

Hand Hills Wind Project Connection Potential Routes

What is it and why is it needed?

In December 2020, the Alberta Utilities Commission approved the Hand Hills Wind Project, which is being developed by BER Hand Hills Wind LP, a subsidiary of BluEarth Renewables (“BluEarth”). BluEarth has developed potential routes to connect the wind facility to the Alberta Interconnected Electric System. The proposed single circuit 144 kilovolt transmission line (the “Project”) will connect the Hand Hills Wind Project substation (Highland 572S) to the existing ATCO transmission line (7LA128). BluEarth will be evaluating routes, undertaking regulatory approvals, and constructing the transmission line before transferring the line to ATCO for operation.

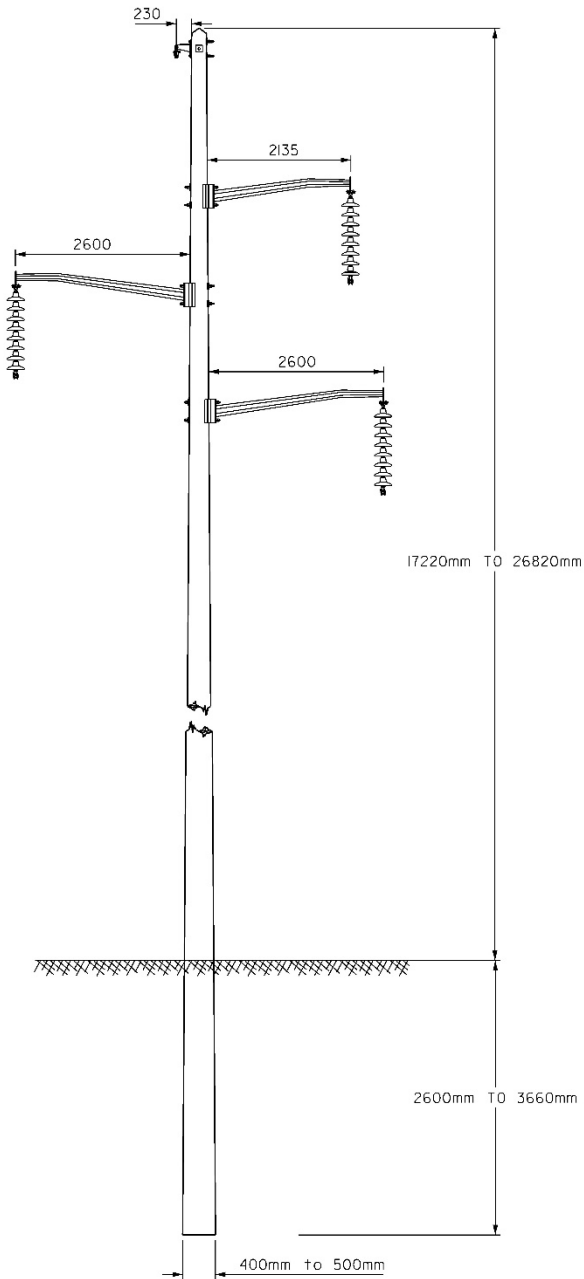
Power to
Change
THE FUTURE™

Where is it located?

The Project is located in Starland County and Special Area No. 2, southeast of the community of Delia. The Project will connect the proposed Highland 572S Substation (Township Road 302 and Range Road 170) to the existing ATCO 7LA128 transmission line as shown on the enclosed map.

What will it look like?

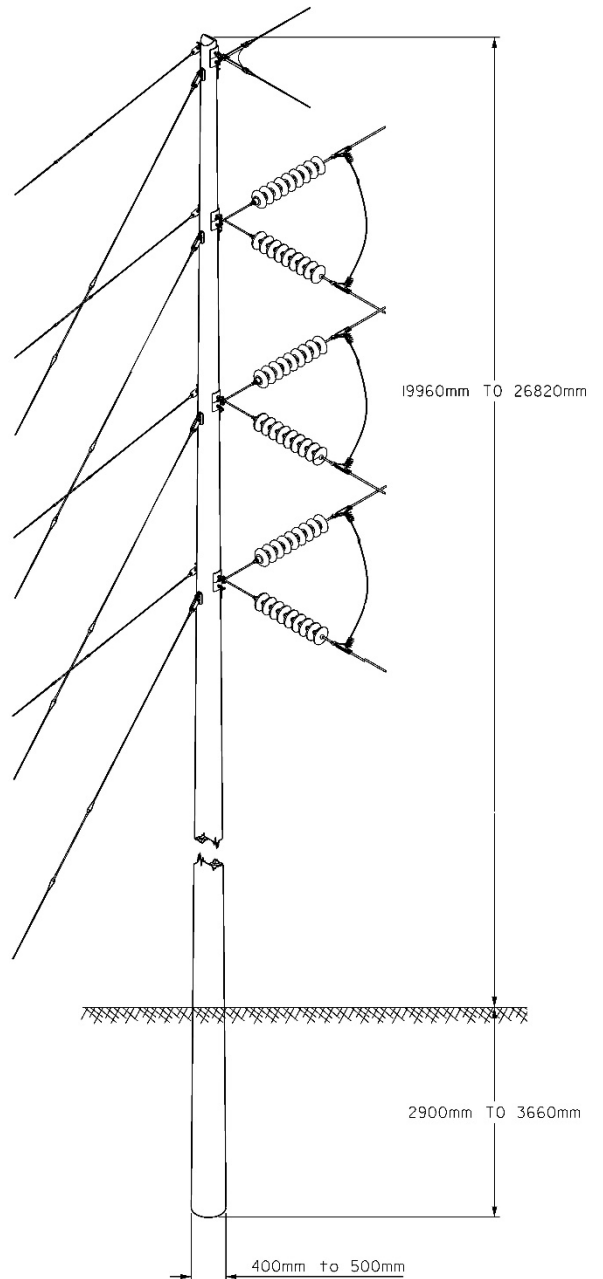
Many factors, such as cost, soil types, crossing of roads or other infrastructure, land conditions and availability of material are being considered to determine the type of structures that will be used for the Project. At this time, transmission structure design is still ongoing and further details will be provided to the public as the Project moves forward.



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° 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 will a route be picked?

Routing is a process that incorporates the best available information with the goal of finding a route with low overall impact. This includes understanding potential impacts or features that may be unique to the Project area. Starting with many options, these are then narrowed down to allow for a more detailed review of the route(s) identified. Different criteria will be reviewed and considered to determine a preferred and alternate route for the Project. This includes, but is not limited to:

- **Location** of residences
- **Existing infrastructure** such as roads, transmission/distribution lines and wind turbines
- **Private and public land use**
- **Environmental considerations**, such as wildlife and native grassland
- **Cost and length**
- **Technical design**, such as road crossing and clearances
- **Land types and terrain**
- **Public and interested party feedback**
- **Indigenous interests**

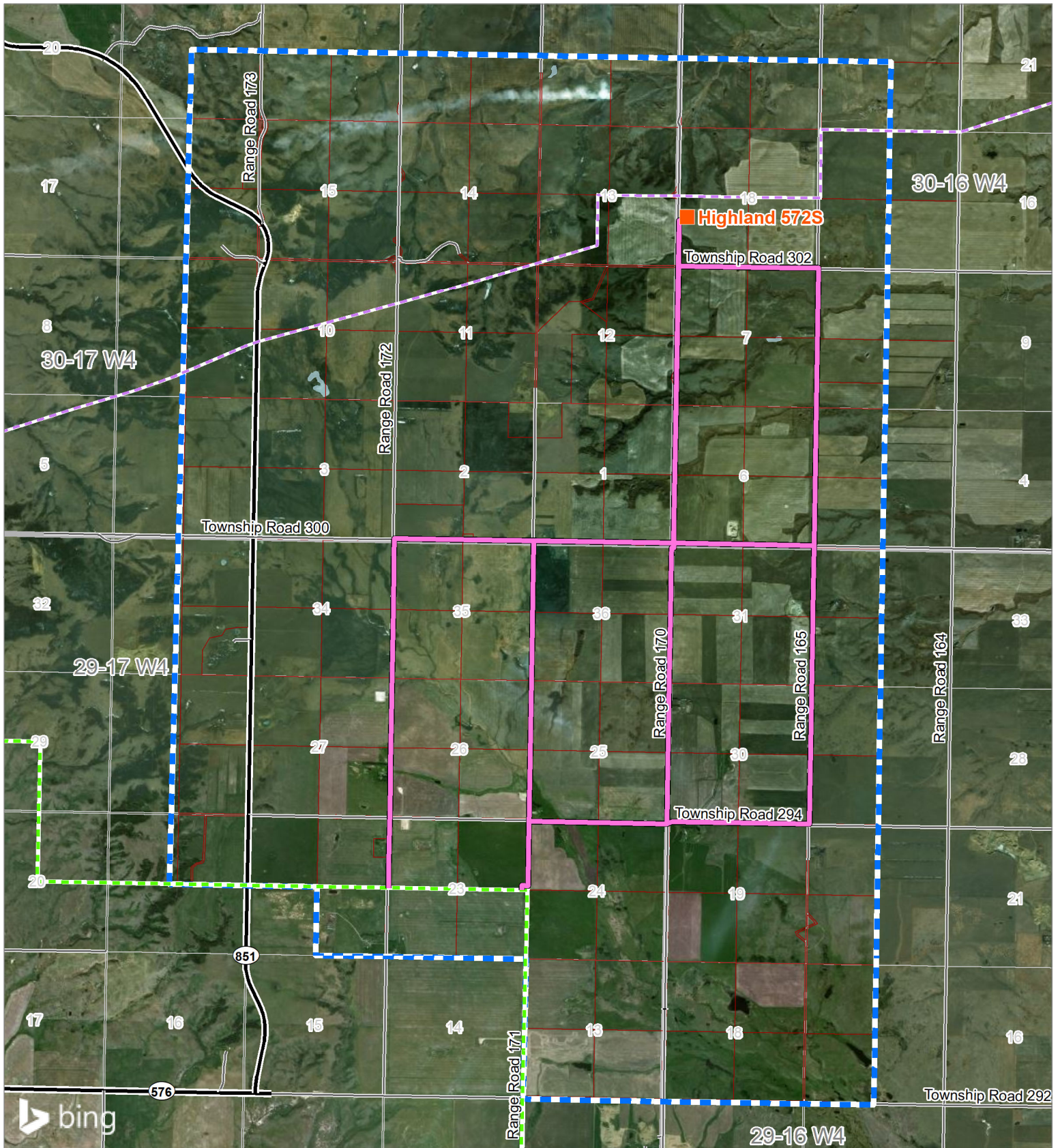


Has a preferred route been determined?

No, a preferred route has not been determined at this time. BluEarth is still in the process of collecting feedback from landowners and interested parties, undertaking environmental evaluations and engineering review. Feedback from these various aspects will assist in determining a preferred route that will be submitted to regulators for review and approval.

Will private lands be needed?

It is anticipated that private land easements will be acquired from landowners where the transmission line crosses or runs adjacent to private property. Landowners will be compensated for the easement and maps have been provided to individuals (and can be found on the Project website) to understand the permanent or temporary workspaces required to construct and/or operate the transmission line.



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

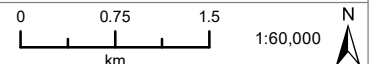
**Potential
Route Segments**

Legend

- Approved Hand Hills Wind Project Substation Location
- Potential Transmission Line Segment
- Existing ATCO 72 kV Transmission Line
- Existing ATCO 144 kV Transmission Line
- Paved Road
- Unpaved Road
- Parcel Boundary
- Water Body



**MASKWA
ENVIRONMENTAL
CONSULTING**



Produced For: BER Hand Hills Wind LP	Revision #: 0
Produced By: Maskwa Environmental Consulting Ltd.	Map Creator: C. Jackson
Map Date: May 27, 2021	Map #: BLU20021-011
<small>This document is created solely for the use of BER Hand Hills Wind LP. Maskwa Environmental Consulting Ltd. assumes no liability to any other third party for any representations contained in this drawing. Although there is no reason to believe that there are any errors associated with the data used to create this map product, users of this data are advised that errors may be present. Scale of the map is 1:60,000, when printed at 8.5" by 11". Coordinate System: NAD 1983 UTM Zone 12N</small>	
<small>Document Path: \\Client\B\del\BLU2021_HandHills\003_Mapping\20210526_EngagemntMapping_Round11</small>	

Who approves the Project?

The Project will be submitted to the Alberta Utilities Commission (AUC) for their review and approval. 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.

Are other groups involved in the Project?

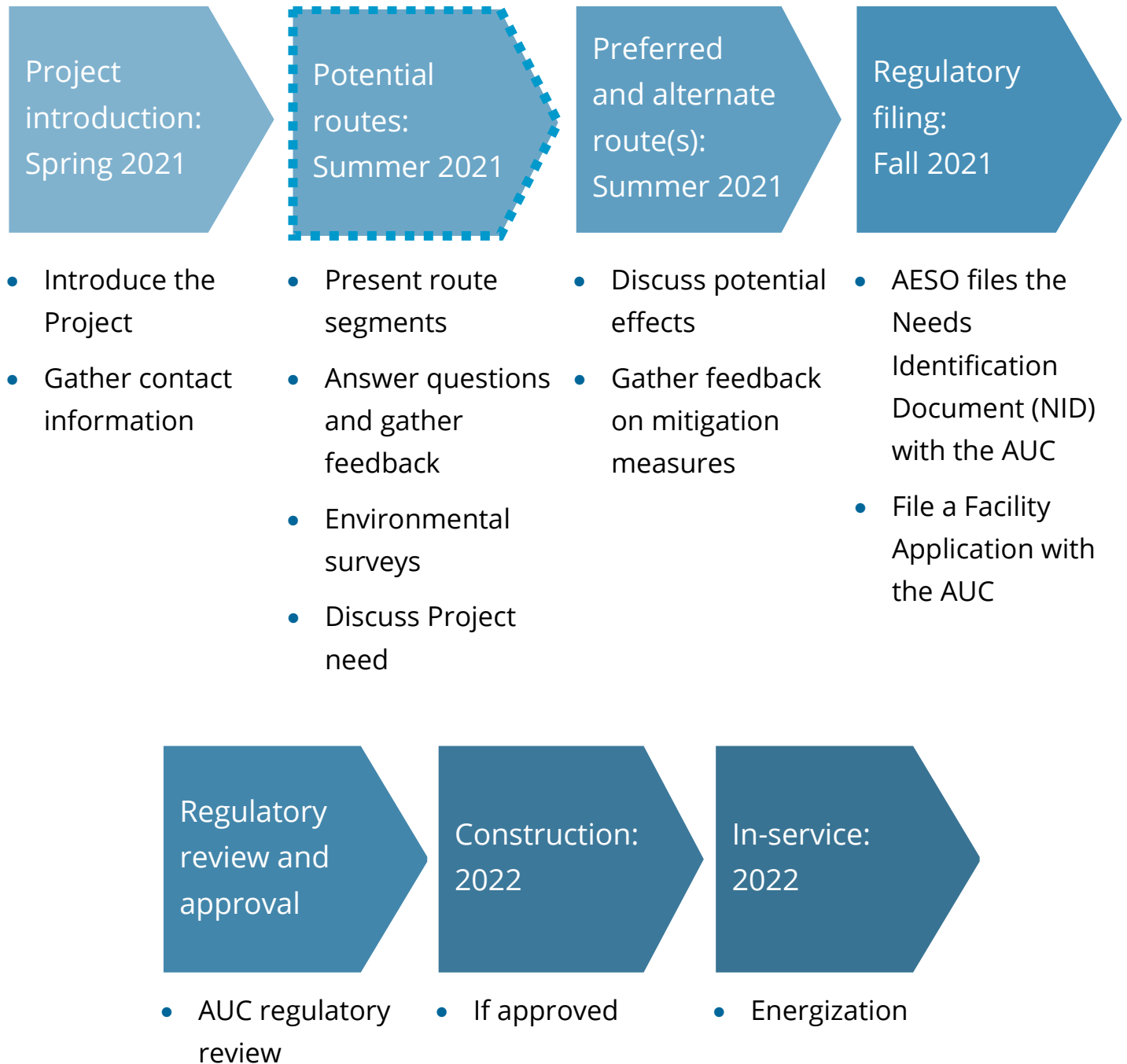
The Alberta Electric System Operator has deemed this Project as eligible under its Market Participant Choice (MPC) option, which means the Project will be permitted and constructed by BluEarth. Once commissioned, BluEarth will transfer the Project to ATCO who will assume the role of Transmission Facility Owner (TFO) and operator of the transmission line and will be notifying those in the area of the Project's interconnection.

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



How would it be constructed?

BluEarth will be working with potentially affected landowners over the upcoming months 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.

What about the Windfarm?

BluEarth is the proud developer of the Hand Hills Wind Project, a 130 MW wind project proposed on privately owned land near Delia, Alberta. This Project will provide clean, renewable energy for approximately 65,000 homes annually.

The Hand Hills Wind Project is located on over 12,000 acres of land in both Starland County and Special Areas No. 2, approximately 28 km northeast of Drumheller, near Delia, Alberta.

In February 2020, BluEarth submitted the updated Alberta Utilities Commission (AUC) amendment application for the 130 MW Hand Hills Wind Project. This application summarized the environmental field surveys, mitigation strategies, and overall approach to construct and operate the Project responsibly. In December 2020, the AUC approved the amended project and issued a new permit and license.



What does the Project team want from you?

Feedback from the community is important to determine routing options that aim to minimize impacts on people and the environment. The more information provided by residents and interested parties allows our team to understand where there may be higher potential for impacts and can assist in determining ways to mitigate those potential impacts. Feedback received will assist BluEarth in making informed decisions as the Project moves forward. The Project is in the early planning stages and the more information we have, the better equipped we are to incorporate feedback into the routing process and environmental evaluations that will be undertaken over the upcoming months.

Questions or comments about the Project?

Email: handhillstransmission@maswkaenv.com

Toll free: 1-888-282-7922

Website: www.blueearth.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