

## INP Reference

### ZMS – 6 kV Medium-Voltage Switchboard

**LOCATION:** Schwandorf, Germany

**SYSTEM/TECHNOLOGY:** MS-GIS-switchboards

**SERVICES:** Detail engineering, Installation supervision

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

**CLIENT:** Zweckverband Müllverwertung Schwandorf (ZMS)

**PROJECT SIZE:** > € 850,000

#### Tasks

In the Schwandorf waste recycling plant, the previous 6 kV MS-AIS switchboard was replaced by a 6 kV MS-GIS switchboard corresponding to the state-of-the-art. The 6kV MS-AIS switchboard comprised a single busbar and was connected via a longitudinal coupling. Furthermore, it served for feeding seven LV switchboards, two induced draught fans, one secondary fan and one feed water pump.

The switchboard was replaced by a DSS system and installed as a SF6 gas-insulated switchboard. The modern 6 kV MS-GIS switchboard was set up during ongoing operation of the existing system. The connection to the control system is realized via an IEC 61850 interface, using SICAM devices.

#### INP Services

The following tasks will be implemented in close cooperation with customers:

- Cost estimate for determining the fee calculation for the power phases and
- project management according to HAOI 2013
- Cost estimate and cost calculation according to DIN 276
- Compilation of a bill of quantities for the requirement specifications of the
- 6 kV MS-GIS switchboard
- Formulation of a cable reconnection concept
- Requirement specification for the switchboard's double floor
- Description of the service scope for commissioning
- Advice for selection of the 6 kV MS-GIS switchboard
- Establishment of the rough schedule
- Offer evaluation and assignment recommendation
- Installation monitoring
- Commissioning monitoring

#### POINTS OF CONTACT



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### Technical data

- Rated voltage: 7.2 kV
- Operating voltage: 6 kV
- Rated short-time power-frequency withstand voltage: 20 kV
- Rated lightning-impulse withstand voltage: 60 kV
- Rated short-time current: 40 kA /1 s
- Busbar rated current: 2500 A
- 18-panel switchboards system consisting of:
  - one infeed panel
  - one regeneration panel
  - nine transformer outgoing panels
  - one emergency power diesel outgoing panel
  - two measuring panels
  - two transverse coupling panels
  - two longitudinal coupling panels