

FAQ

WILD ROSE 2 WIND FARM

Frequently Asked Questions / **Summer 2022**



Amherst Wind Farm / Nova Scotia

Project Design and Planning

1. Where is the Wild Rose 2 Wind Farm located? How big is it and what turbines will be used?

The 192 MW Wild Rose 2 Wind Farm (the Project) will be constructed in Cypress County, Alberta, approximately 35 km southeast of Medicine Hat, and will benefit from the exceptionally high wind resource in the area. The Project is being updated from the older AUC approval with 60 turbines to a new layout comprising 38 Siemens-Gamesa SG 5.2-145 wind turbines, which have a generation capacity of 5.2 MW each. The turbines will have blades about 73m long and the towers will be about 95.5m high.

2. Has the project already been approved?

The Project was reviewed and approved by the AUC and holds both a valid approval and permit and license from 2017. The site is being redesigned and an update will be provided to the AUC for review and approval. The goal with the design updates is to update the equipment on the site to more efficient turbines, and to reduce the overall impacts of the Project.

3. When is the project being built?

The Project has been approved by the AUC and is in a stage of equipment update and redesign. The revisions will be submitted to the AUC in Q3 of 2022, and construction on the substation could start as soon as the fall 2022, with the larger project components starting construction in the spring of 2023. Please visit the Project website (www.wildrose2wind.com) for further updates.

Project Benefits

4. How much renewable energy will the Project generate?

The facility will have an installed nameplate capacity of up to 197.6 MW and after losses will export about 192 MW on to the Alberta grid. The Project will produce approximately 650,000 MWh of electricity annually. This is enough new emissions-free energy to power more than 90,000 typical Alberta households each year.

5. What are the economic benefits to the community from the Project?

More than 200 construction workers will be needed during the 1 to 2 years of construction for the Project. Construction materials such as concrete and gravel, steel and wiring will be sourced locally, as much as possible. Over the life of the Project, roles will be needed such as a Site Manager, turbine technicians, administrative staff, and other support workers to safely operate and maintain the site. As well, tens of millions will be paid in county taxes over the life of the project and millions more are paid to the host and adjacent landowners who have contracts for lease with the Project.



Ganaraska Wind Farm / Ontario

Project Impacts

6. What are the Project impacts on wildlife and wildlife habitat?

Wind farms are large-scale infrastructure projects, and all developments have some level of potential impact. For this reason, the provincial guidelines are to site turbines on disturbed and cultivated lands. All 38 turbine locations are sited on cultivated lands for the updated layout, whereas a number of approved turbines in the previous layout were located on more sensitive prairie grassland habitat. Numerous surveys have been completed on the Project and the data is well understood. Wildlife such as birds and bats are most vulnerable in the area, but with proper siting, and proposed mitigations the impacts to wildlife can be quantified and mitigated to acceptable levels. The Project Environmental Evaluation which summarizes and quantifies the impacts, mitigations and expected residual impacts is posted on the Project website (www.wildrose2wind.com).

7. Will the turbine towers have lights?


Yes, by law some of the turbines must have lights for aviation safety. That said, not every turbine will be lit; typically, turbines on the perimeter of the wind farm require lighting and the 'highest' turbines will also require lighting. Transport Canada, the regulator for aviation lighting in Canada, assesses the lighting requirements based on the spacing and location of the turbines and provides its requirements for the Project. With the site having fewer turbines (reducing from 60 turbines to 38 turbines) the number of lights across the Project will also be greatly reduced.

8. How is noise assessed near the Wind Farm?

During the Project review process, the AUC reviews and scrutinizes the Project Noise Impact Assessment (NIA) report. The modeling must assess the noise generated by each turbine as well as the cumulative noise at each nearby receptor (home) within 1500m from any Project infrastructure. The predicted sound level at each receptor uses computer modeling to evaluate the worst-case scenario for wind and noise propagation.

The 2017 approved layout had 60 turbine locations and all receptors were shown to be below the provincial noise limit as required by AUC Rule O12. The updated design has been generated with noise in mind, and all receptors are at the same or lower modeled noise levels as was previously approved by the AUC. The NIA is on the Project website (www.wildrose2wind.com)

Examples of common sound levels (dBA)



140	Threshold of pain
130	Jet take off
120	Rock concert
110	Jackhammer
100	Power saw
90	Street traffic
80	Doorbell
70	Office
60	Normal conversation
50	Quiet urban neighborhood, daytime
40	Wind energy turbine
30	Soft whisper
20	Ticking of a wrist watch
10	Rustling leaves

9. Are the wind turbine shadows (with blade movement) evaluated?

Yes, the shadows caused by each turbine is modeled and presented to the AUC. When the sun is behind a turbine, and there is no cloud cover, rotating wind turbine blades may cast shadows that cross the landscape, called “Shadow Flicker”. This effect typically occurs most often in the winter months early in the morning or close to sundown when the sun is low in the sky for longer periods. The shadow flicker effect is modeled and accounted for in the Project design, and the report on this assessment is available for review and download on the Project website (www.wildrose2wind.com). The worst receptor for shadow is modeled to receive at most 30 hours per year, and this is lower than the worst impacted receptor in the 60 turbine layout that was approved by the AUC. Generally, shadow flicker shouldn’t be a concern beyond about 1 km away from a turbine, or with homes that have topography undulations or trees surrounding it.

10. Will the wind farm impact nearby property values?

The project will not have any significant impact on nearby land values. Market research at a number of wind farms across Canada and the United States has shown that value of sales in and around wind farms are not materially affected by the presence of wind projects. In 2013, a comprehensive study in the United States assessed sales prices for some 50,000 property sales in 27 counties spread throughout 9 different states hosting wind projects. The research looked at pre and post construction sale prices and distance to turbines and concluded that there is no statistically meaningful effect of wind turbines on the sale price for homes or farms.

As well, our existing Erie Shores Wind Farm in Ontario (66 of turbines; 99 MWs) has been operating in Elgin County, Ontario, since 2012 and there has been no assessment value change in the agricultural land nearby, nor any other known depreciation of land values from before and after the wind farm installation.

11. What happens at the end of the project's life? How will it be removed?

In the event that the project can no longer operate, the equipment will be removed (decommissioned) and the lands will be put back to a similar land use to what was there prior to Project construction. The post-life decommissioning requirements are captured under contractual obligations with our host land-owners, as well as through the provincial and municipal permitting processes. A reclamation certificate from the AEP will also be required to confirm remediation of the site. The Project will likely operate for 30 to 40 years, and since the site has a renewable fuel source, as long as the wind blows at the site, the wind farm will generate revenue, and this can ultimately help pay for the final decommissioning of the site at end of life. Salvage value of the reusable components and materials on the site (e.g. copper, steel) will also offset a portion of the costs at that time.



Get in touch with us

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About Capstone Infrastructure

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Capstone is a publicly traded, independent power producer headquartered in Toronto, Canada, focused on providing clean, renewable energy to homes and businesses across North America. We own and operate a diversified portfolio of 30 utility-scale renewable and clean power generation facilities with more than 775 MW of gross installed capacity and are actively developing a portfolio of clean power projects in Canada and the United States.

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