

High Head Plants

Ebru Weir and Hydroelectric Power Plant TURKEY



Ebru Diversion Weir and Hydroelectric Power Plant is a hydropower scheme located on Ezine River in Kastamonu province, in west Black Sea region of Turkey. It is licensed by the Energy Market Regulatory Authority (EMRA). The project is planned to be operational at end of the year 2013. Power tunnel of 5439 m length reaches the powerhouse. It has a diameter of 3.50 m with horse shoe shape. After 5439 m of tunnel, steel penstock of 1.60 m diameter and 1270m long is connected to powerhouse.

There are two generating units with two vertical axis pelton type turbines, and installed capacity of each unit is 15 MW.

Client:

Berke Elektrik Üretim A.Ş.

Powerhouse:

- | | |
|----------------------------------|------------------------------|
| • no.s/type of turbines | 2/pelton, vertical axis |
| • rated capacity/rated discharge | 30.00MW/8.0m ³ /s |
| • rated head | 439.77 m |
| • rotation/frequency | 750rpm/50Hz |
| • firm energy production | 2.55 GWh/a |
| • second energy production | 74.72 GWh/a |

Execution:

2011-2013

Services:

- Review, appraisal and recommendations for feasibility study
- Preparation of final design reports and drawings
- Preparation of technical specifications and tender documents
- Programming site investigations and evaluation of the works
- Preparation of detailed construction drawings for project structures