

A wide-angle photograph of a large-scale construction site for an electrical substation. The site is filled with steel structures, including tall towers and horizontal beams, under a clear sky. In the foreground, there are various construction materials, a white container, and a green container. A few workers in safety gear are visible near the containers.

Cypress Substation Construction

CLIENT

AltaLink on behalf of the Alberta
Electric System Operator

LOCATION

Cypress County, Alberta

PROJECT DESCRIPTION

AltaLink, L.P. is one of Canada's largest electricity transmission companies. Based in Alberta, AltaLink is responsible for the maintenance and operation of approximately 12,000 kilometres of transmission lines and 280 substations in Alberta. AltaLink is the Transmission Facility Owner (TFO) in the area. AltaLink was directed by the Alberta Electric System Operator (AESO) to build a new substation in the Empress Region. When AltaLink needed a capable construction partner to construct its substation, it called on Black & McDonald to get the job done swiftly and on budget.

B&M SCOPE OF WORK

Black & McDonald was contracted to construct a new 138 kV to 240 kV substation (109 m x 198 m). The scope of work included:

- Steel erection
- Equipment placement (four single phase 240 kV SF6/CF4 circuit breakers, ten 240 kV CSB disconnect switches, two 240 kV VB disconnect switches, four single phase 240 kV CTs, four 240 kV single phase VTs, four 138 kV circuit breakers, 28 138 kV CSB disconnect switches, two 138 kV VB disconnect switches, six single phase 138 kV CVTs)
- Cable placement and termination
- Bus work including a rigid and stranded bus
- Switch installation and operation
- Installation of fence and stone completed by subcontractors

BENEFITS TO CLIENT OR PROBLEM(S) SOLVED

AltaLink relied on the professionalism of Black & McDonald's electricians, linemen and labourers to guarantee the project was completed to the high standards the power distribution company has come to expect from its vendors. The community of Cypress County was able to count on consistent electricity supply while this key piece of infrastructure was built and put in service.