

## Cevizlik Weir and Hydroelectric Power Plant TURKEY



Cevizlik Diversion Weir and Hydroelectric Power Plant located on İyidere in Rize province, in north east Black Sea region of Turkey. It is a BOT project licensed by the Energy Market Regulatory Authority (EMRA). The project is planned to be operational at end of the year 2010. Cevizlik Diversion Weir foundation rests at around 444 m elevation above sea level, having a height of 12 m from foundation and 60 m length along its crest. Cevizlik diversion weir is connected to HEPP via tunnel having 4 m diameter and 7980 m long After the tunnel, steel penstock of 3.40 m diameter and 348 m long is connected to powerhouse. The powerhouse is a underground structure (cavern) with turbine axis at elevation 222.50m. There are two generating units with vertical axis francis turbines, and installed capacity of each unit is 47.50 MW.

**Client:**

Akım Enerji Üretimi San. ve Tic. A.Ş. (Sanko Energy Group Company)

**Main Data:**

Cevizlik Diversion Weir :

• height above foundation	12 m
• ogee crest length	60 m
• crest elevation	456 m
• maximum water level	458 m

**Powerhouse :**

- no.s/type of turbines 2/francis, vertical axis
- rated capacity/rated discharge 95.00 MW/49.50 m<sup>3</sup>/s
- rated head 198.66 m
- firm energy production 167.8GWh/a
- second energy production 228.6GWh/a
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**Execution:**

2005-2010

**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
- Assisting owner in evaluation of E&M bid documents
- Preparation of detailed construction drawings for project structures
- Verification of detailed design drawings of hydro-mechanical and electro-mechanical equipment
- Consultancy services to the owner during site construction works, before and during installation of hydraulic steel structures and of electro-mechanical equipment
- Monitoring acceptance tests and supervision of commissioning of equipment and plant

