



CCS at Sour Natural Gas Processing Plant

Project Leader:
Spectra Energy

Project Title:
**Fort Nelson CCS
Exploratory Project**

CO₂ Source:
**Formation CO₂ from
an existing natural gas
processing plant**

CO₂ Storage Type:
**Sequestration in saline
aquifer**

Location:
**Spectra Energy's
facility in Fort Nelson,
in northeastern British
Columbia**

Project Description

This project focuses on investigating the geological, technical and economic feasibility of a world-scale carbon capture and storage (CCS) project associated with Spectra Energy's existing gas processing plant in Fort Nelson, B.C., the largest sour gas processing plant in North America. Raw gas in the Fort Nelson area contains high natural levels of CO₂, which is stripped away during processing and is currently vented to the atmosphere. If the project is proven feasible, the CO₂ would be compressed, dehydrated and cooled into a concentrated stream and then injected into deep saline formations, two and a half kilometres underground, for permanent sequestration. The project is designed to demonstrate the technical feasibility of injecting large volumes of sour CO₂ into deep saline formations for permanent storage. If successful, it will lay the groundwork for one of the largest carbon capture and storage projects of its kind in the world.

Expected Outcomes

If fully implemented, this project could lead to potential GHG emission reductions of 2 Mt per year and to emission reductions of SO₂ of greater than 2,000 tonnes per year. The Fort Nelson gas processing plant is a significant emitter of CO₂ emissions in B.C. The project could therefore lead to sizeable reductions of GHG emissions for the province. The recent discovery of Horn River shale gas north of the plant will increase activity in the area by major producers, resulting in more demand for CCS technology. If proven feasible, the injection and storage of CO₂ associated with Spectra Energy's Fort Nelson gas plant could begin as early as 2012.

Company Profile

Spectra Energy Corp (NYSE: SE), a *FORTUNE 500* company, is one of North America's premier natural gas infrastructure companies, serving three key links in the natural gas



value chain: gathering and processing, transmission and storage, and distribution. For nearly a century, Spectra Energy and its predecessor companies have developed critically important pipelines and related infrastructure connecting natural gas supply sources to premium markets.

Project Web Site

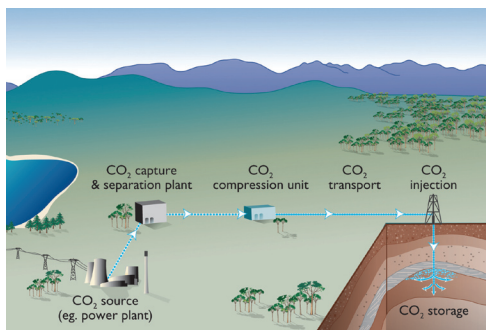
www.spectraenergy.com/our_responsibility/climate/carbon_capture/

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