



HELIOS POWER



PROJECT

# MINI HYDROPOWER PLANT CHERNOGOROVO

The Mini Hydropower Plant, Chernogorovo for production of electricity via water is situated in Chernogorovo village, region Pazardjik.

MHPP Chernogorovo is built in 2014 and it is put into operation on 30.06.2014.

THE LOCATION IS AT LAT: 42°17'47.63" N and L=24°23'7.41" E., Altitude 246 m.

## DESCRIPTION OF THE MAIN PROCESSES:

### WATER INTAKE AND PRESSURE PIPELINE:

Through the work of HPP Chernogorovo the water of Topolnitsa River is used, as well as other tributaries that are captured by the dam "Lesichovo" in Main Irrigation Canal "Lesichovo - Stryama".

**WATER INTAKE:** Alpine type Consists of two basic equipment - water intake and water backing up.

**THE BUILDING:** The built-up area is 126 m<sup>2</sup> consisting of building and control room.

### THE MAIN TURBINE EQUIPMENT IN THE TURBINE HALL IS:

- Water turbine type "Cross Flow" with capacity 9 m<sup>3</sup> /sec, power 1320 kW at 135 rev / min and a generator with nominal voltage 0.4 kV and nominal power of 1448 kVA at 1000 rev/min.

The HPP is connected to the grid thru step-up transformer 0.4/20 kV, 2000 kVA, and cable line to an existing OHL, owned by distribution company EVN.

Permission №01440020/24.04.2013 for abstraction of surface water issued by Basin Directorate for water management;

Contract for the purchase of electricity with "EVN Bulgaria Electrosnabdianane";

Contract with "Irrigation systems" EAD for the supply of water for power generation.

### PARTNERS IN THE PROJECT:

- Designers: "Hydrosys Engineering" Ltd.;
- Builders: "Real Building" Ltd., "Proinvest Stroy" LTD "Gimexport" AD, "Ataro Clima" Ltd., "A and C Art Metal" Ltd., "Correll ID" Ltd., "Mega Power" Ltd.;
- Supplier of basic equipment ( turbine): "Zinc Hydro Energy" Czech Republic;
- Consultant ( Supervision ): "Eurocontrol" Ltd.