

## NEW PROJECTS

## E.B. CAMPBELL

# MORE POWER FROM THE SASKATCHEWAN

**CANADA** – In April 2017, ANDRITZ Hydro Canada signed a contract with SaskPower for the refurbishment of six of the eight units at the E.B. Campbell Hydroelectric Station. The goal of this project is to extend by at least 50 years the reliable operation of these units and increase their generation capacity. Originally commissioned between 1963-1964, the plant is located on the Saskatchewan River, about 75 km north-east of Nipawin in Saskatchewan, Canada. The other two units were already refurbished by ANDRITZ Hydro eight years ago.

The scope of work includes model testing, condition assessment, design, manufacturing, transportation, installation and commissioning of new Francis runners with a 4-m-diameter. In addition, a new complete distributor (bottom ring, wicket gates, head cover, gate operating ring

and mechanism), a new stator frame, core and windings, as well as many refurbished components (turbine shaft, shaft seal, thrust and guide bearings, poles, brakes, etc.) will be installed. New caterpillar head gates, trash racks, hoists, refurbishment of gates and trash rack guides, instrumentation and controls will also form part of the ANDRITZ Hydro scope of supply.

Model testing was successfully completed and witnessed by the customer in August 2017 at ANDRITZ Hydro's hydraulic laboratory in Canada, during which all performance guarantees were met. Following the achievement of this very crucial milestone, engineering design activities commenced. Procurement activities also started in September 2017. New components are sourced globally, whereas any refurbished components are to be worked on locally. Runners and coil windings are being manufactured in ANDRITZ Hydro workshops.

Under the terms of the contract, the first unit will be dismantled in August 2019 and is due to be put back into operation less than a year later in July 2020. The remaining five units will follow at a rate of one per year until 2025. There will only be a period of three months between completion of the work on one unit at the site and the start of the disassembly work on the following unit.

ANDRITZ Hydro is also committed to hire a portion of its site labor force from the local First Nations population.

The Life Extension Program aims to meet increasing regional electricity demand and the newly refurbished units will generate 35 MW each at a rated net head of 32 m. This is the biggest refurbishment contract for ANDRITZ Hydro in Canada to date.

## AUTHOR

Francoys Gauthier  
hydronews@andritz.com



## E.B. Campbell | Canada

## Technical data:

Total output:	6 × 35 MW / 2 × 43.55 MW
Scope:	6 × 35 MW / 6 × 43.5 MVA
Voltage:	14.4 kV
Head:	32 m
Speed:	120 rpm
Runner diameter:	4,094 mm

