



USAID POWER THE FUTURE

Accelerating the transition to clean energy, diversifying energy sources, and creating competitive markets across Central Asia

USAID’s Power the Future activity is accelerating Central Asia’s transition to cost-effective, low emission, energy-secure, and climate resilient economies through increasing the deployment of renewable energy and energy efficiency in all five Central Asian countries.

The scaling up of renewable and distributed energy resources requires comprehensive changes to the regional governments’ power infrastructures, local market designs, and business models. Power the Future is working closely with the Governments of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, along with donors and other key stakeholders, to address the policy, technical, and financial barriers to clean energy development and regional electricity trade. Power the Future is a results-oriented activity, focusing on empowering partner countries so they can control their own economic and social development and build new renewable energy generation.

POWER SECTOR PLANNING FOR RENEWABLE ENERGY

Power the Future supports the Central Asian governments with national power sector planning and development to integrate increased levels of renewable energy. In 2019, Power the Future worked with the Kazakh Government to develop a twenty year least cost generation plan. The plan has now been adopted into Kazakhstan’s national strategy for energy sector planning and development. In addition, Power the Future launched a renewable energy forecasting pilot project to gather data from twenty renewable energy generation plants in Kazakhstan. The pilot demonstrated the power of forecasting tools to accurately plan renewable energy generation and reduce the cost of integration.

COMPETITIVE PROCUREMENT OF RENEWABLE ENERGY

Power the Future helps Kazakhstan conduct renewable energy auctions, the first ever in Central Asia, as a preferred method for procuring renewable electricity resources. In 2018 and 2019, Power the Future supported 28 renewable energy auctions resulting in 49 renewable energy projects

totaling 1,070 megawatts (MW) of wind, solar, hydropower, and biomass energy. An estimated \$1.3 billion was invested as a result. In 2020, Power the Future continued to provide extensive technical assistance and auction preparatory work to help Kazakhstan get ready for a new round of renewable energy auctions. There will be eight auctions in Nov-Dec 2020 for a total capacity of 250 MW, including 120 MW of hydropower projects, 55 MW of solar, 65 MW of wind, and 10 MW of biomass.

GRID INTEGRATION OF VARIABLE RENEWABLE ENERGY

Power the Future is providing targeted thought leadership and technical support to help the Central Asian countries prepare their national grids for increased renewable energy integration. Power the Future is working closely with Uzbekistan's government, which has set ambitious renewable energy goals and intends to increase the share of renewable energy to at least 25 percent of all generation by 2030. Power the Future is conducting a renewable energy impact study to evaluate the impacts of renewable energy generation and integration on the national grid and overall regional power system. This work will help Uzbekistan avoid severe technical issues, reduce energy costs, and minimize risks associated with integrating renewable energy.

IMPROVING ENERGY EFFICIENCY IN GENERATION

As energy efficiency measures can reduce a country's need for expensive peak generation while also improving integration of renewable energy into power systems, Power the Future promotes energy efficiency amongst policy makers, utilities, and financial institutions across Central Asia. In 2018 and 2019, Power the Future assessed potential energy efficiency measures for Almaty's combined heat and power plants (CHPs) and identified 26 energy efficiency measures that can reduce fuel and energy costs. To ensure the bankability of the measures, Power the Future developed pre-feasibility studies and business plans to implement the energy efficiency investment projects. Power the Future is now replicating this work at several CHPs in the Pavlodar region of Kazakhstan.

KNOWLEDGE MANAGEMENT, COORDINATION, AND LEARNING

Under the C5+1 platform, Power the Future connects stakeholders, shares lessons learned, and provides access to information needed for collaborative decision making. Power the Future is partnering with Central Asia's leading universities to train the next generation of engineers and energy specialists in renewable energy power system planning and development. In 2019, Power the Future developed and helped implement a first-in-region renewable energy curriculum for the Almaty University of Power Engineering and Telecommunication (AUPET), which is planned to be scaled up to other universities in Central Asia. Power the Future facilitates knowledge and experience exchanges for women working in the region's energy sectors through field trips to renewable energy facilities, knowledge exchanges, and capacity building trainings. By investing time and resources into training and renewable energy education, especially for women, Power the Future creates favorable conditions for Central Asian countries to realize their goals and ambitions for renewable energy development.

FOR MORE INFORMATION

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