

Project Summary

Location:

District: Yamgan

District Center: Garme (Tah Dah)

N 36 23 977

E 070 46 007

Elevation: 2,093 masl

Supply Area: Spogmee

Water Source:

Spogmee River; minimum flow < 3 m³/s; Water resources higher then required.

Accessibility: good via off road throughout the year; distance to Faizabad: 120km

Technical Description:

The run-off the river project comprises of a 36 m wide weir of 1 m height. The water is conveyed via a 0.7 and 0.8 km long headrace canal to the forebay. With a gross head of 130 and 100 m and a nominal discharge of 3 m³/s, the maximum capacity is about 2.5 MW. Required power is 150 kW only.

The power is transmitted via a 7.3 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 interconnection to the district center supply requires a 15 km long transmission line.

Socio-Economy

- Number of population: 3,000
- Number of households: 500 (6 persons/household)
- Number of houses: 450 (1,1 households per house)

No productive use

Area Supplied

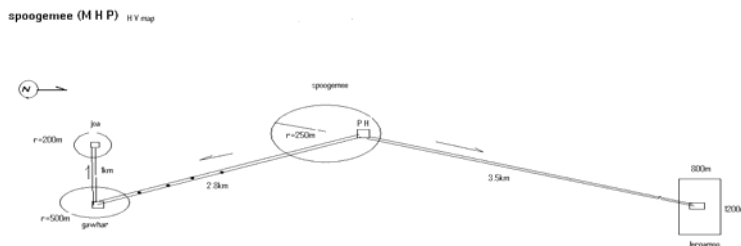
The following villages/hamlets will be connected to the supply system: Spogmee, Gawhar, Joa, Fergamero

Environmental Aspects

Spogmee 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

Spogmee

Hydropower Project

Site Reconnaissance

Project Name

Rural Electrification Concept
Badakhshan Province

Number of people supplied

3,000

Estimated Costs

1.2 mill US\$; 4,000 US\$/kW; 300 US\$/person

Technical Details

Turbine capacity	150 kW
Rated head	100 m
Rated flow	3 m ³ /s
Turbine type	Pelton
Planning and construction time	15 months

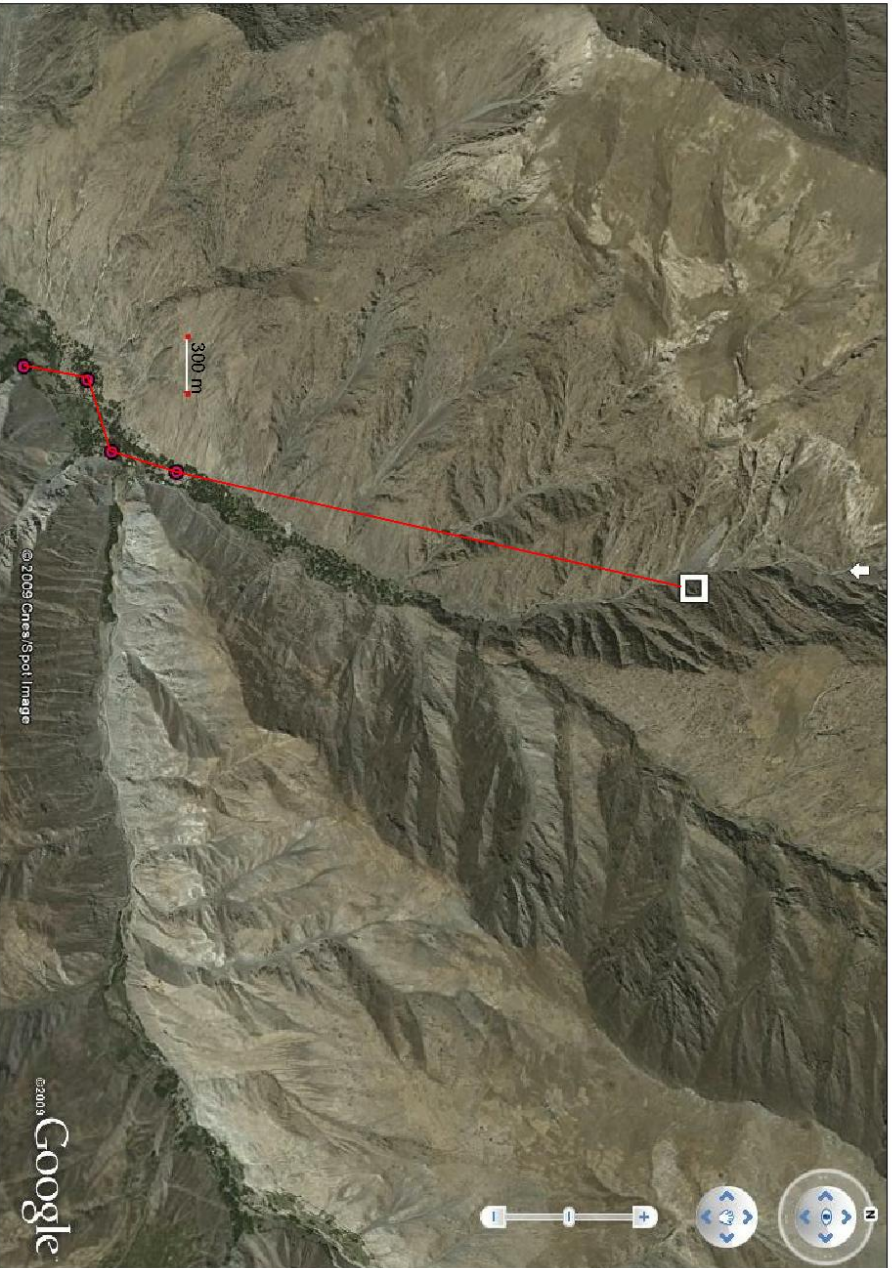


Survey implemented by:



Department of Water Management
For the Energy Working Group
under the PDC in Badakhshan

July 2009



Legends

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

Scale: As Shown

Renewable Energy Supply for Rural Areas (ESRA)

Rural Electrification Concept, Badkhashan Province

Yamgan (Spogme) Hydropower Project

Google Image of the Project Area
Aerial View

Step	Page	Drawing no.
INTEGRATION	powerlines-0210101	2.0102.01A