



We are doing consultation in your area to hear your feedback on the **Forty Mile Wind Power Project**



Project overview

The Forty Mile Wind Power Project is located on private land in the County of Forty Mile, south and east of the Town of Bow Island. The Project, with a total capacity of 400 MW, will consist of up to 160 wind turbines selected from 179 possible locations.

The additional turbine locations are needed to account for unforeseen constraints that may be identified during detailed engineering. Additional Project infrastructure will include associated meteorological towers, transformers, electrical collection cables, turbine access roads, and temporary construction facilities.

Electricity will be delivered to the existing transmission system via two Project substations (called Granlea and Maleb) which will both have separate connections to the existing 240 kV transmission system.

The transmission line between the Project substations and the existing transmission system is a separate Project and will be completed by AltaLink Management Limited.

Key Project Details

Size: up to 400 megawatts (MW)

Number of turbines to be constructed: up to 160

Number of possible turbine locations: 179

Tower height: up to 110 m

Rotor diameter: up to 145 m

Minimum turbine capacity: 2.5MW

Key project updates

A number of things have changed since our initial project layout was shared in May. These updates are reviewed on the following pages.

If you have any questions or comments about these changes or the project in general, please contact us at fortymile@suncor.com or 1-866-344-0178 (ext. 2).

Suncor and renewable energy

Investment in wind power is a key component of Suncor's climate change action plan. Suncor has been involved in wind power development in Canada since 2000 and our first project was commissioned in 2002.

Since that time Suncor has developed and constructed a total of eight wind power projects in three provinces with a total capacity of 395 megawatts (MW). In southern Alberta, we have successfully developed projects at Magrath, Chin Chute and Wintering Hills.

We are excited about recent government announcements around renewables as part of the energy mix and look forward to the opportunities to invest in facilities and operations that support a lower-carbon future.

Key project updates

Changes in wind turbine locations

Some wind turbine locations were dropped or moved due to reasons including residence setbacks, wildlife and wetland concerns, stakeholder feedback and preliminary sound and shadow flicker considerations.

New locations were added that met regulatory criteria to ensure the overall project capacity remains the same at 400 MW. Table 1 shows a summary of how many turbine locations were affected by information gathered over the last couple of months.

Access roads and electrical collection system

Access roads and the collection system have been designed to accommodate regulatory criteria and landowner input.

Sound and Shadow Flicker Assessments

We have completed sound modeling for all the proposed locations to ensure the sound levels at nearby residences meet the strict requirements established by the Alberta Utilities Commission.

We have also completed a shadow flicker assessment and used this information to relocate turbines and reduce the effect from the shadow cast by the blades as they rotate.

Table 1: Changes in turbine locations since May 2017

Type of change		Number of turbine locations affected
Total turbine locations dropped		28
Total turbine locations added		32
Total turbine locations moved more than 100 metres		54
Total turbine locations moved 100 metres or less		50
Reasons for changes		
Wetlands		Shadow flicker
Stakeholder input		Wildlife
Layout optimization		Sound

Environmental Studies

Suncor has completed environmental and wildlife studies in accordance with the requirements of Alberta Environment and Parks and include:

- wildlife studies such as birds, bats and other sensitive species;
- vegetation studies, including rare plants; and
- wetlands mapping and classification.

Noise

All energy projects in Alberta must complete a Noise Impact Assessment and meet the requirements of Alberta Utilities Commission Rule 012: Noise Control.

In this package, we have provided a map showing the results of our preliminary noise assessment. The two sound contours on the enclosed map represent daytime or nighttime sound levels with the project in operation.

Alberta's regulations require cumulative sound emissions to be considered and this means that all oil and gas facilities near the project must also to be considered in the sound modelling.

Contact information

Forty Mile Wind Power Project
1-866-344-0178 (ext. 2)
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Shadow flicker

Shadow flicker is a term used to describe the effect of shadows cast by the turbine blades as they rotate.

The value is expressed as the number of hours per year that a residence may be affected and does not include reduced impact from nearby trees, structures or orientation of windows in the residence.

There is no regulatory requirement or guideline for shadow flicker in Alberta; however, Suncor uses industry best practices as an input to locating our turbines. In this package, we have provided a map that shows the expected number of hours per year that a residence may experience shadow flicker.

Construction and operations

Prior to and during construction, Suncor will work with the County of Forty Mile and local stakeholders to minimize potential impacts such as:

- Dust and weed control;
- increased traffic and congestion; and
- noise during construction.



Proposed timeline

The Project is expected to follow the timeline shown in Table 2. The schedule is subject to change depending on the Project's success in winning a contract through the Alberta Electric System Operator's (AESO) first Renewable Electricity Program (REP) competition this year.

Table 2: Project schedule

Timing	Activity
Ongoing	Public consultation and engagement occurs throughout the development, construction, and operation of the Project
May 2017	Mailout and consultation round #1
August 2017	Mailout and consultation round #2
September 2017	Project layout is finalized Mailout and consultation round #3
October 2017	Submit bid proposal to REP competition Submit application to Alberta Utilities Commission (AUC)
December 2017	REP winners announced
August 2018	Construction start
December 2019	Commercial operation (25 year Project life)

If Suncor is not successful in the first round of procurement, we will continue to develop the Project for future competitions or other potential power sale agreements.

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Public involvement

At Suncor, we believe that involving the public in our development plans lays the foundation for what will be a long-term relationship with our host communities. Our commitment to public involvement extends throughout the life of the project. Over the last few months Suncor representatives have been meeting with stakeholders, sharing information about the Project and gathering feedback that has been used in planning.

In this package, we have also included a list of commonly asked questions regarding wind power developments, as well as our responses. If you would like to discuss any of these, or would like to share any comments or concerns about the proposed project, please contact us using information below.

We want to hear from you!

We invite comments at any point during the project development and will consider all input received. We will share the final proposed project layout before we submit our application to the Alberta Utilities Commission.

Please visit www.suncor.com/fortymilewind for more information.

Community engagement and benefits

Since early 2016, Suncor has been engaging with community members in and around the County of Forty Mile. We've hosted a Community Meet and Greet, met with County Council, supported and attended the HALO Fundraiser, met with our project landowners, participated in the Bow Island Trade Show, donated to the solarium project at the Bow Island Library, and hosted a Community Open House to share information about the proposed project.

We also recently toured the Bow Island Health Centre, met with the Health Foundation, and met with the local fire department to better understand the community's available resources, priorities, and needs.

Suncor values the long-term benefits of our relationship with the local community. If the Forty Mile Wind Project is successful, the local community will benefit from the following:

- Increased local spending during the development, construction and operations;
- tax revenues throughout the life of the Project;
- community investment in the form of annual donations to support local programs and initiatives; and
- employment and contracting opportunities during construction and operation of the Project.



Suncor employees welcome community members at the Open House on May 17th

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