**Project Summary**

**Project Background**
Baharak is the third largest town in Badakshan Province and a trading hub for the respective hinterland. Total number of households is about 6,400 of which 1,380 are connected to the existing hydropower station. The capacity and performance of the existing hydro power station has decreased substantially after approx. 35 years of operation.

In Baharak, households use the existing hydroelectricity primarily for lighting purposes. Because of the supply and demand variation, the quality of light is poor and insufficient to run larger loads such as motors. Besides, kerosene is also used for lighting in lanterns and “Petromax”. Petrol generators are widely used primarily for lighting and operating other household appliances (TV and Radio) during non-hydroelectricity hours and also when the hydroelectricity voltage drops to an unacceptable level.

On an average, the users of privately owned generators pay Afs 45 (US$ 1) per unit (kWh) of electricity subscribed from these privately operated generators. In Baharak, the hydroelectricity tariff is only Afs 3 per unit. Due to poor quality electricity, the electricity department has not been able to increase the tariff. The tariff could be increased once the electricity quality is improved.

**Project Objectives**
The objective of the project is to rehabilitate the existing mini-hydro power station and to increase the capacity to 140 kW. This system will allow to service the population connected to the power supply system with improved electricity as basis for economic and social development.

**Project Results**
The intended result are:
- 1,380 households (about 14,000 people) and a number of public buildings and private business receive improved electricity supply for social and economic development.
- Management, operation and maintenance of the plant enhances strengthening the capacities of the local utility branch.

**Services Provided**
- Repair and improvements on the headrace channel;
- Installation of new sedimentation basin and spill way;
- Refurbishment of the powerhouse with a 140 kW Francis turbine and according control devices;
- Commissioning of turbine and control system;
- Training of the operating crew in operation and maintenance.

### Afghanistan
**Rehabilitation of Basic Infrastructure and Income Generation in Rural Areas**

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<tr>
<th><strong>Client</strong></th>
<th>German International Cooperation (GIZ)</th>
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<tbody>
<tr>
<td><strong>Duration</strong></td>
<td>12/2011 - 04/2013</td>
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<th><strong>Personnel</strong></th>
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<td>• 3 internat. STE (1.5 PM)</td>
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<td>• 2 national STE (13 PM)</td>
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