

Lone Pine Wind Farm



Project Overview

The Lone Pine Wind Farm Project (the Project) is a proposed wind energy project located in Kneehill County, about 15 km east of Three Hills, Alberta. The Project is proposed to contain approximately 50 to 60 turbine towers, please see the included map for more details. The Project has applied to the Alberta Electric System Operator to connect 466 MW of generating capacity to the grid. The current design for the Project will have a generating capacity of up to 350 megawatts (MW), enough to power approximately 149,000 average Alberta homes each year. Further land expansion is underway to ensure the Project will be able to generate the remaining electricity needed to achieve 466 MW. The Project will generate significant revenue for the local community while resulting in minimal land take for the Project footprint, allowing farmers to diversify their income from the land.

The Project is being developed by Lone Pine Wind Project LP., a wholly-owned subsidiary of Capstone Infrastructure Corp. (Capstone), and we are pleased to provide this newsletter to all stakeholders in the Project area.

About Capstone Infrastructure

Generating our low-carbon future

Clean and renewable energy is our business, and our people are our greatest asset. Our mission is to drive the energy transition forward through creative thinking, strong partnerships, and a commitment to quality and integrity in how we do business.

Founded in 2004, Capstone is a publicly traded, independent power producer headquartered in Toronto, with a local office in Calgary leading the development of the Project. We are focused on providing clean, renewable energy to homes and businesses across North America. We own and operate a diversified portfolio of 31 utility-scale facilities, representing 824 MW+ of gross installed capacity, including wind, solar, hydro, biomass, and natural gas co-generation power plants. We're also actively developing a portfolio of clean power projects in Canada and the United States.

Project Layout and Design Updates

Capstone is currently assessing several turbine models, which will affect the Project layout as they vary in size and characteristics. We are presenting a preliminary layout and will provide further updates once the turbine assessment is progressed. Once finalized, the Project will be submitted to the Alberta Utilities Commission (AUC) to obtain approval to construct and operate the facility.

The Project will have the following technical aspects:

Turbine Model

- The turbine model is being finalized, but the final model selected is expected to have a nameplate generating capacity of about 6 to 7.5 MW for each turbine installed.
- The turbine generator (nacelle) will be mounted on a turbine tower of about 110 to 120 meters (m) in total height.
- Each turbine will have 3 blades, each about 80 to 90m in length.

Collector Lines

- All electrical collector lines will be buried underground where possible and will only cross lands under agreement with Project landowners.

Access Roads

- Existing private access roads will be used whenever possible, new access roads will be built as needed for the construction and operation of the Project. Access roads are typically about 7 to 10m wide to allow for the larger equipment to access the site (including large cranes and trucks).

Substation

- The Project includes a collector substation with transformers. The transformer will step-up the voltage in order to export to the grid (from 34.5kV to 240kV). The collector substation will be located central to the project and fenced off.

Interconnection

- The Project proposes to connect to the Alberta Interconnected Electric System (AIES) by connecting to an AltaLink Management Ltd. owned and operated 240 kV transmission line. The interconnection will be carried out via a Market Participant Choice (MPC) process. Public engagement for this development will be carried out separately.

Project Schedule

Environmental surveys completed	Spring 2023
Public consultation initiated	Fall 2023
First Open House	October 26, 2023
Second Mailout and Open House	Winter 2024
Alberta Utilities Commission (AUC) submission	Spring 2024
Anticipated AUC approval	Fall 2024
Municipal Development Permit submission and approval	Fall 2024
Proposed construction start if project is approved	Summer 2025
Target Commercial Operation Date	December 2026

Ongoing Development Work

Environmental Studies

Wildlife field work for the Project was conducted in 2022 and continued into the spring of 2023. Field data was analyzed and the layout was designed to minimize impacts to wildlife and wildlife habitat and align with the Government of Alberta directive for wind project siting. The preliminary layout presented in the map (Figure 1) was submitted to Environment and Protected Areas (EPA) for evaluation. Further feedback received will help refine and reduce potential impacts to wildlife and wildlife habitat.

Layout Design

Design and engineering work remains ongoing for the site as different technology (turbine models) is evaluated to optimize the Project's wind generation. Once final design details are completed, full technical studies of noise, shadow flicker, and wildlife impacts will be prepared and presented to all stakeholders with a second mailout and open house.



Capstone Erie Shores Wind Farm, Ontario

Decommissioning & Reclamation

The Project permit requires Capstone to return the site to an equivalent use. Capstone will adhere to guidelines presented in the Conservation and Reclamation Directive for Renewable Energy Operations (2018). A conservation and reclamation plan will be developed for the Project. Further, Capstone has a clause with host landowners to set aside a security sufficient for performance on decommissioning obligations on all lease contracts.

Project Benefits

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The project is anticipated to produce nearly 1.3 million megawatt hours per year which is enough electricity to supply about 149,000 average Albertan homes annually.

The project will add clean, affordable, renewable energy to the provincial energy supply mix, avoiding more than 461,000 MTCO₂e in greenhouse gas emissions every year.

In addition, it will also provide the following economic benefits to the local community:

- Employment opportunities for local contractors during construction for labour, as well as sourcing construction materials locally within the region (gravel, concrete, etc.). During peak construction season, Lone Pine Wind Farm will create 300 jobs. This will indirectly result in increased spending for local businesses.
- Long term employment over 30+ years during operations for site managers, technicians, as well as secondary services for site maintenance.
- Kneehill County will receive millions in additional tax revenue over the life of the Project through the payment of permitting fees and property taxes. The additional revenue will have indirect benefits to all community members.
- Additional revenue sources will be created such as payments to project landowners, a community benefit fund and donations to local initiatives as a local presence in the community.

Online Resources

Project Website

Capstone has created a Project website for stakeholders, www.lonepinewindfarm.com, where we will provide the most recent information about the project, as it becomes available.

AUC Process

The Project will require final review and approval by the AUC. All power plant applications in the province require an AUC approval, and must follow requirements outlined in Rule 007 which is available at <https://www.auc.ab.ca/rule-007/>.

Please review the brochure included with this newsletter for information regarding consultation in the AUC's independent review process, and/or visit the AUC website at <https://www.auc.ab.ca/auc-review-process-steps/> for more information.

Consultation Process

Public consultation activities are planned throughout the fall and will be conducted in accordance with provincial regulations on consultation outlined by the AUC. Capstone is following the AUC guidelines and updates as the AUC reviews its process.

Hardline Engineering Ltd. (Hardline), is supporting Capstone with the engagement program for the Project. Hardline will be in contact soon, to ensure you have received this information package and answer any questions you may have.



Get in touch with us

At Capstone, we're committed to building long-standing relationships with our landowner partners and the communities where we operate. Following through on this commitment with each of our projects has been integral to our success. We look forward to working with the community to ensure the Lone Pine Wind Farm builds value and diversification for local residents for the life of the project. Should you have any questions about Capstone, the Project, or the next steps, please feel free to reach out to us:

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