▲ Xekaman 3 hydropower plant

Vietnam

The rising country in Southeast Asia

Located between India and China, Vietnam is a booming country in the exposed area of Indochina.

Vietnam has a fast growing population of about 90 million people who live mainly along the 3,400 km long coast line. In the mountainous area, towards the borders with Laos and China, we find ethnic minorities. The country has a history of more than 2,100 years, but in the 19th century Vietnam was integrated into French Indochina and so had its first contact with Europe.

Starting from scratch in the early 1970s the economy of the country is now taking off at enormous speed. In 1975 only 10% of the population had access to electricity. Nowadays Vietnam has an electrification rate of 97%. The country is focusing on renewable energy, mainly hydropower, which contributes 45% of the total electricity production. The electricity masterplan intends to deliver more than 20,000 MW in Vietnam and in the border area of Laos in the upcoming years. Besides electricity several other exporting industries, like pepper (world no. 1), coffee (world no. 2), and seafood as well as high-tech products, are gaining international importance.

▼ Ha Long bay in northern Vietnam

ANDRITZ HYDRO representative office

For more than 15 years ANDRITZ HYDRO has run a representative office in the Vietnamese capital of Hanoi. The office sells equipment for new hydropower plants, manages project execution and gives support to clients for spare parts and services.

Customer Day

Due to the request for stable electricity supply and integration into an Indochina grid, Vietnam is developing the construction of pump storage power plants. Dedicated to these activities, ANDRITZ HYDRO organized a Customer Day in October 2013. About 60 participants from the Ministry of Industry and Trade, engineering companies, private customers and financial institutions, like the World Bank and the ADB, attended this successful event.

Current projects

ANDRITZ HYDRO Vietnam is currently executing the following projects: HPP Chi Khe (2 x 20.5 MW, bulb), HPP Hang Dong A (2 x 8 MW, Pelton), HPP Nam Can 2 (2 x 10 MW, Pelton), HPP Nam Chim 1A (2 x 5 MW, Francis), HPP Nam He (2 x 8 MW, Francis), HPP Ngoi Phat (3 x 24 MW, Francis), HPP Tra Xom (2 x 10 MW, Pelton), HPP Thuong Kon Tum (2 x 110 MW, Pelton) and HPP Xekaman 1 (2 x 142 MW, Francis). Meanwhile, the projects HPP Suoi Lum (2 x 10 MW, Pelton) and HPP Xekaman 3 (2 x 125 MW) successfully started operations in 2013.

HPP Chi Khe

At the end of 2013 ANDRITZ HYDRO received an order from AGRIMECO for the supply, supervision and the commissioning of electromechanical equipment for the Vietnamese Chi Khe hydropower plant. Equipped with two bulb

▲ Contract signing of HPP Xekaman 1

▲ Contract signing of Chi Khe project

turbine units HPP Chi Khe will have an installed capacity of 41 MW.

The hydropower plant is located on the Ca River, approximately 150 km south of Hanoi. The project is being developed by Agrita-Nghe Tinh Power JSC (consisting of AGRIMECO and Tan Tao Group). ANDRITZ HYDRO will supply electromechanical equipment, including two bulb turbines, horizontal generators, mechanical auxiliaries, electric power systems and automation. The energy generated by HPP Chi Khe will be supplied to the national grid via a new transmission line. The project is scheduled to begin commercial operation in December 2015.

HPP Xekaman 1

In December 2013 ANDRITZ HYDRO signed a contract for the delivery of the complete electromechanical equipment for the Xekaman 1 hydropower plant (Laos PDR). Following on from the finalization of the Xekaman 3 project, this was the second order for ANDRITZ HYDRO from Song Da Construction Corp of Vietnam and Viet-Lao Power Investment and Development Joint Stock Company within a year. HPP Xekaman 1 is the second hydropower project in Laos PDR backed by the Viet-Lao Power Investment and Development Joint Stock Company.

The scope of supply includes two Francis turbine generator sets, the governing system, automation and protection system and auxiliary systems as well as the complete switchyard. Song Da Construction Corp of Vietnam, the main shareholder of Viet-Lao Power Investment and Development Joint Stock Company and EPC contractor, will take care of local transport and erection under the supervision of ANDRITZ HYDRO.

The majority of the generated electricity will be exported to Vietnam, though a small proportion will be supplied for domestic consumption in the vicinity of the project site. The finalization of the HPP Xekaman 1 project is planned for 2016.

ANDRITZ HYDRO Vietnam holds the technical competence for tailor-made solutions to serve its clients in this challenging market by supplying electromechanical equipment for hydropower plants in all sizes, from 1 MW to 1,000 MW. We consider Vietnam to be one of the most vital and prospective hydropower markets today.

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TECHNICAL DATA
Chi Khe:
Output: 2 x 20.5 MW
Head (max.): 11.28 m
Speed: 100 rpm
Runner diameter: 5,500 mm
Xekaman 1:
Output: 2 x 145 MW
Head (max.): 105.4 m
Speed: 187.5 rpm
Runner diameter: 4,128 mm