Mangla Dam Rehabilitation Project

Geographic Focus  National, Project located in Azad Kashmir
Implementing Partner  Water and Power Development Authority (WAPDA)
Funding  $150 Million ($72 Million obligated)
Dates  Aug 2013 – Dec 2017

Through a G2G mechanism, USAID is partnering with the Government of Pakistan to rehabilitate the Mangla hydroelectric power station. Mangla is located in the Mirpur District of Azad Kashmir, and has a power generation capacity of 1,000 MW from 10 generating units. However, as a result of degraded equipment, the plant's capacity was reduced to 980 MW.

By refurbishing and upgrading Units 5 and 6, along with related plant facility enhancements, the Mangla Dam Rehabilitation Project will add 90 MW to the plant's generation capacity and produce approximately 434 GWh/year of energy. This is enough to supply electricity to 833,580 people. By upgrading Units 5 and 6, Mangla’s revenue from electricity sales are expected to be approximately $60 Million per year. New, modern equipment will ensure the availability of spare parts for preventive maintenance, and will improve the reliability and availability of this power plant for the next 40 years.

Objectives
• Mitigate Pakistan's energy shortage by adding 90 MW to the national grid through the refurbishment and upgrade of Units 5 and 6 at the power plant.

Main Activities
• Refurbish and upgrade Units 5 and 6, increasing the generation capacity from 80 MW to 135 MW for Unit 5; and from 100 MW to 135 MW for Unit 6.
• Supply, install and refurbish the plant’s Inlet Valves.
• Supply 169 MVA Capacity Power Transformers.
• Refurbish and upgrade the Powerhouse Crane.
• Supply, install and refurbish mechanical and electrical equipment, and conduct civil works.
• Procure and install the plant control and instrumentation system, the interface of governor and excitation controllers, and the HMI for the Control Room.
• Procure and install the switchyard control automation and protection.

Achievements
• PC-I approved by Executive Committee of National Economic Council (ECNEC).
• First invoice for $13.0 Million against the “Approval of Feasibility Study” Milestone was disbursed into the WAPDA/Mangla Account.
• Mangla’s Environmental Mitigation and Monitoring Plan (EMMP) was prepared and approved.
• The Project Implementation Letter (PIL) was signed by WAPDA and USAID on March 6, 2014.

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