

## Solution Note

### Highlights

Client: Ing. Büro Ganß/Nordex  
 Location: Leipzig, Germany  
 Segment: Renewable Energies  
 Date of commissioning: 03/2013  
 Product: SF<sub>6</sub>-insulated switchgear  
 Type of installation: GAE1250kMAX  
 Equipment: 1LSV/6/  
 Rated voltage: 20kV  
 Rated short-time withstand current: 25kA  
 Rated normal current: 1250A



### Project background

For the future production of electric vehicles in the BMW plant in Leipzig, four wind turbines will provide most of the required power. The turbines amend the factory's energy supply. The wind farm developer wpd operates the switchgears and sells the power to BMW. With a rated power of 10 MW, the wind turbines will now generate about 28 gigawatt hours of electricity per year. This corresponds a saving of over 21.000 tons of CO<sub>2</sub> emissions. wpd planned the project and implemented it in collaboration with Nordex, Ganß and Ormazabal.

### Customer Benefit

Nordex appreciates the high reliability of Ormazabal products. The series GA/GAE is known by the turbine manufacturer and successfully proved several times. Due to the powerful switchgear and the height of the towers, the power can be generated with increased reliability. The number of full load hours increases. Thus, the amount of energy produced annually approaches the maximum technically feasible for this location.

### Challenge

For the medium voltage network in the BMW plant, only switchgears designed for a short-time current of 25kA can be used. In other MV distribution networks, 20kA are sufficient. Due to that fact, the GAE1250kMAX fulfills the conditions of the client ideally. For the installation of the wind turbines, the integration into the existing infrastructure as well as the consideration of work processes was important.

### Ormazabal Solution

Ormazabal installed the SF<sub>6</sub>-insulated switchgear GAE1250kMAX in the wind turbines. Due to the compact size, an uncomplicated installation could be guaranteed.

## Reference project Nordex/Automotive industry

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