Underground Transmission

In response to stakeholder concerns about visual impacts and requests to consider underground transmission, AltaLink is currently assessing the cost and feasibility of an underground solution that would meet the technical requirements of this project.

We will keep you informed as we continue to evaluate a potential underground solution. Please note that the use of underground is subject to Alberta Utilities Commission (AUC) approval.

WHY DO UNDERGROUND SOLUTIONS TYPICALLY COST MORE THAN OVERHEAD TRANSMISSION LINES?

The construction and materials for underground transmission lines are substantially more expensive when compared to an overhead transmission line.

WHAT IS INVOLVED WITH CONSTRUCTING UNDERGROUND TRANSMISSION LINES?

Similar to installing a pipeline, underground transmission lines require trenching along the entire right-of-way. In some applications multiple trenches are required.

WHAT ARE THE ENVIRONMENTAL ASPECTS OF UNDERGROUND TRANSMISSION LINES?

Due to the trenching, the surface disturbance impacts of underground transmission lines are greater than overhead transmission lines.

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Examples of AltaLink's experience with underground transmission

APPROVED AND BUILT

Three Sisters, Canmore area

- approximately 4.5 kilometres of two circuits of underground 138 kilovolt (kV) transmission line
- underground costs were paid for by a developer

Cougar Ridge, Calgary

- approximately 3 kilometres of single circuit underground 138 kV transmission line
- underground costs were paid for by a developer

East Calgary Transmission Project

- approximately 300 metres of four circuits of underground 240 kV transmission line
- underground was the most economical solution due to proximity of adjacent infrastructure and land use

PROPOSED TO THE AUC AND NOT APPROVED

Heartland Transmission Project, Edmonton area

- approximately 20 kilometres of two circuits of underground 500 kV transmission line
- underground portion was not approved by the Alberta Utilities Commission (AUC)
- underground costs were proposed to be paid by Alberta ratepayers
- the AUC approved a tubular solution in certain locations to mitigate visual impacts

SW 240kV Project, City of Lethbridge area

- approximately 6 kilometres of two circuits of underground 240 kV transmission line through river valley park area
- underground portion was not approved by the AUC
- underground costs were proposed to be paid by Alberta ratepayers
- the AUC approved a tubular structure solution in certain locations to mitigate visual impacts