



Eagle Mountain - Woodfibre Gas Pipeline Project

Background

UPI provided routing studies, FEED, detailed engineering, field investigation, and owner's engineering services for a 48 km NPS 24 pipeline from the north end of the Coquitlam Watershed in the Greater Vancouver Regional District (Metro Vancouver) through mountainous terrain to an LNG export facility at Woodfibre, southwest of Squamish, British Columbia.

The new NPS 24 pipeline runs generally parallel (i.e., loop) to the existing NPS 10 pipeline that is part of the natural gas transmission system that services Squamish, Whistler, the Sunshine Coast, and Vancouver Island. The loop was created to operate in parallel with the existing pipeline to increase the overall natural gas transmission capacity of the Company gas transmission system in order to meet the requirements of the facility. The offshore scope of work included studying a proposed crossing of the Howe Sound, including approximately 3.6 km of NPS 24 subsea pipeline.

Challenges

- Routing and constructibility in mountainous terrain
- Remote site with significant access constraints
- Significant number of geohazards along pipeline route
- Co-location of NPS 24 pipeline with an existing NPS 10 pipeline
- 2160 psi high pressure gas pipeline
- Urban segment of pipeline
- Environmental and First Nations constraints

Solutions/Differentiators

- Strong constructibility focus
- Significant route reconnaissance prior to detailed engineering
- Local, Vancouver-based UPI project team with support from Calgary engineering centre of excellence
- Extensive input provided by SMEs representing a variety of pipeline sub-disciplines and specialties

Client

FortisBC Energy Inc.

Location

Vancouver to Squamish,
British Columbia

Duration

2014 - Present

Scope

- Routing Studies
- FEED
- Detailed Engineering
- Field Investigation (Survey & Geotechnical programs)
- Owner's Engineer (for 9 km of pipeline located within tunnel)