

Construction of GKI – Gemeinschaftskraftwerk Martina / Switzerland – Prutz / Austria

Client

GKI Gemeinschaftskraftwerk Inn GmbH
 c/o EKW AG, Zerne / Schweiz

Consultant

IUB Engineering Ltd
 as an engineering consortium

Construction period

2006–2011 (project)

Construction costs

400 mio. CHF

Scope of services

Pre-project, construction project, detail
 planning, tendering

Description

A weir approx. 15 metres high will be constructed between Martina (AT) and the Kajetan Bridge near Ovella (CH) to impound water. The water will be taken to the power plant in Prutz through an 22.6 kilometres long underground tunnel. Power will be generated there by two machine units, each consisting of a Francis turbine and a generator. This electricity is fed along a cable to the transformer substation at the neighbouring Kaunertal power plant, which is operated by Tiroler Wasserkraft, and from there it is fed into the national grid.

Responsibility within the engineering consortium for planning of the electromechanical equipment.

Main Data

- 2 Francis turbines each with output 52 MW including all auxiliary systems
- 2 synchro generators each 65 MVA
- Energy transmission
- Generator transformers
- Connection to transmission network
- MS and NS substations
- Secondary structures
- Additional discharge power plant output 2.5 MW at Ovella weir with synchro generator incl. all auxiliary systems and secondary structures
- EI&C upgrades for all systems

