Electrical powerline construction and climate change

Westcoast Energy Inc., an Enbridge company, operates the major natural gas transmission system in British Columbia (BC). For almost 70 years, this system has been delivering natural gas that's ultimately used to heat homes, hospitals, businesses and schools. This natural gas is also used in electrical power generation and in manufacturing thousands of products that improve our daily lives.

To meet the demand for natural gas, we're proposing to expand sections of the southern part of this natural gas pipeline system. This proposed work is called the Sunrise Expansion Program (Project).

The Project consists of installing pipeline loops along this natural gas pipeline system and four additional compressor units at existing compressor stations. Some of the compressor units will be powered by electricity which will require installation of overhead powerlines.

Electrification and climate change

Enbridge has committed to achieving net-zero greenhouse gas (GHG) emissions from our operations by 2050. Since 2018, we have made significant progress in reducing our absolute emissions by 20%. We continue to look for ways to achieve our emissions reduction targets and combat climate change, and that covers planning and execution of all our projects.

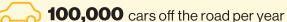
In this Project, we proposed to electrify additional compressor units to reduce GHG emissions. Over 95% of electricity in BC is produced from renewable sources.

Electric-powered compressor units

Additional compressor units are needed to push the added natural gas capacity through the pipeline system. Three of the four additional compressor units proposed will be powered by electricity, and will be installed at existing compressor stations (see maps).

By using electricity to power these compressor units, the Project will prevent GHG emissions totaling to about 360,000 tonnes of carbon dioxide equivalent (CO_2e) emissions per year. That's equivalent to removing over 100,000 cars off the road each year. In addition, these electric-driven compressor units are also known to have quieter operations and require less maintenance work compared to gas-driven units.

360,000 tonnes of CO₂e is equivalent to

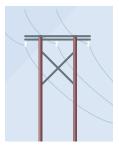


Powerlines

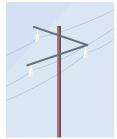
To power these new electric-driven compressor units, powerline infrastructure will be required. To minimize disruptions to the environment and local community impacts, the shortest powerline route will be chosen and will follow existing linear infrastructure – such as roads or other pipeline right-of-ways – to the greatest extent possible.

Westcoast will be following BC Hydro's stringent safety requirements in building the electric powerline infrastructure. That includes clearing any trees or bush within the powerline right-of-way to prevent anything from contacting the powerlines.

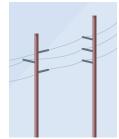
Three types of overhead powerline structures, with about 20 – 25 m in height, will be used on this Project:



"H-Frame" structure, which are built using two wood poles with steel cross-arms and steel cross-braces



"Wishbone" structure, which are built using a single pole and steel cross-arms



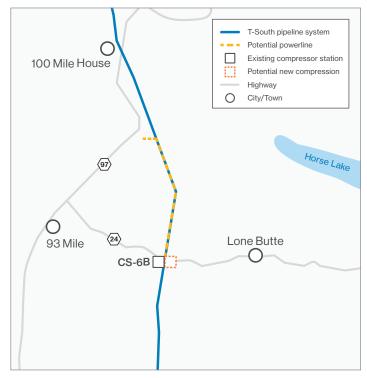
"Post vertical" structure, which are built using a single pole with three insulator stacks mounted at an upward angle

If the Project is approved, construction is expected to begin in Q2 2026. Powerline construction is typically done during winter months, when the ground is firmer to limit extensive matting and environmental disturbance.

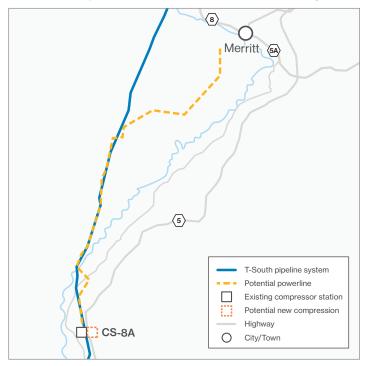


Westcoast has also been undertaking environmental studies and engaging with Indigenous groups, landowners and other stakeholders to determine the best possible powerline routing. As a result of this work, Westcoast anticipates constructing up to 34 kilometres (km) of powerlines, specifically:

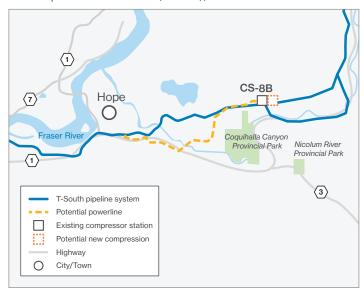
 About 7 km of 138 kilovolts (kV) powerline from south of 100 Mile House to compressor station 6B (CS-6B), west of Lone Butte



 About 21 km of 138 kV overhead powerline from south of Merritt to compressor station 8A (CS-8A), north of Kingsvale



 About 6 km of 66 kV overhead powerline from south of Hope to compressor station 8B (CS-8B), west of Othello



Engagement

Since early 2023, Westcoast has been engaging with potentially affected Indigenous groups, landowners, local community groups and other stakeholders. Their local knowledge and input have helped to make this Project better. As the Project progresses, this work will continue throughout the construction and ongoing operation of this Project. Westcoast is also happy to receive any additional feedback and to answer any questions relating to this Project.

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