

**Appendix E**  
**Copies of Display Boards, Comment Sheets and**  
**Sign-in Sheets from Final Public Meeting**

The top of the page features a blue sky with white clouds and a bright sun with lens flare. The words "Northland Power" are written in large, white, sans-serif font across the sky. A solid green horizontal bar is positioned below the sky image.

# Northland Power

## ***Welcomes You to the Final Public Meeting***

*for the Glendale Solar Project*

Monday, October 3, 2011

6:00 pm to 8:00 pm

Char-Lan Recreation Centre, Community Hall

19740 John Street, Williamstown, ON



# Purpose of this Public Meeting

A public meeting to communicate project details and to solicit stakeholder input is an important aspect of the Renewable Energy Approval (REA) process and project planning.

This public meeting provides an opportunity to:

- Ask questions about the proposed Projects and the REA Project Documents
- Obtain more information about Northland Power
- Gain a greater understanding of the REA process
- Provide any further issues or concerns regarding the proposed Projects

## How can I provide comments or concerns?

A number of methods are available for providing comments or concerns. You can:

- Fill out a comment form provided at this public meeting. This form can also be used to register your name and mailing address so you are included on the Project mailing list.
- Discuss your comments or concerns with one of the representatives of Northland Power or Hatch present at this public meeting.
- Contact the Environmental Coordinator for the Projects via the following information:

**Sean Male**, MSc  
Environmental Coordinator  
Hatch Ltd.

Address: 4342 Queen Street, Suite 500  
Niagara Falls, Ontario, L2E 7J7

Phone: 905-374-0701 Ext 5280

Fax: 905-374-1157

Email: [smale@hatch.ca](mailto:smale@hatch.ca)

For more information please visit:

[www.northlandpower.ca](http://www.northlandpower.ca)



# Northland Power

*Northland Power develops and operates clean and green power generation facilities, mainly in the provinces of Ontario and Quebec, with Saskatchewan being added to that list shortly. Our facilities produce about 870 MW of electricity. Northland Power has been in business since 1987 and has been publicly traded since 1997.*

Sustainability is a core value at Northland Power. All of our development efforts and operational practices focus on providing long term benefits to our customers, investors, employees, communities and partners.

*For Northland Power, sustainability has many dimensions:*

**Environmental:** Northland Power was founded on the belief that clean and green energy sources are vital to the future of our planet. Our construction and operational practices are engineered to meet the highest environmental standards, even in jurisdictions where lower standards are legislated.

**Community:** Northland Power takes an active interest in its host communities to ensure they remain vibrant, healthy places to live.

**Operational:** Northland Power maintains and reinvests in their operating assets to achieve maximum efficiency and economic life.

**Health and Safety:** Ensuring that our staff has the knowledge, tools and time to work safely is Northland's first priority. Our culture of safety, respect and independence helps to ensure we attract and retain the people that we need to perform.

**Financial:** Northland Power consistently chooses long term success over short term gain. Northland Power only pursues projects that meet strict return thresholds and have creditworthy customers. As a result, we have paid stable monthly dividends since 1997.



Northland Power has retained Hatch Ltd. to undertake the Renewable Energy Approval (REA) process, subject to the provisions of the Environmental Protection Act Part V.0.1 and Ontario Regulation 359/09. Hatch is an Ontario-based consulting, engineering and management company with operations worldwide and a reputation for excellence acquired over 80 years of continuous service to its clients. Hatch will undertake the REA process from its Niagara Falls, Ontario office.



# Solar Technology

A solar photovoltaic (PV) module (or panel, as they are often called) transforms the sun's energy into electrical energy. Silicon, a semi-conductor, is the material that transforms a ray of sunshine into electricity. The silicon is located within a grid (commonly made of metal) that conducts electricity. When the sunlight hits the silicon, electrons flow from the silicon into the grid, thereby producing electricity. The silicon and metallic grid are located beneath a layer of glass to provide weather protection. The glass has a special coating applied to maximize the capture of sunlight by the panel, thereby reducing glare.

## *Advantages of Solar Energy*

Solar power has a multitude of advantages compared to most other power generation technologies.

- First and foremost, the fuel is free. As the cost of many fossil fuels is expected to increase in the future, having solar energy on the grid at a set price will give greater stability to future energy prices.
- Another key benefit is the absence of any green house gas emissions and other pollutants. This ensures that the local community will not have to live with poor air quality or noxious odours.
- Solar PV systems are comprised of safe, common materials that will not affect the lands on which they are located, allowing for easy remediation upon decommissioning.
- Most solar PV systems have no moving parts, unlike almost all other power generation technologies. Having no moving parts reduces the environmental impact, maintenance costs, and noise levels of this type of power generation.
- There is a natural supply/demand match that is inherent to solar power, as the sun rises and sets in parallel with society's general daily electricity demand pattern. This helps mitigate the need for the development of other technologies that traditionally meet peak electricity demand.



Ontario's Feed-in-Tariff (FIT) program was launched by the Ontario Power Authority on October 1, 2009 to encourage the development of renewable energy resources and to stimulate growth in green technology and renewable power industries.

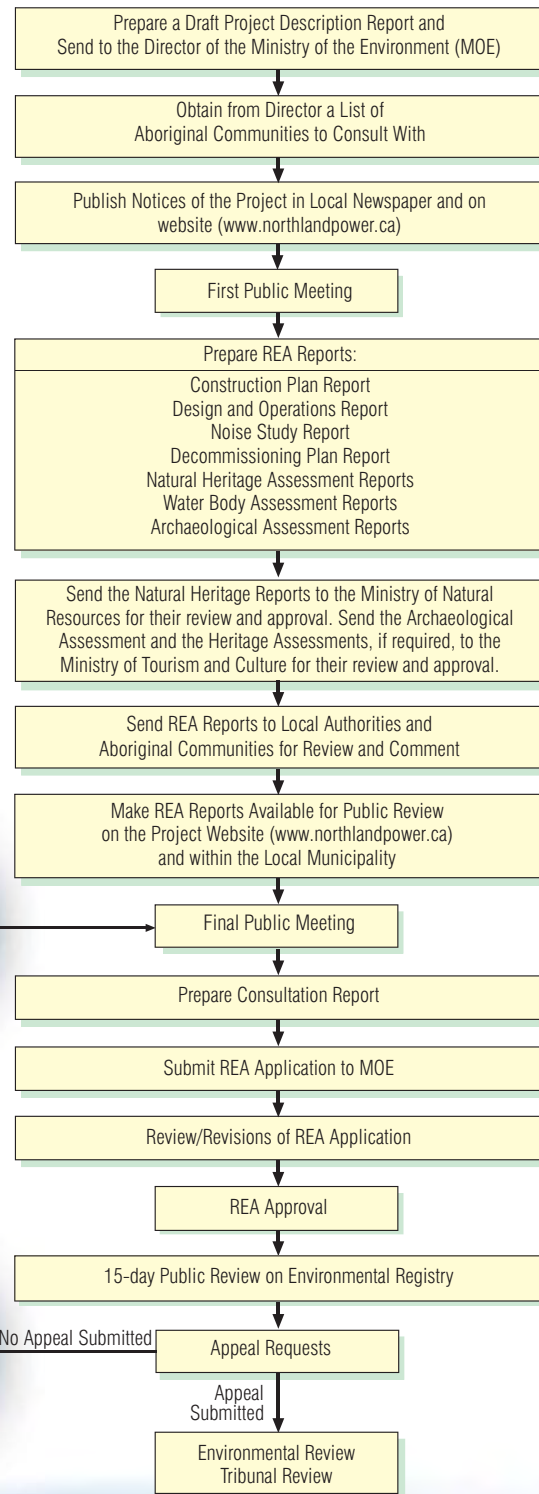
The Ontario Power Authority awarded 184 FIT contracts to renewable power developers in Ontario on April 8, 2010. Northland Power was awarded a total of 13 contracts for proposed solar ground-mount developments throughout the province. These projects are currently proceeding through the REA process.



# Renewable Energy Approval Process

The proposed Project is subject to the (REA) process, subject to the provisions of Part V.0.1 of the Environmental Protection Act and Ontario Regulation 359/09. The REA process entails consideration of environmental aspects, including natural heritage features and water bodies, as well as heritage and archaeological resources. In addition, the REA process includes public, government agency and First Nation consultation.

The main components of the REA process are shown in the flow diagram.



We Are Here

Project May Proceed



# Glendale Solar Project

## Project Location

The proposed Project is located on County Road 44 / Headline Road, in the Township of South Glengarry. The proposed Project, if approved, will be constructed on privately owned lands.

## Project Description

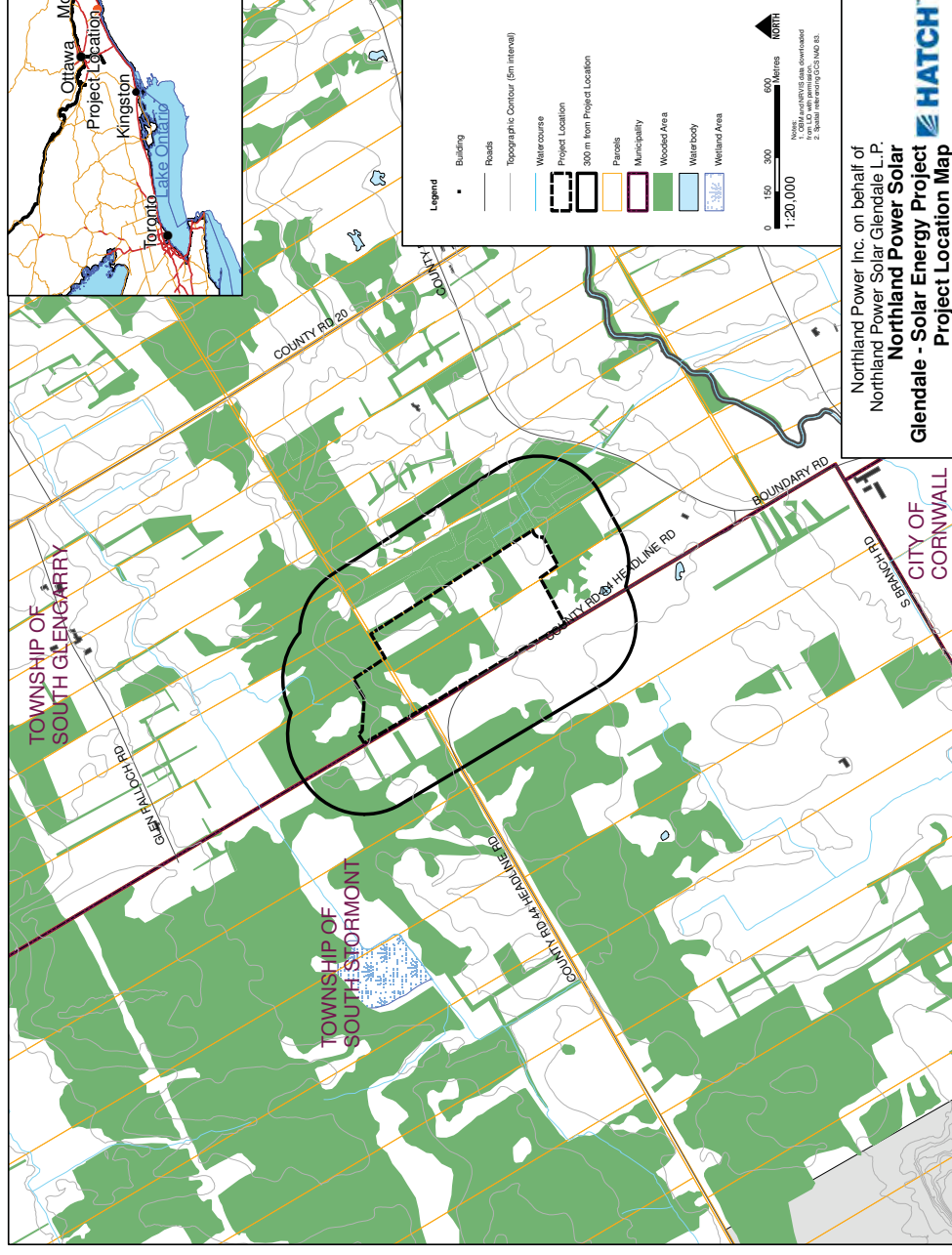
The proposed Glendale Solar Project is considered to be a Class 3 solar facility, as defined under the Environmental Protection Act (Act) Part V0.1 and Ontario Regulation 359/09. Class 3 solar facilities are defined as having a name plate capacity of 10 kilowatts (kW) or greater and the solar panels are mounted on the ground. Specifically, this proposed Project has a nameplate capacity of 10MW (ac).

The proposed Project will use crystalline technology photovoltaic (PV) panels installed on ground-mounted track structures made of steel and aluminum. The panels will be tilted and fixed in place (i.e., they will not move to track the sun). The project will consist of approximately 50,000 panels and will be designed to optimize energy production.

## Project Schedule – Glendale Solar Project

FIT Application – November 2009  
 Submission of Project Description to MOE – April 2010  
 FIT Contract Award – April 2010  
 First Public Meeting – September 2010  
 Second Public Meeting – August 2011  
 Final Public Meeting – October 2011  
 REA Application Submission – October 2011  
 REA Received – July 2012  
 Start of Construction – Summer 2012  
 Commercial Operation Date – Early 2013

For more information regarding this Project please visit the Project website at [northlandpower.ca/glendale](http://northlandpower.ca/glendale)



# Construction

**Construction of the proposed Projects is anticipated to start following the appropriate approvals, in the Summer of 2012. The construction take approximately 6-9 months and will consist of:**

- *Site Preparation*
- *Construction and Installation of the Facility*
- *Testing and Commissioning*
- *Site Restoration*

Each day construction will normally begin at 7:00 am and end at 5:00 pm. If a longer construction day becomes required, the Project will follow local municipal requirements and minimize impacts to the local community.

*Site preparation* refers to activities such as:

- Surveying/staking, site clearing and grubbing (where required)
- Construction of access roads and drainage systems
- Installation of fencing, and construction of a laydown area

It is anticipated that these activities will require several months to complete

*Construction and installation of the facility* includes:

- Pouring of the concrete foundations for electrical equipment
- Installation of electrical equipment such as inverters and transformers, interconnection cable trenching
- Installation of PV panel supports and the racking systems
- Placement of PV panels

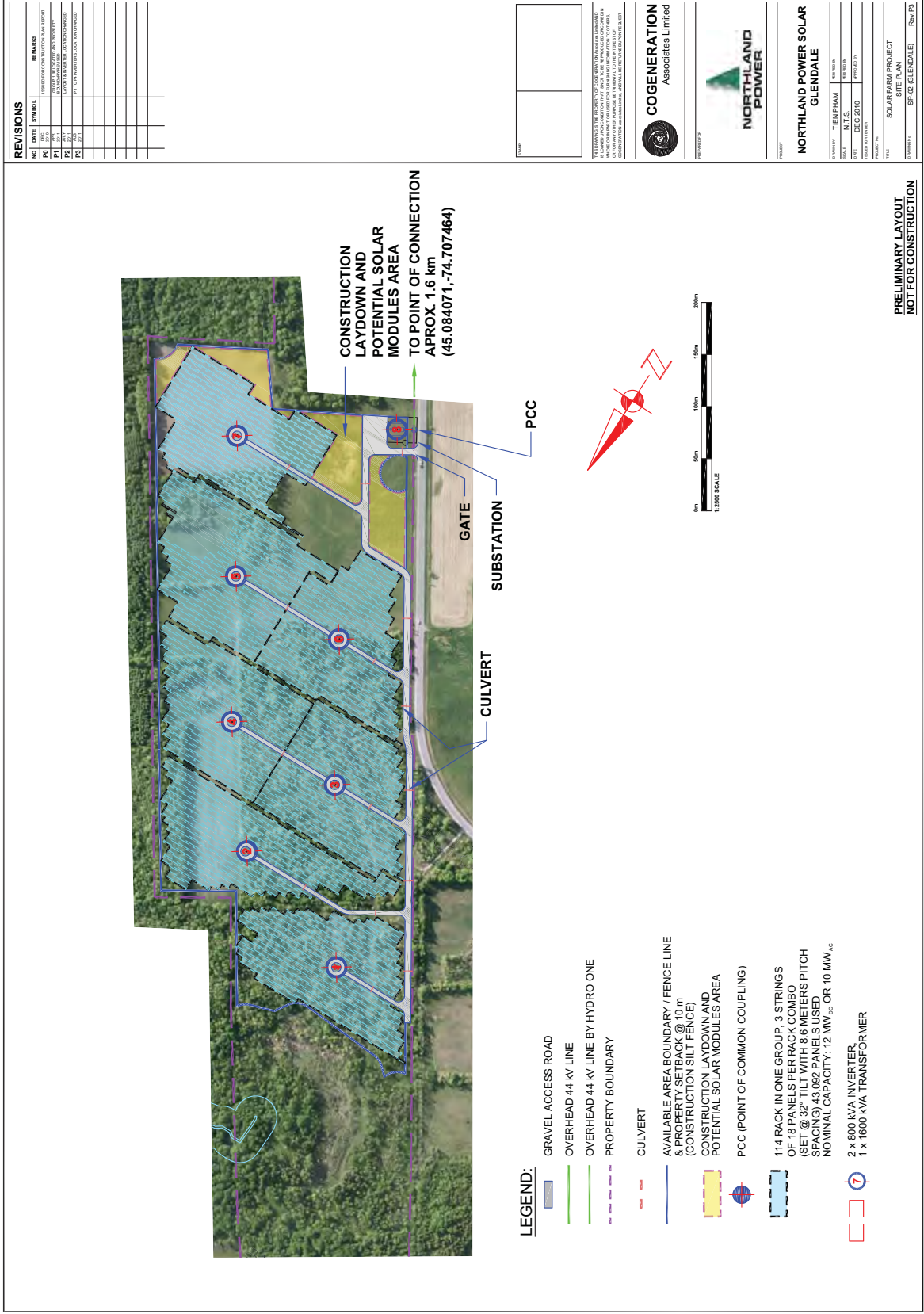
*Testing and commissioning* will be performed prior to start-up and connection to the power grid. Solar modules, inverters, collection system, and substation will be checked for system continuity, reliability, and performance standards.

*Site restoration* will be applicable for the entire Project location. The main objective will be to (i) establish ground cover and drainage within the solar panel footprint and (ii) re-instate temporarily disturbed areas to the original pre-construction. All construction material, equipment, temporary facilities, and waste will be removed from the site. Revegetation will include planting of native plants and hydro-seeding where required.





# Glendale Solar Project - Site Layout



# Operation

**Following construction, the operations phase is expected to commence in Early 2013. Operations will consist of routine maintenance inspections and general up keep of the Projects (e.g., panel cleaning and mowing). Otherwise, no on-site staff will be required.**

Visual inspections of the transformers and erosion and sedimentation control measures are to occur monthly. Panel cleaning may or may not be required, depending on weather conditions, and if required, any water used will be brought to the site. No chemicals will be used for cleaning.

Vegetation, including underneath the panels, will be selected to minimize maintenance activities (e.g., mowing) and to provide groundcover to both protect and enhance the soil and to provide wildlife habitat. Presently, a mix of low growing, weed-resistant turf type fescues is proposed. Herbicides will not be used to control vegetation growth during operations.

Site security will consist of fencing and limited lighting near the entrance of the facility. Fencing will consist of a 2 meter high wire fence, with barb wire along the top of the fence.

For more information, please refer to the Project's *Design and Operation Report*

**Potential environmental effects during operations are addressed within the Project reports. Based on our initial public consultation, two of the specific areas of concern relating to operation that have been identified were:**

- *Visual Impact*
- *Noise Impact*

These are discussed separately on the following boards



# Glendale Solar Project

## Visual of Site

### *Glendale Solar Project*

An artist rendering of the Glendale Solar Project following installation is shown below.

Tall grasses and/or other vegetation may also be considered as additional beautification measures.



Project Site with solar panels installed

# Noise

## Noise Study

A detailed analysis of the noise emissions to be produced by the Project has been completed in accordance with Ministry of Environment guidelines. It has been determined that noise levels will not exceed 40 dBA at sensitive receptors at any time of day in accordance with regulated noise levels.

Noise map during day time



At the time of preparing the noise studies, final component selection (i.e. inverters and transformers) had not been completed. For that reason, this study reflects a "worst case" scenario for potential noise impacts, by modeling the highest sound profiles of those components under consideration.

Noise Barometer



Noise map during night time



# Glendale Solar Project

## Natural Heritage Assessment

### Existing Environment

The terrestrial environment on the Project location is described as follows:

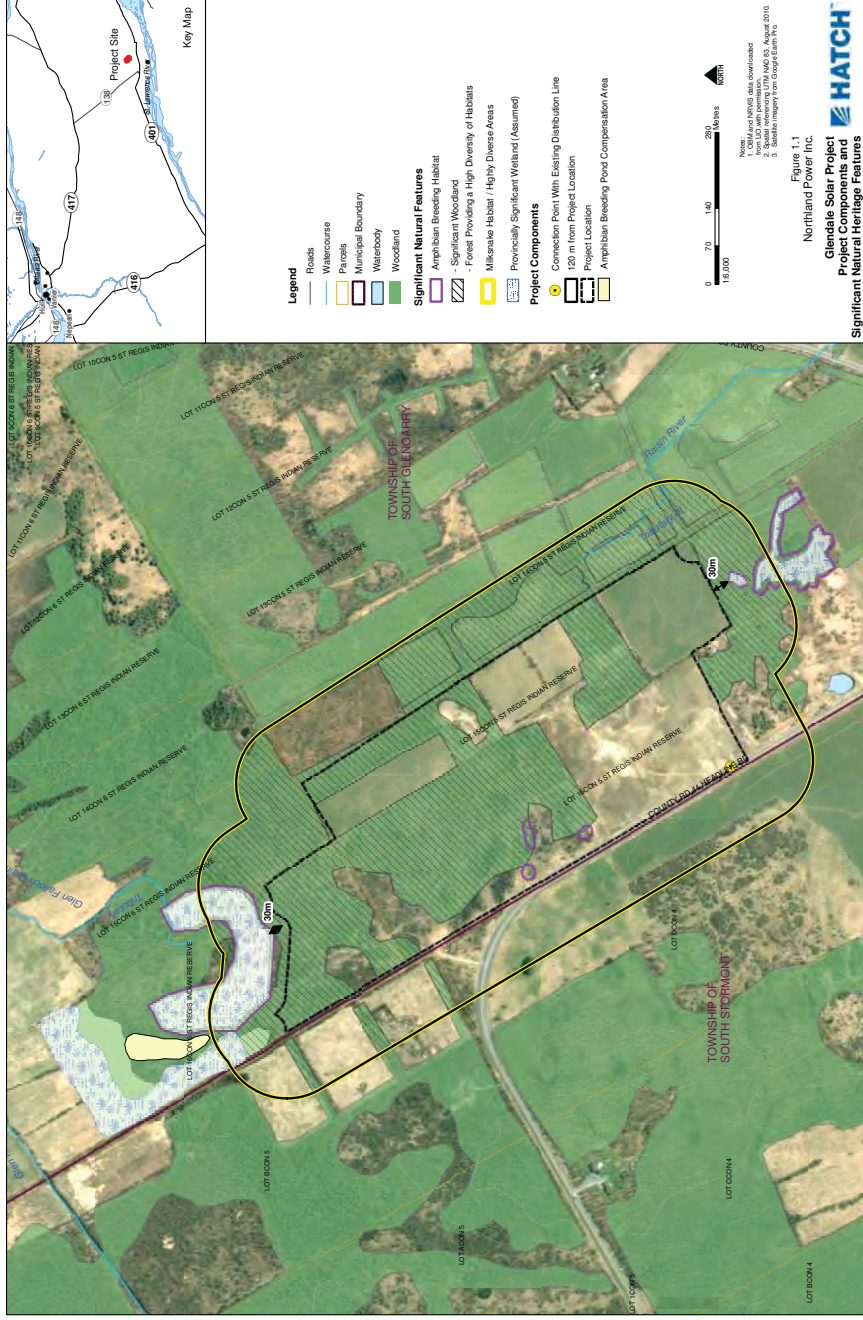
- Portions of the Project location are comprised of active agricultural lands used for the production of hay or corn. The areas that are not in agricultural production are comprised of natural features such as woodlands, wetlands and cultural vegetation communities (i.e., hedgerows).
- The significant wildlife habitats identified on and within 120 m of the Project location includes all lands on and within 120 m of the Project as habitat for Milksnake, woodlands supporting amphibian breeding habitat, forest providing a high diversity of habitats and highly diverse areas.
- The woodland on and within 120 m of the Project is considered significant by size, forest interior, water protection, uncommon characteristics, proximity to other natural features and woodland diversity.
- The wetlands identified within 120 m of the Project are considered significant.

### Mitigation Measures for Environmental Protection

A variety of mitigation measures will be used to limit any impact on the terrestrial environment. Examples of these include:

- Avoidance of encroachment on many of the significant natural features.
- Demarcation of work areas to prevent encroachment beyond designated sites.
- Construction outside of the bird breeding period wherever possible.
- Visual search following completion of fence for trapped wildlife.
- Visual monitoring of work areas, equipment and access roads prior to start of work each day to search for wildlife species, including Milksnake.
- Wildlife habitat enhancement activities; scattering of woody debris along perimeter and creation of amphibian breeding ponds.

There will be no change to the existing environment outside of the Project location.



# Glendale Solar Project

## Waterbodies

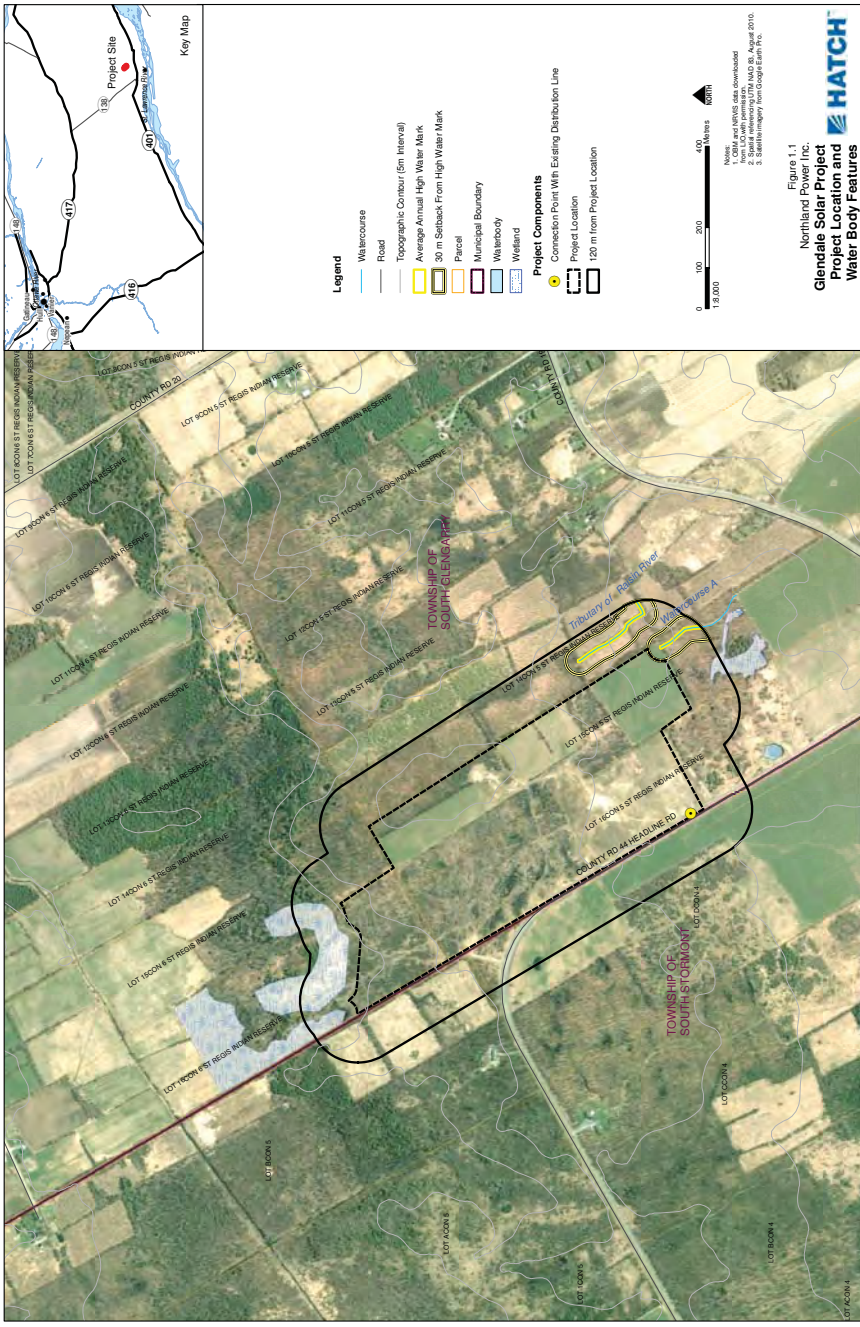
### Existing Environment

There are two (2) waterbodies on or within 120 m of the Project location.

### Mitigation Measures for Environmental Protection

A variety of standard mitigation measures will be used to limit any impact on the aquatic environment. Examples of these include:

- No Project components will be installed within 30 m of the average annual high water mark of any water body
- Dense ground cover vegetation will be allowed to grow naturally within 30 m setback from waterbodies to improve runoff filtration and riparian habitat
- Erosion and sedimentation controls (e.g., silt fencing, site stabilization, construction phasing)
- Stormwater Management measures (e.g., site revegetation, enhanced vegetated swales)
- Spill Prevention and response measures (e.g., handling protocols, secured storage areas, clean-up materials on-hand)
- Dust control measures (e.g., watering of access roads, tarping of stock piles)



# Decommissioning

**It is anticipated that decommissioning will occur in 2033 following the expected 20 year lifespan of the Project. Decommissioning will consist of:**

- *Equipment dismantling and removal*
- *Site restoration*

*Equipment dismantling and removal* will include the PV modules, electrical equipment, access roads and foundations as well as any other facility equipment. Equipment and material may be salvaged for resale, scrap value or disposal, depending on market conditions.

*Site restoration* will consist of the following, subject to environmental requirements and the wishes of the landowner:

- All equipment, foundations and material (including roads) will be removed from site
- Any damage to existing tile drainage system, if applicable, will be repaired/restored
- Any excavation and/or trench will be backfilled and graded to original contours
- Should the subsoil be negatively affected and compromise the future productive use of the land, the following will be implemented: first the topsoil will be removed and stockpiled; then the subsoil may be ripped and tilled prior to grading it; topsoil will then be replaced and revegetated
- Should the soil be negatively affected and compromise the future productive use of the land, nutrients may be added or fertilizers deployed
- Topsoil and compost will be blended where required, spread and replaced to original depth
- Hydroseeding with approved seed mixture and mulching during the appropriate seasonal conditions

For more information, please refer to the Project's *Decommissioning Plan Report*



# Next Steps

- Following the completion of this Final Public Meeting, all comments and concerns will be incorporated into the REA Project Documents and the Project proposals. Then a submission to the Ministry of the Environment will be made to obtain a Renewable Energy Approval.
- Following the acceptance of the REA submission, the Ministry of the Environment will post on the Environmental Registry;  
(<http://www.ebr.gov.on.ca/ERS-WEB-External/>) a proposal notice for public comment and review. Comments can then be submitted directly to the Ministry of the Environment.
- Lastly, the Ministry of the Environment provides a decision notice of the Projects. If no appeals are received, the Projects can move forward with construction, pending any further required approvals.



**Thank you for attending this  
Final Public Meeting**

*Your opinion is  
important to us*

**Please Fill Out A  
Comment Form**





Comment Sheet  
Final Public Meeting: Monday October 3, 2011  
Northland Power – Glendale Solar Project

1. Please describe where you reside in relation to the Project location? \_\_\_\_\_

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2. Please provide any relevant information related to the Project location which, in your opinion, should be considered in assessing the potential effects of the Project?

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Continued on back 

3. Please provide any comments, questions or concerns related to the Project.

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If you would you like to be included on the Project mailing list, please provide your name and full mailing address below:

Name: \_\_\_\_\_

Mailing Address (including your postal code):

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WE WELCOME YOUR INPUT. PLEASE COMPLETE AND SUBMIT THIS COMMENT SHEET BEFORE LEAVING - THANK YOU

To speak with a Project representative at a later date, please contact:

Sean Male, Environmental Coordinator  
4342 Queen St, Suite 500, Niagara Falls, Ontario, L2E 7J7  
Phone: 905-374-5200 Fax: 905-374-1157  
smale@hatch.ca

For more information regarding the Glendale Solar Project, please visit  
[northlandpower.ca/glendale](http://northlandpower.ca/glendale)

**\*Please note that all information provided will be publicly available**

# Please Sign In

(PLEASE USE BLOCK LETTERS)

## Northland Power – Glendale – Public Meeting

Project: Glendale Solar Project

Date: Monday October 3, 2011

Name	Complete Mailing Address			Phone
	Street	City	Postal Code	(Please include area code)
SIM M DOWELL	19538 SOUTH BRANCH	WILLIAMSTOWN	KOC 230	613-347-1900
BILL MCKENZIE	23163 OLD HWY 2	BRANDSVILLE	KOC 1E0	613 347-7982

\*Please note that all information provided will be publically available