

Hinterrhein (GR): Overall renovation of power stations

Client

KHR - Kraftwerke Hinterrhein AG, Thusis

Consultant

Consortium LI-IM, Thusis (Laymeyer International GmbH and IM Maggia Engineering Ltd)

Period

2007–2017

Construction costs

CHF 300 million

Scope of services

Following stages in accordance with Swiss SIA standards:

- Preliminary design
- Tender documentation
- Detailed design
- Application design
- Construction supervision
- Overall construction management

Description

Total refurbishment of KHR Hinterrhein's HPPs

Main Data

- 3-stage group of power plants with installed power of 650 MW and pumping capacity of 90 MW
- 4 powerhouses with Francis turbines:
 - Ferrera 3 x 63 MW
 - Bärenburg 4 x 55 MW
 - Sils i.D. 4 x 60 MW
 - Thusis 2 x 20 MW
- Hydromechanical equipment:
 - Spillway, bottom outlet, intake gates
- Water transportation:
 - Pressure tunnel 30 km
 - Pressure shafts 1.7 km
 - Supply tunnels 16 km
 - Access tunnels 1.3 km
 - Water intakes 13
- Reservoirs:
 - Preda Reservoir
 - Valle di Lei Reservoir
 - Ferrera Reservoir
 - Sufers Reservoir
 - Bärenburg Reservoir
- Switchyards
 - in Ferrera and Bärenburg
 - controlled by Sils powerhouse

