

USAID ENERGY POLICY PROGRAM

SUCCESS STORY

SECURE METERS REDUCE ENERGY COSTS

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Secure Meters Reduce Energy Costs



Secured Metering Panels provided to NTDC



EPP technical expert inspecting the secured metering panel



Storage Area Network servers installed at WAPDA house data center Lahore

Metering power flows at every stage of a power system is both important and critical. In Pakistan, Independent Power Producers (IPPs) have lacked metering arrangements due to lack of funding. Secured Metering System (SMS) is the technology of automatically collecting energy consumption data, specifically for billing purposes between different entities. It gathers consumption data from energy metering devices and transfers it to a central database.

Metering is now a critical requirement for institutions to manage their commercial and operational responsibilities. The extension of SMS generated data to distribution companies is meant to eliminate the possibility of disputes.

USAID Energy Policy Program (EPP) provided 2 storage area networks, 4 servers, 45 LCDs and 5 laptops to National Transmission and Despatch Company (NTDC) and Distribution Companies (DISCOs) at a cost of \$500,000. These were set up in the cities of Quetta, Hyderabad, Sukkur, Multan, Faisalabad, Lahore, Gujranwala, Islamabad and Peshawar from November 2013 to November 2014.

The objective of strengthening the SMS is to keep trading activities for buying and selling power in a process that is fair and free of disputes. NTDC is in the process of installing an accurate and secure metering system, creating a historical database of meter data that will help better manage load demands and carry out various system expansion and planning studies.

Once USAID provided SMS equipment consisting of various metering panels and data communication equipment to NTDC, training was provided to operators on site at each location. The panels and communication equipment have now been installed at Nandi Pur Plant and WAPDA Town 220 kV Grid Station.

The proposed extension of SMS aids both NTDC and DISCOs in accurate load forecasting. Using the data available through SMS archiving will enable more accurate forecasting than the current conditions allow. The access to real-time information can help avoid overloading transformer and transmission lines and enhance the life of equipment. NTDC and DISCOs will now accurately compare their losses against the industry benchmarks and be able to identify areas where theft and losses occur. In addition to figuring out the base load and peak load demands, the data available through EPP will help predict future load requirements and plan generation capacity in a systematic way.