## The Fort Nelson Carbon Capture and Storage Feasibility **Project:** A Program for Large-Scale Geologic Storage of CO<sub>2</sub> from A Natural Gas-Processing Plant in British Columbia, Canada

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Fort Nelson CCS feasibility project, an international collaboration led by Spectra Energy that includes industry, government, universities, and technologists, has initiated potentially the largest application of deep saline geological storage in the world. When fully operational, this project would provide permanent storage of 1.3 to 2.2 Mt of CO<sub>2</sub>/year from the Fort Nelson gas-processing facility, the largest processing facility in the region and the largest of its type in North America.

While providing a substantial reduction in CO<sub>2</sub> emissions, the project will also facilitate the development of significant shale gas reserves in the Horn River Basin to provide North American markets with clean natural gas.

The research aspects of the project will provide proof of concept for geological CO<sub>2</sub> storage in deep saline formations and serve as a model for follow-on CCS projects using geological CO<sub>3</sub> management at other gas-processing facilities in the region and around the world.

The Fort Nelson CCS project has several strategic advantages:

- Fort Nelson gas-processing plant currently captures CO<sub>2</sub>.
- Site located near growing production.
- Northeast British Columbia natural gas boom expected to double production.
- Site located near deep saline formations potentially suitable for permanent CO<sub>2</sub> storage.
- No net additional fuel/power required.
- Potential to generate 9 MW of electric power through waste heat recovery, which can then be available for the Fort Nelson Gas Plant or sold into the power grid.
- Integrated risk management, simulation, and monitoring, verification, and accounting.





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