

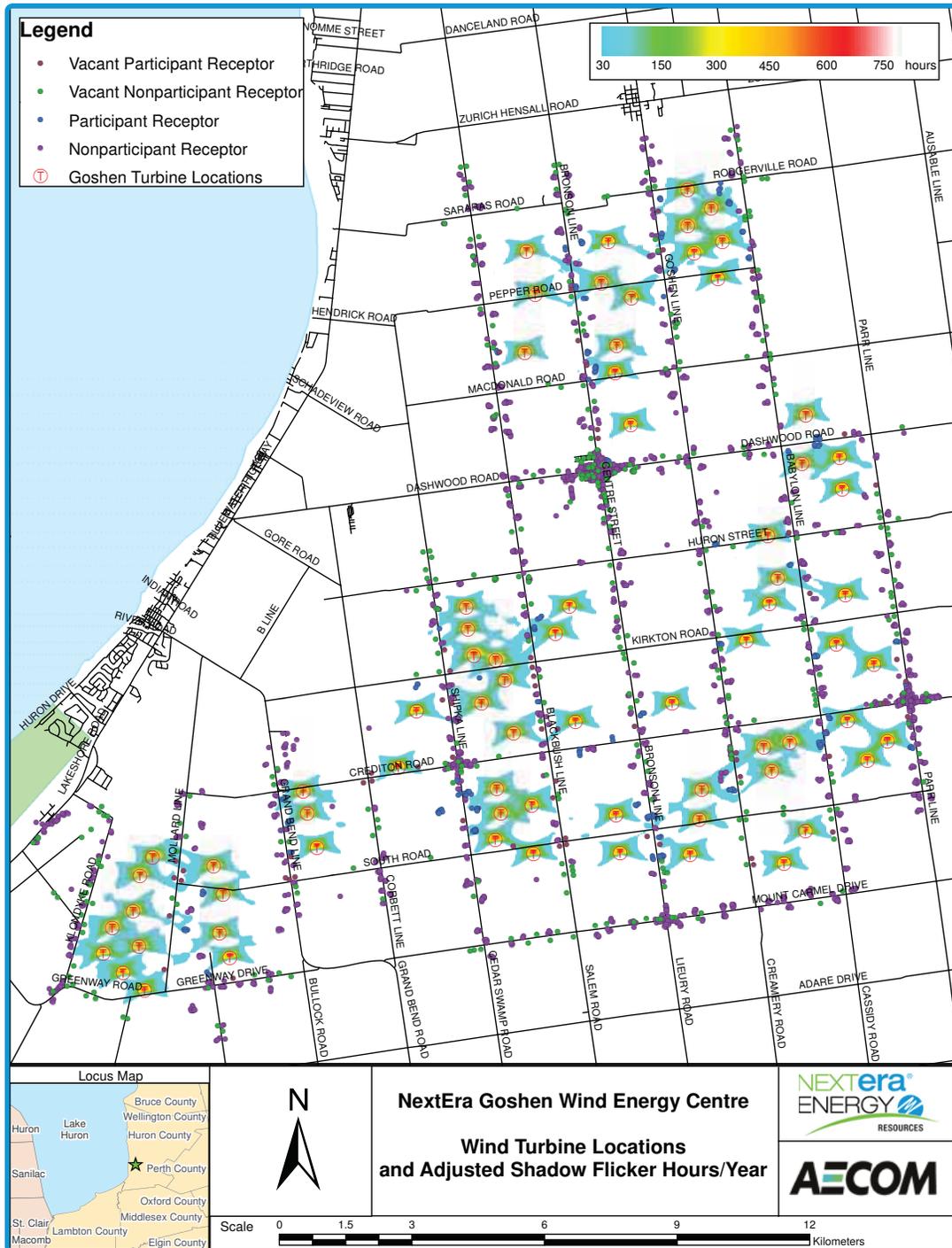
Shadow Flicker - Goshen Project

- Shadow flicker analysis is not required under O.Reg. 359/09; however, it has been undertaken to complement the REA application for the Project.
- Shadow flicker is a temporary condition resulting from the sun casting intermittent shadows from the rotating blades of a wind turbine onto a sensitive receptor such as a window in a building. For shadow flicker to occur, the following criteria must be met:
 1. The sun must be shining and not obscured by any cloud cover.
 2. The wind turbine must be between the sun and the shadow receptor.
 3. The wind turbine must be facing directly towards (or away from) the sun.
 4. The line of sight between the turbine and the shadow receptor must be clear. Obstacles, such as trees, buildings or other structures, will prevent or reduce shadow flicker from occurring at the receptor.
 5. The receptor has to be close enough to the turbine to be in the shadow.
 6. The turbine is operational and not stationary due to a lack of wind or maintenance activities.

Shadow Flicker Assessment and Results

- To assess the effects of shadow flicker, hourly meteorological data, terrain features, receptor, and turbine locations were considered to show the predicted amount of hours when shadow flicker will occur.
- The worst case maximum shadow flicker per day is 1.43 hours and the worst case maximum shadow flicker per year is 46.2 hours.
- This is a conservative analysis that does not account for maintenance time, winds less than 3 m/s when the turbines will not operate, or that the turbine will rarely be directly facing the sun which will shorten the shadow from the turbine blades.

Shadow Flicker Contour Map - Goshen Project



Decommissioning

- The anticipated life of the project is approximately 30 years. Decommissioning of the turbines will occur following the operations phase. A plan has been developed to dismantle or decommission the Project and to restore the land and manage excess water or waste.
- Decommissioning will be done in accordance with the Ontario Health and Safety Act and any applicable municipal, provincial and federal regulations and standards.
- The following components will be removed during dismantling:
 - 1. Turbines;**
 - 2. Overhead lines and poles; and**
 - 3. Transformer substation.**
- Underground electrical lines will be cut and the ends buried to 1m below grade, leaving the lines in place with the consent of the landowner.

Restoration of land and water

- All areas, including the access roads, transformer pads and crane pads will be restored as much as practical to their original condition with native soils and seeding.
- There is the option for turbines to be “re-powered”, meaning that components could be replaced to extend the life of the Project and delay decommissioning. This is based on receiving a new contract to sell power from the Ontario Power Authority, and turbines may still be decommissioned.



Transmission Line

Transmission line - Why is it needed?

- Deliver clean energy to the Ontario system operator to reduce the use of fossil fuel generated electricity by Ontarians.
- System studies indicate there is ample capacity at this point of interconnection without significant network upgrades.
- Investment in transmission infrastructure is needed in Ontario. The plan places no additional burden on our aging infrastructure or Ontario ratepayers.



Transmission Route Overview

- NextEra Energy Canada will build a 115 kV electrical transmission line from the step-up transformer station to the connection point with the Provincial electricity grid.
- The transmission line will be located on private property or within existing road rights-of-way.
- The electricity collected via the 34.5 kV underground collection lines will converge at the transformer substation where the electricity will be “stepped-up” to 115 kV for transmission and then routed to a breaker switch station.
- The breaker switch station will occupy less than 5 acres of land and is the point of interconnect with the existing Hydro One transmission line.

Selecting a Transmission Route

- Distance between the transmission line and existing structures is considered when selecting a route.
- Easement widths located on private property will vary between 33 - 200 feet (10 - 60 metres). Widths vary due to special features on a particular parcel.
- Existing land uses and the location of environmentally sensitive features are considered when choosing a route.

Land Owners and Easement Agreements

- Landowners will be paid a fair market value for the property subject to an easement.
- Compensation will be made for property damage caused during construction and operation of the transmission line (including crops).
- Additionally, we will repair damages to fences, gates, tiling, roads, etc.

Construction of a Transmission System

The construction of the transmission system is being considered on municipal rights of way, private lands or a combination of both within the transmission study area.

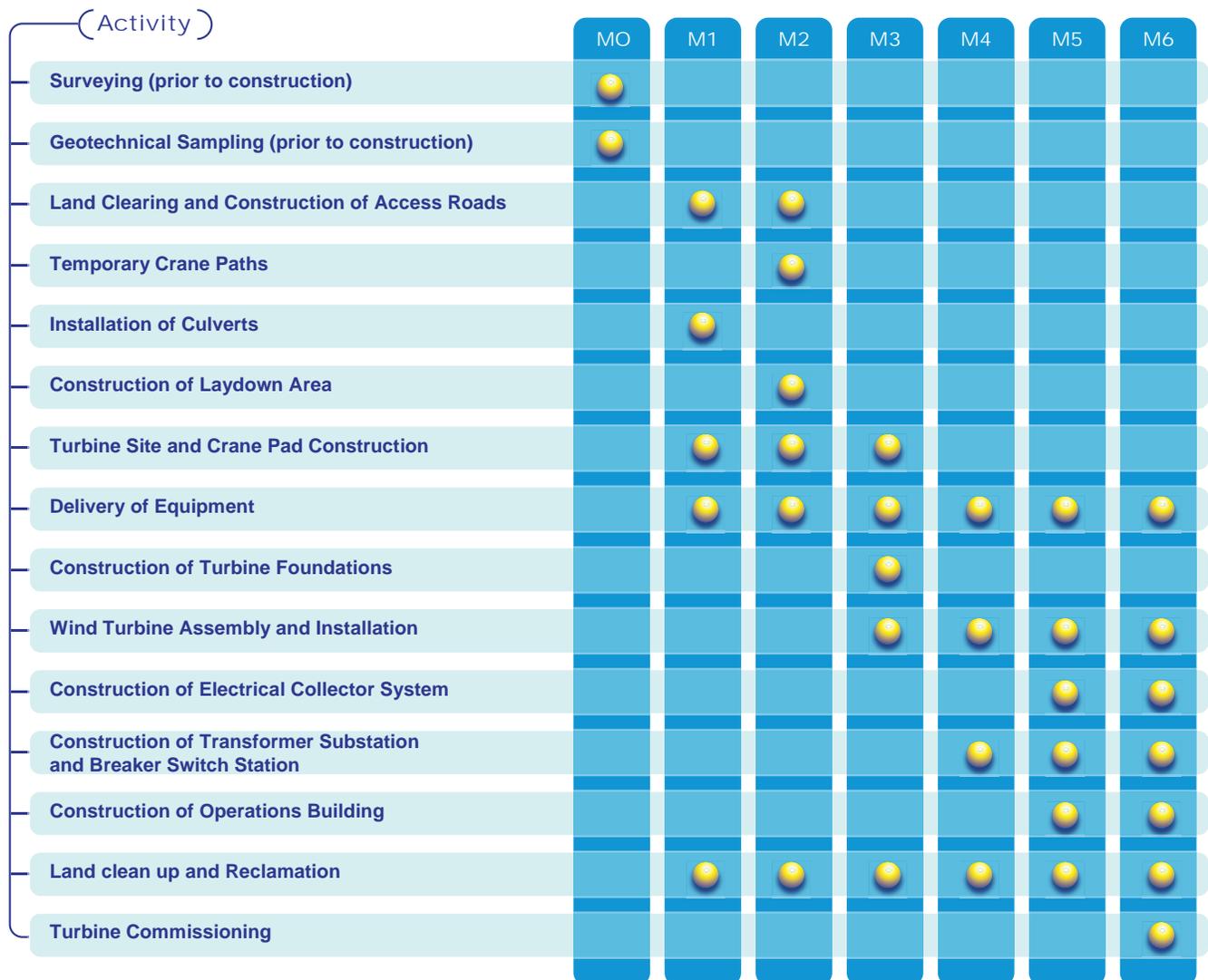
- Transmission structures will typically be single poles made of metal, wood, or concrete.
- Poles will be approximately 18 – 27 metres (60 - 90 feet) in height.
- A typical span between poles will be 91 – 182 metres (300 - 600 feet).
- Transmission lines must be constructed to standards outlined by the Province and/or electrical codes.

Transmission Approvals Process

- Transmission lines (lines with voltages higher than 50 kV) that are longer than 2km require a Leave to Construct from the Ontario Energy Board.
- This process examines the need for the line and the proposed routing to ensure that the priorities given to the Ontario Energy Board by the government are met.
- The line is also permitted as part of the Renewable Energy Approval (REA) process.
- Natural heritage and archaeological studies have been conducted along the proposed transmission line route including:
 - ✦ Vegetation studies;
 - ✦ Aquatic habitat assessments; and
 - ✦ Birds, bat and wildlife studies.

Construction Plan

- A construction plan has been developed to detail all the activities that are part of the Project's construction phase. This plan includes details of any potential effects, the appropriate mitigation measures and ongoing monitoring commitments.
- The schedule below shows the anticipated construction schedule for the Project. Construction is expected to start in fall 2013 and last for 6 months.



Next Steps

REA Process

- The final REA reports will be submitted following the public open houses which will initiate the Ministry of the Environment's review.
- After the MOE deems the REA complete, final reports will be made available online at www.NextEraEnergyCanada.com for comment by the public and by stakeholders.

Other Approvals Required Before Construction

- In addition to the REA, permits and certificates of approval may be required from approval agencies before construction can begin. These may include:
 - ✦ Archaeological Clearance from the Ontario Ministry of Tourism, Culture and Sport (MTCSS);
 - ✦ Fisheries Act Authorizations from the Federal Department of Fisheries and Oceans (DFO);
 - ✦ Aeronautical Obstruction Clearance from Transport Canada;
 - ✦ Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permit from the conservation authorities; and
 - ✦ Other permits or authorizations from the Ontario Ministry of Natural Resources (MNR) and local municipalities.

Please visit www.NextEraEnergyCanada.com for more details on the progress of the project

Thank you for Attending!

- Thank you for attending this evening's Event
- Your input is important to us: please fill out an exit questionnaire and leave it with us tonight.
- Should you have any further questions or comments, please do not hesitate to contact us:

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WIND ENERGY CENTRE - OPEN HOUSE

Visual Simulation: East of Dashwood Looking North



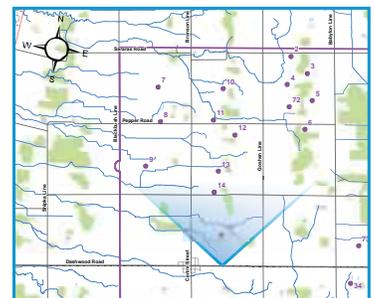
Visual Simulation



Original Photo



Wire Frame



WIND ENERGY CENTRE - OPEN HOUSE

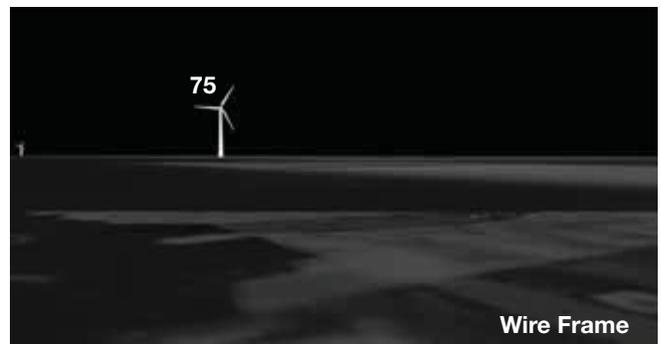
Visual Simulation: West of CREDITON Looking North



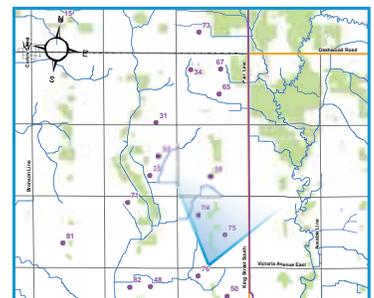
Visual Simulation



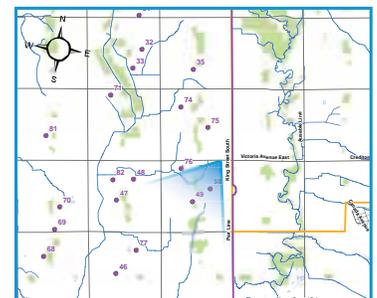
Original Photo



Wire Frame



Visual Simulation: West of CREDITON Looking South



Visual Simulation: West of Zurich Looking South

