

Uma Oya

Multipurpose development project combines energy production and irrigation in Sri Lanka

Early in 2014, **ANDRITZ HYDRO** and **FARASAN INTERNATIONAL SDN BHD** signed a contract for engineering, manufacturing, delivery, and installation of two 63 MW vertical Pelton units, including main inlet valves, governors, generators, excitation and auxiliary systems, for the Uma Oya multipurpose development project (MPP).

MPP Uma Oya is being implemented by the Ministry of Irrigation and Water Management. Wise utilization of water resources for irrigation has a long history in Sri Lanka, where water management dates back centuries.

Storage and irrigation facilities help to overcome the disadvantages of climatic variations and provide water when and wherever needed. When technologies for production of electricity harnessing

the powers of water emerged, this benefit was included in the development of multipurpose projects.

Subject to annual variations, hydropower contributes about one third of the power generation in Sri Lanka. The majority of the installed capacity of about 1,600 MW is owned and operated by the public utility Ceylon Electricity Board (CEB). Looking back on the long-term involvement of ANDRITZ HYDRO, together with its predecessor companies in the implementation of existing assets, we are proud that more than 50% of the Sri Lankan installed hydropower capacity relies on technology and equipment supplied by ANDRITZ HYDRO.

The Uma Oya project combines the hydropower scheme and irrigation in a sustainable way. Water will be diverted from the wet central highlands into the

dryer, southern region of Sri Lanka for irrigation and human consumption and will use the available head for energy generation. With a rated capacity of 126.6 MW an annual energy production of more than 230 GWh is expected to be supplied to the grid. The water diverted will provide irrigation to approximately 6,000 ha of land. Main features of the project include two RCC dams and more than 20 km of tunnels to connect the created reservoirs with the underground power station and to release water to the downstream Alikota Ara River. The expertise of ANDRITZ HYDRO as leader in high-head Pelton turbine technology was a decisive factor in the award of this contract. The main construction works started in early 2011, and commissioning is scheduled for 2016.

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Model witness test



TECHNICAL DATA

Output: 2 x 63.3 MW / 2 x 75 MVA
Voltage: 10.5 kV
Head: 722 m
Speed: 600 rpm
Runner diameter: 1,850 mm

