

Welcome to our Open House!

Please sign in at the front desk and provide your contact information if you would like to receive project updates.

We invite you to walk around and look at the displays.

If you have questions or comments, please ask one of our representatives or fill out a comment form and we'll be in touch.

Thank you for attending!





Background

Development work on the Hand Hills Wind Project has been underway since 2007.

- BluEarth acquired the Hand Hills Wind Project from Joss Wind Power Inc. in the fall of 2012.
- On August 31, 2012 after several years of study, including wind resource analysis, environmental and heritage studies and assessments, public and agency consultation and turbine siting, the Hand Hills Wind Project received Alberta Utilities Commission approval to construct and operate.
- Since receiving the approval, BluEarth has been consulting with stakeholders, meeting with the involved municipalities and completing technical and environmental studies.
- Technical studies and major advancements in wind turbine technology have led us to select a new turbine for the project.
- BluEarth will be filing an amendment to our approved Alberta Utilities Commission application in June 2017 to reflect the changes to the turbines.



Hand Hills Wind Project



Project Description

- Facility size: up to 78.2 MW capacity of renewable power
- Number of turbines: up to 34 turbines
- 34.5-kilovolt electrical collector system and fibre-optic cable
- New ATCO transmission line will connect the new Highland 572S substation to the Alberta electricity grid at Coyote Lake 963S substation, 13 km south of the project
- Access roads, temporary construction roads, and an operations and maintenance building







Environmental Considerations

As a condition of the Alberta Utilities Commission (AUC) permit, and to update our knowledge of the environmental conditions at the site, BluEarth has consulted with Alberta Environment and Parks and is conducting various environmental studies in 2017.

Studies planned or underway during 2017 will assess:

- Spring and Fall Bird Migration
- Spring and Fall Bat Migration
- Breeding Birds
- Nesting Raptors
- Sensitive Species (e.g., Sharp-tailed Grouse, Burrowing Owl and Amphibians)
- Wetlands
- Listed Plants
- Habitat Mapping

Results of the 2017 environmental surveys will be provided to Alberta Environment and Parks for their review and comment.

The AUC Power Plant application will also consist of:

- An **Environmental Evaluation** to outline the site conditions and potential Project impacts on the environment
- **Environmental Protection Plan** to provide mitigations to reduce potential environmental impacts
- Noise Impact Assessment to assess predicted noise levels at residences to ensure that the Project does not cause noise level limits to be exceeded



The Power to Change the Future.[™]

Hand Hills Wind Project



Sound

Wind energy projects must meet the detailed Alberta Utilities Commission (AUC) regulatory requirements for noise control

Detailed noise modelling is undertaken to ensure the AUC sound level requirements of 40 dBA (night time) are met at all residences. The noise modelling considers:

- Topography (hills and slopes);
- Ground cover (trees, water, grass); and
- Existing noise sources
 (oil & gas infrastructure, highways).

Studies of the noise conditions within the Hand Hills Wind Project area are an important factor in selecting the final turbines for the Project.



* Permissible Sound Level (PSL) includes sound contribution from ambient (i.e., background) noise, other regulated facilities (e.g., oil and gas infrastructure, power/utilities infrastructure), and any newly proposed regulated facilities (i.e., the Project). Nighttime PSL at receptors in rural environments is 40 dBA (AUC – Rule 012 Noise Control)



Project Benefits

What are the benefits of wind development?

- **Employment** temporary jobs during construction (approximately 100,000 person hours) and permanent jobs associated with the operations and maintenance of the Project (4 to 5 full-time positions).
- **New Investment** in the form of local services and supplies such as infrastructure improvements, fuel, accommodation, meals and supplies for employees, construction personnel, and contractors who will spend time in the local communities.
- **Landowners and Community** wind turbines are compatible with other land uses, such as farming, and can serve as a financial boost for rural economic development.
- **Municipal Tax Revenues** municipal taxes paid by wind companies to rural communities can be important, and the project does not increase demand on municipal services or public works such as sewer and water upgrades.
- **Clean Energy** wind energy provides societal benefits by offsetting harmful emissions such as carbon dioxide, oxides of nitrogen, and sulphur dioxides that are created through conventional, thermal power generation.





Project Schedule

Application for Amendment Approval to Alberta Utilities Commission (AUC)	June 2017
AUC & Municipal Development Permit Approvals	September 2017
Alberta Electric System Operator Renewable Energy Program Contract Awarded	December 2017
Project Financing & Procurement Commencement	January 2018
Earliest Start of Project Construction	June 2018
Expected Commercial Operation	December 2019





BluEarth Renewables

Headquartered in Calgary, BluEarth Renewables is a private independent renewable power producer, focused on the acquisition, development, construction and operation of wind, water, and solar projects. BluEarth's mission is to be the Canadian renewable energy leader by developing, building, and operating a portfolio that optimizes people, planet, and profit. BluEarth believes it has the power to change the future[™] by demonstrating how to be sustainable and profitable, leaving the world a better place. For more information, visit **bluearth.ca**.





Alberta Climate Leadership Plan

Electricity generation is the second largest source of emissions in Alberta, responsible for 17%, or 45 megatonnes of greenhouse gas emissions in 2014. Coal fired generation represents 85% of total emissions from the electricity sector.

The Alberta government is currently looking for opportunities to reduce emissions. They have committed to increasing renewable energy generation to 30% by 2030 through investments in wind, solar and hydroelectric technologies.

BluEarth intends to bid the project into the Renewable Energy Program (REP) process, which would award long-term generation contracts for wind energy projects. The REP is a competitive process based on power price, so it will encourage competition among developers that will ultimately result in lower power prices from renewable energy projects.





Map17-0242 - Hand Hills - Vantage Point 1



Map17-0242 - Hand Hills - Vantage Point









Note: This photomontage is a general visual simulation of the proposed wind turbines. The final layout and design is subject to change. Date: May 31, 2017 Photo Taken: May 25, 2017 Projection: NAD 1983 UTM Zone 12N Sources: AltaLIS, Natural Resources Canada.









Thank you for attending!

Please take the time to fill out a comment form and tell us what you think about the project changes.

If you have any additional questions that were not answered, or if you have further comments or feedback, please include it on the comment form and provide us with your name and contact information.

Questions and comments can also be sent to the contact information provided on the comment form.

Comments must be received by June 16, 2017 for consideration in our decisionmaking process and for inclusion in any amendments filed with the Alberta Utilities Commission.

For more information on BluEarth and the Hand Hills Wind Project, visit:

www.bluearth.ca/handhills

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