

# Matre Haugsdal

Reconstruction of an underground power plant in Norway

**In May 2013 BKK Produksjon AS awarded a contract to ANDRITZ HYDRO for building the Matre Haugsdal hydropower station in Norway.**

HPP Matre is located about 80 km north of Bergen in Masfjorden, the municipality in Hordaland County in Norway. The development of HPP Matre started with the creation of the Haugsdal water system in 1952. The plant consists of two hydropower stations in the same machine hall.

The three existing Pelton units, utilizing water from the Haugsdal water system, were completed in 1959. These units will be replaced by the completely new Matre Haugsdal underground power station. The new Matre Haugsdal underground power station is planned

about 500 m inside the mountain from the existing hydropower plant in Matre. The station will get a new headrace tunnel with a new intake in Godbotsvatnet, and a new tailrace tunnel with a new outlet in the Matre fjord. In the power house two Francis units with associated generators will be installed. Each unit will have an output of 90 MW (105 MVA) at a rated net head of 525 m. The nominal output is increased significantly compared with the existing power station, and has been designed for intermittent operation (1-2 start/stop per day).

ANDRITZ HYDRO will supply the steel linings for the headrace and tailrace tunnel as well as two 105 MVA vertical generators and two 90 MW vertical Francis turbines. The main consignment for the generator components will be

delivered from ANDRITZ HYDRO Austria. ANDRITZ HYDRO Italy will provide the turbine equipment in cooperation with ANDRITZ HYDRO Norway which is responsible for the project management, installation and the hydraulic steelworks. The equipment is expected mainly to be transported to site by road while the transport of heavy parts is planned by boat, which will allow the delivery of a full stator for this project.

ANDRITZ HYDRO won this Norwegian renewal project with a high level of efficiency and totally reliable project planning. Commissioning is planned for September 2016.

Oliver Gielesberger  
Phone: +43 50805 52638  
oliver.gielesberger@andritz.com

▼ Masfjorden from Matre quai



## TECHNICAL DATA

Output: 2 x 90 MW / 2 x 105 MVA

Voltage: 13 kV

Head: 525 m

Speed: 600 rpm

Outlet diameter: 1,360 mm

