



### Almonte, ON

Located in the picturesque town of Almonte, on the North bank of the Mississippi River, the Enerdu redevelopment project involved expanding the footprint of the original powerhouse out into the river to accommodate larger turbines and increase the plant's generating capacity by 70%. CHC provided a water-to-wire equipment package including two 2000 mm Axial Flow Kaplan pit units with two 500 kW/180 RPM horizontal synchronous generators. The generators were custom designed to connect directly to the turbine shaft using the pit wall to act as the generator shell. The direct connect feature eliminates the need for gearbox connection and provides better efficiency while decreasing annual maintenance costs.

Once the existing equipment was removed during the summer of 2016, the riverbed was blasted and excavated to make room for the new draft tubes. Following the draft tube installation and embedment, the two distributor/runner chest assemblies were delivered to the site and installed within one day. The intake/pit assemblies manufactured in three pieces - the pit pedestal, the intake and the pit itself - were assembled and welded onsite. CHC's scope of supply also included hydraulic power units and a switchgear, controls and protection package. The new plant was commissioned in January 2018.

#### PROJECT FACTS

- 70% Increased Capacity
- Two 2000 mm Axial Flow Kaplan Pit Units
- Net Head 3.2 m (10.5 ft), 500 kW per unit
- Commissioned January 2018





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