

Backgrounder

Proposed Fort Nelson Carbon Capture and Storage Project

Fast Facts

- The proposed Carbon Capture and Storage (CCS) project has the potential to significantly advance British Columbia's climate change objective of significantly reducing CO₂ emissions.
- If proven viable, it has the potential to keep more than two million tonnes of CO₂ from reaching the atmosphere yearly (the equivalent of taking 500,000 cars off the road annually).
- The project, as envisioned, has the potential to be one of the largest CCS projects in the world.
- CCS is a proven technology and there are dozens of these projects of varying sizes already underway or operating in North America – some for more than a quarter of a century. Forty-nine CCS projects of small scale and size are already underway in the Western Canadian Sedimentary Basin.
- Most existing CCS projects are of considerably smaller scale than the project being contemplated at Fort Nelson.
- The potential CCS storage sites Spectra Energy will be exploring at Fort Nelson are located more than two kilometres underground. The saline reservoirs (which exist at levels below all existing oil and gas production in the area), have been securely contained by caps of impermeable rock for millions of years.

Project overview

Most of the raw natural gas in BC is “sour” meaning that it contains high levels of carbon dioxide (CO₂), as well as other compounds. At Spectra Energy's processing facilities (such as its existing gas plant in Fort Nelson) these products are removed from the raw gas supplied by area producers.

At the Fort Nelson gas plant about 70 per cent of emissions is *formation* CO₂ (that is, CO₂ which is naturally present in the raw gas in the area) and removed from the raw natural gas during processing to produce gas used for homes and businesses. The remainder is *combustion* CO₂ which is produced as a by-product of processing natural gas.

Spectra Energy will be exploring CCS in deep saline reservoirs near the existing Fort Nelson gas plant. This will involve drilling two exploratory wells to identify the suitability of the geology for CCS. If the reservoirs prove viable from a geological, technical and economic point of view, the project would proceed to full project design (including modifications to our gas plant and the construction of facilities).