Teesta Stage III

Challenging generator transportation in India

s Challenging transportation

In October 2007, ANDRITZ HYDRO signed a contract with Teesta Urja Limited for the six 200 MW units of Teesta Stage III project in India.

HPP Teesta Stage III is one of the largest hydropower plants in India with a head of 800 m. It is located in the northeastern Indian state of Sikkim. After completion, the run-of-river power plant will generate 5,269 GWh of electricity annually, dependable for 90% of the year.

ANDRITZ HYDRO's scope of supply includes model testing, design, procurement, and manufacturing of the six units, as well as all equipment, materials and mandatory spares for the complete electromechanical works, including 400 kV GIS, XLPE cables, and mechanical balance of plant equipment. Furthermore, ANDRITZ HYDRO will provide all services, like inland transportation for delivery to the site, unloading, storage, handling on site, installation, testing and commissioning, including performance testing in respect of all supplied equipment.

One of the main challenges of the project is to preserve and store components for an extremely long duration at various locations near the project site.

Furthermore, the transportation of heavy consignments in an extremely hostile terrain is another mammoth task, which is currently being executed.

The hydropower project had an initial contractual duration of 46 months up to commissioning of the last unit, which had to be revised due to a massive earthquake with its epicenter right at the project site in September 2011. This was followed by the collapse of one of the bridges on the main road to the project site. The collapse of the bridge impeded the transportation of heavy consignments for a period of 23 months.

The key task of lowering the rotor into each of the first three units has been completed. The first unit is already boxed up and the erection activities post rotor lowering are continuing for two units. The erection work in the remaining three units is proceeding as well, under the supervision of a diverse team of Indian and European supervisors.

The first unit is expected to be commissioned in January 2015, commissioning of the full plant will follow in June 2015.

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t Rotor lowering in unit #2

TECHNICAL DATA
Output: 6 x 200 MW
Head: 800 m
Speed: 375 rpm
Runner diameter: 3,020 mm