

Hand Hills Wind Project Connection Preferred and Alternate Route Identification

Project update?

BluEarth has been evaluating the various potential route segments presented in April 2021 and has spoken with landowners to understand concerns that may exist with the Project. Based on the feedback collected and input from various disciplines, BluEarth has selected a preferred and alternate route for the transmission line. BluEarth will continue collecting feedback and undertaking further design work before filing an application for regulatory approval this fall with the Alberta Utilities Commission.

Where is it located?

The preferred and alternate routes are located in Starland County and Special Areas #2, southeast of Delia, following Township Road 294 and Range Roads 170 (preferred) and 171 (alternate).

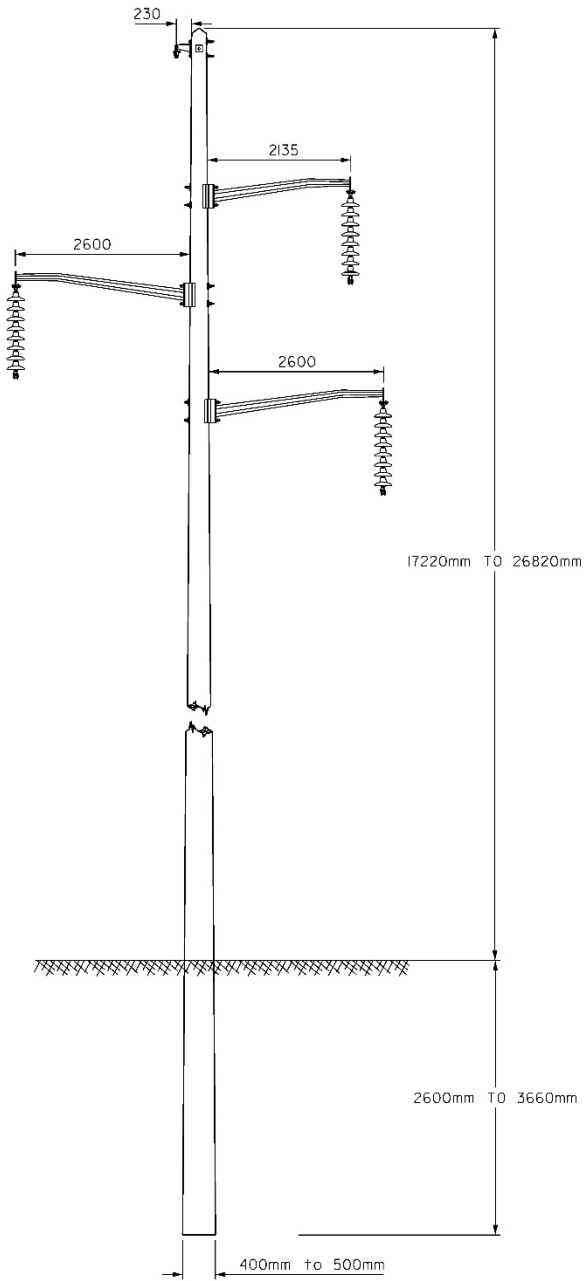
What is it and why is it needed?

In December 2020, the Alberta Utilities Commission approved the Hand Hills Wind Project, that is being developed by BER Hand Hills Wind LP, a subsidiary of BluEarth Renewables ("BluEarth"). The proposed single circuit 144 kilovolt transmission line (the "Project") will connect the approved Hand Hills Wind Project substation (Highland 572S) to an existing ATCO transmission line (7L128).

What will it look like?

Many factors, such as cost, soil types, crossing of roads or other infrastructure, and land conditions were considered to determine the type of structures that will be used for the Project. Structures will be single pole, constructed from wood except for one steel structure located at the southern connection point of the Project.

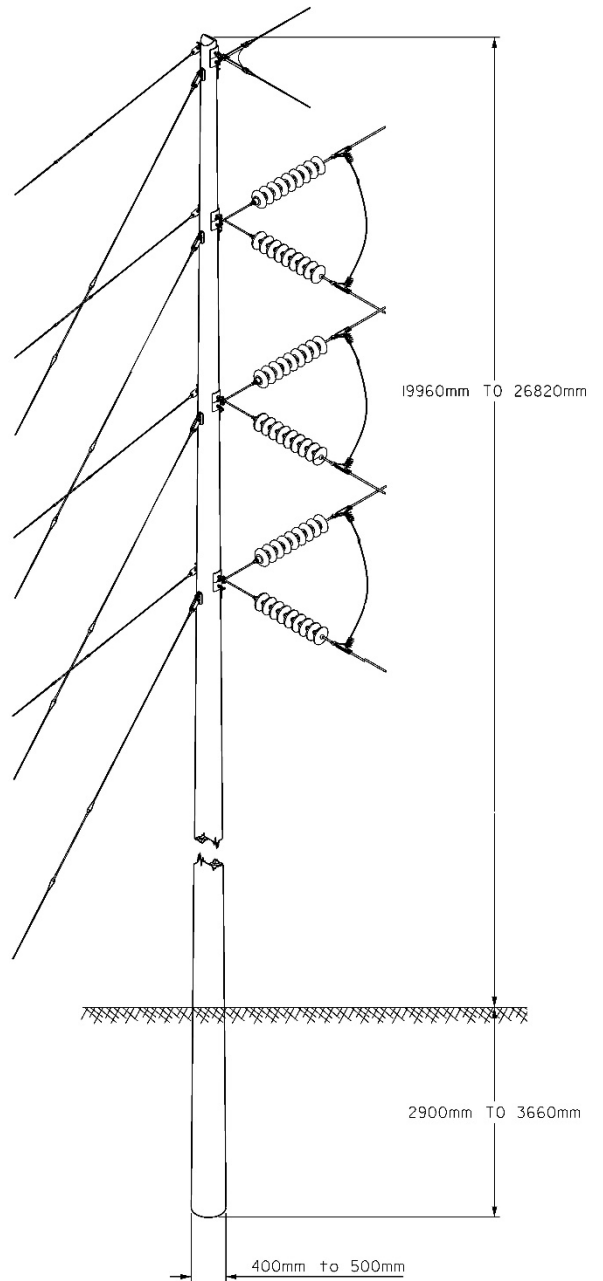
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Not to scale - subject to change

Wood tangent structure

Height: 17-27 m (55-89 ft)
Arm length from pole: ~2.6 m (8.5 ft)
Base width: ~0.5 m (1.7 ft)
Average span: 100-200m (328-656 ft)
Use: most commonly used structure, may accommodate existing distribution line.



Not to scale - subject to change

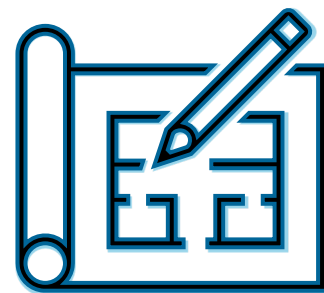
90° Wood deadend structure

Height: 19-27 m (62 ft-89 ft)
Base width: ~0.5m (1.7 ft)
Average span: 100-200m (328-656 ft)
Use: 90° turns or to provide strength on longer stretches.

How was the preferred and alternate route determined?

Routing is a process that incorporates the best available information with the goal of finding a route with low overall impact. Starting with many options, these are then narrowed down to identify the preferred and alternate routes currently being presented. To narrow this selection, different criteria were reviewed and considered including, but not limited to:

- **Location and proximity** of residences
- **Existing infrastructure**, such as roads, transmission/distribution lines, and proximity to wind turbines
- Private and public **land use**
- **Environmental considerations**, such as wildlife and native grassland
- **Cost and length**
- **Technical design**, such as road crossings and clearances
- **Land types and terrain**
- **Third party facility impacts** (i.e., existing distribution, fibre optics, pipelines, and municipal infrastructure)
- Public and interested party **feedback**

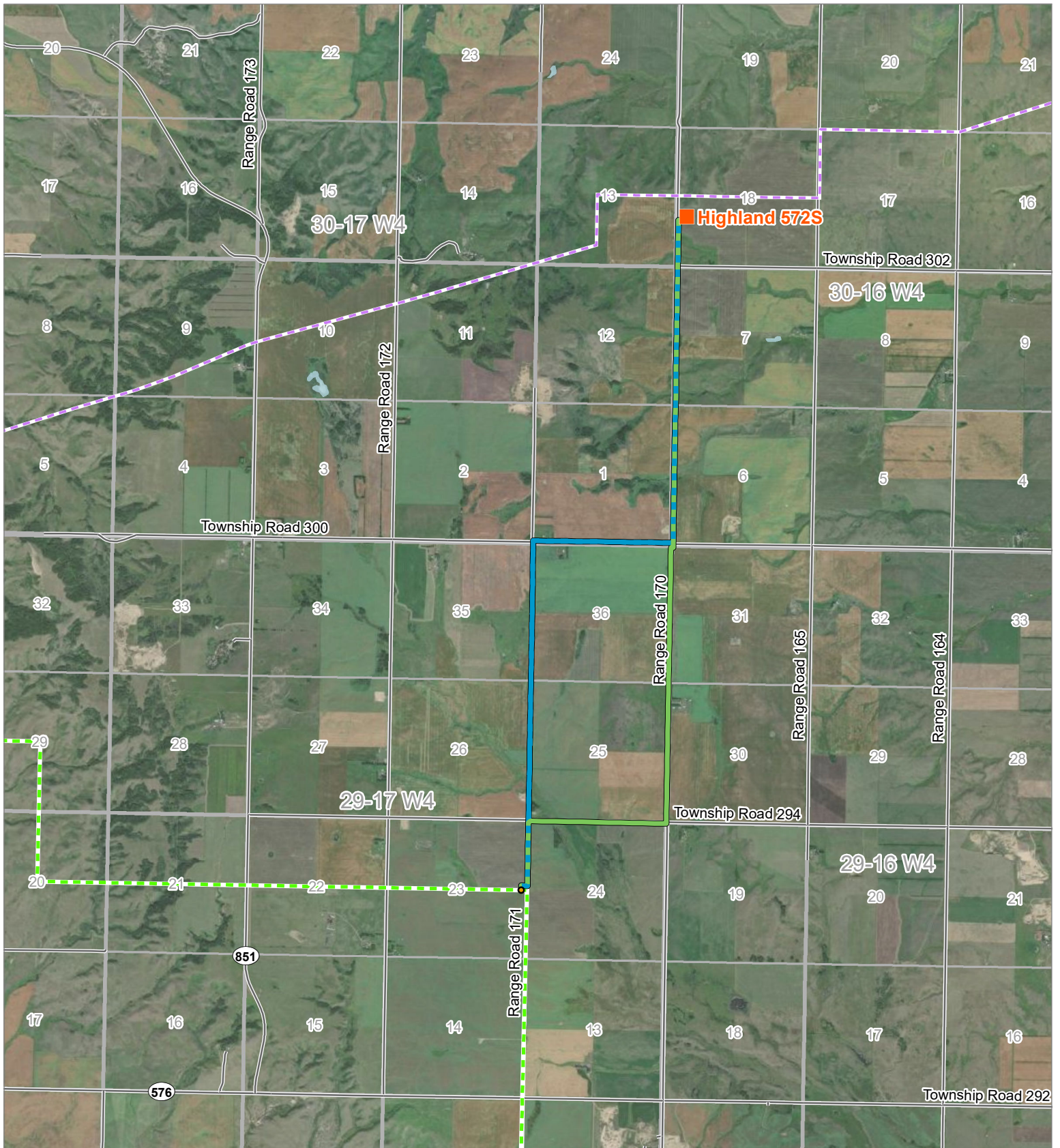


Why is there a preferred and alternate route?

The Project team compares and evaluates routes from start to finish when determining which should be moved forward for further evaluation. **A preferred and alternate route are presented to provide options for regulatory review and evaluation. Both options are viable routes and either could be approved by the Alberta Utilities Commission (AUC).** BluEarth is aware that the AUC will make the final decision on route selection. Based on the information made available, BluEarth has determined the preferred route has the lower overall impact.

Who owns the transmission line?

Although BluEarth will permit and construct the transmission line, **ATCO will operate the transmission line and assume the role of Transmission Facility Owner (TFO)** six months after the transmission line is energized and operational.



**BER
Hand Hills Wind LP**
Hand Hills
Wind Project Connection

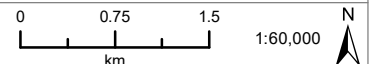
**Preferred and
Alternate
Transmission Lines**

Legend

- Approved Hand Hills Wind Project Substation Location
- Transmission Line Point of Interconnection
- Preferred Transmission Line
- Alternate Transmission Line
- - - Existing ATCO 72 kV Transmission Line
- - - Existing ATCO 144 kV Transmission Line
- Road
- Water Body



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Produced For: BER Hand Hills Wind LP	Revision #: 0
Produced By: Maskwa Environmental Consulting Ltd.	Map Creator: C. Jackson
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Document Path: P:\Client\BLU\BLU20021_HandHills\003_Mapping\20210805_EngagementMapping_R2

If the Project is approved, what happens next?

BluEarth is committed to working with landowners throughout the regulatory and construction phases of the Project. Once, and if, a route is approved with the Alberta Utilities Commission, the following activities will be undertaken:

- Notification of decision
- Finalization of project infrastructure
- Compensation discussions and payments
- Construction with ongoing updates to the community
- Fence grounding and transmission line testing
- Energization and in-service
- Reclamation of the construction area

Is there a need for private lands?

Easements will be required along the route that is approved for construction and BluEarth will work with each individually affected landowner regarding acquisition and compensation for both permanent (such as guy wires and maintenance activities), and temporary easements for construction activities.

How would it be constructed?

BluEarth will be working with potentially affected landowners to discuss the needs for permanent rights-of-way, temporary workspace, and access trails. Construction would occur over an anticipated four-month period that would include site preparation, surveying, structure erection, stringing the conductor (electric cables), installation of the optical ground wire (lightning protection), and site reclamation.

Construction equipment could include, but is not limited to, compactors, dozers, cranes, utility trucks, and backhoes.

Are there other projects in the area tied to this Project?

Both ATCO and AltaLink will be undertaking activities in relation to this Project and those entities may be reaching out to those in the area for feedback.

Who approves the Project?

The Project will be submitted to the Alberta Utilities Commission for their review and approval. BluEarth will be filing both the preferred and alternate transmission line routes to the AUC. Anything filed could be selected for construction and although preferred and alternate options have been identified, **the AUC will make the final decision regarding which location will be constructed.**

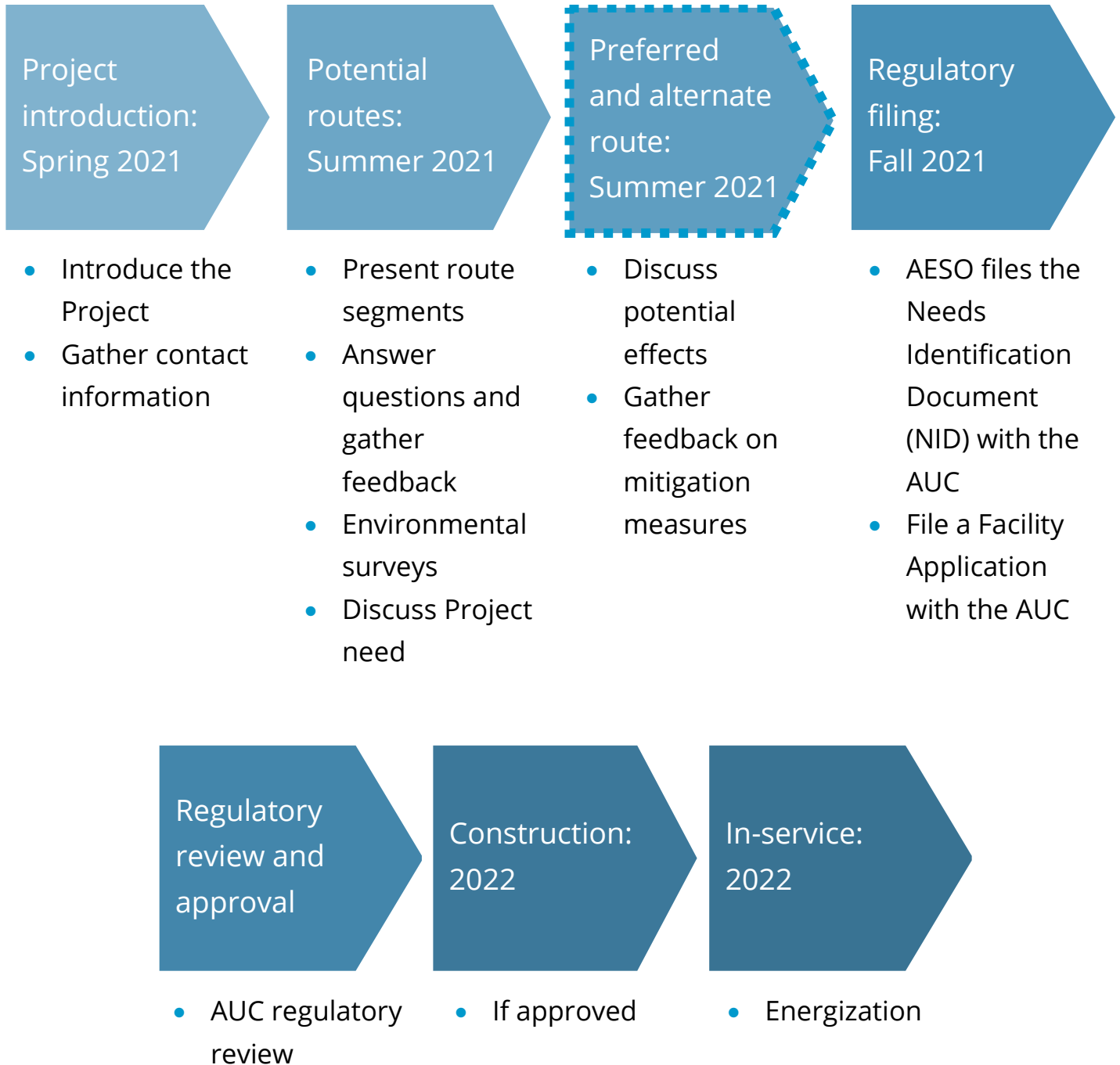
Information regarding the AUC review process and how you can participate is included in the brochure provided in this package and can be found at www.auc.ab.ca.

Who is the AESO?

The AESO, or Alberta Electric System Operator, is an independent, not-for-profit organization responsible for the safe, reliable, and economic planning and operation of the provincial transmission grid. For more information about why this Project is needed, please refer to the AESO's Need Overview included with this package or visit www.aeso.ca. If you have any questions or concerns about the need for the Project or the proposed transmission development to meet the need you may contact the AESO directly. You can make your questions or concerns known to a BluEarth representative or a TFO representative who will collect your personal information for the purpose of addressing your questions and/or concerns to the AESO. This process may include disclosure of your personal information to the AESO.



Timelines



What does the Project team want from you?

Information and feedback provided by you and your community is important to BluEarth's decision making processes as the Project moves forward. We look forward to discussing the Project with you.

Questions or comments about the Project?

Email: handhillstransmission@maswkaenv.com

Toll free: 1-888-282-7922

Website: www.bluearth.ca/handhills

Questions about the regulatory process?

Alberta Utilities Commission

Phone: 780-427-4903

Email: consumer-relations@auc.ab.ca

Questions about the Project need?

Alberta Electricity System Operator

Phone: 1-888-866-2959

Email: stakeholder.relations@aeso.ca