



Project Information Sheet

Aybak, Qalat and Tirin Kot Electricity Distribution Networks

Distributed electricity – helping to rebuild municipalities

Implementing Partner	AEAI
Project Start Date	June 2005
Anticipated Finish Date	November 2006

Overview

One of the main objectives in the national development plan for Afghanistan is to enhance the potential for economic growth through the provision of secure electric energy to a broader number of residents.

A large number of people living in rural areas of Afghanistan have no access to any electricity source. Some of these areas have been provided mobile diesel generators by USAID and the World Bank. The benefit of these generators is often limited to a few customers in the absence of a proper distribution system.

Pilot projects to provide new, secure electricity networks have been planned by USAID in Aybak, the capital of Samagan Province in Northern Afghanistan, as well as Qalat and Tirin Kot in Zabul and Helmand Provinces, respectively, in Southern Afghanistan.

By building a modern power infrastructure, this project will enhance the potential for economic growth through the provision of electric energy to broader numbers of residents. This will have a direct impact on a civil infrastructure that will provide employment and increase productive capacity in agriculture, further, security and stability will increase in the area as viable alternatives to poppy production become available as economically viable options.

Project Description

Aybak currently has a 6kV overhead distribution system. The old system has undersized wires and utilizes untreated wooden poles. As part of the Electricity Distribution Networks Project, these are to be replaced with a new 20kV system with concrete poles and underground distribution of electrical lines from the overhead lines.

Additionally, the project aims to introduce the concept of a "seed" system that the Afghan people can build upon from

the revenue generated in order to maintain and expand their electricity distribution. This concept enables the people to determine their own future expansion rather than simply presenting a system for them.

The new 20 kV line will have the strength to hold up against storms as well as reducing excessive voltage drop. This system will accommodate power growth over the next 5-10 years.

In Qalat and Tirin Kot, the project will involve the construction of a 20kV/400V distribution network utilizing existing mobile generator sets; this distribution network is to be implemented using standard design that will allow for future expansion by the local Rural Electric Associations (REAs) which are being developed together with the physical distribution system development. Additionally, by involving local technicians from DABM in the construction activities, local capacity for future improvements and additions to the distribution network will be provided.



Aybak City 20 kV – Electrical Network Map



Project Accomplishments

The planning design phases of the Aybak distribution system have been completed. The local electricity authority has been involved and is being prepared to handle system maintenance, repair and expansion. This effort has involved building institutional capacities, as the electricity authority will be interacting with the Rural Electric Association.

In Aybak, the accomplishments to date are:

- Completed the system design
- Town mapping, pole locations and all aspects of the system are in place
- Erected poles
- Wires and the 5 MVA transformer are in place
- Meters and fuse boxes are scheduled for installation
- Spare parts are being handed over to the Electric Authority to enable them to repair the system and connect or expand services to hospitals, mosques, police stations, etc.
- Developed initial REA organizational structure, including proposed board of directors, and in collaboration with USAID/SARI/E, basic governance, management, finance and accounting training was provided

The preliminary work for the Qalat and Tirin Kot Projects has been completed. This has included design, preparation, and procurement. Specific accomplishments are:

- Coordination of schedule with the Provincial Governments and the PRT
- Request for Proposals (RFPs) developed and released for project services
- RFPs evaluated for each contract area
- Contracts awarded under Purchase Orders to Descon for materials, UCC Budservice for engineering services and Afghan Electric Power Company for construction
- Preparation of site for installation works and storage
- Training for technical oversight staff
- Approval of construction engineering drawings

Additionally, training of key staff in the Rural Electric Associations has begun and will aid in local democracy

building efforts and institutional, social, and economic reconstruction as the associations reach their full operational capability

Future Activities for both projects include:

In Aybak:

- The completion of system construction in Spring 2006
- Test and energize the distribution system
- Expand the role of the REA
- Maintenance and distribution system staff training
- Maintenance of the generation units
- Develop revenue collection process



Tirin Kot Generating Station

In Qalat and Tirin Kot:

- Complete system construction by fall of 2006
- Test and energize distribution system
- Follow up plans for new contractor
- Prepare plan for REA development, including training
- Train maintenance and distribution staff
- Develop program for maintenance of the generator units
- Develop revenue collection process
- Contact with Provincial Government to explain the transition to new contractors