



# Hello, from the Cypress Wind Power Project!

This newsletter highlights the Cypress Wind Power Project (“the Project”) activities undertaken since our last update in June 2019, including:

- updating to new turbine technology and modifying the layout;
- developing the Project in two phases: Phase 1 (Cypress 1) and Phase 2 (Cypress 2);
- completing seasonal environmental studies and field work to keep all studies up-to-date and in compliance with Alberta Environment and Parks (AEP) Directives.

## COVID-19 UPDATE



*Cypress Renewable Energy Centre Limited Partnership (Cypress LP) is adhering to all public health official guidelines and will continue to monitor the COVID-19 situation as it evolves. Your safety is our priority and we are committed to ongoing and open communication and engagement that will keep you and your family safe. We remain available for any comments and questions through phone, email and/or video conferencing.*



## ABOUT THE PROJECT

This Project is a wind power project that is located approximately 20 kilometres (km) southeast of the hamlet of Dunmore in Cypress County. Cypress Wind Power Project is one of the renewable energy projects that was successful in obtaining a Renewable Electricity Program (REP) Round 2 contract with the Alberta Electric System Operator (AESO) in December 2018. The Project is a partnership between EDF Renewables Canada Inc. and Kainai Nation (Blood Tribe).

The Project received an AEP Renewable Energy Referral Report on September 6, 2019, based on a 48-turbine layout using Enercon, E138 4.2 megawatt (MW) turbines.

On December 13, 2019, the Project received Alberta Utilities Commission (AUC) approval for 48 Enercon E138 4.2 MW turbines with a nameplate capacity of 201.6 MW. The Project includes access roads, underground collector lines, and up to seven permanent meteorological towers.

## Virtual OPEN HOUSE



We have created a virtual open house where you can learn more about the Project and share your feedback with the Project team. The virtual open house is an interactive experience where you can find more information about:

- **updates to the proposed Project**
- **the selected turbine technology**
- **the permitting and engagement processes, including timelines**

- **benefits to the local community**
- **construction and operations**
- **and more**

You can reach out to the Project team with any questions or concerns. Our virtual open house can be accessed anytime and found here: <http://bit.ly/cypresswind>

We look forward to connecting with you!

## PROPOSED PROJECT CHANGES AND UPDATES

After reviewing the latest turbine technology, Cypress LP is proposing to change the turbine model and modify the layout. We are proposing to modify the turbine to the Siemens-Gamesa SG145, with a rated capacity of 5.0 and 5.2 MW. While the total number of turbines to be installed has not changed, the total project capacity will increase from 201.6 MW to 248.4 MW. Table 1 below outlines the features of the proposed turbine technology compared to the approved turbine technology.

Table 1: Proposed Project Changes

Project Categories	Permitted Project	Proposed Project	Project Changes
Project Capacity	201.6 megawatts (MW)	248.4 MW	46.8 MW increase
Number of turbines to be installed	48	48	No change
Turbine model	Enercon E138 4.2 MW	Siemens-Gamesa SG 145 5.0-5.2 MW	0.8 - 1 MW rate increase
Blade Length (metres)	69	72.5	3.5 m longer
Hub Height (metres from the ground)	108	90	18 m shorter
Overall Height (metres)	177	162.5	14.5 m shorter
Substation	Two transformers at the Woolchester 1019S substation with sizes 240/35 kilovolt(kV), 75/100/125-megavolt ampere (MVA) transformers	Two transformers at the Woolchester 1019S substation are increasing in size to 94/125/156 MVA (ONAN/ONAF/ONAF).	Increase in size
Substation location	NW-20-10-4 W4M	NW-20-10-4 W4M	Remains unchanged
Access roads, collector lines, permanent meteorological towers and crane paths		Modified according to the new turbine model.	Please see attached map in the package.

To accommodate the increase in project capacity, we have restructured the Project ownership. The Cypress Wind Power Project will now be developed in two phases while being constructed concurrently: Phase 1 (Cypress 1) of the Project will be owned by Cypress Renewable Energy Centre Limited Partnership (Cypress LP), which is under contract with the AESO and Phase 2 (Cypress 2) will be owned by Cypress 2 Renewable Energy Centre Limited Partnership (Cypress 2LP).

The 48 turbine locations have been modified from the previous proposed layout. There will be 40 turbines (201.6 MW) in Cypress 1 and 8 turbines (46.8 MW) in Cypress 2. We have also modified the locations of the access roads, underground collector lines, permanent meteorological towers, and crane paths. The laydown area and the Project collector substation remain in the approved locations.

## PROJECT INFRASTRUCTURE



### Collector System and Substation

There have been no changes to the substation location. The Project collector substation (Woolchester 1019S) will be located to the west of the Project site (NW-20-10-4 W4M).

Each turbine will be connected to the Project substation by a 34.5 kilovolt (kV) collector system. The collector system will be buried underground.

### Interconnection

There have been no changes to interconnection. The Project plans to interconnect with the existing 240 kV transmission line, 938L, that is owned and operated by AltaLink Management Ltd.

### Access Roads and Operations and Maintenance Building

We will continue to work with Cypress County to develop a road use agreement. With permission, we 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 also be a construction road plan that will include safety protocols, speed limit reductions, and dust control. The operations and maintenance building will be located off-site.

### Meteorological Towers

Four temporary meteorological towers have already been installed at the Project site to measure wind speed, wind direction, air temperature, and barometric pressure. The AUC has approved seven locations based on the previous layout and we will be resubmitting seven locations based on the updated layout. We will install up to three permanent meteorological towers for monitoring during the operational phase. These permanent meteorological towers are proposed to be 90 m tall.

## ENVIRONMENTAL AND TECHNICAL WORK

### Environmental Studies Update

On September 6, 2019, AEP provided the Wildlife Renewable Energy Referral Report for the Project. This Referral Report was based on desktop and field environmental studies completed from 2017 to 2019 and the approved Project layout and turbine technology. Additional field work was completed in 2020 to keep our environmental information up to date. **On February 9, 2021, we submitted an updated Renewable Energy**

**Project Submission (previously Environmental Evaluation) to AEP for review. We expect AEP will provide an updated Wildlife Renewable Energy Referral Report in early 2021.**

Throughout the development of the Project, we worked and will continue to work closely with AEP and implement mitigation measures where needed.

If required, additional archaeological and paleontological resource work will be completed in summer 2021.

### Noise

Cypress LP has completed an updated third-party noise impact assessment. The assessment follows *AUC Rule 012: Noise Control*, and includes cumulative sound emissions from nearby facilities, including oil and gas facilities. The noise results are outlined in the included map labeled: Project Layout, Noise, and Shadow Flicker Map. The Project remains in compliance with *AUC Rule 012* with the updated layout and turbine technology.

### Shadow Flicker

Cypress LP conducted an updated shadow flicker analysis. The results of this study can be found on the included shadow flicker map, which identifies all dwellings and the expected duration of shadow flicker for each dwelling. This study considers the probability of cloud cover, but it does not consider the orientation of residences or the window location. The results of this study differ from the last study. Additional details are available upon request.

## COMMUNITY INVOLVEMENT AND BENEFITS

We value the long-term benefits of working with the local community. We are involved with the community in every phase of the Project. Here are some local community benefits:

- more than 250 jobs at peak construction and up to 10 permanent positions during operations;
- contract opportunities for local businesses;
- local benefits for hospitality and construction services during the development, construction and operations phases of the Project;
- tax revenues throughout the life of the Project; and
- reduction in air pollution and greenhouse gases.

We believe that every renewable energy project is the beginning of a lasting partnership with the local community. We value local expertise and will hold an open house prior to construction to reach out to local contractors. We strive to be a good neighbour and will work closely with community members to design our Project in a way that is respectful to the needs, heritage and future of Cypress County.

## INDIGENOUS ENGAGEMENT

We believe in protecting natural resources and developing clean, renewable energy. Harmonious collaboration with Indigenous communities creates opportunities for sustainable and innovative future. We are committed to sustainable stewardship of the unique traditions and culture of Indigenous communities. As part of this commitment we will engage with impacted communities to better understand their traditions and priorities. We will also follow the preliminary guidelines set out by AUC through the Indigenous Consultation Framework, released May 27, 2020.

## CYPRESS COUNTY

Cypress LP will submit a Cypress County Development Permit by Q2 2021. The Project layout received approval for Land Use Amendment and is compliant with Cypress County Land Use Bylaws. No restrictions to adjacent lands are anticipated.

### Anticipated Project Timeline for Cypress 1 and Cypress 2\*



## NEXT STEPS

As the Project advances through regulatory and permitting processes, we remain committed to ongoing open communication and engagement with stakeholders. The Project team will continue to engage with community members, local government officials and local businesses to ensure the Project is constructed and operated in a socially, environmentally, and economically sustainable manner.

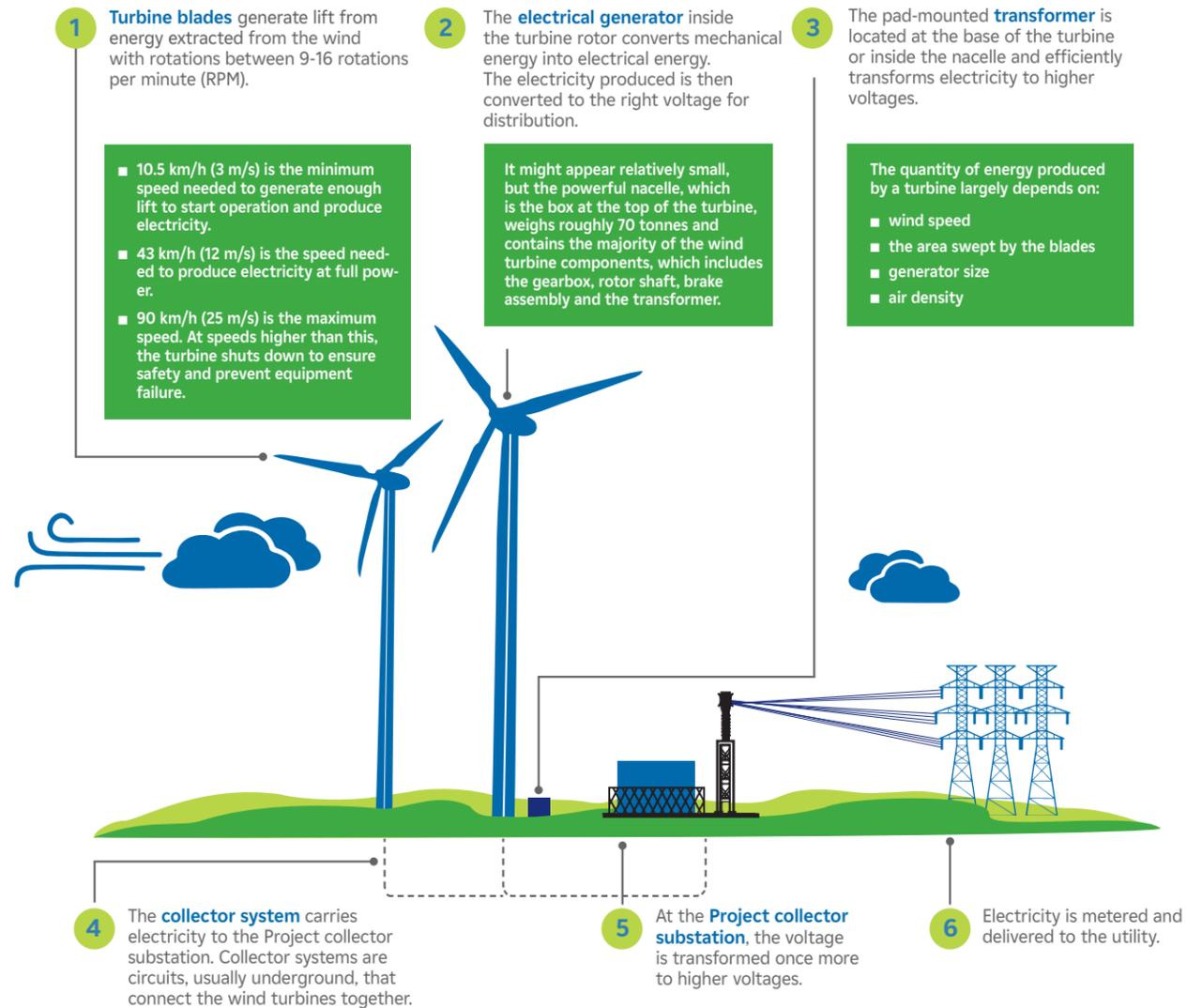
We appreciate the feedback we have received so far and encourage you to continue to provide us with comments and concerns.

Cypress LP and Cypress 2 LP will provide a comprehensive summary of stakeholder feedback as part of our submission to the AUC in Q2 2021.



# FREQUENTLY ASKED QUESTIONS

## How does wind work?



## Do wind turbines impact human health?

A Health Canada study found that there is no scientific evidence that demonstrate negative effects on human health resulting from exposure to wind turbine noise. A copy of Health Canada's key findings brochure can be provided upon request.

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

Safety is a core value. 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. Cypress LP will continue to work closely with local emergency services to finalize the emergency response plan before construction begins.

## What steps are you taking to manage the risk of ice-throw?

Cypress LP has concluded the risk of ice-throw associated with the Project is low and can be managed through Project setbacks, turbine technology, and operational controls.

We comply with the 800 metre setback from residences in Cypress County's Land Use Bylaws. We will be monitoring ice conditions during operations through the ice detection features on the turbines and the on-site meteorological towers. If ice is detected, staff will implement protocols to maintain safe operations.

## Will my property value be impacted?

Three recent wind power project applications in Alberta received by the AUC considered the potential impact of wind power projects on property values (Grizzly Bear Creek Wind Project - E.On Climate & Renewables Canada Ltd.; Bull Creek Wind Project - BluEarth Renewables Inc.; and Halkirk 2 Wind Project - Capital Power). The AUC concluded that in all three cases, there was insufficient evidence to suggest the projects would result in an adverse impact on property values.

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

Cypress LP completed environmental studies at the Project site. 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 locations and the appropriate distance between each turbine in our layout. The results of our surveys and environmental evaluation were approved by AEP; we submitted an update based on 2020 studies and the current proposed Project layout for AEP's review and approval. After construction, Cypress LP will undertake a multi-year post-construction wildlife monitoring program.

## What steps will you take to decommission and reclaim the site?

A decommissioning plan is available on our Project website and provides details on how the turbines and other Project infrastructure will be removed post-operation. The plan also aligns with AEP's Conservation and Reclamation Directive for Renewable

Energy Operations to ensure assets are responsibly decommissioned. This plan has been reviewed by Cypress County.

Prior to construction, Cypress LP will include a clause in landowner lease agreements to ensure that funds for decommissioning and reclamation activities are available. Additionally, the salvage value of the equipment can offset decommissioning and reclamation costs. This will provide peace of mind to both landowners and local government.



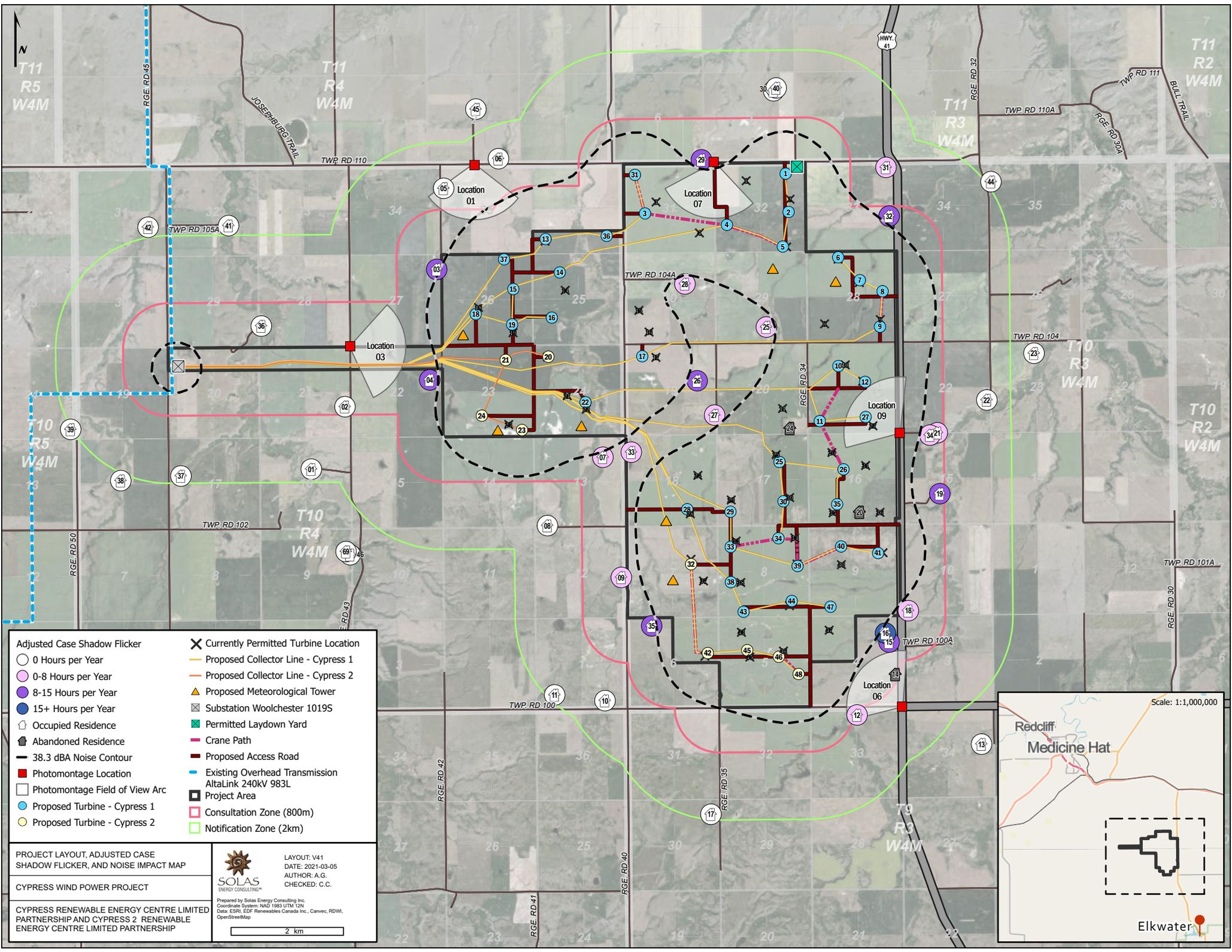
## Contact us

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

[cypresswindproject@edf-re.com](mailto:cypresswindproject@edf-re.com)  
**1-844-255-5471**  
[www.cypresswind.ca](http://www.cypresswind.ca)



EDF Renewables  
53 Jarvis Street, Suite 300  
Toronto, Ontario M5C 2H2  
[www.edf-re.ca](http://www.edf-re.ca)

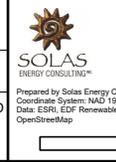


- Adjusted Case Shadow Flicker
  - 0 Hours per Year
  - 0-8 Hours per Year
  - 8-15 Hours per Year
  - 15+ Hours per Year
- ✕ Currently Permitted Turbine Location
- Proposed Collector Line - Cypress 1
- Proposed Collector Line - Cypress 2
- ▲ Proposed Meteorological Tower
- ⊠ Substation Woolchester 1019S
- ⊠ Permitted Laydown Yard
- Crane Path
- Proposed Access Road
- Existing Overhead Transmission AltaLink 240kV 983L
- ⊠ Occupied Residence
- ⊠ Abandoned Residence
- 38.3 dBA Noise Contour
- Photomontage Location
- Photomontage Field of View Arc
- Proposed Turbine - Cypress 1
- Proposed Turbine - Cypress 2
- ✕ Project Area
- Consultation Zone (800m)
- Notification Zone (2km)

PROJECT LAYOUT, ADJUSTED CASE SHADOW FLICKER, AND NOISE IMPACT MAP

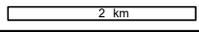
CYPRESS WIND POWER PROJECT

CYPRESS RENEWABLE ENERGY CENTRE LIMITED PARTNERSHIP AND CYPRESS 2 RENEWABLE ENERGY CENTRE LIMITED PARTNERSHIP



LAYOUT: V41  
 DATE: 2021-03-05  
 AUTHOR: A.G.  
 CHECKED: C.C.

Prepared by Solas Energy Consulting Inc.  
 Coordinate System: NAD 1983 UTM 12N  
 Data: ESRI, EDF Renewables Canada Inc., Camvec, RWI, OpenStreetMap





Before



After

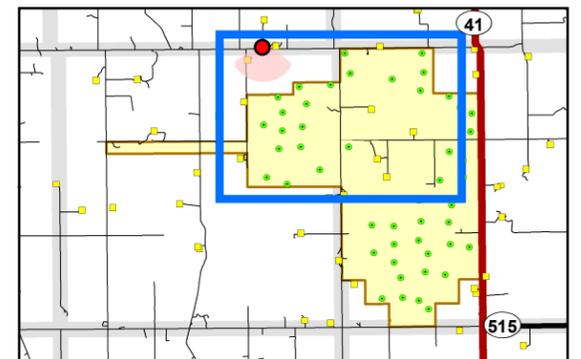
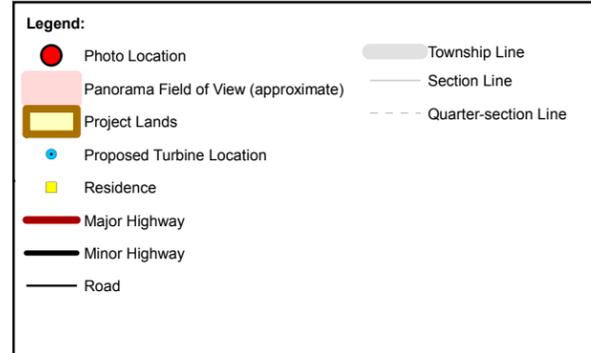
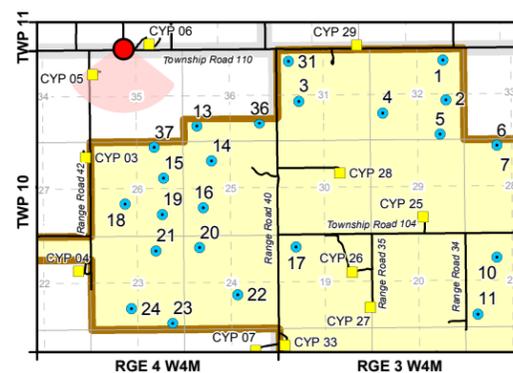
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	Date: 2021-03-05
	Version: 9

**Notes:**  
Photographs taken with Canon ESO 5D Mk II camera and Canon EF24-70mm f/2.8L lens set at 50 mm. Panoramic view compiled from multiple individual photographs. Photomontage simulated using Siemens Gamesa SG145 turbines with rotor diameter of 145 m and hub height of 90 m using 48 turbine locations (Layout Lv41).

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**Prepared By:** WSP Canada Inc.  
**Author:** A. Medd  
**Reviewed:** M. Breakey  
**Approved:** R. Istchenko

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Before



After

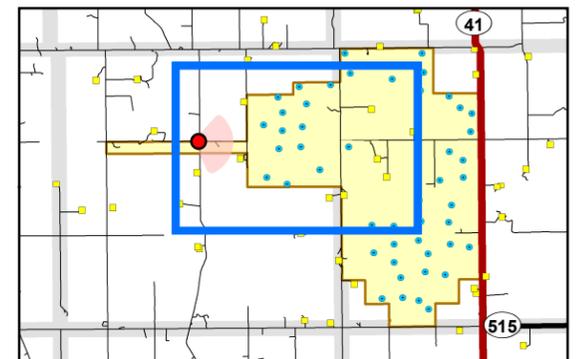
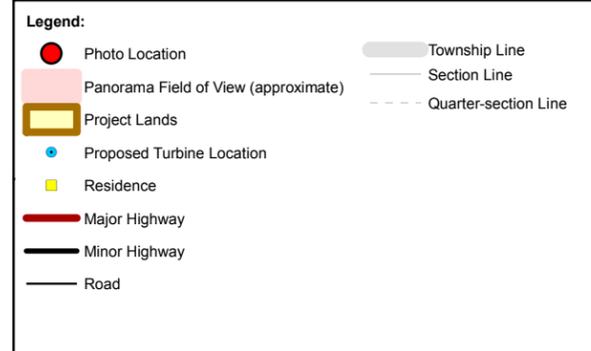
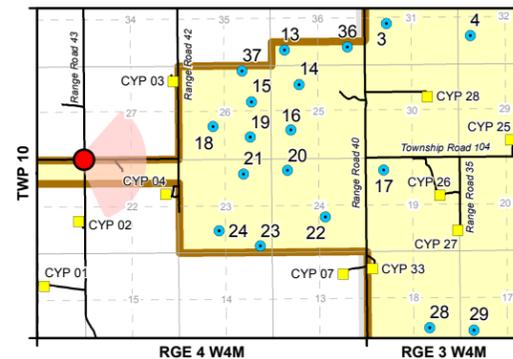
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	Date: 2021-03-04
	Version: 9

**Notes:**  
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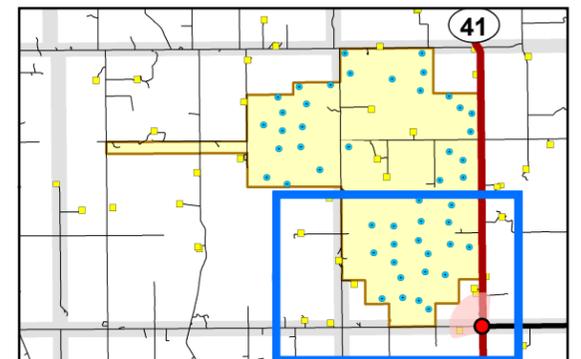
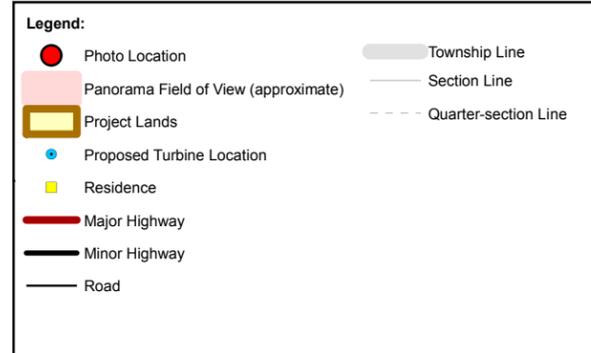
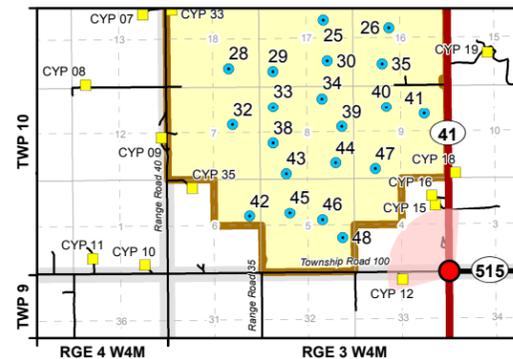
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	Version: 9

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Before



After

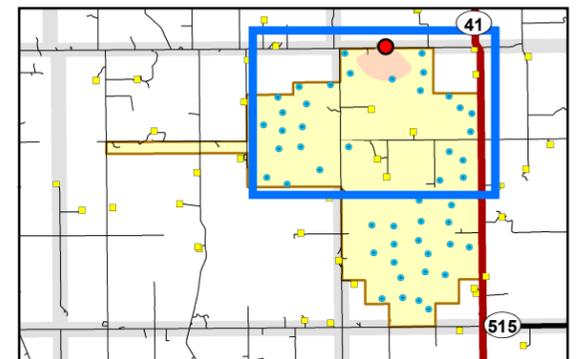
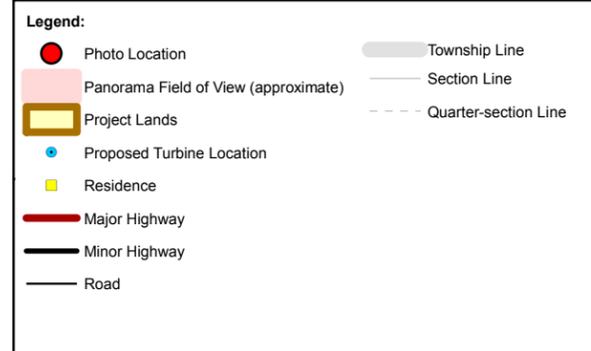
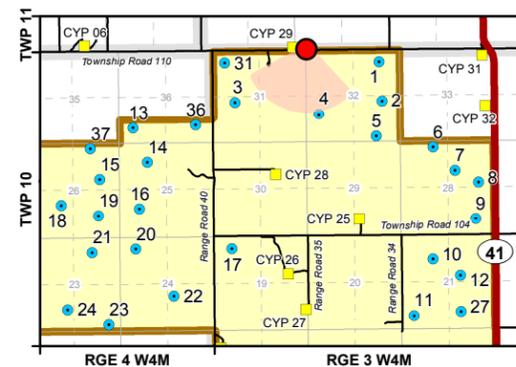
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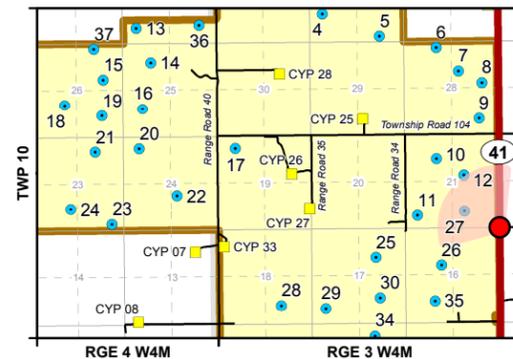
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**Legend:**

- Photo Location
- Panorama Field of View (approximate)
- Project Lands
- Proposed Turbine Location
- Residence
- Major Highway
- Minor Highway
- Road
- Township Line
- Section Line
- Quarter-section Line

