

# Public Open House Manitoba-Minnesota Transmission Project

# Welcome

# Purpose of the Open House

- Provide information about the proposed Manitoba-Minnesota Transmission Project.
- Gather feedback on the refined alternative routes and preferred border crossing.
- Identify interests, opportunities and constraints to inform the route selection and environmental assessment;
- Answer questions and address local concerns.

# Project Need

**The Manitoba-Minnesota Transmission Project is needed to:**

- Export electric power based on current sales agreements;
- Improve reliability and import capacity in emergency and drought situations;
- Increase Manitoba Hydro access to markets in the United States.

# Why does Manitoba export and import power?

- In 2012–13 Manitoba Hydro export sales totaled \$353 million with 88 per cent derived from sales in the U.S. market, and 12 per cent from Canadian markets.
- Manitoba Hydro's utility customers in the United States want long-term price certainty and stability. These utilities see value in purchasing hydroelectricity through long-term fixed contracts that are not linked to volatile natural gas prices and will not be subject to future changes in regulatory requirements associated with air emissions.

# Why does Manitoba export and import power?

- This project will meet a 250-mega watt (MW) power sale with Minnesota Power and will allow for increased access to markets in the United States.
- Manitoba Hydro also imports power in drought conditions to meet provincial demand when it exceeds Manitoba Hydro's generating capacity.

# Project Description

- **The Manitoba-Minnesota Transmission Project includes:**
  - construction of a 500-kV AC transmission line in southeastern Manitoba
  - upgrades to associated stations at Dorsey, Riel, and Glenboro
- **The transmission line will travel to the preferred border crossing located south of Piney.**
- **The project will connect at the Minnesota border to the Great Northern Transmission Line, constructed by Minnesota Power**
- **Anticipated in-service date is 2020.**
- **Estimated cost is \$350 million.**

# Station Modifications

## Dorsey & Riel Converter stations

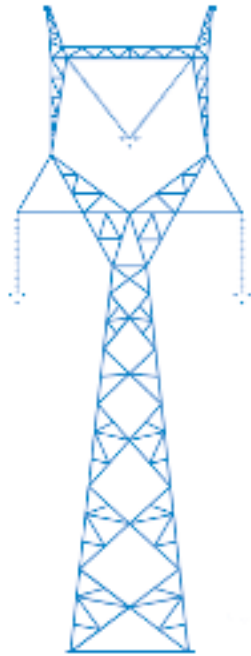
- Upgrades (equipment) needed to accommodate the 500-kV AC line;
- All upgrades will be undertaken within fenced area of both stations.



## Glenboro station

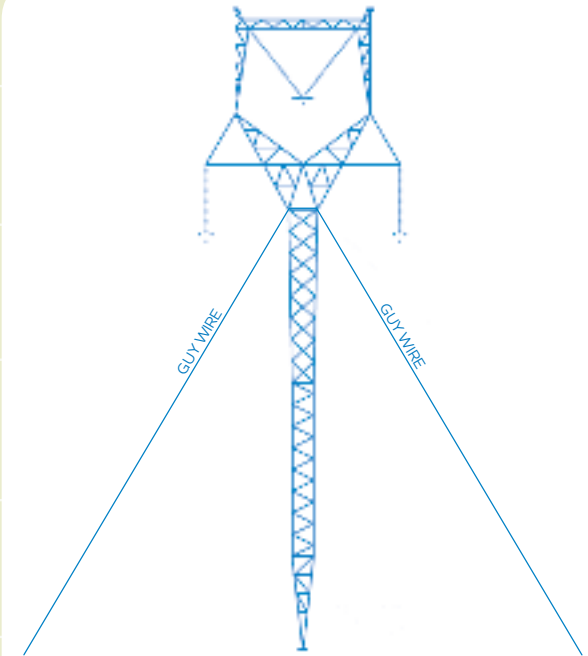
- Station expansion needed (east);
- Equipment upgrades;
- Current terminus of an existing import/export line;
- Tower relocation will be necessary;
- Engagement process being undertaken with local residents to explain the expansion and address any concerns.

# Preliminary Tower Design



Self Supporting Structure (cultivated lands).  
(Towers are not drawn to scale — conceptual only.)

- **Steel lattice towers:**
  - Self-supporting towers in cultivated agricultural areas;
  - Guyed structures will be used in all other terrain.
- **Current design anticipates:**
  - range from 40 to 60 m (130 to 200 ft) in height.
  - average span of 400 to 500 m (1300 to 1650 ft) apart.
  - utilize a right-of-way width of 80 to 100 m (260 to 330 ft).



Guyed Wire Structure (Non-cultivated lands)  
(Angle of guy wires depicted on tower are not accurate — conceptual only.)



# Regulatory

- **The Manitoba-Minnesota Transmission Project is subject to environmental regulatory review and approval, including:**
  - Authorization of an international power line, which is required under the *National Energy Board (NEB) Act*;
  - Environmental assessment by NEB under the *Canadian Environmental Assessment Act, 2012*;
  - Reviewing and licensing by Manitoba Conservation and Water Stewardship under *The Environment Act (Manitoba)*; and
  - Under the direction of the Minister, the Clean Environment Commission may hold a public hearing.
- **Further information on the regulatory process will be provided as information becomes available.**

# Environmental Assessment

- Construction of the proposed transmission line will require a Class 3 License under *The Environment Act* (Manitoba).
- The Environmental Impact Statement (EIS) for the project will include:
  - Study area characterization;
  - Public engagement program;
  - Assessment of potential environmental and socio-economic effects;
  - Assessment of cumulative effects;
  - Mitigation measures and monitoring plans; and
  - An environmental protection program.

# Engagement Process

## Round 1:

October to November 2013

- Introduce the Project.
- Present alternative routes and proposed border crossings.
- Answer questions.
- Identify and document concerns.
- Use input to guide route refinement & preferred border crossing selection.

## Round 2:

April to June 2014

- Present findings of Round 1.
- Present refined alternative routes to preferred border crossing.
- Answer questions.
- Identify and document concerns.
- Use input to guide preferred route selection.

## Round 3:

October to December 2014

- Present findings of Round 2.
- Present the preferred route.
- Answer questions.
- Identify and document outstanding concerns.
- Discuss potential effects and possible mitigation measures to minimize effects.

# Route Selection Process

- The routing process is based on the EPRI-GTC methodology\* which includes:
  - Earlier stakeholder input into the route selection process to help guide alternative route selection;
  - Balancing of multiple perspectives from natural, technical and socio-economic.

For more information on this methodology, visit our project webpage at [www.hydro.mb.ca/mmtp](http://www.hydro.mb.ca/mmtp) or speak with a Manitoba Hydro representative.

\* Electrical Power Research Institute

# Project Timelines

	2013	2014			2015				2016			2017	2018	2019	2020
Round 1 – Alternative routes and border crossings	Active	Active	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
Round 2 – Preferred border crossing to refined alternative routes	Light	Light	Active	Active	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
Round 3 – Preferred route	Light	Light	Light	Light	Active	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
EIS filing	Light	Light	Light	Light	Active	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
Regulatory review	Light	Light	Light	Light	Light	Active	Active	Active	Active	Active	Light	Light	Light	Light	Light
License decision	Light	Light	Light	Light	Light	Light	Light	Light	Light	Active	Light	Light	Light	Light	Light
Construction	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Active	Active	Active	Active	Active
In-service date	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Active

# The project team wants to hear from you!

- Manitoba Hydro representatives are available to answer your questions.
- Please take a moment to complete a comment sheet so the project team can document your concerns.
- You can also visit a map station to show us where you may have any information or additional considerations regarding the alternative routes.
- Complete a survey online.

# The project team wants to hear from you!

- **Please contact:**  
Licensing & Environmental Assessment Department  
Toll Free: 1-877-343-1631  
In Winnipeg: 204-360-7888  
Email: [mmtp@hydro.mb.ca](mailto:mmtp@hydro.mb.ca)
- **Visit the project webpage at [www.hydro.mb.ca/mmtp](http://www.hydro.mb.ca/mmtp) for up-to-date information, and register to receive project updates**
- **Display boards and project material are also available on the project webpage.**

# How did we refine the Alternative Routes?

- Data for each segment described characteristics such as:
  - acres of farmland;
  - proximity to homes;
  - cost;
  - acres of wetland traversed.
- Additional route segment were created based on feedback received and considered.
- Over 700,000 routes were evaluated from various perspectives and selected routes were carried forward for further comparison.



# Selected alternative routes were then compared on the basis of:

- **Cost**
- **Community considerations**
- **Reliability**
- **Natural environment**
- **Built environment**
- **Risk to schedule**

# How did we determine a preferred border crossing area?

- With the comparison of alternative routes complete, Manitoba Hydro negotiated with Minnesota Power to determine a border crossing area that was acceptable to both parties.
- The area south of Piney, Manitoba was deemed the preferred border crossing area.

Feedback on alternative segments provided throughout Round 1

+700,000 routing options

Route criteria and evaluation

Top routes to all border crossings compared

Final comparison of routes to determine strengths and weaknesses

Border crossing negotiation based on feedback through route comparison

Round 2: Border crossing and refined alternative routes determined

**Thank you for attending and  
providing your feedback!**