



► Bridge in Dagachhu

Bhutan

Kingdom of Bhutan

Clean Energy from the Thunder Dragon Country

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Bhutan's economy, small and less developed, is based largely on hydropower, agriculture, and forestry. Bhutan's largest export – hydropower to India – could stimulate sustainable growth in the coming years. Bhutan currently taps only 6% of its hydropower potential of 118,260 GWh and is in building 12 new hydropower dams with a combined capacity of 10,000 MW by 2020, as agreed with India in 2008.

ANDRITZ HYDRO in Bhutan

Almost 20 years ago, ANDRITZ HYDRO delivered its first equipment to Bhutan, for the Basochhu Upper Stage hydropower plant. Since then, ANDRITZ HYDRO has supplied 14 units with a total capacity of more than 1,500 MW, which is equivalent to 88% of the total country's installed capacity.

HPP Dagachhu: Dagachhu Hydro Power Corporation (DHPC) and ANDRITZ HYDRO signed a contract for the delivery and installation of hydro-mechanical equipment for the Dagachhu hydropower plant in July 2009.

The Dagachhu hydropower plant is a run-of-river power plant and consists of an underground powerhouse, underground waterways of approximately 8 km length and three large desilting chambers, located downstream of the intake.

The scope of delivery included two Pelton turbines, two governors, the bifurcator, penstocks, main inlet valves, cranes, and the complete hydraulic steel structure equipment for the intake and the desilter.

HPP Tala: In December 2011, ANDRITZ HYDRO won an important contract from Druk Green Power Corporation (DGPC) for the supply of MicroGuss™ hard coated Pelton runners for the Tala hydropower plant, the largest hydropower plant in Bhutan, housing six 173 MW units.

ANDRITZ HYDRO has been developing high-quality coatings since 1986 – initiated by projects in the Swiss Alps with hydro-abrasive problems related to glacial silt. After experiencing proven protection in the Indian Himalayan region's silty water, the customer selected the SXH70™ coating.

Further projects for ANDRITZ HYDRO were HPP Chhukha (4 × 84 MW), HPP Basochhu Lower Stage (1 × 21 MW), and HPP Basochhu Upper Stage (1 × 12 MW). The scope under these references covers either complete packages or critical items for the plants.

Winning all these contracts has further consolidated ANDRITZ HYDRO's position in Bhutan, which has emerged with a very promising hydro potential for the coming years, and underlines the important role of ANDRITZ HYDRO in the development of the Bhutanese hydropower market. ■

BHUTAN FACTS

765,000
75.6%
1,738 MW
3,534 MW
100%
7,147 GWh
118,260 GWh

Population
Access to electricity
Installed hydro capacity
Hydro capacity under construction
Share of generation from hydropower
Hydro generation
Technically feasible hydro generation potential