



# SOLUTION NOTE

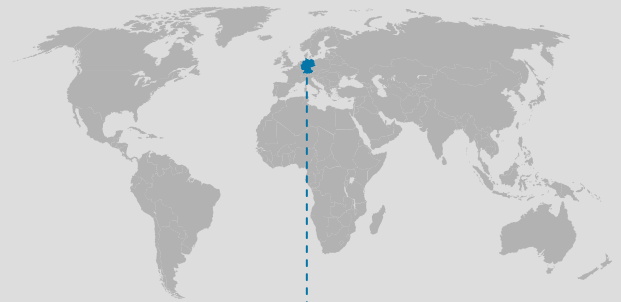
PREMNITZ 110 kV SUBSTATION  
E.ON edis (Germany)

## PREMNITZ 110 kV SUBSTATION SOLUTION

With the **commissioning** of the new 110kV substation E.ON edis is doubling the capacity of electrical power at the industry location Premnitz. Four modern power transformers with an output power of 31,5 MW each are ensuring the power supply of the local industry park and the region Premnitz. The former substation was built in the 1960s. It was designed for supplying the energy demand of the industry park via a 6kV network and after 40 years of operation it was technically outdated.

The supply of the city Premnitz and its surroundings was realized before by 15kV and 20 kV lines coming from substations in Rathenau and Brandenburg, which are 20 or 30 km away. With increasing electricity demand the technical solution was not sufficient any more and the transmission losses were increasing. After take over of the electrical grid of the industry park by E.On edis, the energy grid is progressively upgraded to meet modern technical standards. All new connections will be realized in future via the 20kV network. Besides the new connection possibilities, the supply reliability and safety are increased. One important effect of the 4,6 million Euro investment in the new construction of the substation is the decrease of network losses, which is in line with Brandenburg's "Energy Strategy 2020".

**DUE TO** » 2008  
**CLIENT** » E.ON edis  
**LOCATION** » Premnitz, Germany  
**SOLUTION** » GAE1250 Panels  
**N. OF PANELS** » 12  
**SEGMENT** » Utility (UTI) - Transmission & Distribution



**ORMAZABAL GAE1250:**  
FIXED MOUNTED, SINGLE BUSBAR,  
GAS INSULATED SWITCHGEAR UP TO 24 KV

**Switchgear Type:**  
CIRCUIT BREAKER CUBICLE (LSV)



### THE CHALLENGE AND THE SOLUTION

For the medium voltage equipment the customer was looking for modern, but reliable technology. Special attention was paid to personnel safety within the installation. Therefore it was a requirement, to have additional partial discharge tests in addition to the VDE standard tests.

**Electric Data:**  
24 kV – 1250 A – 16 kA

**Scope of Supply:**  
12 Panels

The panels were motorized and equipped with internal arc absorber for increase personnel safety. Additional partial discharge test were performed upon customer request in the Ormazabal plant in Krefeld, as well as at the customer installation in Premnitz.

Thanks to Ormazabal Solution, the client obtained the following benefits:

- High reliability, reduced maintenance needs
- High security of supply
- Climate resistant
- Maximum personnel safety
- Simple and robust design and operation
- Flexibility to integrate customer specific equipment