

# **INP** Reference

# Pfreimd Power Plant Group - Hydro Electric PP

LOCATION: Pfreimd/Trausnitz Oberpfalz, Germany

SYSTEM/TECHNOLOGY: S5,S7,PCS7, E-Plan P8, SIPROTEC, SIVACON, LST,

Gustav Klein

SERVICES: Production monitoring, Commissioning, Project management, Quality assurance, Site management, Documentation, As-built status and data recording, Pre-project planning and tendering, Basic-engineering and pre-engineering, Detail engineering, Installation supervision, Operations, Maintenance, Training

INDUSTRY BRANCH/TYPE OF PLANT: Green Energy, Power Generation

CLIENT: engie Deutschland
PROJECT SIZE: > 1 m EUR
ACTIVITY PERIOD: since 2017

## **Project description**

The Pfreimd power plant group consists of three storage lakes, one run-of-river and two pumped storage power plants. In the context of the energy transition, it is considered an essential component in the renewable energy mix. Due to its black start capability on the one hand, and its highly accurate and over-fast deployment capability for grid stability on the other hand, it contributes as an indispensable element to the turn towards green energy in Germany.

The operator of the power plant group, engie Deutschland GmbH, is investing double-digit millions in each of the two major overhauls in 2020/2021 to modernize the main structural, mechanical, electrical and I&C components.

INP Deutschland GmbH is contributing to the success of the site overhaul for continued secure operation over the next 20 years through the extensive services listed below.

#### **INP Services**

- Electrical and I&C as-is survey at the central site and all outstations of the Pfreimd power plant group
- Electrical and I&C evaluation of the entire plant
- Elaboration of a list of measures required for migrations to ensure reliable operation for another 20 years
- Concept development & implementation support for planning, modifications, commissioning up to acceptance of the specified electrical and I&C implementation measures, e.g.
  - Renewal excitation
  - Renewal el. protection
  - Exchange of DC supply

#### POINTS OF CONTACT



Michael Ohmer
Leiter Energie- und WärmeVersorgung
INP Deutschland GmbH
Werkstraße 5
67354 Römerberg
Deutschland
Tel. +49 6232 6869-0
michael.ohmer@inp-e.com
www.inp-e.com



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- Migration PCS7 incl. optimization measures
- Replacement of telecontrol
- Replacement of DIMOS hazard alarm system
- Replacement of S5 periphery with Teleperm analog/binary measured value processing
- Electrical and I&C integration of new power plant technology, such as additional run-of-river turbine, new machine transformers
- I&C integration of the new HP gate valves (70t) at the pumped storage units

### Major revision 2020:

- Head of commissioning electrical engineering
- Commissioning support in electrical engineering
- Consulting electrical engineering on the above-mentioned implementation topics
- Consulting I&C on the above-mentioned implementation topics

## Major revision 2021:

- Complete implementation (concept, planning SW and HW, delivery, installation, commissioning) for the I&C integration of the new HP gate valves
- Complete implementation (concept, planning, delivery, installation, commissioning) for migration of Teleperm transmitters with S5 peripheral modules to new Siemens ET200SP HA peripherals incl. associated software adaptations in S5/S7/PCS7
- Consulting electrical engineering for above mentioned implementation topics