Nam Theun I

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Region close to HPP Nam Theun I

Lao PDR – In August 2016, ANDRITZ HYDRO received an order from Phonesack Group (PSG) to supply electro-mechanical equipment for the Nam Theun 1 hydropower project in Lao PDR.

Lao PDR is a landlocked and mountainous country with borders to Myanmar, China, Vietnam, Cambodia, and Thailand. The Mekong River acts as a major part of the Laotian border and also represents a large part of the country's enormous hydropower potential. By developing these resources the Laotian government intends to transform the country into "the Battery of Southeast Asia".

HPP Nam Theun I aims to contribute to the Lao PDR's development by creating revenues from the export of electricity, as well as covering future increases in domestic demand.

The Nam Theun I hydropower storage scheme is located on the Nam Kading River, about 33 km upstream of its confluence with the Mekong River. It is the last plant in the Nam Theun-Nam Kading Hydropower Cascade. The inflow reaching the Nam Theun I reservoir is affected by the existing upstream hydropower plants including HPP Theun Hinboun, HPP Theun Hinboun Expansion, and HPP Nam Theun II. ANDRITZ HYDRO completes its supply of electro-mechanical equipment in this cascade by supplying the last plant on the river.

The hydropower plant houses three units with a total output of about 662 MW. The scope of supply for ANDRITZ HYDRO comprises design, manufacturing and supply of the complete electro-mechanical equipment, including three vertical Francis turbines, model test, generators, governors, and automation system. The scope also includes the main transformer, medium- and low-voltage switchgears, power and control cables, fire protection system, 500 kV GIS, the main inlet valve, mechanical auxiliaries, installation supervision, and commissioning. Commercial operation is scheduled for the end of 2020.

Following HPP Huay Ho, HPP Nam Theun II, HPP Theun Hinboun and HPP Nam Lik, this is a further private hydropower plant in Vietnam to be equipped with the state-of-the-art equipment of ANDRITZ HYDRO.

TECHNICAL DATA

Output	2 × 265 MW / 1 × 132.5	MW
Head	140	m
Speed	2 × 187.5 rpm / 1 × 250	rpm
Runner diameter	2 × 4,450	mm
	1 × 3,250	mm