

Xayaburi

A run-of-river power station for Lao PDR



▲ Upper reaches of the Mekong River

At the end of 2012, ANDRITZ HYDRO won an international bidding process: over the next seven years, we will deliver the entire electromechanical equipment for a new run-of-river power station on the Mekong River with a nominal capacity of 1,295 MW and an annual output of 7,406 GWh. With this project, ANDRITZ HYDRO is supporting the efforts of the Lao People's Democratic Republic to

cover the rising energy needs of its own and neighboring populations through hydropower while reducing the dependency on fossil fuels at the same time. The symbolic groundbreaking for this project was in November 2012.

After the successful delivery of the electromechanical equipment for HPP Nam Theun II, the largest Laotian hydropower station so far, the new order

for the run-of-river power station Xayaburi is a further sign of trust in the modern technology and reliability of ANDRITZ HYDRO's products. HPP Nam Theun II started commercial operation in 2010 and is now considered a pioneering project in the sustainable construction of hydropower stations. In the course of implementing this project, numerous social and ecological measures were executed according to the directives of the World Bank and



▲ Contract signing

the International Monetary Fund. The Xayaburi order includes the delivery of seven Kaplan turbines, each with an output of 182 MW, as well as an additional 68.8 MW turbine. ANDRITZ HYDRO will also supply generators and governors, the automation and additional equipment.

With a planned capacity of 1,295 MW, the Xayaburi run-of-river power station will produce electricity for approximately one million households - in Laos as well as in neighboring Thailand. Commissioning is scheduled for 2019. In contrast to storage power stations, run-of-river power stations only store low volumes of water: with a dam that has a ridge length of 810 m and a height of 49 m, Xayaburi will have a storage space of 225 mio. m³ which will be completely replaced once per day. Xayaburi Power Company Ltd., in which Thai companies hold a

majority interest, functions as the project operator by order of the Laotian government. Financing is handled by a consortium that consists of four Thai banks.

The government of the Lao People's Democratic Republic has been relying on the expansion of hydropower for several years in order to boost the country's economic growth and the population's level of prosperity. The Xayaburi project was approved with the participation of European experts and based on ecological and social measures, including an environmental compatibility study. The Mekong River Commission has constantly been involved in the project since its conception.

Structural measures to ensure sediment transport and fish migration in the Mekong are considered to be

major challenges during the implementation. Planned remedies include fish passes, fish locks, side channels and separate outlets that facilitate the sediment transport. Only after a careful consideration of all accompanying factors that need to be taken into account for such large projects did ANDRITZ HYDRO decide to participate in the bidding process.

The Mekong River is also called "Mother of Water". Its exact length has never been measured, but is said to lie between 4,300 km and 4,900 km. Originating in the Tibetan highlands, it spans China, Burma, Laos, Thailand, Vietnam and Cambodia down to the well-known delta estuary in the south.

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TECHNICAL DATA
Output (max.): 7 x 182 MW / 1 x 68.8 MW
Voltage: 16 kV
Head: 28.5 m
Speed: 83.33 rpm / 150 rpm
Runner diameter: 8,600 mm / 5,050 mm

▼ Site visit



▼ Foundation work

