

# TANNUWALD AND SERRA: REFURBISHMENT OF MV SUBSTATIONS AND THEIR INTERNAL SYSTEMS (LV)

As part of the refurbishment of the Tannuwald power plant we were asked to construct a medium voltage (MV) switchyard to evacuate the power produced by the generators, and also to install the station's internal LV systems.



While the project was ongoing, we found that the added power produced by the plant also required us to replace the MV substation at Serra, where electricity is injected into the 220 kV grid.

The following work was performed:

- Construction of a temporary MV substation while work was under way at Serra and Tannuwald
- Full



replacement of the MV substation at Serra

- Construction of two new MV substations at Tannuwald
- Comprehensive installation of the internal systems of the new plant (AC and DC)
- Construction of an MV/LV substation at the FAH dam

The medium voltage section involved two major challenges:

1. Installing the new MV cells in the existing premises while complying with the installation's technical specifications, including the short-circuit current.
2. Obtaining MV cells within a very short time frame in order to install them before winter.

HYDRO Exploitation applied its skills and experience in the construction and operation of MV substations and installation of internal systems (LV), enabling the work to be completed within the required deadlines, despite the problems inherent in these types of projects. The resulting facilities will have the reliability levels required to guarantee secure operation of the new plant at Tannuwald.