

### Location

HPP Ulog Project is located on river Neretva in Municipality of Kalinovik in Republika Srpska, Bosnia and Herzegovina.



80 km from Sarajevo



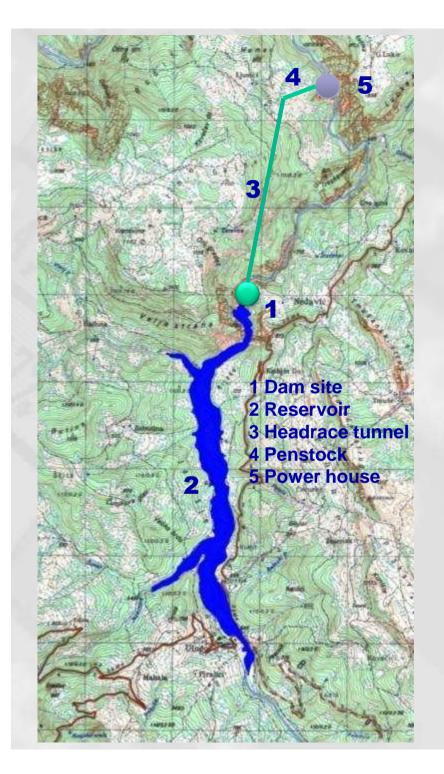
## **Concession agreement**

In November 2009, the Government of Republika Srpska awarded to EFT the concession for construction and operation of HPP Ulog on river Neretva.

The concession period includes a 2 year project development period and a 30 years construction and operation period extendable for additional 15 years.

Start of commercial operation planned in 2015.



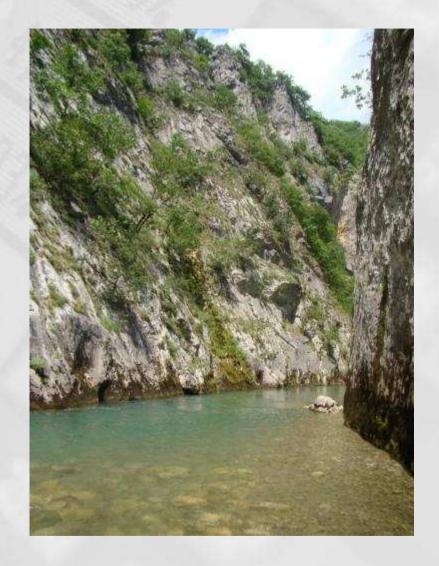


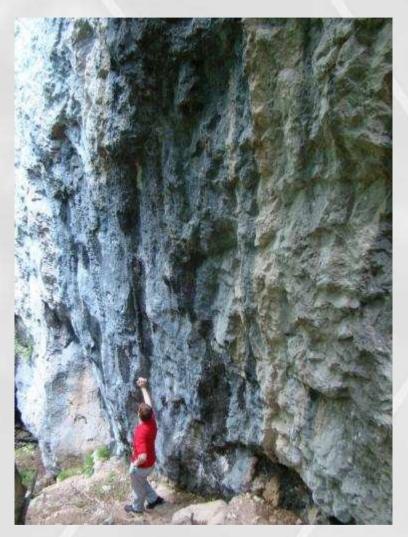
## The main features

Dam height [m]	53
Headrace tunnel - length/ diameter [m]	2 500/3.8
Penstock- length/diameter [m]	163/2x2.1
Installed flow [cub. m/s]	35
Total head [m] Net head [m]	120 113
Installed power capacity [MW]	35 MW
Average annual energy production [MWh]	85 000
Type and number of turbines	2 Francis
Water storage volume [million cub. m]	6.5



## Dam site







### **Development**

The following project development activities have been completed:

- Preliminary Feasibility Study with Conceptual Design
- Preliminary EIA Study
- HPP Ulog Zone Regulation Plan adopted by the Municipality of Kalinovik in February 2010
- Report on protection measures of cultural and natural heritage in the HPP Ulog zone
- Connection of HPP Ulog to the 110 kV transmission network of Bosnia and Herzegovina Study
- Feasibility Study with Preliminary Design
- Initial environmental monitoring of water quality, air quality, noise.
- Analysis of the HPP Ulog area in terms of existing environmental conditions and analysis of potential change of environmental conditions due to HPP Ulog project (in accord with EUROPEAID/119165/C/SV/BA)
- Environmental Impact Assessment Study
- Report on Zone Planning Conditions of HPP Ulog
- Land expropriation report
- Main design of access roads
- Construction of access roads started in July 2010



# Investigationes works- equipment transportation







# **Geological research**







## **Access road construction**







### **Investment Cost**

#### **Total Investment Cost**

o Civil works

o Electrical equipment and connection to grid

o Mechanical and hydro-mechanical equipment

o Other costs

#### EUR 58.5 million

EUR 31.4 million (54%)

EUR 12.9 million (22%)

EUR 8.7 million (15%)

EUR 5.5 million (9%)

#### Investment schedule:

Year	2010	2011	2012	2013	2014	2015
Percentage of total investment	4 %	10 %	10 %	27 %	28 %	21 %
Amount (EUR)	2.4 MM	5.8 MM	5.8 MM	15.8 MM	16.4 MM	12.3 MM



#### Time schedule

HPP Ulog Project time schedule is divided in following phases:

Phase 1 :Project development – technical and environmental documentation, exploration works, construction of access roads. Expected completion in second half of 2011.

Phase 2: Tender procedure for construction of HPP Ulog – contract finalization planned by the end of 2011/beginning of 2012.

Phase 3: Detailed design, equipment manufacture, civil works, commissioning, performance test, trial run. Completion expected in end of 2014/beginning of 2015.

Phase 4: Start of commercial operation in 2015.



## **Financing**

It is intended to finance the project on a classis project financing basis, with the expected involvement of multilateral agencies, export credit agencies and commercial banks.

The target debt-equity ratio is 70:30%.

Target date for financial close is early 2012.



