

DR Congo, Koni

By David Cirjanic
david.cirjanic@andritz.com

Koni hydropower station, owned by SNEL (Société nationale d'électricité) is located in Kantanga Province of the DR Congo and has a total installed capacity of 42 MW and is equipped with three vertical Francis turbines. The project is supported by private founding partner ENRC PLC.

After being in operation for almost 60 years, the existing turbines, originally supplied by EscherWyss (today ANDRITZ HYDRO), were in poor condition. In 2010, due to defective inlet



valves of units #1 and #3 HPP Koni had to be put out of operation. ANDRITZ HYDRO received a contract for the replacement of these inlet valves in 2012. Unit #1 was successfully reconnected to the grid and dismantling of unit #3 started in 2015.

On drawing-up the expertise for unit #3, it was discovered that more extensive repair work is necessary. Subsequently, ANDRITZ HYDRO was awarded the order to execute a comprehensive rehabilitation. The contractual scope of supply comprises changing major components, such as fixed labyrinth and turbine shaft, set of upper stop lock, one set of new draining pumps, and rehabilitation of the cooling water system, as well as installation and commissioning.

Closing of the project and recommissioning of unit #3 is scheduled for summer 2017. ■

TECHNICAL DATA

Output	3 × 14.2 MW
Head	55 m
Speed	333.33 rpm
Runner diameter	2,063 mm

Turkey, Yusufeli Barajı ve HES İnşaatı

By Uygur Aydın
uygur.aydin@andritz.com

At the end of 2015, the Limak-Cengiz-Kolin consortium awarded ANDRITZ HYDRO a contract for the supply of electro-mechanical equipment for the Yusufeli Dam and hydroelectric power plant.

Situated on the Çoruh River 70 km southwest of the city of Artvin, the Yusufeli Dam and hydroelectric power plant is owned by DSI (General Directorate of State Hydraulic Works). The dam will be a double-curvature arch dam with a height of 270 m and will be the third highest of its kind in the world. With a total storage capacity of 2.2 billion m³, the reservoir will have a surface area of 33 km².

ANDRITZ HYDRO will supply design, manufacturing, and installation of hy-

dro-mechanical equipment, including intake structure, penstock, gates, embedded parts, grip beams, trash racks, spillway, radial gates, hydraulic lifting systems, cranes, and slide valves.

In September 2018, on-site manufacturing is due to be finished, installation and closing are scheduled for May 2019. Equipped with three 180 MW vertical Francis turbines, the powerhouse will generate 1,800 GWh of electrical energy annually. ■

TECHNICAL DATA

Output	3 × 180 MW
Voltage	13/380 kV
Head	223 m
Penstocks	3,000 tons
Gates	2,350 tons
Av. annual generation	1,800 GWh

Mexico, La Venta

TECHNICAL DATA

Output	5 × 6 MW
Head	37.5 m
Speed	300 rpm
Runner diameter	1,640 mm



By Raul Casas
raul.casas@andritz.com

The hydroelectric power plant La Venta is located on the river Papagayo, near of the city of Tierra Colorada, Guerrero in Mexico. It was first inaugurated in 1965.

In September 2013, during the tropical storm Manuel, the hydro-power plant was flooded and the radial gates, automation, and electrical equipment were destroyed.

The Mexican state owned utility Comisión Federal de Electricidad (CFE) launched a tender for the rehabilitation of the complete hydroelectric power plant in 2014. Motores e Ingeniería Mexmot, S.A. de C.V. was awarded the full contract for rehabilitation of civil works, access roads, mechanical repair, automation, and electrical equipment.

ANDRITZ HYDRO Mexico won the contract from Motores e Ingeniería Mexmot, S.A. de C.V. to supply SCADA and control systems, static excitation, protection and metering, as well as turbine governor and communication equipment.

The five generating units are scheduled to start commercial operation in 2016. ■