

#### acec british columbia

## 2016 AWARDS FOR ENGINEERING EXCELLENCE

# Award of Excellence McLymont Creek Hydropower Project



#### Consultant

Gygax Engineering Associates Ltd. *and*Northwest Hydraulic Consultants

#### Prime Consultant

Gygax Engineering Associates Ltd.

#### Owner/Client

Altagas Ltd.

### Category

Energy & Industry

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The McLymont Creek Hydroelectric Project is a 66 megawatt run-of-river scheme, located in north-western British Columbia on a tributary of the Iskut River. The project is owned by AltaGas Ltd., through its subsidiary Coast Mountain Hydro LP, and is part of a cluster that also includes the Forrest Kerr and Volcano projects.

The main project components are an intake for diverting a maximum of 30 cubic metres per second of power water from the creek, a 2.8 kilometre long conveyance tunnel, the powerhouse housing three Francis turbines with a rated capacity of 23.9 megawatts each, a substation and 9.5 kilometres of transmission line to the Forest Kerr Switchyard.

Gygax Engineering Associates led the multi-disciplinary team that provided the engineering design and constructionphase technical support for this project. GEA's team also included ACEC-BC members Northwest Hydraulic Consultants and Golder Associates, as well as BGC Engineering, Struthers Technical Solutions, CM Rock Engineering and Wyllie and Norrish Rock Engineers. In addition to overall team management, GEA established the overall civil works layouts and covered the civil and structural engineering aspects of the project. GEA and NHC, together developed the innovative intake arrangement that addressed the required power flow diversion, flood and sediment passage objectives while accommodating site access constraints. The tunnel, powerhouse and transmission line engineering was completed by GEA, NHC, Golder and the other consultants.

The project was completed on budget overall, with engineering well under budget. Power generation commenced in October 2015, well ahead of the original July 2016 date.