

## INP Reference

### Increase of black fall resistance - substations

**LOCATION:** Baden-Württemberg, Germany

**SYSTEM/TECHNOLOGY:** 400V emergency generators

**SERVICES:** 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

**INDUSTRY BRANCH/TYPE OF PLANT:** Transmission & Distribution

**CLIENT:** TransnetBW GmbH

**ACTIVITY PERIOD:** 2021 - 2023

#### Project description

TransnetBW operates more than 50 substations in Baden-Württemberg, 29 of which will be equipped with an emergency generator to increase black start resistance (black case).

With the retrofitting of the emergency power generators, operation in the substations is to be guaranteed for 72 hours.

In a preliminary project, all sites were surveyed by INP, the power requirements for the substations were determined, and the emergency gensets were designed to meet the power requirements.

#### POINTS OF CONTACT



#### Ralf Barbian

Projektleiter Elektrotechnik

INP Deutschland GmbH

Werkstraße 5

67354 Römerberg

Deutschland

Tel. +49 6232 6869-0

[ralf.barbian@inp-e.com](mailto:ralf.barbian@inp-e.com)

[www.inp-e.com](http://www.inp-e.com)

#### INP Services

INP's services include support for the client per site:

- Design of the emergency gensets based on an inventory of the loads that must be active in the event of emergency power supply
- Determination of the genset size
- Conceptual connection to the existing switchgear and integration into the control and measurement technology
- Cable route planning, site planning
- Preparation of specifications and tender documents
- Preparation of approval documents
- Assistance for the selection of the executing companies (evaluation matrix) with the client, participation in bidder discussions
- Coordination of the interfaces at the sites to control technology, metering point operation, plant operation, document department and external suppliers (NetzeBW, ED Netze, municipal utilities)
- Support and supervision of the implementation planning (construction engineering as well as electrical engineering) and the actual execution in the substations
- Review of the final documentation (quality assurance)