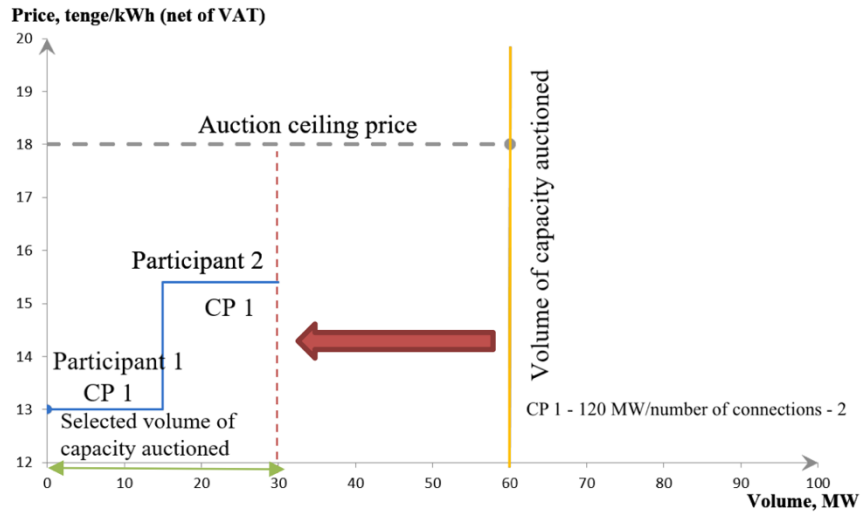

Figure 16

ANNEX 4

THE STANDARD FORM OF THE POWER PURCHASE AGREEMENT BETWEEN SINGLE ELECTRICITY BUYER AND ENERGY PRODUCING ORGANIZATION USING RENEWABLE ENERGY SOURCES AT AUCTION PRICES NO. _____

dated____ _____20___ _____

(place of agreement)

_____,

(specify the full name of Single Electricity Buyer)

Business Identification Number (BIN): _____,

represented by _____,

(specify the position and surname, name, patronymic (if any))

acting on the basis _____,

(specify the grounds of authority)

hereinafter referred to as the “Buyer”, on the one hand, and

_____,

(specify the full name of the organization)

Business Identification Number (BIN): _____,

represented by _____,

(specify the position and surname, name, patronymic (if any))

acting on the basis _____,

(specify the grounds of authority)

hereinafter referred to as the “Seller”, on the other hand, collectively referred to as the “Parties”, and individually “Party”, taking into account as follows:

1) The Law of the Republic of Kazakhstan “On Electric Power Industry” (hereinafter “the Law”);

2) The Law of the Republic of Kazakhstan “On Support of the Use of Renewable Energy Sources” (hereinafter “the Law on RES”);

3) Resolution of the Government of the Republic of Kazakhstan dated 27 March 2014 No. 271 “On Approval of Rules to Determine Feed-in Tariffs and Ceiling Auction Prices” (hereinafter “Rules to Determine Feed-in Tariffs and Ceiling Auction Prices”);

4) Order of the Minister of Energy of the Republic of Kazakhstan dated 20 February 2015 No. 106 “On Approval of the Rules of Organization and Functioning of the Wholesale Electricity Market” (registered in the Register of State Registration of Regulatory Legal Acts under No. 10531) (hereinafter “Wholesale Market Rules”);

5) The Order of the Minister of Energy of the Republic of Kazakhstan dated 02 March 2015 No. 164 “On Approval of the Rules for Centralized Purchase by Single Buyer of Electricity Produced by Renewable Energy Facilities and Waste-to-energy Facilities” (registered in the Register of State Registration of Regulatory Legal Acts under No. 10662) (hereinafter “the Rules”);

6) The Seller's application for conclusion of this Agreement (incoming No. _____ dated ___ _____ 20__) according to the Annex to the Rules, have concluded the Power Purchase Agreement between Single Electricity Buyer and energy producing organization using renewable energy sources at auction prices (hereinafter referred to as “the Agreement”) as follows.

1. Terms and Definitions

1. In this agreement the following basic concepts are used:

1) auction price - the price for the purchase of electric energy produced by the renewable energy facility and waste-to-energy facility by Single Electricity Buyer determined on the basis of auction results and not exceeding the level of the corresponding ceiling auction price;

2) commercial metering device – a technical device intended for commercial metering of electric capacity, electric or thermal energy, authorized for use in the order established by the legislation of the Republic of Kazakhstan;

3) financial organization - a legal entity carrying out entrepreneurial activity on provision of financial services;

4) regional dispatch center - a regional dispatch center of the system operator, operationally subordinated to the national dispatch center of the system operator and performing operational and dispatch functions for a certain region;

5) Automated Commercial Energy Metering System (hereinafter “ACEMS”) – a set of measuring instruments and a hardware and software complex for measuring, collecting, processing, storing and transmitting electric energy metering data.

Other terms used in this Agreement shall be applied in accordance with the legislation of the Republic of Kazakhstan on support of the use of RES (hereinafter “RES”) and Electric Power Industry.

2. The Scope of the PPA

2. According to the Law, the Buyer shall purchase RES electricity to cover the daily electricity consumption schedule, taking into account the technical expert assessment of the system operator, from the Seller in the amount of its planned electricity supply to the grid.

The Seller will produce electricity at the following RES facility:

1) type/capacity/zone - _____ (according to the list of energy producing organizations using RES);

2) the land plot(s) where the renewable energy facility is located – cadastral number: _____, total area of the land plot: _____ hectares;

3) total installed capacity of the generating equipment of the renewable energy facility, defined as the sum of nominal (specified in the nameplate data) capacities of the main generating equipment (for solar power plants - photovoltaic DC modules, for wind power plants, hydro power plants and biopower plants - AC electrical generators) based on nameplate data of the main generating equipment _____(MW);

4) the projected capacity factor of the renewable energy facility: _____;

5) the connection point to the electric grid: _____.

3. The price of electric energy under the PPA is the auction price, which is _____ (_____) per 1 (one) kilowatt hour of electric energy without including value-added tax. The annual indexation of the auction price is carried out in accordance with the procedure established by the Rules to Determine Feed-in Tariffs and Ceiling Auction Prices.

4. The change in the auction price as a result of indexation or the procedure of indexation of the auction price shall be formalized by signing an amendment to the PPA specifying the date the relevant changes enter into force, determined in accordance with the Rules to Determine Feed-in Tariffs and Ceiling Auction Prices.

3. Metering of volume and payment for electric energy

5. The volume of planned electricity supply to the grid is metered on the basis of applications submitted by the Seller and included in the daily electricity production-consumption schedule approved by the system operator.

6. Financial settlement of electricity imbalances from RES facilities shall be carried out by the Buyer in accordance with the legislation of the Republic of Kazakhstan.

7. In case of disputes, the final document for mutual settlements between the Parties shall be the daily electricity production-consumption schedule approved by the system operator.

8. Payment for the planned volume of electricity shall be made by the Buyer after the system operator approves the day-ahead electricity production-consumption schedule in accordance with the Wholesale Market Rules.

4. The rights and obligations of the Parties

9. The Seller is Obliged to:

1) to enter information on planned electricity sales volumes into the balancing electricity market system in accordance with the Wholesale Market Rules daily until 08:00 a.m. (Astana time);

2) on a monthly basis, not later than the fifth day of the month following the month of supply, provide the Buyer with a consignment note for the supply materials to third parties or other primary document and an invoice for the planned volume of electricity in accordance with the Wholesale Market Rules;

3) reconcile mutual settlements at least once every six months;

4) annually by the twentieth of December to send to the Buyer information on forecast volumes of electricity generation and supply to the grid for the coming year with a breakdown by months;

5) promptly notify the Buyer of changes in his name, legal address, actual location and other details required to fulfill the terms of the Agreement;

6) to ensure the operation of the ASEMS at its RES facility prior to the start of the comprehensive test of the RES facility. The ASEMS must be able to remotely transmit data to the regional dispatch centers of the system operator;

7) provide the Buyer with a copy of the certificate of acceptance of the scheme of commercial metering of electric energy, including the layout of the commercial and technical metering devices of the renewable energy facility, signed between the energy transmission organization and the Seller for the renewable energy facility in respect of which the Agreement is concluded within 10 (ten) working days from the date of signing of the certificate of acceptance of the scheme of commercial metering of electric energy and before the beginning of the comprehensive testing of the renewable energy facility;

8) provide a copy of the comprehensive testing program agreed by the system operator and a copy of the ACEMS commissioning act 10 (ten) calendar days before the beginning of the comprehensive testing;

9) provide the Buyer with ACEMS-related 18-bit identification codes 5 (five) working days before the start of the comprehensive testing;

10) to ensure compliance with daily electricity production schedules in accordance with the Electric Power Industry legislation of the Republic of Kazakhstan;

11) provide a copy of the act of taking readings of electricity commercial metering devices signed between the Seller and the energy transmission organization to the electrical grids of which the renewable energy facility was connected - no later than on the seventh day of the month following the month of supply;

12) provide the Buyer with a copy of the notice on the beginning of the construction and installation of the renewable energy facility that is the subject of the PPA to the state body responsible for national architectural and construction control: within 12 (twelve) months from the date of signing of the PPA for solar power plants, within 18 (eighteen) months from the date of signing of the PPA for wind and biogas power plants, and within 24 (twenty-four) months from the date of signing of the PPA for hydro power plants;

13) to provide the Buyer with a copy of the operational acceptance certificate of the RES facility in accordance with the legislation of the Republic of Kazakhstan in the field of architectural, urban planning and construction activities, in respect of which this Contract has been concluded - within 24 (twenty-four) months from the date of signing of this Agreement for solar power plants, within 36 (thirty-six) months for wind and biogas power plants, within 60 (sixty) months for hydro power plants.

At the same time, the indicated terms are prolonged for 1 calendar year if before the expiration of the term stipulated in the first part of this Subparagraph, the authorized organization (person) for technical supervision according to the legislation of the Republic of Kazakhstan on architecture, urban planning and construction, will provide a confirmation that at least 70% of the total scope of renewable energy facility construction and installation has been completed;

14) provide the Buyer with a copy of the act of delineation of balance sheet attribution and operational responsibilities of the parties signed between the energy transmission organization and the Seller for the renewable energy facility for which the Agreement is concluded – withinn10 (ten) working days from the date of signing the act of delineation of balance sheet attribution and operational responsibilities of the parties and before the beginning of the comprehensive testing of the renewable energy facility;

15) at the request of the Buyer, provide information on the progress of the construction of the renewable energy facility;

16) provide the Buyer with the Agreement performance bond in the amount of _____ within 30 (thirty) calendar days from the date of signing of this Agreement in accordance with the requirements set forth in the Rules;

17) promptly notify the Buyer of the Seller's reorganization (merger, consolidation, division, separation, transformation);

18) to build a renewable energy facility using new generating units (that have never been in operation before);

19) at the request of the Buyer, provide information on the main characteristics of the primary resource of renewable energy used at the renewable energy facility for electricity production.

10. The Buyer is obliged to:

1) within 20 (twenty) calendar days from the date of receipt of the consignment note for the supply materials to third parties or other primary document from the Seller to sign it or, if he does not agree with the Seller's data on the volume of electricity supplied, within the same period send his written reasoned refusal to the Seller with mandatory attachment of documents confirming the validity of such refusal;

2) pay the Seller for the declared volume of electricity in the day-ahead electricity production-consumption schedule approved by the system operator in accordance with the procedure and within the terms specified in clause 8 of this Agreement;

3) reconcile mutual settlements at least once every six months;

4) promptly notify the Seller of changes in his name, legal address, actual location and other details required to fulfill the terms of the Agreement;

5) in case of commissioning of the RES facility within the terms specified in the first part of sub-Paragraph 13, Paragraph 9 of this Agreement, to return 100% (one hundred per cent) of the Agreement performance bond within 10 working days from the date of submission of the written request.

At the same time, in case of withholding 30% (thirty percent) of the amount of the Agreement performance bond in accordance with the procedure established by the Rules, 70% (seventy percent) shall be returned;

6) promptly notify the Seller of the Buyer's reorganization (merger, consolidation, division, separation, transformation);

11. The Seller has the right to:

1) demand the fulfillment of the terms of the Agreement by the Buyer;

2) carry out current or capital repairs of the RES facility, including replacement of the main generating equipment, provided that the total installed capacity of the generating equipment of the RES facility specified in this Agreement is not increased;

3) assign its existing and future rights and claims to the Buyer arising from this Agreement with notice to the Buyer prior to the conclusion of the relevant assignment agreement. At the same time, assignment of rights and claims stipulated by this Subparagraph shall be carried out after the authorized body responsible for management and inter-sectoral coordination in the field of support for the use of renewable energy sources (hereinafter “the authorized body”) makes appropriate changes to the List of energy producing organizations using renewable energy sources, with the provision by the Party accepting rights and claims under this Agreement of financial guarantee in accordance with Subparagraph 16 of Paragraph 9 of this Agreement, as well as with the conclusion of an appropriate agreement between the Buyer, the Seller and the Party accepting the rights and claims under this Agreement;

4) fully assign its rights and obligations under this Agreement to a third party in case of alienation of the RES facility to the same person. In this case, the rights and obligations under this Agreement shall be transferred to the third party simultaneously with the rights to the RES facility.

12. The Buyer has the right to:

1) demand the fulfillment of the terms of the Agreement by the Seller;

2) withhold the sum of overpayment from the sums due to the Seller under future payments if, following the results of the settlement of the disagreements between the Parties regarding the volume of the delivered electricity in the month of delivery, it will be discovered that the Buyer paid an extra sum to the Seller;

3) demand the fulfillment of other Sellers’ obligations in accordance with the Agreement and the legislation of the Republic of Kazakhstan on renewable energy sources and the electric power industry.

5. Liabilities of the Parties

13. If the Seller violates the deadline for providing a copy of the notification on the commencement of construction and installation works of the RES facility in accordance with Subparagraph 12 of Paragraph 9 of this Agreement for more than 6 months, the Buyer shall withhold 30 percent (thirty percent) of the amount of Agreement performance bond in accordance with the procedure established by the Rules, with a corresponding written notification to the Seller.

14. The Buyer shall withhold the Agreement performance bond in accordance with the procedure established by the Rules, with a corresponding written notification to the Seller in the following cases:

- If the Seller violates the deadline for submission of the copy of the operational acceptance certificate of the renewable energy facility according to part 1 of Subparagraph 13 of Paragraph 9 of this Agreement, the Buyer retains 100% (one hundred percent) of the Agreement performance bond according to the procedure established by the Rules and notifies the Seller in writing. At the same time if part of the Agreement performance bond is retained, according to Paragraph 13 of this Agreement, 70% (seventy percent) of the Agreement performance bond is retained according to the procedure established by the Rules;

- extension of the term provided for in part two of Subparagraph 13 of Paragraph 9 of this Agreement in the amount of 100 percent (one hundred percent) of the amount of the Agreement performance bond in accordance with the procedure established by the Rules, with a corresponding written notice to the Seller. At the same time if part of the Agreement performance bond is retained, according to Paragraph 13 of this Agreement, 70% (seventy percent) of the Agreement performance bond is retained according to the procedure established by the Rules;

- occurrence of the event specified in Paragraph 33 of this Agreement in the amount of 100 percent (one hundred percent) of the amount of the Agreement performance bond in accordance with the procedure established by the Rules, with a corresponding written notice to the Seller. At the same time if part of the Agreement performance bond is retained, according to Paragraph 13 of this Agreement, 70% (seventy percent) of the Agreement performance bond is retained according to the procedure established by the Rules;

- the Seller's refusal to fulfil the terms and conditions of this Agreement in terms of submitting documents within the terms stipulated in Subparagraph 13 of Paragraph 9 of the Agreement in accordance with the procedure established by the Rules.

15. For the delay in payments provided for in Paragraph 8 of this Agreement, the Buyer shall, upon the Seller's request, pay to the Seller a penalty in the amount of 0.1% (zero point one percent) of the overdue amount for each calendar day of delay, but not more than 10% (ten percent) of the overdue amount.

16. The Parties are liable for violation of obligations under this Agreement, in accordance with the legislation of the Republic of Kazakhstan and the terms of the Agreement.

17. The terms of the PPA may be amended only by mutual agreement of the Parties and formalized in writing.

18. The Buyer is not responsible for the deviation of the actual value of capacity factor from the projected value, as well as for the actions of third parties including but not limited to those associated with dispatching, transmission and distribution of electrical energy.

6. Force Majeure Circumstances

19. The Parties shall not be liable for failure to perform and/or improper performance of the terms of the Agreement if it was the result of force majeure circumstances.

20. A force majeure circumstance is an event hindering the implementation of the Agreement, which is beyond the control of the Parties, is not related to their miscalculation or negligence, and is of an unpredictable nature.

21. The Buyer's lack of a sufficient amount of money for any reason is not a force majeure circumstance and does not relieve the Buyer from the liability for late payments.

22. The Party affected by the force majeure circumstances is obliged to notify the other Party about the abovementioned circumstances, their type, reasons and possible duration within ten (10) calendar days from the onset of the force majeure circumstances, as well as confirming documents.

7. Anti-corruption (anti-corruption clause)

23. The Parties shall assume the responsibility to co-operate in preventing and combating corruption in the course of performance by the Parties of their obligations under this Agreement.

24. In the performance of their obligations under this Agreement, the Parties, including their affiliates, employees or intermediaries, undertake:

1) not to pay, offer to pay or authorize the payment of any money or thing of value, directly or indirectly, to any person for the purpose of influencing that person's actions or decisions for personal gain in relation to the subject matter of this Agreement;

2) not to commit offences that create conditions for corruption, as well as corruption offences related to the unlawful receipt of benefits and advantages;

3) to take measures arising from their powers and duties and to immediately provide information on all cases of detection of corruption offences in accordance with the legislation of the Republic of Kazakhstan on combating corruption.

25. If either Party suspects that a violation of anti-corruption provisions has occurred or may occur, the Party concerned undertakes to notify the other Party in writing of the violation.

8. Actions of The Parties in Cases When the Seller Attracts Loans from Financial Organizations for the Construction of The Renewable Energy Facility

26. If the Seller attracts financing for the construction of the renewable energy facility from financial organizations and secures it by cash receipts under this Agreement, the Seller shall send to the Buyer an appropriate notification about pledging cash receipts with an indication of the period of validity of this notification.

27. Provision by the Seller of a notification to the Buyer about pledging cash receipts expresses the irrevocable and unconditional consent of the Seller to the following actions by the Buyer in respect of this Agreement:

1) the payment by the Buyer of payments due to the Seller in favor of the financial organization upon the receipt of the relevant claim from it. Every payment in favor of the financial organization is considered to be the proper discharge of financial obligations by the Buyer before the Seller under this Agreement;

2) the replacement of the Seller upon the receipt by the Buyer of a request from the financial organization about the need for such a replacement. The Seller shall be replaced at the request of the financial institution after the relevant amendments are made by the authorized body to the List of energy producing organizations using renewable energy sources in accordance with Subparagraph 10-3 of Article 6 of the Law on RES;

3) the provision of information by the Buyer to the financial organization on failures by the Seller to perform his obligations to Buyer under this Agreement which can result in termination or suspension of the Agreement.

9. Dispute Settlement

28. Disputes arising from the Agreement shall be settled in accordance with the legislation of the Republic of Kazakhstan.

29. The Parties shall try to settle the disputes regarding this Agreement by direct negotiation.

30. Each Party has the right to appeal to the court to settle a dispute related to the conclusion, validity, execution, amendment, suspension and termination of this Agreement, as well as to settle other disputes regarding this Agreement.

31. All disputes related to the conclusion, validity, execution, amendment, suspension and termination of the Agreement or otherwise related to the Agreement, shall be heard by the public court having jurisdiction over the Buyer’s seat, except for cases when the claimant makes a decision to bring the dispute to the International Arbitration Center of Astana International Financial Center according to the Rules.

10. The Validity Period of the Agreement and the Auction Price

32. The Agreement enters into force on the date on which it is signed by both Parties.

33. The Agreement and the auction price indicated therein shall cease to be effective twenty (20) years after the date of the beginning of the comprehensive testing of the electrical installations of the renewable energy facility during which the generated electricity was supplied into the unified power

system of the Republic of Kazakhstan or from the date of expiry of the period stipulated in the first part of Subparagraph 13 of Paragraph 9 of the Agreement, whichever comes first.

11. Final Provisions

34. The Agreement shall be terminated in the following cases:

1) the Seller does not meet the deadline for commissioning of the renewable energy facility, as provided in Subparagraph 13 of Paragraph 9 of the Agreement;

2) the Seller violates the deadline for the provision of the Agreement performance bond in accordance with the Rules.

35. All changes and additions to the Agreement are valid only on condition that they are made in written form and signed by the authorized representatives of the Parties.

36. In the event of termination of this Agreement at the initiative of the Seller before the term specified in Subparagraph 13 of Paragraph 9 of this Agreement, the Seller shall send a written notice of termination to the Buyer 30 (thirty) calendar days prior to the proposed date of termination of the Agreement, subject to the fifth Paragraph of Paragraph 14 of this Agreement, after which the Agreement shall be deemed terminated

37. All correspondence between the Parties shall be in writing by electronic mail and/or hard copies.

38. This Agreement shall be drawn up in the Kazakh and Russian languages in two hard copies having equal legal force, or in electronic form.

39. The Agreement was concluded in the city of Astana, signed by both Parties and registered by the Buyer in the Register of Concluded Contracts "___" _____ 20 ____ year No. _____.

12. Details and signatures of the Parties

The Seller	The Buyer
_____ (full name)	_____ (full name)
Legal address: _____	Legal address: _____
Actual address: _____	Actual address: _____
tel./fax: _____	tel./fax: _____
Business identification number: _____	Business identification number: _____
Bank identification code: _____	Bank identification code: _____
Individual identification code: _____	Individual identification code: _____
_____ (bank name)	_____ (bank name)
_____ (position)	_____ (position)
_____ (surname, name, patronymic (if any))	_____ (surname, name, patronymic (if any))
stamp here (if any)	stamp here (if any)

ANNEX 5

CONTACTS OF AKIMATS OF ASTANA, ALMATY, AND REGIONAL AKIMATS

Astana

City name	Address, reception phone number	Website
Astana	11 Beybitshilik Street +7 (7172) 55-72-56 +7 (7172) 55-79-93	https://www.gov.kz/memleket/entities/astana

Almaty

City name	Address, reception phone number	Website
Almaty	4 Republic Square +7 (727) 338-44-94	https://www.gov.kz/memleket/entities/almaty

Shymkent

City name	Address, reception phone number	Website
Shymkent	10 Nur-Sultan Avenue +7 (7252) 24-73-08 +7 (7252) 24-73-09	https://gov.kz/memleket/entities/shymkent

Akmola oblast

City name	Address, reception phone number	Website
Kokshetau	83 Abay Street +7 (7162) 29-72-44 29-72-49, 72-12-30	https://www.gov.kz/memleket/entities/aqmola

Aktobe oblast

City name	Address, reception phone number	Website
Aktobe	40 Abylkhayir Khan Avenue +7 (7132) 93-20-64 +7 (7132) 93-20-78	https://www.gov.kz/memleket/entities/aktobe

Almaty oblast

City name	Address, reception phone number	Website
Konayev	16/4 Industrialnaya Street +7 (72772) 7-80-25	https://www.gov.kz/memleket/entities/zhetysu

Abay oblast

City name	Address, reception phone number	Website
Semey	8 Kayum Muzamedkhanov Street +7 (7222) 52-28-32 +7 (7222) 52-39-21	https://www.gov.kz/memleket/entities/abay

Atyrau oblast

City name	Address, reception phone number	Website
Atyrau	77 Aiteke Bi Street +7 (7122) 95-66-23	https://www.gov.kz/memleket/entities/atyrau

East Kazakhstan oblast

City name	Address, reception phone number	Website
Ust-Kamenogorsk	40 M.Gorky Street +7 (7232) 71-31-57 +7 (7232) 71-31-56	http://www.akimvko.gov.kz/

Zhambyl oblast

City name	Address, reception phone number	Website
Taraz	125 Abay Street +7 (7262) 43-37-47 +7 (7262) 43-17-09	https://www.gov.kz/memleket/entities/zhambyl

Zhetysu oblast

City name	Address, reception phone number	Website
Taldykorgan	38 Nazarbayev Street +7 (7282) 40-25-08	https://www.gov.kz/memleket/entities/zhetysu-oblysy?lang=ru

West Kazakhstan oblast

City name	Address, reception phone number	Website
Uralsk	179 N.Nazarbayev Avenue +7 (7112) 24-20-57 +7 (7112) 24-20-36	https://www.gov.kz/memleket/entities/bko

Karaganda oblast

City name	Address, reception phone number	Website
Karaganda	13 Alikhanov Street +7 (7212) 50-15-32 (6825) +7 (7212) 50-15-28-28 (6828)	http://karaganda-region.gov.kz

Kostanay oblast

City name	Address, reception phone number	Website
Kostanay	66 Al Faraby Avenue +7 (7142) 57-50-84 +7 (7142) 57-50-86	www.kostanay.gov.kz

Kyzylorda oblast

City name	Address, reception phone number	Website
Kyzylorda	1 Sultan Beybarys Street +7 (7242) 40-11-91 +7 (7242) 40-11-91 (7046)	https://www.gov.kz/memleket/entities/kyzylorda

Mangystau oblast

City name	Address, reception phone number	Website
Aktau	14 microdistrict, building No. 1 +7 (7292) 46-21-11 (1019) +7 (7292) 46-21-11 (1080), (1081), (1082)	https://www.gov.kz/memleket/entities/mangystau

Pavlodar oblast

City name	Address, reception phone number	Website
Pavlodar	49 Satpayev Street +7 (7182) 66-39-96 +7 (7182) 65-10-57	https://www.gov.kz/memleket/entities/pavlodar

Ulytau region

City name	Address, reception phone number	Website
Zhezkazgan	1 Alash Square +7 (7102) 73-32-44 +7 (7102) 60-02-96	https://www.gov.kz/memleket/entities/ulytau?lang=ru

North Kazakhstan oblast

City name	Address, reception phone number	Website
Petropavlovsk	58 Constitution of Kazakhstan Street +7 (7152) 34-02-05 +7 (7152) 34-02-04	https://www.gov.kz/memleket/entities/sko

Turkestan oblast

City name	Address, reception phone number	Website
Turkestan	Zhana kala microdistrict, 32 Street, building No.18 +7 (7253) 35-96-54 +7 (7253) 35-9-41	http://turkistan.gov.kz/ru/

ANNEX 6

APPLICATION FOR THE PERMIT TO USE THE LAND PLOT FOR SURVEY WORKS

Form

To the Executive officer

_____

(name of local executive body)

_____

(surname, first name, patronymic (if any))

from _____

(surname, first name, patronymic (if any) of an individual)

_____

(individual identification number)

_____

(details of document certifying identity of individual),

_____

contact telephone number (if available),

_____

(residence address)

APPLICATION FOR THE PERMIT TO USE THE LAND PLOT FOR SURVEY WORKS

I kindly request to be issued a permit to use the land plot for

_____ survey works,

(specify type and purpose of survey work)

conducted on the grounds of _____

(indicate grounds for survey work)

located at _____

(indicate address (location) of the land plot)

with the area of _____, _____ for a period of _____

(indicate the type of land)

schedule of works _____.

I undertake to accept the terms for the use of the land plot in connection with the conduct of survey work in accordance with Article 71 of the Land Code of the RK.

_____

(consent)

I give consent for the use of the information that constitutes secrets protected by law and is contained in information systems.

The Applicant _____

(surname, first name, patronymic (if any)), electronic digital signature)

ANNEX 7

APPLICATION FOR OBTAINING THE RIGHT TO THE LAND PLOT

To Akim

_____
(oblast, city, district,settlement, village, rural district)

_____
(surname, first name, patronymic (if any))

from _____
(surname, first name, patronymic (if any) of an individual person, or full name of legal entity)

_____
(individual identification number or business identification number)

_____
(details of document certifying identity of individual or representative of legal entity

_____
contact phone number (if available)

_____
location address (for legal entities) or

_____
residential address (for individuals)

Application for obtaining the right to the land plot

I kindly request to be granted the right to the land plot located at

_____
(address (location) of the land plot)

for the right of _____,
(type of right claimed)

with the area of _____ hectare, for _____.
(intended use of the land plot)

I give consent for the use of the information that constitutes secrets protected by law and is contained in information systems.

Service recipient _____
(last name, first name, patronymic (if applicable) of individual or authorized representative of legal entity; electronic digital signature of service recipient)

ANNEX 8

PUBLIC SERVICE STANDARD

STATE REGISTRATION OF RIGHTS (ENCUMBRANCES) TO REAL ESTATE[169]

Acceptance of the application and issuance of the result of the public service is carried out through:

1) Government for Citizens State Corporation;
2) e-Government web portal: www.egov.kz.

Public service delivery time:

From the moment of submission of the package of documents by the service recipient when applying to the service provider:

for state registration of the occurrence, change or termination of rights (encumbrances of rights) to real estate and other objects of state registration, with the exception of transactions that were not notarized, along with the registration of clearance of encumbrances and legal claims - within three working days from the date of receipt of the application by the service provider;

The day of acceptance of documents is not included in the public service delivery time, thus the result of the public service delivery is provided one day before the end of the delivery time.

For state registration of a transaction that was not notarized along with the termination of encumbrances and legal claims - within one working day from the date of receipt of the application by the service provider.

However, if the service recipient applies to the service provider through the web portal, the specified 3 working day period is calculated from the moment of payment confirmation through the e-government's payment gateway.

The maximum allowable waiting time for submission of the package of documents by the service recipient to the service provider is 20 minutes;

The maximum allowable service time for a service recipient is 20 minutes.

The public service is suspended for no more than one month in the following cases:

1) by court order (ruling) on the basis of legal claims and other statements (complaints) filed with the court;

2) in accordance with the prosecutor's supervision report until the violation of the law is eliminated;

3) in accordance with the Law of the Republic of Kazakhstan dated August 28, 2009 "On Counteracting the Legitimization (Laundering) of Illegally Obtained Income and the Financing of Terrorism";

4) in order for the Applicant to submit the documents required for state registration, if the absence of the necessary documents was not a reason to refuse to accept documents for registration;

5) in order to obtain clarifications or demand the necessary information from state bodies due to its absence in the documents coming from such bodies, or there were contradictions in such documents, if these circumstances were not a reason to refuse to accept documents for registration;

6) in order to eliminate the contradiction if the object of registration established on the basis of the title documents and the object of registration specified in the application do not match.

7) subject to incomplete payment for state registration of rights to real estate;

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[169] Order of the Minister of Justice of the Republic of Kazakhstan dated May 4, 2020 № 27, On approval of the Rules for Providing a Public Service "State Registration of Rights (mo) to Real Estate"

8) if, within three working days from the date of receipt of an electronic copy of the title document, there was no confirmation of payment for state registration of rights to real estate or the exemption from payment in the information system of the legal cadaster.

The e-registration is not suspended on the grounds specified in subparagraphs 4) and 6) of Paragraph 3 of this public service standard.

The results of the public service provision:

When applying to the service provider:

1) a title document with a note specifying the state registration of rights (encumbrances) to real estate;

2) a certificate of state registration in the cases provided for by the regulatory legal acts of the Republic of Kazakhstan.

3) a reasoned response concerning the refusal to provide a public service.

When contacting via the web portal of e-government/unified notarial information system:

1) a notification of the performed state registration;

2) a reasoned answer concerning the refusal to provide a public service.

The result of the public service is provided in electronic and paper format.

The list of documents required to receive the public service:

1) An application for state registration of rights (encumbrances) to real estate in the form as per Annex 1 and/or 2 to the Rules for Providing a Public Service “State Registration of Rights (Encumbrances) to Real Estate”.

Subject to state registration of the occurrence, change or termination of the right to common joint ownership, an application for registration may be submitted by all the parties or one of them upon the consent of the other parties certified by a notary.

Subject to state registration of the occurrence, change or termination of the right to common shared ownership (other common right), an application for state registration is submitted by all the parties (authorized representatives).

2) A title document confirming the object of registration.

Subject to registration of the right (encumbrance) to a land plot, an identification document for the land plot is submitted.

Subject to cession of rights (claims) under real estate pledge agreements, an agreement on the cession of rights (claims) is submitted (an agreement on the simultaneous transfer of assets and liabilities);

3) A document confirming the payment for state registration of rights to real estate.

In cases where rights (encumbrances) arise based on an agreement or other transaction and they are not notarized, an application is submitted in the prescribed manner by all the parties to the transaction.

In this case, the Applicants submit the following also:

- Founding documents;
- Minutes of meetings (or the corresponding extracts) of founders (participants, board of directors, board of shareholders) for acquisition or alienation of real estate units in cases provided for by the laws “On Joint Stock Companies” and “On State Property” or by founding documents.

Foreign legal entities shall submit a legalized extract from the trade register or other legal document certifying that the foreign legal entity is a legal entity as per the legislation of a foreign state, with a notarized translation into the state language and Russian.

If the application for registration contains information that the total book value of the acquired or sold assets exceeds the amounts established by the antimonopoly legislation of the Republic of Kazakhstan, the service recipient shall submit a preliminary written consent from the antimonopoly authority.

Documents confirming the emergence, change and termination of rights to real estate and other objects of state registration shall be submitted in two copies, one of which is the original or a notarized copy. In cases where the document of title is a court order and in other cases when the original document is not provided to the right holder, two certified copies of such a document shall be submitted for registration.

Service providers receive digital documents from the digital document service through the implemented integration subject to the consent of the document owner provided through the user's cellular subscriber number registered on the e-government web portal by transmitting a one-time password or by sending a short text message in response to the e-government web portal's notification.

ANNEX 9

APPLICATION FOR THE PROVISION OF A LAND PLOT FOR THE CONSTRUCTION OF A FACILITY WITHIN THE LIMITS OF A SETTLEMENT

To the Mayor_____
(of a region, city, district, settlement, village, rural district

_____
Surname, first name, patronymic (if any))
From_____
(surname, first name, patronymic (if any) of the individual

_____
or full name of the legal entity)

_____
(Individual Identification Number or Business Identification Number)

_____
_____
(details of the document certifying

_____
The identity of the individual or a representative of a legal entity,

_____
contact phone number (if any), address

_____
(for legal entities) or

_____
residential address (for individuals))

Application for the provision of a land plot for the construction of a facility within the boundaries of a settlement

I kindly request being provided the right of temporary paid (gratuitous)
land use for a land plot located _____
_____ with the area of _____ hectares
(address (location) of the land plot) for _____
(purpose of the land plot)
_____

I agree to the use of information that constitutes a legally protected secret contained in information systems.

Date_____

Service Recipient _____
(surname, first name, patronymic (if any) of the individual or
authorized representative of a legal entity, electronic digital signature)

ANNEX 10

APPLICATION FOR A SPECIAL WATER USE PERMIT [170]

To_____

(full title of the government body)

From_____

(surname, first name, patronymic (if any) of an individual or full name of a legal entity)

Applicant's address

_____

(zip code, city, district, region, street, building number, phone)

Applicant's details

_____

(for individuals - Individual Identification Number,

_____

for legal entities - Business Identification Number)

I kindly request to issue a permit for (mark the corresponding box):

□ discharge of groundwater (mine shaft, quarry, mining) taken in the course of exploration and (or) production of solid minerals, industrial, domestic, drainage, wastewater, and other waters into surface water bodies, subsoil, water management facilities or terrain;

□ extraction and (or) use of groundwater with the use of structures or technical devices specified in paragraph 1 of Article 66 of the Water Code of the Republic of Kazakhstan dated July 9, 2003 (hereinafter referred to as the Code);

□ extraction and (or) use of surface water with the use of structures or technical devices specified in paragraph 1 of Article 66 of the Code.

1. Information about an individual or legal entity:

1) surname, first name, patronymic (if any), contact phone number of the person responsible for water use _____;

2) cadastral number of the real estate object, inventory number of the technical device with the help of which special water use is carried out _____.

2. Layout scheme of surface water extraction and/ or use, wastewater discharge, groundwater source, indicating the coordinates, is presented and submitted in the form according to Annex I to this application.

[170] According to Appendix 1 to the Order of the Minister of Agriculture of the Republic of Kazakhstan dated November 30, 2015 No 19-1/1051 "On Approval of the Application Form for Obtaining a Permit for Special Water Use and the Form of a Permit for Special Water Use"

3. Water use purpose _____

4. Information on the water body used for special water use shall be filled in on the form in accordance with Annex 2 to this application.

5. The estimated volume of intake and (or) use of surface water, discharged wastewater, withdrawn groundwater is submitted in the form in accordance with Annex 3 to this application (specified separately for each type of water use, except for individuals and legal entities using water bodies for the purposes of hydropower and flow regulation).

6. Specific norms of water consumption and wastewater disposal per unit of output and data on their coordination with the department of the authorized body in the field of use and protection of the water fund, water supply, and wastewater disposal, with the exception of individuals or legal entities that withdraw water resources for water treatment and (or) delivery to water consumers for drinking needs, activities to regulate surface runoff with the help of retaining hydraulic structures, use of water bodies without withdrawal of water resources from them, discharge of associated groundwater (mine shaft, quarry, mining), which provide calculations to justify the volume of water consumption and wastewater disposal

Specific norms of water consumption and water disposal per unit of output and data on their coordination with the Committee on Water Resources of the Ministry of Agriculture of the Republic of Kazakhstan, with the exception of individuals or legal entities that seize water resources for water treatment and/or delivery to water users for drinking purposes, surface runoff with the help of retaining hydraulic structures, and water use from water bodies without extracting water from them

_____

(norms, date and term of approval)

7. Estimated start and end dates for water use:

Water use start date «___» _____ 20___

Water use end date «___» _____ 20___

8. Characteristics of the production activity of the water user (output volume, number of employees, serviced population, capacity, area of irrigated land) _____

9. The list of secondary water users according to the form, in compliance with Annex 4 to this application (applications for wastewater supply or reception are attached to the documents for obtaining a permit for special water use).

10. Information on the previously issued permit for special water use (number, date of issue, issuing authority, validity period, if any)

_____

11. Description of equipment for water use accounting, regime observations and laboratory analyses (type, brand, technical characteristics, quantity, verification period, laboratory areas of accreditation)

_____

12. Information on the permit for environmental emissions - when discharging treated industrial, domestic, drainage, and other wastewater, except for the discharge of heat exchange (normatively pure) water _____.

(number, permit validity duration)

13. Information on the sanitary and epidemiological conclusion on the compliance (non-compliance) of the object of epidemic significance with regulatory legal acts in the field of sanitary and epidemiological well-being of the population and hygienic standards – when extracting surface and (or) ground water for domestic and drinking water supply

_____

(number, date of issue)

14. The applicant's intentions to ensure the rational use of water resources and reduce water losses (in accordance with Article 72 of the Code) (list) _____

I agree to the use of information that constitutes a legally protected secret contained in information systems.

Applicant

_____

Surname, first name, patronymic (if any)

"____" _____ 20 ___

The application was accepted for consideration on "____" _____ 20 ___

_____

(signature, surname, first name, patronymic (if any) of a person accepting the application)

Annex 1

to the application for a special water use permit

Form

LAYOUT SCHEME

of surface water extraction and/ or use, wastewater discharge, groundwater source

Scale _____ (specify)

Location name (or water body) of water abstraction (wastewater disposal)	Area of the land plot indicated on the layout scheme by corner points	Point s no.	Geographical coordinates					
			longitude			latitude		
			degree	minute	second	degree	minute	second
	_____hectare _____ square kilometer	1						
		2						
		...						
	_____hectare _____ square kilometer	1						
		2						
		...						
	_____hectare _____ square kilometer	1						
		2						
		...						

Area of the land plot indicated by corner points in the layout scheme is ___ hectares (square kilometers).

A layout scheme-map is attached to the documents for obtaining a special water use permit.

Annex 2

to the application for a special water use permit

Form

Information on the water body used for special water use

№	Name of the water body, main hydrological and hydrogeological characteristics (when discharging industrial, domestic, drainage, and other wastewater into water facilities or terrain, the characteristics of the facilities intended for the discharge and reception of these waters indicated)	Source code* (receiver)	Type of special water use	Type (code)** of use
1				
2				
…				

Note:

* Sea - 10, river - 20, intermittent river - 21, lake - 30, artificially impounded water body - 40, off-channel reservoir - 40, principal channel - 50, main pipeline - 55, underground reservoir - 60, mine, pit, quarry - 61, pumper-well drainage - 62, collector-drainage network - 70, collectors not connected to river network - 71, collectors reaching surface water bodies - 72, agricultural irrigation fields - 80, storage lagoons - 81, topographic features - 82, filtration fields - 83, water supply network - 90, sewer network - 91.

** DH - drinking and household, IND - industrial, AGC - agricultural water supply, CFI - continuous-flow irrigation, LI - liman irrigation, FP - flooding of pastures, HF – hayfield flood, PFE - pond fish establishment, CLM – channel level maintenance, PM - pressure maintenance, OSF - off-channel-location storage reservoir filling, WT – water transit, TWU - transferred without using, TAB - transferred to another basin, TAS - transferred to another state, CF - channel flushing, RR - regulating releases, HPE - hydraulic power engineering, O - Other.

Annex 3

to the application for a special water use permit

Form

Estimated volume of intake and (or) use of surface water, discharged wastewater, groundwater withdrawn

Type of special water use_____

№	Months	Cubic meter/day	Cubic Meter/Month
1	2	3	4
1	January		
2	February		
3	March		
4	April		
5	May		
6	June		
7	July		
8	August		
9	September		
10	October		
11	November		
12	December		
Total per year, cubic meter/year			

Annex 4

to the application for a special water use permit

Form

List of secondary water users

№	Name of water users	Code of state registration of water use (GUIV) of a water user (if any)	Design volume (cubic meter/year)	Purpose of water use	Contract number and date
1	2	3	4	5	6
1					
2					
3					
4					
…					
Total per year, cubic meter/year					

ANNEX 11

STANDARD AGREEMENT ON CONNECTION OF RENEWABLE ENERGY FACILITIES, ENERGY WASTE MANAGEMENT FACILITIES

Chapter 1. The following general definitions are used in the Agreement:

1) system operator – a national company that carries out centralized operational dispatch management, warranting parallel operation with the power systems of other states, maintaining balance in the power system, providing system services, and purchasing ancillary services from wholesale electricity market participants, as well as transmission of electric energy through the national electric grid, its maintenance and support for operational readiness»;

2) technical specifications – technical requirements necessary for connection to electric grids;

3) connection to the electric grid – physical connection of the facility for the use of renewable energy sources/the facility for energy waste management of the Power Producing Organization to the electric grid of the Power Transmission Organization;

4) point of connection to the electric grid – the place of physical connection of the facility for the use of renewable energy sources/facilities for energy waste management of the Power Producing Organization with the electric network of the Power Transmission Organization;

5) act on connection to the electric grid – a document signed by the authorized persons of the Parties, confirming the fulfillment of technical specifications and connection to the electric grid.

Chapter 2. Subject Matter of the Agreement

2. The energy transmission organization undertakes to provide the Power Producing Organization with access to the electric grid by providing a connection point to the electric grid in accordance with the technical specifications for connection to the electric grid, developed and issued in accordance with the Electric Grid Rules approved by Order No. 210 of the Minister of Energy of the Republic of Kazakhstan dated December 18, 2014 (hereinafter referred to as the Grid Code).

3. The Power Producing Organization undertakes to fulfill in full the requirements of the technical specifications and ensure the commissioning of a renewable energy source facility or an energy waste management facility within the period before the expiration of the validity period of the technical specifications.

Chapter 3. Rights and Obligations of the Parties

4. The Power Producing Organization is obliged to:

1) fulfill the requirements of the technical specifications within the time limits established therein and in full in accordance with this Agreement;

2) conclude an agreement with the system operator for the provision of services for technical dispatching, supply to the grid, and consumption of electric energy, prior to the start of comprehensive tests;

3) conclude a power purchase agreement with the buyer prior to the start of comprehensive tests;

4) agree with the Power Transmission Organization for the provision of electricity transmission services, prior to the start of comprehensive tests;

5) after meeting the requirements of the technical specifications, conduct comprehensive tests of the renewable energy source facility/energy waste management facility, in accordance with the requirements of the Grid Code;

5.Before the expiration of the validity period of the technical specifications, the Power Producing Organization has the right to submit an application to the Power Transmission Organization for extension of the validity period of the issued technical specifications.

6. The Power Transmission Organization is obliged to:

1) reserve the point of connection to the electric grid specified in the technical specifications for the Power Producing Organization until the expiration of the validity period of the technical specifications;

2) within 30 (thirty) calendar days after the submission of the application by the Power Producing Organization, give permission to connect to the electric grid and issue the capacity of the renewable energy source facility/energy waste management facility, provided that it fully complies with the terms and conditions of this Agreement.

7. The Power Transmission Organization has the right to:

1) at the request of the Power Producing Organization submitted before the expiration of the validity period of the technical specifications, extend the validity of the technical specifications until the deadline for commissioning of the facility for the use of renewable energy sources/energy waste management facilities in accordance with the concluded power purchase agreement with the financial-settlement center;

2) refuse to issue a permit to connect to the electric grid in case of a failure to meet the requirements of the technical specifications;

3) make appropriate changes to the technical specifications when making changes and (or) additions to the legislation of the Republic of Kazakhstan with prior written notification of the Power Producing Organization.

Chapter 4. Liability of the Parties

8. For non-fulfillment and (or) improper fulfillment of obligations under this Agreement, the Parties terminate the Agreement in accordance with the legislation of the Republic of Kazakhstan.

Chapter 5. Consideration of Disputes

9. Disputes arising from this Agreement shall be resolved in accordance with the legislation of the Republic of Kazakhstan.

Chapter 6. Validity Period of the Agreement

10. This Agreement comes into force from the moment of its signing by the Parties and is be valid until the expiration of the validity period of the technical specifications or until the signing of the act on connection to the electric grid, but no later than the deadline for the submission of the act on commissioning of a new renewable energy facility specified in the purchase agreement by the financial-settlement center of electricity from the Power Producing Organization using renewable energy sources/energy waste management facilities, whichever comes first.

11. In the event of extension of the validity period of technical specifications in accordance with the terms of this Agreement, the Parties shall execute an appropriate amendment to this Agreement.

Chapter 7. Terms of Termination of the Agreement

12. This Agreement may be terminated:

1) by agreement of the Parties;

2) in other cases provided for by the legislation of the Republic of Kazakhstan.

Chapter 8. Force majeure

13. The Parties are not liable for non-performance and (or) improper performance of the terms of the Agreement, if it was the result of circumstances of insuperable force.

14. Force majeure circumstances are events that prevent the Parties from fulfilling the terms of this Agreement, due to circumstances of insuperable force, that is, extraordinary and unavoidable circumstances under these conditions (natural disasters, military actions, emergency situations).

15. The Party affected by force majeure circumstances is obliged to notify the other Party thereof within 10 (ten) calendar days from the date of their occurrence, indicating the nature, reasons for the occurrence of force majeure circumstances and their estimated duration, with the submission of supporting documents.

Chapter 9. Other terms of the Agreement

16. The Parties, upon completion of the technical specifications and connection of the renewable energy facility/waste energy management facility to the electric grid, sign the act of connection to the electric grid in accordance with the Annex to this Agreement.

17. If it is necessary to settle the issues of balance sheet attribution of the equipment installed by the Power Producing Organization at the facilities owned by the Power Transmission Organization, the Parties shall make appropriate amendments and additions to this Agreement.

18. Relations of the Parties arising from the Agreement and not regulated by them shall be regulated by the legislation of the Republic of Kazakhstan.

19. The Agreement is to be drawn up in two copies in the state and Russian languages, one copy for each Party.

20. All Annexes to this Agreement are an integral part of it.

21. The information contained in this Agreement is confidential and is not subject to disclosure and/or transfer to third parties without the written consent of the other Party, except as established by the legislation of the Republic of Kazakhstan.

22. All amendments and additions to this Agreement are valid and effective only if they are made in writing and signed by both Parties.

Legal addresses, details, and signatures of the Parties

Annex

to the standard agreement

on connection of renewable energy facilities,

energy waste management facilities

_____
(space for the signature of the act)
"____" _____ 20__

Certificate of connection to the electric grid_____
(name of the renewable energy facility/waste management facility)

The commission, consisting of:
_____ _____;
(Surname, first name, patronymic (if any) and position)
_____ _____;
(Surname, first name, patronymic (if any) and position)
_____;
(Surname, first name, patronymic (if any) and position)

drew up this act stating that on "___" _____ 20 ___
connection of a renewable energy facility
_____ to the electrical grid was carried ou in accordance with the the terms of the Agreement No __ dated "___" _____ 20__

Representatives of the Power Transmission Organization:
_____ _____;
(Surname, first name, patronymic (if any) and signature)
_____ _____;
(Surname, first name, patronymic (if any) and signature)
_____ _____.
(Surname, first name, patronymic (if any) and signature)
Print space (if available)

Representatives of the Power Producing Organization:
_____ _____;
(Surname, first name, patronymic (if any) and signature)
_____ _____;
(Surname, first name, patronymic (if any) and signature)
_____ _____.
(Surname, first name, patronymic (if any) and signature)

Space for the seal (if available)

ANNEX 12

STANDARD AGREEMENT FOR THE PROVISION OF SERVICES FOR TECHNICAL DISPATCHING OF SUPPLY TO THE GRID AND CONSUMPTION OF ELECTRIC ENERGY

Standard agreement for the provision of services for technical dispatching of supply to the grid and consumption of electric energy

_____ "__" _____ 20 __

(place of conclusion of the agreement)

_____
_____

(title of the service-providing entity,

Business Identification Number)

providing services for technical dispatching of supply to the grid and consumption of electric energy, hereinafter referred to as the Supplier,

represented by _____
_____,

(position, surname, name, patronymic (if any) (hereinafter referred to as full name)

acting on the basis of _____, on the one hand,

and_____

(user details, business identification number/Individual identification number)

hereinafter referred to as the Consumer, represented by _____

(position, full name)

_____,

acting on the basis of _____, on the other hand,

have entered into this Agreement (hereinafter referred to as the Agreement) as follows.

Chapter 1. General Definitions Used in the Agreement

1. The following general definitions are used in the Agreement:

emergency violation - unacceptable deviations of the technological parameters of the electrical installation or its components, which caused their withdrawal from operation or damage during operation;

Billing period - the period defined in the Agreement as a period of time equal to one calendar month from 00:00 hours of the first day to 24:00 (Central European time - Greenwich meridian time plus one hour) hours of the last day of the month, for which the Supplier's technical dispatching services are calculated;

National Dispatch Center of the System Operator – a structural subdivision of the System Operator that performs the functions of centralized operational dispatch control of the modes of production, transmission, and consumption of electric energy and capacity in the Unified Power System of the Republic of Kazakhstan;

Complex of Commercial Metering - equipment necessary for commercial metering, located between a certain point of commercial metering and the point of connection to the information collection device;

Actual balance of production and consumption of electricity in the wholesale electricity market of the Republic of Kazakhstan – a document drawn up by the system operator that reflects the volumes of electricity supplied and consumed for the accounting period.

actual volume - the volume of electricity supplied (imported) by the Consumer to the networks (networks) of all voltage classes, regardless of the ownership of the networks, including in the network (networks) of the Consumer;

Supplier – a system operator that provides services for technical dispatching of supply to the grid and consumption of electricity to the Consumer;

Regional dispatch center – a regional dispatch center of the system operator, subordinate to the national dispatch center of the system operator and performing operational dispatch functions;

Application – a written document signed by the Consumer's authorized representative and sent to the Supplier in the manner and within the time limits established by the Agreement, containing information on the volume of electricity, the period of time for the transmission of electricity, the distribution of the volume of capacity during this period. The application can be monthly, daily, and operational;

consumer – a power-producing, power-supplying or power-transmitting organization, as well as a legal entity supplying (importing) electricity from outside the Republic of Kazakhstan;

department of the authorized body – a department of the state body that manages the relevant areas of natural monopolies;

electric networks – a set of substations, switchgears and power transmission lines connecting them, intended for the transmission and/or distribution of electricity, owned by both the Supplier and/or the Consumer and third parties on the right of ownership, property right or on other grounds established by the civil legislation of the Republic of Kazakhstan;

normative quality of electricity – the quality of electricity that meets the requirements and standards approved at the time of execution of the Agreement;

contractual volume of electricity/electricity – the amount of electricity subject to technical dispatching;

Daily schedule of electricity production and consumption – a document approved by the system operator that regulates the hourly values of electricity production and consumption for each calendar day in accordance with power purchase agreements concluded by wholesale market participants in the markets of decentralized electricity purchase and sale and centralized electricity trade.

Other concepts and terms used in this Agreement are used in accordance with the legislation of the Republic of Kazakhstan on natural monopolies and the Law of the Republic of Kazakhstan "On Electric Power Industry".

Chapter 2. Subject Matter of the Agreement

2. The Supplier ensures technical dispatching of supply to the grid and parallel operation of the Consumer's power plants as part of the unified power system of the Republic of Kazakhstan.

3. Technical conditions and characteristics of the provision of services for technical dispatching of supply to the grid and consumption of electric energy:

_____

_____

_____

(this paragraph provides for technical conditions and characteristics

subject of the Agreement, which must meet the requirements of the

regulatory technical documents)

Chapter 3. Conditions for ensuring technical dispatching

4. Technical dispatching services are rendered in accordance with the legislation of the Republic of Kazakhstan on the electric power industry and this Agreement.

5. Daily schedules for the delivery of electricity from power producing organizations and/or electricity imported by the Consumer are accepted for the technical dispatching mode.

6. An application for the sale and (or) an application for the purchase of electricity, as well as their adjustment, for inclusion in the daily schedule of production and consumption of electricity, approved by the system operator, is drawn up by the Consumer in accordance with the Rules for the organization and operation of the wholesale electricity market, approved by Order of the Minister of Energy of the Republic of Kazakhstan dated February 20, 2015 No 106 (registered in the Register of State registration of regulatory legal acts of the Republic of Kazakhstan under No 10531) (hereinafter referred to as the Rules for the Organization and Functioning of the Wholesale Electricity Market).

Chapter 4. Metering of Supplied Electricity

7. The actual volume of electricity supplied (imported) by the Consumer to the network (networks) of all voltage classes, regardless of the point of connection of electrical installations,

shall be determined from 00:00 hours of the first day to 24:00 hours (Central European time - Greenwich meridian time plus one hour) of the last day of the billing period according to the readings of commercial metering devices installed on the tires of power producing organizations (power plants) Consumer, or at the border of the division of operational responsibility of the Consumer and electric grid owners, with the signing by the parties of the act of reconciliation of readings of commercial metering devices no later than the fifth day of the month following the billing month.

8. Adjustment of the monthly volume of the contractual amount of electricity supply is to be agreed by the Parties no later than ten calendar days before the beginning of the month. Adjustment of the monthly volume is allowed within the contractual quarterly volume of technical dispatching services.

Proposals for the quarterly volume of the contractual value of supply to the grid and consumption of electricity is agreed by the parties no later than sixty calendar days before the beginning of the quarter.

9. Commercial metering devices must be checked and sealed. The Parties shall provide each other with access to commercial metering devices during working hours of the day to take readings, check, and for testing. If one of the parties is not present during the reading, the other party shall take readings independently.

10. The Parties carry out metrological verification of meters and other measuring equipment on their balance sheet at their own expense within the time limits provided for by the relevant metrological standards.

The parties may require additional verifications, which are carried out at the expense of the requesting party.

If, during additional verification, it is found that the meter readings exceed the error allowed by their accuracy class, then the costs of additional verification are paid by the owner of the devices.

11. In case of any type of work related to the change or violation of electricity metering, the Consumer shall notify the Supplier in writing before starting work and obtain the appropriate permission. During the repair period by the Consumer, electricity metering may be carried out according to temporary schemes agreed with the Supplier.

Chapter 5. Rights and Obligations of the Parties

12. The Supplier has the right to:

1) adjust the approved daily schedule of production and consumption of the Consumer's electricity in accordance with the Rules for the Organization and Functioning of the Wholesale Electricity Market;

2) make switches in the electrical switchgears of the Consumer's power plants and substations for the repair of equipment (high-voltage lines), commissioning, and elimination of emergency violations;

3) in case of violation of contractual terms, terminate the provision of services for technical dispatching, supply to the grid, and consumption of electricity in accordance with the civil legislation of the Republic of Kazakhstan.

13. The Supplier is obliged to:

1) provide equal conditions for all participants of the wholesale electricity market;

2) when concluding agreements for the provision of services for technical dispatching of supply to the grid and consumption of electric energy in terms of setting tariffs, be guided by the decisions of the department of the authorized body;

3) prevent interruptions in the supply, termination or restriction of the provision of services for technical dispatching, supply to the grid, and consumption of electricity not established by the Agreement;

4) ensure the reliability of parallel operation of the Consumer as part of the unified power system of the Republic of Kazakhstan, including at the expense of emergency control facilities at the facilities of the Consumer and third parties;

5) carry out technical study of applications and create conditions for putting primary equipment, relay protection and automation devices, as well as emergency automation of the Consumer's dispatch and technological control facilities under the operational management and supervision of the national dispatch center of the system operator (regional dispatch center) for repair, and make the necessary switching in electrical networks to ensure the safety of the repair work or testing at the Consumer's facilities;

6) excluded

7) in case of complete power discharge by the Consumer's power source (power plant) to zero with the loss of auxiliary needs of energy sources (power plants), supply voltage to the buses of the Consumer's power source to restore power supply to auxiliary needs;

8) timely inform the Consumer about the reasons for the violation of the normal mode of the unified power system of the Republic of Kazakhstan, which led to the violation of the normal mode of operation of the equipment of the Consumer's energy source;

9) provide the Consumer with technological information, in the amount agreed by the Supplier, characteristics and diagrams of transmission lines and substations, lists of persons directly responsible for the fulfillment of the terms of the Agreement and who have the right to conduct operational negotiations;

10) provide technical access for the Consumer's representatives to obtain full information about the Supplier's compliance with the terms of the Agreement;

11) observe dispatching and technological discipline, prevent actions that may lead to a violation of the operating mode of the Consumer's energy source;

12) comply with the requirements of regulatory documents, instructions, not cause damage to the commercial activity of the Consumer by their actions ;

13) adjust the daily schedule of electricity production and consumption at the request of the Consumer in accordance with the Rules for the Organization and Functioning of the Wholesale Electricity Market;

14) excluded

15) carry out calculations and work out the issues of stability and emergency control in the network of 110-220-500-1150 kilovolts, which are under the operational management and supervision of the Supplier;

16) submit for execution the schedules of automatic frequency load;

17) maintain the required level of frequency and voltage at the Supplier's electric power facilities in normal modes in accordance with regulations and standards in the electric power industry;

18) submit stress schedules at least once a quarter at the Supplier's control points;

19) consider and agree on annual and monthly schedules of overhaul and current repairs of electric grid and electric power equipment, relay protection and automation devices, and emergency automation that are under the operational management and supervision of the Supplier;

20) perform the necessary calculations and coordination of installations, development or approval of schematic (structural) diagrams for relay protection and automation devices and emergency automation that are under the operational management and supervision of the Supplier;

21) ensure compensation for losses caused to the Consumer in case of exceeding his authority or illegal actions on his part and only in case of full compliance by the Consumer with the terms of the Agreement;

22) consider and approve the necessary calculations of setpoints, basic (structural) diagrams for relay protection and automation, and emergency automation devices performed by the Consumer, which are under the operational control of the Supplier.

14. The Consumer has the right to:

1) require the Supplier to fulfill its obligations under this Agreement;

2) challenge the actions of the Supplier in accordance with the legislation of the Republic of Kazakhstan on the electric power industry;

3) submit an application for adjustment of the daily schedule of electricity production and consumption in accordance with the Rules for the Organization and Functioning of the Wholesale Electricity Market.

15. The Consumer is obliged to:

1) ensure the proper technical condition of switchgears, emergency and mode automation devices located at the Consumer's facilities, devices, and complexes for commercial metering of electricity in accordance with the requirements of regulatory legal acts in the electric power industry;

2) comply with the approved daily schedule of production and consumption of electricity;

3) comply with regulatory requirements aimed at maintaining the standard frequency of electric energy in the unified power system of the Republic of Kazakhstan;

4) allow the Supplier's employees to commercial metering devices, as well as employees of the authorized body in charge of the use of nuclear energy and the electric power industry to monitor the technical condition and safety of operation of electrical installations in accordance with regulatory legal acts in the field of electric power.

5) submit to the national dispatch center of the system operator (regional dispatch center) an hourly load carrying schedule until 08:00 of the day preceding the day of execution of the daily schedule;

6) comply with the requirements of the national dispatch center of the system operator (regional dispatch center) for the dispatch regulation of electric load and accept for execution the daily schedule of production and consumption of electric energy approved in accordance with the established procedure;

7) excluded

8) ensure electricity metering;

9) organize the transmission of telemetry information on the supply to the Consumer's network to the national dispatch center of the system operator (regional dispatch center);

10) transmit to the national dispatch center of the system operator (regional dispatch center) information, the volume and timing of receipt of which are provided for by the legislation of the Republic of Kazakhstan in the field of the electric power industry, for planning long-term, short-term and daily modes of the unified electric power system of the Republic of Kazakhstan;

11) daily, before 11:00 a.m., transmit to the national dispatch center of the system operator (regional dispatch center) information on the actual volume of electricity supplied for the past day;

12) submit, at the request of the Supplier, the results of measurements on the generation of active and reactive power for typical working winter and summer days;

13) in January of each calendar year, submit to the national dispatch center of the system operator (regional dispatch center) technological information, characteristics, and diagrams of the power plant, as-built diagrams of relay protection and automation devices, and emergency automation of the organization of communication channels and telemechanics, lists of persons entitled to conduct operational switching and negotiations, as well as lists of persons responsible for the operation of communication and telemechanics facilities, relay protection, automation and emergency automation, as well as timely report on their changes;

14) observe dispatching and technological discipline, prevent actions that may lead to a violation of the operating mode of the power association, comply with the requirements of directive documents, instructions, and regulations on relationships, and not cause damage to other participants of the energy market by their actions not coordinated with the Supplier;

15) promptly and fully inform the national dispatch center of the system operator (regional dispatch center) about all violations of the operating mode, natural phenomena, and accidents in accordance with industry instructions;

16) carry out normal operation, maintenance (timely repair and adjustment works) of its primary equipment and perform the characteristics, volumes, and installations of relay protection, emergency and mode automation, and automatic frequency unloading devices specified by the national dispatch center of the system operator (regional dispatch center);

17) ensure the transmission of the volume of telemetry information necessary for the purposes of dispatch control according to the agreed protocols, which is determined by the national dispatch center of the system operator (regional dispatch center);

18) ensure the organization of communication channels in two independent directions with the regional dispatch center for the implementation of operational dispatch control;

19) ensure the availability of metering complexes for commercial metering of electricity with connection to the Supplier's automated system of commercial metering of electricity;

20) pay for the Supplier's technical dispatching services in the amount and in the manner established by the Agreement;

21) not to violate the agreed annual, quarterly, and monthly schedules of capital and current repairs of electric grid, electric and heat and power equipment, relay protection and automation devices, and emergency automation under the operational management and supervision of the Supplier;

22) perform the necessary calculations of setpoints, develop or agree on basic (structural) diagrams for relay protection and automation devices and emergency automation that are under the operational control of the Consumer.

16. The Supplier has the right to suspend or terminate the provision of technical dispatching services if the Consumer fails to fulfill his obligations under the Agreement, with prior notice to the Consumer at least 72 hours in advance. At the same time, the termination of technical dispatching services is implemented by allocating the Consumer's energy source for isolated work until the Consumer fulfills the terms of the Agreement.

17. The parties shall be obliged to sign a reconciliation act as of the last day of the quarter on a quarterly basis, within fifteen calendar days from the date of receipt of the reconciliation report, with or without any discrepancies.

Chapter 6. Settlement Procedure

18. Payment for the Supplier's technical dispatching services is made in accordance with the tariff approved by the department of the authorized body.

19. In case of a change in the tariff, the Supplier notifies the Consumer in writing or through the media within the time limits established by the legislation of the Republic of Kazakhstan on natural monopolies.

The final payment is made by the Consumer within five working days from the date of the actual submission of the Supplier's invoice for payment, issued on the basis of the act of reconciliation of the volume of services provided.

20. In case of refusal of one of the parties to sign the act of reconciliation of readings of commercial metering devices, the document confirming the actual volume of services provided shall be the actual balance of production and consumption of electricity in the wholesale electricity market of the Republic of Kazakhstan.

21. In the presence of debt for prior periods, payment is directed to the repayment of this debt. If the Consumer’s payment exceeds the actual amount for the billing period, the difference of this excess is automatically included in the advance payment of the next billing period (or, as agreed by the parties, to pay off the debt of the Consumer for other obligations to the Supplier, if any). If the Consumer refuses the services of the Supplier for the next billing period, the overpaid amounts are returned, except for amounts that are used to pay off the Consumer's debt for other obligations, including money, to the Supplier (if any).

22. If the Consumer disputes the correctness of the invoice, the Consumer notifies the Supplier within ten calendar days from the receipt of the invoice and submits a written statement of objections to the Supplier. At the same time, the Consumer is obliged to pay the undisputed part of the invoice in the above-mentioned terms.

23. The fulfillment of the Consumer's obligations to pay for the Supplier's services for technical dispatching of supply to the grid and consumption of electricity is recognized as crediting money to the Supplier's current account according to the details specified in the invoice, or to the current account of a third party according to the details specified by the Supplier in the notification sent to the Consumer.

24. In case of detection, after signing the act of work performed (services rendered), a malfunction of control and measuring devices, the Supplier shall issue a corrected VAT invoice by canceling the previously issued VAT invoice, in the manner and within the time limits established by the tax legislation of the Republic of Kazakhstan, on the basis of a corrected and mutually signed act of work performed (services rendered).

25. By agreement of the parties, other procedures and forms of payment for services related to technical dispatching, supply to the grid, and consumption of electricity may be established.

Chapter 7. Liability of the Parties

26. For non-fulfillment or improper fulfillment of obligations under this Agreement, the parties bear responsibility in accordance with the civil legislation of the Republic of Kazakhstan.

27. For non-payment of the invoice by the time of the due date, the Supplier is entitled to charge a penalty for the amounts not paid by the Consumer starting from the day following the day of the end of the payment term. For overdue amounts, the Supplier has the right to demand from the Consumer the payment of a penalty calculated on the basis of 1.5 times the base rate established by the National Bank of the Republic of Kazakhstan on the day of the actual fulfillment of the monetary obligation by the Consumer, for each day of delay in payment.

28. In case of non-payment of payments within the terms provided for by this Agreement, the Supplier may determine the mode of operation in accordance with clause 16 of the Agreement, which shall notify the Consumer at least 72 hours before the introduction of restrictions.

29. The Supplier shall not be liable to the Consumer for violation of the operating mode of the Consumer's energy source caused by:

1) the occurrence of force majeure circumstances;

2) industrial accidents and technological disturbances at electric power facilities of wholesale and retail market entities not participating in this Agreement;

3) lack of communication or information provided for by industry instructions through the fault of the Consumer;

4) improper actions of the Consumer's personnel;

5) the circumstances provided for by subparagraphs 2), 3) of paragraph 12 and paragraph 16 of this Agreement;

6) the operation of emergency automation in the places and volumes specified by the national dispatch center of the system operator (regional dispatch center).

30. The Supplier is not be liable for the quality of the technical dispatching services provided in case of incomplete or improper performance by the Consumer of its obligations under the Agreement.

Chapter 8. Force majeure

31. The Parties are exempt from liability for non-performance or improper performance of obligations under the Agreement, if this was the result of force majeure. In this case, neither Party is entitled to compensation for damages. At the request of either Party, a commission may be established to determine the performance of mutual obligations is not released from obligations under the Agreement arising before the occurrence of force majeure circumstances.

In the event of force majeure, the Parties notify each other within five business days from the date of their occurrence, followed by delivery or mailing of a written notice specifying the date of commencement and description of the force majeure circumstances confirmed by the relevant authorized organization of the Republic of Kazakhstan.

32. The obligations of the Parties under the Agreement may be suspended for the duration of force majeure, but only to the extent that such circumstances prevent the performance of the obligations of the Parties under the Agreement.

In the event that force majeure circumstances last three or more months, each Party has the right to terminate the Agreement, subject to prior notice to the other party at least twenty calendar days before the date of the proposed termination. At the same time, the Parties undertake to make all mutual settlements under the Agreement within thirty calendar days.

Chapter 9. Miscellaneous

33. The Agreement for the provision of services for technical dispatching of supply to the grid and consumption of electricity is concluded with the Consumer on an individual basis.

34. In the event of any dispute or disagreement arising out of any provision of the Agreement or in general, or in connection with any issue or action in relation to the provisions of the Agreement, either Party has the right to send a claim to the other party with a full statement of the essence of the dispute.

The parties are to make every effort to settle all disputes through negotiations.

35. In case of failure to reach an agreement, all disputes and disagreements under the Agreement are resolved in the courts at the location of the defendant.

The Parties have the right to terminate the Agreement in other cases provided for by the legislation of the Republic of Kazakhstan.

36. Relations of the Parties arising from the Agreement and not regulated by it are governed by the current legislation of the Republic of Kazakhstan.

37. The Agreement is drawn up in two copies in the Kazakh and Russian languages, one copy for each Party.

38. By agreement of the Parties, the Agreement may be supplemented with other terms and conditions that do not contradict the standard Agreement and the legislation of the Republic of Kazakhstan.

The agreement for state institutions financed from the state budget is registered in the territorial treasury bodies of the Ministry of Finance of the Republic of Kazakhstan, and enters into force from the date of its registration.

Chapter 10. Validity Period of the Agreement

39. The Agreement comes into force from 00:00 hours "___" _____ 20__ and is valid until 24:00 hours "___" _____ 20__ (Central European time - Greenwich meridian time plus one hour).

40. The term of the Agreement is extended for a certain period with clarification of the scope of services for technical dispatching of supply to the grid and consumption of electric energy, if one of the parties declares this thirty calendar days before the expiration of the Agreement. The extension of the term of the Agreement shall be formalized by an addendum to the Agreement.

In the absence of an application by one of the parties to terminate or amend the Agreement at the end of the term, it is considered to be extended for the same period and on the same terms and conditions as provided for in the Agreement.

Chapter 11. Legal requisites of the parties

Supplier:_____	Consumer:_____
_____	_____
_____	_____
_____	_____

ANNEX 13

APPLICATION FOR THE PROVISION OF SOURCE MATERIALS / ARCHITECTURAL AND PLANNING ASSIGNMENT AND TECHNICAL SPECIFICATIONS / SOURCE MATERIALS FOR THE RECONSTRUCTION (REDEVELOPMENT, RE-EQUIPMENT) OF PREMISES (INDIVIDUAL PARTS) OF EXISTING BUILDINGS AND STRUCTURES RELATED TO THE CHANGE OF BEARING AND ENCLOSING STRUCTURES, ENGINEERING SYSTEMS AND EQUIPMENT[171]

Name of the applicant: _____

(full name of an individual or name of a legal entity)

Address:_____

Telephone:_____

Client:_____

Name of the designed facility:_____

Address of the designed facility: _____

I kindly request to issue the following:

 Package 1. Source materials for new construction (architectural planning specifications (hereinafter referred to as APS), vertical design elevations, extracts of the detailed design plan, standard cross profiles of roads and streets, technical specifications (hereinafter referred to as TS), layout scheme of external engineering network routes);

 Package 2. APS and TS;

 Package 3. Source materials for the reconstruction (redevelopment, re-equipment) of premises (separate parts) of existing buildings and structures (decision of the for the reconstruction (redevelopment, re-equipment) of premises (separate parts) of existing buildings and structures related to the change of bearing and enclosing (external) structures, engineering systems and equipment, APS, TS, layout scheme of external engineering network routes).

I give consent to the use of information contained in information systems that constitutes a secret protected by law.

Date: "_____" _____ 20__

Submitted by:_____

Signature

[171] According to Appendix 1 to the Rules for the organization of development and passing licensing procedures in the field of construction, approved by the Order of the Minister of National Economy of the Republic of Kazakhstan dated November 30, 2015 No 750

ANNEX 14

QUESTIONNAIRE FOR TECHNICAL CONDITIONS FOR CONNECTION TO SOURCES OF ENGINEERING AND UTILITY PROVISION

Client	-						
Facility title	-						
Construction period according to the standards	-						
Title documents for the object (reconstruction)	-						
Number of floors	-						
Building area	-						
Number of apartments (rooms, offices)	-						
Power supply	Power requirements, kW	-					
	Nature of the load (phase)	Single-phase, three-phase, permanent, temporary, seasonal					
	Reliability category	I category kW (kVA), II category kW (kVA), III category kW (kVA)					
Additionally, for construction in stages	Maximum load after commissioning by year (cumulative total taking into account the existing load)						
		20__ ____ kW, 20__ __ kW, 20__ _ kW					
	of the specified max. loads relate to electrical receivers:						
		Category I kW (kVA), Category II___kW (kVA), Category III ___kW (kVA)					
during reconstruction	It is proposed to install electric boilers, electric heaters, electric hot plates, electric ovens, electric water heaters (underline)	in the number of ___ pcs., unit power____ kW (kVA)					
	Existing maximum load	-					
	Authorized transformer capacity	In TP no._____ kVA In TP no._____ kVA					
Water supply	Total water requirement	_____	m3/day	—	m3/hour of drinking water	____	l/sec max.
	including						
	Drinking quality water	—	m^3/day	—	m^3/hour	—	l/sec max.

	Industrial water	----	m^3/day	---	m^3/hour	—	l/sec max.
	Fire extinguishment flow demand	—	l/sec				
Sewerage	Total wastewater	—	m^3/day	—	m^3/h max		
	including						
	Faecal	---	m^3/day	—	m^3/h max		
	Industrially contaminated	---	m^3/day	---	m^3/h max		
	Conditionally clean discharged into the city sewerage system	—	m^3/day	—	m^3/h max		
	Qualitative composition and characteristics of industrial effluents (pH, suspended solids, BH concentration of acids, alkalis, explosives, inflammable radioactive substances, etc.)						
Heating	Total Heat Load	____Gcal*h					
		including:					
	Heating	____Gcal*h					
	Ventilation	____Gcal*h					
	Hot water supply	____Gcal*h					
	Process Needs(steam)	____t/h					
	Separate the load into housing and built-in premises	-					
	Energy-saving event	-					
Storm sewerage	Client adaptation	-					
Telephony	Number of OTAs and services broken down by individuals and legal entities	-					
	Telephone Capacity	-					
	Planned telephone sewerage	-					
	Client adaptation (type of equipment, type of cable, etc.)	-					
Gas supply	Total demand	___m^3/hour					
		including:					
	For cooking	___m^3/hour					
	Heating	___m^3/hour					

	Ventilation	___m^3/hour
	Conditioning	___m^3/hour
	Hot water supply for gasification of multi-storey buildings	___m^3/hour

Note*

_____

_____

* If the questionnaire is submitted by a sub-consumer, the note indicates the consumer's consent to connect the sub-consumer to its networks. At the same time, the consumer's consent contains the data (individuals - sign, legal entities - sign and seal (if any)).

Customer:

_____

"____" _____ 20___

ANNEX 15

APPROVAL OF SCHEMATIC DESIGN

APPLICATION[172]

Applicant name:_____

(Full name (if applicable) of natural person or name of legal entity)

Address:_____

Telephone:_____

Client_____

_____

Name of the design project (facility):

_____

Address of the design project (facility):

_____

I hereby petition you to approve the schematic design

)

Accepted by (signature)_____

Date: _____20__

Submitted by (signature)_____

[172] According to Annex 6 to the Rules for the organization of construction and permitting procedures in the field of construction, approved by Order of the Minister of National Economy of the Republic of Kazakhstan dated November 30, 2015 No. 750

ANNEX 16

ASSIGNMENT TO DESIGN FACILITIES FOR INDUSTRIAL PURPOSES[173]

_____

(name and location of enterprise, project/facility, building, structure)

No.	List of basic data and requirements	
1	Basis for the design.	
2	Type of construction.	
3	Design stages/phases.	
4	Requirements for optional and bidding design.	
5	Special construction specifications.	
6	Main technical and economic indicators of the facility, including capacity, productivity, and production program.	
7	Basic requirements for engineering equipment.	
8	Requirements for quality, competitiveness and environmental parameters of products.	
9	Facility technology and schedule (mode of operations) requirements.	
10	Requirements for architecture and construction, space-planning and design solutions, with consideration given to the creation of accessible environments for the disabled	
11	Requirements and scope of development of the construction arrangements.	
12	Allocation of schedules, including start-up complexes and stages, requirements for future expansion of the facility.	
13	Requirements and conditions for the development of environmental measures.	
14	Requirements for occupational safety and health protocol.	
15	Requirements for the development of engineering and technical activities as part of civil defense, emergency prevention and protective arrangements.	
16	Requirements for the implementation of research and development activities.	
17	Energy saving requirements.	
18	Composition of demonstration materials.	
19	Requirements for the use of construction materials, products, structures and equipment manufactured in Kazakhstan for facilities funded via state investments and quasi-public sector funds are provided in accordance with the database of goods, works, services and their suppliers, formed in accordance with the Rules for the formation and maintenance of a database of goods, works, services and their suppliers	

Note. The composition of the design assignment is established taking into account the specific features of the industry and type of construction. Together with the design assignment, in addition to the source materials (data) provided in Section 5 of the construction code of the Republic of Kazakhstan

_____

[173] According to Appendix B to the building codes SN RK 1.02-03-2022 "Procedure for the development, coordination, approval and composition of design and estimate documentation for construction"

SN RK 1.02-03-2022 "Procedure for the development, coordination, approval and composition of design and estimate documentation for construction", the Client issues the design organization the following source documents and materials:

- a feasibility study for the construction of the facility (investment) or other pre-design document approved in accordance under the established procedure;

- a decision of the local executive authority on the preliminary approval of the location of the project;

- act of selection of a land plot (route) for construction and the materials attached to it;

- information on public discussions of decisions regarding the construction of the facility;

- initial data on equipment, including custom-made equipment;

- the requisite data on completed research and development activities related to the creation of technological processes and equipment;

- inventory materials, assessment reports and decisions of the local administration on demolition and the mode of compensation for demolished buildings and structures;

- materials received from the local administration and state oversight bodies, including characteristics of the socio-economic situation, natural conditions and the state of the natural environment, data on existing sources of pollution and other information in accordance with the requirements of environmental authorities, sanitary and epidemiological conditions in the construction area;

- available survey and technical condition assessment materials, measurement drawings of existing buildings and structures on the construction site, underground and above-ground networks and communications;

- drawings and technical characteristics of the company’s products;

- conclusions and materials prepared based on the results of inspection of existing production facilities, designs of buildings and facilities;

- technological layouts of existing workshops, sections with equipment specifications and information on its condition, data on working conditions in the workplace;

- specifications for the placement of temporary buildings and structures, lifting and transport machines and mechanisms, storage areas for building materials;

- other data and requirements as agreed by the parties (client and contractor).

ANNEX 17

CONTACTS OF SOME SPECIALIZED DESIGN FIRMS THAT DEVELOP FEASIBILITY STUDIES OR DESIGN AND ESTIMATES DOCUMENTATION

TOO Kaztekhnologiya
Tel.: 8 (7212) 41-44-44; 91-24-50; 91-24-51
Address: Karaganda, 12 Kommunalnaya St.
e-mail: kaztechnologia@mail.ru
https://technologya.kz/

TOO Konstruktiv-A
tel.: 8 (7172) 44-05-60
Address: Astana, 16 Barayeva St.
e-mail: constructiv@mail.ru

TOO Firma Kazenergonaladka
tel.: +7 (727) 279 42 42
fax: 8 (727) 2794363
Address: Almaty, 410 Seifullina Ave
e-mail: ken@ken.kz

TOO KAZHYDRO
tel.: +7 (727) 261-32-88
tel.: +7 (727) 261-32-89
e-mail: kazgidro@yandex.kz
Address: Almaty, Kok-Tobe microdistrict, 2/27 Kosmodemyanskaya St.

Sh. Chokin Kazakh Energy Research Institute
tel.: +7 (727) 292 24 54
tel.: +7 (727) 292 74 70
tel.: +7 (727) 271 62 84
Address: Almaty, 114/85 Dzhambula St.
e-mail: info@kaznii.kz
e-mail: ipk@kaznii.kz

TOO "Institute Kazselenergoproekt"
тел.: + 7 (727) 346-83-44
Address: Almaty, 151/115 Abay Ave., Alatau BC
e-mail: info@kazsep.kz

TOO "Energy System Researches"
tel: +7 727 293 70 97
Address: Almaty, 114/85 Dzhambyla St.
e-mail: info@esr.kz
e-mail: tyugay.valeriy@esr.kz

TOO Kelesgidrostroy
tel: +705 781 38 41
Address: 160905, Turkestan Region, Kelessy District, Abay village, 2a A. Baltabayev St.
e-mail: keleshydro@gmail.com

ANNEX 18

CONTACTS OF RSE GOSEKSPERTIZA

Republican State Enterprise on the Right of Economic Management "State Non-Departmental Expertise Assessment of Projects" (RSE "Gosexpertiza") of the Committee for Construction, Housing and Public Utilities of the Ministry of Industry and Construction of the Republic of Kazakhstan.

Address: 010000 Astana, 7 Kultobe alley

Contact telephones: reception 8 (7172) 57-44-84; admin office 8 (7172) 57-42-44

on matters of pre-assessment activities: 8 (7172) 57-39-93, 8 (7172) 57-43-09, 8 (7172) 57-37-38, 8 (7172) 57-37-26;

on matters of contracting: 8 (7172) 57-43-02, 57-38-40

Email: gosexpertiza@gosexpertiza.kz;

Website: www.gosexpertiza.kz

Almaty City Branch of RSE Gosexpertiza

http://www.госэкспертиза.kz/contacts/Almaty

Branch of the RSE "Gosexpertiza" in Aktobe Region and West Kazakhstan Region

http://www.госэкспертиза.kz/contacts/aktobe

Production department in the city of Atyrau of the branch of the RSE "Gosexpertiza" for the Western region

http://www.госэкспертиза.kz/contacts/atyrau

Branch of the RSE "Gosexpertiza" in the Eastern region

http://www.госэкспертиза.kz/contacts/east

Production department in the city of Taraz of the branch of the RSE "Gosexpertiza" for the Southern region

http://www.госэкспертиза.kz/information/zhambyl

Branch of the RSE "Gosexpertiza" in West Kazakhstan Region

http://www.госэкспертиза.kz/contacts/west

Branch of the RSE "Gosexpertiza" in Karaganda Region

https://www.госэкспертиза.kz/contacts/kar

Branch of the RSE "Gosexpertiza" in the Northern region

http://www.госэкспертиза.kz/contacts/kokshetau

Production department in the city of Petropavlovsk of the Branch of the RSE "Gosexpertiza" in the Northern region

http://www.госэкспертиза.kz/contacts/north

Branch of the RSE "Gosexpertiza" for Kostanay Region

http://www.госэкспертиза.kz/contacts/kostanay

Branch of the RSE "Gosexpertiza" for Kyzylorda Region

http://www.госэкспертиза.kz/node/kyzylorda

Branch of the RSE "Gosexpertiza" for the Western region

http://www.госэкспертиза.kz/contacts/aktau

Branch of the RSE "Gosexpertiza" for Pavlodar Region

http://www.госэкспертиза.kz/contacts/pavlodar

Branch of the RSE "Gosexpertiza" for Zhetisu Region and Almaty Region

http://www.госэкспертиза.kz/contacts/taldykorgan

Branch of the RSE "Gosexpertiza" for the Southern region

http://www.госэкспертиза.kz/contacts/south

ANNEX 19

LIST OF DOCUMENTATION (MATERIALS) SUBMITTED FOR COMPREHENSIVE NON-DEPARTMENTAL EXAMINATION OF NEW CONSTRUCTION PROJECTS[174]

The following documents are attached to the Client's application (with the Client's details) for conducting a comprehensive non-departmental examination of designs for new construction projects through a single Portal:

1. Initial documents that are the basis for developing a feasibility study or design and estimate documentation for the construction of new buildings and structures, their complexes, engineering and transport communications:

1) the Client's decision to invest in the project, indicating the planned timeframe and duration of the investment cycle as a whole;

2) a title document for a land plot (for design and estimate documentation), with the exception of certain cases;

3) engineering survey materials for the construction site (within the boundaries of the land plot and utility routes) required for designing a new construction project or expanding an existing facility. To prepare the feasibility study, the local executive bodies use the archive materials containing the results of engineering surveys conducted and prepared no later than 5 (five) years prior to their submission to the Client;

4) technical specifications (with route diagrams):

for connection to sources of engineering and transport support, issued by operating entities;

for the intersections of designed engineering or transport communications with existing line structures or with tunnels and bridge structures along the route, issued by the owners.

The validity period of the technical specifications issued to the Client may not be changed until the constructed facility is accepted into operation, except in cases stipulated by the legislation of the Republic of Kazakhstan in the field of architecture, urban planning and construction;

5) architectural and planning assignment of the local (city of republican significance, capital, cities of regional significance, districts) executive body for architecture, urban planning and construction, including the agreed conditions for site engineering preparation, improvement and landscaping;

6) the design assignment (project development assignment) approved by the Client. The procedure for drafting, coordinating and approving the design assignment, as well as the development of feasibility studies or design and estimate documentation and their composition are governed by state building codes and regulations;

7) in cases where a need to adjust and re-approve the design and estimate documentation arose during the construction process, information on the construction status and copies of certificates of work performed are included in the documentation submitted for a new comprehensive non-departmental examination and re-approval. For budget-funded

[174] According to Annex 2 to the Rules for conducting a comprehensive non-departmental examination of feasibility studies and design and estimate documentation intended for the construction of new, as well as changes (reconstruction, expansion, technical retooling, modernization and major repairs) of existing buildings and structures, their complexes, engineering and transport communications, regardless of funding sources, approved by order of the Minister of National Economy of the Republic of Kazakhstan dated April 1, 2015 No. 299

investment projects, as well as other state investment projects, a decision of the relevant budget commission is additionally submitted;

8) other approvals of the construction project, provided for by the legislation of the Republic of Kazakhstan and regulatory and technical documents in the field of architecture, urban planning and construction, as well as in the field of industrial safety of hazardous industrial facilities;

9) for projects for the construction of unique objects/facilities, special technical specifications (special standards) are provided, according to which the design is developed;

10) for the types of planned activities and facilities specified in Annex 1 to the Environmental Code of the Republic of Kazakhstan – a conclusion based on the results of the environmental impact assessment or a findings report on the results of the screening of the impacts of the planned activities.

2. Special (additional) source documents required for conducting sanitary and epidemiological examination of projects:

coordination with territorial divisions of the department of the state body in the field of sanitary and epidemiological welfare of the population of design documentation for the establishment of a sanitary protection zone for surface and/or subsurface water supply sources;

master plan for the development of urban and rural settlements, resort areas, planning and development of settlements.

3. Project materials compiled in accordance with paragraph 15 of the Rules for conducting a comprehensive non-departmental examination of feasibility studies and design and estimate documentation intended for the construction of new, as well as changes (reconstruction, expansion, technical retooling, modernization and major repairs) of existing buildings and structures, their complexes, engineering and transport communications, regardless of funding sources, approved by order of the Minister of National Economy of the Republic of Kazakhstan dated April 1, 2015 No. 299:

1) establishing the rules for the development, coordination, approval and composition of the feasibility study for construction;

2) governing the procedure for development, coordination, approval and composition of construction project documentation (design and estimate documentation).

5. Information on the Client and developer of the design submitted for examination:

1) copies of the Client’s documents, as provided for by the legislation on state registration of legal entities, taxes and other mandatory payments;

2) Client's bank details;

3) a license of the legal entity – the project developer (general design and sub-design organizations) with appendices to it and an indication of the category of licensee, as authorization for this type of design activities;

4) calculation of the cost of design (design and survey) works;

5) a list of materials, products, structures, engineering and technological equipment, and other material resources used in the project, approved by the Client, according to appended price lists and with an indication of the price per unit of their measurement;

6) a consolidated statement of the need for basic building materials, products, structures and equipment, taking into account Kazakhstani content, drawn up:

on the Portal website in electronic digital form, as part of the design documentation submitted through the portal;

on paper, as part of the design and estimate documentation with a classification label or marked “for internal use only”.

ANNEX 20

CONSTRUCTION AND INSTALLATION WORKS COMMENCEMENT NOTICE[175]

With respect to the new construction project:

To the Chief State Construction Inspector (region, city of republican significance, capital)

_____
_

(last name, first name, patronymic (if applicable))

From Client (Developer) _____

(last name, first name, patronymic (if applicable) for individuals, name of the organization for legal entities, postal code, region, city, district, locality, street name, house/building number (fixed premises) and telephone number)

I hereby notify you of the commencement of construction and installation works at the site

_____
_

_____
_

(site/facility name and location)

Construction started on _____ ___ 20___.

Commissioned on _____ ___ 20___.

Funding source _____.

I herewith inform you of the following:

1. The decision to grant the relevant right to land has been issued

_____
_

(name of local executive body)

dated _____ 20 ___, No. ____.

2. Design (design and estimate) documentation for the construction of the facility has been developed by

_____
_____
__

(name of the design organization, number, date of receipt and category of license, design stages)

and approved by _____

(name of organization, No. and date of order)

[175] Order of the Minister of National Economy of the Republic of Kazakhstan dated January 6, 2015 No. 4 "On approval of notification forms and Rules for the acceptance of notifications by government agencies, as well as on designating government agencies that accept notifications."

3. A favorable expert examination report (in case of mandatory expert examination) was issued on _____ No.

_____

(type of examination, last name, first name, patronymic (if applicable), telephone, number, date of receipt and specialization of the expert certificate, name, postal address and telephone number of the organization that performed the examination, number and date of receipt of the accreditation certificate (if the examination was performed by an accredited organization)

4. The facility has the criticality level of _____

(level 1 – high; level 2 – normal; or level 3 – low)

5. The standard construction duration approved as part of the design (design and estimate) documentation is _____ month(s).

6. The works shall be performed on a contracting basis by _____

_____

_

(name of the organization contracted to carry out the construction; address, telephone number, date of receipt and category of license)

based on contracting agreement dated _____ 20 ___ No.__.

7. The decision on the relevant stages of construction in the expert supervision mode (if phased construction is envisaged) was issued on _____ 20 ___, No. _____.

8. By order No. _____ dated _____ 20___, the Client appointed _____ as its Responsible Person

(last name, first name, patronymic (if applicable), position)

with the following educational credentials: _____

_

(name of educational institution, graduation year, major)

9. By order No. _____ dated _____ 20___, _____ was appointed as the person responsible for construction on behalf of the general contractor.

(last name, first name, patronymic (if applicable), position, name of organization)

with the following educational credentials:

_____

_

(name of educational institution, graduation year, major)

and _____ years of experience in construction, having completed training and having a valid certificate in the course "Earthquake-resistant construction" (in the event that the construction project is in a seismic area)

_____
_

(certificate number, issued or renewed by)

10. Designer's field supervision will be carried out (fill in the required sub-items) by:

1) design developer _____

(name of organization, number, date of receipt and category of license, address and telephone number)

represented by _____

(last name, first name, patronymic (if applicable), position)

in accordance with the order dated _____ 20 ___ No. _____;

2) organization/company _____

(name of organization, address and telephone number)

having on staff a certified expert(s)_____ _____

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate)

in accordance with the agreement dated _____ 20 ___ No. _____;

3) expert _____

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate, address and phone number)

in accordance with the agreement dated _____ 20 ___ No. _____;

11. Technical supervision will be carried out (fill in the required sub-items) by:

1) by the customer independently, having on staff a certified expert(s)

_____
_

(last name, first name, patronymic (if applicable) of the expert, No., date of receipt and specialization of the certificate, No. and date of receipt of the accreditation certificate (if there is an accreditation certificate))

appointed by order dated _____ 20 ___ No. ___,

2) organization/agency _____

(name of the organization, address and telephone number, number and date of receipt of the accreditation certificate (if there is an accreditation certificate))

that has on staff a certified expert(s)

_____
_

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate)

in accordance with the agreement dated _____ 20 ___ No. _____;

3) expert_____

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate, address and phone number)

in accordance with the agreement dated _____ 20 ___ No. _____.

12. I undertake to promptly notify the state architectural and construction control and oversight authorities of all changes related to the information provided in this notice.

13. By submitting this notice, I hereby confirm that:

1) all specified contacts are official, and any information on issues related to the implementation of activities or individual actions may be submitted using this contact information;

2) the attached documents are true and valid;

3) compliance with the requirements of the legislation of the Republic of Kazakhstan, which are mandatory for execution before the commencement of construction and installation works.

14. We are aware that for violating building codes and requirements of legislation in the field of architecture, urban planning and construction and the approved design during construction and installation works, we will be held liable in accordance with the Code of the Republic of Kazakhstan on Administrative Offenses.

Client (Developer)	General contractor
_____	_____
(last name, first name, patronymic	(last name, first name, patronymic
(if applicable), position)	(if applicable), position)
IIN/BIN _____	IIN/BIN _____
(for natural or legal persons)	(for natural or legal persons)
_____	_____
(signature, date)	(signature, date)
Stamp here (if available)	Stamp here (if available)

In the event that the notice is lodged by a person under a power of attorney:

agent: _____

(last name, first name, patronymic (if applicable))

Submission date: _____ 20___.

For the reconstruction (replanning, remodeling) of premises (individual parts) of existing buildings:

To the Chief State Construction Inspector (region, city of republican significance, capital)

_____
_

(last name, first name, patronymic (if applicable))

From Client (Developer) _____

_____
_

(last name, first name, patronymic (if applicable) - for individuals, name of the organization - for legal entities, postal address and telephone number)

I hereby notify you of the commencement of construction and installation works to carry out reconstruction (replanning, remodeling) of premises (individual parts) of existing buildings

_____
_

(site/facility name and location)

Construction started on _____ ___ 20___.

Commissioned on _____ ___ 20___.

I herewith inform you of the following:

1. Decision of the relevant local executive body exercising functions in the area of architecture and urban planning with respect to the reconstruction (replanning, remodeling) of premises (individual parts) of existing buildings

_____
___

(name of local executive body)

dated _____ 20 ___, No. ____.

2. Documents certifying the right of ownership of the premises (part of the building) being modified, issued
by_____

(name of documents, name of the body that issued the documents)

dated _____ 20 ___ No. ____, or a notarized written consent of the owner(s) of the premises or parts of the building to the modification, as certified by _____

(address of the notary office, last name, first name, patronymic (if applicable) of the person certifying)

3. The decision to grant the relevant right to land has been issued (if the planned modification entails the allotment (addition) of an additional land plot)

_____

(name of local executive body)

dated _____ 20 ___, No. ____.

4. Design (design and estimate) documentation for the reconstruction (replanning, remodeling) of premises (individual parts) of existing buildings has been developed

_____
_

(name of the design organization, number, date of receipt and category of license, design stages)

in accordance with the architectural planning assignment dated ___

_____ 20__ No. ____, issued by

_____
_

(name of local executive body)

and approved by
_____

(last name, first name, patronymic (if applicable) and (or) order number and date)

5. A favorable expert examination report (in case of mandatory expert examination) was issued on _____ No.

_____
_

(type of examination, last name, first name, patronymic (if applicable), telephone, number, date of receipt and specialization of the expert certificate, name, postal address and telephone number of the organization that performed the examination, number and date of receipt of the accreditation certificate (if the examination was performed by an accredited organization)

6. Notarized written consent of the owners of other premises (parts of the house) adjacent to the premises (parts of the house) to be altered where the planned reconstruction (replanning, remodelling) of the premises (parts of the residential building) or the transfer of the boundaries of the premises affects their interests, dated _____

20__, notarized by

_____
_

(address of the notary office, last name, first name, patronymic (if applicable) of the person certifying)

is available.

7. The works shall be carried out on a contracting basis (if a contractor is involved)

_____
_

(name of the organization contracted to carry out the construction; address, telephone number, date of receipt and category of license)

based on contracting agreement dated _____ 20 ___ No.__.

8. By order No. _____ dated _____ 20___, _____ is appointed as the responsible person representing the Client (if one is appointed)

_____
_

(last name, first name, patronymic (if applicable), position)

with the following educational credentials:

_____
_

(name of educational institution, graduation year, major)

9. The person responsible for reconstruction (replanning, remodeling) from the general contractor was appointed by order No. _____ dated “___”_____ 20___ (where a contractor is engaged)

_____

(last name, first name, patronymic (if applicable), position, name of organization)

with the following educational credentials:

_____
_

(name of educational institution, graduation year, major)

and _____ years of experience in construction, having completed training and having a valid certificate in the course "Earthquake-resistant construction" (in the event that the construction project is in a seismic area)

_____
_

(certificate number, issued or renewed by)

10. Designer’s field supervision will be carried out (fill in the required sub-items) by:

1) design developer

_____
___

(name of organization, number, date of receipt and category of license, address and telephone number)

represented by _____

(last name, first name, patronymic (if applicable), position)

in accordance with the order dated _____ 20 ___ No. _____;

2) organization/agency

_____
_

(name of organization, address and telephone number)

that has on staff a certified expert(s)

_____
_

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate)

in accordance with the agreement dated _____ 20 ___ No. _____;

3) expert _____,

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate, address and phone number)

in accordance with the agreement dated _____ 20 ___ No. _____;

11. Technical supervision will be carried out (fill in the required sub-items) by:

1) by the customer independently, having on staff a certified expert(s) _____,

(last name, first name, patronymic (if applicable) of the expert, No., date of receipt and specialization of the certificate, No. and date of receipt of the accreditation certificate (if there is an accreditation certificate))

appointed by order dated _____ 20 ___ No. ___,

2) organization/agency _____,

(name of the organization, address and telephone number, number and date of receipt of the accreditation certificate (if there is an accreditation certificate))

that has on staff a certified expert(s) _____

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate)

in accordance with the agreement dated _____ 20 ___ No. _____,

3) expert_____

(last name, first name, patronymic (if applicable) of the expert, number, date of receipt and specialization of the certificate, address and phone number)

in accordance with the agreement dated _____ 20 ___ No. _____.

12. I undertake to promptly notify the state architectural and construction control and oversight authorities of all changes related to the information provided in this notice.

13. By submitting this notice, I hereby confirm that:

1) all specified contacts are official, and any information on issues related to the implementation of activities or individual actions may be submitted using this contact information;

2) the attached documents are true and valid;

3) compliance with the requirements of the legislation of the Republic of Kazakhstan, which are mandatory for execution before the commencement of construction and installation works.

14. We are aware that for violating building codes and requirements of legislation in the field of architecture, urban planning and construction and the approved design during construction and installation works, we will be held liable in accordance with the Code of the Republic of Kazakhstan on Administrative Offenses.

Client (Developer)	General contractor (in case of involving a contractor entity)
_____	_____
(last name, first name, patronymic (if applicable), position)	(last name, first name, patronymic (if applicable) position)
IIN/BIN _____ (for natural or legal persons)	IIN/BIN _____ (for natural or legal persons)

_____	_____
(signature, date)	(signature, date)
Stamp here (if available)	Stamp here (if available)

In the event that the notice is lodged by a person under a power of attorney:

Agent_____

(last name, first name, patronymic (if applicable))

Submission date: _____ 20___.

ANNEX 21

COMMISSIONING CERTIFICATE[176]

____ _____ 20__

Client_____

_____

_

last name, first name, patronymic (if applicable), IIN, telephone - for individuals, name of the organization - for legal entities, BIN, telephone, postal code, region, city, district, locality, street name, house/building number (fixed premises)

based on:

Declarations of Conformity (attached)_____

_____

_,

date of signing the declaration, name of the contracting (general contracting) organization, last name, first name, patronymic (if applicable) of the manager/director, legal address, BIN, telephone

Conclusions on the quality of construction and installation works (attached) _____

_____

_,

date of signing the conclusion, name of the organization, last name, first name, patronymic (if applicable) technical supervision experts, No. and date of receipt of certificates, BIN, telephone

Opinion reports on the compliance of the completed work with the design (attached)_____

_____

_,

date of signing the conclusion, name of the organization, last name, first name, patronymic (if applicable) experts performing designer's field supervision, No. and date of receipt of certificates, BIN, telephone

having inspected the readiness of the works delivered by the contractor (general contractor) for facility commissioning:

_____

_____

_

name of the facility/project, type of construction (new, expansion, reconstruction, technical retooling, modernization, overhauls), level of responsibility, technical and technological complexity of the facility

located at (address): _____,

(region, district, locality, microdistrict, block, street, house (building) number)

having checked the completeness of the executive technical documentation, including by means of electronic module of executive technical documentation _____20__ year,

date of evaluation

hereby certifies that:

1. The construction of the facility was carried out on the basis of:

1) a title deed to a land plot dated ___

_____20_____

No._____;

_____

[176] Order of the Minister of Investment and Development of the Republic of Kazakhstan dated April 24, 2017 No. 234 "On approval of the form of the commissioning certificate."

a document confirming the occurrence of dispositive (legal) facts (legal sets of facts) based on which rights to a land plot arise, change or terminate, including contracts, court decisions, legal acts of executive bodies, a certificate of inheritance, a transfer act or a separation balance sheet arising out of the reorganization of non-state legal entities that own a land plot or have purchased the right of temporary paid land use (lease).

or decisions on reconstruction (replanning, remodeling) of premises (individual parts) of existing facilities dated _____20___ No._____;

name of authority issuing the decision

2) certificate of receipt of the notice of commencement of construction and installation works

_____
___

_____
___

name of the body that received the notice, date and number of receipt of the certificate

3) design (design and estimate documentation)_____
_____

_____
___

name of the design organization, number of the project

approved by _____

_____
__;

date and number of the project, name of the organization that approved (re-approved) the project and date of approval

2. Construction and installation works were completed within the following timeframes:

works commenced on _____ ___ 20___;

works completed on _____ ___ 20___;

with the construction duration, in months:

according to the standard or according to the construction organization design, in months:_____;

actual duration, in months:_____;

3. The facility (complex) has the following main technical and economic indicators (capacity, productivity, production area, length, capacity, volume, throughput, carrying capacity, number of workstations, etc.; to be filled in for all facilities (except residential buildings) in units of measurement corresponding to the target products or main types of services):

Capacity, performance and so forth	Unit of measurement	Per design		Actual	
		total (inclusive of previously commissioned)	including start-up facilities or queue	total (inclusive of previously commissioned)	including start-up facilities or queue

Production output (provision of services) envisaged by the project in a volume corresponding to the standard rates for

realizing design capacities in the initial period_____;

the fact of the start of production, specifying the volume

Residential building has the following indicators:

Indicators	Unit of measurement	Per design	Actual
Total area	square meter (m^2)		
Number of floors	floor		
Total construction volume	cubic meter (m^3)		
Including the underground part	m^3		
Area of built-in, built-in-attached and attached premises	m^2		

Indicators	Per design			Actual		
	qty of apartments	apartment area, m^2		qty of apartments	apartment area, m^2	
		total	habitable		total	habitable
Total nr of apartments, including: one-room two-room three-room four-room over						

4. Technological and architectural construction solutions for the facility are characterized by the following data:_____

_____
;

brief technical characteristics of the features of its placement, the main materials and elements, engineering and technological equipment

5. The equipment provided for by the design has been installed at the facility in the quantity in accordance with the certificates of its acceptance following the individual testing and comprehensive testing;

6. External utilities (cold and hot water supply, sewerage, heat supply, gas supply, electricity supply and communications) ensure the normal operation of the facility (building, structure, premise) and accepted by city-run operators;

7. Estimated cost according to the approved design (design and estimate documentation):
a total of _____ thousand tenge, including construction and installation works _____ thousand tenge, equipment, tools and inventory _____thousand tenge;

8. The estimated cost of fixed assets accepted into operation is ____ thousand tenge, including:
cost of construction and installation works is _____ thousand tenge;
the cost of equipment, tools and inventory is _____ thousand tenge;

9. The share of local content is provided for in the design and estimate documentation is _____% and the actual share is _____% (at facilities financed via public investment and quasi-public sector funds);

10. Building's energy efficiency class _____;

11. The facility was built in accordance with the approved design (design and estimate documentation) and requirements set out in state regulatory documents in the field of architecture, urban planning and civil engineering.

HEREBY DETERMINES THAT:_____

name of facility/project (complex)

_____be commissioned.

Client _____.

last name, first name, patronymic (if applicable), signature of the director Stamp here (if applicable)

Technical oversight:

1) certified expert(s)_____.

(last name, first name, patronymic (if any) of the expert, specialization of the certificate, signature, date

Stamp here (if applicable)

2) accredited organization _____,

(name of the organization) that has certified expert(s) in its composition, last name,

name, patronymic (if applicable) of the manager, signature, date

Stamp here (if applicable)

_____

_.

(last name, first name, patronymic (if applicable) of the expert, specialization of the certificate, signature, date

Stamp here (if applicable)

Designer's field oversight:

1) design developer _____.

(name of organization, last name, first name, patronymic (if applicable), position), signature, date

Stamp here (if applicable)

2) organization _____,

(name of the organization that has certified expert(s) on staff, last name, first name,

patronymic (if applicable) of the manager, signature, date

Stamp here (if applicable)

_____

_.

(last name, first name, patronymic (if applicable) of the expert, specialization of the certificate, signature, date

Stamp here (if applicable)

3) certified expert(s)_____ _____.

(last name, first name, patronymic (if applicable) of the expert, specialization of the certificate, signature, date

Stamp here (if applicable)

Contractor (general contractor)_____.

last name, first name, patronymic (if applicable), signature of the director Stamp here (if applicable)

Annex 1

to certificate of facility commissioning

form

Technical characteristics of the facility/project (individual residential house, summer houses, garages)

Name: individual residential building (unheated extension, garage, bathhouse, summer kitchen, shed, etc.), summer houses, garages	Unit of measurement	General information					
		number of floors (floors)	building footprint, m^2	building volume (m^3)	number of habitable rooms	total area (m^2)	habitable area (m^2)
1	2	3	4	5	6	7	8

(continued)

Description of structural elements			Heating type	Amenities				
foundation	walls	rooftop		power supply	water supply	hot water supply	plumbing	gas supply
9	10	11	12	13	14	15	16	17

Building plan

Scale _____

Land plot schedule

Total area (m^2)	Including (m^2):					
	built-up	courtyard paving			decorative garden	vegetable lot
		sidewalks	perimeter pavements	unpaved		
1	2	3	4	5	6	7

Land plot plan

Scale _____

Client _____

last name, first name, patronymic (if applicable), signature of the director Stamp here (if applicable)

Designer's field oversight_____

last name, first name, patronymic (if applicable), signature of the expert Stamp here (if applicable)

Annex 2

to certificate of facility commissioning

form

Technical characteristics of the facility/project (multi-apartment residential buildings, industrial, commercial facilities, etc.)

Name (apartment building, industrial, commercial facilities, etc.)	General information									
	qty of floors (floors)	qty of apartments	qty of spaces, rooms	building footprint, m^2	building volume (m^3)	total area (m^2)	habitable area (m^2)	area of non-habitable spaces (m^2)	parking area (m^2)	area of balcony, enclosed balcony (m^2)
1	2	3	4	5	6	7	8	9	10	11

(continued)

Description of structural elements			Heating type	Amenities				
foundation	walls	rooftop		power supply	water supply	hot water supply	plumbing	gas supply
12	13	14	15	16	17	18	19	20

Area distribution

No.		In individual apartments	In hallway spaces	In dormitories	In hotels
1	Qty of residential apartments				
2	Qty of habitable rooms				
3	Total area (m^2)				
4	Total area (m^2)				

(continued)

Of the total area				Apartment breakdown by number of rooms				
in mansards	in basements	in semi-basements	in bunk houses	1-room	2-room	3-room	4-room	5-room

Non-habitable spaces

Area (m^2)	Living space in non-residential premises	Trade	Industrial/ production buildings and facilities	Storage	Housekeeping services	Garages	Organizations and institutions engaged in management, research, banking, public services, etc.
1	2	3	4	5	6	7	8
Primary							
Auxiliary							

(continued)

Foodservice	Education institutions	Transportation structures and buildings	Public health and medical	Fitness and sport	Culture and arts institutions	Utility network facilities	Other	Total
9	10	11	12	13	14	15	16	17

List of documents attached to the technical characteristics of the facility:

1. Floor plans _____

2. Breakdowns for the floor plans _____

Land plot schedule (m^2)

Land plot total area	Built-up area			Non-built-up area		
	total	under main buildings	under other structures	asphalt paving	other paving types	unpaved
1	2	3	4	5	6	7

(continued)

Non-built-up area (m^2)									
equipped spaces				green spaces					
total	athletic	children's	support /admin	total	including:				
					lawn with trees	fruit garden	lawns, flowerbeds	vegetable lot	other
8	9	10	11	12	13	14	15	16	17

Facility plan breakdown

Floor / story	Space, apartment number	Space, apartment part/section number	Purpose of parts/sections of space, apartment	Area according to internal measurements (m^2), including			
				Total	Usable	Habitable	Non-habitable
1	2	3	4	5	6	7	8

(continued)

Area according to internal measurements (m^2), including								
In individual apartments	In dormitories	In hotels	Trade	Industrial/ production buildings and facilities	Storage	Education institutions	Housekeeping services	Organizations and institutions engaged in management, research, banking, public services, etc.
9	10	11	12	13	14	15	16	17

(continued)

Area according to internal measurements (m^2), including							
Foodservice companies	Healthcare institutions	Fitness and sport	Culture and arts institutions	Transportation structures and buildings	Utility network facilities	Garages	Other
18	19	20	21	22	23	24	25

Technical description of the structural elements of the main structure

No.	Structural element name	Description of structural elements (material, finishes, etc.)
1	2	3
1	Foundation	
2	1) external and internal load-bearing walls	
	2) partitions	

3	Structural floors	attic	
		inter-floors	
4	Rooftop		
5	Flooring	first floor	
		subsequent floors	
6	Apertures	windows	
		doors	
7	Finishing works	interior	
		exterior	
8	Hot water supply		
9	Water pipework		
10	Plumbing		
11	Electric lighting		
12	Heating	furnace	
13		furnace gas-fired	
14		from combined heat and power plant	
15		from automatic gas-fired water heater	
16		from individual heating unit — gas-fired	
17		from individual heating unit — solid fuel	
18		district boiler house — gas-fired	
19		district boiler house — solid fuel	
20	Various works		

Technical description of maintenance facilities

Indicators	Maintenance/outbuilding name								
Area (m^2)									
Building height (m)									
Building volume (m^3)									
Foundation									
Walls									

Structural floors									
Rooftop									
Flooring									
Windows									
Doors									
Interior finish									
Exterior finish									
Furnaces									

Technical description of courtyard structures

Structure name	Dimensions, in meters				Volume (m^3)	Material
	length	width	area	height or depth		
1	2	3	4	5	6	7

Technical description of individual parts of a structure
(basements, semi-basements, mezzanines, mansards)

Name and purpose of individual parts of a structure	Deepening of the leveled ground surface to the basement floor	Element description					
		walls	structural floors	flooring	interior finish	rooftop	auxiliary devices
1	2	3	4	5	6	7	8

Technical description of non-habitable extensions to the main building

Structural element name	Technical description of structural elements
1	2
Foundation	
Walls and partitions	
Rooftop	
Flooring	
Structural floors	

Apertures	windows	
	doors	
Finishing works	interior	
exterior		
Various works		
Total:		
Foundation		
Walls and partitions		
Rooftop		
Flooring		
Structural floors		
Apertures	windows	
	doors	
Finishing works	interior	
	exterior	
Various works		
Total:		
Foundation		
Walls and partitions		
Rooftop		
Flooring		
Structural floors		
Apertures	windows	
	doors	
Finishing works	interior	
	exterior	
Various works		
Total:		

Calculation of areas and volumes of the main and individual parts of a building
(basements, semi-basements, mezzanines, mansards, rooftops, extensions/addons, etc.)

Name of parts of the building and extensions	Formula for calculating areas based on external measurements	Area (m^2)	Height (m)	Volume (m^3)	Name of parts of the building and extensions	Formula for calculating areas based on external measurements	Area (m^2)	Height (m)	Volume (m^3)
1	2	3	4	5	6	7	8	9	10

Client _____

last name, first name, patronymic (if applicable), signature of the director Stamp here (if applicable)

Designer's field oversight_____

last name, first name, patronymic (if applicable), signature of the expert Stamp here (if applicable)

Annex 3

to certificate of facility commissioning

form

Technical characteristics of the object (power lines)

No.	Name	Unit of measurement	Quantity
1	2	3	4
1	Low voltage overhead power lines	kilometer (km)	
2	High voltage overhead power lines 10 kV	km	
3	Low voltage cable power lines	km	
4	High voltage cable power lines	km	
5	Tower footprint	$м^2$	
6	Towers:		
	1) metal	pieces (pcs)	
	2) wooden, with wooden supports	pcs	
	3) wooden, with reinforced concrete supports	pcs	
	4) reinforced concrete	pcs	
	5) wire mounts	pcs	
7	Wires/conductors:		
	1) copper	km	
	2) aluminum	km	

	3) steel-aluminum	km	
8	Brackets for lighting fixtures:		
	1) reinforced concrete	pcs	
	2) metal	pcs	
9	Street lighting fittings:		
	1) lighting fixtures with incandescent lamps	pcs	
	2) lighting fixtures with mercury lamps	pcs	
	3) lighting fixtures with luminescent lamps	pcs	
10	Cables:		
	1) grade... voltage...	km	
	2) grade... voltage...	km	
11	Transition joints...	pcs	
12	End bells / sleeves	pcs	
13	Grounds	pcs	
14	Lightning protectors	pcs	
15	Paving types for cable networks:		
	1) asphalt concrete	m^2	
	2) cobblestone	m^2	
	3) sidewalks	m^2	

Client _____

last name, first name, patronymic (if applicable), signature of the director Stamp here (if applicable)

Designer's field oversight_____

last name, first name, patronymic (if applicable), signature of the expert Stamp here (if applicable)

ANNEX 22

LIST OF OPERATIONAL DOCUMENTATION FOR THE DUTY PERSONNEL[177]

Duty Personnel	Document						
Dispatcher of the National Dispatch Center of the System Operator Dispatcher of the National Dispatch Center of the System Operator	Operational executive diagram (layout diagram)	Operational journal	A log or card file of requests for decommissioning of equipment under the control and supervision of the dispatcher	Relay protection, automation and telemechanics log	Maps of relay protection and automation installations	Log of orders	
Power plant shift supervisor	Daily operational executive diagram or layout diagram	Ibid	A log or card file of requests for decommissioning of equipment managed by the dispatcher	Log of requests to the chief engineer for decommissioning of equipment not managed by the dispatcher	Log of orders		
Power service/department shift supervisor	Ibid	Ibid	Relay protection, automation and telemechanics log	Maps of relay protection and automation installations	Ibid	Journal of work records on orders and instructions	A log or card file of equipment defects and malfunctions
Shift supervisor of heating shops	Operational executive diagram of the main pipelines	Ibid	Log of orders	Journal of work records on orders and instructions	A log or card file of equipment defects and malfunctions		
Shift supervisor of the thermal automation shop	Operational journal	Technological protection and automation system log and technical means of automatic control system log	Layout of technological protection and signaling installations and layouts of tasks for automatic regulators	Log of orders	Journal of work records on orders and instructions	A log or card file of equipment defects and malfunctions	
Chemical department shift supervisor	Operational executive diagram for	Operational journal	Log of orders	Journal of work records on orders and instructions	A log or card file of equipment defects and		

[177] Appendix 1 of the Order of the Minister of Energy of the Republic of Kazakhstan dated March 30, 2015 No. 247 “On approval of the Rules for the technical operation of electrical stations and networks”.

	chemical water treatment				malfunctions		
Power grid dispatcher	Daily operational executive diagram (layout diagram)	Operational journal	A log or card file of requests for decommissioning of equipment controlled and managed by the dispatcher	Relay protection, automation and telemechanics log	Maps of relay protection and automation installations	Log of orders	
Substation duty officer on permanent duty, district power grid dispatcher	Daily operational executive diagram or layout diagram	Ibid	Log of requests for decommissioning of equipment	Ibid	Ibid	Ibid	A log for equipment defects and malfunctions
Heat grid dispatcher	Operational executive diagram of pipelines	Ibid	Ibid	Temperature and piezometric graphs of network operation	Log of orders	A log for equipment defects and malfunctions	
Duty engineer of the heating network district	Daily operational executive scheme	Ibid	Ibid			Ibid	Journal of work records on orders and instructions

14. LIST OF REFERENCES

1. Address by the President of the Republic of Kazakhstan - Leader of the Nation N.A. Nazarbayev to the People of Kazakhstan "Strategy "Kazakhstan-2050": “New political course of the established state” from December 14, 2012;
2. Decision of the Customs Union Commission of April 7, 2011 No. 620 “On the Unified List of Products Subject to Mandatory Confirmation of Conformity with the Procedure for the Issuance of Certificates of Conformity and Declarations of Conformity using a Single Form”;
3. Code of the Republic of Kazakhstan dated October 29, 2015 No. 375-V “Entrepreneurial Code of the Republic of Kazakhstan”;
4. Land Code of the Republic of Kazakhstan dated June 20, 2003 No. 442-II;
5. Code of the Republic of Kazakhstan on Administrative Offenses dated July 5, 2014 No. 235-V;
6. Code of the Republic of Kazakhstan dated January 2, 2021 No. 400-VI ZRK. "Ecological Code of the Republic of Kazakhstan";
7. Civil Code of the Republic of Kazakhstan (General Part), adopted by the Supreme Council of the Republic of Kazakhstan on December 27, 1994;
8. Land Code of the Republic of Kazakhstan dated June 23, 2015 No. 414-II;
9. Law of the Republic of Kazakhstan “On support of the use of renewable energy sources” dated July 4, 2009 No. 165-IV;
10. Law of the Republic of Kazakhstan No. 89-VI dated July 11, 2017 “On Amendments and Supplements to Certain Legislative Acts of the Republic of Kazakhstan on Electric Power Industry Issues”;
11. Law of the Republic of Kazakhstan dated July 26, 2007 No. 310-III “On state registration of rights to real estate”;
12. Law of the Republic of Kazakhstan dated July 9, 2004 No. 588-II "On Electric Power Industry";
13. Law of the Republic of Kazakhstan dated July 16, 2001 No. 242-II “On architectural, urban planning and construction activities in the Republic of Kazakhstan”;
14. Law of the Republic of Kazakhstan dated May 16, 2014 No. 202-V “On permits and notifications”;
15. Law of the Republic of Kazakhstan dated April 11, 2014 No. 188-V “On Civil Defense”;
16. Law of the Republic of Kazakhstan dated December 30, 2020 No. 396-VI
17. "On technical regulation";
18. Decree of the President of the Republic of Kazakhstan dated May 30, 2013 No. 577 “On the Concept for the transition of the Republic of Kazakhstan to a “green economy”;
19. Decree of the President of the Republic of Kazakhstan dated February 15, 2018 No. 636 "On approval of the Strategic Development Plan of the Republic of Kazakhstan

until 2025 and rendering of several decrees of the President of the Republic of Kazakhstan as null and void";

20. Decree of the President of the Republic of Kazakhstan dated February 2, 2023 No. 121 "On approval of the Strategy for achieving carbon neutrality of the Republic of Kazakhstan until 2060";

21. Resolution of the Government of the Republic of Kazakhstan dated June 12, 2014 No. 645 “On approval of fixed tariffs”;

22. Resolution of the Government of the Republic of Kazakhstan dated June 28, 2014 No. 724 “Concept for the development of the fuel and energy complex of the Republic of Kazakhstan until 2030”;

23. Resolution of the Government of the Republic of Kazakhstan dated January 14, 2016 No. 13 “On certain issues of implementing state support for investments”;

24. Resolution of the Government of the Republic of Kazakhstan dated March 27, 2014 No. 271 “On approval of the Rules for setting fixed tariffs and maximum auction prices”;

25. Resolution of the Government of the Republic of Kazakhstan dated October 23, 2020 No. 701 "Issues of the Ministry of Emergency Situations of the Republic of Kazakhstan";

26. Resolution of the Government of the Republic of Kazakhstan dated June 28, 2021 No. 439 "On the establishment of the republican state enterprise on the right of economic management "National Accreditation Center" of the Committee for Technical Regulation and Metrology of the Ministry of Trade and Integration of the Republic of Kazakhstan";

27. Order of the Minister of Industry and Infrastructure Development of the Republic of Kazakhstan dated April 16, 2020 No. 208 "On the approval of the Rules for the provision of the public service "Issuance of permits for the use of technologies used at hazardous industrial facilities, hazardous technical devices";

28. Order of the Minister of Energy of the Republic of Kazakhstan dated November 7, 2016 No. 478 “On approval of target indicators for the development of the renewable energy sector”;

29. Order of the Minister of Energy of the Republic of Kazakhstan dated March 31, 2015 No. 256 “On the designation of the settlement and financial center for the support of renewable energy sources”;

30. Order of the Minister of Investment and Development of the Republic of Kazakhstan dated February 27, 2018 No. 140 "On approval of the List of raw materials and (or) materials, the import of which is exempt from value added tax within the framework of an investment contract";

31. Order of the Minister of Energy of the Republic of Kazakhstan dated February 22, 2018 No. 65 “On approval of the Schedule of auctions for 2018”;

32. Order of the Minister of Energy of the Republic of Kazakhstan dated March 2, 2015 No. 164 "On approval of the Rules governing the settlement and financial center’s centralized purchase and sale of electric energy generated by facilities using renewable energy sources, recalculation and redistribution by the settlement and

financial center of the corresponding share of electric energy to a qualified conditional consumer based on the results of the calendar year";

33. Order of the Minister of Energy of the Republic of Kazakhstan dated November 9, 2016 No. 482 “On approval of the Rules for the formation of a list of energy producing organizations that use renewable energy sources”;

34. Order of the Minister of Energy of the Republic of Kazakhstan dated January 30, 2018 No. 33 “On approval of maximum auction prices”;

35. Order of the Minister of Energy of the Republic of Kazakhstan dated February 11, 2015 No. 74 “On approval of the Rules for monitoring the use of renewable energy sources”;

36. Order of the Minister of Energy of the Republic of Kazakhstan dated December 21, 2017 No. 466 "On approval of the Rules for organizing and conducting auctions, including qualification requirements for auction participants, the content and procedure for submitting an application, types of financial security for an application to participate in an auction and the terms of payment and return, the procedure for summing up the results and determining the winners";

37. Order of the Minister of National Economy of the Republic of Kazakhstan dated February 28, 2015 No. 178 “On approval of the Rules for land reservation”;

38. Order of the Minister of National Economy of the Republic of Kazakhstan dated December 23, 2014 No. 161 “On approval of standards for compensation of losses in agricultural production caused by the seizure of agricultural land for use for purposes not related to agriculture”;

39. Order of the Minister of Energy of the Republic of Kazakhstan dated December 18, 2014 No. 210 “On approval of the Power Grid Rules”;

40. Order of the Minister of Energy of the Republic of Kazakhstan dated February 20, 2015 No. 117 “On approval of the Rules for determining the nearest point of connection to electrical or heating networks and connecting facilities for the use of renewable energy sources”;

41. Order of the Minister of Justice of the Republic of Kazakhstan dated May 4, 2020 No. 27 "On approval of the Rules for the provision of the public service "State registration of rights (title encumbrance) to real estate";

42. Order of the Minister of National Economy of the Republic of Kazakhstan dated February 24, 2019 No. 58 “On approval of the Rules for land reservation”;

43. Order of the Minister of National Economy of the Republic of Kazakhstan dated April 1, 2015 No. 299 "On approval of the Rules for conducting a comprehensive non-departmental examination of technical and economic justifications and design and estimate documentation intended for the construction of new, as well as changes (reconstruction, expansion, technical re-equipment, modernization and overhauls) of existing buildings and structures, their complexes, engineering and transport communications, regardless of funding sources";

44. Order of the Acting Minister of the Environment, Geology and Natural Resources of the Republic of Kazakhstan dated August 3, 2021 No. 286 "On approval of the Rules for holding public hearings";

45. Order of the Minister of Justice of the Republic of Kazakhstan dated July 20, 2018 No. 1123 "On Amending the Order of the Minister of Justice of the Republic of Kazakhstan dated May 6, 2013 No. 156 "On Approval of the Rules and Terms for Entering Identification and Technical Information on Buildings, Structures and (or) Their Components for Newly Created Real Estate into the Information System of the Legal Cadastre, Conducting a State Technical Survey and the Rules for Assigning a Cadastral Number to Primary and Secondary Real Estate Objects" Order of the Minister of National Economy of the Republic of Kazakhstan dated November 30, 2015 No. 750 "On Approval of the Rules for Organizing Development and Passing Permitting Procedures in the Sphere of Construction";

46. Order of the Minister of National Economy of the Republic of Kazakhstan dated February 28, 2015 No. 165 “On approval of the Rules for determining the general procedure for classifying buildings and structures as technically and (or) technologically complex facilities.”

47. Order of the Minister of Investment and Development of the Republic of Kazakhstan dated April 24, 2017 No. 235 "On approval of forms of conclusions on the quality of construction and installation works and the conformity of the completed works with the project, declaration of conformity";

48. Order of the Minister of National Economy of the Republic of Kazakhstan dated February 24, 2019 No. 58 “On approval of the Rules for land reservation”;

49. Order of the Minister of Information and Communications of the Republic of Kazakhstan dated October 29, 2016 No. 232 "On approval of the Rules for the functioning of the state information system of permits and notifications."

50. Order of the Minister of Energy of the Republic of Kazakhstan dated March 30, 2015 No. 247 “On approval of the Rules for the technical operation of electrical stations and networks”.

51. Order of the Minister of Health and Social Development of the Republic of Kazakhstan dated December 28, 2015 No. 1057 “On approval of the Rules for mandatory periodic certification of production facilities for working conditions”;

52. Order of the Minister of Energy of the Republic of Kazakhstan dated March 30, 2015 No. 248 “On approval of the Rules for the operation of the automated system of commercial metering of electric energy for entities of the wholesale electric energy market”;

53. Order of the Minister of Energy of the Republic of Kazakhstan dated February 20, 2015 No. 123 “On approval of the Fire Safety Rules for energy enterprises”;

54. Order of the Acting Minister of Energy of the Republic of Kazakhstan dated July 29, 2016 No. 361 “On approval of the Rules for the formation and use of the reserve fund”;

55. Order of the Acting Minister of Energy of the Republic of Kazakhstan dated July 27, 2016 No. 345 "On approval of the Rules for the formation of a plan for the placement of facilities for the use of renewable energy sources"

56. Order of the Acting Minister of Energy of the Republic of Kazakhstan dated July 27, 2016 No. 343 "On approval of a standard agreement on grid connection for facilities using renewable energy sources, as well as the rules for its conclusion";

57. Order of the Acting Minister of Energy of the Republic of Kazakhstan dated August 7, 2017 No. 280 "On determining the organizer of auction trading";

58. Order of the Minister of Energy of the Republic of Kazakhstan dated September 11, 2018 No. 360 “On amendments and additions to certain orders of the Minister of Energy of the Republic of Kazakhstan;

59. Order of the Minister of Information and Communications of September 27, 2018 No. 418 "On approval of prices for goods (works, services) in the field of state registration of rights to real estate";

60. Order of the Minister of Energy of the Republic of Kazakhstan dated December 3, 2015 No. 691 “On approval of the Rules for the provision of services by the System Operator, the arrangements and functioning of the market of system and auxiliary services”;

61. Order of the Minister of Emergency Situations of the Republic of Kazakhstan dated February 21, 2022 No. 55 "On approval of the Fire Safety Rules";

62. Order of the Joint Stock Company "Kazakhstan Operator of the Electricity and Capacity Market" No. P-12 dated April 11, 2018 “Methodological guidelines for conducting auctions for the selection of renewable energy projects"; Order of the Minister of Energy of the Republic of Kazakhstan dated February 2, 2015 No. 58 "On approval of the Rules for the prevention of emergency disruptions in the unified electric power system of Kazakhstan and their elimination";

63. Order of the Minister of Agriculture of the Republic of Kazakhstan dated November 30, 2015 No. 19-1/1051 “On approval of the application form for obtaining a permit for special water use and the form of a permit for special water use”;

64. GOST R 50571.10-96 (IEC 364-5-54-80) “Electrical installations of buildings. Part 5. Selection and installation of electrical equipment. Chapter 54. Grounding devices and protective conductors";

65. GOST 12.2.007.0-75 “Occupational safety standards system. Electrical products. General safety requirements" (changes 1 - 4);

66. GOST 12.1.004-91 “Occupational safety standards system. Fire safety. General specifications”;

67. ST RK 3.4-2017 "State system of technical regulation of the Republic of Kazakhstan "Forms of certificates of conformity/compliance, declarations of conformity and the procedure for filling them out";

68. SN RK 1.02-04-2022 "Rules for the development, coordination, approval and composition of feasibility studies for construction";

69. SN RK 1.02-03-2022 "Procedure for the development, coordination, approval and composition of design and estimate documentation for construction";

70. ST RK GOST R 51990-2008 “Alternative energy. Wind power. Wind power installations. Classification”;

71. ST RK 1295-2004 “Electrical safety. Electrical installations for industrial and social-residential buildings. General technical conditions";

72. ST RK GOST R 51991-2008 “Non-conventional energy. Wind power. Wind power installations. General technical specifications";