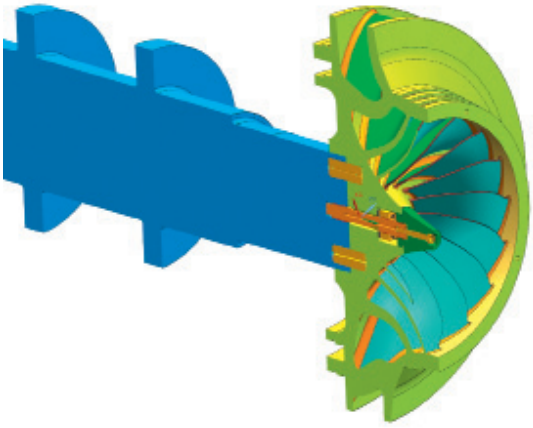
s Existing turbine hall



s Connection section between runner and shaft

Ponte Gardena

Replacement and partial refurbishment of an existing Italian hydropower plant

In mid-2014, ANDRITZ HYDRO signed a contract with the South Tyrolean regional electricity company SEL GmbH / Srl for the supply and installation of the electromechanical equipment of two horizontal 7.2 MW Francis turbine units for the Ponte Gardena hydro power plant in Italy.

HPP Ponte Gardena was originally installed in 1955 along the Isarco Valley, which connects Italy to Austria and Central Europe, and it uses water from the Dolomites in the Gardena Valley near Bolzano in northern Italy. The Ponte Gardena project, actual property of SE Hydropower, is a successful follow-up of the projects HPP Lappago and HPP Molini Di Tures, which were performed in 2013 for the same client in the same region. The scope of delivery includes supply and installation of turbines, generators, inlet valves, the intake valve, governors, HPU systems, the complete automation system on SICAM 1703, 250 SCALA platforms, THYNE1 excitation system, and low voltage equipment.

The new equipment will be designed considering the particular client's requirement for high-efficiency generating during low-flow periods, thus increasing overall annual energy production. For this reason a "pit stop" concept was developed and proposed to the client: similar to the replacement of car tyres between summer and winter, the whole mechanical concept has been developed in order to easily install a winter runner during low-flow periods.

The governor will also be switched from one season to the other in consideration of different working parameters. Besides the higher overall annual energy production, the replacement of the runner twice per year provides the basis for a maintenance program with higher reliability and safety, extending the turbine's lifetime.

This technical solution was key to the award of the order to ANDRITZ HYDRO. Unit #1 is due to be commissioned in March 2015, followed by unit #2 one month later.

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TECHNICAL DATA
Output: 2 x 7.2 MW / 9.5 MVA
Voltage: 10 kV
Head: 260 m
Speed: 1,000 rpm
Runner diameter: 615 mm / 1,022 mm