The development zone Salina Raurica, in which a new city district is being built, is located in the northern municipality of Pratteln, Switzerland. Here, the Swiss retailer Coop is constructing its new manufacturing center with the goal of finishing it in 2017. The center will employ up to 600 people making chocolate products, among other things. The Raurica substation was designed and constructed in order to provide this city district with sufficient power capacity. The secondary equipment of this substation is based on a simple and robust station control system using IEC 61850 communication.

Customer feedback
„We would like to thank the ABB project team for their professional work and competent handling of the interfaces between the primary and secondary equipment.“
Bernhard Pfeiffer (BKW)

„Close and efficient cooperation between EBL, BKW and ABB during the engineering and commissioning stages made it possible to implement the project to our complete satisfaction.“
Thomas Wenger (EBL)

Project
The Raurica substation was built by the main contractor BKW for the Elektra Baselland (EBL) cooperative. ABB Power Grids Grid Automation was responsible for delivering the secondary equipment and connecting the substation to the network control center of EBL in Liestal.

The Smart Distribution Automation team of ABB Power Grids Grid Automation acted as a systems integrator during the engineering, testing and commissioning of all the protection and control equipment. This also included the integration of the primary equipment of ABB Sècheron with the medium-voltage system and the Alstom 50 kV substation. The Smart Distribution Automation team completed this task completely and to the satisfaction of the main contractor and EBL. The substation was commissioned on schedule.
ABB solution

ABB has delivered protection and control equipment for 50 kV as well as 13.6 kV systems. Using the FOX515 communication device and RTU560 as SA system, the substation was connected to the control center of EBL. Local control at the substation is enforced via RTU560 using a web-browser HMI. The secondary equipment is based on a simple and robust station control system using IEC 61850 communication. All the protection and control functions are performed via the Relion® family of devices. In these devices, step switch control as well as busbar protection are also integrated with direction logic.

ABB, its client EBL and the main contractor BKW began cooperating as early as the engineering stage. This cooperation was successfully continued during the commissioning as well.

ABB’s scope of delivery

Station level
- RTU560: Remote Terminal Unit
- AFS675: Managed Ethernet Switch
- FOX515: Fiber optical communication

Field level
- REC670: Field control device
- RED670: Differential line protection device
- RET670: Transformer protection device
- REF630: Field control and protection device
- REG-D: Voltage control

Cooperation between all partners

Productive and unusually close cooperation was always possible between the project teams of the partners. The commissioning took place exactly according to schedule. Our engineers were on site during the entire commissioning process, and the system was fully tested. These tests were also used for practice-oriented training.

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