



ENGINEERING  
EXCELLENCE



## Hydropower Plants



Limberg II PSP, Austria



# Hydropower Plants



Hochwuhr HEPP, Austria



Limmern PSP, Switzerland



Vianden PSP, Luxembourg

## Fields of Expertise

- Hydropower plants
  - Low-head plants
  - High-head plants
  - Run-of-river plants
  - Storage plants
  - Pumped storage plants
- Dams and weirs
- River engineering works

## Highlights

- More than 130 hydropower projects of all types (run-of-river plants, storage plants, pumped storage plants)
- 1,400 MW - one of the largest pumped storage plants in Europe (Atdorf PSP, Germany)
- 1,000 MW - one of the largest pumped storage plants in Switzerland (Limmern PSP)
- 480 MW - one of the largest pumped storage plants in Austria (Limberg II PSP)
- 800+ m gross head (Palas Valley Hydropower Plant, Pakistan)
- Water pressure tunnel  $\varnothing$  14.4 m - the world's largest hard rock TBM (Niagara Tunnel Project)
- All disciplines covered in-house (hydropower, hydraulic, civil, electrical, mechanical, environmental engineering, as well as geology, geotechnics, tunnelling, etc.)
- 30+ years of international experience

## Selected References

- Atdorf Pumped Storage Plant (1,400 MW), Germany
- Limmern Pumped Storage Plant (1,000 MW), Switzerland
- Limberg II Pumped Storage Plant, (480 MW), Austria
- Palas Valley and Spat Gah Hydropower Plants (2,500 MW), Pakistan
- Niederwartha Pumped Storage Plant (120 MW), Germany

- Gemeinschaftskraftwerk Inn HPP (89 MW), Austria and Switzerland
- Motyginskaya Hydropower Plant (1,100 MW), Russia
- Cheurfas II Dam (82.4 m, CGD), Algeria
- Niagara Tunnel Project (10.4 km, 14.4 m TBM), Canada

## ILF Services

ILF provides all services required for a successful implementation of hydropower projects. These services include:

- Feasibility study
- Conceptual design
- Permit application design
- Detailed design
- Preparation of tender documents
- Construction design
- Construction supervision
- Hydropower potential studies and master plans to identify economically and ecologically feasible power plant sites for specified areas
- Tunnels, caverns and underground works
- Geological and geotechnical consulting services
- Hydrological analyses, sediment transport studies
- Steady-state and transient hydraulic analyses
- Elaboration of river management programs
- Services for the rehabilitation of existing hydropower plants and dams
- Studies on the sedimentation and flushing of reservoirs
- Environmental and social impact assessments
- Services for landscape protection and nature conservation



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