

SERVICES: HIGH VOLTAGE (HV) SUBSTATION ENGINEERING WORKS

Engineering work to refurbish HV substations is just one of the services we offer customers who have entrusted the operation of their facilities to us. Other customers who have used our services, include Swissgrid and Electricité d'Emosson SA.



The scope of our services covers civil engineering work, supports and tethering, power transformers and switchgear, including switches and breakers, as well as instrument transformers.

Swissgrid asked us to construct a new transformer array at the 220 kV St-Triphon substation.

The work included assessment and adaptation of the existing units, base plates and supports, as well as coordinating the assembly of the new transformer and its



command and control systems, and the acquisition of missing HV equipment. Due to the number of tasks to be completed simultaneously, coordination and planning were major challenges involving a large number of partners. HYDRO Exploitation also assisted Swissgrid with the installation of an earthing switch at the output of an existing transformer.

Following the raising of the energy output voltage to 380 kV, Electricité d'Emosson SA asked us to perform work to replace the settransformers and to add a mechanised switch on the medium-voltage side. The challenge was to carry out as much of the work as possible concurrently in order to minimise generator downtime.

The work was started in 2018/2019 and will continue until 2021/2022. Our Civil, Mechanical, Electrical and Automation & Control Engineering units all made a contribution to meeting the challenges and, through close collaboration with the clients and all the other contractors, we were able to complete the initial phases of the project on time and within the budget while also hitting all quality targets.