Project Summary

Project Background
The rural areas of northern Pakistan have extremely low rates of electrification. A major part of the population lives in areas away from the national grid. For such communities, renewable energies provide a viable and sustainable source of electricity. The project aimed at electrifying rural communities in Khyber Pakhtunkhwa (KPK) by development of small hydropower projects.

Project Objectives
The aims of the project were to provide engineering consultancy services for Preparation of Feasibility Study Report, Detailed Engineering Design and Project Tender Documents of the following hydropower projects:
• 102 MW Shigo Kas (District Lower Dir)
• 47 MW Barikot Patrak HPP (Upper Dir)
• 22 MW Patrak Shringal (District Upper Dir)

Project Results
The project conducted feasibility studies of the identified hydropower sites. The study includes complete technical analysis of the available water resource and the potential for hydropower generation at the selected sites. Detailed Engineering Design and Project Tender documents were prepared as part of this assignment to facilitate organized project planning and implementation.

Services Provided
• Site Reconnaissance, Existing Data Collection and Review;
• Inception Report Preparation, Tender Documents;
• Preparation for Survey & Geotechnical Investigations, Laboratory Testing;
• Power Potential and Energy Determination, Power Dispersal Studies;
• Proposed Unit size and type of Turbines - Generator Units and Ancillary Equipment;
• Electrical and Mechanical Design & Drawings;
• Cost Estimates, Economic & Financial Analysis;
• Draft Feasibility Study and Final Feasibility Study Reports;
• Detailed Engineering Design, and preparation of Project Tender Documents.

Pakistan

Feasibility Study of Three Hydro Power Projects in District Dir Region of Khyber Pakhtunkhwa Province

Client
Pakthunkhwa Energy Development Organization (PEDO)

Duration
29/06/2012 - 28/06/2014

Personnel
• 1 International STE (3 PM, Team Leader)
• 1 National LTE (18 PM, Assistant Team Leader)
• pool of national STE (715 PM, Electrical, Mechanical and Civil Engineers, Technicians)