

## Project Summary

### Location:

**District:** Shahr-e-Bozurg  
**District Center:** Shar-e-Buzurg  
 N: 37 18 818  
 E: 070 10 013  
 Elevation: 1,753 masl

**Supply Area:** Dawang village

### Water Source:

Dawang River; minimum flow > 0.7 m<sup>3</sup>/s

**Accessibility:** good via off road throughout the year; distance to Faizabad: 116 km

### Technical Description:

The run-off the river project comprises of a 63 m wide weir of 3 m height. The water is conveyed via a 2.95 km long headrace canal to the forebay. With a gross head of 70 m and a nominal discharge of 0.7 m<sup>3</sup>/s the capacity is about 400 kW.

The power is transmitted via a 23 km long 20 kV transmission line and distributed via a 0.4 kV network. Houses are connected via service cable and equipped with electronic meter and RCBOs.

Possible connection of the district center would require a 37 km long transmission line.

### Socio-Economy

- Number of population: 9,000
- Number of households: 1,500 (6 persons/household)
- Number of houses: 1,295 (1.2 households per house)

The Bazaar is located in the center of Dawang village and comprises of 70 shops, 20 Mosques, 5 schools, 3 offices, 3 government buildings, 2 health facilities (hospital and clinic), 2 veterinary clinics, and a number of workshops.

### Area Supplied

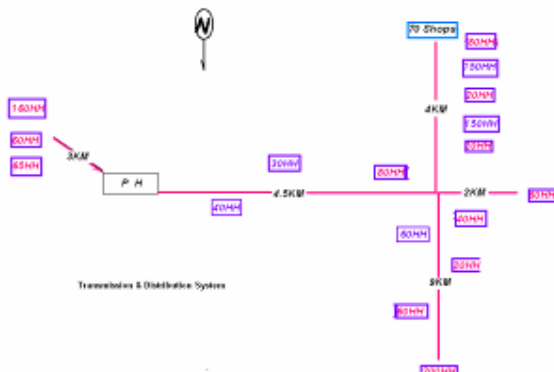
The following villages/hamlets will be connected to the supply system: Abganda Bagh, Baghsarda, Chashmak Haleta, Shadasht, Quasab, Dahnow Sarda Ajitala, Naw abad, and Dawang

### Environmental Aspects

The Dawang river is perennial. A fish pass is required to allow fish migration.

The project will have no negative impact to houses, land and irrigation.

### Principal Lay-Out



## Afghanistan

# Shahr-e-Bozurg Hydropower Project

## Site Reconnaissance

### Project Name

Rural Electrification Concept  
 Badakhshan Province

### Number of people supplied

9,000 plus Bazaar

### Estimated Costs

3.1 mill US\$; 6,890 US\$/kW; 320 US\$/person

### Technical Details

<b>Turbine capacity</b>	400 kW
<b>Rated head</b>	70m
<b>Rated flow</b>	0.7m <sup>3</sup> /s
<b>Turbine type</b>	Pelton/Francis
<b>Generator capacity</b>	420 kW



Survey implemented by:



Department of Water Management

For the Energy Working Group  
 under the PDC in Badakhshan

August 2009



**Legends**

- Load Centres
- Power House
- ↕ Intake
- Transmission line

Scale: As Shown

Renewable Energy Supply for Rural Areas (ESRA)			
Rural Electrification Concept, Boddishan Province			
Shore Buzung Hydropower Project	Step	Page	Drawing no.
Google Image of the Project Area			
Aerial View	INTEGRATION		
	Attachment & Name		
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