

ZX2 switchgear and Relion® protection relays to a chemical plant Trostberg, Germany



Smooth execution of a medium-voltage substation upgrade project at AlzChem's process plant

Project at a glance

Customer: AlzChem

Segment: Chemical industry

ABB products: Gas-insulated ZX2 switchgear, Relion® 630 series protection and control relays, Station automation solution cabinet

Customer challenge

The customer faced problems with aging equipment on their three sites in Germany. The old equipment was causing high maintenance costs and malfunction problems. The customer identified the need for a cost-effective upgrade solution.

AlzChem set out to find a reliable business partner, who on top of providing technically well-suited products, also had the knowledge to fully understand the requirements and the ability to manage the project successfully within the limited time frame.

ABB solution

ABB's high-performing solution is based on the compact and powerful protection and control functionality available when combining the leading-edge Relion 630 series protection relays and the primary double busbar switchgear ZX2, and using the remote terminal unit RTU560 for station control.

The high performance is achieved thanks to the compatibility and flexibility of all the devices used in this solution. The solution is built on IEC 61850 communication, which is used for both horizontal (GOOSE) and vertical communication. The flexibility of the protection relays made it easy to engineer and commission the overall protection scheme. To achieve high reliability, the solution employs a star architecture instead of a traditional ring architecture.

In this turnkey delivery, ABB installed and commissioned all products on site. The overall time needed to engineer and commission this project was significantly reduced as a result of the close cooperation between the partners involved. The combination of project management and engineering expertise with ABB's high quality products resulted in a smooth and on-time project delivery, which met and exceeded the customer's requirements.

Customer benefits

- Local ABB presence and expertise for the project from start to finish
- Training, commissioning and sales support close to the site
- Highly reliable and technically sophisticated products compliant with the IEC 61850 communication standard
- Improved reliability of the electric power system

About the project

At the facility in Trostberg, Germany, AlzChem focuses on the production of nitrogen-carbon-nitrogen bond (NCN) chemistry products.

AlzChem is retrofitting its complete grid. The upgrade started with a substation on the Trostberg site, to which ABB's medium-voltage solution was delivered in 2014. The same turnkey solution for AlzChem has since also been implemented at another substation on the same site.

AlzChem expressed their complete satisfaction with the service provided by ABB during all stages of the project.

For more information, please contact

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