

Project: Gain Fuel Canada*/C.A.T. Inc

Project Background

C.A.T. Inc. contracted U.S. Venture Gain Fuel Canada to design, build, own and operate a GAIN Clean Fuel compressed natural gas (CNG) refuelling station in Coteau-du-Lac, Quebec to serve 100 CNG sleeper tractors in its delivery fleet. Together the two companies decided that the project should include additional retail fuelling lanes for third party fleets.

Challenges and Solutions

Commitments to commercial clients required a fast-track approach for the project's design and permitting. Change Energy's team (Change Energy Services, Change Energy West, GHD) was contracted by Gain Fuel Canada* to deliver the full scope of engineering, permits and approvals for the project.

The facility's compression system needed to serve 24/7 operations for the trucking fleet requirements. Change Energy West worked with Gain Fuel Canada*/C.A.T. and equipment manufacturers to design a system that would operate automatically with minimal maintenance and repairs.

Date of completion: 2015

Scope of Work:

The Change Energy team provided:

- All engineering – process and mechanical, civil and structural, electrical and geotechnical
- Design provision for future compression expansion
- Municipal approval and permitting
 - Site plan control
 - Zoning and minor variance
 - Building and signage permit
- Provincial approval and permitting
 - Régie du bâtiment Quebec (RBQ)
 - Hydro Quebec
- Federal compliance
 - Measurement Canada (retail fuel sales)



Result:

Compression

- Two 300-HP reciprocating compressors
- 95 psig suction and up to 4500 psig discharge
- Flow capacity of 1572 scfm (2.3 million scfd)

Storage

- 9 x ASME pressure vessel
- 34 cf water capacity per vessel
- Up to 11,500 scf CNG capacity per vessel

Priority Gas Control Panel

- For simultaneous fuelling of GAIN retail dispenser and C.A.T. private dispenser

Dispensing

- Two Measurement Canada certified fast-fill dispensers. One for C.A.T. use and one for third party retail
- Provision for future expansion

*U.S. Venture Gain Fuel Canada