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POWER THE FUTURE

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

USAID's Power the Future (PtF) project is accelerating Central Asia's transition to cost-effective, low emission and climate resilient economies through increasing the deployment of renewable energy (RE) and energy efficiency (EE) in all five Central Asian countries.

Through PtF, USAID is promoting regional energy security and stability, economic growth, energy efficiency. PtF is collaborating with the Governments of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan to improve opportunities for cross-border electricity trade by providing needed generation capacity from domestic resources by increasing the use of renewables. PtF is working closely with national governments, donors and other key stakeholders to address the policy, technical and/or financial barriers that are slowing the use of clean energy. Above all, PtF is a results-oriented program, focusing on empowers partner countries to control their own economic and social development and bringing megawatts of clean energy online.

AREAS OF SUPPORT

- Power Sector Reform and Enabling Environment
- Power Sector Planning for RE
- Grid Integration of Variable Renewable Energy (VRE)
- Competitive Procurement of RE
- Improving EE in Generation
- Knowledge Management, Coordination and Learning

BOOSTING CLEAN ENERGY UTILIZATION IN CENTRAL ASIA

In Central Asia, the proliferation of renewable and distributed energy resources requires comprehensive changes to the governments' power infrastructures, market designs and business models. **PtF is helping partner countries to plan, develop, integrate and incentivize renewable energy and energy efficiency measures.**

POWER SECTOR PLANNING FOR RE

PtF supports the Central Asian governments with national power sector planning and development to integrate increased levels of RE. In 2019, PtF collaborated with the Kazakh Government and partners to develop a national level strategy, a least cost generation plan, to help the Government plan its power system for the next 20 years. Upon review and approval, this plan has been adopted into Kazakhstan's national strategy for energy sector planning and development. In addition, to help the Kazakh Government safely and securely generate and integrate high-levels of renewables, PtF launched a RE forecasting pilot project to gather data from 20 RE generation plants in Kazakhstan. Through forecasting, Kazakhstan can plan RE generation more accurately and reduce the cost of integration.

COMPETITIVE PROCUREMENT OF RE

PtF helps Kazakhstan conduct RE auctions, the first ever in Central Asia, as a preferred method for procuring renewable electricity resources. In 2018 and 2019, PtF supported auctions and auction preparatory work in Kazakhstan. Through this work, 28 RE auctions were organized resulting in 49 RE projects totaling 1,070 megawatts (MW), including wind, solar, hydropower and biomass. An estimated \$1.3 billion USD was invested as a result. In 2020, PtF is providing extensive technical assistance and auction preparatory work to help Kazakhstan ready for its 2020 RE auctions to be held in November and December. This year, the RE auctions will consist of eight auctions 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 VRE

PtF is providing targeted thought leadership and technical support to help the Central Asian countries prepare their national grids for increased RE integration, and to incorporate international best practices for system operations. Uzbekistan has set ambitious RE goals and intends to increase the share of national electricity generation using RE to at least 25% by 2030. PtF is working with the Government to conduct a RE Impact Study to evaluate the impacts of RE generation and integration on the national grid and overall regional power system. This work will help Uzbekistan to avoid severe technical issues, higher costs and other risks associated with integrating RE.

IMPROVING EE IN GENERATION

As EE measures can reduce a country's need for expensive peak generation while also improving integration of RE into power systems, PtF promotes EE measures to relevant policy makers, utilities, and financial institutions across Central Asia. In 2018 and 2019, PtF assessed potential EE measures for Almaty's combined heating plants (CHPs) and identified 26 EE measures that can reduce the plant's fuel and energy costs. To ensure these measures were financially feasible, PtF developed pre-feasibility studies and business plans to implement the EE investment projects. Due to the activity's success and at the request of the government, PtF is replicating this work in the Pavlodar region with several CHPs.

KNOWLEDGE MANAGEMENT, COORDINATION AND LEARNING

Under the C5+I initiative, PtF connects stakeholders, shares lessons learned, and provides access to the information needed for collaborative decision making. PtF is partnering with Central Asia's leading universities to train the next generations of engineers and energy specialists in RE power system planning and development. In 2019, PtF developed and helped implement a first-in-region RE curriculum for the Almaty University of Power Engineering and Telecommunication (AUPET), which is planned to be scaled up to other universities in Central Asia.

In addition, PtF facilitates knowledge and experience exchanges for women working in the region's energy sectors through field trips to RE facilities, knowledge exchanges and capacity building trainings. By investing time and resources into training and RE education, PtF creates favorable conditions for Central Asian countries to further promote their goals and ambitions for RE development.

FOR MORE INFORMATION

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