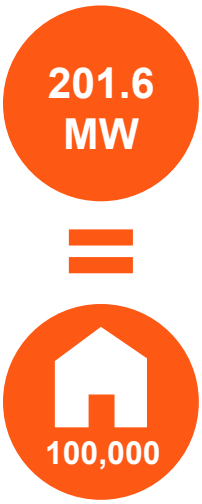
EDF Renewables Canada Inc. Blackspring Ridge Wind Project (300MW). Vulcan County, Alberta



THE PROJECT

The proposed Cypress Wind Power Project (the Project) is a partnership between Cypress Renewable Energy Centre Limited Partnership and Kainai Nation (Blood Tribe). Cypress Renewable Energy Centre Limited Partnership is a subsidiary of EDF Renewables Canada Inc. (EDF RC). The proposed Project will generate 201.6 megawatts (MW) of electricity, enough to power up to 100,000 Albertan homes. If approved, EDF RC will develop, construct, and operate the Project southeast of Medicine Hat, Alberta, closest to the Hamlet of Dunmore, near the intersection of Highway 41 and Township Road 100 in Cypress County. In November 2017, EDF RC sent a Project-Specific Information Package (PSIP) and hosted a public open house with information on potential turbine models and locations. In December 2018, we sent a brief update to share the exciting news about the Renewable Electricity Program Round 2 (REP Round 2) results and to provide a map with the modified Project boundary. Since then, we have continued to engage with landowners and stakeholders to gather feedback about the Project. In this update, we would like to provide information about our proposed changes to the Project, our development activities since December 2018, and the next steps for the Project.

*https://www.efficiencyalberta.ca/average-alberta-energy-consumption/

OPEN HOUSE

We are hosting our third open house in March 2019 and we would like to invite you to join us! Our Project team and subject matter experts will be present to share updates, gather feedback, and answer any questions you might have.

At this open house, we will present information on the following topics:

- The selected Enercon E138 4.2MW turbine;
- Maps showing the updated Project boundary and turbine locations;
- Noise contour maps;
- Results of the shadow flicker analysis;
- Visual simulations which illustrate what views might look like if the Project is approved. These simulations incorporate the actual turbine dimensions;
- Construction and operations photographs and information; and Potential benefits and impacts of the Project on the local community and information about EDF RC, the Kainai Nation (Blood Tribe), and our partnership.

CYPRESS WIND POWER PROJECT OPEN HOUSE

TUESDAY, MARCH 26, 2019
5:00 PM - 8:00 PM

Irvine and District Agricultural Society
207 Francis Street
Irvine, Alberta T0J 1V0

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PROJECT UPDATES

Since December 2018, we have made the following changes to the proposed Project layout:

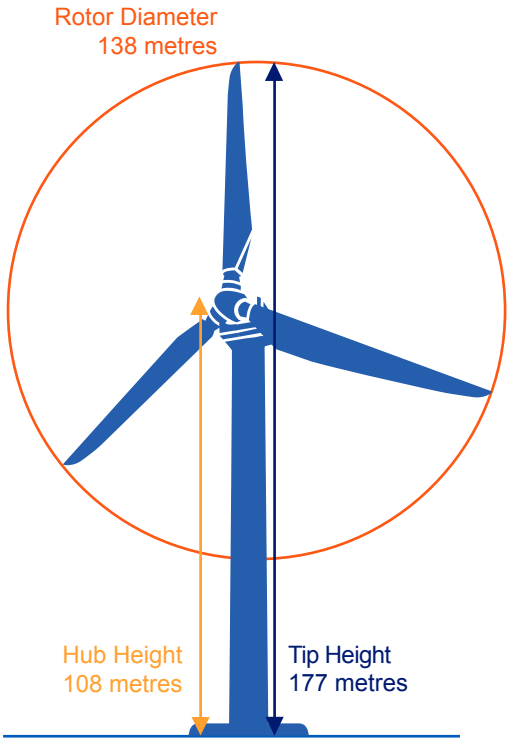
- selected the Enercon E138 4.2MW turbine;
- removed 13 turbine locations from 61 initially to 48 currently; and
- adjusted the locations of the turbines, collector system, access roads, laydown area, operations and maintenance building, and the Project substation.

Turbine and Technology Specifications

In our Fall 2017 PSIP, we indicated that we were considering two proposed turbine models: Option A (Vestas 4.2 MW) on 56 potential turbine locations and Option B (Gamesa 3.465 MW) on 61 potential turbine locations. Based on your feedback and further technical analysis, we are now proposing to install a different turbine than those originally contemplated. We have now selected the Enercon E138 4.2 MW turbine at a hub height of 108 metres (m) for the Project. Each turbine will have a capacity of 4.2 MW and the total Project will be 201.6 MW. Table 1 below outlines the features of the considered turbine technology:

Table 1: Proposed turbine technology changes

	Fall 2017 PSIP	Winter 2019 PSIP	Change
Turbine Type	Vestas V136 4.2 MW or Siemens-Gamesa G132 3.465 MW	Enercon E138 4.2 MW	Similar size capacity
Number of Turbines	56 Vestas or 61 Siemens-Gamesa	48 Enercon E138 4.2 MW	13 fewer turbines
Hub Height	82 m (Vestas) or 84 m (Siemens-Gamesa)	108 m	Taller towers
Rotor Diameter	136 m (Vestas) or 132 m (Siemens-Gamesa)	138 m	Slightly larger
Total Project Capacity	235.2 MW (Vestas) or 211.37 MW (Siemens-Gamesa)	201.6 MW	Smaller Project capacity



If approved by the Alberta Utilities Commission (AUC), the proposed Project will have a total of 48 turbine locations. As a result of this proposed turbine modification, the turbine layout has changed.

Collector System and Project Substation

Each turbine will be linked to the Project's substation by a medium-voltage collector system. Collection cables will be buried underground, wherever practical. The Project substation was previously proposed to be located at SW-26-19-5-W4M and is now proposed at NW-20-10-4-W4M.

Project Boundary and Design

We have also altered the Project boundary to locate the Project substation closer to transmission. The Project boundary now includes part of the North half of Sections 20, 21, and 22 in Township 10, Range 4, West of the Fourth Meridian.

Interconnection

The Project will be interconnected to the existing 240-kiloVolt transmission line 983L in the area, which is owned and operated by AltaLink Management Ltd.

Access Roads and Other Facilities

We will work with Cypress County to develop a road use agreement. With permission, EDF RC will use existing municipal roads to access the Project site wherever practical. Additional access roads will be required as part of the Project. There will be an operations and maintenance building on the Project land or in the surrounding area. We have changed the location of the operations and maintenance building to align with the latest Project layout. The operations and maintenance building is proposed to be located at NE-32-10-3-W4M.

Meteorological Lattice Towers

EDF RC previously installed two temporary meteorological lattice towers at the Project site to measure wind speed, wind direction, air temperature, and barometric pressure. We will permit up to nine but will install up to five permanent meteorological lattice towers on site for monitoring during the operational phase. These permanent meteorological lattice towers are proposed to be 108 m tall.

Temporary Laydown Area

The Project will use a temporary laydown area to assist in staging during the construction phase. Since our November 2017 Open House, we have modified the location of the laydown area to align with the latest Project layout. The temporary laydown area is now proposed to be located at NE-32-10-3-W4M.

THE RENEWABLE ELECTRICITY PROGRAM

In 2018, the Alberta Electric System Operator (AESO) launched a competitive procurement program called the Renewable Electricity Program Round 2 (REP2) and Round 3. EDF Renewables Canada has partnered with the Kainai Nation (Blood Tribe) on the Cypress Wind Power Project. As announced in our December 2018 update, we are pleased to have been awarded a contract for this Project. We look forward to a long-lasting partnership with the local community.

PROJECT TIMELINE*

APRIL 2017
- First Project mail-out to affected stakeholders
- First open house

OCTOBER TO NOVEMBER 2017
- Update Project mail-out to affected stakeholders
- Second open house

Q4 2017-2018
- Completion of environmental field studies

Q2 2019
- Application submission to AUC for review and approval

Q2 2020
- Start of construction

Public engagement continues throughout the Project lifecycle

Q4 2016
- Initiation of public consultation
- Commence environmental field studies

JULY 2017
- Update Project mail-out to affected stakeholders

MARCH 2019
- Project update mail-out to affected stakeholders
- Third open house upcoming March 26, 2019

Q4 2019 to Q1 2020
- AUC approval

June 2021
- Commercial operations

***Project timeline is subject to change**

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ENVIRONMENTAL AND TECHNICAL WORK

EDF RC engaged Alberta Environment and Parks (AEP) early and throughout the planning and development phases of the Project to better our understanding of the site and potential environmental impacts from the Project. EDF RC representatives completed environmental studies in 2017 and 2018, including the following:

Wildlife
Spring and fall birds, spring and fall bats, and sensitive species

Noise
Impact assessment

Vegetation
Habitat mapping and native prairie

Historical resources
Archaeological and cultural features desktop studies

Wetlands
Mapping and classification

Throughout 2019, EDF RC representatives will be in the Project area completing additional field studies to ensure that wildlife data is maintained and current. EDF RC continues to work closely with AEP and will seek sign-off for the wildlife referral report and the environmental evaluation from them in Q1 2019. Additional field work will also be completed for historical and paleontological resources in 2019.

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COMMUNITY BENEFITS

EDF RC values the long-term benefits of working with the local community. If the Cypress Wind Power Project is approved, the local community will benefit from the following:

- **more than 250 jobs at peak construction and up to 10 permanent positions during operations;**
- **contract opportunities for local businesses;**
- **local investments into hospitality and construction services during the development, construction and operations phases of the Project; and**
- **over $10 million in tax revenues throughout the life of the Project.**

250 jobs

over $10 million tax revenues

CONSULTATION AND NEXT STEPS

As EDF RC moves through the regulatory and permitting process, we will continue to work closely with the community, landowners and local government to design our Project in a way that is respectful to the needs, heritage and future of Cypress County. We truly appreciate the feedback we have received so far, and we encourage you to continue to provide us with comments and concerns. EDF RC will provide a comprehensive summary of stakeholder feedback as part of our application to the AUC, which we anticipate submitting in Q2 2019.

WE TRULY APPRECIATE YOUR FEEDBACK

EMERGENCY RESPONSE PLAN

Over the last year, we heard from landowners and residents about the risk of fire and appropriate levels of insurance. Safety is one of EDF RC's seven Core Values which are taken seriously. We operate more than 10,000 MW of electricity generation across North America and it is imperative that we do so safely.

We have developed a site-specific Emergency Response Plan (ERP) to meet the need of the local community. It provides details on how fire risk is addressed and includes roles and responsibilities for notification and response in the unlikely event that a fire or any emergency occurs. We have reviewed the ERP with the Fire Chief to ensure we are working together on this important document.

We will continue engaging with the local emergency services to ensure correct and up-to-date mitigation and response measures are applied as the Project evolves through different stages of development.

EDF Renewables Canada Inc. Blackspring Ridge Wind Project (300MW) Vulcan County, Alberta

CONTACT US

If you have any questions or concerns regarding the Cypress Wind Power Project, or if you are unable to attend the open house and would like further information, please contact a Project team member:

cypresswindproject@edf-re.com
1-844-553-3336
www.cypresswind.ca

To learn more about EDF Renewables Canada Inc., please visit our website.

WWW.EDF-RE.CA

EDF renewables

FREQUENTLY ASKED QUESTIONS

How long will construction take?

We anticipate construction will start in Q2 2020 and will end by June 2021. Construction typically includes civil works, access road preparation, foundation installation, turbine delivery and erection, collector system installation, and electrical and mechanical completions.

How do you plan to manage construction dust and increased traffic?

With any large infrastructure project there will be increased traffic during the construction phase. We will implement traffic control and dust mitigation measures during the Project's construction. We will determine these measures in consultation with Cypress County. We will also discuss haul routes for turbines and other infrastructure with Cypress County. We will limit the time for construction-associated traffic in consultation with local authorities and work with local residents to ensure a safe process with as few impacts as possible to local residents and their seasonal agricultural practices.

Do wind turbines impact human health?

There have been some claims that noise from wind turbines can impact human health. EDF RC has completed a third-party noise impact assessment. The assessment considers Alberta Utilities Commission Rule 012: *Noise Control*, and it includes cumulative sound emissions from nearby facilities, including oil and gas facilities. Noise levels must not exceed 40 decibels at nighttime. Our Project must comply with this Rule otherwise the AUC will not approve the Project. The results of the assessment are demonstrated in the Project Layout.

Health Canada completed a $1.4 million study from 2012 to 2015 assessing if wind turbines affected health. The study found that there is no scientific evidence to support negative effects on human health resulting from exposure to wind turbine noise. More information is available from the Health Canada study at www.canada.ca

What is shadow flicker?

Shadow flicker can occur at certain times of the year. Blades can cast a moving shadow over windows, creating a flicker effect indoors which can cause annoyance. Shadow flicker can occur when turbines are sited close to homes. A shadow Flicker Analysis Summary Report is available upon request.

EDF RC has conducted an independent shadow flicker analysis to ensure turbines are properly located to mitigate potential shadow flicker impacts. This study considers the probability of cloud cover, but it does not consider the orientation of residences or the location of windows in residences. The results of this study are available in the Project Layout, Adjusted Case Shadow Flicker and Noise Map. All residences fall within internationally accepted thresholds.

What is the emergency response protocol in the event of a fire?

Safety is a core value of EDF Renewables Canada Inc. During construction, we will employ robust safety protocols, including restricting public access to the construction site. In addition, there will be security controls on site and we will employ traffic mitigation strategies. We will continue to consult with the community throughout the process.

During operations, the Project will have a supervisory, control, and data acquisition system that connects each turbine to a central operating system. This system monitors the turbines 24 hours a day, seven days a week. In the event of an emergency, the controller will send an automatic alarm notification to the operations staff and the remote operations centre. The on-site staff or the remote operating staff will initiate a shut down. If a fire is detected, staff will immediately call 911 to dispatch the local fire department, and staff will implement the protocols outlined in the emergency response procedures. EDF RC has been working closely with local emergency services to develop an emergency response plan. We will continue engaging with local emergency services to adapt appropriate response measures through various phases of the Project.

Will my property value be impacted?

There is no conclusive evidence in Alberta about whether property values are affected by neighbouring wind power projects. Three recent wind power project applications in Alberta received by the AUC considered the potential impact of wind power projects on property value. The AUC concluded the following:

"The Commission was not presented with sufficient evidence in this proceeding to suggest that the project will result in an adverse impact on property values of parcels adjacent to the project." — Grizzly Bear Creek Wind Project (E.On Climate & Renewables Canada Ltd.)[1]

"The Commission has not been presented with sufficient cogent evidence in this proceeding to suggest that the project will result in an adverse impact on property values of parcels adjacent to the project and finds that any limitations on subdivision potential is too speculative." — Bull Creek Wind Project (BluEarth Renewables Inc.)[2]

"The Commission finds that there was insufficient evidence presented to show that land use would be impacted by the project, particularly given that no components of the project will be sited on nonparticipating landowners' property. With respect to the project's potential impact on property values, the Commission was not presented with sufficient evidence in this proceeding to suggest that the project will result in an adverse impact on property values of parcels adjacent to the project." — Halkirk 2 Wind Project (Capital Power)[3]

There have been numerous studies completed on this subject and the general consensus is that there is little evidence to support claims that property value is impacted by neighbouring wind power projects. To date, the most comprehensive study on wind power projects and property values was conducted by the Lawrence Berkeley National Laboratory. The study analyzed more than 50,000 home sales near 67 wind power projects across nine U.S. states over ten years and found no statistical evidence that operating wind power projects have had any measurable impacts on home sale prices.

Similarly, the Municipal Property Assessment Corporation (MPAC) evaluated these claims in a detailed study in 2008, 2012 and 2016 entitled *Impact of Industrial Wind Turbines on Residential Property Assessment* in Ontario. This report studies properties within five kilometres of a wind turbine, and whether their assessment is equitable to those situated more than five kilometres from a wind turbine. The assessed value of a property does not change due to nearby wind turbines. This finding is consistent with MPAC's reports.

1-AUC Decision 3329-D01-2016. May 19, 2016.
2-AUC Decision 2014-04. February 20, 2014.
3-AUC Decision 22563-D01-2018. April 13, 2017.

What steps are you taking to protect the environment, specifically birds and bats?

EDF RC has completed environmental studies for the Project. The subjects of these studies included vegetation, wildlife, and wetlands. Based on the survey results, we have applied the appropriate setbacks for the Project infrastructure from sensitive environmental features. We will submit the results of our surveys and our environmental evaluation to Alberta Environment and Parks for their review.

All wind power projects in Alberta must consider their potential impact on wildlife. Examples of precautionary measures include implementing setbacks from habitats, avoiding the extensive use of above-ground transmission lines, and ensuring an appropriate distance between each turbine. EDF RC will complete post-construction monitoring as required.