



Cowley Ridge Repower Project

June 2017 Project Update

Introduction

TransAlta's wind project team is pleased to introduce you to the Cowley Ridge Repower Project ("Project"). Pincher Creek holds a significant distinction for wind energy in our country as the birthplace of the first commercial scale wind farm in Canada - the Cowley Ridge Wind Farm in 1993. Recognizing the many positive attributes that this site holds, from its desirable wind resource, environmental suitability, and proximity to transmission, TransAlta believes it is fitting to repower this site to continue its legacy in providing clean, affordable, and reliable wind power to Albertans. In doing so, the Cowley Ridge Wind Farm will be the first wind farm to be repowered in Canada.

You are receiving this update as part of our ongoing consultation and engagement plans with landowners, stakeholders, and First Nations communities. We encourage you to read through this package and contact us with your questions/comments or concerns. As we advance the Project through the Alberta Utilities Commission ("AUC") application approval process, TransAlta's wind project team will continue to provide regular updates to all stakeholders. Our goal is to ensure that all stakeholder questions/comments and concerns are addressed to the best of our ability.

We thank you for your interest in the Project and look forward to hearing from you.



Alla Zilberg
Project Lead

Project Information

The Project is located 13 km northwest of Pincher Creek, Alberta on approximately 960 acres of privately owned land in the Municipal District of Pincher Creek No. 9.

The Project has a total generating capacity of 19.15 megawatt ("MW"), utilizing 5 GE wind turbines each with a nameplate capacity of 3.83 MW.

The wind turbines will be 85 meters in height (hub height) with a total rotor diameter of 130 meters.

Once the Project is built, the lands will continue to be used for grazing and other agricultural purposes as they have in the past with the former windfarm.

TransAlta- A Leader in Clean Energy

TransAlta is one of Canada's leading generators of wind energy and brings more than 105 years of experience working in the renewable electricity sector throughout Canada, the United States and Australia. TransAlta has over 8,700 MW of net capacity in operation which is comprised of a diverse mix of fuel types including, wind, solar, hydro, natural gas and coal.

We currently own/operate 1,419 MW of wind power and are one of Canada's most experienced builders, owners and operators of wind energy facilities with 21 operating wind farms, including 907 wind turbines. TransAlta was the first large-scale utility company to invest in Canadian wind energy, including the first commercial wind project, the Cowley Ridge wind farm.



Project Schedule

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| Wind Monitoring | Since 1993 |
| Environmental Studies | Ongoing to end of July 2017 |
| Wind Farm Design | Ongoing to September 2017 |
| Public Consultation | June 2017 to approval |
| Public Open House | June 27, 2017 |
| Alberta Environment and Parks Review | July - August 2017 |
| Municipal Rezoning Hearing | June 27, 2017 |
| Municipal Development Permit Application | August 2017 |
| AUC Application | September 2017 |
| Construction Start Date | September 2018 |
| Commencement of Operations | April 30, 2019 |

Alberta's Renewable Electricity Program

There have been significant changes on the energy front over the past two years. With the introduction of the Government's new Climate Leadership Plan, we now have a clear picture of Alberta's energy future.

The *Renewable Electricity Program* (REP) will add 5,000 MW of renewable electricity capacity by 2030 through a series of competitive bid processes. The first-round competition, which was launched on March 24, 2017, will see proponents bid to provide up to 400 MW of renewable electricity. As part of this REP process, TransAlta will submit the Cowley Ridge Repower Project to provide 19.15 MW of clean renewable wind power. The timeline for the first-round competition is outlined below:

- Request for Expressions of Interest Deadline
April 21, 2017
- Request for Qualifications Submission Deadline
June 16, 2017
- Request for Proposal Submission Deadline
October 13, 2017
- Successful Proponent(s) Selected
December 2017
- Commercial Operations Date
by December 1, 2019

Did You Know?

Wind energy developments pay significant economic dividends. 150 MW of new capacity represents:

- \$316 million in investment
- 140 full-time equivalent jobs during construction
- 10 permanent jobs during operations

Source: www.CanWEA.ca



Wind Turbine Sound and Health Effects

In 2009 the Canadian and American Wind Energy Associations (CanWEA and AWEA) established a scientific advisory panel to conduct a review of current literature available on the issue of perceived health effects of wind turbines. The panel was comprised of medical doctors, audiologists, and acoustical professionals from the United States, Canada, Denmark, and the United Kingdom. The objective of the panel was to provide an authoritative reference document for legislators, regulators, and anyone who wants to make sense of the conflicting information about wind turbine sound.

The panel undertook extensive review, analysis, and discussion of the large body of peer reviewed literature on sound and health effects in general, and on sound produced by wind turbines. Each panel member contributed a unique expertise in audiology, acoustics, ear/nose/throat medicine, occupational/environmental medicine, or public health. In brief, the panel concluded:

- There is no evidence that the audible or sub-audible sounds emitted by wind turbines have any direct adverse physiological effects.
- The ground-borne vibrations from wind turbines are too weak to be detected by, or to affect, humans.
- The sounds emitted by wind turbines are not unique. There is no reason to believe, based on the levels and frequencies of the sounds and the panel's experience with sound exposures in occupational settings, that the sounds from wind turbines could plausibly have direct adverse health consequences.

If you would like more information about health effects and wind turbines or would like additional reference material on this subject, please contact us.

Sound

Wind turbines produce sound that can be broadly grouped into originating from either aerodynamic or mechanical sources:

- Aerodynamic effects - as air passes over and past the blades creating a "swishing" sound
- Mechanical sources - originates from the surface of the turbine by the gearbox and generator through openings in the nacelles.

Wind energy projects must meet the Alberta Utilities Commission regulatory requirements ensuring that sound levels of 40 dBA (night time) are met at all residences. A Noise Impact Assessment (NIA) is required for this Project, and TransAlta must demonstrate that both the wind farm and the substation complies with the noise directive. The NIA considers other facilities and noise sources within the Project area. More information on projected sound levels in and around the windfarm will be provided and demonstrated at our Open House.

Visual Impacts

Photo simulations using specialized software have been created at locations surrounding the Project. These simulations will be shown at our Open House event. Turbines are painted in accordance with Transport Canada Lighting and Marking regulation, an off white colour which has proven to be the least reflective in the widest range of light conditions. Turbine lighting for aircraft identification will follow Transport Canada standards; medium intensity red flashing synchronized lights at mid and top of tower for perimeter towers and top of towers at a spacing of 900m apart.





Permits & Approvals Required

Federal Approvals

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|------------------|------------------------------------|
| Transport Canada | Aeronautical Obstruction Clearance |
| NavCanada | Land Use Submission |

Provincial Approvals

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|-------------------------------|--|
| Alberta Environment and Parks | Wildlife Referral (Sign Off) |
| Alberta Utilities Commission | Permit and License to Build, Own and Operate - Wind Facility Amendment to Permit and License to Build, Own and Operate - Substation |
| Alberta Culture and Tourism | Historical Resources Act Clearance |

Municipal Approvals

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|---------------------------|---|
| MD of Pincher Creek No. 9 | Re-zoning Designation - Wind Farm Industrial Development Permit - Wind Farm and Infrastructure Road Use Agreement Utility Placement Permit Any ROW Use Permit |
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Decommissioning

The useful life for current technology wind turbines is approximately 20-25 years. Once a facility has reached the end of its useful life, TransAlta will assess options to repower the Project or decommission. Decommissioning plans are created for each project and reviewed/updated as part of an internal process.

Decommissioning plans address activities related to the restoration of any land negatively impacted by the Project. Our Project leases require that we remove a portion of the concrete foundations and restore the lands to their former use. TransAlta works closely with project host landowners to ensure decommissioning is carried out to their satisfaction.

TransAlta reviews the costs associated with decommissioning all its facilities annually to identify our remediation obligations as a contingent liability. A decommissioning plan will be created for the Project and becomes part of TransAlta's fiscal planning protocols under our corporate Asset Retirement Obligation (ARO).

Next Steps

TransAlta's wind project team will continue to engage with landowners, stakeholders, and First Nations communities as we advance the Cowley Ridge Repower Project through Alberta's REP competitive bid process and through the AUC application and approval process.

As part of our ongoing consultation and engagement plan, TransAlta will be hosting an Open House event to provide all stakeholders the opportunity to learn more about the Project and the information included in this package.

We welcome your involvement and encourage you to join us for the Open House on June 27, 2017 from 5:30-8:30 p.m. at the Heritage Inn & Convention Centre, 919 Waterton Avenue in Pincher Creek.

For more information about TransAlta or the Project, please visit:

www.transalta.com

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