

Duresca® busbars in a pumped storage hydro power station



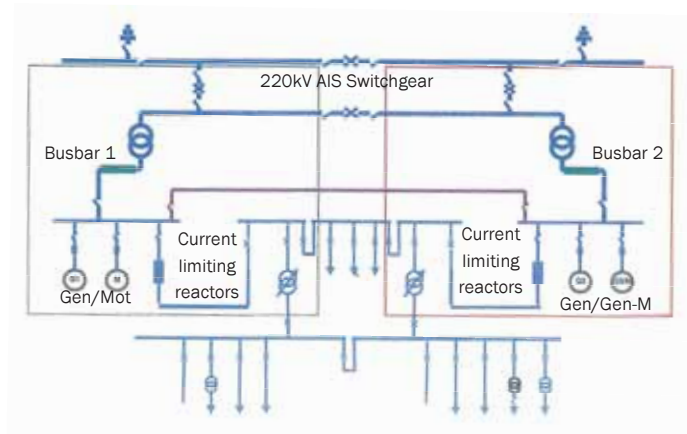
The increased demand for renewable electricity leads utilities to exploit more and more the existing hydraulic resources. Some countries like Switzerland are, with all the beautiful mountains, favoured. A good example concerns EWZ (Elektrizität Werke Zurich) who decided to renew an important pumped storage plant, KW Löbbia.

To ensure a better reliability of the electricity production a second power transformer 220kV was installed and as consequence the electrical substation was completely redesigned. This ensures the redundancy of the power station.

MGC was awarded with the complete busbar supply, between 3 generators, switchgears main transformers and auxiliary transformers.



Outside view of Löbbia substation



The main electrical data are:

Rated voltage: 17.5kV

Rated current:

between Generator to Switchgear: 2650A

between Switchgear and Transformer: 2900/4100A

between Switchgear and current limiting Reactors: 1050A

between Switchgear and Pump: 1750A

Short time capability: 50kA / 3s

Installation altitude: 1500m

Design temperature: -40....+40 °C

The complete scope of supply represents 1350m busbars. As common practice, all the fixations and earthing hardware are included. Also part of this supply, 33 VT's and 48 CT's manufactured by Pfiffner.



Current Transformer

Voltage Transformer



Connection to the switchgears



Connection to the current limiting reactors



1350m of busbars have been installed