

IM Maggia Engineering SA Via Stefano Franscini 5 Casella postale 46 CH-6601 Locarno 1 Tel. +41 91 756 88 11 info@im-maggia.ch www.im-maggia.ch

Limmern (GL): Pumped storage plant (1000 MW), new construction of headrace waterway, cavern control centre

Committente

Kraftwerke Linth-Limmern AG (KLL) c/o Axpo Power AG

Progettazione

IUB Engineering Ltd and IM Maggia Engineering Ltd as an engineering consortium

Realizzazione 2007–2015

Costo dell'opera approx. 1.8 billion CHF

Prestazioni

- Construction project
- Tendering
- Main project

Descrizione

The new Limmern power plant is a pump storage power plant with low natural inflow from the very small catchment area of Lake Mutt. Lake Mutt, which is dammed, serves as the upper basin, with the existing Limmernboden reservoir functioning as the lower basin. The power plant planned by IUB Engineering Ltd in the IG Alpenstrom engineering consortium covers the following sub-areas:

- Intake/outlet structure Lake Mutt
- Headrace pressure tunnel with a passive pretentioned in-situ concrete lining,

 ^[1] = 8.00 m
- Shaft surge tank, height 130 m and internal diameter 10.50 m
- Valve chamber, chamber height 20 m, length 66 m
- Two armoured pressure shafts, □_i = 4.20 m
- Machinery centre with four pump turbines, chamber height 53 m, length 156.5 m
- Transformer chamber with four transformers, chamber height 24 m, length 138.5 m
- Two high-pressure tailrace tunnels with a passively pretensioned in-situ concrete lining, D_i = 5.50 m
- Several access tunnels and construction chambers
- Materials management and preparation

Dati principali

- Installed capacity: 4 x 225 MW
- Design discharge: 190 m³/s
- Gross head: 560-724 m



