People: 18 Mln.

9th biggest country in the world
2nd – in the CIS region

GDP of Kazakhstan: $133.6 Bln.

GDP per capita: $7,510.08

KAZAKHSTAN

27 Mln. km²
GDP of Kazakhstan

Bln.

According to the World Bank
General description of Kazakhstan’s power system

- 25 Thousand km: National power grid
- 21.7 GW: Installed capacity
- 18.7 GW: Available capacity

Grid infrastructure of the country includes:

- 200–500 KW: National grid (under the control of system operator JSC KEGOC)
- 10–110 KW: Regional grid (under the control of electric distribution companies)

Generating capacity structure:

- 87%: CHP including GTPP
- 12%: HPP
- 1%: RES
Main operating indicators

Generation of power in 2017 – 102 bln. KW/hour

- Thermal plants including gas-turbine power plants
- Hydro power plants - 10 bln. KW/hour
- RES – 1.1 bln. KW/hour

Consumption of power in 2017 – 97 bln. KW/hour

Power generation structure by shares in 2017

- CHP including GTPP (88%)
- HPP (11%)
- RES (1%)

CHP including GTPP
PRIMARY ENERGY RESERVES OF KAZAKHSTAN

32 Billion Tons
IN OIL EQUIVALENT

3.6%
OF WORLD PRIMARY ENERGY RESERVES
PRIMARY ENERGY RESERVES OF KAZAKHSTAN

TOP 10 COUNTRIES BY OIL RESERVES
No. 1
IN THE WORLD IN URANIUM MINING

40%
OF THE WORLD URANIUM MINING

PRIMARY ENERGY RESERVES OF KAZAKHSTAN
KAZAKHSTAN NATURAL RESOURCES

FOREIGN PARTNERS TECHNOLOGIES
No. 36 in Doing Business ranking

Improved positions under the following criteria:

- BUSINESS REGISTRATION
- GRID CONNECTION
- PROPERTY REGISTRATION
- ENFORCEMENT OF CONTRACTS
RENEWABLE ENERGY INVESTMENTS

- **WIND ENERGY POTENTIAL**: 920 Billion kwh/year
- **HYDRO ENERGY POTENTIAL**: 62 Billion kwh/year
- **SOLAR ENERGY POTENTIAL**: 3 Thousand Solar hours/year
2017

58
OPERATING RES FACILITIES

342.8 MW
TOTAL CAPACITY

WIND 107 MW
HYDRO 171 MW
SOLAR 58 MW
BIO GAS 0.35 MW
RES DEVELOPMENT INDICATORS:

920

Renewables %

- 2020: 3%
- 2030: 10%
- 2050: 50%
2020

103 OPERATING RES Facilities

2000 MW TOTAL CAPACITY

23 WIND 960 MW
13 HYDRO 290 MW
17 SOLAR 960 MW
THE LAW

‘ON SUPPORT OF THE USE OF RENEWABLE ENERGY SOURCES’

DEFINES:

• SCHEME OF PURCHASE AND SALE OF RES ELECTRIC ENERGY WITH FINANCIAL SETTLEMENT CENTRE

• 15-YEAR PPA STANDARD FORM BY AUCTION PRICE AND IN NATIONAL CURRENCY (KZT)

• STANDARD FORM OF RES FACILITY GRID CONNECTION AGREEMENT
- Tariffs are subject to annual indexation considering inflation and exchange difference between KZT and USD
- Exemption from payment for energy transmission services
- Investment preferences on the basis of contract signed between the government of the Republic of Kazakhstan and legal entity which implements investment project for RES producers
FROM 2018

Start of the Auction mechanism of RES projects selection

- Transparent and clear process of projects and investors selection
- Selection of technologies and projects with the smallest impact on the tariffs of end consumers
- Clear responsibilities of market participants in generation, transmission and consumption of electric energy
MINISTRY OF ENERGY PUBLISHED THE 2018 AUCTION SCHEDULE

There you can find the information on free reserved land plots, on possibility of connecting energy transmission companies to electric grid with the maximum permissible capacity for points of connection to electric grid and the number of possible connections.
SELECTION OF RES PROJECTS FOR AUCTIONS IS BASED ON

- READINESS OF INFRASTRUCTURE AND DEMAND IN ENERGY
- RES FACILITIES LOCATION PLAN CONSIDERING TARGET INDICATORS
- MAXIMUM PERMISSIBLE INSTALLED CAPACITY BY ZONES OF UNIFIED POWER SYSTEM
- RES POTENTIAL
1. COMPANY WINS AUCTION

2. IS INCLUDED IN THE LIST OF ENERGY PRODUCING ORGANIZATIONS

3. SIGNS PPA WITH FSC FOR 15 YEARS
INVESTOR MUST PLACE A FINANCIAL GUARANTEE FOR PARTICIPATION IN THE AUCTION (BID BOND) TO IMPLEMENT RES PROJECT
IN THE LAST 10 YEARS THE COST OF SOLAR ENERGY DECREASED FROM $1.0 TO $0.025 DUE TO THE ECONOMIES OF SCALE, CHEAPER TECHNOLOGIES AND TRANSITION TO MARKET MECHANISM – AUCTION
WE WELCOME INTERNATIONAL FINANCIAL INSTITUTIONS AND PRIVATE INVESTORS FOR COOPERATION