

New Zealand, Aratiatia

By Georg Wöber
georg.woeber@andritz.com

New Zealand power company Mighty River Power has contracted ANDRITZ HYDRO to refurbish the Aratiatia hydropower station on the river Waikato on the North Island.



Aratiatia, a run-of-river station located 13 km upstream of Lake Taupo, is the first of nine hydropower plants with a combined installed capacity of 1,052 MW on the river Waikato, New Zealand's longest. All nine plants have been owned and operated by Mighty River Power since 1999.

Under the terms of the contract announced in December 2015, ANDRITZ HYDRO will design, deliver, install, and commission three generators, one Francis runner including model test, and three turbine governors for HPP Aratiatia. The first unit is due to start commercial operation in 2018. Refurbishment of the plant, which was first commissioned in 1964, will result in a significant increase in efficiency and reliability.

The company, which also operates five geothermal power plants with total capacity of 334 MW, is a pure renewable energy producer following the closure of its 140 MW gas-fired power station at the end of 2014. Mighty River produces an average annual output of 6,800 GWh, representing 15–17% of New Zealand's national electricity supply. About 60% – an average of 4,000 GWh – is produced by its hydropower assets. ■

TECHNICAL DATA

Output	31.4 MW 35 MVA
Voltage	11 kV
Head	33.5 m
Speed	136.4 rpm
Runner diameter	3,831 mm

China, Da A Guo

By Yong Ma
yong.ma@andritz.com

ANDRITZ HYDRO has been awarded the supply of electro-mechanical equipment for HPP Da A Guo, located downstream of HuoQu River, 600 km west of the city of Chengdu in Sichuan Province, PR China.

It is the last step in the development of hydropower stations on the HuoQu River. The contract includes two Pelton turbine units with an output of 130 MW each. Project execution will be handled by joint order teams from ANDRITZ HYDRO China, Austria, and India. Commissioning is scheduled for May 2017.

The electrical energy produced by HPP Da A Guo will be fed to the Sichuan Grid.

With the award of this project ANDRITZ HYDRO will further strengthen its position in the Chinese hydropower market. ■

TECHNICAL DATA

Output	2 × 130 MW
Head	605.4 m
Speed	375 rpm
Runner diameter	2,707 mm

Austria, Kaunertal

By Werner Wagner
werner.wagner@andritz.com

In April 2012, ANDRITZ HYDRO received an order from Tiroler Wasserkraft AG (TIWAG) for the renewal of the existing penstock at the 395 MW Kaunertal hydropower plant, located in western Austria in the state of Tyrol.



The main installation works at the penstocks, including the filling test, were finished on time in May 2015. In total, about 9,100 tons of steel of different grades and thicknesses have been used and welded during this project. Connection work from the old to the new pressure shaft was carried out between March and April 2016, when the seal on the disc valve was also replaced.

At the beginning of 2016, the reservoir level was lowered for rehabilitation works on the intake structure. It is currently being refilled with melt- and rainwater and the hydropower plant will resume operations by June 2016.

At the end of 2015, ANDRITZ HYDRO completed rehabilitation of two out of five 100 MVA synchronous generators at HPP Kaunertal (see Hydro News 27).

After more than 50 years in operation, new stators, new pole windings, new shafts with in-depth assessment were delivered, as well as a refurbishment of the remaining rotor components was executed. The generator components were designed and manufactured by ANDRITZ HYDRO in Weiz, where also the over-speed tests were performed.

These two contracts confirm the confidence Tiroler Wasserkraft AG places in ANDRITZ HYDRO. ■

TECHNICAL DATA

Output	395 MW
Head	793–895 m
Speed	500 rpm
Runner diameter	2,858 mm