

RENEWABLE ENERGY SNAPSHOT:



Kazakhstan



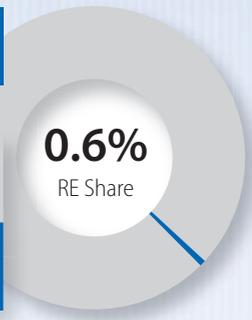
*Empowered lives.
Resilient nations.*

General Country Information

Population: 16,323,287
 Surface Area: 2,724,900 km²
 Capital City: Astana
 GDP (2012): \$ 188 billion
 GDP Per Capita (2012): \$ 11,935
 WB Ease of Doing Business: 49

Electricity Generating Capacity 2012

	19,000 MW Total Installed Capacity
	117 MW Installed RE Capacity



- Biomass
- Solar PV
- Wind
- Small Hydro

Installed Renewable Electricity Capacity 2012 in MW

Technical Potential for Installed Renewable Electricity Capacity in MW

0	< 1	2	115
300	3,760,000	354,000	4,800

Sources: EBRD (2009); UNDP and GEF (2012); ECS (2013); Hoogwijk and Graus (2008); Hoogwijk (2004); JRC (2011); SRS NET & EEE (2008); EIA (2013); WWEA(2013); Renewable Facts (2013); EIA (2010); World Bank (2014); and UNDP calculations.

Key information about renewable energy sources in Kazakhstan

The Republic of Kazakhstan has enormous renewable energy potential, particularly from wind and small hydropower plants. The country has the potential to generate 10 times as much power as it currently needs from wind energy alone (UNDP & GEF, 2012). But renewable energy accounts for just 0.6 percent of all power installations. Of that, 95 percent comes from small hydropower projects. The main barriers to investment in renewable energy are relatively high financing costs and an absence of uniform feed-in tariffs for electricity from renewable sources. The amount and duration of renewable energy feed-in tariffs are separately evaluated for each project, based on feasibility studies and project-specific generation costs. Power from wind, solar, biomass and water up to 35 MW, plus geothermal sources, are eligible for the tariff and trans-

mission companies are required to purchase the energy of renewable energy producers. An amendment that introduces and clarifies technology-specific tariffs is now being prepared. It is expected to be adopted by Parliament by the end of 2014. In addition, the World Bank's Ease of Doing Business indicator shows the country to be relatively investor-friendly, ranking it in 10th position for investor protection (IFC & World Bank, 2014).

Legislation and policy

In 2013, the Government of Kazakhstan adopted a new law, On Supporting the Use of Renewable Energy Sources. This promotes technology-specific feed-in tariffs for selected renewable energy technologies, such as biomass, solar, wind, geothermal and hydropower, up to 35 MW (Republic of Kazakhstan, 2013). The cost of the programme is estimated at KZT 1,100 billion (c. €5.3 billion). A plan to develop alternative and renewable energy in Kazakhstan for 2013-2020 was adopted by the Government in 2013. The plan aims to install about 1040 MW renewable energy capacity by 2020, including 793 MW from wind, 170 MW from hydro and 4 MW from solar sources. The cost of the plan is estimated at KZT 317.05 billion (c. €1.25 billion) (ADILET, 2014). Also in 2013, the Government of Kazakhstan adopted the Energy Efficiency 2020 programme, which plans to reduce energy consumption by 10 percent annually until 2015. A long-term strategy for Kazakhstan (until 2050) was also adopted in 2012. The strategy sets an ambitious goal of generating 50 percent of all power from alternative energy sources, including renewable sources. There are more incentives for investment in renewable energy. Investment security is created by power purchase agreements between regional grid operators and renewable energy facilities. Grid losses are compensated up to 50 percent. The plant operator does not pay for transmission services and obtains complimentary access to the power grid. Renewable energy projects are prioritized in granting land plots and are exempt from custom duties for imported materials needed to commission the plant. The Law on Investment allows renewable energy facilities to receive state grants of up to 30 percent of the project costs related to land plots, buildings, machinery and equipment. Foreign investors may also apply for tax deductions in line with the Tax Code, for example, in exemptions from land and property tax. Bureaucratic expenses have fallen, because electricity production (which had required a licence) no longer requires licensing¹ A wind atlas is available and provides potential investors with detailed data on wind resources in the country.² A joint project between UNDP and the Kazakh Electricity Association offers pre-feasibility studies for potential wind farm investment projects.³ Economic zones in the country provide more benefits, including tax incentives.

1 Law on Amending Certain Legislative Acts Regarding the Improvement of the Regulatory Approval System

2 Wind atlas is cited in the references

3 www.windenergy.kz/eng/pages/Ereymantau_investment_projects.html

Institutions

Organization	Responsibility	Website
Ministry of Industry and New Technologies	- Manages energy saving and energy efficiency policy - Approves feasibility studies for planned renewable energy projects	www.mint.gov.kz/
ANMR	- Regulatory body that sets tariffs and defines tariffs	www.regulator.kz/
JSC KEGOC	- Manages and operates the national grid - 45 regional electricity generating companies operate in Kazakhstan	www.kegoc.kz/en
Kazatomprom JSC	- National Atomic Company, which established independent subsidiaries responsible for implementing projects in the renewable energy sector, e.g. Ecoenergomash LLP for wind power projects, and KAZ PV for solar power projects	www.kazatomprom.kz/
Invest in Kazakhstan	- State investment agency responsible for attracting and consulting with foreign investors	www.invest.gov.kz/

Opportunities to finance renewable energy projects in Kazakhstan

Financing organization	Details	Website
KazREFF	EBRD prepares to launch the KazREFF, which should provide development support and debt finance to renewable energy projects meeting the required commercial, technical and environmental standards.	www.ebrd.com/pages/workingwithus/procurement/notices/csu/37127.shtml
Asian Development Bank (ADB)	Asian Development Bank provides equity, loans and guarantees for private sector with clear development impacts as well as a sound rate of return.	www.adb.org/
Eurasian Development Bank (EDB)	Prioritizes investment in power generating renewable energy projects through loans of between \$30 and \$100 million.	www.eabr.org/e/
European Bank for Reconstruction and Development (EBRD)	Provides renewable energy developers with equity, loans and loan guarantees for projects with good commercial prospects of up to 15 years' duration.	www.ebrd.com/pages/workingwithus/projects.shtml
International Finance Corporation (IFC)	Provides loans and equity to eligible private, technically sound and profitable projects either via direct capital or financial intermediaries.	www.ifc.org/

Kazakhstan

Recent projects

Company	Project	Status
Samruk Green Energy (Kazakhstan) & KD Stahl-und Maschinenbau (Germany)	Signed an agreement with the German KD to set up a joint venture producing low-capacity wind power plants. Samruk announced \$94 million investment in a 45 MW wind power plant.	Under development
Munay Investment (Kazakhstan)	Implements a SHPP in the Tolebi district with a capacity of 2 MW	Under development

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