### Switzerland, Rhone Oberwald

By Hans Wolfhard hans.wolfhard@andritz.com

Utility company FMV SA based in Sion, Switzerland, awarded a contract to a consortium under the leadership of ANDRITZ HYDRO for the delivery of the complete electro-mechanical equipment for the new HPP Rhone Oberwald in December 2015.

The new run-of-river power station will be built in the region of Gletsch-Oberwald in the Swiss canton of Wallis. The water intake is located in the village Gletsch at an altitude of 1,750 m and has a design capacity of 5.7 m³/s. The main powerhouse is situated in a cavern with a return gallery into the river Rhone.

ANDRITZ HYDRO's scope of supply includes two vertical, six-jet Pelton turbines, two spherical valves with a diameter of 700 mm and a pressure of 40 bar, the entire control and automation system, medium voltage switchgear, transformers, and the powerhouse crane.

With a total installed power output of 15 MW the new hydropower plant will produce about 41 GWh of energy per year. Start of commercial operations is planned for mid-2017.

### TECHNICAL DATA

Output	2×7.5	MW
Head	287.5	m
Speed	600	rpm
Runner diameter	1,150	mm
Av. annual generation	41	GWh

## Turkey, Okkayasi

By Alp Töreli alp.toereli@andritz.com

ANDRITZ HYDRO has received an order from Okkayası Elektrik Üretim ve İnşaat Anonim Şirketi for the supply of electro-mechanical equipment for the Okkayasi hydropower plant, located in Kahramanmaras Province of Turkey.

The contractual scope for ANDRITZ HYDRO comprises the delivery of two vertical, four-jet Pelton turbine units for the small hydropower plant, including design, manufacturing, supply, transportation, installation, and commissioning.

Turbines, generators, and related equipment will be supplied by ANDRITZ HYDRO France. The electrical power systems (EPS), the turbine housings and the distributors, as well as the installation of all electro-mechanical equipment will be the responsibility of ANDRITZ HYDRO Turkey.

Commercial operation of the plant is expected in the second quarter of 2016.

#### TECHNICAL DATA

Output	2×11.7	MW
Head	479.4	m
Speed	750	rpm
Runner diameter	1,150	mm

# Chile, Convento Viejo

By Stefano Rizzi stefano.rizzi@andritz.com

Sociedad Concesionaria Embalse Convento Viejo S.A. has awarded ANDRITZ HYDRO a contract for the supply of electro-mechanical equipment for the new Convento Viejo hydropower plant. The power plant is located 150 km south of Santiago de Chile in the region of Libertador Bernardo O'Higgins. It will use the environmental flow released from the Convento Viejo reservoir, which collects the waters from the Chimbarongo River and the Teno Channel.

The project will comprise a green field power house, for which ANDRITZ

HYDRO is going to deliver two 9 MW Compact axial turbines, generators, mechanical auxiliaries, electrical power systems, transformers, as well as substation, unit and plant automation, and the tele-control center.

Commissioning and handing over of the whole plant to the customer is scheduled for the first guarter of 2017.

HPP Convento Viejo will have a total output of 18 MW, providing about 68 GWh per year of clean energy f or the Chilean Central Interconnected System (SIC).

### **TECHNICAL DATA**

Output	2×9	MW
Head	28.3	m
Speed	300	rpm
Runner diameter	2,150	mm
Av. annual generation	68	GWł

## Costa Rica, Los Negros II

By Sergio Contreras sergio.contreras@andritz.com

In 2015, ANDRITZ HYDRO won a contract for the supply of turbine equipment for the new Los Negros II hydropower plant, owned by ESPH (Empresa de Servicios Publicos de Heredia, S.A.). After the successful realization of HPP Los Negros in 2004, also equipped by ANDRITZ HYDRO,

and its reliable operation since then, the owner decided to build a second power plant in this region as part of a strategy to expand its energy sources.

HPP Los Negro II is situated near Cuatro Bocas in the province of Alajuela, in the north-central part of the country and near the border with Nicaragua. It uses the waters of the rivers Negros and Jalapiedras.

ANDRITZ HYDRO's scope of supply comprises the delivery of two horizontal Francis turbines, each with a capacity of 14.31 MW, including DN1800 butterfly valves, hydraulic power units, supervision of installation, as well as commissioning.

HPP Los Negros II is scheduled to be put into commercial operation in 2017. ■

### TECHNICAL DATA

Output	2×14.31	MW
Head	125.85	m
Speed	600	rpm
Runner diameter	1,195	mm