

The main directions of the state policy in the field of electric power industry are developed and determined by the Government of the Republic of Kazakhstan. The State authorized body exercising leadership in the field of electric power industry is the Ministry of Energy of the Republic of Kazakhstan. Supervision and control in the field of electric power industry is carried out by a state body — the Committee for Atomic and Energy Supervision and Control of the Ministry of Energy of the Republic of Kazakhstan.

The Committee for Regulation of Natural Monopolies of the Ministry of National Economy of the Republic of Kazakhstan is a state body that monitors and regulates activities related to the sphere of state monopoly (including the activities of the Joint-Stock Company Kazakhstan Electricity Grid Operating Company (KEGOC JSC) as a subject of natural monopoly).

Industry structure

The UPS of the Republic of Kazakhstan is a set of electric power plants, power lines and substations.

The electric power industry of the Republic of Kazakhstan includes the following sectors:

- production of electric energy;
- transmission of electrical energy;
- supply of electric energy;
- electrical energy consumption;
- other activities in the field of electric power industry.

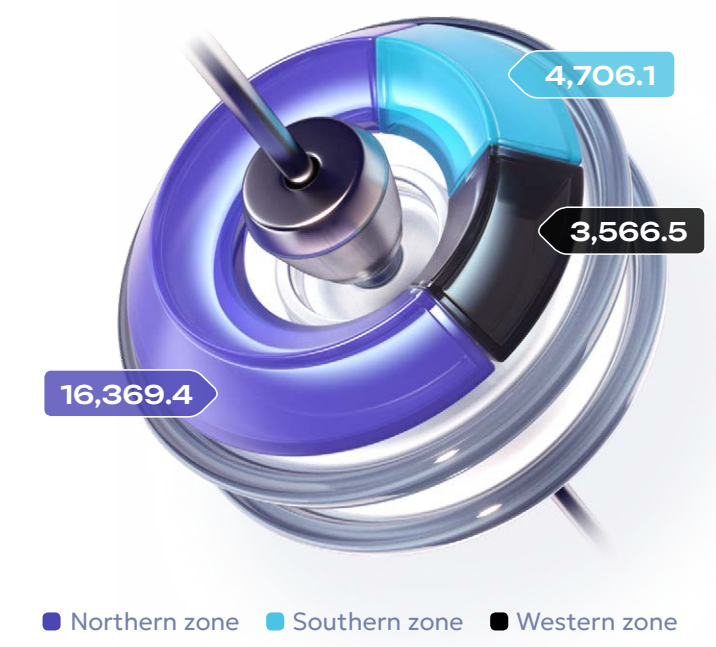
Electric energy production sector

The production of electric energy in the Republic of Kazakhstan is carried out by 222 electric power plants of various forms of ownership. The total installed capacity of power plants of the Republic of Kazakhstan as of January 1, 2024 is 24,641.9 MW; available capacity is 18,354.9 MW (the available capacity of renewable energy sources (SPP, WPP, small hydro power plants) is indicated in accordance with the methodology for drawing up a forecast balance of electric power: damless hydro power plants operating along a water-course — 30%; WPP — 20%; SPP — 0% of the available capacity).

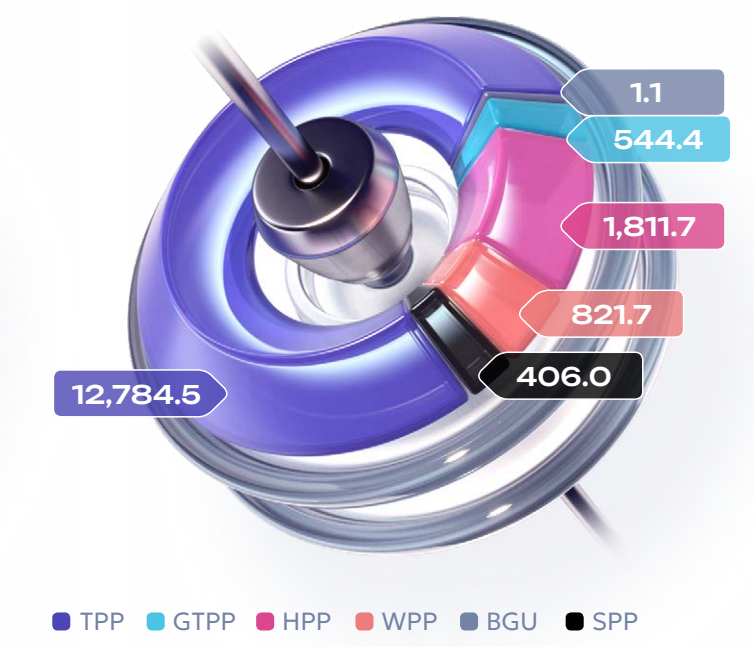
Production of electric energy in the Republic of Kazakhstan, MW

Power plants	Installed capacity
Thermal power plants in total:	19,223.2
Steam turbine, of which:	17,163.5
- pulverized coal	13,075.0
- on gas and fuel oil	4,088.5
Gas turbine	2,059.7
Wind power plants	1,411.3
Solar power plants	1,196.2
Hydro power plants,	2,810.1
- including small ones	275.3
Biogas plants	1.1
TOTAL	24,641.9

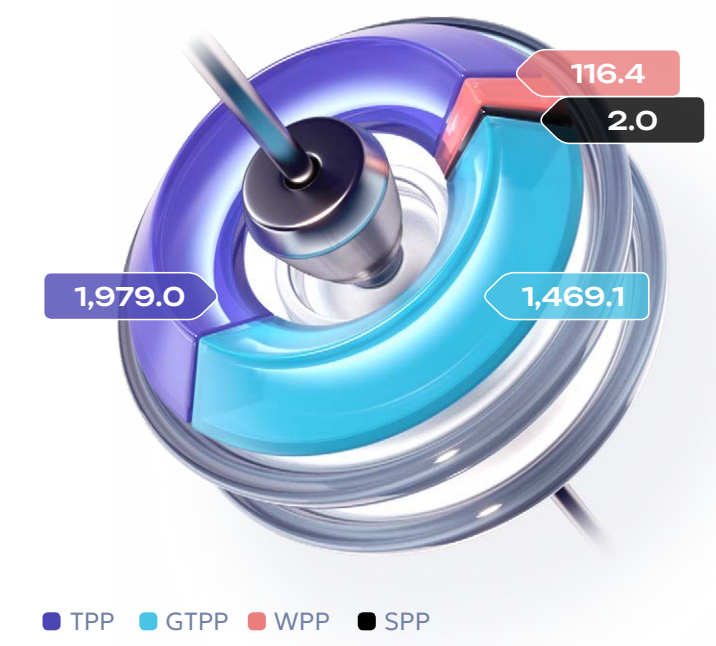
Installed capacity of power plants by zone, MW



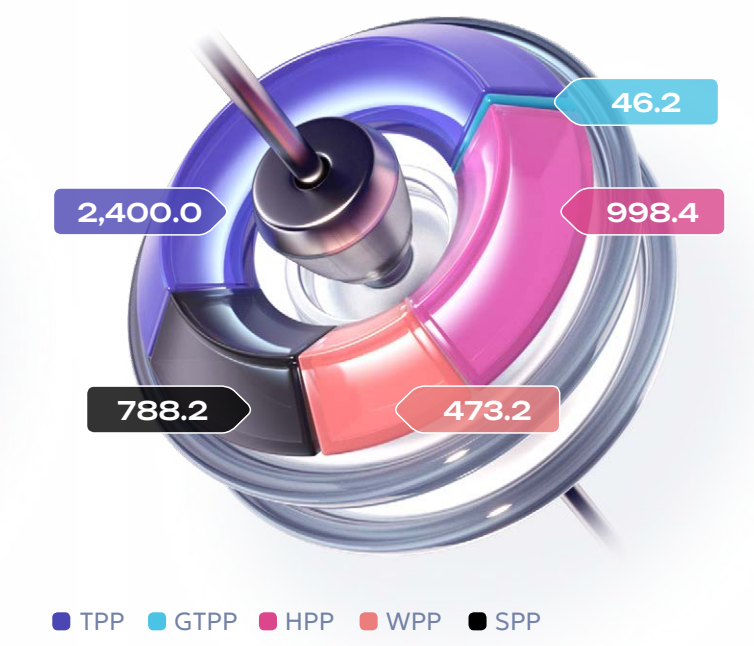
Northern zone, MW



Western zone, MW



Southern zone, MW



Total installed capacity power plants of the Republic of Kazakhstan as of January 1, 2024

24,641.9 MW

Available capacity power plants of the Republic of Kazakhstan as of January 1, 2024

18,354.9 MW

New generating capacity was introduced, with an installed capacity in 2023

118.2 MW



Installed capacity of power plants by region, MW

Akmola region:	105.6 MW
Krasny Yar WPP Etalon Power LLP	1.4 MW
Elikti WPP Etalon Power LLP	18.15 MW
Arkalykskaya WPP-1 Arkalykskaya WPP-1 LLP	7 MW
Arkalykskaya WPP-2 Arkalykskaya WPP-2 LLP	10 MW
East Wind WPP East Wind LLP	10 MW
Alcor Energy WPP Alcor Energy LLP	4.95 MW
Sofiyevskaya Wind Farm LLP 'Sofiyevskaya Wind Power Plant'	39 MW
WPP Jasyl Jel Energy-1 LLP 'Jasil Jel Energy'	10 MW
WPP Jasyl Jel Energy-2 LLP 'Jasil Jel Energy'	4.95 MW
Aktobe region:	57 MW
Aktobe CHPP — commissioning of GTU-57	57 MW
Almaty region:	2.63 MW
HPP Medeu-2 LLP 'Bastau Energo'	0.43 MW
HPP Kakpak LLP 'Konaev and Company'	2.2 MW
Atyrau region:	5 MW
Atyrau CHPP — commissioning of turbine unit No. 13	65 MW
Atyrau CHPP — dismantling of turbine unit No. 6	-60 MW
Zhambyl region:	100 MW
Shokpar Wind Farm, Shokparskaya Wind Power Plant LLP	100 MW
Jetysui region	50 MW
Dzungarian Gate wind power Plant of 'Econowatt AKA' LLP	50 MW
Kostanay region:	48 MW
Arkalyk WPP KazWind Energy LLP	48 MW
Pavlodar region	-300 MW
PP of JSC 'EEC' — dismantling of power unit No. 7	-300 MW
Turkestan region	50 MW
SPP Shoulder LLP 'Arm Wind'	50 MW

Electric power transmission sector

The electric networks of the Republic of Kazakhstan are a set of substations, switchgears and power lines connecting them with a voltage of 0.4-1,150 kV, designed for transmission and (or) distribution of electric energy. The role of the backbone network in the UPS of the Republic of Kazakhstan is performed by the National Power Grid (NPG), which provides electrical connections between the regions of the Republic of Kazakhstan and the energy systems of neighboring states (the Russian Federation, the Kyrgyz Republic and the Republic of Uzbekistan), as well as the supply of electric energy by electric power plants and its transmission to wholesale consumers. PS, switchgears, interregional and (or) interstate power lines and transmission lines that deliver electric energy to power plants with a voltage of 220 kV and above, which are part of the NPG, are on the balance sheet of KEGOC JSC.

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Regional-level electric grids provide electrical connections within regions, as well as the transmission of electric energy to retail consumers and are on the balance sheet and in operation by regional electric grid companies.

Energy transmission organizations carry out, on the basis of contracts, the transfer of electric energy through their own or used (lease, leasing, trust management and other types of use) electric networks to consumers of wholesale and retail markets or energy supply organizations.

Electric energy supply sector

The electricity supply sector of the electric energy market of the Republic of Kazakhstan consists of energy supply organizations that purchase electric energy from energy-producing organizations or at centralized auctions and then sell it to end retail consumers. Some energy supply organizations perform the functions of 'guaranteeing suppliers' of electricity.

The subjects of the wholesale electricity market are:

- energy-producing organizations that supply at least 1 MW of average daily (basic) capacity to the wholesale electricity market;
- energy transmission organizations;
- energy supply organizations that purchase electricity on the wholesale market for the purpose of energy supply in the amount of at least 1 MW of average daily (basic) capacity;
- electricity consumers who purchase electricity on the wholesale market in the amount of at least 1 MW of average daily (basic) capacity;
- the system operator, whose functions are performed by KEGOC JSC;

- the operator of centralized trade in electric energy and capacity, whose functions are performed by KOREM JSC;
- a single buyer (SFCS of RES LLP).

The centralized dispatching control of the UPS of the Republic of Kazakhstan is carried out by a branch of KEGOC JSC — the National Dispatching Center of the System Operator (NDC SO). Centralized operational dispatch management in the UPS of the Republic of Kazakhstan is organized according to the scheme of direct operational subordination of the NDC SO with 9 regional dispatch centers (RDC), which are structural divisions of MES branches of KEGOC JSC.

Changes in the electricity market from July 1, 2023

